



Living Lab Phase II Folsom Street Preliminary Evaluation

Folsom Street Preliminary Evaluation

- Evaluation Criteria for Week 1+
 - **Volume**
 - Speed
 - **Travel Time**
 - **Safety**
 - Emergency Response
 - **Diverted Traffic**

Non-typical Traffic Patterns Last Week

- Pre-Ironman Boulder visitors
- Final installation is on-going
- August 1st student “move in”
- Horizon West lot repaving





Folsom Street Volume and Speed Data

**Traffic volume and speed
data to be added here (will be
updated Friday 8-7-15)**



Folsom Street: Preliminary Travel Time Data and Observations

Travel Time Runs

- 65 total runs
 - AM peak times
 - PM peak times
 - Weekday off-peak times
 - Weekend times
- Six data collection days
 - Tuesday, July 28th
 - Wednesday, July 29th
 - Friday, July 31st
 - Saturday, August 1st
 - Monday, August 3rd
 - Tuesday, August 4th



*Dashboard video
documentation*

Preliminary “After” Travel Time Summary

- Travel data during and shortly after installation
 - Week 1+
- Northbound & Southbound variations
- Variations by time of day
 - PM peak has the most variation
- SB trips have more delay/travel time variation than NB
- Intersection congestion
 - Pearl, Walnut & Canyon



June TAB Traffic Modeling Forecast

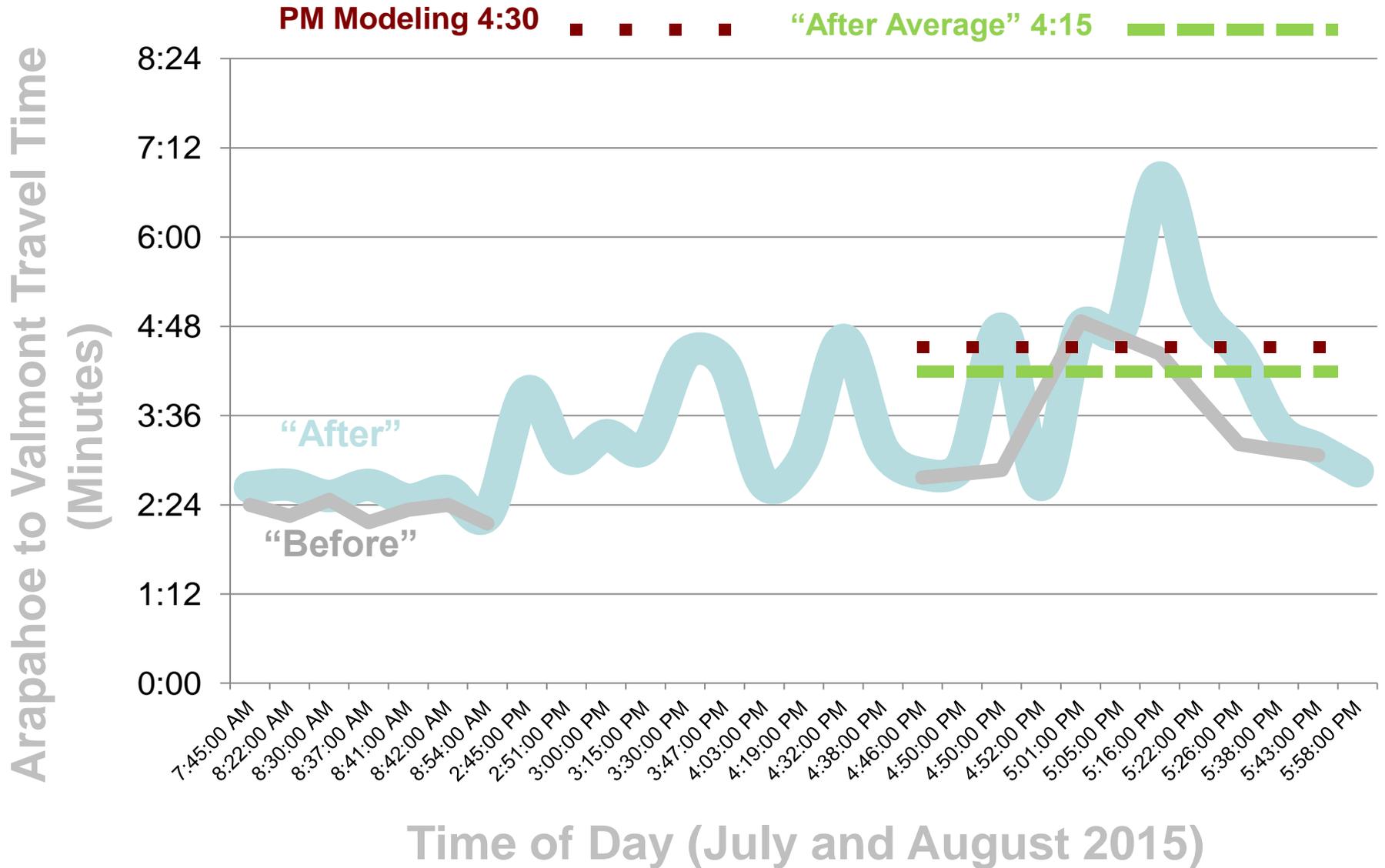
| | “Before” Nov 2014 Actual Travel Time | “After” Traffic Modeling Travel Time Forecast in June TAB Memo | Projected change in travel time |
|---|---|---|--|
| Average PM Peak Hour | 3:12 | 4:30 | +1 min and 18 seconds |



