

# McClintock Drive Street Configuration Issue Review Session

March 17, 2016



# Council Requested Data

- Public Outreach
- Traffic Volumes on McClintock and Rural
- Traffic Signal Timing
- Crash Data
- Emission Impacts
- Bicycle Counts
- Pedestrian Comfort
- One Bike Lane on McClintock & One on Rural Analysis
- Impacts to US 60
- Public Comments
- Cost to Restripe McClintock

# Background

- January 2015: Transportation Master Plan developed in concert with the General Plan adopted
- April, September & November 2015: Council Friday packets
- May 4, 2015: Open house held
- May 7, 2015: McClintock paving contract approved
- Summer 2015: McClintock repaved from Broadway to Guadalupe
- December 2015: “Candlesticks” installed as pilot project

# Historical Vehicle Counts on McClintock

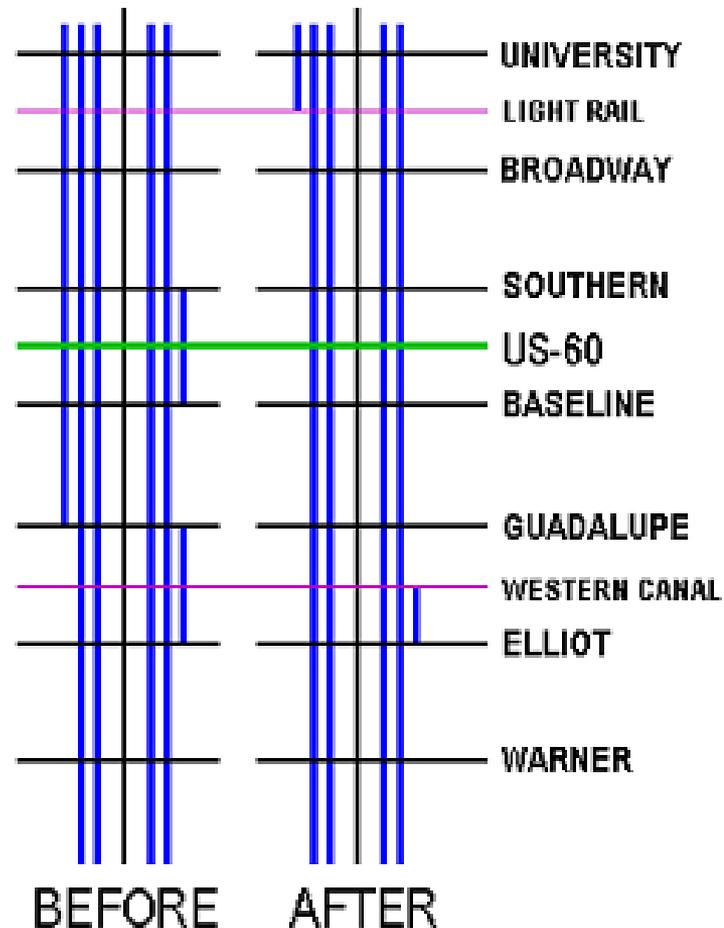
## Counts reviewed from 2004-2014

- **9.7% average decrease in trips from Rio Salado to Broadway**
  - 37,423 (2004) to 33,791 (2014)
- **22.2% average decrease in trips from Broadway to Guadalupe**
  - 40,252 (2004) to 31,213 (2014)
- **33.5% average decrease from Guadalupe to Ray**
  - 30,585 (2004) TO 20,417 (2014)

## Four-lane arterial comparisons

- Rural from Baseline to Guadalupe: 29,395 vehicles/day
- University from Rural to McClintock: 27,360 vehicles/day
- Warner from I-10 to Priest: 31,754 vehicles/day

# McClintock Vehicular Travel Lane Configuration



# Vehicle Counts on McClintock & Rural Before/After

	MCCLINTOCK				RURAL			
	Average 24 hour Volume			% change (2014/16)	Average 24 hour volume			% change (2012/16)
	2004	2014	2016		2004	2012	2016	
Apache to Broadway	No Data	32,863	34,913	6%	50,202	36,969	45,442	23%
Broadway to Southern	36,487	31,722	30,782	-3%	No Data	37,470	40,703	9%
Southern to US 60	44,951	35,167	37,670	7%	No Data	40,300	45,241	12%
US 60 to Baseline	43,842	32,755	37,470	14%	37,589	37,293	41,816	12%
Baseline to Guadalupe	35,326	25,208	28,945	15%	30,927	29,395	37,093	26%

Industry standards recognize that a 10% daily fluctuation in traffic volumes is normal

# Traffic Signal Timing Adjustments

## AM Peak Hour adjustments

- 4 – 8 sec. added to 4 intersections increasing number of vehicles processed by 200 – 530 per hour with am peak hour volumes ranging from 1485 – 1644 veh/hr.

## PM Peak Hour adjustments

- 2 – 4 sec. added to 3 intersections increasing number of vehicles processed by 130 – 265 per hour with pm peak hour volumes ranging from 1338 – 2603 veh/hr.

