

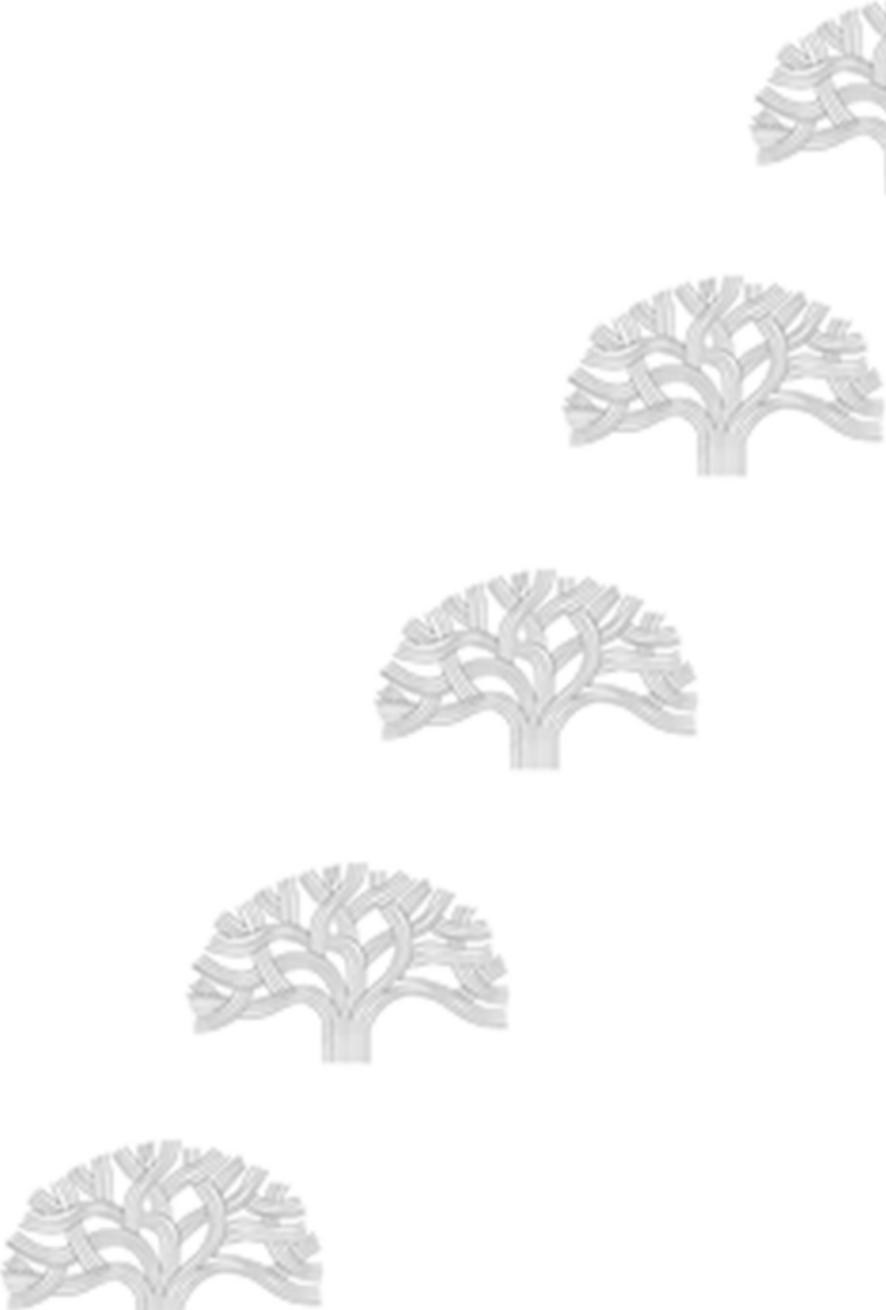
81st Ave Demonstration Project

Before/After Evaluation

By Jesse Boudart, Manuel Corona & Jane Mei