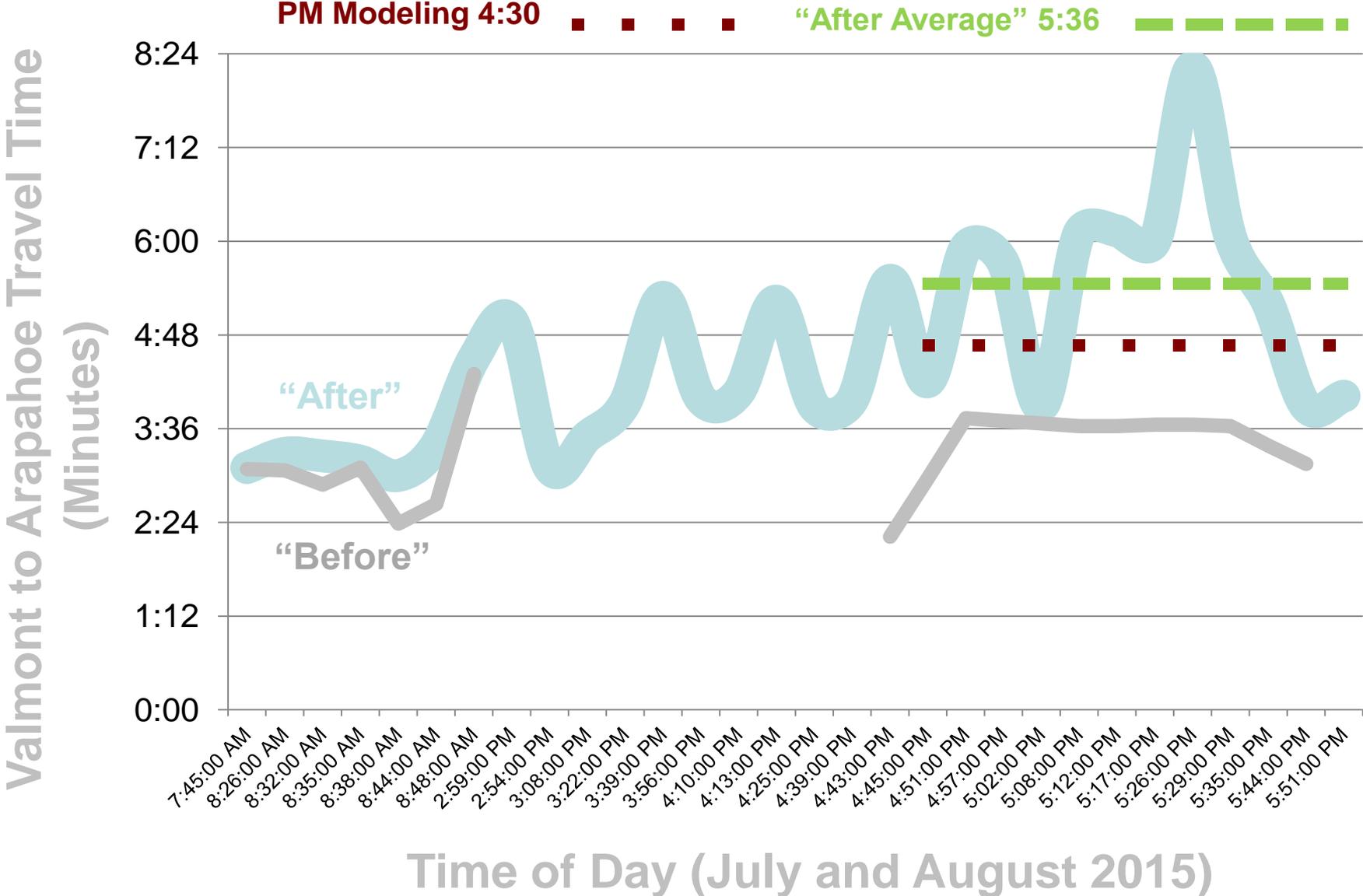
Preliminary “After” Summary

| | Northbound Actual Change in Travel Time from “Before” | Southbound Actual Change in Travel Time from “Before” |
|--|---|---|
| <u>AM Peak</u> 8:00 AM to 9:00 AM | +14 seconds | +20 seconds |
| <u>PM Peak</u> 4:30 PM to 5:30 PM | +43 seconds | +2 min and 16 seconds |
| Compared to Traffic Modeling (June TAB) | Modeling forecast was 15 seconds longer than “After” | Modeling forecast was 1 minute and 6 second shorter than “After” |

Northbound "Before vs. After"



