



CITY OF FULLERTON
INFRASTRUCTURE AND NATURAL
RESOURCES ADVISORY COMMITTEE

INFRASTRUCTURE DATA SHEET

Date: February 2020

Asset: TRAFFIC SYSTEMS

Asset Description: City owns and maintains systems to control the flow of traffic throughout the City. This includes traffic signals, pavement striping, vehicular signs (stop, yield, no parking, etc.) crosswalk warning signs, speed feedback signs; plus video camera systems and communication systems to connect traffic signals.

Asset Quantity:

- 154 Traffic Signals
- 22 Traffic Signal Closed Circuit Television Camera (CCTV) Systems
- Traffic signal video detection systems
- Pavement striping and markings
- Traffic signs
- Traffic signal interconnect fiber optic system/copper wire/wireless systems
- Traffic management center software, hardware and equipment
- Radar speed feedback signs
- In-pavement crosswalk flashers
- Rectangular Rapid Flashing Beacons at crosswalks (6 locations, 12 beacons)

Asset Needs:

- Monthly routine signal maintenance involving visual and operational inspection
- Unforeseen traffic signal repairs (accidents, black outs, etc)
- Utility costs for each traffic signal
- Traffic signal construction – 1pprox.. 5 new traffic signals warranted
- Traffic signal synchronization – 1pprox.. 50 traffic signals
- Traffic signal pedestrian and bicycle detection repairs and replacement – all 154 signals
- Traffic signal equipment replacement (cabinets, controllers, etc.)
- Traffic signal battery backup system installations – 1pprox.. 100 signals
- Traffic center management equipment replacement and maintenance
- Traffic signal modifications – add protected/permissive left turn – 1pprox.. 25 signals
- Radar speed feedback signs – 1pprox.. 10 needed
- Citywide pavement striping, markings and signage maintenance and updates
- Citywide speed survey (every 5 years)
- Citywide traffic volume counts (every 5 years)

Approximate Total Current Need: \$ 14,000,000

Allowable Funding Sources: General Fund, Gas Tax, Measure M2, Traffic Mitigation Fees, Grants

Current Annual Funding: \$600,000 to \$700,000 comprised of Gas Tax, Measure M2, and Traffic Mitigation Fees. Grants funding is separate as applicable/available.

Typically Annual Improvements/Maintenance:

Annual improvements may vary/increase depending on award of any grant funding.

- Monthly routine signal maintenance involving visual and operational inspection
- Unforeseen traffic signal repairs (accidents, black outs, etc)
- Utility costs for each traffic signal
- Traffic signal pedestrian and bicycle detection repairs and replacement – replace equipment at two signals
- Traffic signal pedestrian and bicycle detection repairs and replacement – four locations
- Traffic signal equipment replacement (cabinets, controllers, etc.) – one signal location
- Traffic signal battery backup system installations – approximately six locations
- Radar speed feedback signs – two signs on one street
- Citywide pavement striping, markings and signage maintenance and updates

Recommended Annual Strategy & Associated Costs:

| <i>Item</i> | <i>Frequency</i> | <i>Annual Cost</i> |
|--|------------------|--------------------|
| Monthly routine signal maintenance involving visual and operational inspection | Annual | \$ 110,000 |
| Unforeseen traffic signal repairs (accidents, black outs) | Annual | \$ 360,000 |
| Utility costs for each traffic signal | Annual | \$ 140,000 |
| Traffic signal construction | 1 / yr | \$ 325,000 |
| Traffic signal synchronization | 7 signals / yr | \$ 24,500 |
| Traffic signal pedestrian and bicycle loop detection repair | 5 signals / yr | \$ 50,000 |
| Traffic signal pedestrian and bicycle video detection installation | 3 signals / yr | \$ 75,000 |
| Traffic signal pedestrian and bicycle loop video repair | 3 signals / yr | \$ 15,000 |
| Traffic signal equipment replacement (cabinets, controllers, etc.) | 5 signals / yr | \$ 175,000 |
| Traffic signal battery backup system installations | 5 signals / yr | \$ 50,000 |
| Traffic center management equipment replacement and maintenance | 10-15 life | \$ 10,000 |
| Traffic signal modifications – add protected/permissive left turn | 5 signals / yr | \$ 175,000 |
| Radar speed feedback signs | 2 / yr | \$ 30,000 |
| Citywide pavement striping, markings and signage maintenance and updates | Annual | \$ 50,000 |
| Citywide speed survey | Every 5 yrs | \$ 10,000 |
| Citywide traffic volume counts | Every 5 yrs | \$ 5,000 |
| ANNUAL FUNDING NEED: | | \$1,604,500 |

Comments:

- Confirm power costs for signals – now have LED

Recommended Additional Annual Funding: **\$904,500**