# McClintock Before/After Travel Time Comparisons

## University to Baseline

<b>AM Peak (7-9AM)</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
<b>NB – Before</b>	4:04	9:27	<b>6:53</b>
<b>NB – After</b>	5:13	12:43	<b>9:47</b>
<b>NB – Change</b>	<b>+1:09</b>	<b>+3:16</b>	<b>+2:54</b>
<b>SB – Before</b>	3:29	7:29	<b>5:36</b>
<b>SB – After</b>	5:34	6:14	<b>5:50</b>
<b>SB – Change</b>	<b>+2:05</b>	<b>-1:15</b>	<b>+0:14</b>

<b>PM Peak (4-6PM)</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
<b>NB – Before</b>	5:36	7:34	<b>6:39</b>
<b>NB – After</b>	5:45	8:55	<b>7:14</b>
<b>NB – Change</b>	<b>+0:09</b>	<b>+1:21</b>	<b>+0:35</b>
<b>SB – Before</b>	5:19	9:00	<b>7:26</b>
<b>SB – After</b>	5:57	19:44	<b>10:47</b>
<b>SB – Change</b>	<b>+0:38</b>	<b>+10:44</b>	<b>+3:21</b>

Before Data – February 18 – 20 and 26, 2014

After Data – January 26 - 28, 2016

# Rural Before/After Travel Time Comparisons

## University to Baseline

<b>AM Peak (7-9AM)</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
<b>NB – Before</b>	4:54	11:39	8:19
<b>NB – After</b>	6:54	19:45	10:06
<b>NB – Change</b>	+2:00	+8:06	+1:47
<b>SB – Before</b>	5:24	7:50	6:02
<b>SB – After</b>	5:34	7:19	5:55
<b>SB – Change</b>	+0:10	-0:31	-0:07

<b>PM Peak (4-6PM)</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>
<b>NB – Before</b>	6:19	8:55	7:34
<b>NB – After</b>	7:20	11:06	8:32
<b>NB – Change</b>	+1:01	+2:11	+0:58
<b>SB – Before</b>	6:44	10:25	8:56
<b>SB – After</b>	6:46	17:20	10:57
<b>SB – Change</b>	+0:02	+6:55	+2:01

Before Data collected – September 19 and 26, 2012

After Data collected – January 26 – 28 and February 3, 2016

# Crash Data between Apache & Guadalupe

	Aug. to Sept. 2014	Aug. to Sept. 2015
<b>McClintock @ Intersections</b>	20	16
<b>McClintock @ Mid-Blocks</b>	13	9
<b>TOTAL</b>	<b>33</b>	<b>25</b>

- Industry standards is to review 3 years of data prior to drawing conclusions.
- Crash data available thru Sept. 30, 2015.

# Emissions Impact

- Average additional travel time = 377 hours per day
- Average travel speed along 3-mile corridor after change = 18 mph
- Average vehicle produces 411 grams per mile\*
- **Additional travel time results in 2.8 metric tons of CO<sub>2</sub> per day**

\*Source: United States Environmental Protection Agency

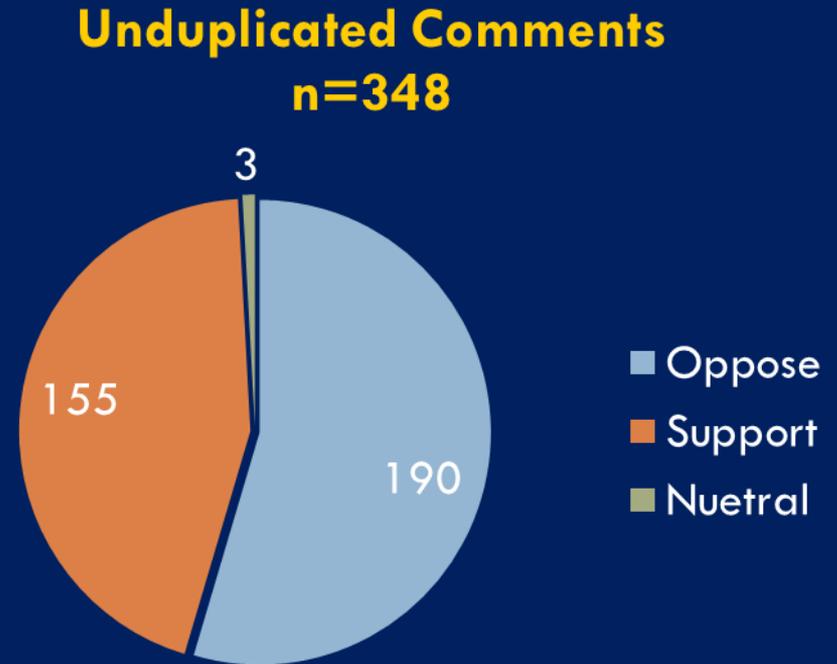
# Bike Counts on McClintock – 2016

Collected February 2016	AM Peak Volumes	Mid-day Peak Volumes	PM Peak Volumes	Average 24 Hour Volumes
<b>Apache to Broadway (Southbound only)</b>	7	3	7	59
<b>Broadway to Southern</b>	13	10	12	88
<b>Southern to US 60</b>	7	2	11	66
<b>US 60 to Baseline</b>	10	5	12	77
<b>Baseline to Guadalupe</b>	4	6	9	Error in count data

Source: Automated Counters and Video

# Public Comment/Feedback

- As of 6 pm March 9, 2016, the city received 385 comments (348 unduplicated) via email, Council Communicator, web, calls to 311, council or staff.
- Chandler indicated they will be narrowing medians on McClintock and Kyrene to accommodate bicycle lanes south to Loop 202.



# Staff Recommendation

- Staff recommends continuing to collect vehicle, bicycle, crash and travel time data and report back to the council every 6 months to provide comprehensive and statistically significant data.