Southbound “Before vs. After”



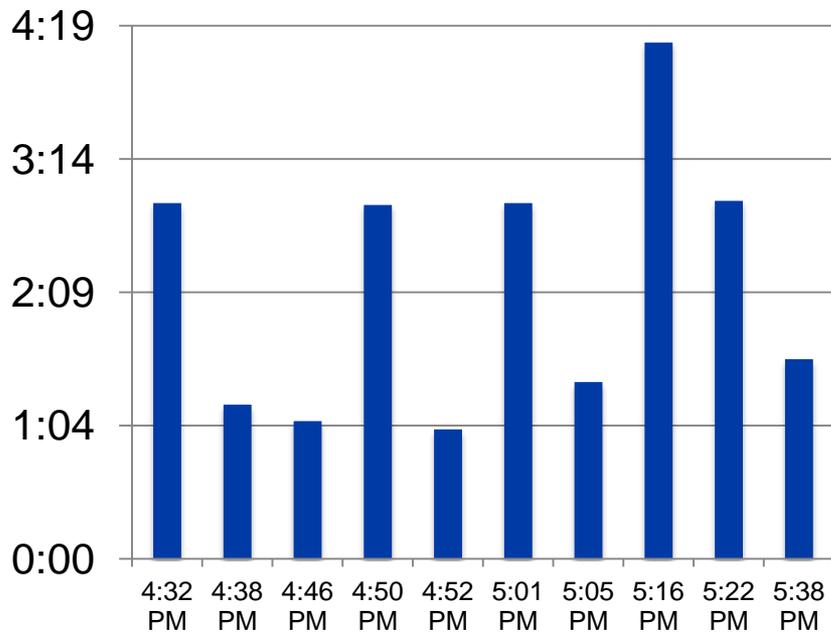
Major Change: Canyon/Pearl PM Variability

4:30 PM to 5:30 PM

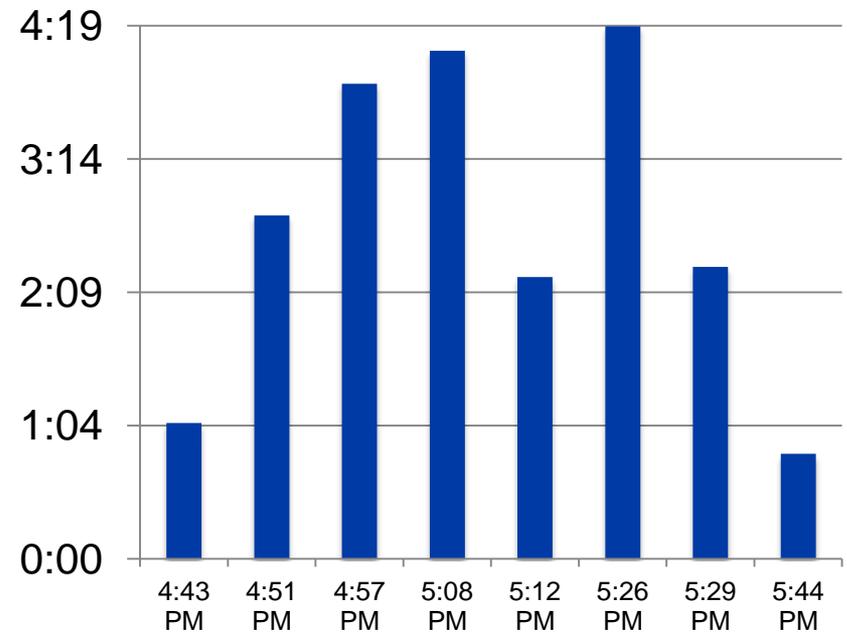


Canyon/Pearl PM Variability

Northbound "After"



Southbound "After"



0:38 "Before" Variability
2:34 "After" Variability
+1:56 PM Peak Variability

1:21 "Before" Variability
3:28 "After" Variability
+2:07 PM Peak Variability



Periods of delay on EB Walnut St

4:50 PM to 5:20 PM

47 seconds to 1:26 minutes of vehicle delay onto Folsom

4 to 12 vehicles queuing



Ped/Bike x-ing @ Walnut St

4:50 PM to 5:30 PM

Automatic pedestrian signal activated every 30 seconds
60 bicycles and pedestrians crossing Folsom Street

