



# SacRT Board Meeting February 25, 2019

Agenda Item #7



# SacRT Forward

## Major Goals Included:

- New Regional Mobility Options
- Develop New Bus Network
- Engage the Public
- Understand Travel Demand Patterns



# Public Involvement

## Public Outreach:

- August 2017 – February 2019

## Three Phases:

- Phase 1 – August 2017 to September 2018
- Phase 2 – October 2018 to December 2018
- Phase 3 – December 2018 to February 2019

## Materials:

- Thousands of outreach materials distributed
- Thousands of customers, citizens and employees reached

Public Involvement Summary included in Board Packet





# Public Involvement

## Community Awareness:

- Pop-Up Events = 47
- Presentations = 33
- Open Houses, Workshops and Stakeholder Meetings = 20
- YouTube Videos = 3
- Twitter, Facebook and Instagram Posts
- NextDoor Posts





# Public Feedback

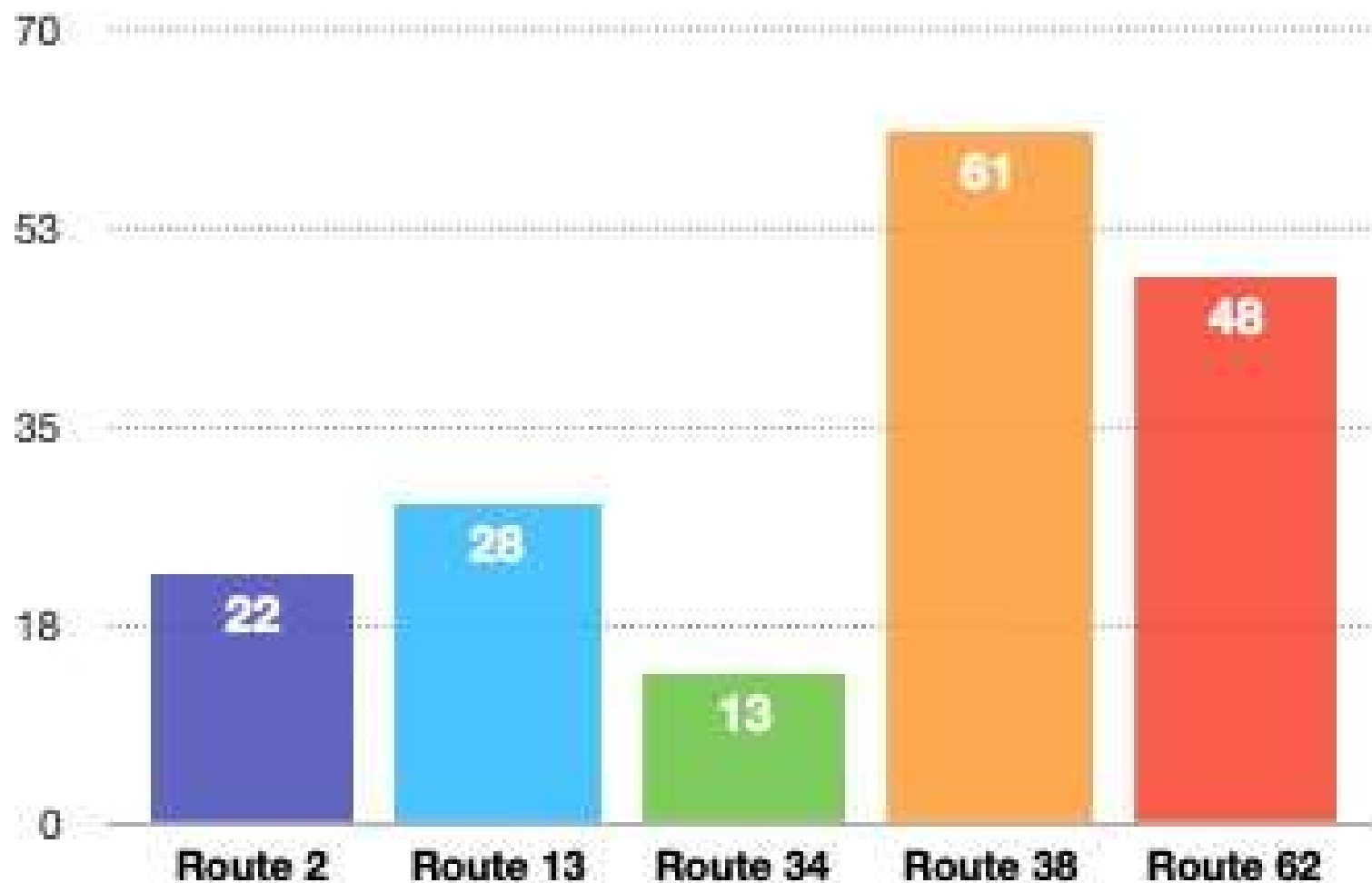
## Major Common Themes:

- More weekend service
- More frequent service
- More late night service
- More places
- 7 day-a-week routes





# Top Five Number of Comments by Route





# Top Five Number of Comments by Route

## Routes 38 and 62

- Most concerns were addressed

## Route 34

- Concerns of losing midday service.... Will leave peak-hour, peak-directional trips
- 51% of ridership is concentrated on just 7 trips (out of 27 total)
- Off-peak riders can use Route 30 – good frequency, slightly longer walk distance – or SmarT Ride (June 2019)

## Route 13

- Main concern is walking distance, safety and lighting
- 284 boardings perday, 14.9 boardings per revenue hour
- Boardings by stops affected between .25 mile and .5 mile walk = 34
- We added two morning trips off-route to serve North Market corridor

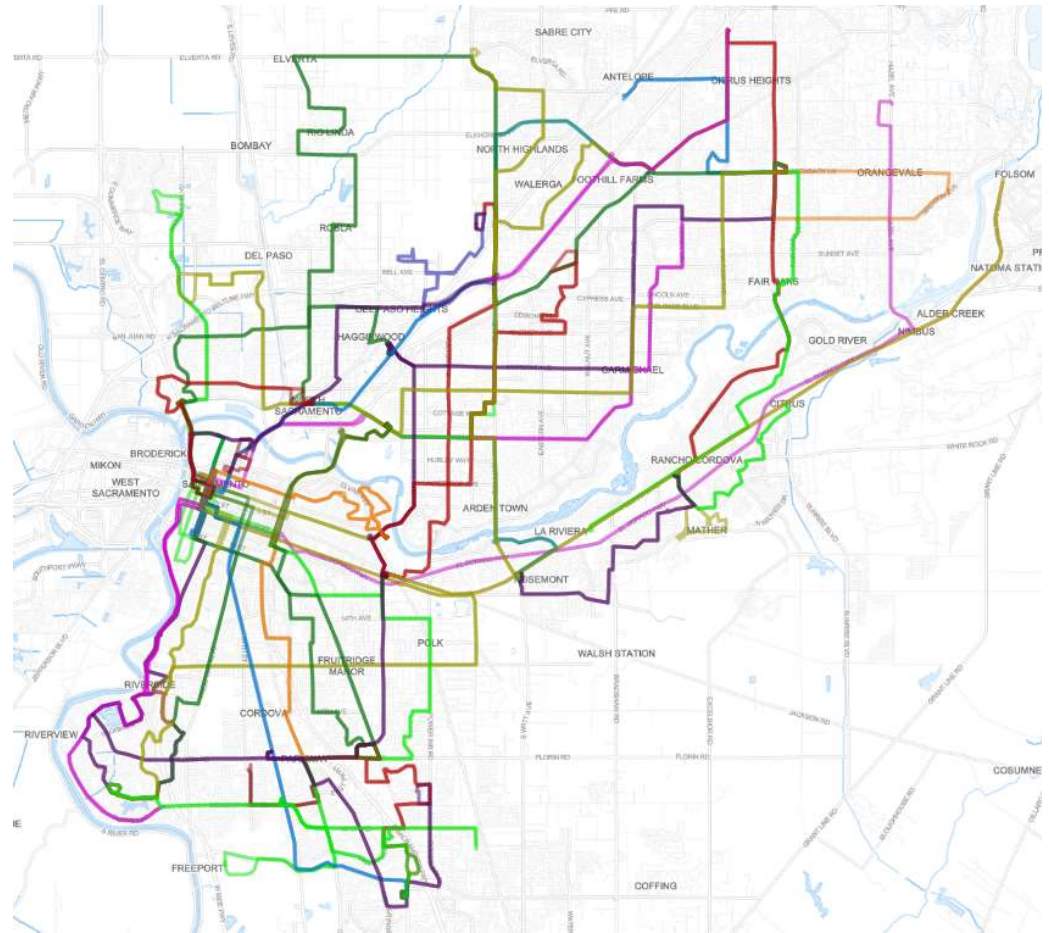
## Route 2

- Main concern is access to midday service
- 389 boardings per day, 14.5 boardings per revenue hour
- 62% of riders on 11 peak-hour trips that are *not* eliminated
- Estimated 90% of remaining riders may take #11 or #61—with better frequency
- Will retain additional trip departing downtown at 6:02 p.m.



# Existing Network Overview

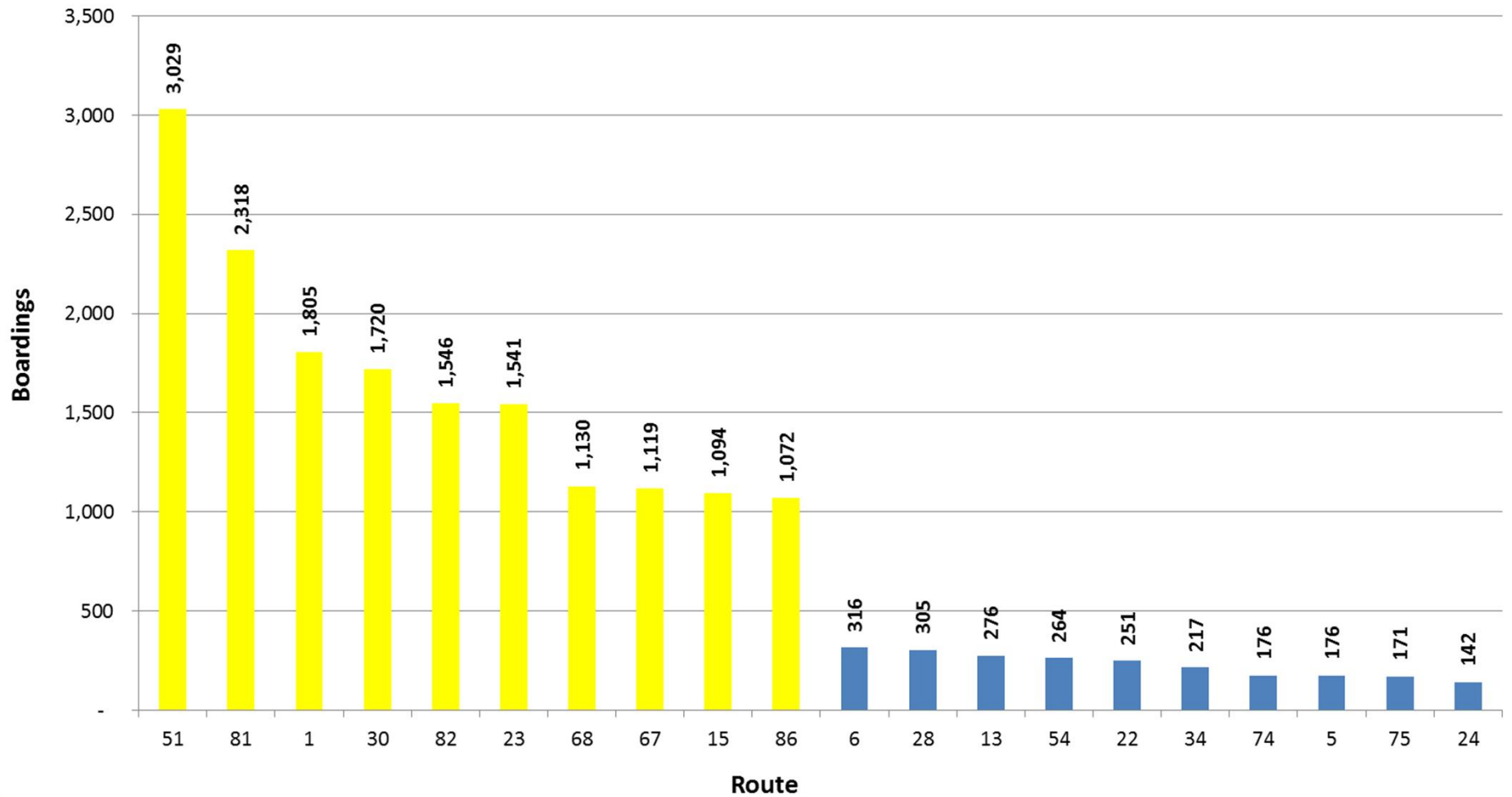
- 70 Routes
- Confusing/disorderly
- Half of routes lack 7-day service
- Hourly service
  - 28% of Weekday routes
  - 75% of Saturday routes
  - 90% of Sunday routes
- Duplicative service
- Extension to CRC, routes never revisited





# Existing Network Overview

SacRT Fixed-Route Bus Ridership  
Average Daily Boardings

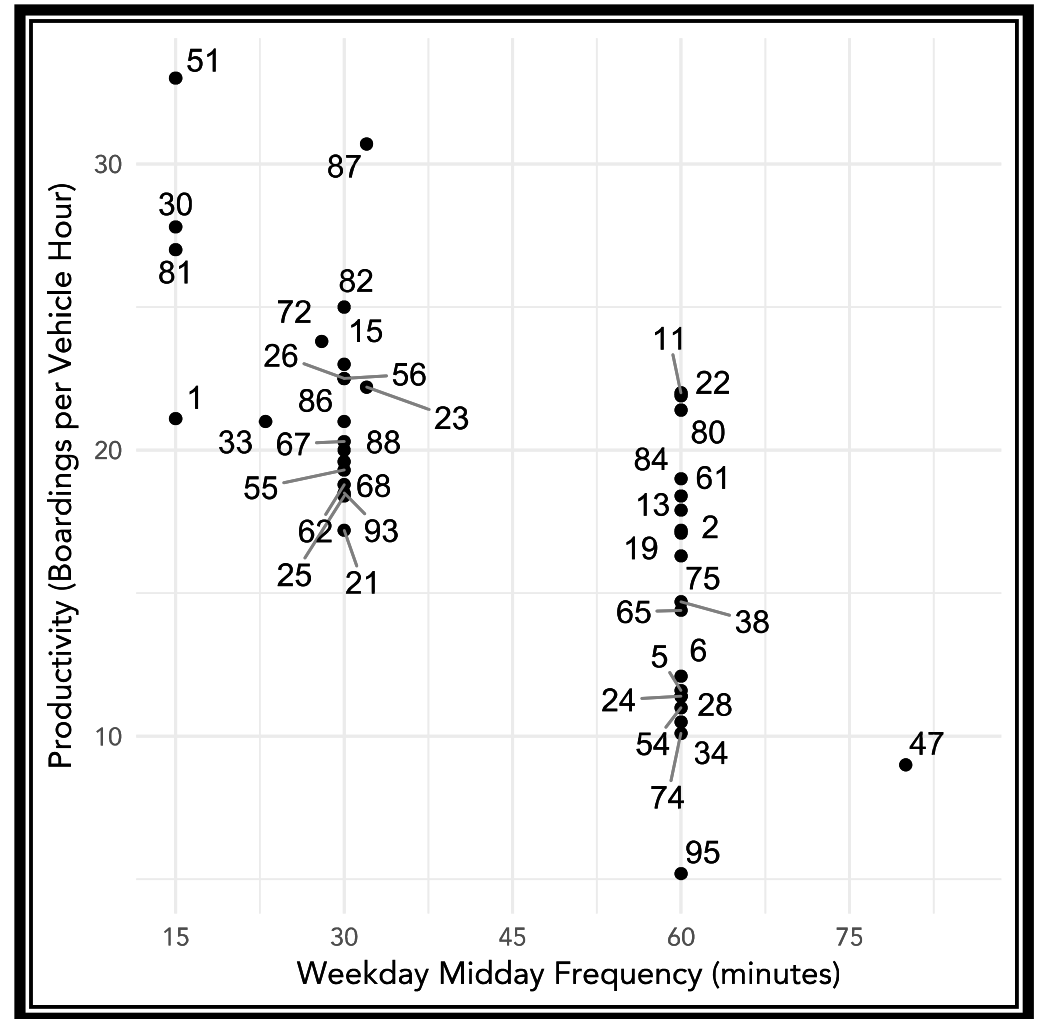




# Existing Network Overview

## Productivity by Route

- Standards vary by route type
- Fixed bus = 20 boardings per revenue hour
- Peak-Only Bus by trip, not revenue hour
- Weekend and CBS = 15 boardings per revenue hour
- Notice the groupings of routes and how they perform
- 15 minute frequency vs 60 minute frequency



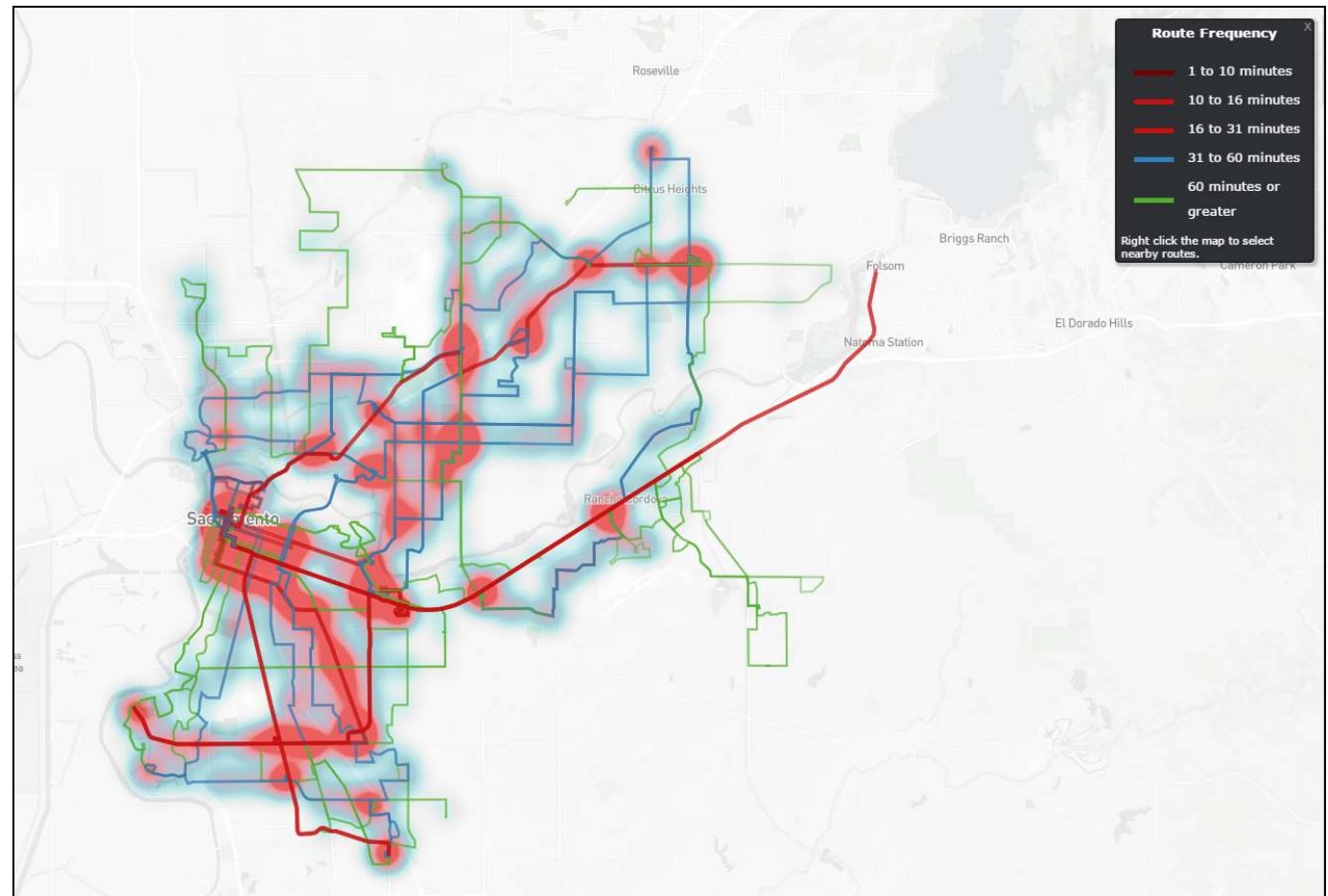


# Existing Network Overview

Heat map  
represents where  
ridership is highest  
in existing network

Warmer the color,  
higher the ridership

Notice green lines  
vs red or blue lines

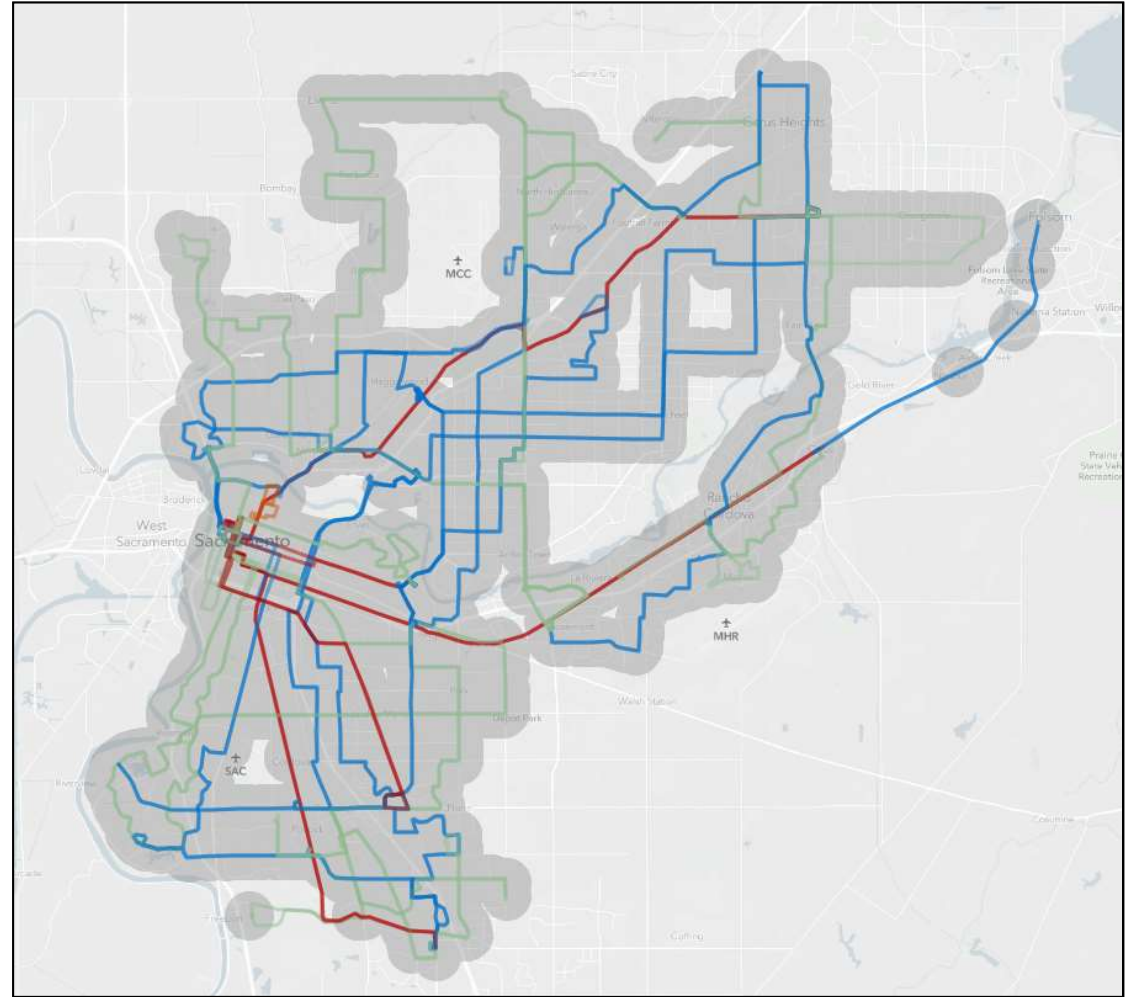




# Existing Network Coverage

## Existing Network Stats

- 927,926 population
- 474,178 jobs
- 21.9% in poverty
- 54.6% minority
- 13.0% seniors (65+)
- 23.5% youth (18-)
- 7.4% limited English
- 27% frequent service

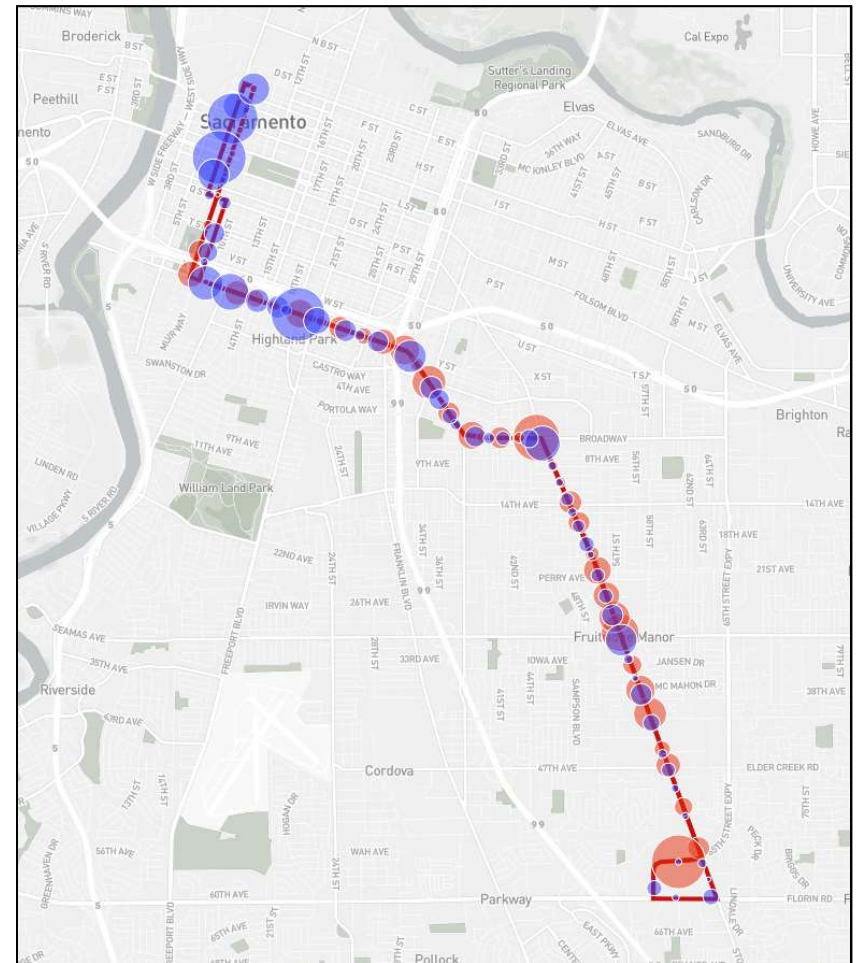




# Existing Route Comparison

## Route 51

- Highest ridership route
- 3,000 average daily boardings
- 24.2 boardings per revenue hour
- 7 day a week service
- 12-15 minute frequency
- Linear
- Connectivity
- Strong Anchors (Sac Valley and Florin TC)
- Density

