

CITY OF LOS ANGELES
INTER-DEPARTMENTAL MEMORANDUM

Date: October 2, 2015

To: Honorable City Council
c/o City Clerk, Room 395
Attention: Honorable Mike Bonin, Chair, Transportation Committee

From: Seleta J. Reynolds, General Manager 
Department of Transportation

Subject: **Crosswalk Safety and Vision Zero (CF# 15-0546)**

SUMMARY

Enforcement of violations for people driving and walking is a key component of Vision Zero. The Los Angeles Vision Zero Executive Steering Committee, co-chaired by the Department of Transportation (LADOT) and the Police Department (LAPD), will be developing enforcement strategies in conjunction with education and outreach, legislation and engineering interventions that will work together to address specific crash profiles throughout the city.

RECOMMENDATION

That the City Council:

1. DIRECT LAPD and LADOT to report back on the progress of the Vision Zero Transportation Database (TransBase) and enhanced data analysis and mapping (overlays of pedestrian/vehicle conflict locations, collisions and citations volumes).
2. DIRECT LADOT and LAPD to report back on enhanced strategies for education and enforcement, including necessary resources, to increase pedestrian safety at controlled intersections as part of the Vision Zero Steering Committee.

DISCUSSION

On May 1, 2015, Motion 15-0546 was introduced by Councilmember Mike Bonin, which directed:

- LAPD to report on the enforcement of California Vehicle Code (CVC) Section 21456(b) in addressing pedestrian violations; and
- LADOT and LAPD to report on how enforcement actions complement or conflict with the Vision Zero Strategic Plan, with the goal of eliminating traffic fatalities in the City by 2025.

At the Transportation Committee meeting on September 9, 2015, the Committee directed:

- LAPD and LADOT to report on the appropriate enforcement strategies to address the top five most critical threats for pedestrian safety; and
- LADOT to report on legislative changes, education campaigns, and pedestrian signal timing that would simplify and clarify rules relative to crosswalk safety.

Vision Zero and Enforcement

On August 24, 2015 Los Angeles City Mayor Eric Garcetti issued Executive Directive 10, launching a citywide Vision Zero program. This initiative seeks to reduce traffic fatalities citywide by 20 percent by 2017, prioritizing pedestrian fatalities involving older adults and children and to reduce traffic fatalities citywide to zero by 2025. The directive establishes a Vision Zero Steering Committee and a Task Force to be led by the Department of Transportation and Police Department, and to involve a wide berth of departments and advocacy organizations including Engineering, Fire, Street Services, Aging, Planning, Water and Power and Neighborhood Empowerment.

Vision Zero mandates that safety be the guiding principle in all policy and planning endeavors in order to reduce all traffic fatalities to zero by 2025. At the core of Los Angeles' Vision Zero program is the use of empirical data to pinpoint specific locations on the High Injury Network (HIN) with high incidence of severe injury or death, and to target these through education, engineering, enforcement, evaluation and equity. Initial analysis by LADOT of citywide traffic collisions indicates that 65 percent of all deaths and severe injuries involving people walking occur on just 6 percent of city streets. These streets comprise the High Injury Network (Exhibit A). Crashes disproportionately impact people walking. In Los Angeles, killed and severe injury (KSI) collisions involving pedestrians account for 33 percent of all KSI collisions, yet walking represents only 18 percent of all travel modes. Further, people walking are involved in only 8 percent of all collisions but account for 44 percent of all traffic deaths.

Traffic enforcement is intended to both protect all people traveling on city streets and to maintain traffic flow. The CVC and California Manual on Uniform Traffic Control Devices (CA MUTCD) clearly articulate and justify these objectives and actions. However, with the adoption of Vision Zero and new data regarding travel behavior, these practices might be reviewed and refocused. In addition to data, Vision Zero potentially offers new tools and approaches that can further protect travelers. Additionally, Vision Zero can support LAPD's enforcement at strategic, key locations and public education on safe travel behavior.

Under Vision Zero, crash data informs targeted enforcement along with education and outreach strategies. This data-driven approach presents a new opportunity to deploy pedestrian safety resources with greater precision and effectiveness. As the Vision Zero Task Force conducts its work, pedestrian safety enforcement will be front and center for additional review and development of new strategies, pilot programs, as well as identification of legislative changes and resources needed to realize fewer pedestrian deaths.

Safety Strategies

In Los Angeles, preliminary analysis of citywide crash data indicate that the leading causes of crashes involving pedestrians include: driver violation of pedestrian right-of-way at crosswalks, people crossing outside of crosswalks, unsafe speed, people crossing between controlled intersections, and unsafe starting or backing up. Research has shown¹ that drivers and pedestrians have a limited knowledge of pedestrian right-of-way laws.