Queuing @ SB Pearl Street

4:50 PM to 5:30 PM

Queuing back to Pine during most cycles

Clears during most cycles



Summary Videos Available – click link below

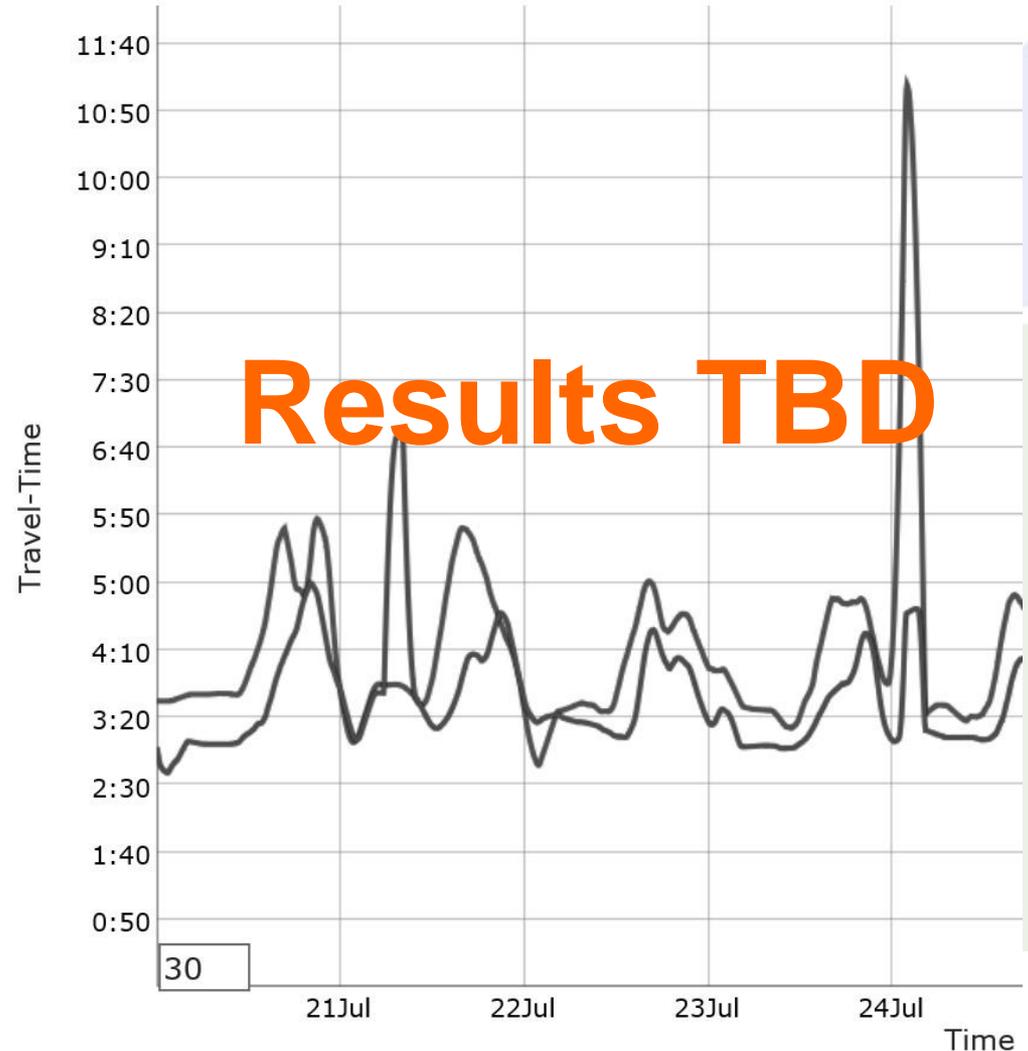


<https://youtu.be/PNTg2R85zXQ>

Future: Add'l Data Collection

Acyclica Data (Oct 2015)

- Bluetooth/Wifi based travel time data
- Collects 24 hour data
- Track data over longer time
- More to report in future/on-going updates