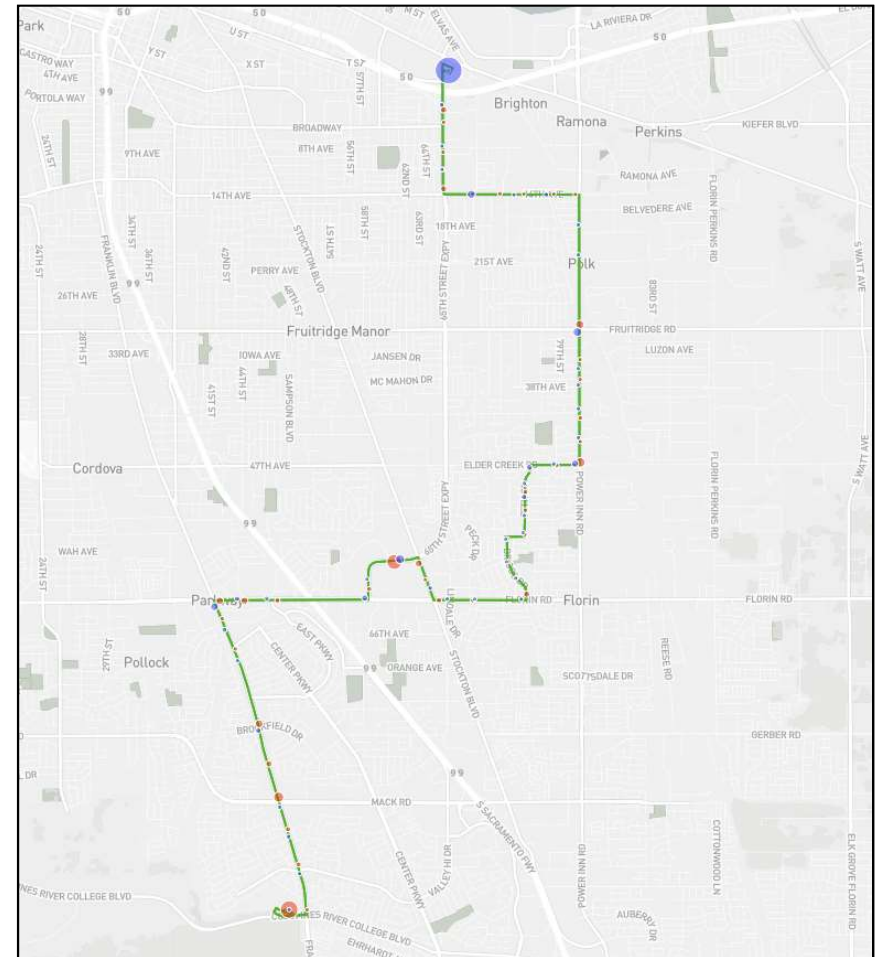




## Existing Route Comparison

## Route 65

- 373 Average Daily Boardings
- 12 Passengers per Revenue Hour
- 5 days/week
- Hourly service
- Non-linear route
- Low density (industrial, warehouse)
- Lack of strong generators of activity

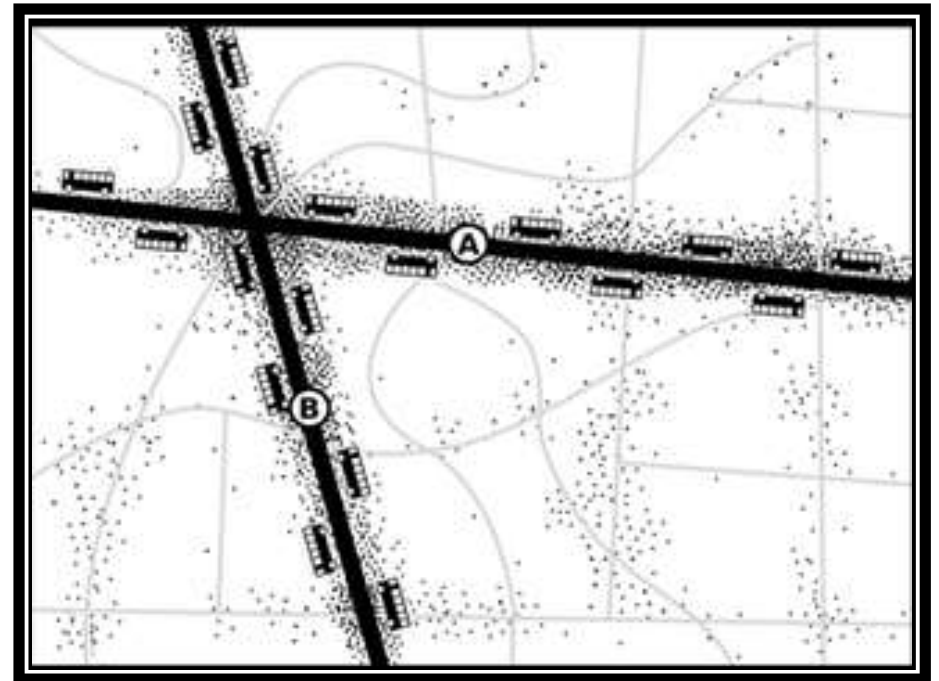




# Route Design

## Good Route Design

- Linear
- Density
- Walkability
- Proximity
- Strong Anchors
- Frequency
- Reliability
- Public Feedback

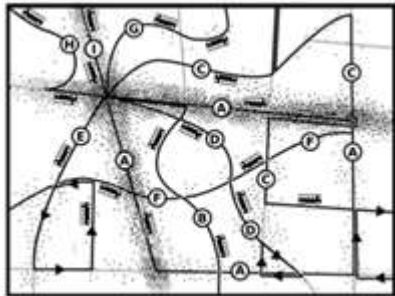


How do we best allocate our resources?

We should be replicating Route 51's as much as possible



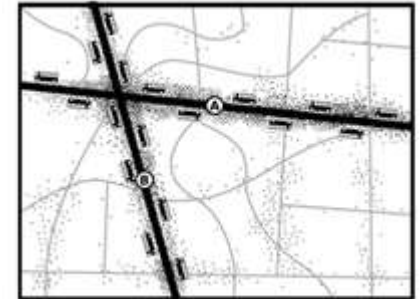
# Percent Frequent Service



27% 33%

Existing

Proposed



## Existing Network

- 927,926 persons covered by BASIC service
- 251,245 persons (27%) covered by FREQUENT service

## Proposed Network

- 876,060 persons covered by BASIC service
- 293,083 persons (33%) covered by FREQUENT service
- +100,000 from SmarT Ride



# Number of Routes

	<u>Existing</u>	<u>New Network</u>
Weekday All-Day	41	27
Saturdays	27	26
Sundays/Holidays	22	26
Peak-Only	5	10
Frequent Corridors	5	6

Excludes contract service and Smart Ride



# Frequency Breakdowns

What percent of routes have frequency x?

## WEEKDAYS

	<u>Existing</u>	<u>New Network</u>
12-15m frequency	9.8%	14.8%
20-30m headways	46.3%	74.1%
45m headways	0.0%	7.4%
60m headways	43.9%	3.7%



# Frequency Breakdowns

SATURDAYS		<b><u>Existing</u></b>	<b><u>New Network</u></b>
	20-30m headways	25.9%	42.3%
	45m headways	0.0%	38.4%
	60m headways	74.1%	19.2%
SUNDAYS		<b><u>Existing</u></b>	<b><u>New Network</u></b>
	20-30m headways	9.1%	11.1%
	45m headways	0.0%	38.4%
	60m headways	90.9%	50.0%



# New Network Highlights

## Revenue Vehicle Hours

	Existing	New	Change
Weekday	467,393	454,068	-2.9%
Saturday	39,849	55,427	39.1%
Sunday	28,409	48,371	70.3%
TOTAL	535,651	557,866	4.1%



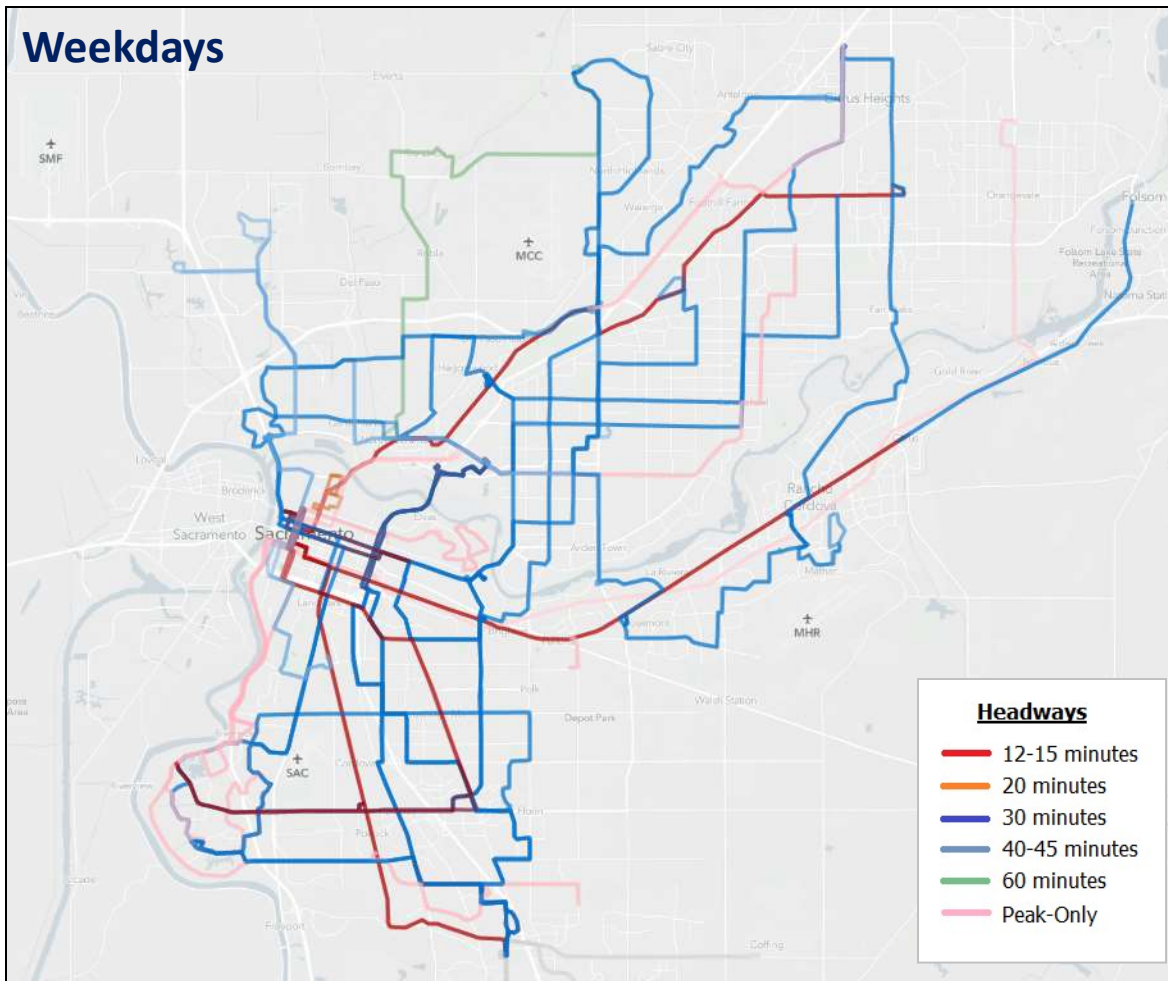
# Average Headways

	<u>Existing</u>	<u>New Network</u>
Weekdays	42 minutes	31 minutes
Saturdays	50 minutes	42 minutes
Sundays/Holidays	57 minutes	50 minutes

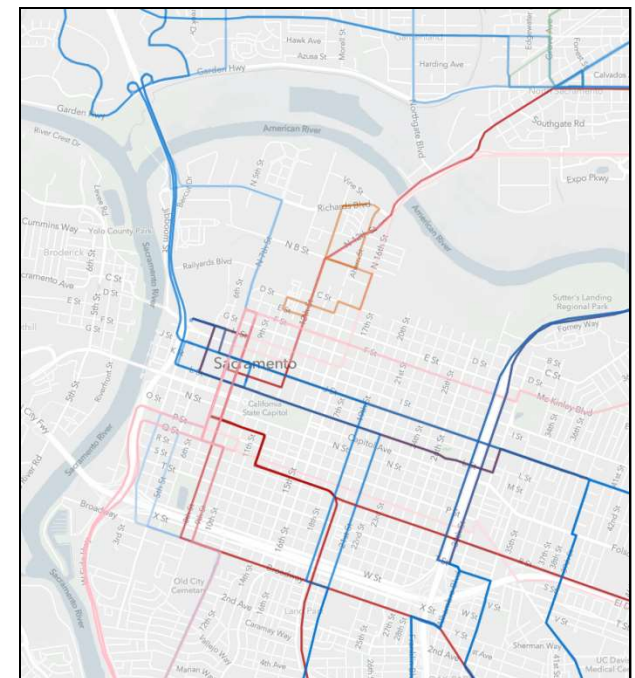


# New Network

## Weekdays



## Downtown

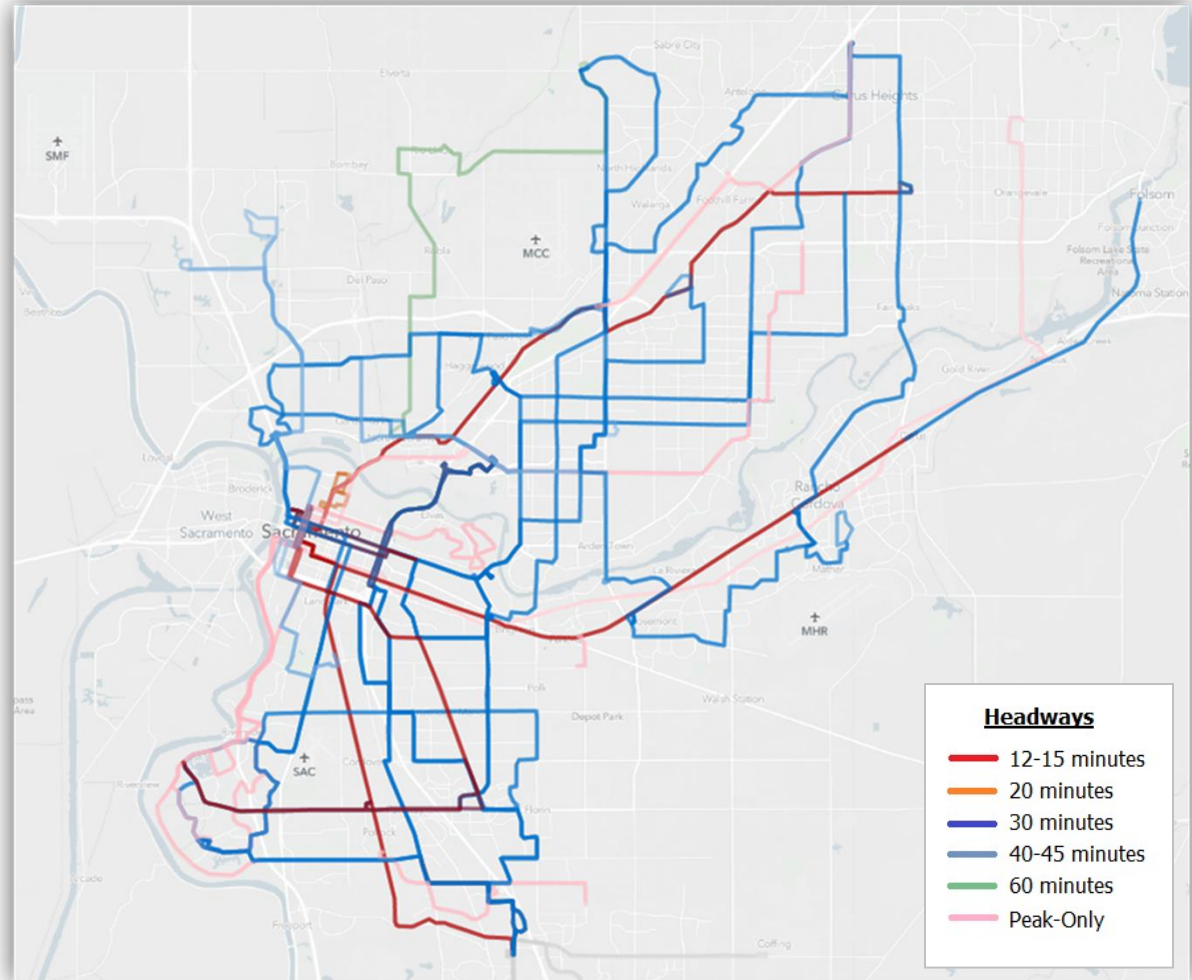




# Highlights

## New Network

- 27 regular routes
- 10 peak-only routes
- 26 routes have 7-day service
- Focus on major corridors
- More direct, less circuitous
- Scalable to higher frequencies
- Complements the new 15-minute frequency on weekend light rail



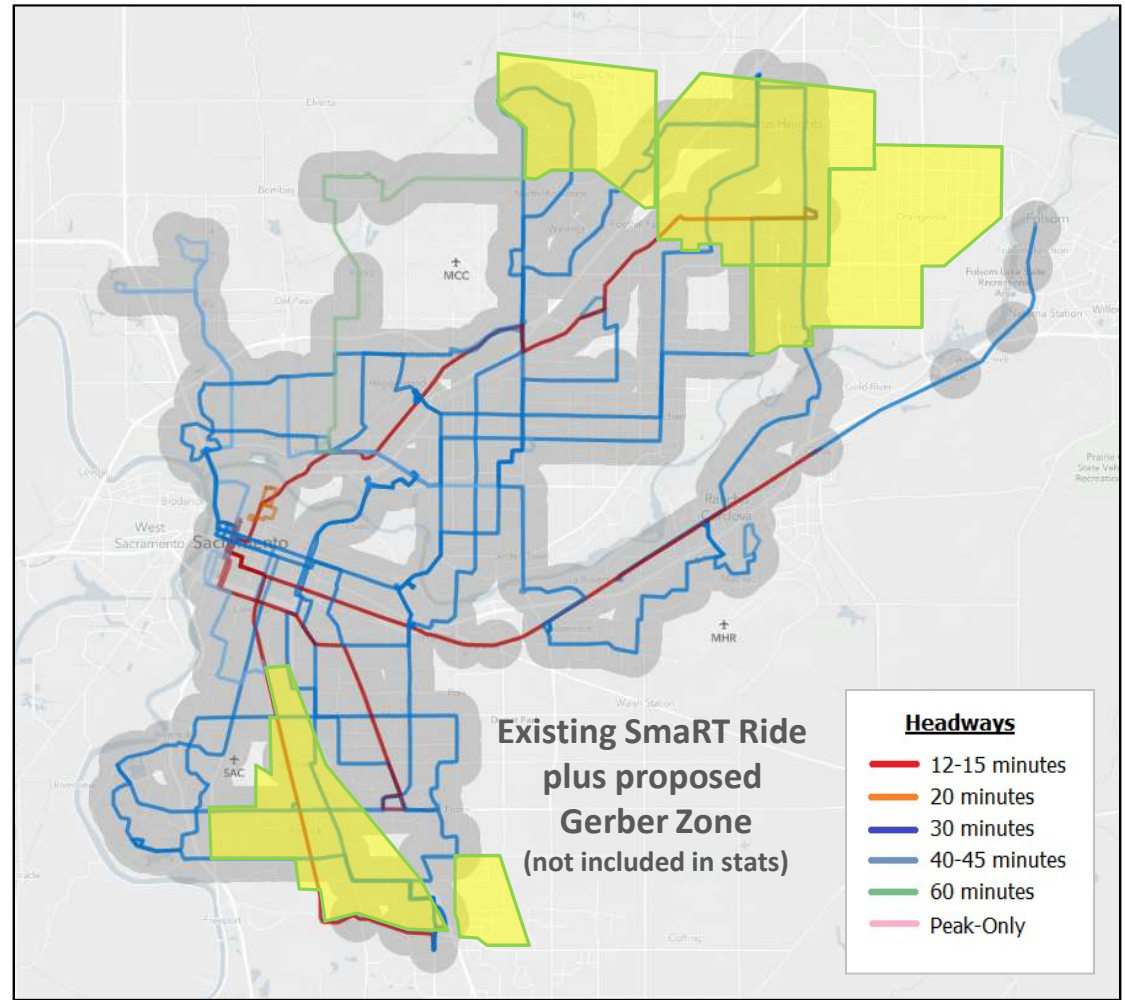


# New Network Highlights

## New Network Coverage:

- 876,060 population
- 445,909 jobs
- 22.5% in poverty
- 55.2% minority
- 12.8% seniors (65+)
- 23.5% youth (18-)
- 7.6% limited English
- 33% frequent service

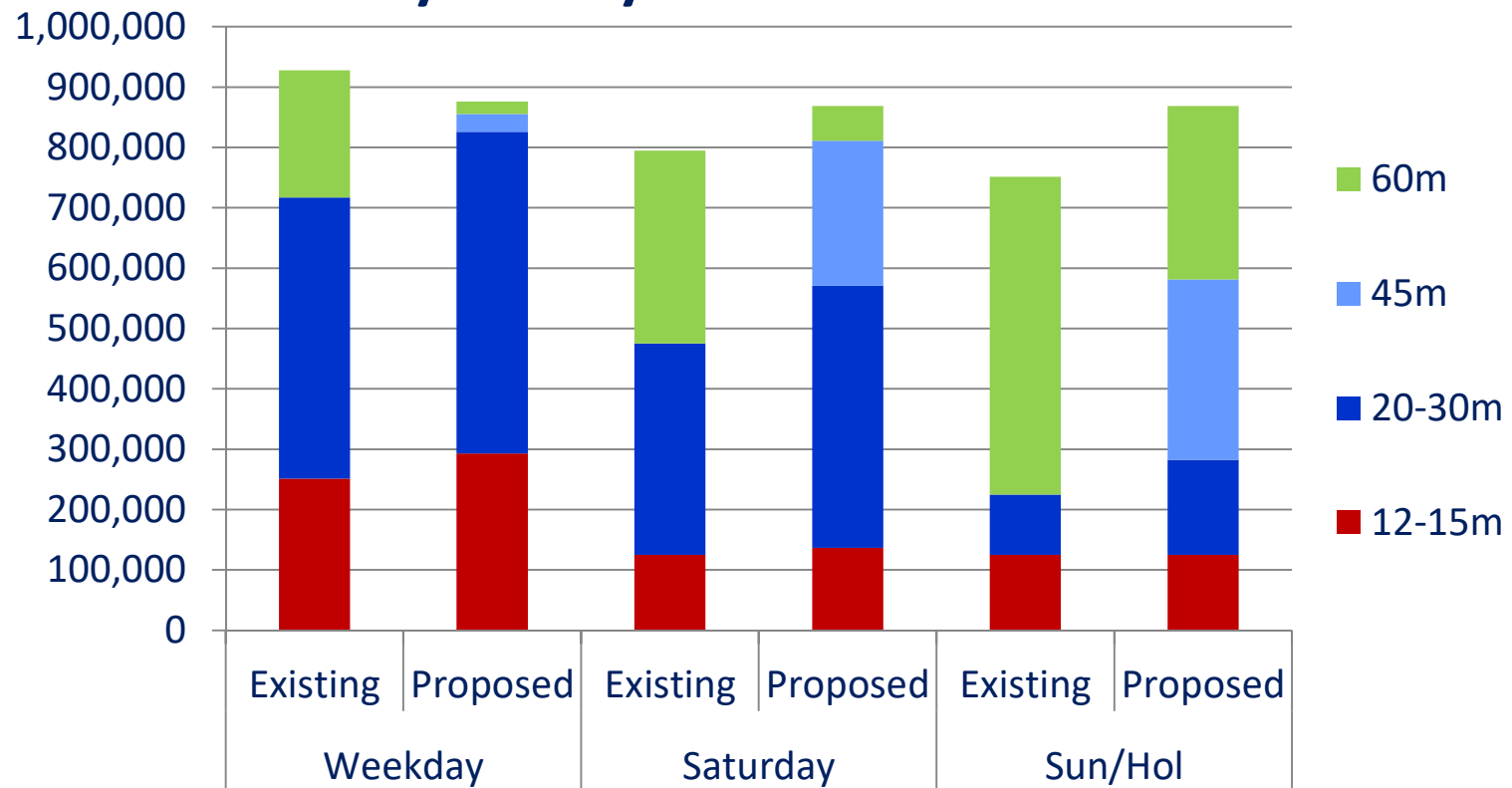
Figures based on 1/2 mile walk from regular all-day fixed-route service. Coverage figures *exclude* Smart Ride.






# New Network Highlights

How many PERSONS are covered  
by all-day transit service?





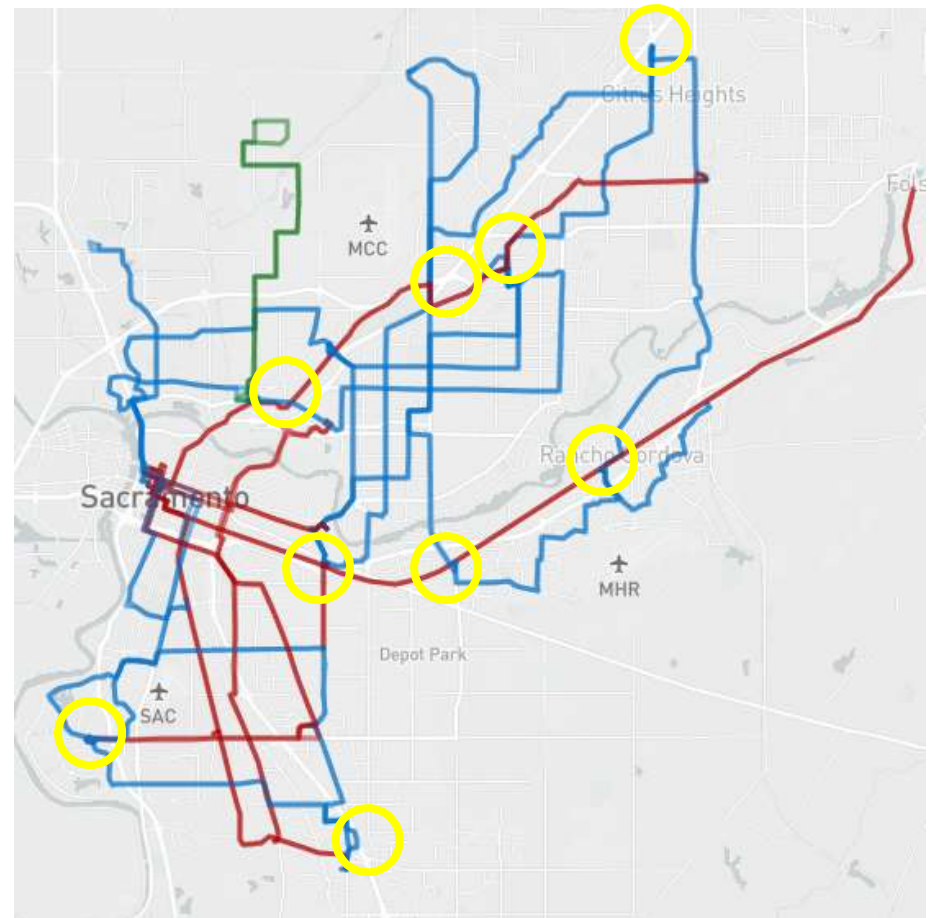
# Total Ridership Impact

- Ridership is forecasted to go up  between 400,000 and 1,000,000 boardings per year
- Early loss is to be expected
- Building ridership over time, need one year to accurately measure
- Reliability improvements
- On-time performance
- Work on campaigns to promote the new network and build ridership!