December 17, 2024

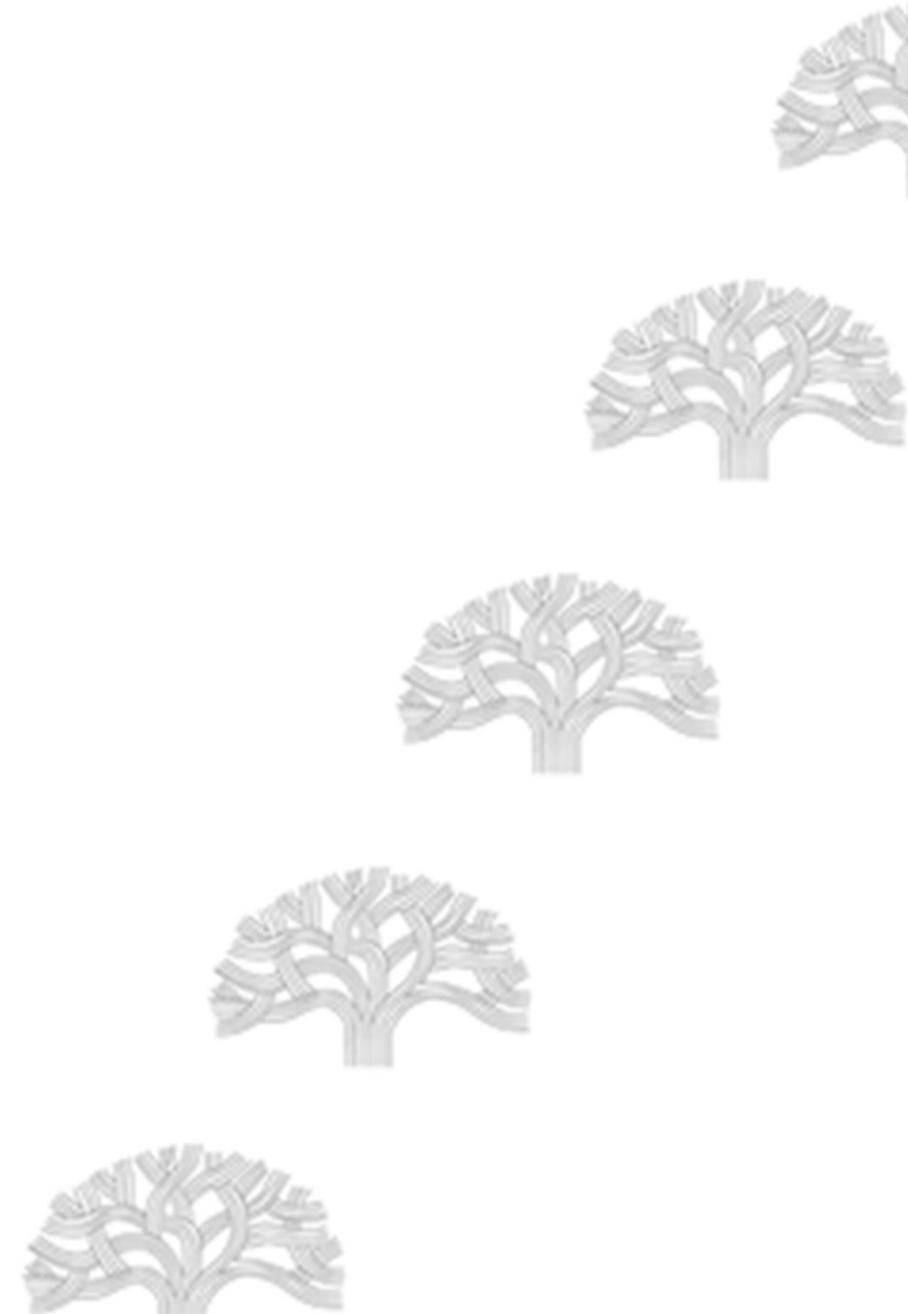


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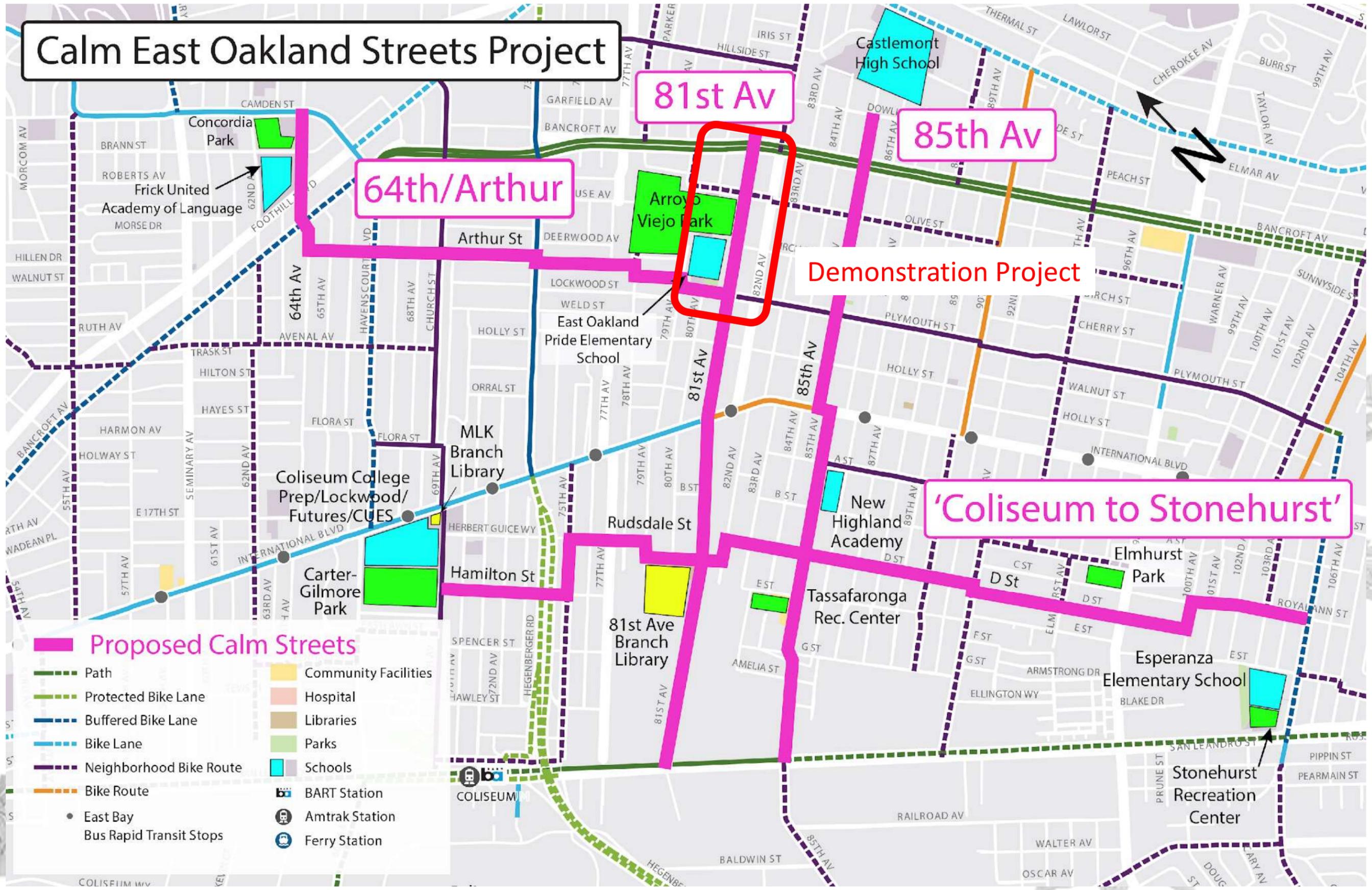