Folsom Street: Safety Data

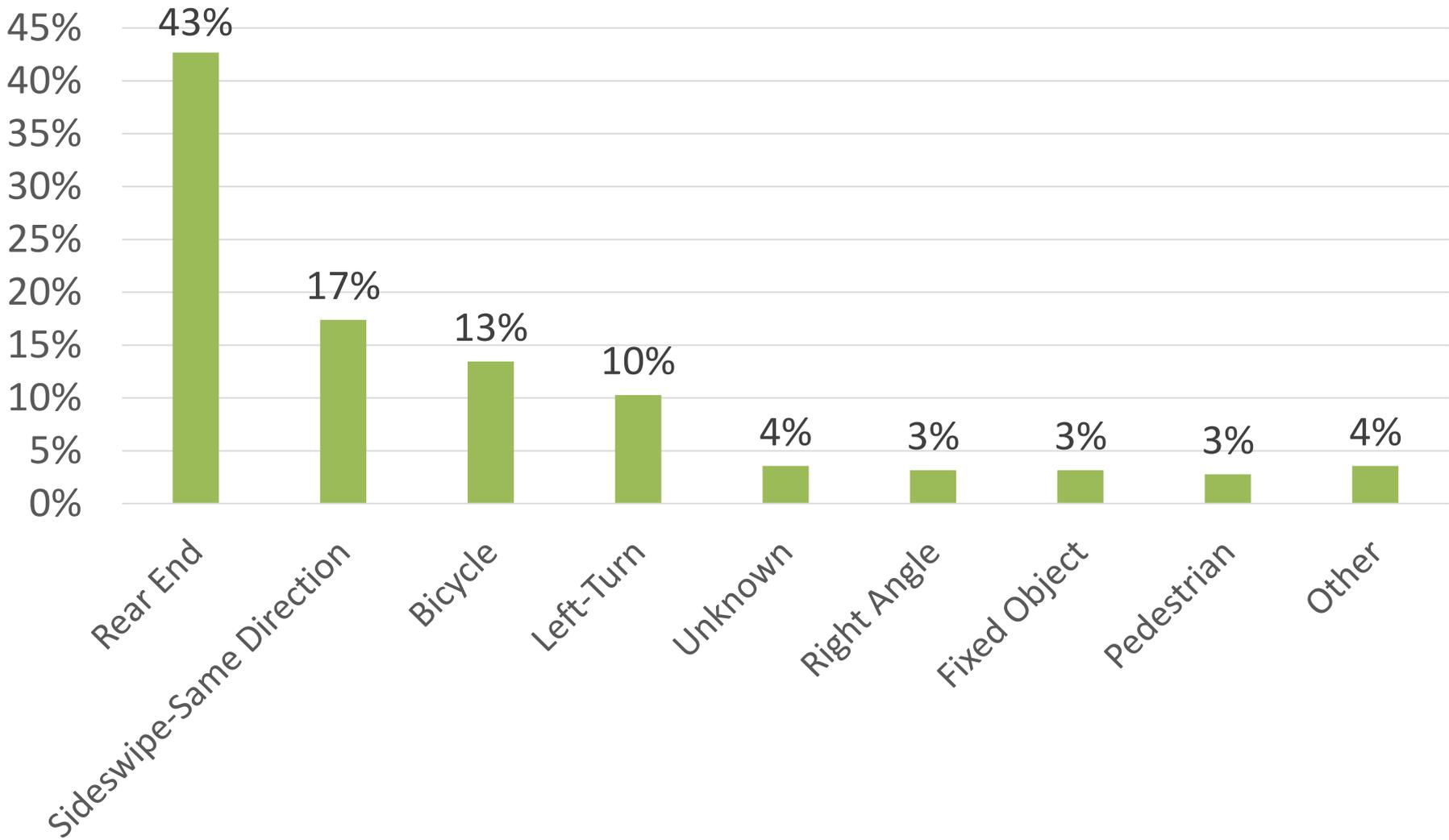
“Before” Safety Data

2012-2014

- Average crash frequency: 84.3 crashes per year
 - 11.3 crashes/year involving bicycle
 - 2.3 crashes/year involving pedestrian
- 1.3 serious injury crashes per year
- No fatalities in last 3 years

“Before” Crash Types

2012-2014



“After” Safety Data

July 25th to Aug 1st

One week range is from installation start date to Saturday August 1st

- 1 vehicle to vehicle rear-end crash at Folsom & Valmont
- No bicycle or pedestrian crashes
- No serious injuries or fatalities