# Bus Hubs/Stops

- Developed Capital Improvement Program to update stops and hubs
- Coordinate with City, County, Rancho Cordova and Citrus Heights
- Detailed analysis of bus stops and bus stop spacing will commence once adopted by Board

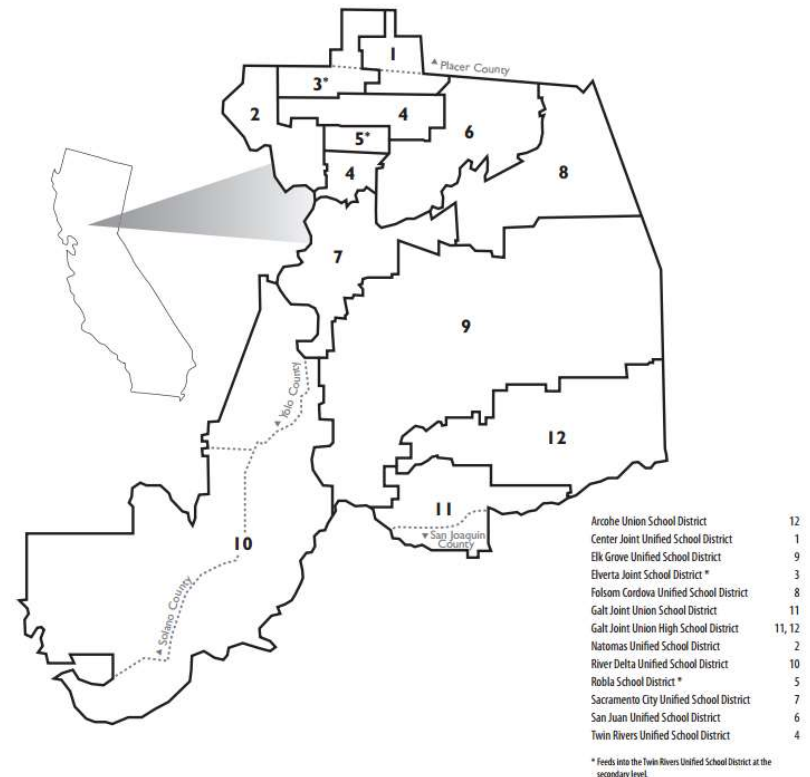




# New Network Schools

- Local school districts were invited to participate in the Stakeholder Resources Group and outreach continued through February 2019.
- Staff has directly communicated with several key school stakeholders (SAVA, Florin HS, SES, San Juan School District, Sac State, Los Rios, etc.)
- Current: close to 95% of all schools are within .5 mile or better of a bus route
- Proposed: No major change. 95% of all schools are within .5 mile or better of a bus route
- 15 School Trip 200 series: no changes proposed/add 4 additional trips.

## Public School Districts Within Sacramento County





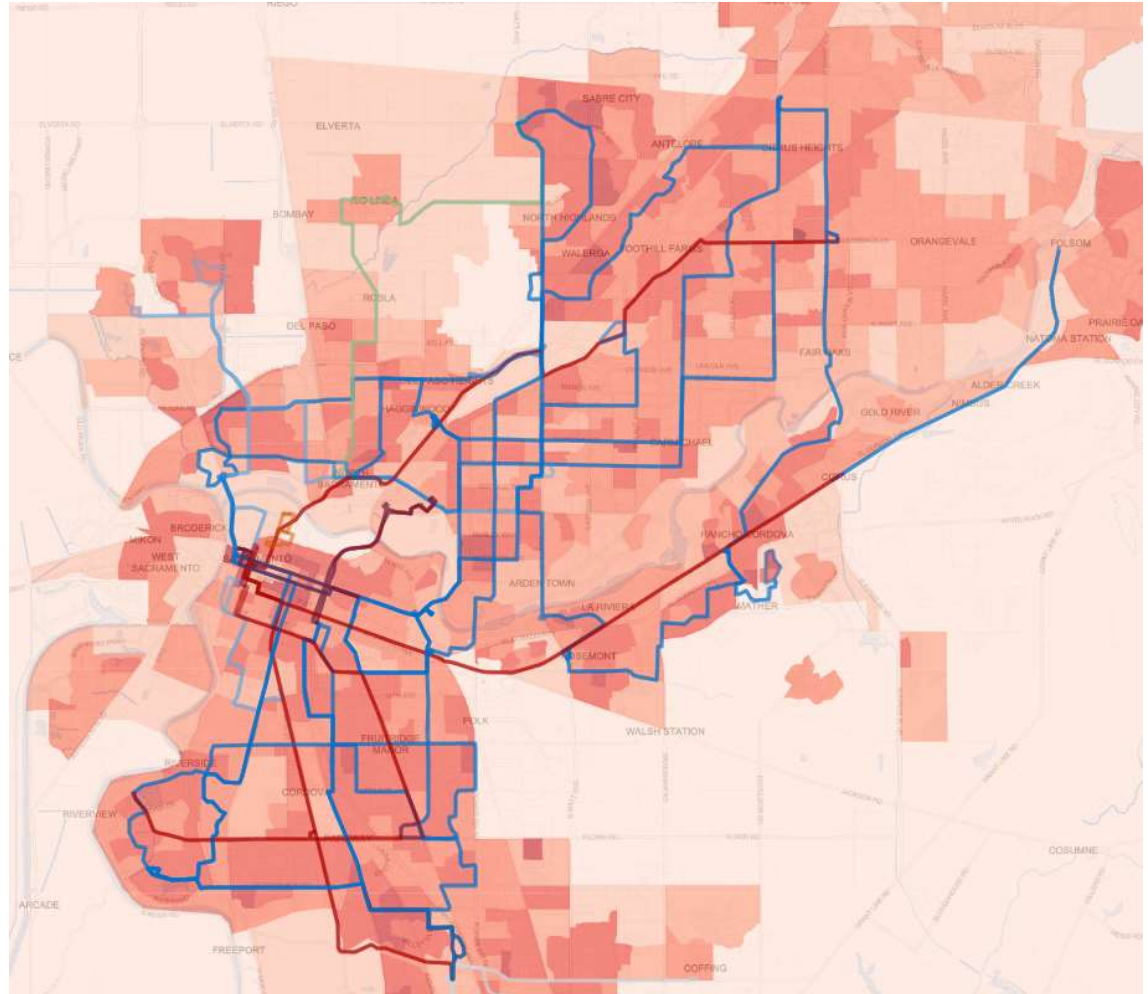
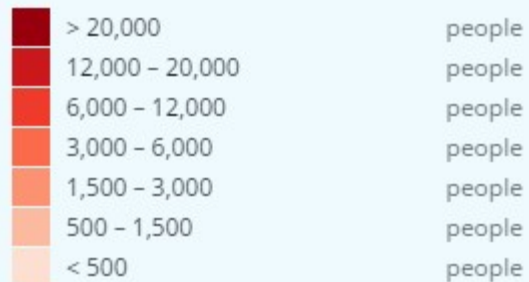
# New Network

# Population Density

## US Census 2016

## Population

People living per square mile. American Community Survey, 2016.



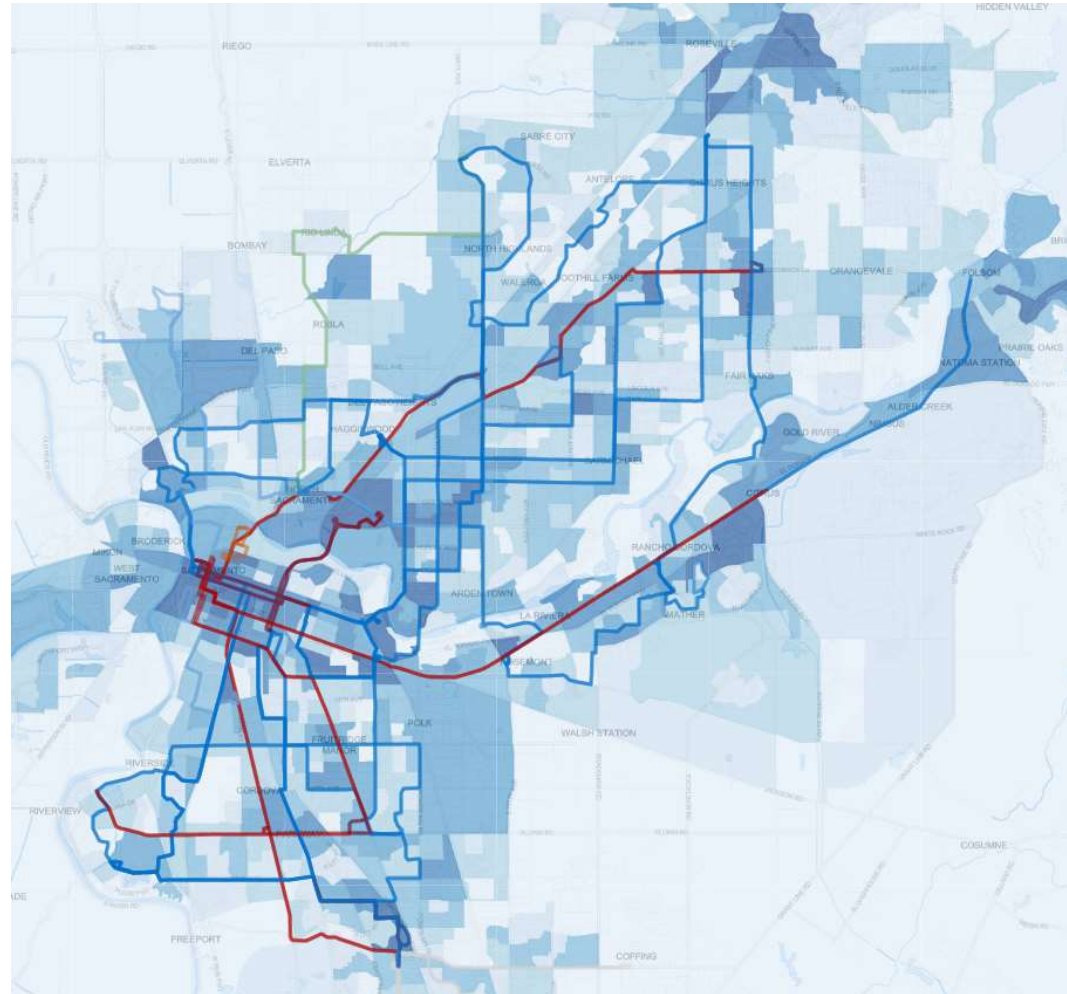
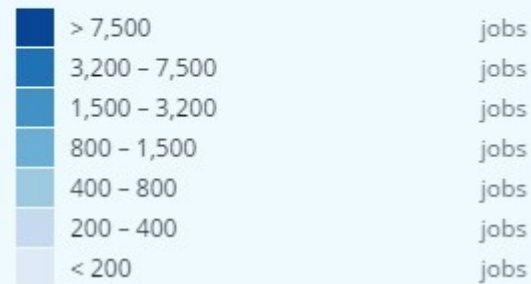


# New Network

## Job Density US Census 2016

jobs

Jobs per square mile. Employment statistics from LEHD, 2015.





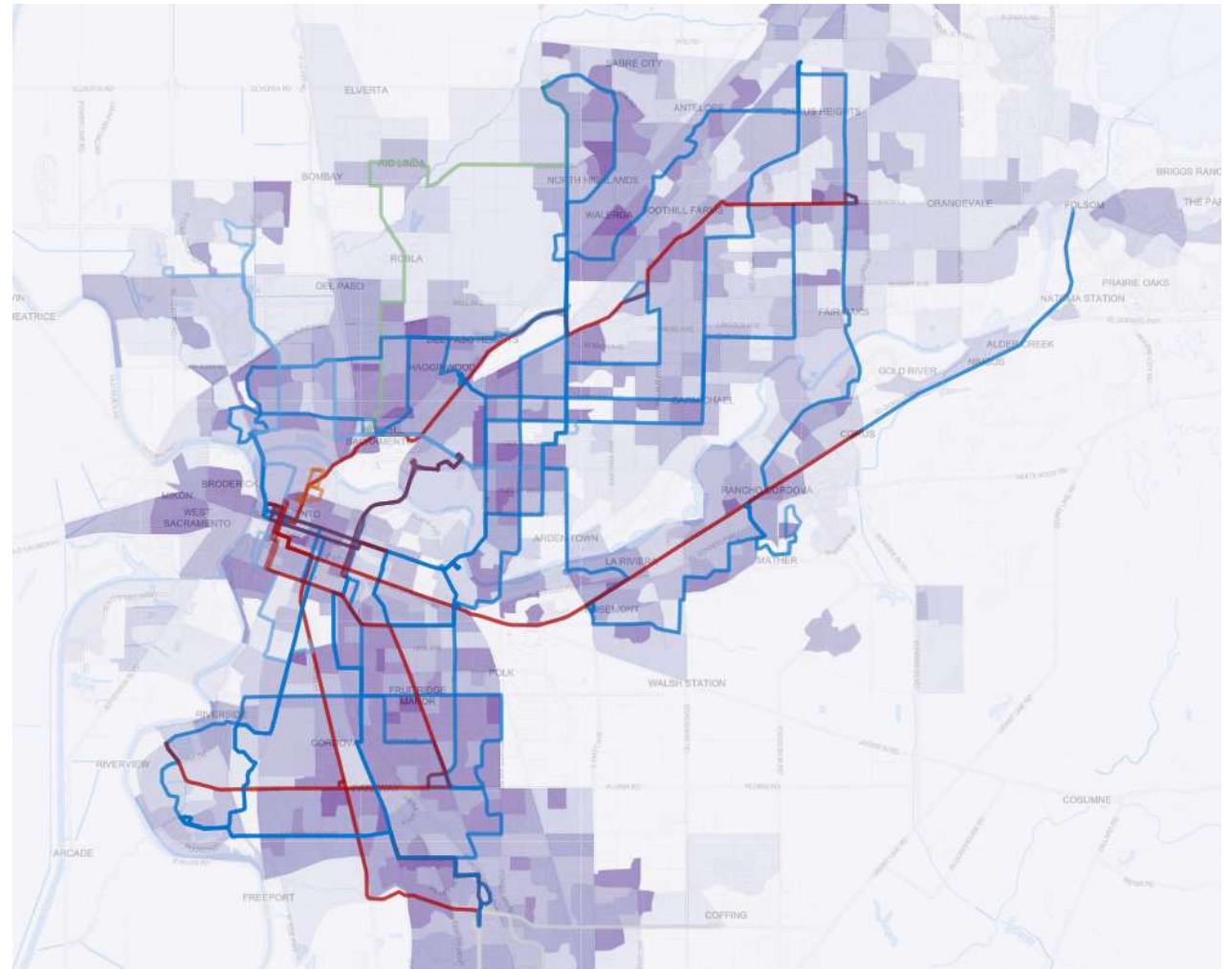
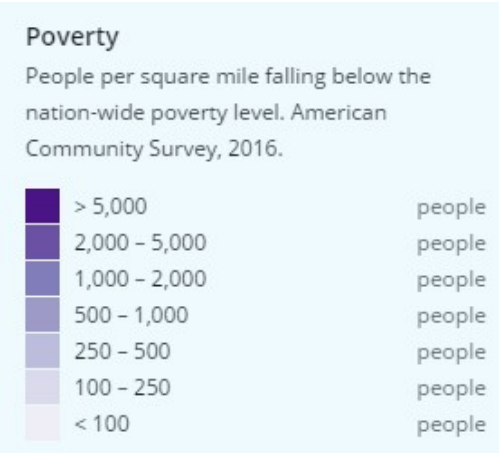
# New Network

## Poverty

### US Census 2016

**Poverty**  
People per square mile falling below the nation-wide poverty level. American Community Survey, 2016.

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People per square mile falling below the nation-wide poverty level. American Community Survey, 2016.



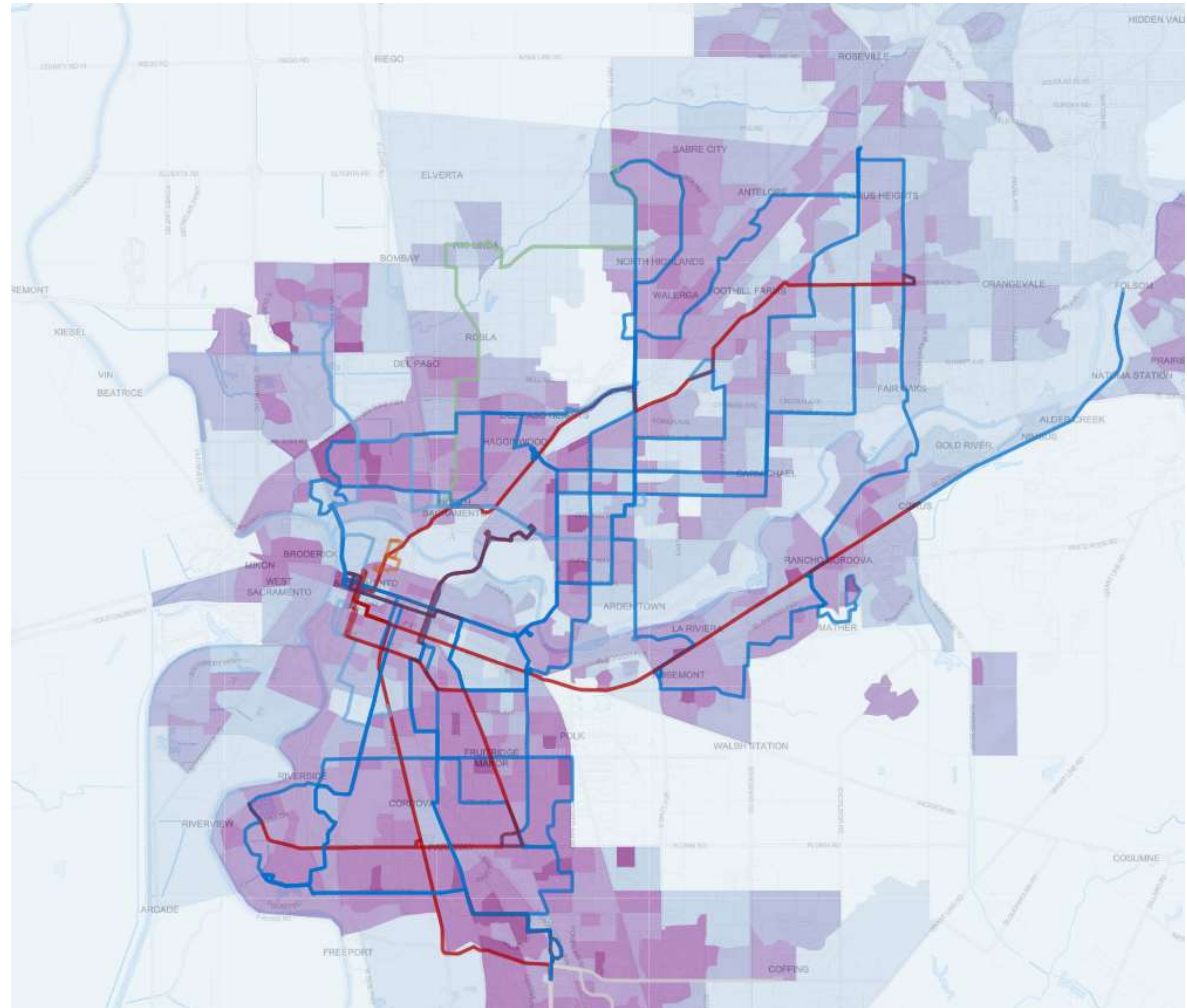
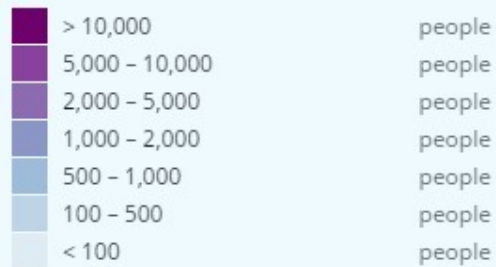


# New Network

## Minority US Census 2016

### Minority

People per square mile who are non-White or of Hispanic origin. American Community Survey, 2016.



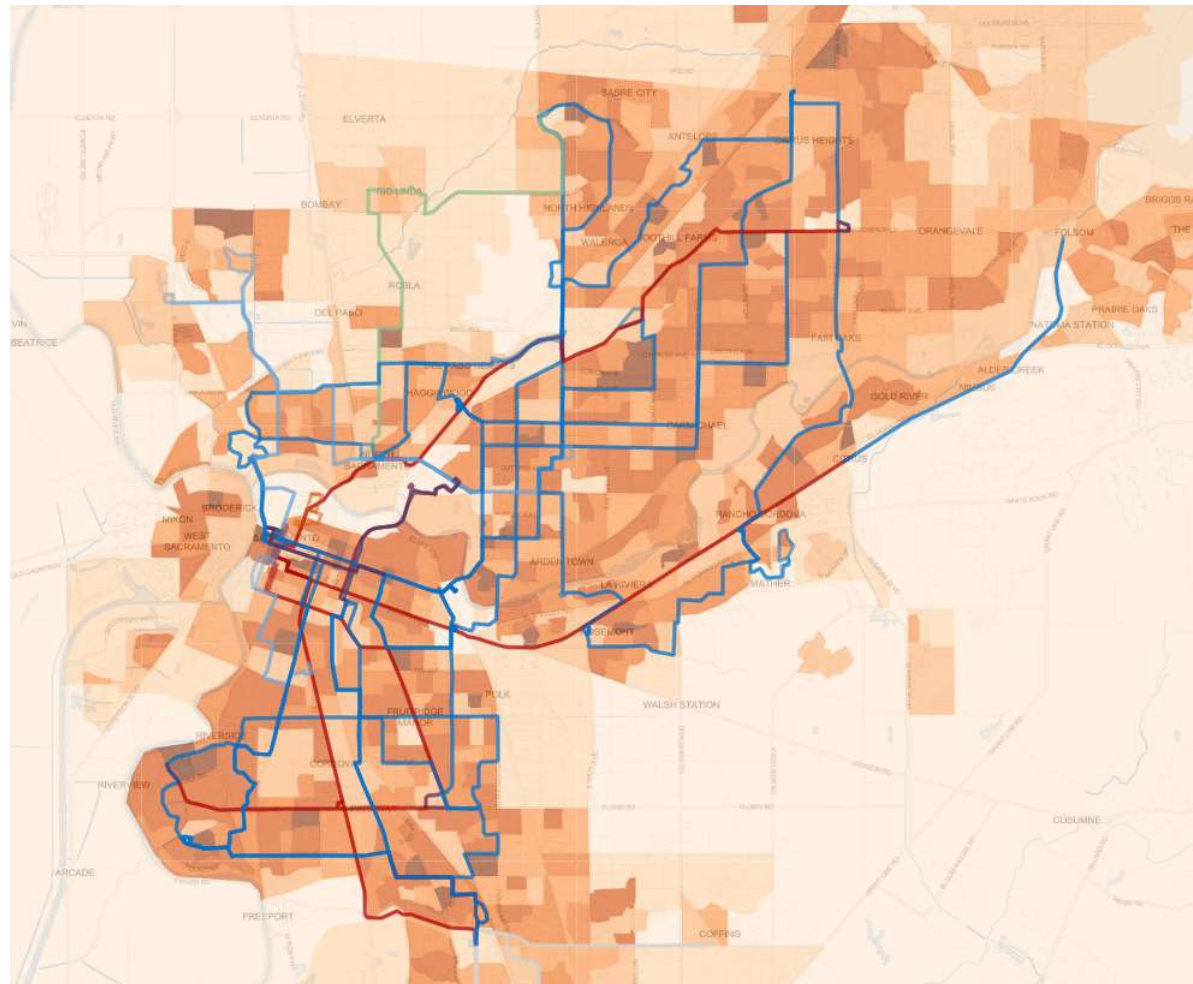
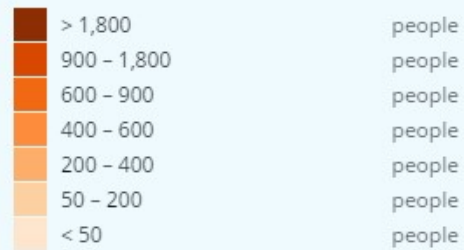


# New Network

## Seniors US Census 2016

### Senior

People per square mile who are 65 years or older. American Community Survey, 2016.