81st Ave Demonstration Project

- Project Overview, Purpose & Need
- Demonstration Project Details
- Outreach Summary
- Construction & Lessons Learned
- Data Collection & Analysis
- Outcomes Summary & Next Steps



Calm East Oakland Streets Project



64th/Arthur

81st Av

85th Av

Demonstration Project

'Coliseum to Stonehurst'

Proposed Calm Streets

- Path
- Protected Bike Lane
- Buffered Bike Lane
- Bike Lane
- Neighborhood Bike Route
- Bike Route
- Community Facilities
- Hospital
- Libraries
- Parks
- Schools
- BART Station
- Amtrak Station
- Ferry Station
- East Bay Bus Rapid Transit Stops

Project Purpose & Need

- **81st Ave/Plymouth St** was identified as a key location to implement a traffic filter because:
 - Adjacent EO Pride Elementary
 - Reports of speeding and aggressive driving
 - Intersects Proposed Calm Streets/Neighborhood Bike Routes
- **3-week temporary project** was chosen because:
 - Internal staff uncomfortable with implementing a controversial traffic calming element without adequate testing
 - External stakeholders skeptical of effectiveness: EO Pride Elementary Principal Michelle Grant, and OFD
 - Would be an opportunity to collect broader/deeper public engagement greater project Calm East Oakland Streets Project



Demonstration Project Details

Demonstration period:

10/16/24 to 11/6/24 (3 weeks)

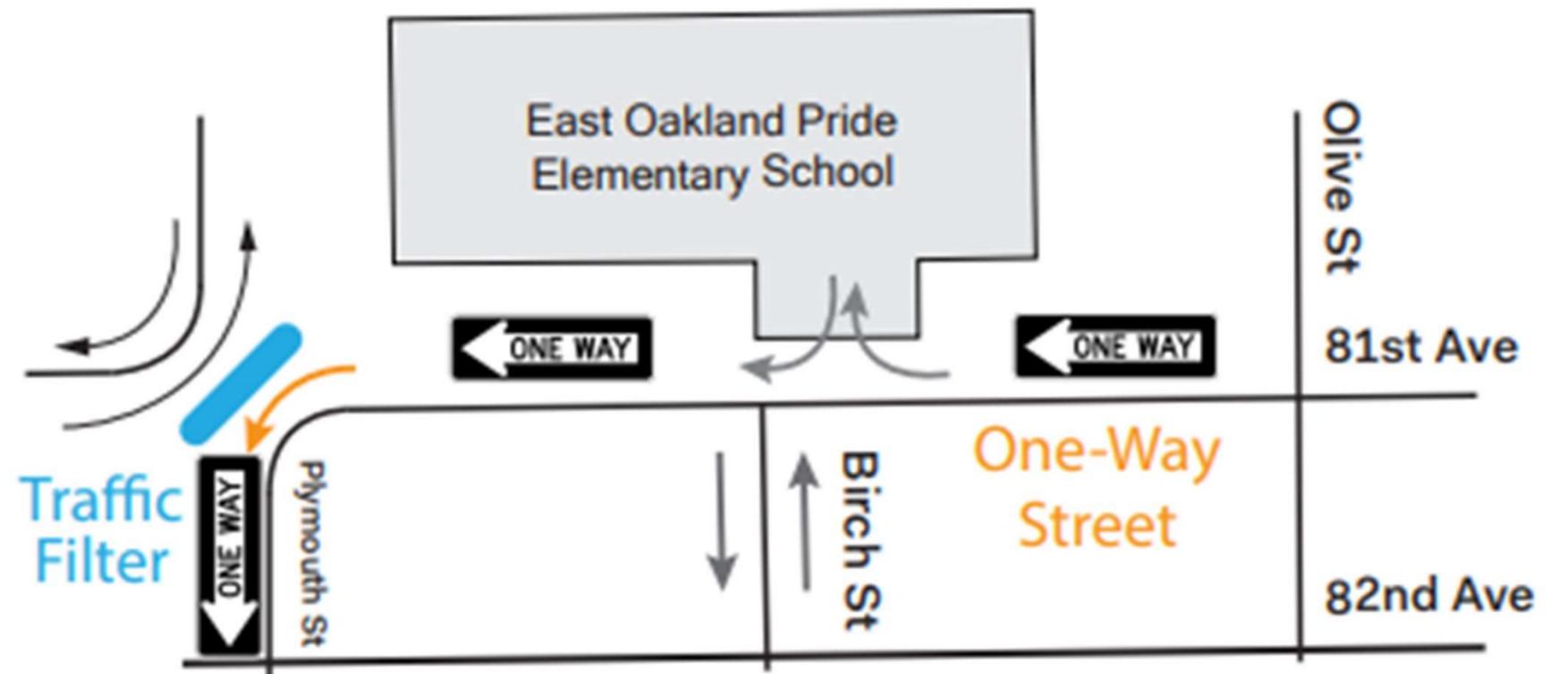
Goals:

- Reduce cut-through traffic
- Reduce speeding in front of East Oakland Pride Elementary