Folsom Street: Emergency Responders Feedback

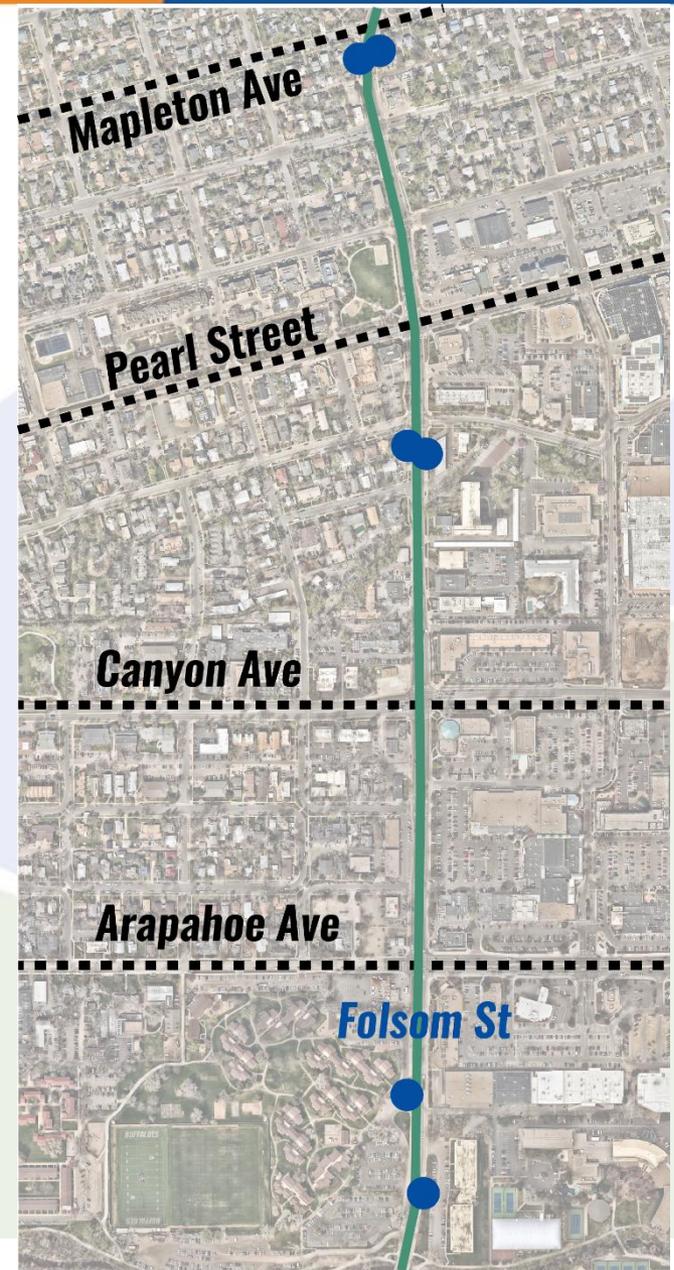
Feedback from Emergency Responders

- Fire Dept – monitoring corridor and too early for specific results
- Police Dept – monitoring corridor, concerns:
 - Corridor/intersection congestion
 - Vehicles turning at driveways and intersections
 - Snow/ice maintenance will be important
 - Few bikes seen riding corridor, some instances of bikes riding on the sidewalk
 - Need to monitor response times and not expect vehicles to drive over bollards



Folsom Street: Preliminary Bicycle Volume & Demographic Data

Continuous Count Site Locations



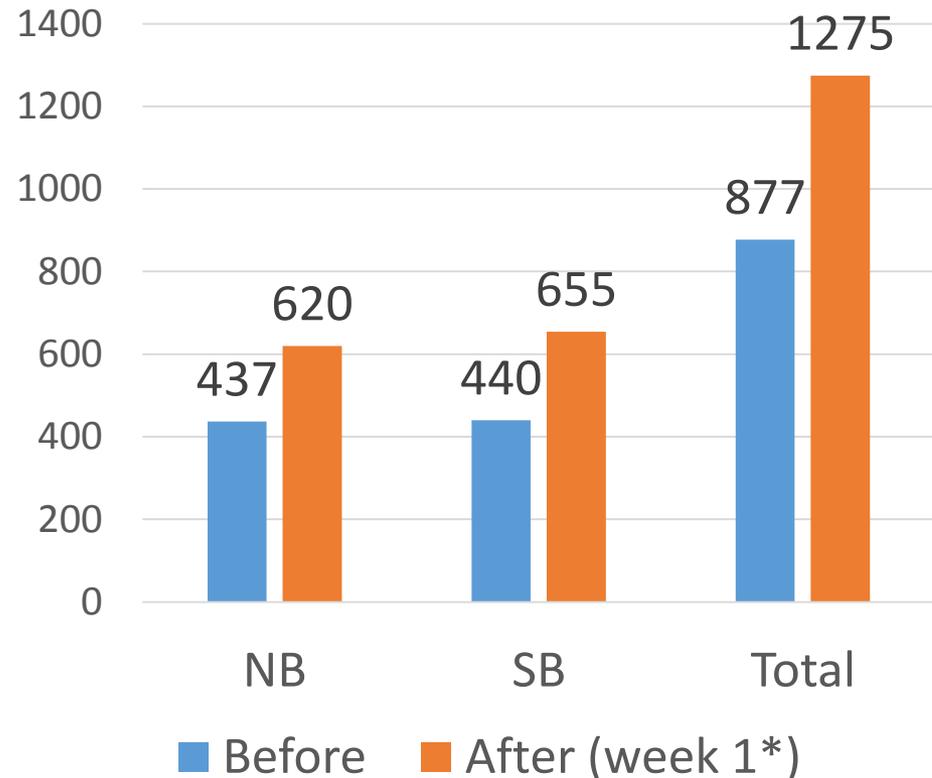
Public webpage to view data: <http://www.eco-public.com/ParcPublic/?id=699>

Daily Bicycle Volumes

“Before” vs. Week 1 “After”

- “Before” data: collected Tuesday, June 30th
- Week 1 “after” data: average daily volume from Tuesday, July 28 – Thursday, July 30th