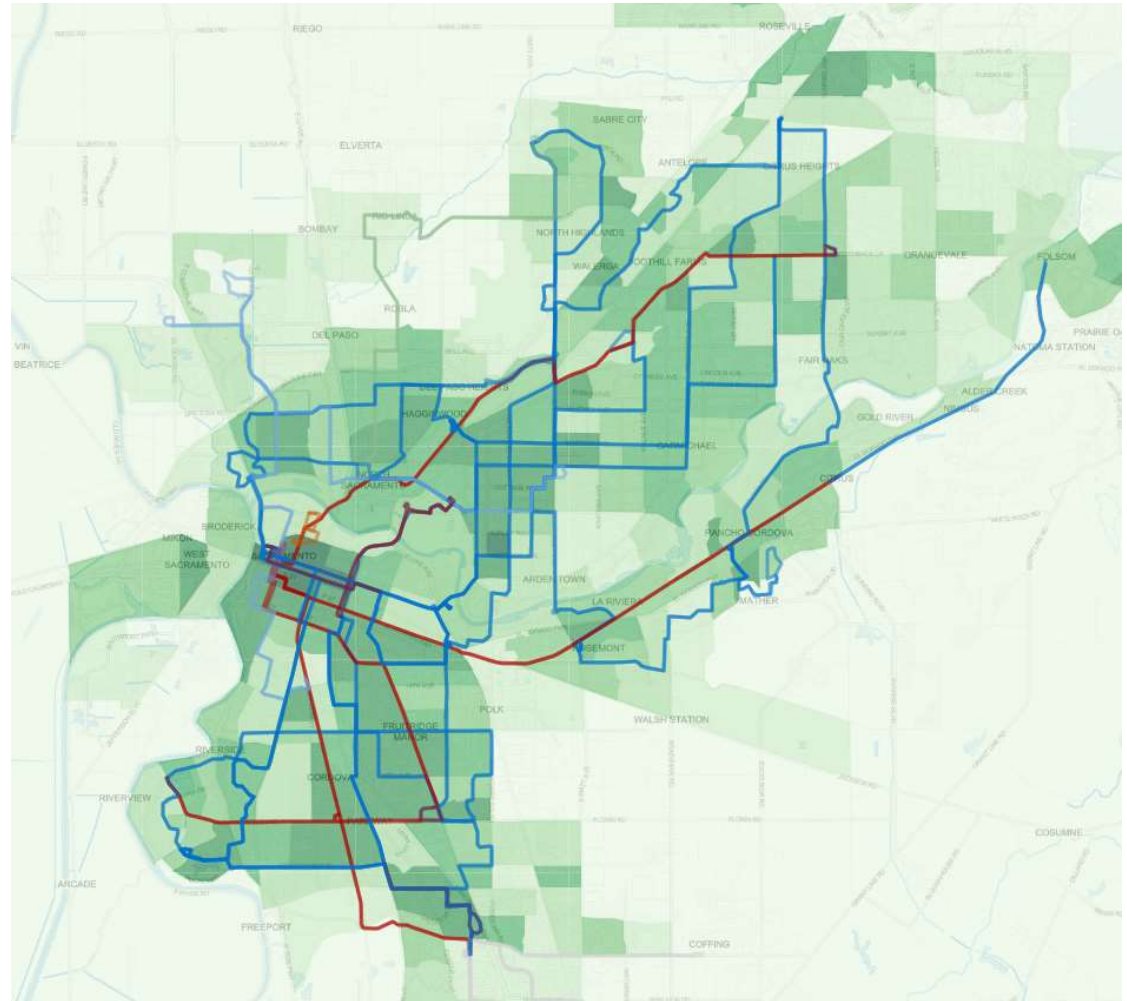
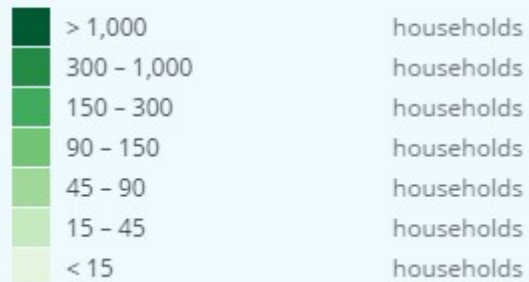


# New Network

## Car free households US Census 2016

### Car Free

Households per square mile with no vehicle available. American Community Survey, 2016.



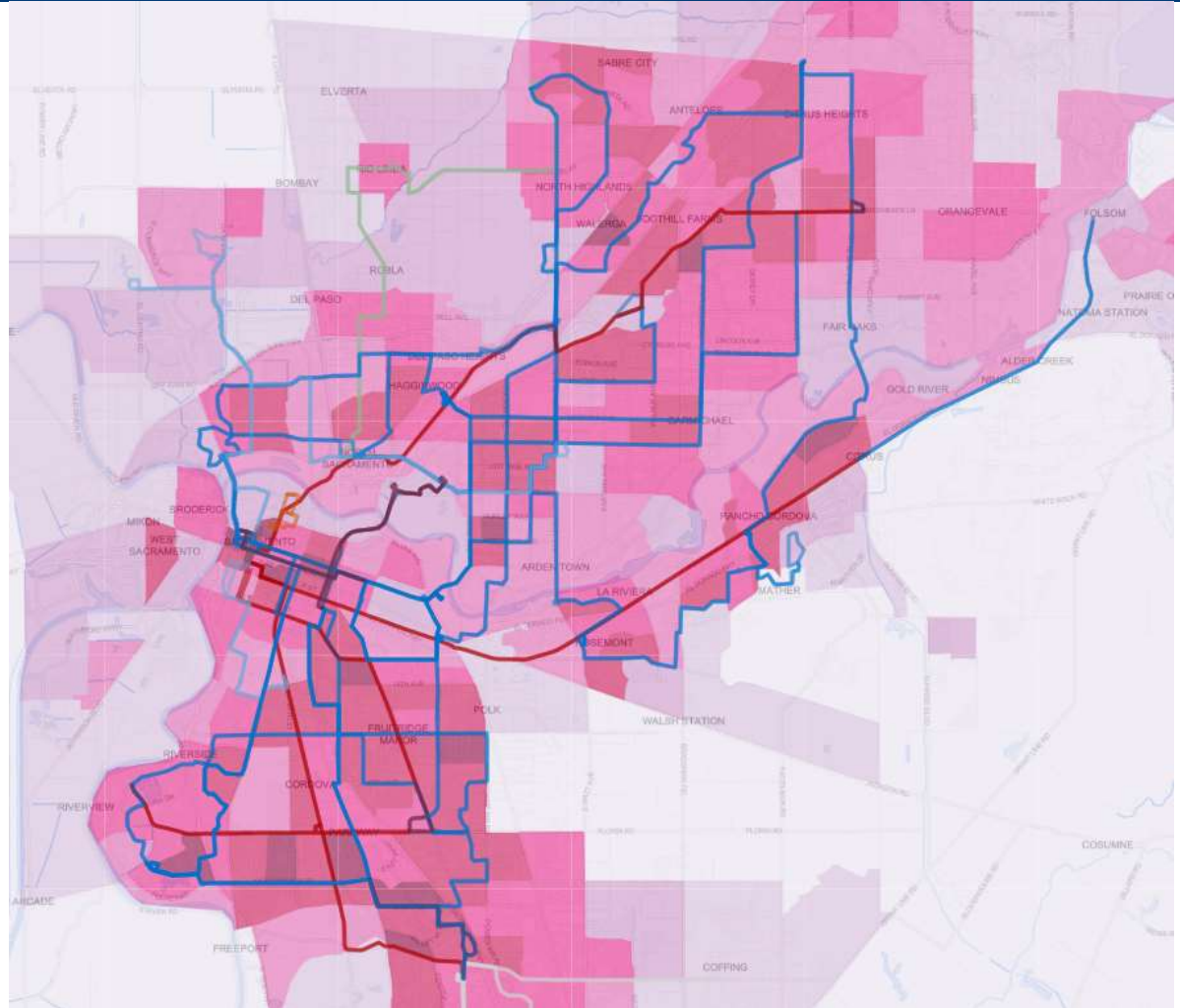
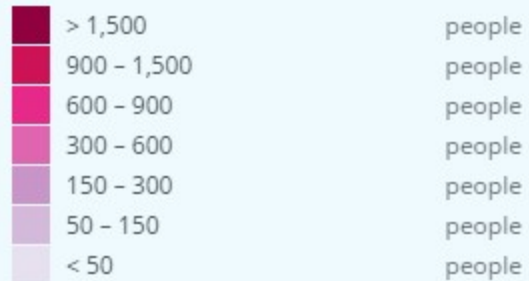


# New Network

## Disabled US Census 2016

### Disabled

People per square mile who have a disability.  
American Community Survey, 2016.



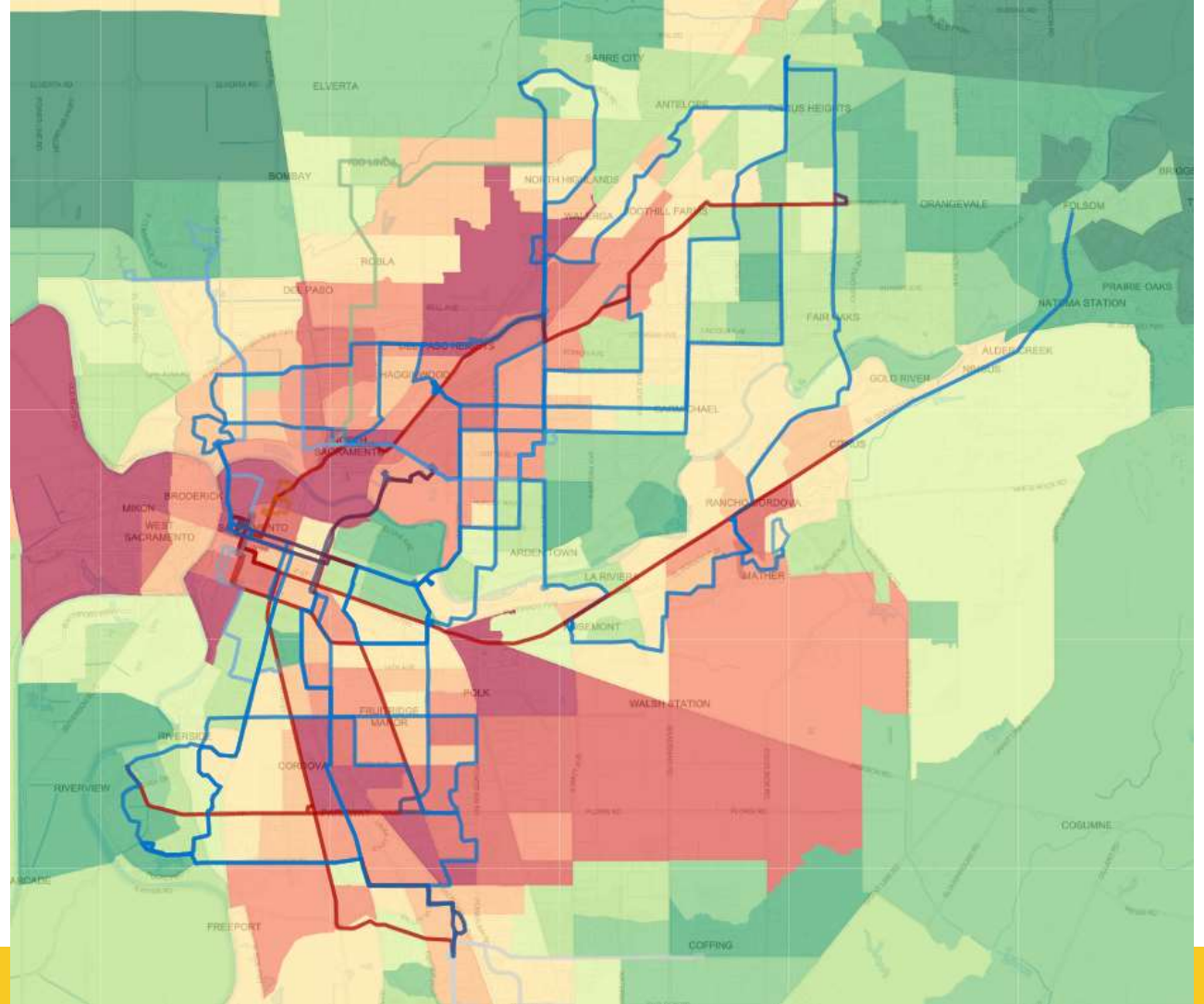
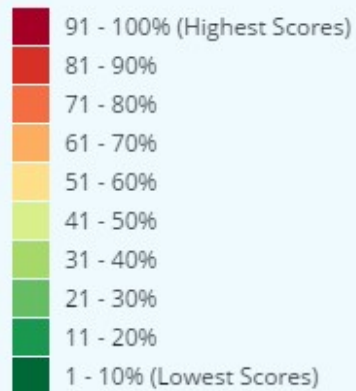


# New Network

## State of California EnviroScreen 3.0

### CalEnviroScreen 3.0

Highest scores represent census tracts which have the most environmental burden and vulnerable communities. (OEHHA 2018)





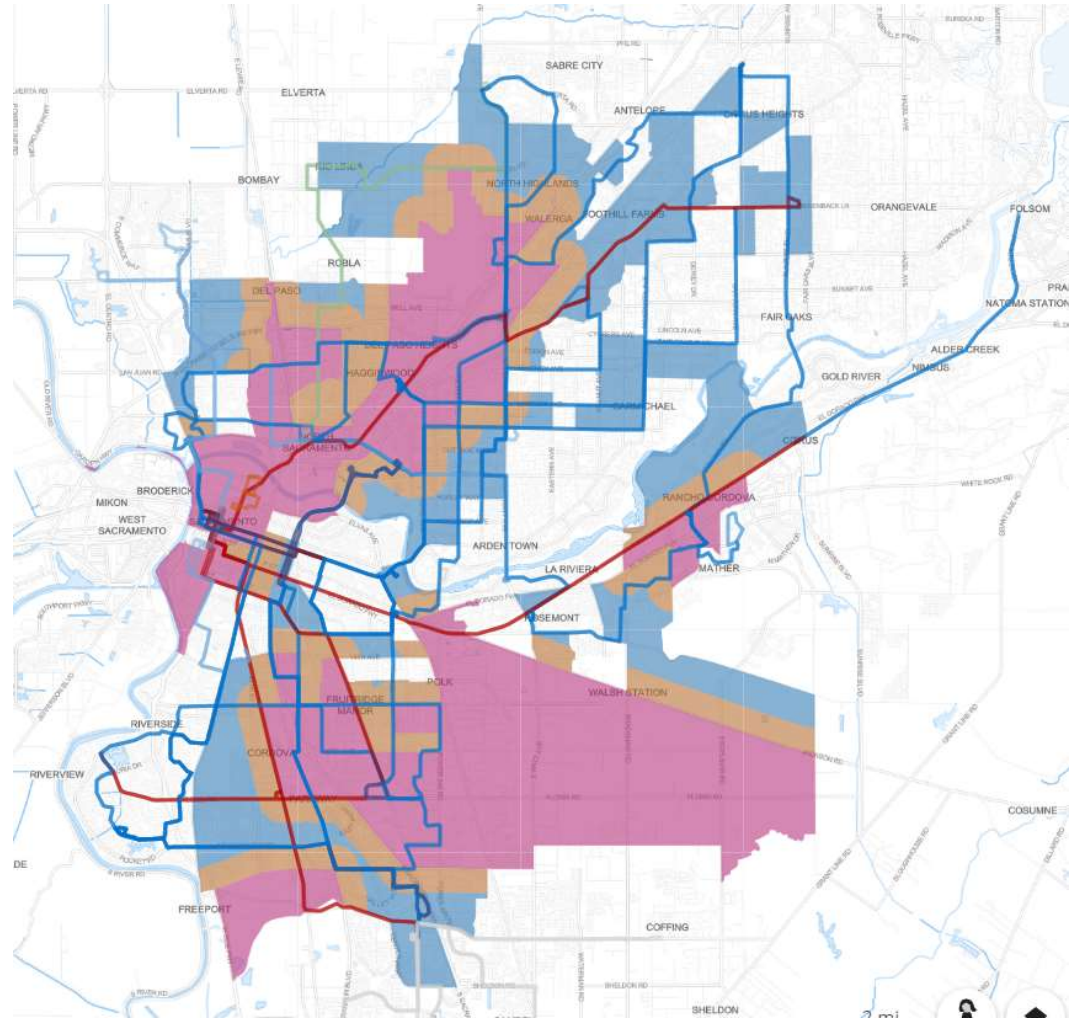
# New Network

## State of California Low Income and Disadvantaged Communities

### Low-Income + DAC in RT Service Area

Low-income and disadvantaged (DAC)  
communities within RT's service area.  
(OEHHA, 2017; HCD, 2017)

- Low-income Communities
- Disadvantaged and Low-income  
Communities
- Low-income Communities within a ½  
mile of a DAC



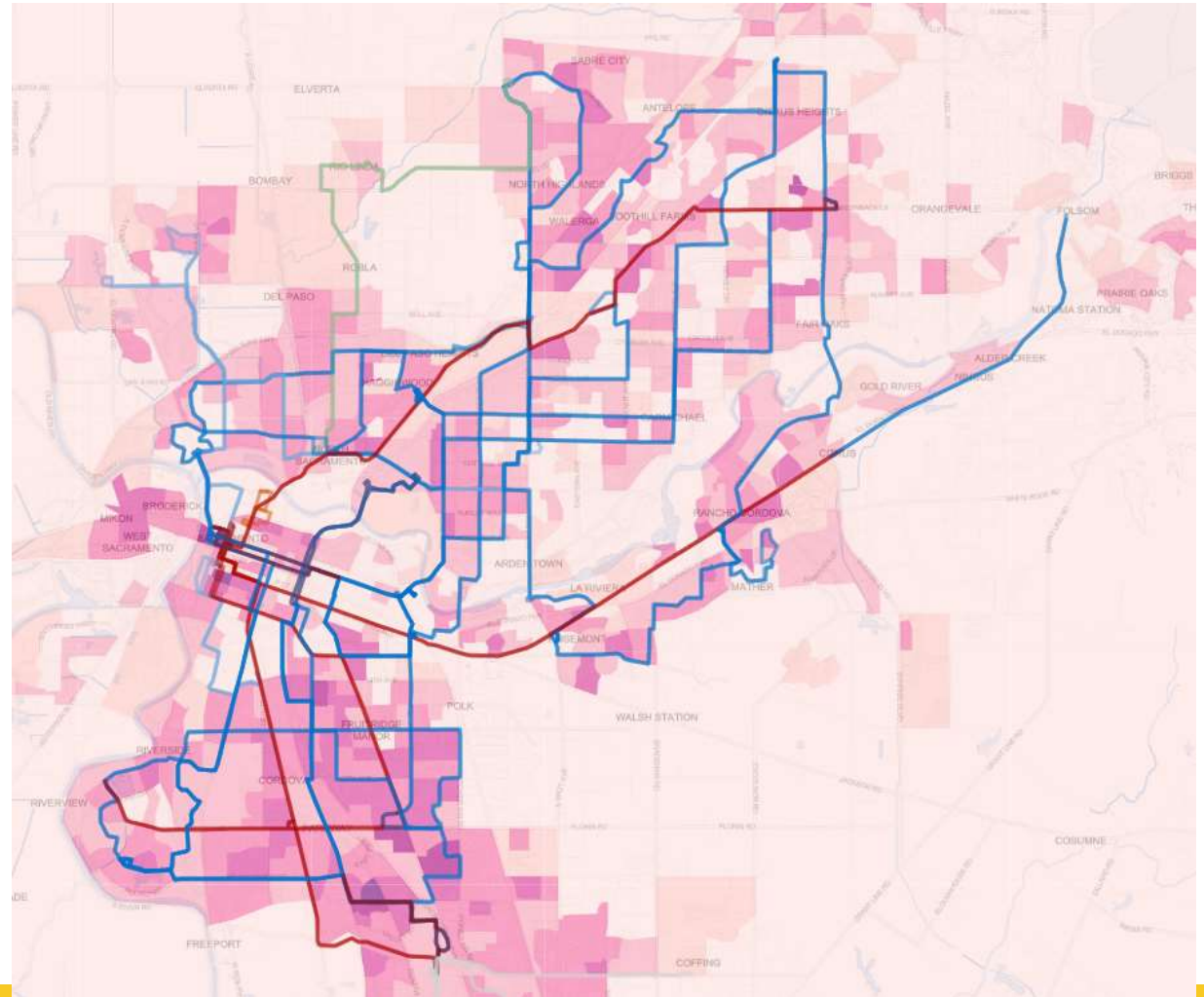
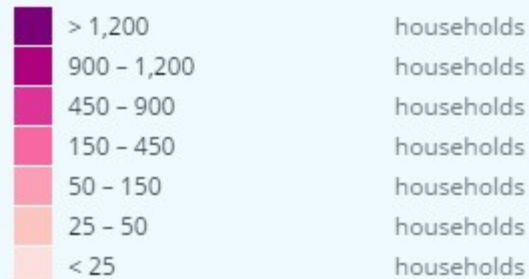


# New Network

## Limited English proficiency by Household

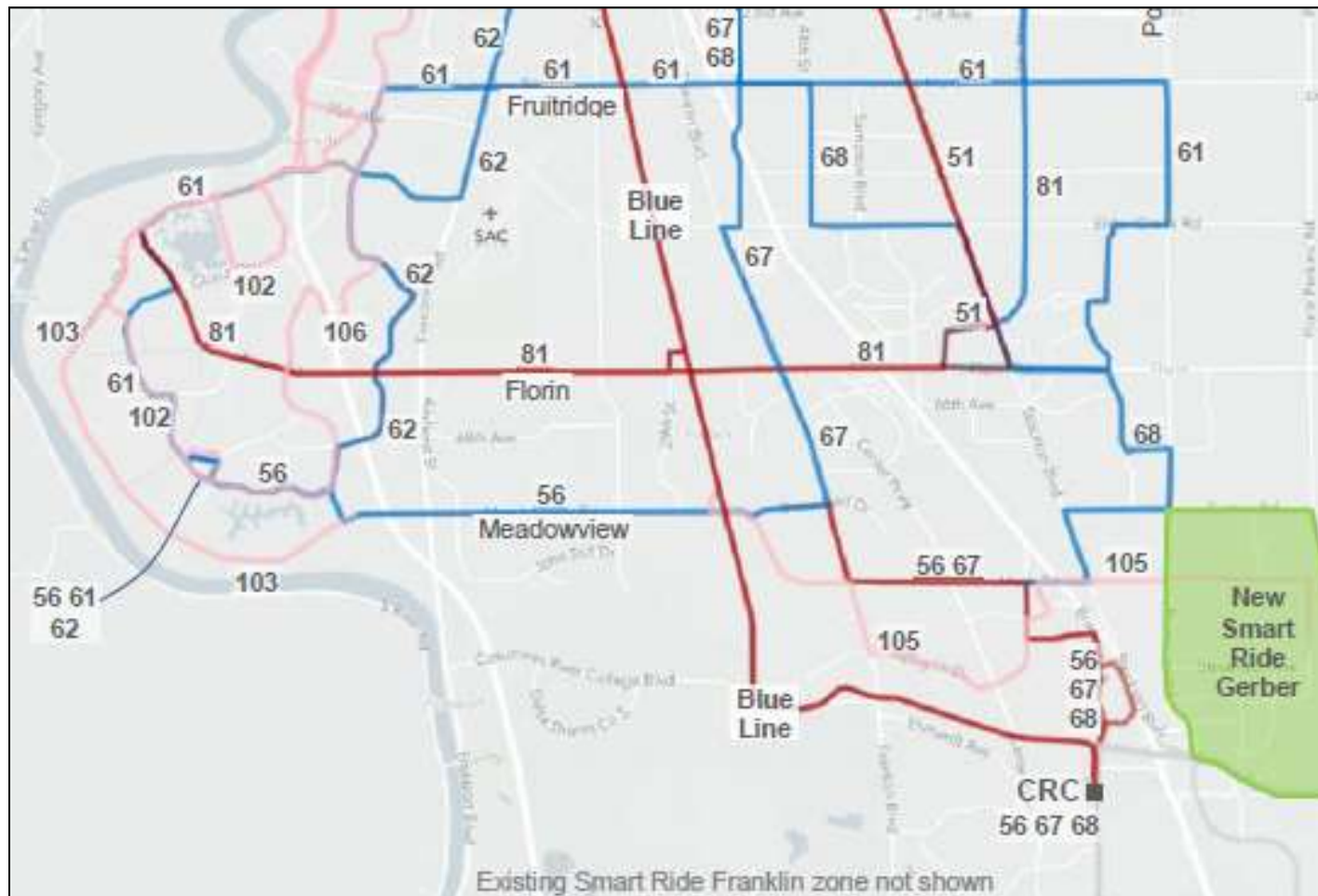
### Limited English

Households per square mile with limited English speaking status. American Community Survey, 2016.