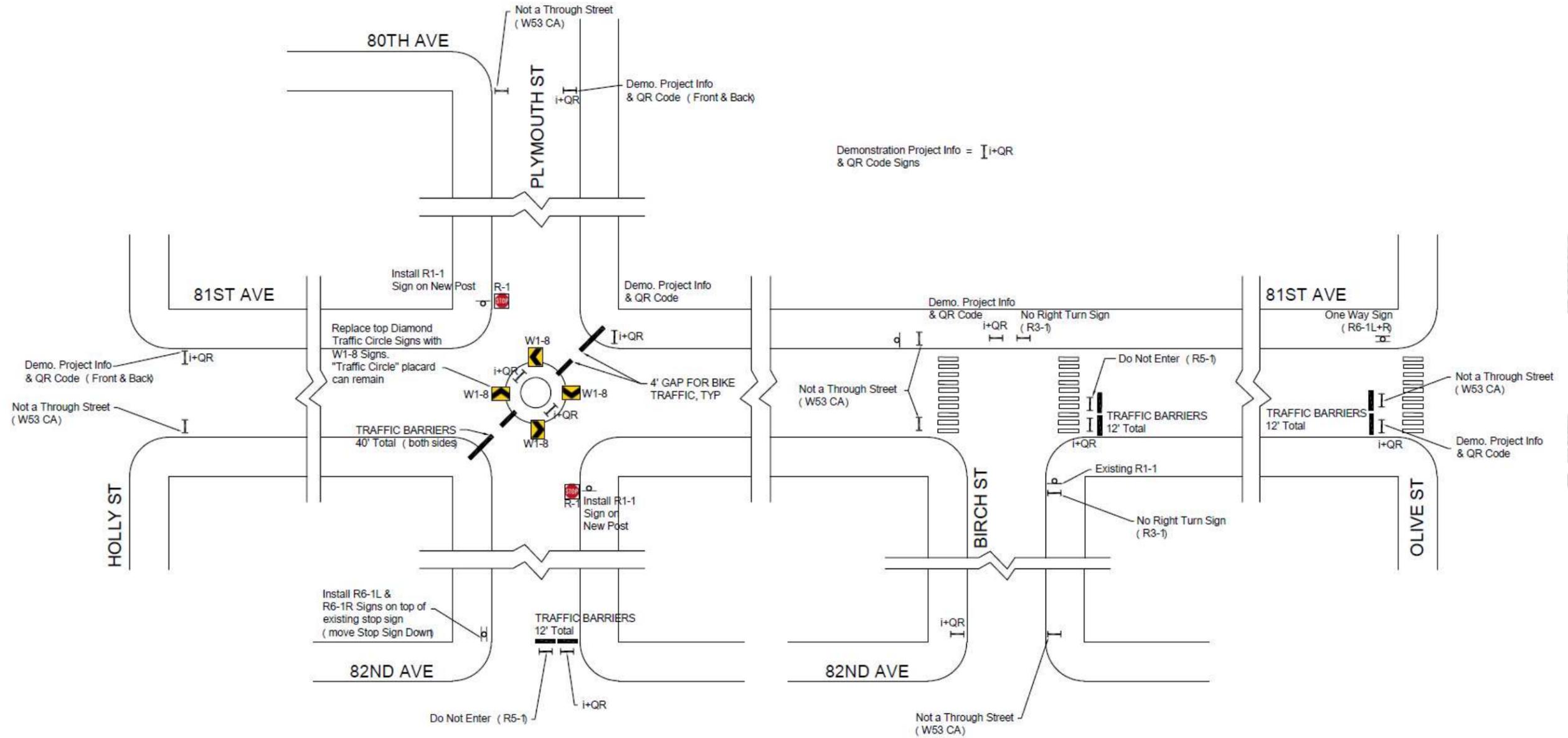
Changes:

- Diagonal Traffic Filter on Plymouth St at Olive St
- One-way on 81st Ave/Plymouth St, Olive St to 82nd Ave/Plymouth

Overview Map



Detailed Schematic Plan



Installation/Construction Summary

- Installation/Construction Process
 - City utilized excess change order capacity to complete temporary change installation and removal, which was \$30k
 - Working with a contractor was generally easy

Field Lessons Learned

- Drivers moved rebar-secured traffic water barriers
- Barriers were replaced for concrete instead of water filled.
- One-way direction between Olive and Birch could have been better reinforced
- Some Traffic Data collection equipment was tampered with



81st Ave at Plymouth St Traffic Filter





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81st Ave at Plymouth St Traffic Filter,
upgraded to concrete





82nd Ave at Plymouth St -
"One-Way do not enter signage."



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Outreach Summary

How has OakDOT notified the community?

- Sent out **mailers** within a ½ mile radius of the project area
- Placed **door-hangers** on addresses within the project area
- Posted on OakDOT **social media and sent email blasts**
- **A-Frame project information signs** 5 days before installation
- A-Frame project info signs replaced twice a week
- **8/27 Back to School Night at East Oakland Pride Elementary**
 - Informed attendees about the project during the event
- Notification with Oakland Fire Department



Outreach Summary

How has OakDOT gathered public input?

- **Intercept & Online Surveys**
 - Survey promoted through project email blasts
 - Survey QR code posted to A-frame project signboards
- Held 5 Pop-Up events during demonstration period
 - 10/30 pop-up held at East Oakland Pride Elementary
- Interactive project web map
- Staff conversations with school staff, parents, and neighbors on route
- Dedicated project email address for all questions