Folsom north of Pine Street



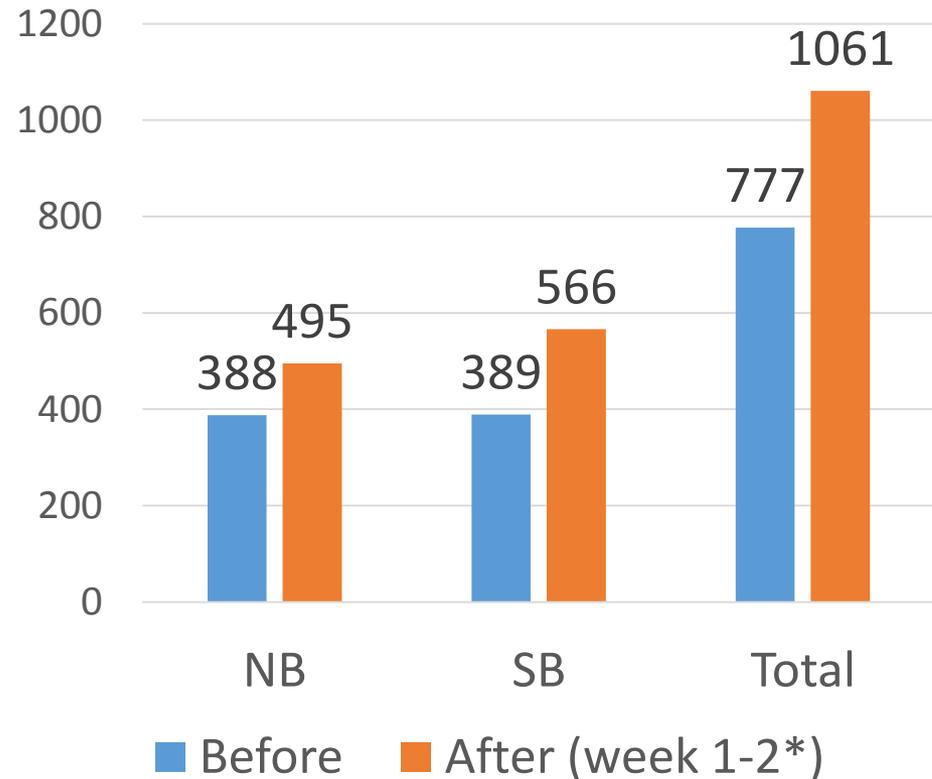
**Validation of counters currently in progress. Volumes may later be adjusted to account for potential variances.*

Daily Bicycle Volumes

“Before” vs. Week 1-2 “After”

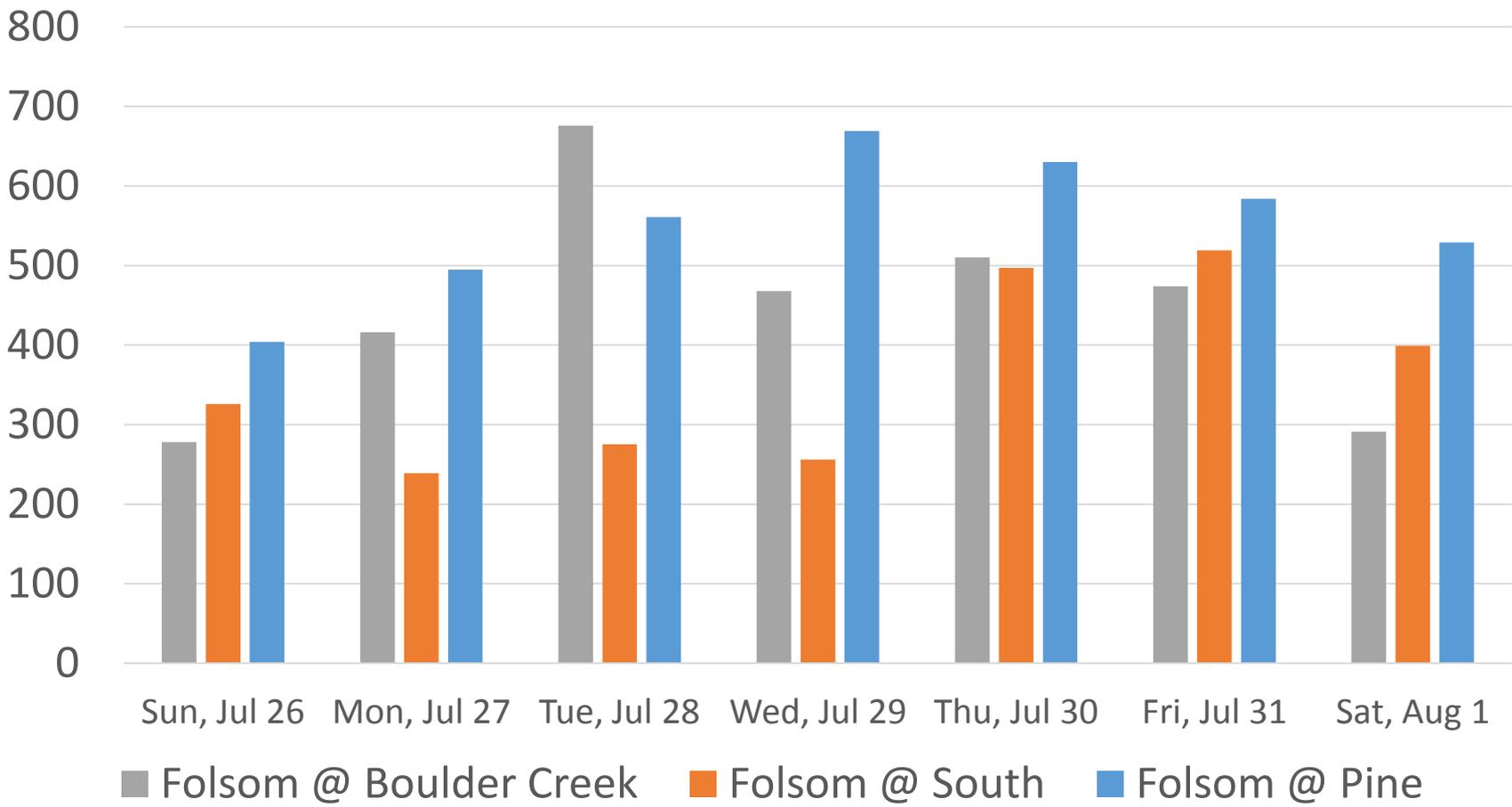
- “Before” data: collected Tuesday, June 30th
- Week 1-2 “after” data: average daily volume from Thursday, July 30th, Tuesday, Aug 4, & Wednesday, Aug 5