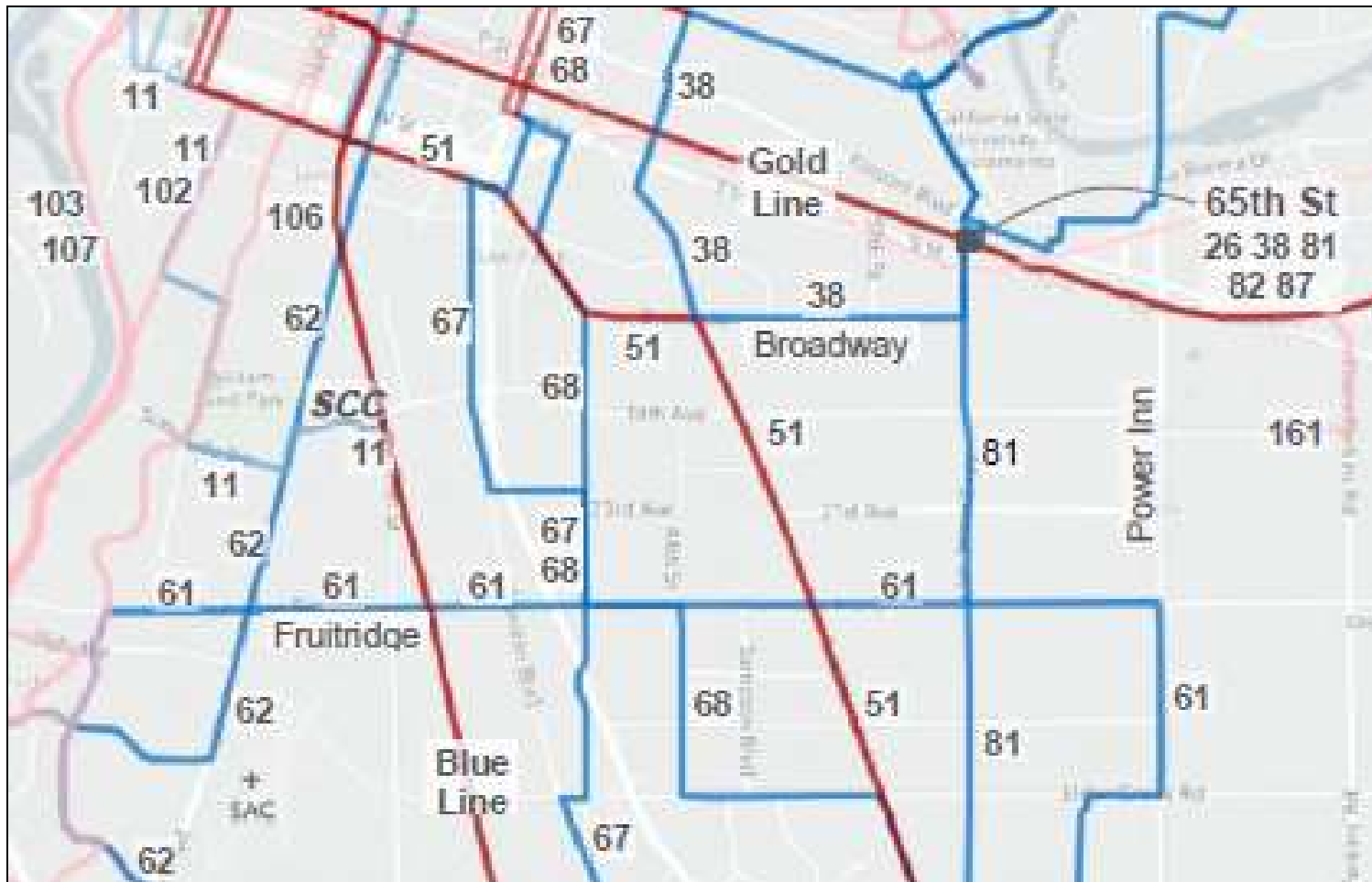


# New Network Routes South Area





# New Network Routes Downtown/Land Park/Oak Park



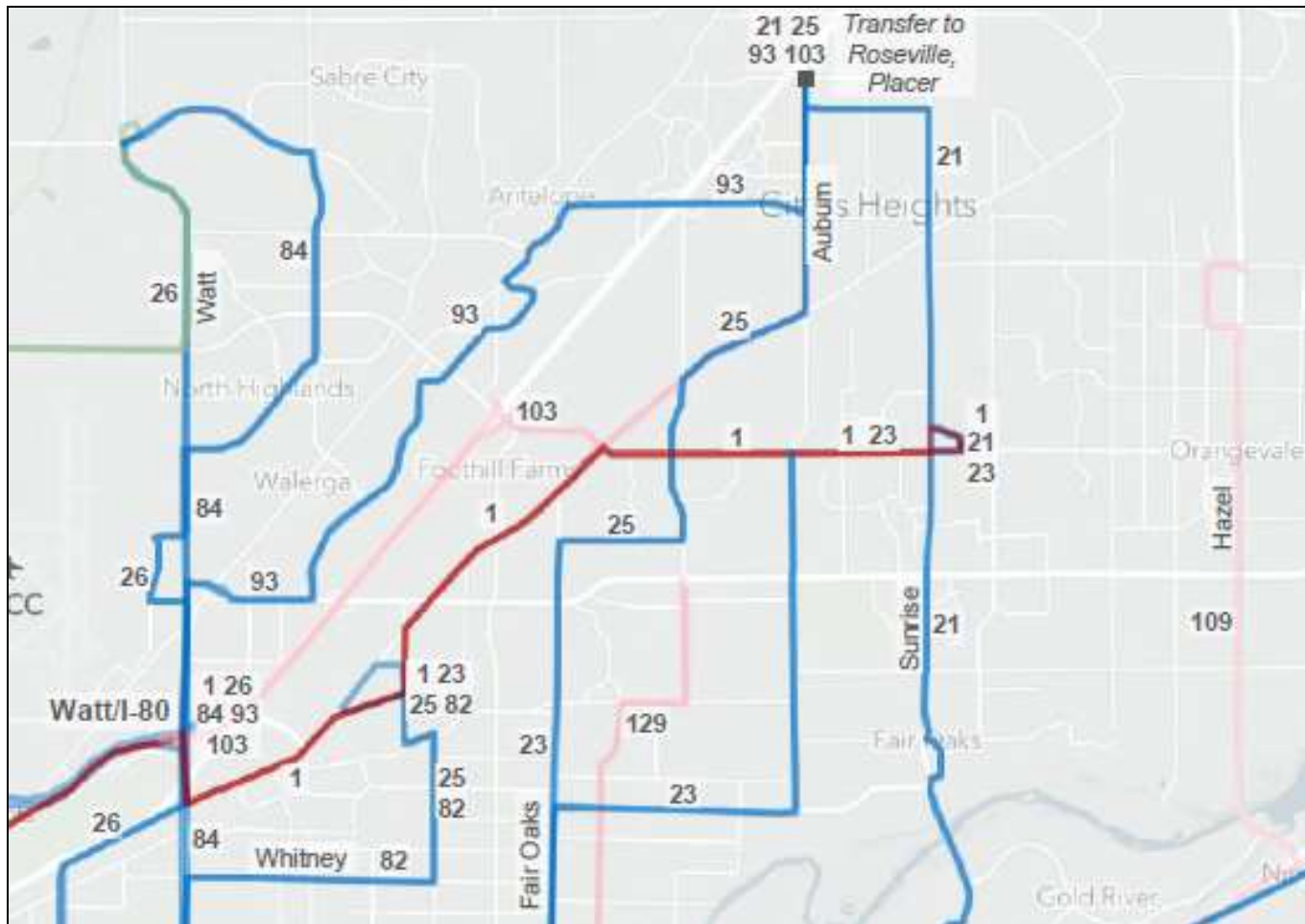


## New Network Routes North Area



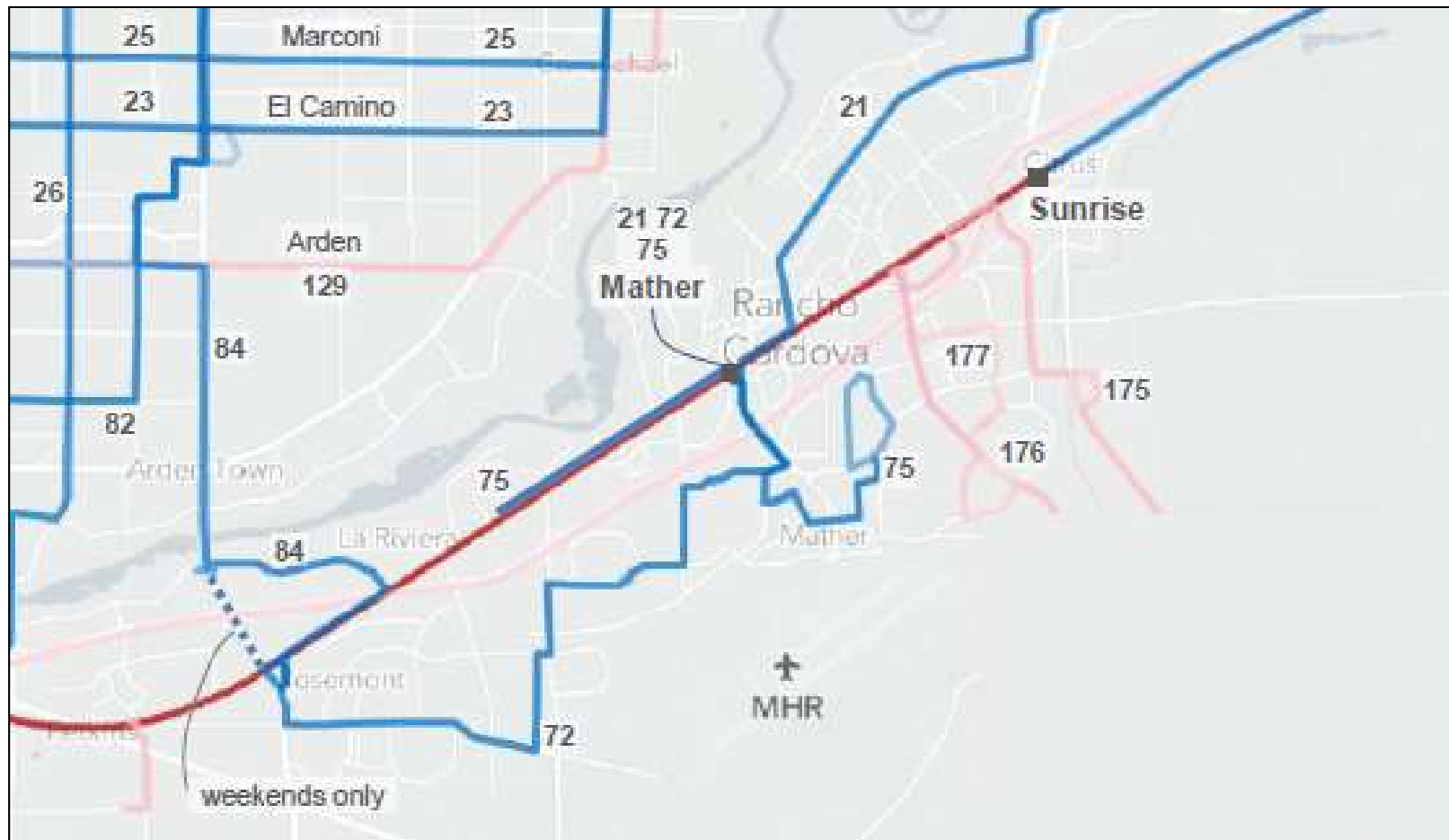


# New Network Routes Northeast Area





# New Network Routes East Area





# New Network Routes

## ROUTE 1

- Improve evening frequency
- Additional weekend trips

Population within ½ mile = 48,000

Jobs within ½ mile = 21,000

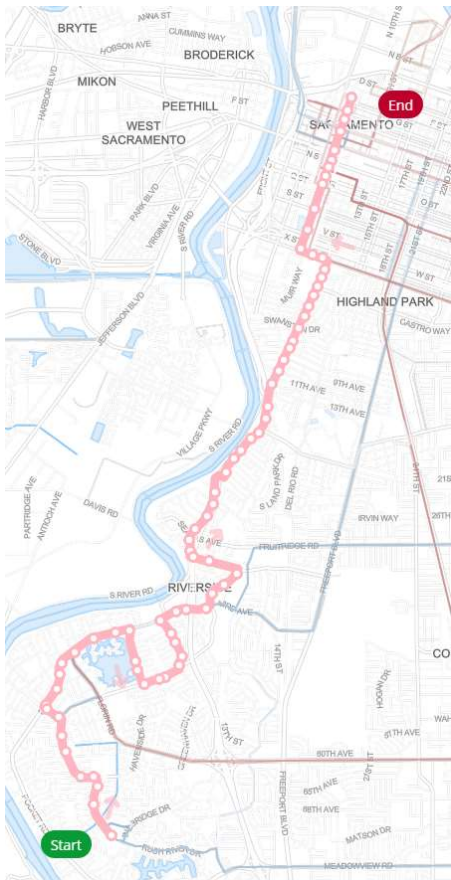
Avg Daily Boardings = 1,805





# New Network Routes

## ROUTE 2 (Route 102)



- Convert to Peak Trips only
- Strong directional flow
- Demand for commute trips
- Direct to Downtown

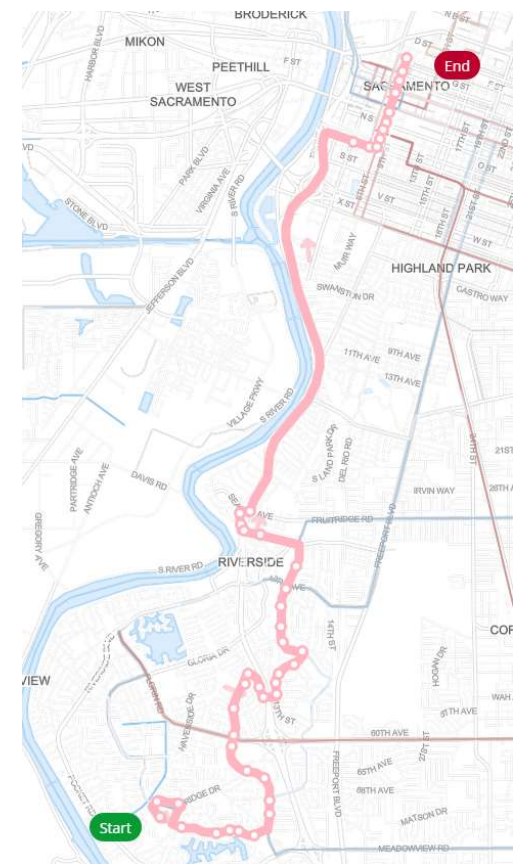
### Route 2:

Population within  
½ mile = 41,000  
Jobs within  
½ mile = 87,000  
Average Daily  
Boardings = 389  
62% are peak trips

### Route 6:

Population within ½  
mile = 41,000  
Jobs within  
½ mile = 87,000  
Average Daily  
Boardings = 316  
41% are peak trips

## ROUTE 6 (Route 106)

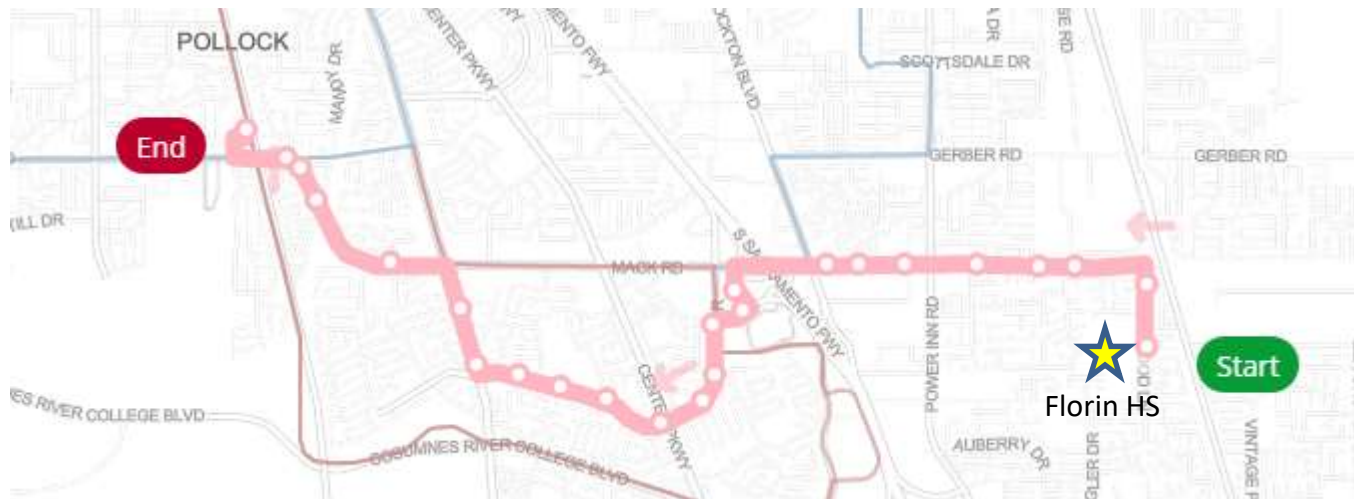




# New Network Routes

## ROUTE 5 (Route 105)

- Convert to Peak Trips only
- Strong directional flow
- Connects to Florin HS
- Student demand high



Population within ½ mile = 50,000

Jobs within ½ mile = 10,000

Average Daily Boardings = 176



# New Network Routes

## ROUTE 11

- Extend south of downtown, cover River Oaks neighborhood
- Connects Natomas to Sac Zoo and City College
- Add more frequency
- Add Sunday/Holiday service

Population within ½ mile = 66,000

Jobs within ½ mile = 105,000

Average Daily Boardings = 619





# New Network Routes

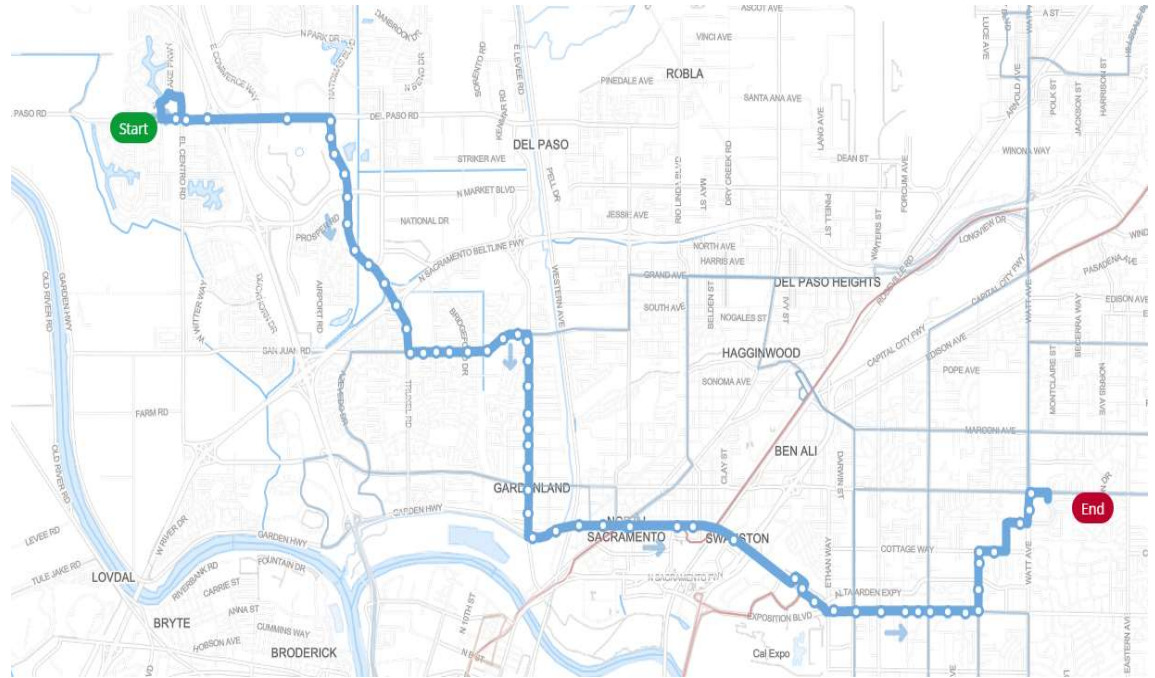
## ROUTE 13

- Combine with Route 22
- Improve frequency
- Add Saturday and Sunday/Holiday service
- Detour two morning trips to serve to North Market Drive, State office buildings

Population within ½ mile = 60,000

Jobs within ½ mile = 51,000

Average Daily Boardings = 276





# New Network Routes

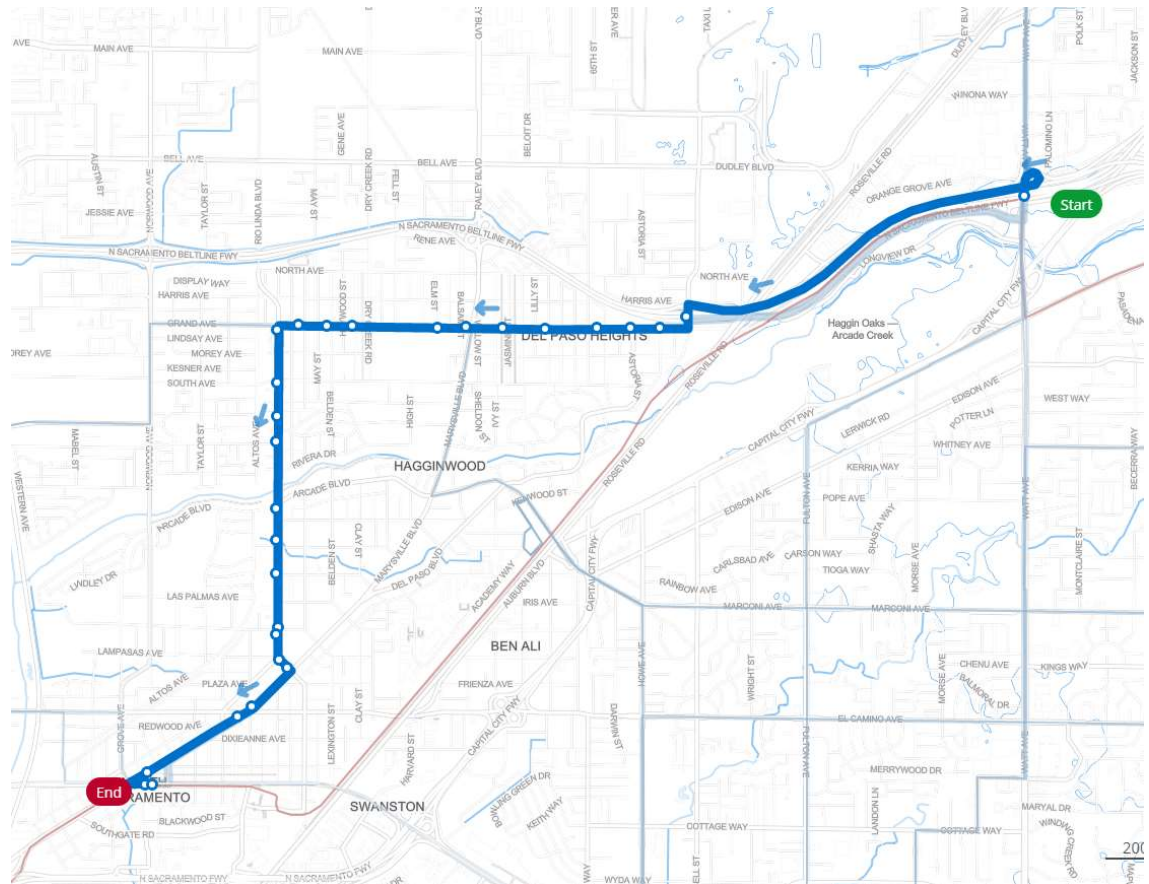
## ROUTE 15

- Eliminate south of Arden Del Paso, duplicates Blue Line.
- Improve Saturday and Sunday/Holiday frequency

Population within ½ mile = 29,000

Jobs within ½ mile = 7,000

Average Daily Boardings = 1,094





# New Network Routes

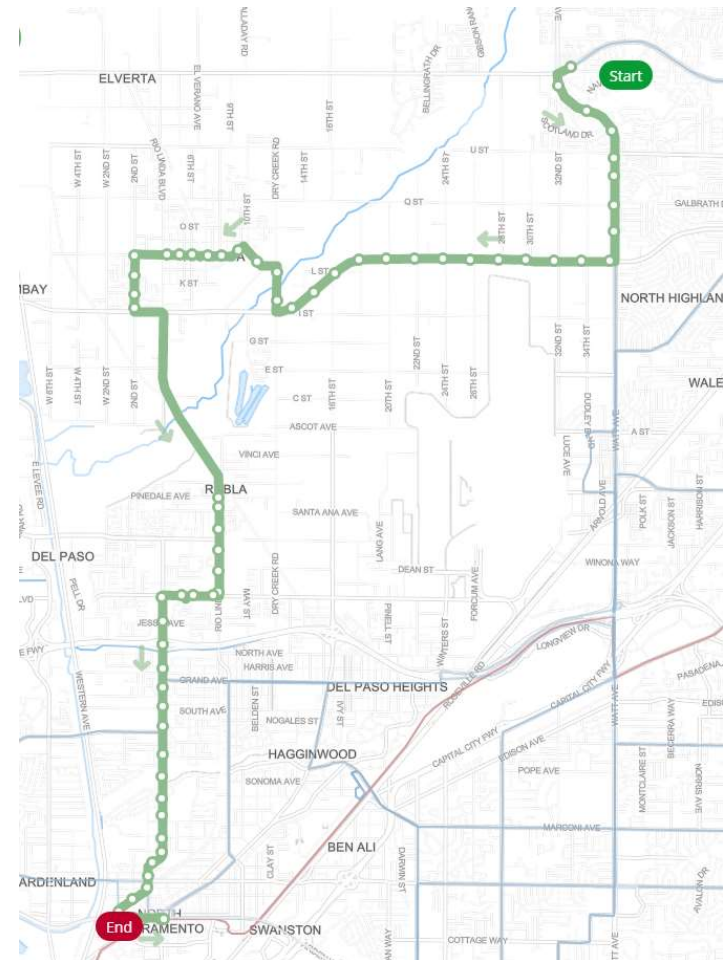
## ROUTE 19

- Provides basic coverage to Rio Linda
- Includes east/west connectivity to Watt Ave
- New routing on Elkhorn
- Add morning trip in each direction

Population within ½ mile = 48,000

Jobs within ½ mile = 11,000

Average Daily Boardings = 591





# New Network Routes

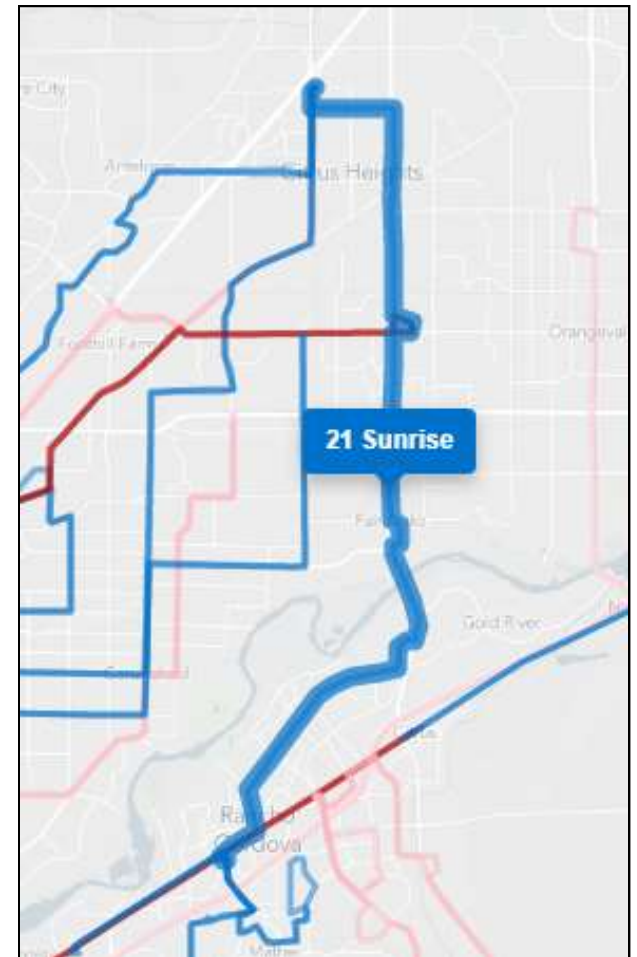
## ROUTE 21

- Good north/south connection
- Citrus Heights to Rancho Cordova
- Medium ridership/productivity
- Improve weekend frequency
- Eliminating parallel Route 28 should put additional riders on Route 21, improving capacity utilization