East Oakland Harvest Fest

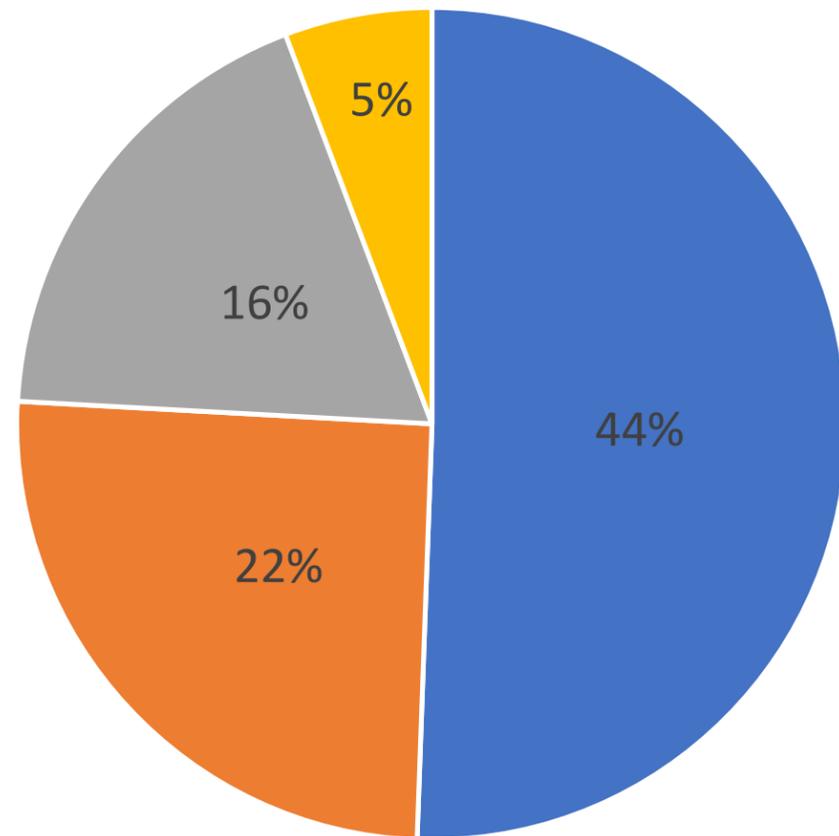


Sobrante Park Pop-Up



Outreach Summary

Survey Demographics: Race and Ethnicity



■ Latine ■ Black ■ White ■ Asian & Pacific Islander

Survey Demographics

- 40% speak Spanish at home
- 50% are renters
- **83% of respondents live in East Oakland**



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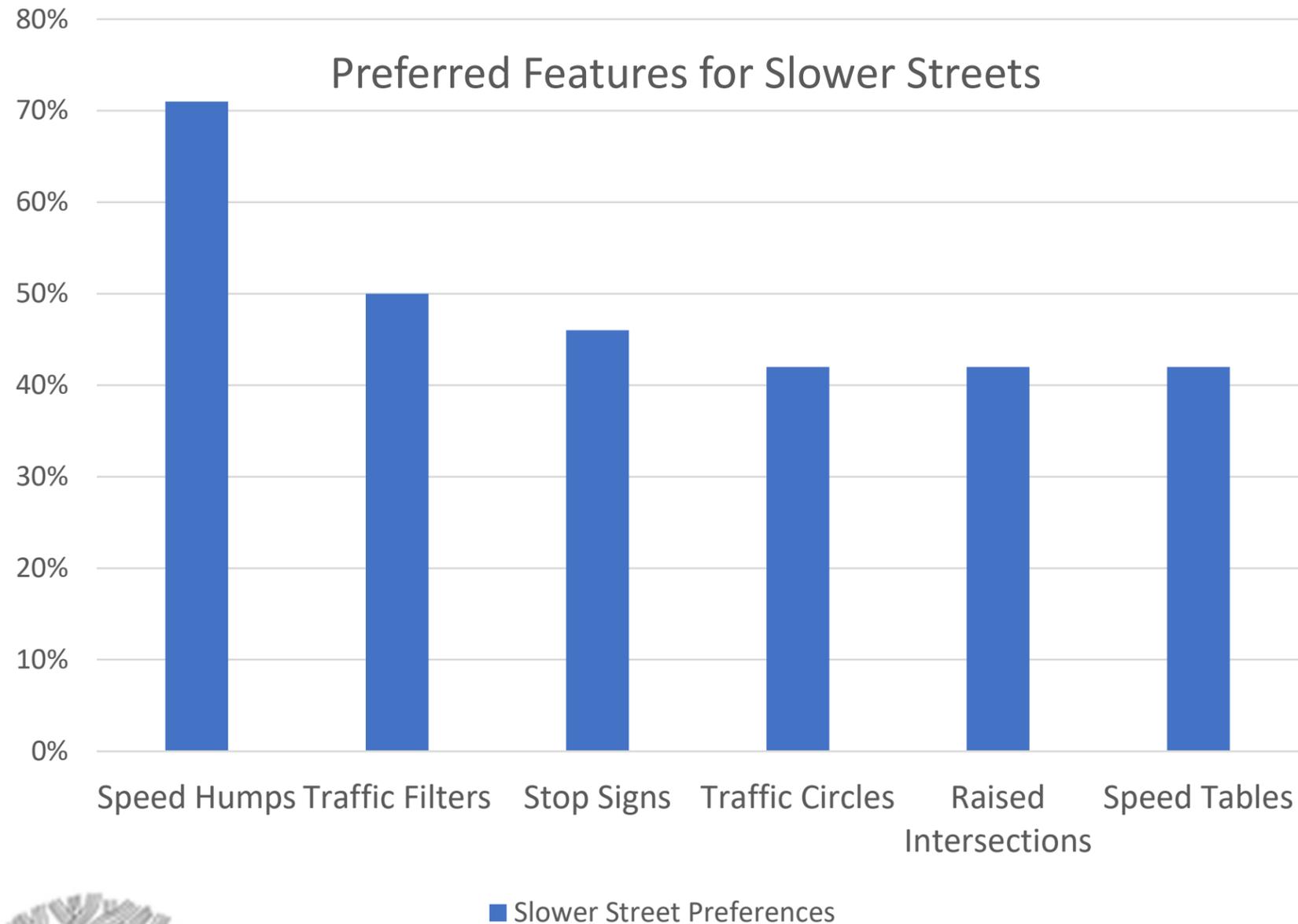
Outreach Summary

Survey Results (111 responses)

- How **safe** do you feel traveling in East Oakland?
 - **88%** of respondents feel “**very unsafe**” or “**unsafe**” traveling in East Oakland
- What are your **top concerns** traveling in East Oakland?
 - **>80%** of respondents noted “**Aggressive Drivers**” and “**Speeding Drivers**” as top concerns



Outreach Summary



Survey Results

- Respondents were allowed to choose multiple preferred features
- **72%** of respondents prefer Speed Humps
- **50%** of respondents prefer Traffic Filters
- **83% want to see more traffic filters** in East Oakland to reduce cut-thru traffic through residential areas



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Outreach Summary

Community Member Comments during the Traffic Diverter Demonstration

Residents on 81st near the traffic filter supported the changes. They thought the traffic pattern change was easy to adjust to.

