Programs – ENGINEERING

This category addresses engineering standards and future improvements to the City's ROWs. Future traffic impacts, safety standards, ADA access, green streets, pedestrian zones, and the proposed networks will require specific engineering treatments to the roadway, sidewalk, and intersection.

Innovative Engineering. Incorporate innovative engineering standards and traffic control devices into the City's Complete Streets Design Manual as they are adopted by the California Traffic Control Devices Committee in the Manual on Uniform Traffic Control Devices (MUTCD) and/or Federal Highway Administration.

Flexible Installation Standards. Use engineering judgment and the approval of the City transportation engineer or designee, in lieu of warrants, to install facilities that will improve safety and comfort for pedestrians. *Allow flexibility in the installation of facilities (pedestrian walkways, bikeways, transit station) so that projects are not limited or restricted by standards that are not applicable.*

Neighborhood Traffic Management Plans. Continue to develop and implement traffic management and street calming measures through Neighborhood Traffic Management Plans so that neighborhood routes are less attractive to commuters, speeding is reduced and quality of life is enhanced. *Make safe speeds and quality of life a priority in Neighborhood Traffic Management Plans. Use engineering and design to slow down cars and improve the right of way for all users.*

Grade Crossing Elimination. Work with Southern California Regional Railroad Association (Metrolink) as well as with freight rail operators to eliminate rail/highway at-grade crossings on regional passenger rail and freight lines. *An at-grade crossing is an intersection at which rail and auto cross at the same level.*

Non-Motorized Crossing Upgrades. Prioritize existing uncontrolled and mid-block crossing locations for implementation of crosswalk markings and signals, starting with areas exhibiting high-crash rates or pedestrian volumes.

Bicycle Backbone Network. Install bicycle lanes per the updated Bicycle Plan (Chapter 9).

Bicycle Green Network. Install bicycle paths per the updated Bicycle Plan (Chapter 9). Prioritize completion of the Exposition Bicycle Path by the opening date of the Exposition Phase 2 in 2015/2016 and the Greenway along the Los Angeles River by 2020.

Industrial Street Infrastructure. Provide adequate street infrastructure in established industrial areas. *Install street infrastructure such as: pedestrian lighting, street trees, benches, trash cans, and other amenities in industrial areas.*

Truck Intersection Design. Revise geometric design standards for street intersections in and around industrial areas with high truck volumes. *Change the way intersections in/near industrial areas are designed so that they can better accommodate the larger turning radii and number of trucks.*

ATSAC. Continue to implement the City's signal management program (ATSAC) to monitor and manage the traffic flows. *Continue to use the City's Automated Traffic Surveillance and Control (ATSAC) system to alleviate traffic congestion and manage flow.*

Boarding/Alighting. Work with transit, para-transit, and taxi providers to develop and implement safe and efficient boarding/alighting design, location, and signage standards. *Use sidewalk design, location of designated loading/unloading areas, and signs to improve the safety of riders.*

Overweight Corridors. Adopt and integrate overweight corridors into infrastructure that accommodates heavier loads. Streets designated as overweight corridors are important for trucking and goods movement.

Green Streets Committee. Continue the Green Streets Committee to identify and evaluate the effectiveness of existing green street features and to continue to identify funding and location options in which to upgrade with green street features. *The Committee will continue to evaluate and implement green street features such as swales, vegetated curb extensions, and permeable pavers (to filter stormwater and runoff).*

Green Streets Features. Expand the catalogue of green street features to include light colored materials, recycled asphalt, porous pavement, and innovative stormwater management.

Green Alleys Program. Continue the Green Alleys program to introduce low-impact development stormwater features and improve the overall quality and safety of neighborhood alleys. *Low impact development standards include features such as permeable pavement, rain gardens, or other practices that can filter and manage contaminants in stormwater/urban runoff before it flows into storm drains.*

Woonerfs. Encourage the incorporation of woonerf features on select streets where traffic calming and a high level of pedestrian activity is desired. *Woonerf features include gateways/signage, curves or narrow roadways, trees and amenities, parking, speed bumps, or any other elements of the street that will cause drivers to slow down and become more aware of other users.*

Hot Spots. Install pedestrian enhancements (continental cross-walks, pedestrian signals, flashing lights) at locations identified as difficult and potentially dangerous (freeway off-ramps, tight curves with cross-streets present) for pedestrians.