Population within ½ mile = 64,000

Jobs within ½ mile = 20,000

Average Daily Boardings = 988





# New Network Routes

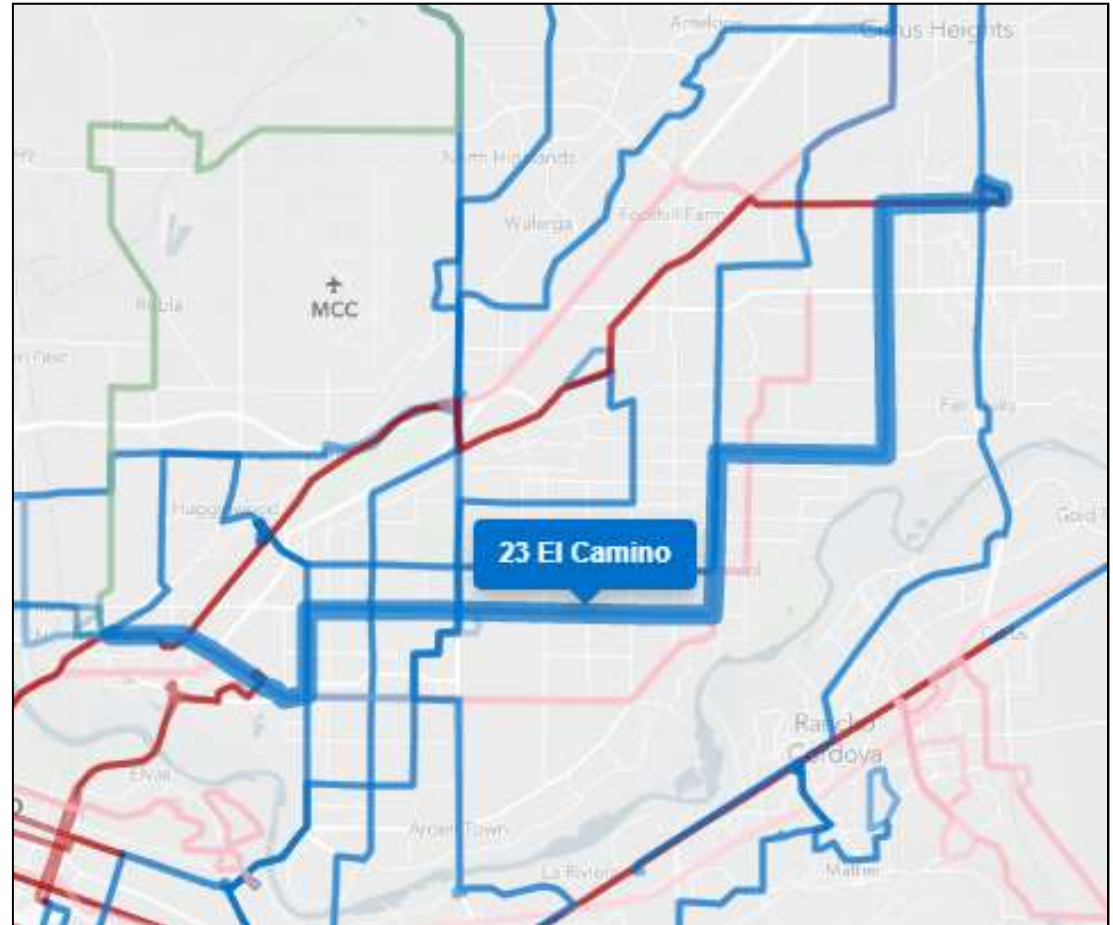
## ROUTE 23

- Reroute from Ethan Way to Howe Ave
- Good anchors
- Density
- Linearity
- Improve Sunday/Holiday frequency
- Add weekday trips for capacity
- Adjust schedules

Population within ½ mile = 85,000

Jobs within ½ mile = 48,000

Average Daily Boardings = 1,541





# New Network Routes

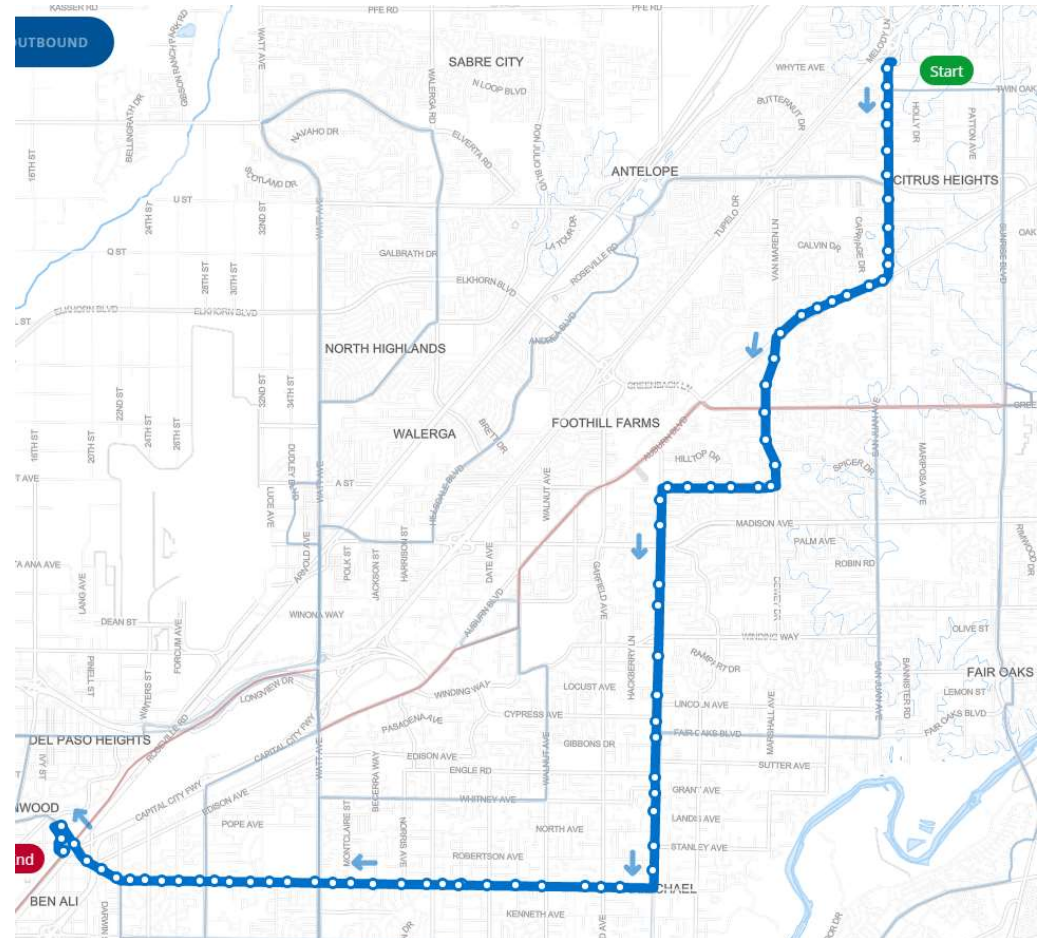
## ROUTE 25

- Reroute from San Juan Hospital to Louis Orlando transit hub, discontinue service over to Sunrise Mall
- Improve Saturday frequency
- Add Sunday/Holiday service

Population within ½ mile = 85,000

Jobs within ½ mile = 25,000

Average Daily Boardings = 964





# New Network Routes

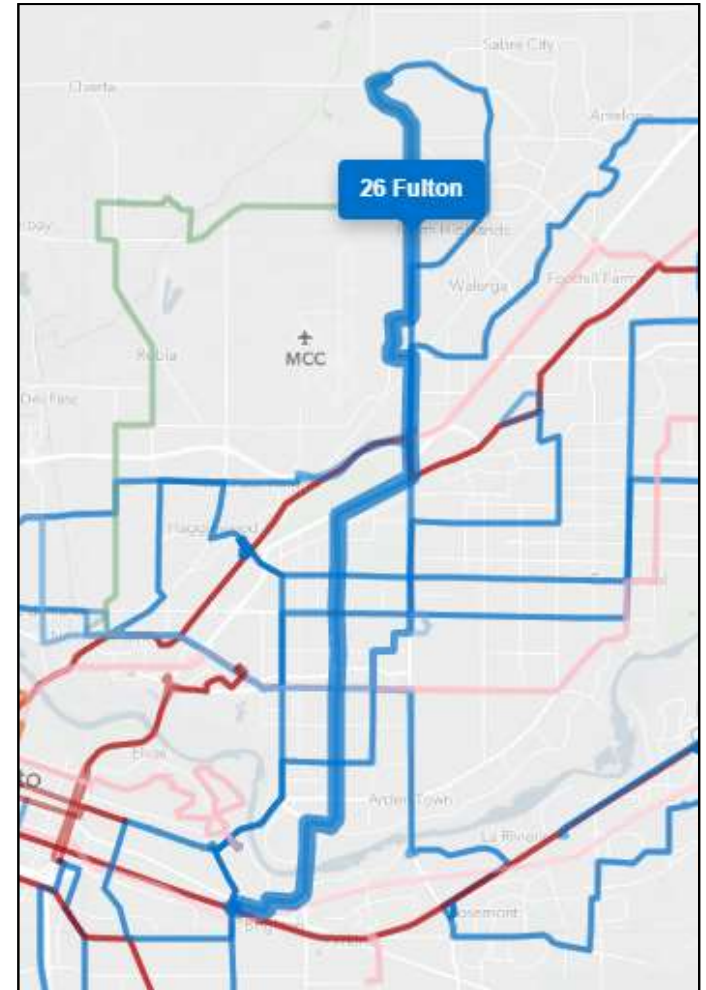
## ROUTE 26

- Good north/south service on Fulton Ave
- Extend north to North Highlands via Watt Ave
- Extend evening service
- Improve weekend frequency
- Add Sunday trips

Population within ½ mile = 102,000

Jobs within ½ mile = 43,000

Average Daily Boardings = 977





# New Network Routes

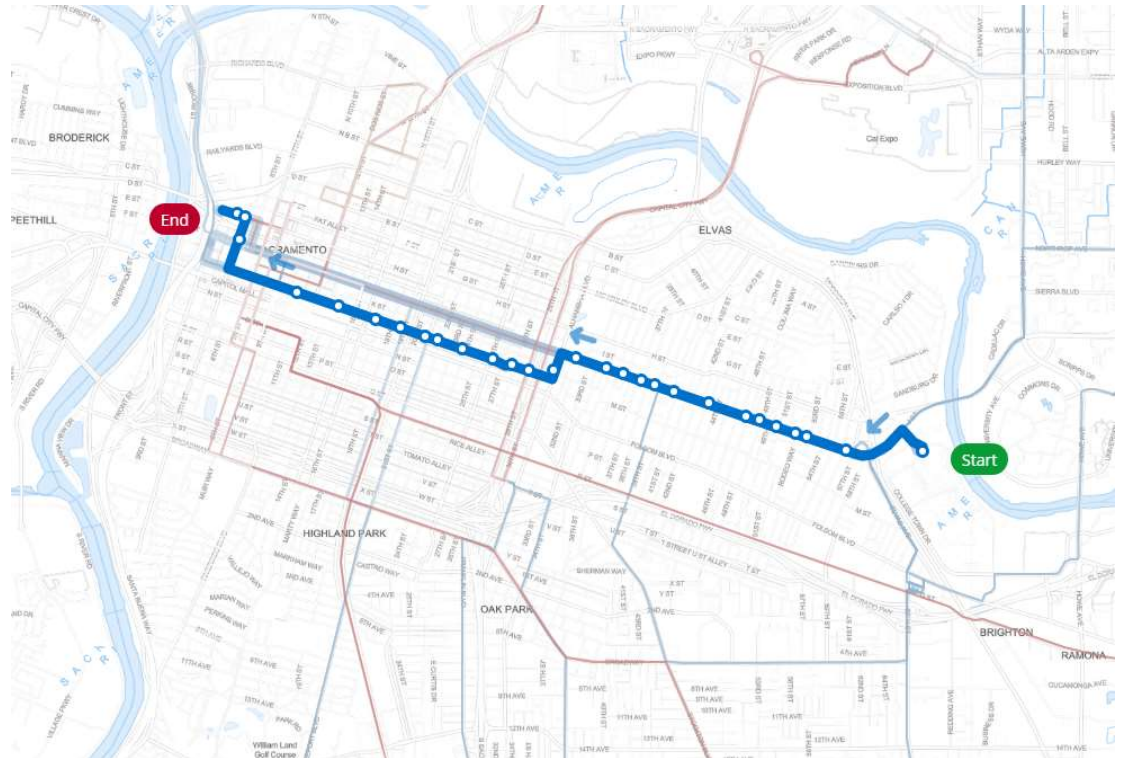
## ROUTE 30

- High ridership
- Good productivity
- Combine with Route 38  
Downtown to 39<sup>th</sup> St
- 15 minute frequency on Route 30 during peak hours
- J /L Streets major transit corridors downtown

Population within ½ mile = 37,000

Jobs within ½ mile = 117,000

Average Daily Boardings = 1,720



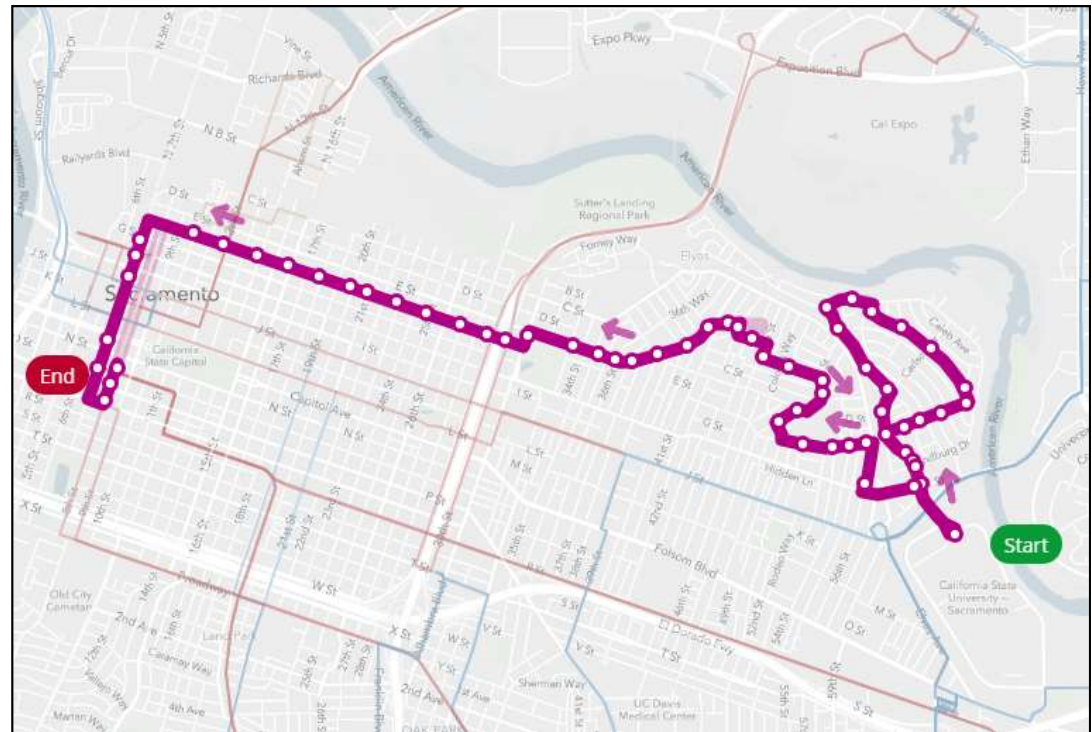


# New Network Routes

## ROUTE 34 (Route 134)

- Convert to peak-only
- Realign to Coloma Way
- Alternative routes
  - #30 J Street
  - SmarT Ride (June 2019)

Population within ½ mile = 37,000  
Jobs within ½ mile = 107,000  
Average Daily Boardings = 245



**51% percent of riders concentrated on 7 trips**



# New Network Routes

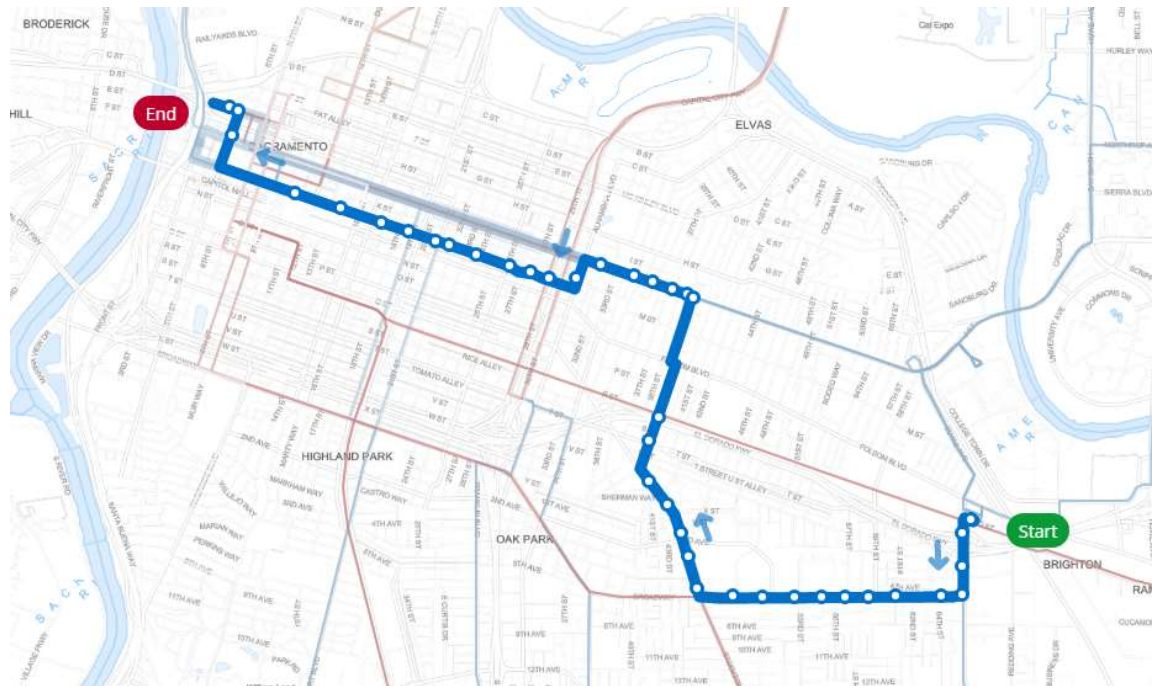
## ROUTE 38

- Combine with Route 30
- Common trunk on J/L St from 3<sup>rd</sup> to 39<sup>th</sup> St
- Improve frequency
- Add Saturday trip
- Serves UCD Med Center

Population within ½ mile = 48,000

Jobs within ½ mile = 138,000

Average Daily Boardings = 383





# New Network Routes

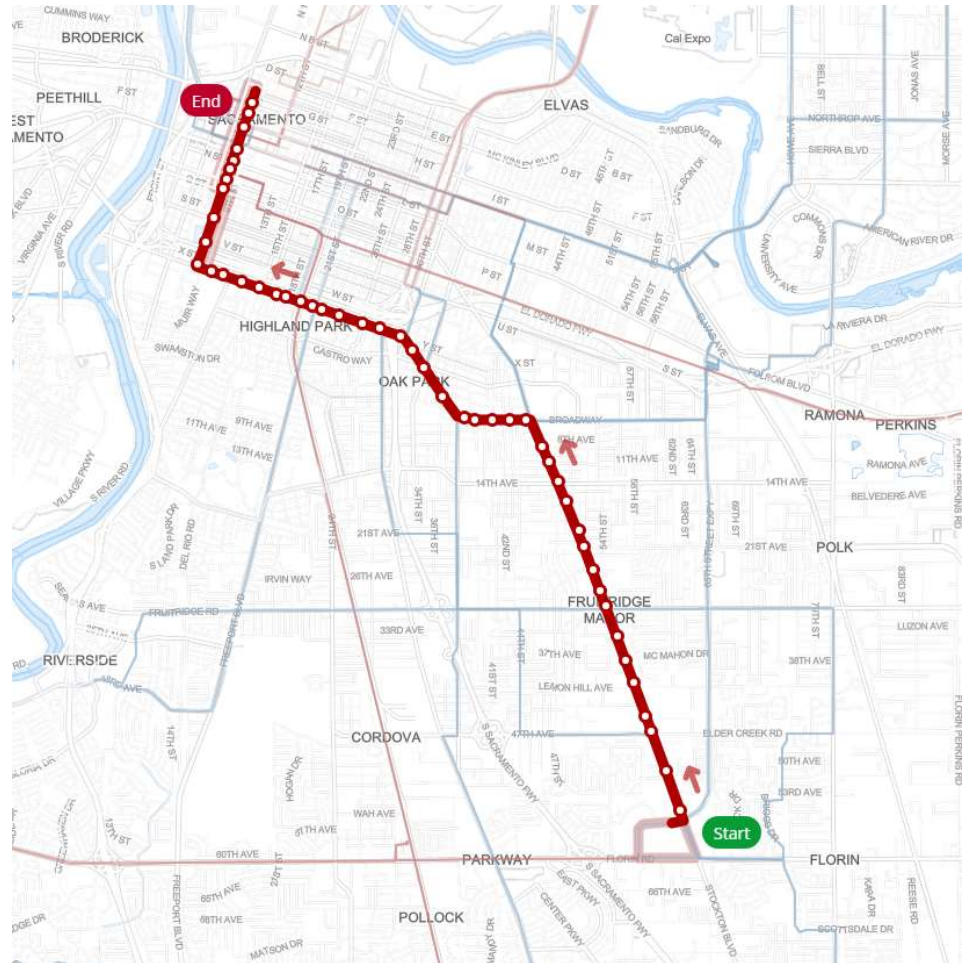
## ROUTE 51

- SacRT's best performing route
- Highest ridership
- Highest productivity
- Strong anchors
- Density
- Linearity
- Improve Saturday and Sunday/Holiday frequency

Population within ½ mile = 65,000

Jobs within ½ mile = 110,000

Average Daily Boardings = 3,029

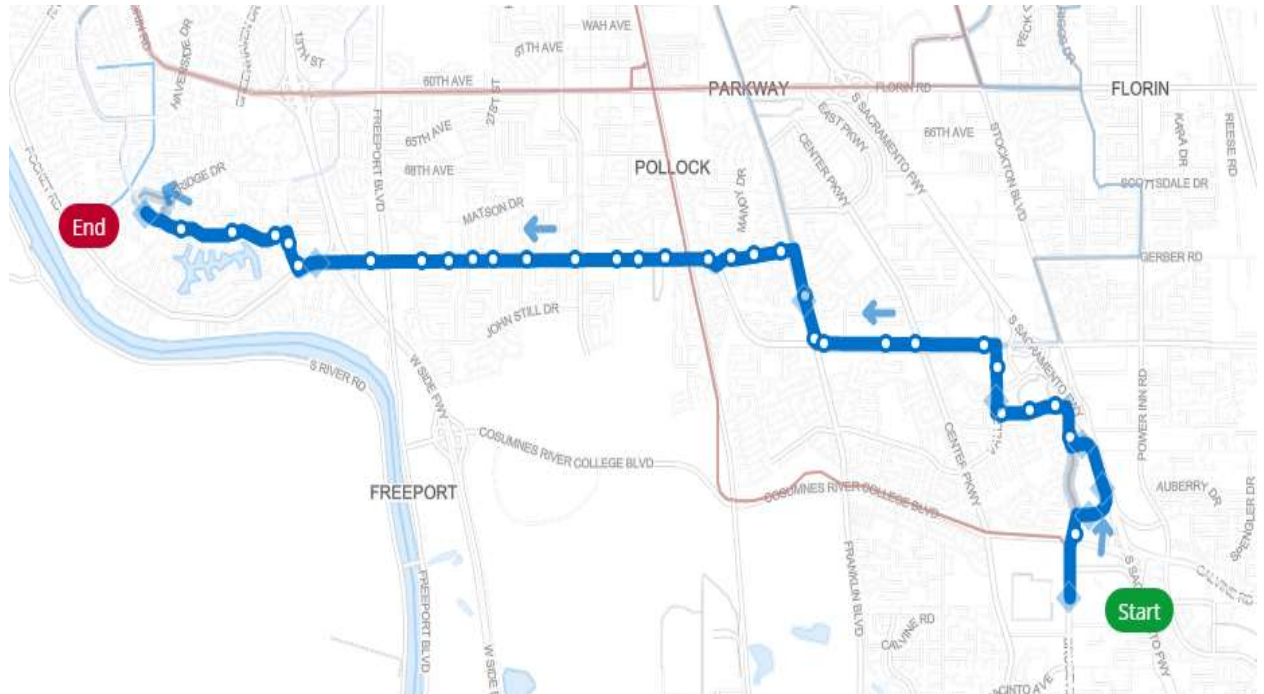




# New Network Routes

## ROUTE 56

- Good east/west route
- Minor reroute
- Improve Sunday frequency



Population within ½ mile = 63,000

Jobs within ½ mile = 17,000

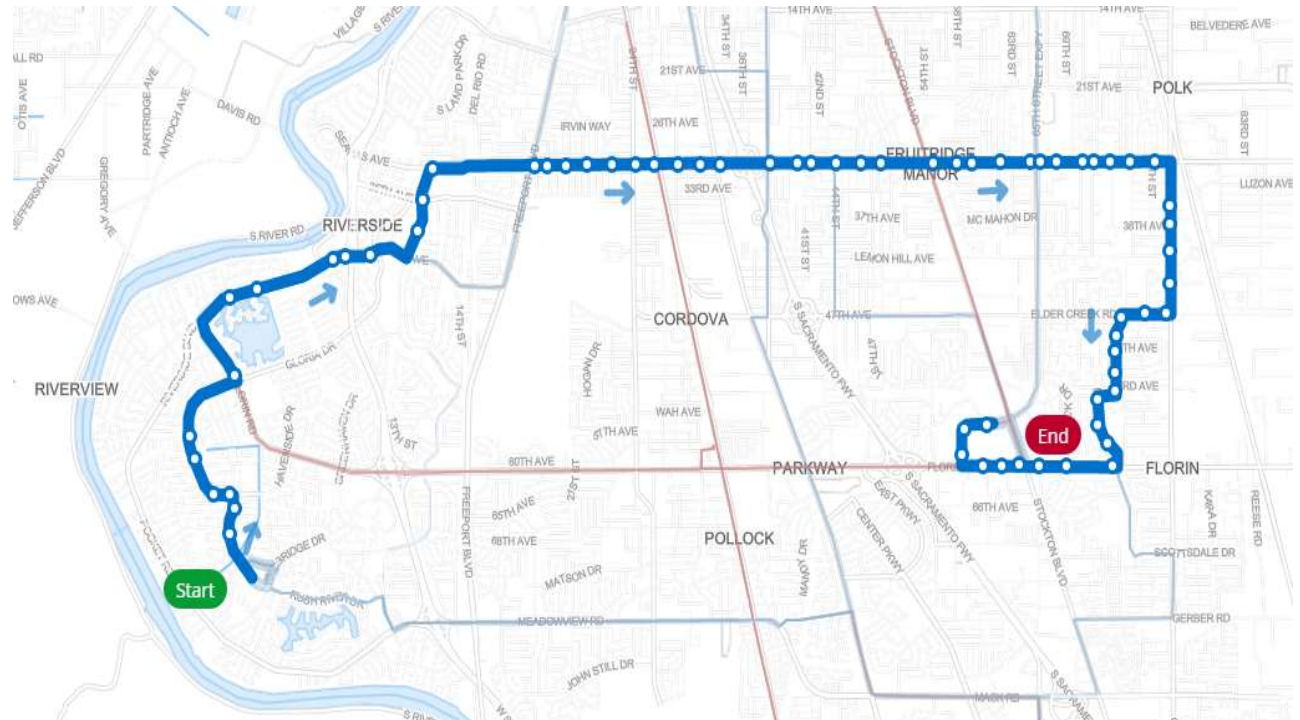
Average Daily Boardings = 999



# New Network Routes

# ROUTE 61

- Combine with parts of Route 2 and Route 65
- Improve weekday frequency to 30 minutes
- Add Saturday and Sunday/Holiday service
- Maintain two peak hour shuttle trips to Florin-Perkins Rd (Route 161)