Folsom south of South Street



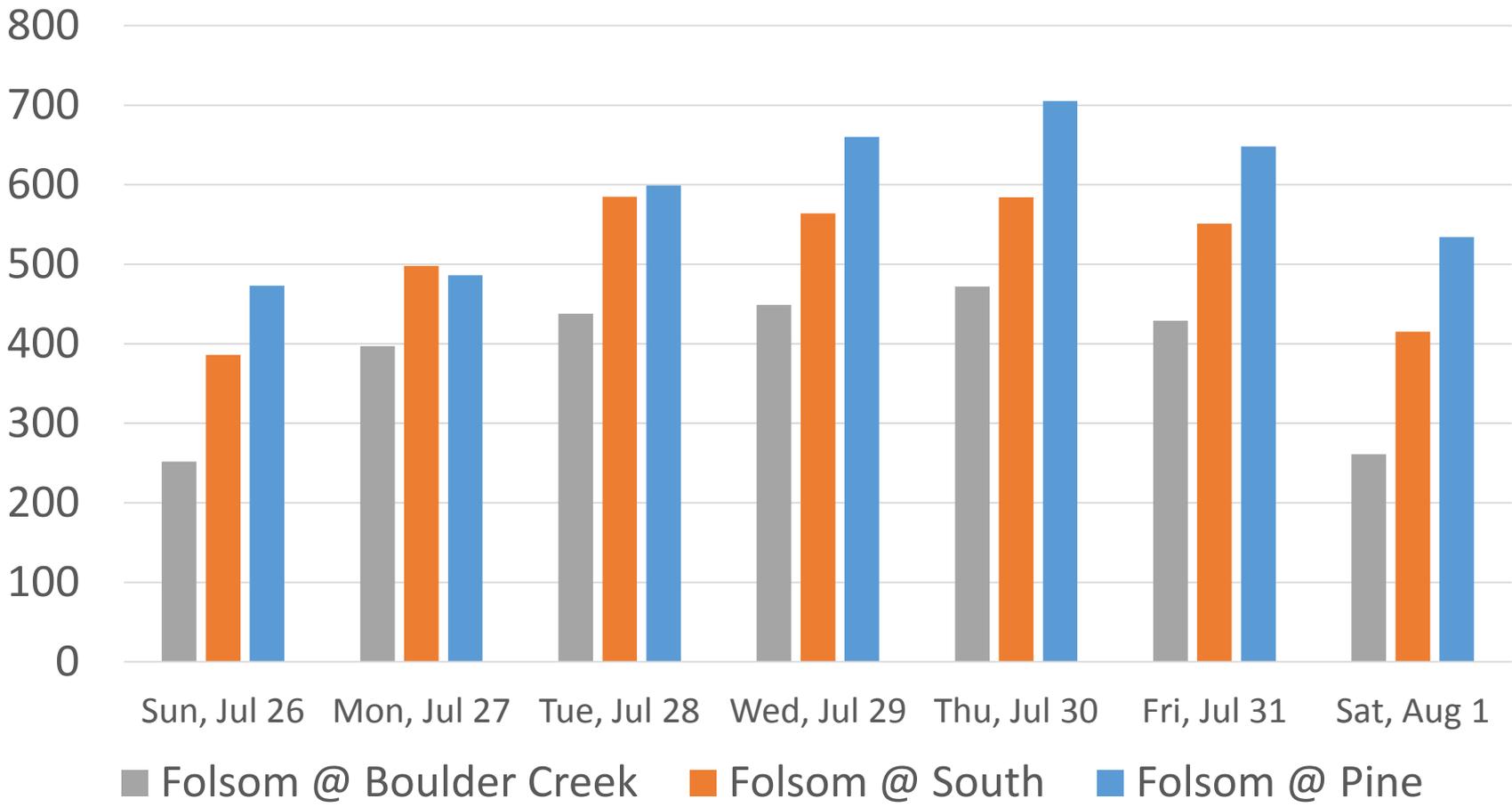
**Validation of counters currently in progress. Volumes may later be adjusted to account for potential variances.*

Northbound Bicycle Volumes*



**Validation of counters currently in progress. Volumes may later be adjusted to account for potential variances.*

Southbound Bicycle Volumes*



**Validation of counters currently in progress. Volumes may later be adjusted to account for potential variances.*

March 2015 “Before” vs. 4 days after installation*

Women



-6%



Families



+2%



Men



+4%

* CU and BVSD not in fall session yet



This data will be updated frequently during the duration of the Folsom corridor project.
For more info on the Living Lab Phase II projects:
www.boulderlivinglab.net