Slow School Zones. Implement physical improvements (bump-outs, speed humps, continental crosswalks, flashing signals) to slow vehicular traffic and provide a comfortable environment for pedestrians and bicyclists within a ¼ to ½ mile of schools. (See Project List for locations)

Neighborhood Zones. Implement physical improvements (bump outs, speed humps, continental crosswalks, green street improvements, and street trees) on a set number of Neighborhood Streets within communities each year to improve the safety and comfort of pedestrians and bicyclists.

Recreational Connections. Implement physical improvements (bicycle and pedestrian) to arterials and Neighborhood Streets within (1/4 mile to 3 miles) of City, County, State, and Federal parks, beaches, or rivers (flood control channels).

Pedestrian Enhanced Destination Areas (PED Areas). Implement physical improvements (continental crosswalks, street trees, wider sidewalks, pedestrian lighting) to a number of PED areas annually to improve the safety and comfort of pedestrians accessing transit, major destinations, retail and employment areas via arterial streets. Prioritize improvements where vulnerable users (children, seniors and people with disabilities) are present. Further prioritize in locations with high number of collisions, households with 0-1 cars, off-peak vehicular speeds in excess of 30 mph, areas with major barriers (freeway crossings or underpasses) and areas defined on the Health Disparity Index.

Bicycle Enhanced Network (BEN). Implement a set number of miles of the BEN each year. Implement improvements in stages as right of way and funding permit. Prioritize improvements by locations with high number of collisions, households with 0-1 cars, off-peak vehicular speeds in excess of 30 mph, and areas defined on the Health Disparity Index.

Transit Enhanced Network (TEN). Implement a set number of miles of the TEN each year. Implement improvements in stages as right of way and funding permit. Prioritize improvements by ridership, potential ridership, and other factors to be identified.

Vehicle Enhanced Network (VEN). Implement a set number miles of the VEN each year. Implement improvements in stages as right of way and funding permit. Prioritize improvements by factors to be identified.

Major Highway Class II Street Designation Review. Revise street standards to include options for transit and bike for adoption by CPC. *Modify the street standards (as outlined in the Street Design Manual) and recommend them for adoption by the City Planning Commission (CPC).*

Local and Collector Street Mobility. Revise standards to include a range of modes for adoption by CPC. *Modify the street standards (as outlined in the Street Design Manual) and recommend them for adoption by the City Planning Commission (CPC).*

Modified Cross-Section. Revise standards to include a range of modes for adoption by CPC. *Modify the street standards (as outlined in the Street Design Manual) and recommend them for adoption by the City Planning Commission (CPC).*

Bikeways along Exclusive Transit Rights of Way. Include Class I paths adjacent to new surface transit rights-of-way. Work with Metro to incorporate bikeways in new transit projects. A *Class I Bike Path is a completely separate right of way for exclusive use by pedestrians and bicyclists.*

Bridge Design Program. Consider bicycle facilities when designing new or retrofitting bridges. Particular attention to bridge underpasses that cross existing or future bicycle paths to ensure design integration.

Caltrans Design. Work with Caltrans to design improvements to freeway entrances and exit ramps to warn motorists of presence of bicyclists.

Bicycle-Sensitive Detectors. Continue to install bicycle sensitive detectors at all actuated signal controlled intersections, including pavement markings for bicyclists.

Facility Design Standards. Develop and maintain design standards for inclusion in Department of Transportation (DOT) Manual of Policies and Programs.

Bicycle Facility Design Review Program. Review and approve all bikeway plans. Work with designers citywide to ensure that bicycle facilities are incorporated into projects.

Protected Bicycle Lanes. Develop pilot project for protected bicycle lanes/Cycle Tracks. *Cycle tracks are separated bicycle paths (Class I) that run along the roadway. They incorporate physical barriers such as bollards, landscaped buffers, curbs, or parked cars to protect bicyclists from vehicles in the roadway.*

Innovative Bicycle Priorities and Procedures Review Program. Develop bikeway designs and treatments through the California Traffic Control Devices Committee and the Federal Highway Administrative approved experiment process. *Work with State and Federal agencies to increase the variety of bikeway designs and treatments to address unique design challenges and include pilot programs.*