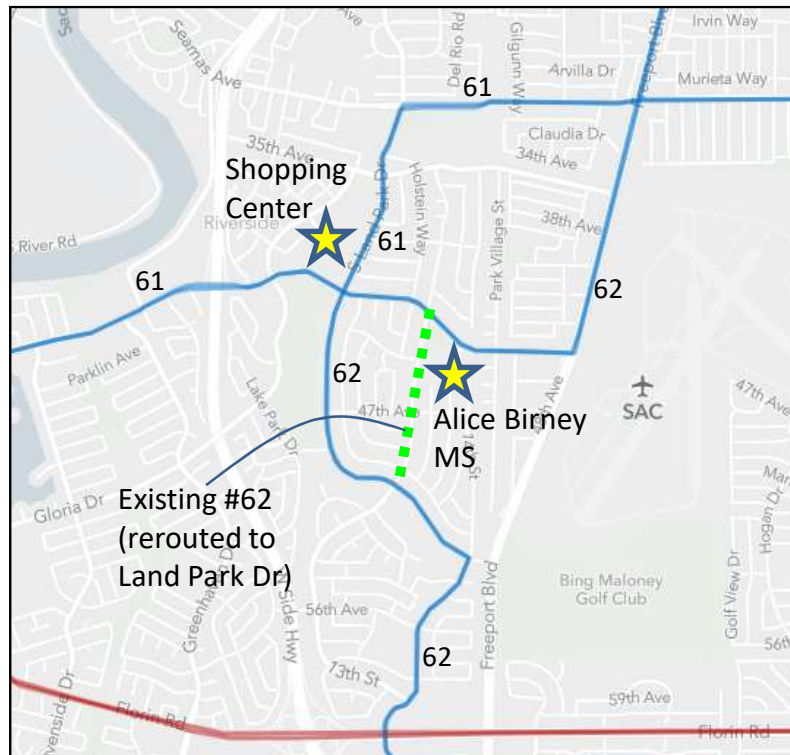


Population within ½ mile = 84,000  
Jobs within ½ mile = 19,000  
Average daily boardings = 512



# New Network Routes

## ROUTE 62



- Minor reroute from 13<sup>th</sup> St to Land Park Dr
- Better access to South Hills Shopping Center
- Maintains access to Alice Birney Middle School
- Add Sunday/Holiday service

Population within ½ mile = 62,000  
Jobs within ½ mile = 122,000  
Average Daily Boardings = 989



# New Network Routes

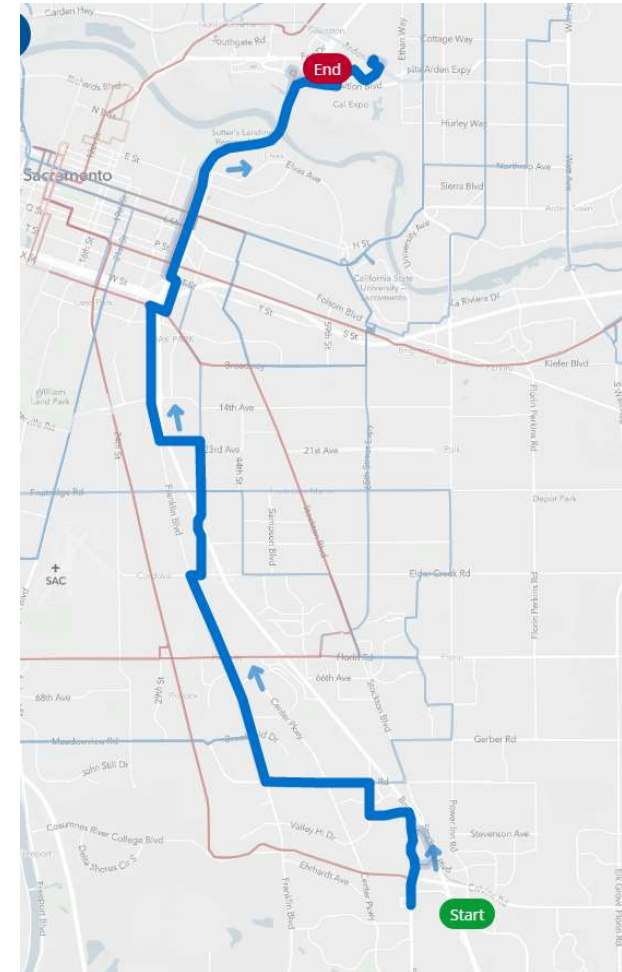
## ROUTE 67

- Improve weekday evening frequency
- Improve weekend frequency
- Reroute south to Mack Rd and CRC

Population within ½ mile = 87,000

Jobs within ½ mile = 55,000

Average Daily Boardings = 1,119





# New Network Routes

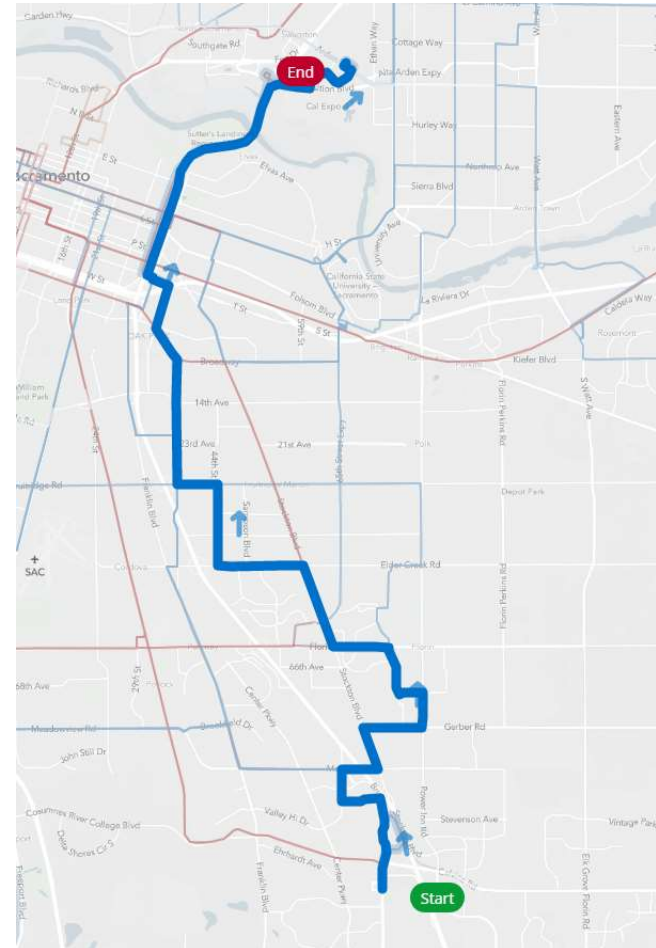
## ROUTE 68

- Reroute southern section to cover sections of Route 55
- Improve Weekday frequency
- Improve Saturday frequency

Population within ½ mile = 101,000

Jobs within ½ mile = 60,000

Average Daily Boardings = 1,130





# New Network Routes

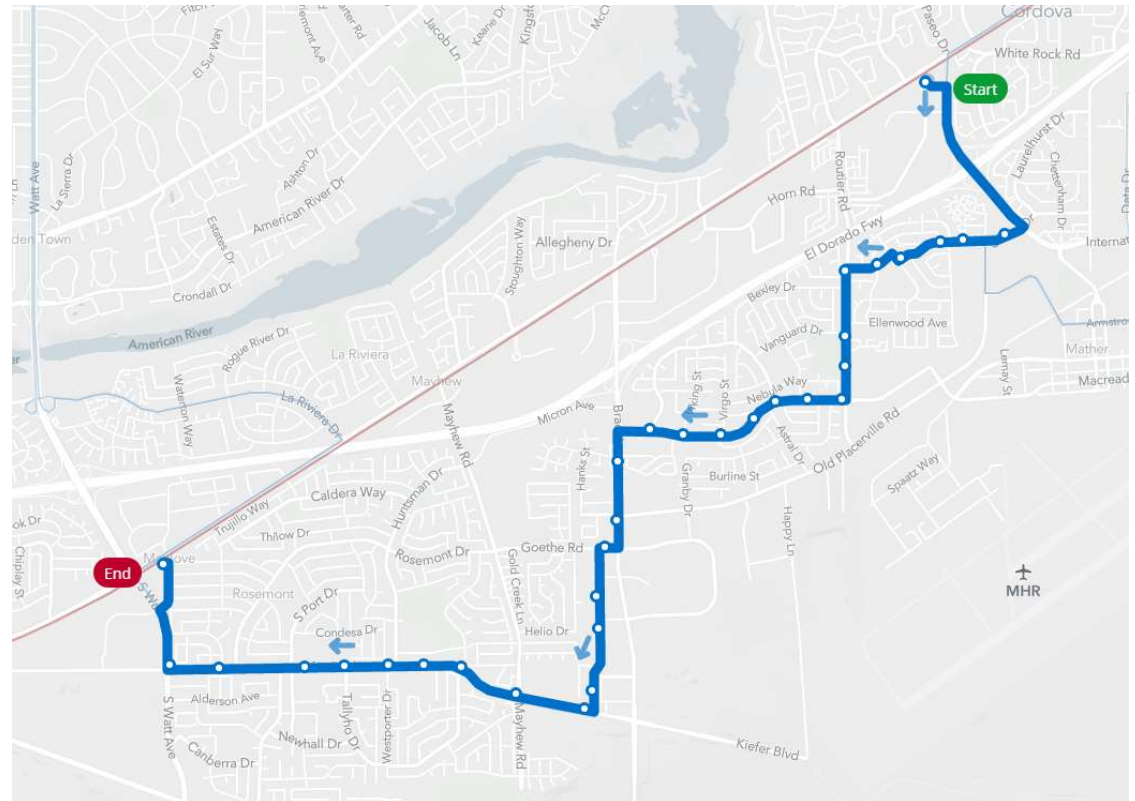
## ROUTE 72

- Add Saturday and Sunday morning trips
- Serves low income, minority areas

Population within ½ mile = 37,000

Jobs within ½ mile = 14,000

Average Daily Boardings = 873





# New Network Routes

## ROUTE 75

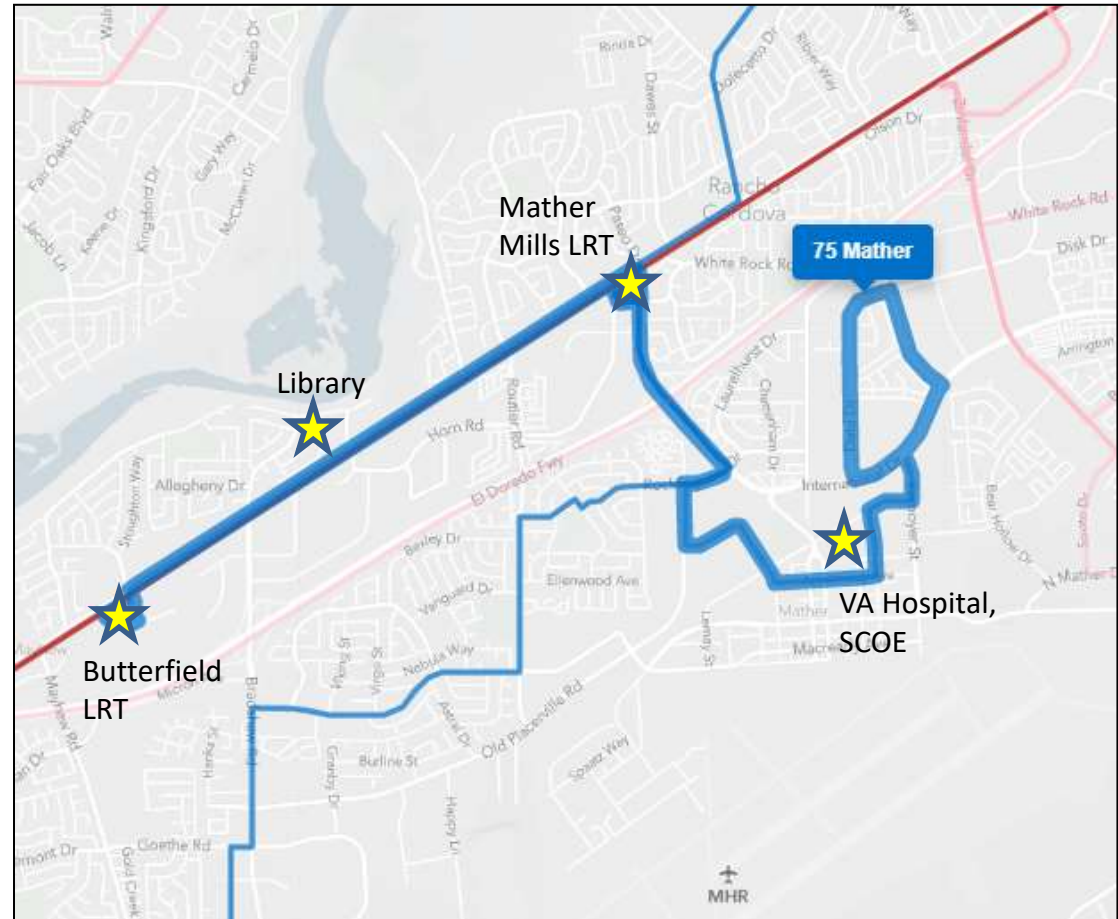
- Combines parts of Routes 28, 74, and 75
- Serves 2-mile gap between stations on Folsom Blvd
- Serves library
- Improves weekday frequency to every 30 minutes
- Adds weekend service on Folsom Blvd and Data Dr

Population within

½ mile = 21,000

Jobs within ½ mile = 13,000

Average Daily Boardings = n/a





# New Network Routes

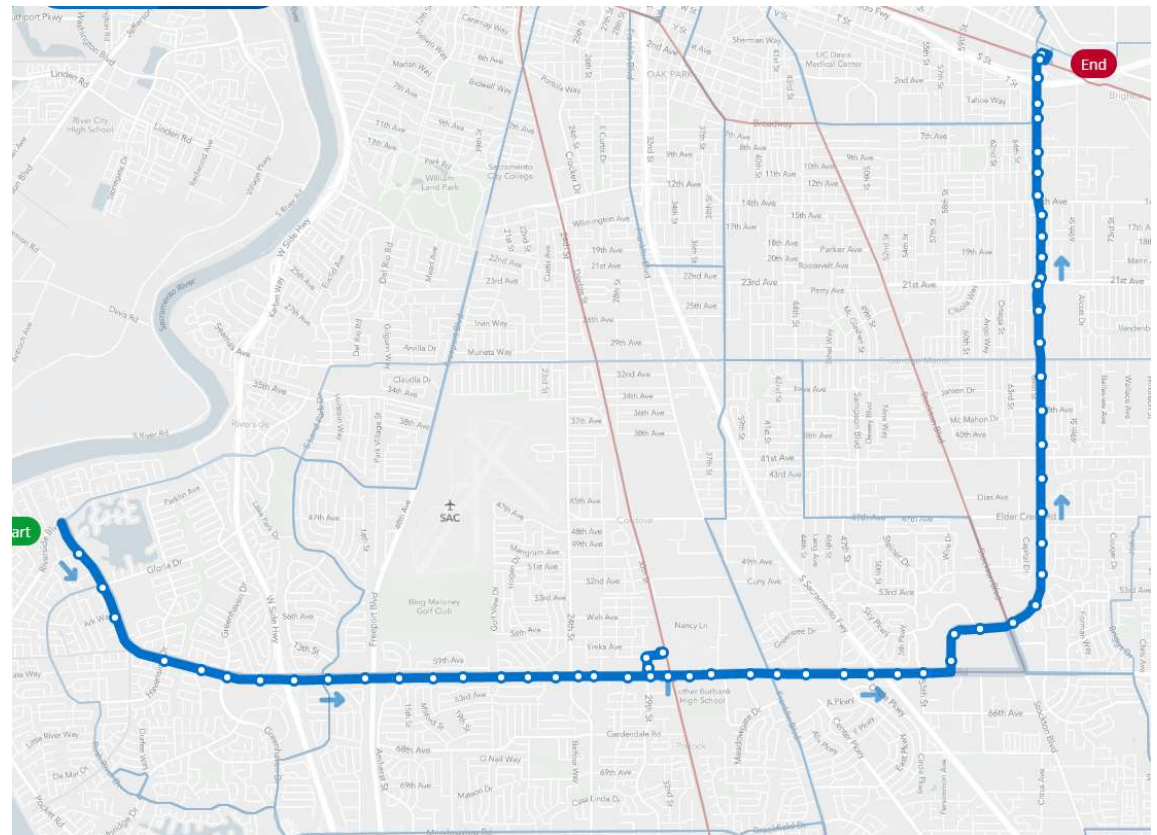
## ROUTE 81

- Crosstown connections
- Improve Sunday/Holiday frequency

Population within ½ mile = 70,000

Jobs within ½ mile = 22,000

Average Daily Boardings = 2,318





# New Network Routes

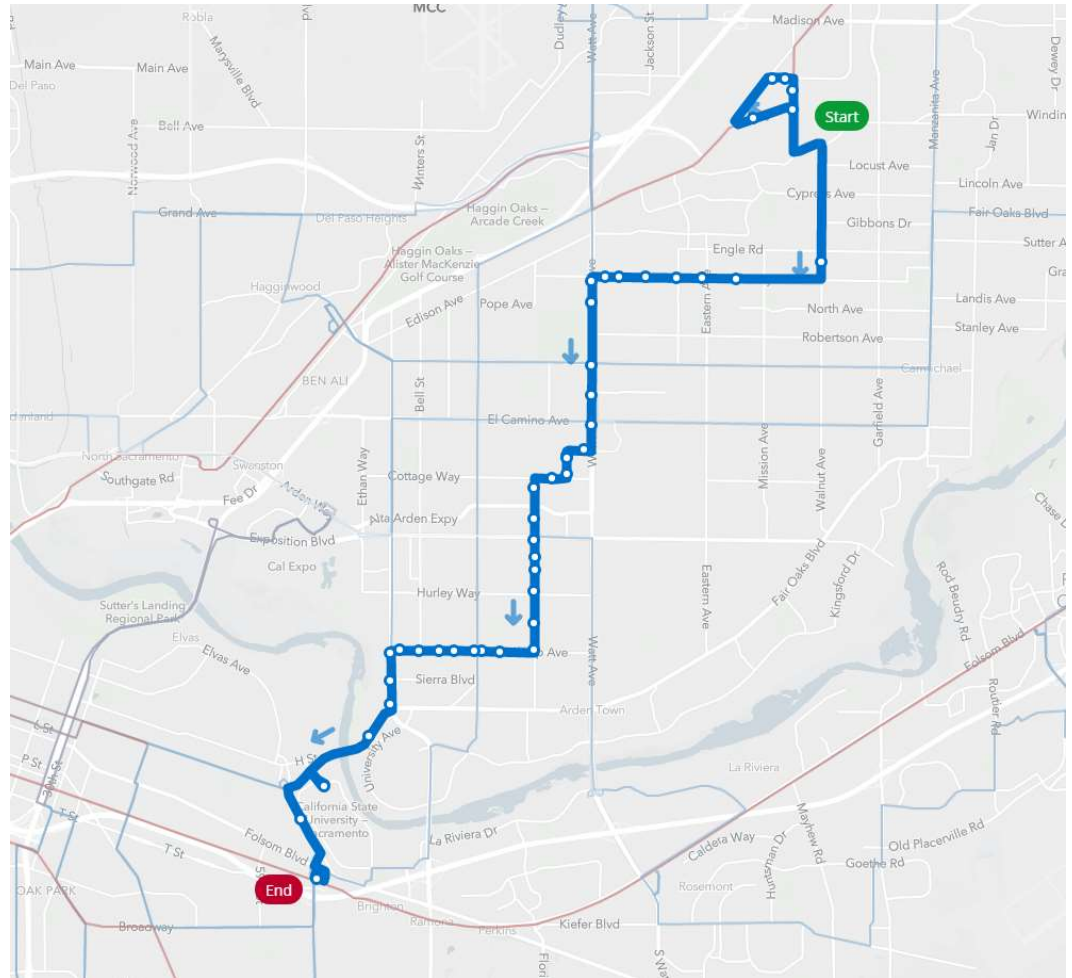
## ROUTE 82

- Minor rerouting
- Good anchors
- Improve weekend frequency

Population within ½ mile = 57,000

Jobs within ½ mile = 45,000

Average Daily Boardings = 1,546





# New Network Routes

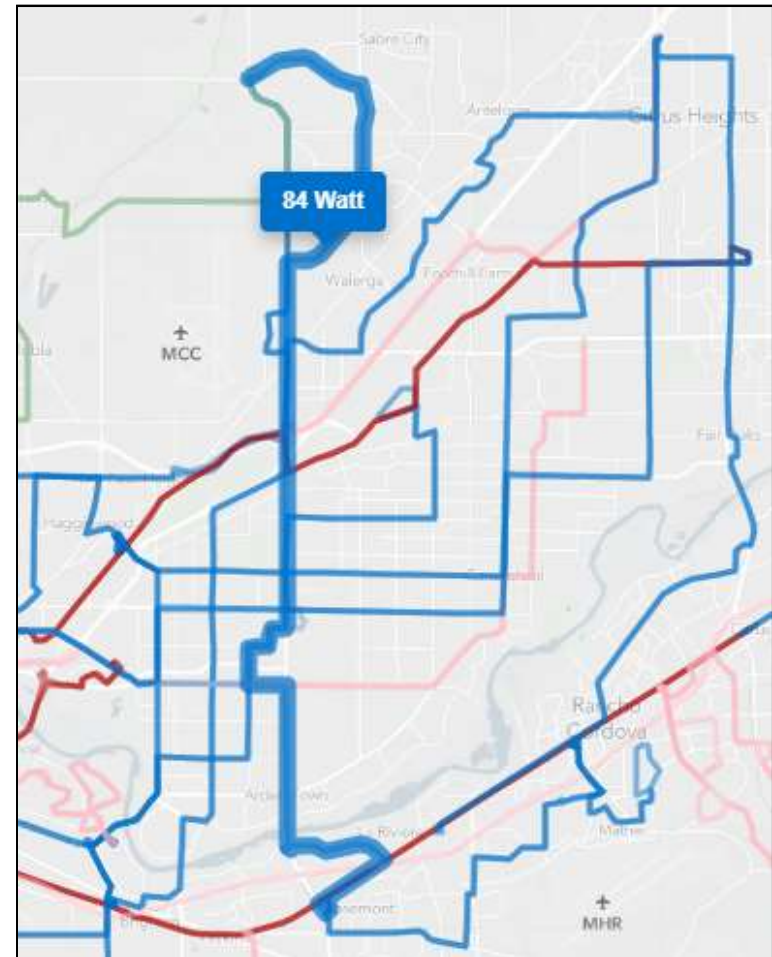
## ROUTE 84

- Realign north end to cover North Highlands
- Serve La Riveria Dr on weekdays
- Run on Watt Ave on weekends
- Add Saturday trips
- Add Sunday service

Population within ½ mile = 118,000

Jobs within ½ mile = 39,000

Average Daily Boardings = 728





# New Network Routes

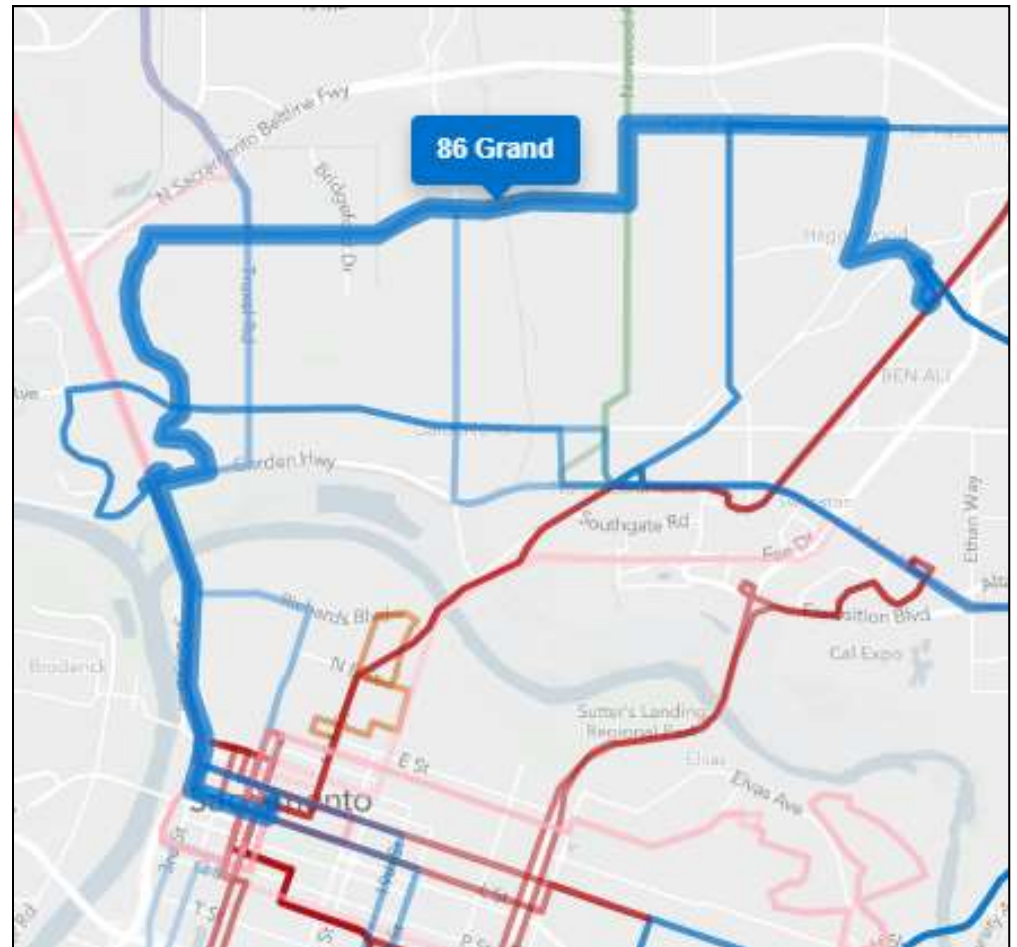
## ROUTE 86

- Add Weekday trips
- Improve Saturday Frequency
- Improve Sunday/Holiday frequency
- Longer span of hours