Some parents who lived nearby didn't like driving a few more blocks to get to Pride Elementary, but felt traffic was calmer and slower.

“The barriers keep people from hitting my parked car”

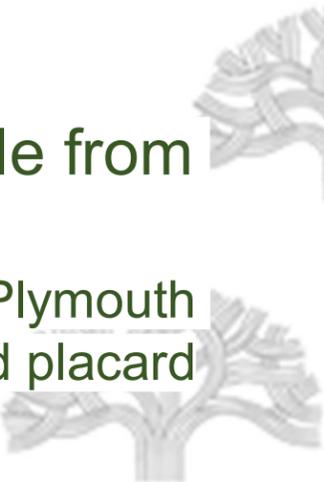
– a resident at 82nd and Plymouth with a disabled placard

Elementary and middle school students thought the diverter would work best to calm traffic so that they could bike to school.

Principal Michelle Grant at East Oakland Pride felt that the demonstration was successful and traffic was much slower.

“I grew up here and went to Pride Elementary. I don't think people will follow the one-way signs but I hope it works”

– a resident at 84th and Plymouth



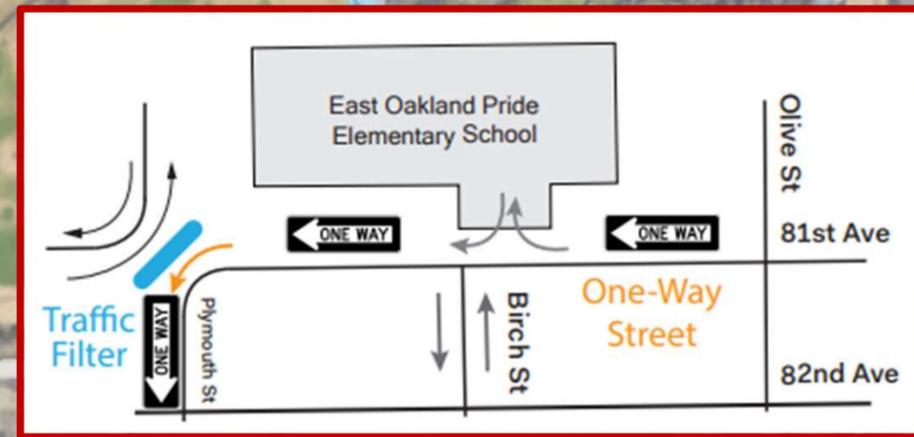
Traffic Data Collection & Analysis

Traffic Data Collection Methods

- Speed tubes deployed at 6 locations around project area
 - Collected both speed and volume data
 - Counts taken on 1 weekday and 1 weekend day for both “Before” and “During” periods
 - “During” counts conducted 3 weeks after installation to better capture behaviors after the adjustment period
- Video monitoring at 2 intersections on 10/31/24
 - Plymouth at 81st Ave
 - Birch at 81st Ave
 - 8AM-9AM peak hour for both intersections



Volume Comparison – Pre-Pilot vs Post Pilot



	before	during demonstration
NB	708	246 (-65%)
SB	611	298 (-51%)

	before	during demonstration
EB	619	187 (-70%)
WB	737	481 (-35%)

	before	during demonstration
EB	660	326 (-70%)
WB	638	594 (-35%)

	before	during demonstration
EB	639	353 (-45%)
WB	631	293 (-54%)

	before	during demonstration
NB	704	178 (-75%)
SB	601	452 (-25%)

	before	during demonstration
EB	2,370	2,901 (22%)
WB	2,874	3,667 (28%)

PLYMOUTH ST

OLIVE ST

TRAFFIC FILTER

81ST AVE

82ND AVE

-624

-775

-688

-378

-675

+1,324



Speed Comparison 85th Percentile – Pre-Pilot vs Post Pilot



	before (mph)	during demonstration (mph)
NB	16.5	16.2 (-0.3)
SB	18.4	18.2 (-0.2)

	before (mph)	during demonstration (mph)
EB	19.7	19.7
WB	20.1	20.1

	before (mph)	during demonstration (mph)
EB	16.8	15.1 (-1.7)
WB	15.9	15.6 (-0.3)

	before (mph)	during demonstration (mph)
EB	24.7	24.2 (-0.5)
WB	28.6	24.3 (-4.3)

	before (mph)	during demonstration (mph)
NB	16.5	15.5 (-1.0)
SB	18.4	14.9 (-3.5)

	before (mph)	during demonstration (mph)
EB	29.8	29.9 (-0.1)
WB	28	30 (+2)