Population within ½ mile = 56,000

Jobs within ½ mile = 87,000

Average Daily Boardings = 1,072





# New Network Routes

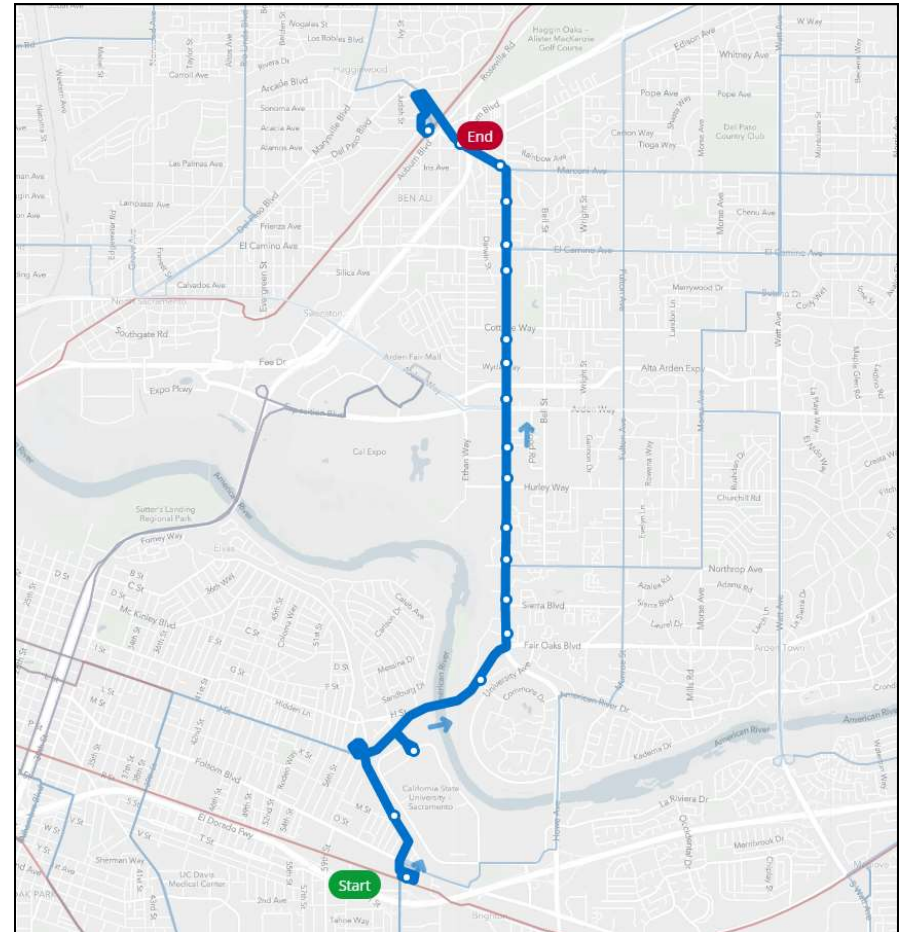
## ROUTE 87

- Add Weekday evening trips
- Add Sunday/Holiday trips
- Improve Saturday and Sunday frequency

Population within ½ mile = 33,000

Jobs within ½ mile = 30,000

Average Daily Boardings = 1,067





# New Network Routes

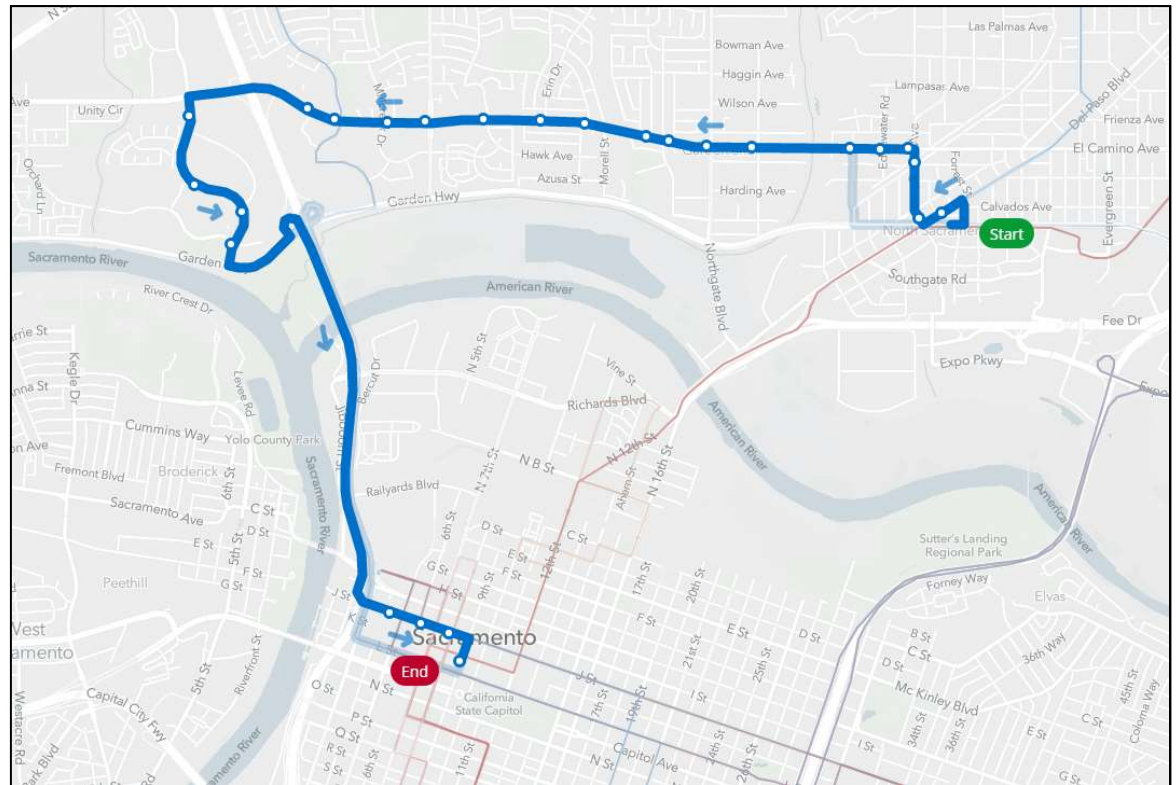
## ROUTE 88

- Improve Saturday frequency
- Improve Sunday/Holiday frequency

Population within ½ mile = 33,000

Jobs within ½ mile = 86,000

Average Daily Boardings = 740





# New Network Routes

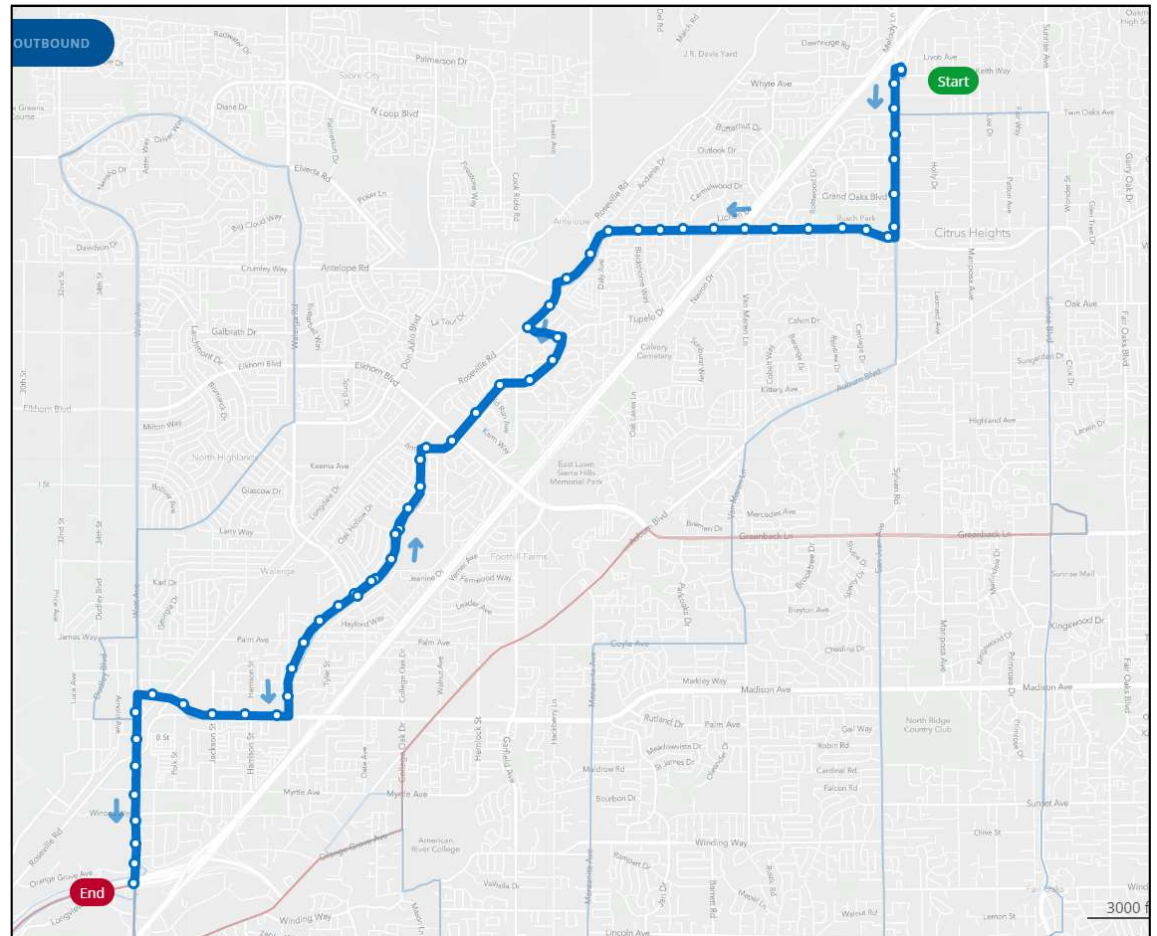
## ROUTE 93

- Rerouting to better serve low-income, minority areas
- Strong anchors
- Improve Saturday frequency
- Add Saturday and Sunday trips

Population within ½ mile = 57,000

Jobs within ½ mile = 12,000

Average Daily Boardings = 758





# New Network Routes

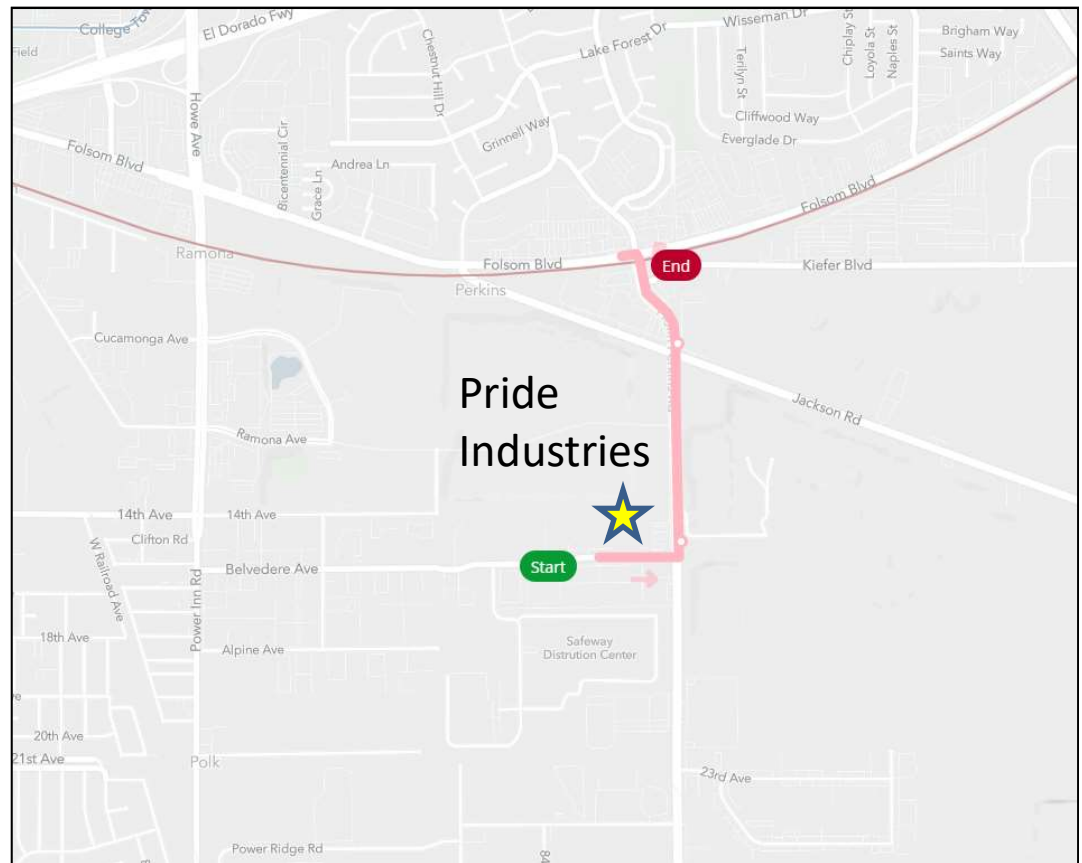
## ROUTE 161

- PRIDE Industries shuttle
- Reaches important employment centers
- One morning, one afternoon trip per day
- New route, peak only

Population within ½ mile = 2,000

Jobs within ½ mile = 4,000

Average Daily Boardings = n/a





# Potentially Discontinued Routes

**Route 22:** Average Daily Weekday Ridership = 251  
Represents .74% of Total Daily Boardings  
Productivity = 18.8 passengers per hour  
**Will be combined with Route 13**

**Route 24:** Average Daily Ridership = 142  
Represents .42% of Total Daily Boardings  
Productivity = 11 passengers per hour  
**Area is covered by existing SmaRT Ride service**

**Route 28:** Average Daily Weekday Ridership = 305  
Represents .9% of Total Daily Boardings  
Productivity = 10.6 passengers per hour  
**Customers can use Route 21 or Route 75**



# Potentially Discontinued Routes

- Route 47:** Average Daily Weekday Ridership = 121  
Represents .36% of Total Daily Boardings  
Productivity = 9 passengers per hour  
**Area is served by 56, 67 and 81**
- Route 54:** Average Daily Weekday Ridership = 264  
Represents .78% of Total Daily Boardings  
Productivity = 9.1 passengers per hour  
**Area is covered by 56, 67 and 81 and SmarT Ride**
- Route 55:** Average Daily Weekday Ridership = 660  
Represents 1.9% of Total Daily Boardings  
Productivity = Passengers per hour = 17.2  
**Covered by extension of Route 68**



# Potentially Discontinued Routes

**Route 65:** Average Daily Boardings = 393,  
Represents 1.15% of Total Daily Boardings  
Productivity = Passengers per hour 14.3  
**Combined with Routes 61 and 67**

**Route 74:** Average Daily Boardings = 176  
Represents .5% of Total Daily Boardings  
Productivity = Passengers per hour = 9.8  
**Combined with Route 75, east end covered by Cordovan**

**Route 80:** Average Daily Boardings = 889  
Represents 2.6% of Total Daily Boardings  
Productivity = Passengers per hour = 17.9  
**Combined with Routes 26 and 84**



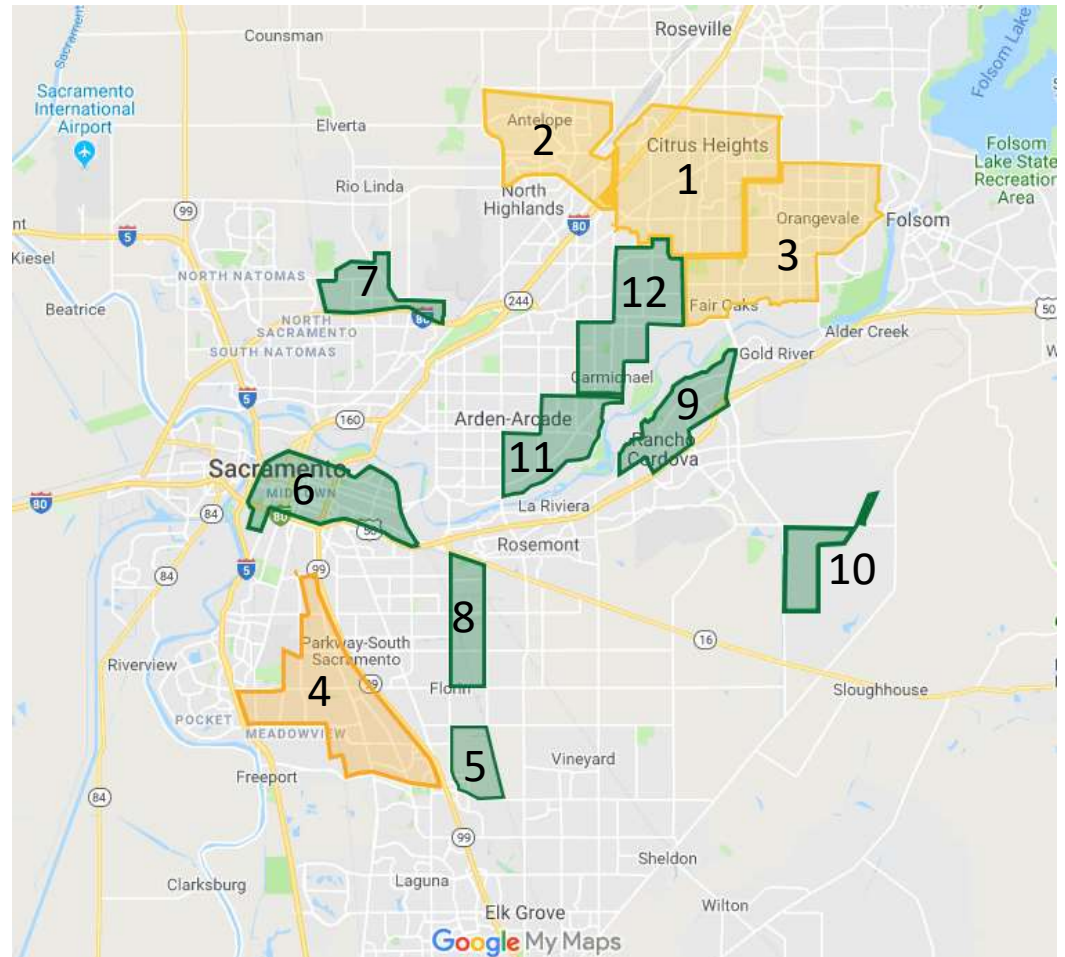
# Potentially Discontinued Routes

**Route 95:** Average Daily Boardings = 58  
Represents .17% of Total Daily Boardings  
Productivity = Passengers per hour = 5.1  
**Combined with Route 93**



# SmaRT Ride

1. **Citrus Heights**
2. **Antelope**
3. **Orangevale/Fair Oaks**
4. **Franklin**
5. Gerber
6. Downtown/East Sac
7. North Sac
8. Power Inn
9. Rancho Cordova
10. Anatolia
11. Arden
12. Carmichael

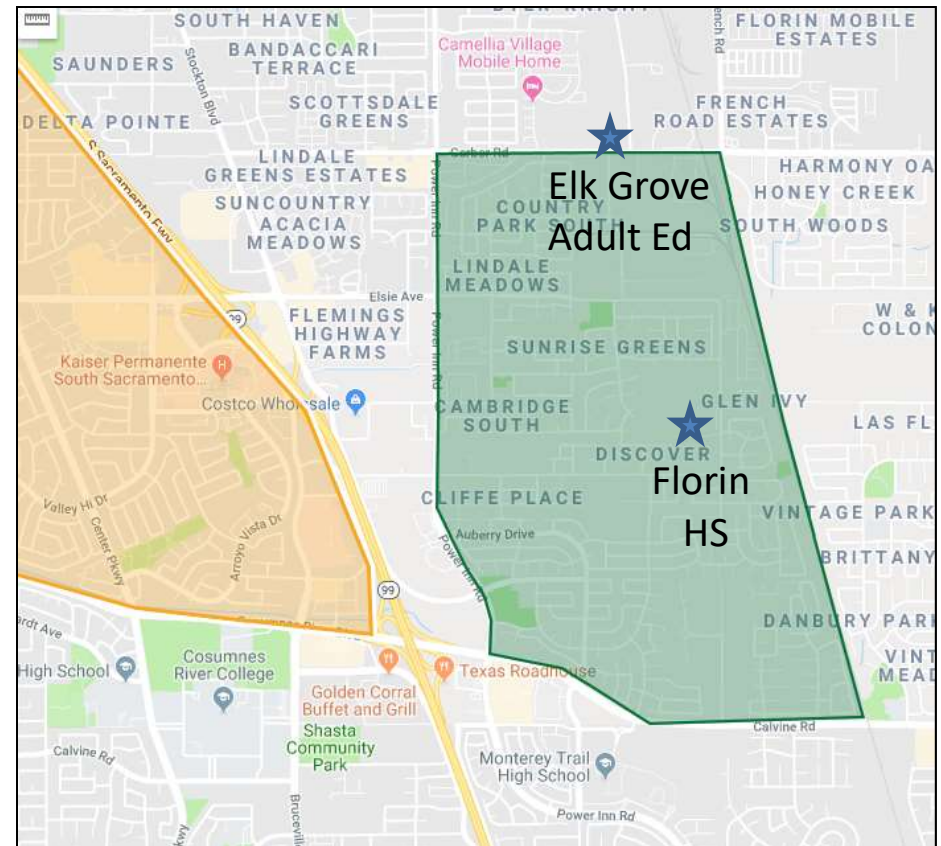




# SmaRT Ride

## Gerber Zone

- Would be created by SacRT Forward
- Effective June 2019
- Covers #5, 54
- 2 square miles
- Bounded by Power Inn Rd, Gerber Rd, UPRR, and Calvine Rd
- Non-stop service to CRC

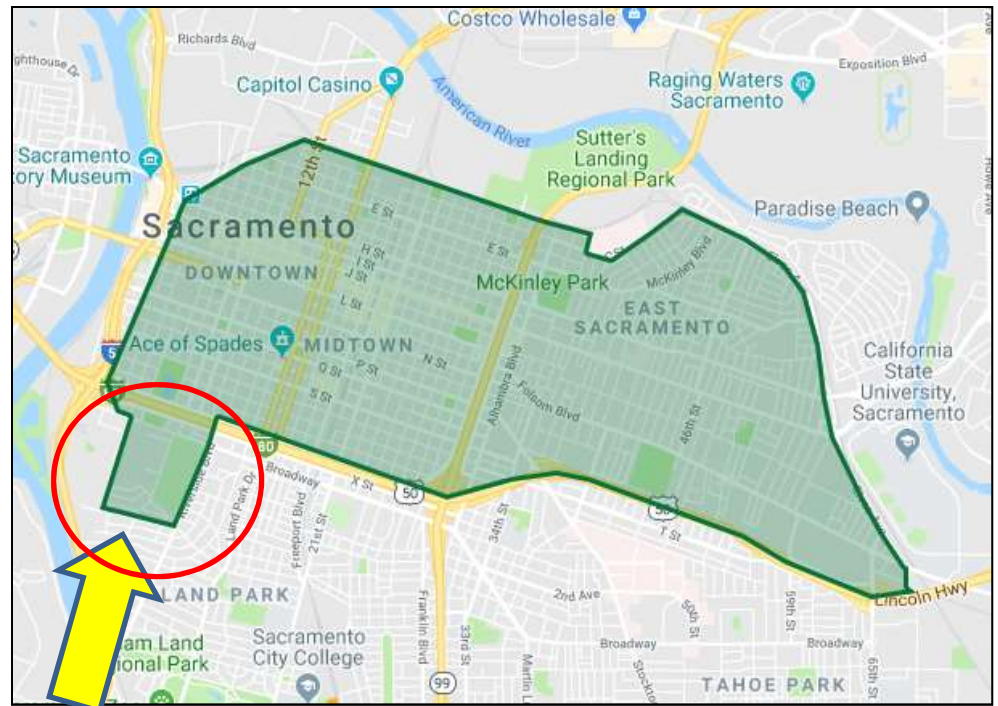




# SmaRT Ride

## Downtown/East Sac

- Funded by STA grant
- SacRT Forward recommends extension to River Oaks
- Impossible to serve with full-size bus without circuitous routing
- Route 11 will provide nearby service
- SmaRT Ride will cover seniors and others unable to walk to Broadway or Riverside



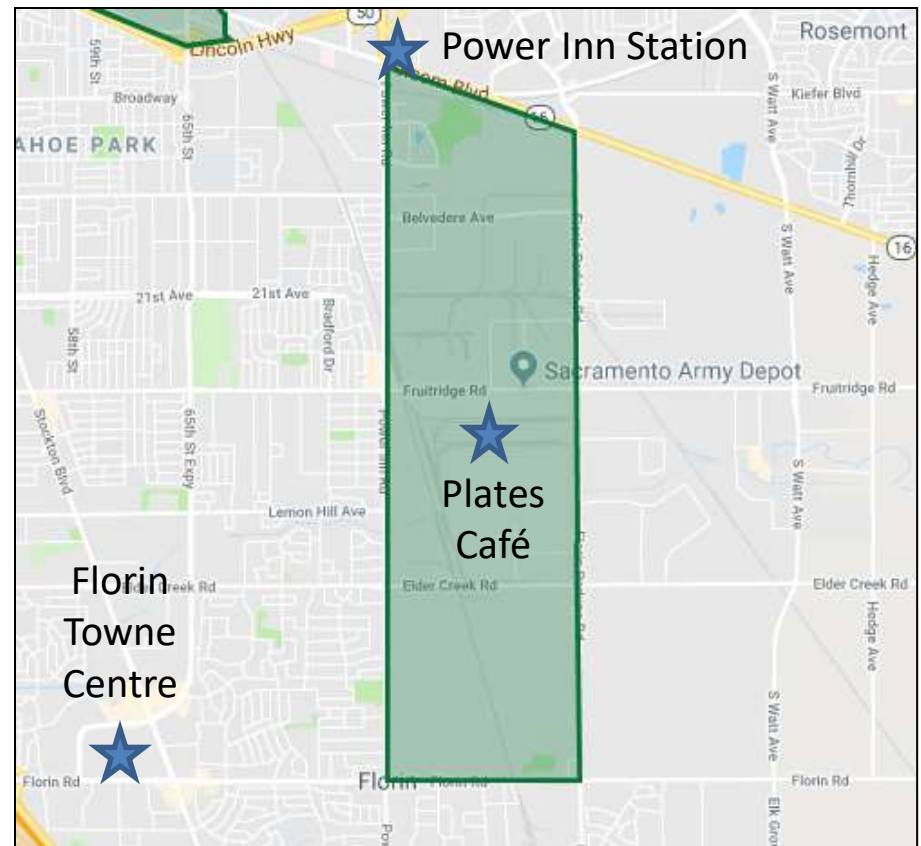
River  
Oaks



# SmaRT Ride

## Power Inn

- Formerly “Farm-to-Future” zone
- Expand to cover Power Inn
- Bounded by Power Inn Rd, Folsom Blvd, Florin-Perkins Rd, Florin Rd
- Non-stop connections to Florin Towne Centre
- Funded by STA grant





# Key Takeaways

1. More Consistent Network (7 day a week)
2. Complements new 15-minute weekend light rail service
3. Major reduction in hourly routes
4. Better weekend service
5. New and Improved Schedules
6. Better Reliability
7. Equitable
8. Network to build upon



## Next Steps

- Board Adoption
- Staff executes Implementation Plan
- Major Marketing Campaign (Middle and High Schools)
- Monthly monitoring and reporting of Network Performance to the Board
- Quarterly service changes
- Continue Detailed Bus Stop Analysis/Consolidation work
- Update Short Range Transportation Plan (SRTP)



# Questions?