PLYMOUTH ST

OLIVE ST

TRAFFIC FILTER

81ST AVE

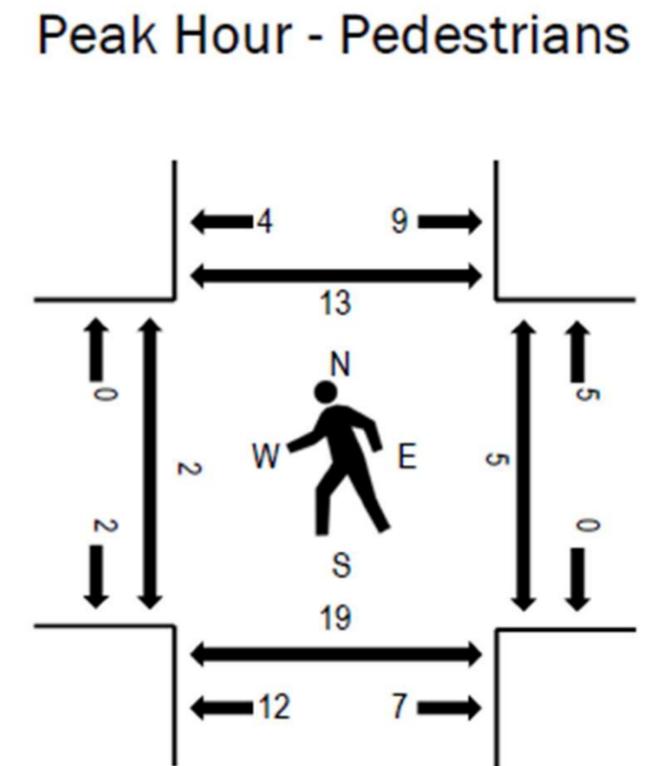
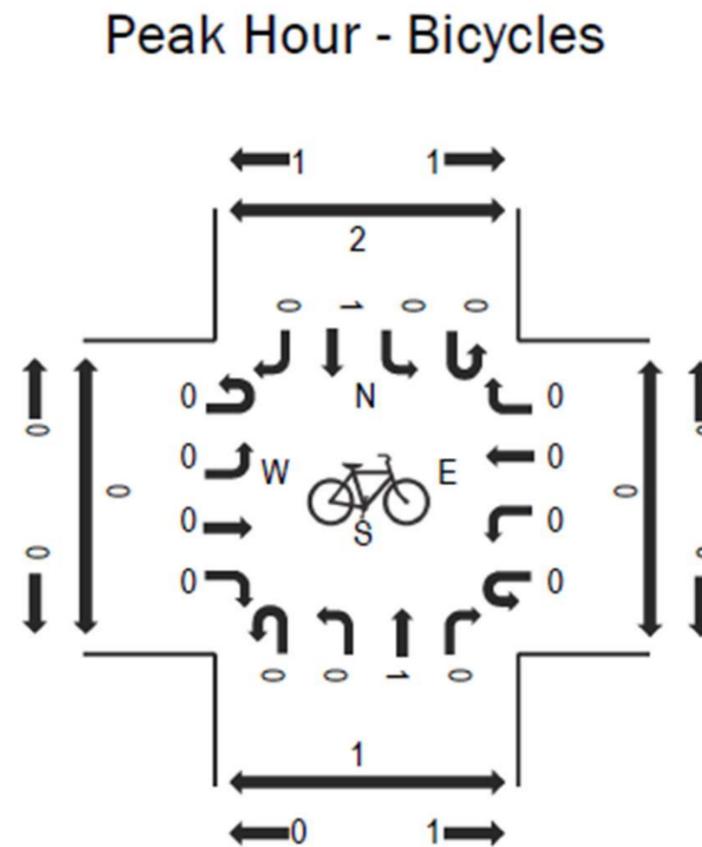
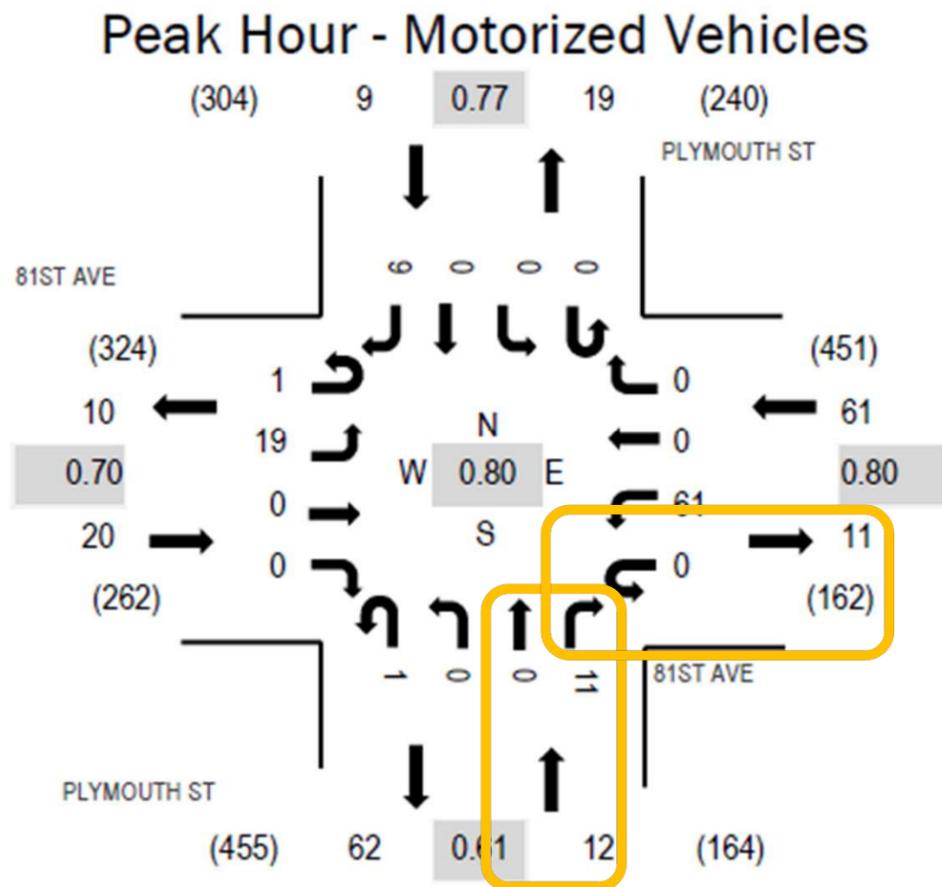
82ND AVE

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Video Monitoring - Plymouth at 81st

Peak Hour – 8AM-9AM



11 restricted turning movements during peak hour

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Data Collection & Analysis

Meeting our Goals

- **Did the project reduce volumes and speeds on Plymouth St?**
 - Volumes
 - Down 65-75% northbound
 - Down 25-51% southbound
 - Average Speeds
 - Negligible change in average speed (15-18 mph), except
 - Southbound between 81st & 82nd: **3.5 mph decrease** (18.4 mph to 14.9 mph)
- **Did the project reduce volumes and speeds on 81st Ave?**
 - Volumes
 - Down 70% eastbound
 - Down 35% westbound
 - Average Speeds
 - Negligible change in average speed (19-24 mph), except
 - Westbound between Birch Plymouth: **4.3 mph decrease** (28.6 mph to 24.3 mph)



Data Collection & Analysis

Meeting our Goals

- **Did drivers obey the one-way travel pattern changes?**
 - 75% decrease in northbound volumes on Plymouth (178 vehicles per day)
 - 70% decrease in eastbound volumes on 81st
 - 187 total vehicles per day – Plymouth to Birch
 - 326 total vehicles per day – Birch to Bancroft
- **How much did traffic volumes increase on 82nd Ave?**
 - 22-28% increase in volumes on 82nd
 - 531 additional daily vehicles eastbound
 - 793 additional daily vehicles westbound
 - This shift of traffic indicates there were drivers cutting through the neighborhood at directly the location of the school entrance.



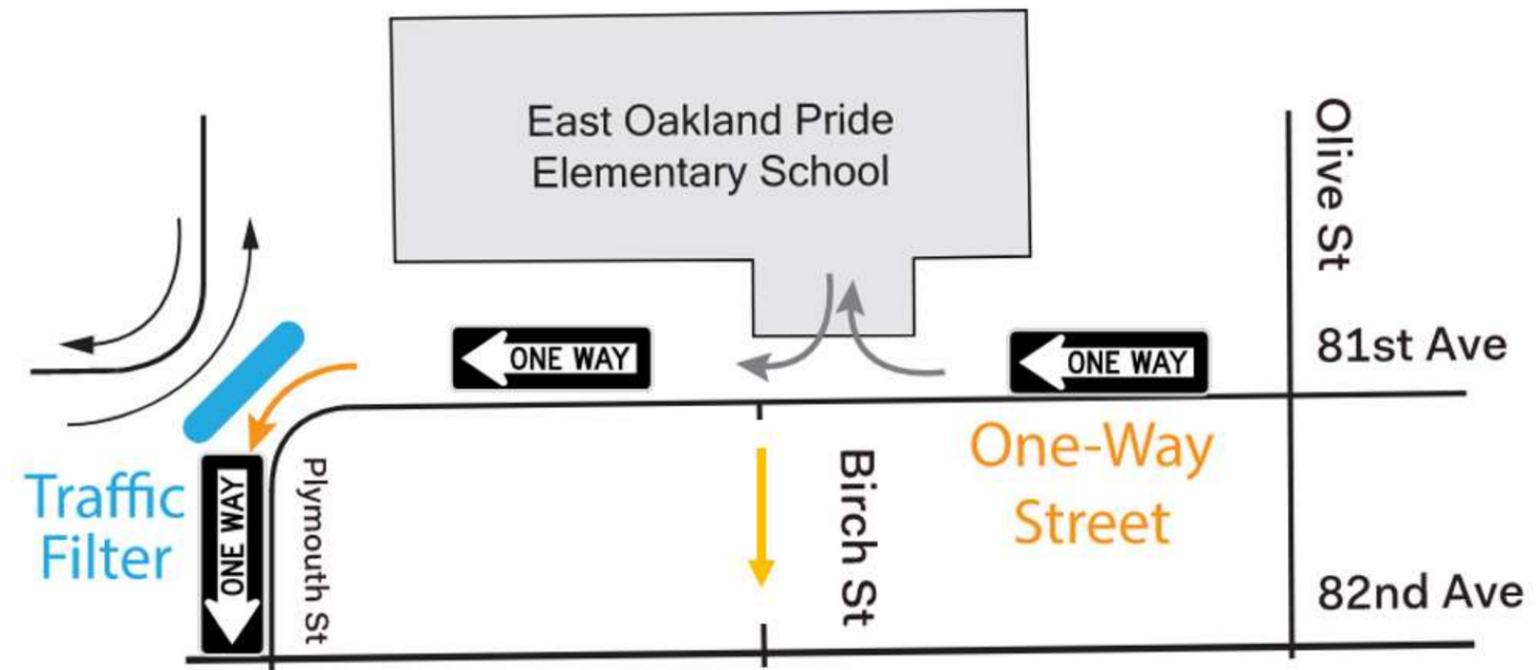
Outcomes Summary & Modifications

Summary

- Traffic filter reduced volumes by over 70% on 81st St in the northbound direction and on Plymouth in the eastbound direction.
- 4MPH WB decrease of speed in front of EO Pride Elementary
- There was less than a 30% increase in volumes on 82nd St. in both directions.

Addl. Modifications to Circulation?

- Modifying Birch Ave to be one-way in the SB direction (Supported by East Oakland Pride Elementary)



Recommendations & Next Steps

- **The Project Team recommends implementing the traffic filter** because of support from the neighborhood, School Principal, and from traffic data results.
- EO Pride was interested in an interim traffic filter, prior to full installation for this project. Implementing the traffic circulation without one-way modifications would be easy.
- Also, we recommend moving forward with the next demonstration project for the 64th/Arthur corridor.