According to the National Highway Traffic Safety Association (NHTSA), the key to effective enforcement activities that result in crash reduction is partnerships between enforcement agencies, transportation

¹ Mitman & Ragland, 2002; Zegeer et al., 2009

departments, community stakeholders and the media. Effective enforcement activities often have a substantial educational component that reach beyond the drivers and pedestrians who are stopped, adding to the overall deterrence effect and enhancing effectiveness of enforcement itself as a safety tool.

Citing that 64 percent of all collisions between people walking and driving are “driver at fault”, a collaborative of the San Francisco Municipal Transportation Authority, Police Department and Walk San Francisco conducted a study to evaluate the impact of a high visibility enforcement and education program on reducing driver violations of pedestrian right-of-way during walk and countdown crossing phases. Over a 43-week period, education and enforcement activities including publicity campaigns, bus-only media, mass media and enforcement, enforcement only and enforcement and grassroots outreach were applied to intervention and control sites. A resulting increase in drivers yielding to people on foot at intersections where intervention tactics had been applied suggests that citywide scaling of interventions could lead to more drivers yielding.²

As part of Vision Zero’s community engagement, LADOT with LAPD will explore opportunities to partner with community based organizations on education activities which may include combinations of multi-lingual campaigns with bus ads and billboards, educational flyer and pamphlet distribution and meetings coordinated with community groups, website information, pre and post surveys, police trainings and pre-enforcement grace period change while ensuring comprehensive installation of pedestrian educational plaques (R10-3 series) explaining the meanings adjacent to pedestrian push buttons. Well-publicized enforcement changes more behavior than enforcement alone because it reaches more people.”³

Legislative Changes

Laws and regulations, including vehicle codes that govern safety on our streets, are determined at the state and federal level. CVC Section 21456(b) states that a pedestrian who begins to cross against a flashing or steady “Don’t Walk” or “Upraised Hand” symbol is in violation. The 2009 MUTCD mandated that when a countdown pedestrian signal is used, the countdown must be displayed simultaneously with the flashing “Don’t Walk” or “Upraised Hand.” However, CVC Section 21456(b) has not been amended to clarify the meaning of (and compliance for) when pedestrian may cross at a controlled intersection with countdown displays.

Recognizing the need for policy to catch up with the actual use of the new countdown display, some jurisdictions developed revisions to their codes. In early 2000, Salt Lake City, Utah, passed a countdown signal ordinance (amending Code Section 12.32.055) to allow the pedestrian to enter the crosswalk during the flashing “Upraised Hand” interval in conjunction with time remaining on the countdown clock “only if such pedestrian is able to safely walk completely across the street or to a safety island before the COUNTDOWN CLOCK shows no remaining time.”

Similarly, in 2009 the Texas Department of Transportation amended the Texas MUTCD with a new meaning of flashing upraised hand when pedestrian countdown displays are present. Specifically, pedestrians may enter the intersection on the flashing upraised hand when a countdown display is

² Education & Evaluation: Safe Streets SF, September 2015

³ Monsere & Coffman, 2007

present if they are able to travel to the far side of the traveled way by the time conflicting traffic receives a green signal.

In 2012, Indiana amended their state code (Section IC 9-21-17-2) to state that if a countdown pedestrian signal indication is also shown with a flashing "Don't Walk", a pedestrian may cross if the pedestrian is able to proceed to the sidewalk or safety island by the time the steady "Don't Walk" signal is shown, and a person who drives a vehicle shall yield the right-of-way to the pedestrian.

This year, South Carolina amended their Code of Laws (Section 56-5-990) such that "for pedestrian crosswalks equipped with countdown indicators, a pedestrian may cross if he can complete the crossing during the remaining time shown."

Pedestrian Priority Phase Signals

Results from a Transportation Research Board study found that "Pedestrian Priority Phase" also called Leading Pedestrian Interval (LPI) have been shown to reduce pedestrian-vehicle collisions as much as 60 percent at treated intersections.⁴ As explained in the National Association of City Transportation Officials (NACTO), the LPI provides a three-second head start for people walking, bicycling and skateboarding across the street. LPIs are typically applied where both pedestrian volumes and turning volumes are high enough to warrant an additional dedicated interval for pedestrian-only traffic. LADOT has begun implementation of LPI at pilot locations, and an evaluation of benefits and considerations will inform the policy for expanded implementation at appropriate locations.

NEXT STEPS

Building off the High Injury Network, LADOT is conducting a Technical Analysis, which includes the development of crash profiles and an assessment of collisions patterns. Using SWITRS and other data sources such as LAPD traffic data, LADOT will take the lead in developing a Transportation Database (TransBase) to support analysis of crash patterns as a function of basic street configuration, design details and other context-specific traffic factors (e.g. motor vehicle speed and volumes; signalization and turning movements; pedestrian and bicycle movements, volumes, desire lines and delay including mid-block locations; nighttime and dusk/dawn visibility, intersection complexity; physical safety and specific participant). Subject to data availability, we will examine user factors as well, such as intoxication and medical conditions, license type, driver education/training, etc.

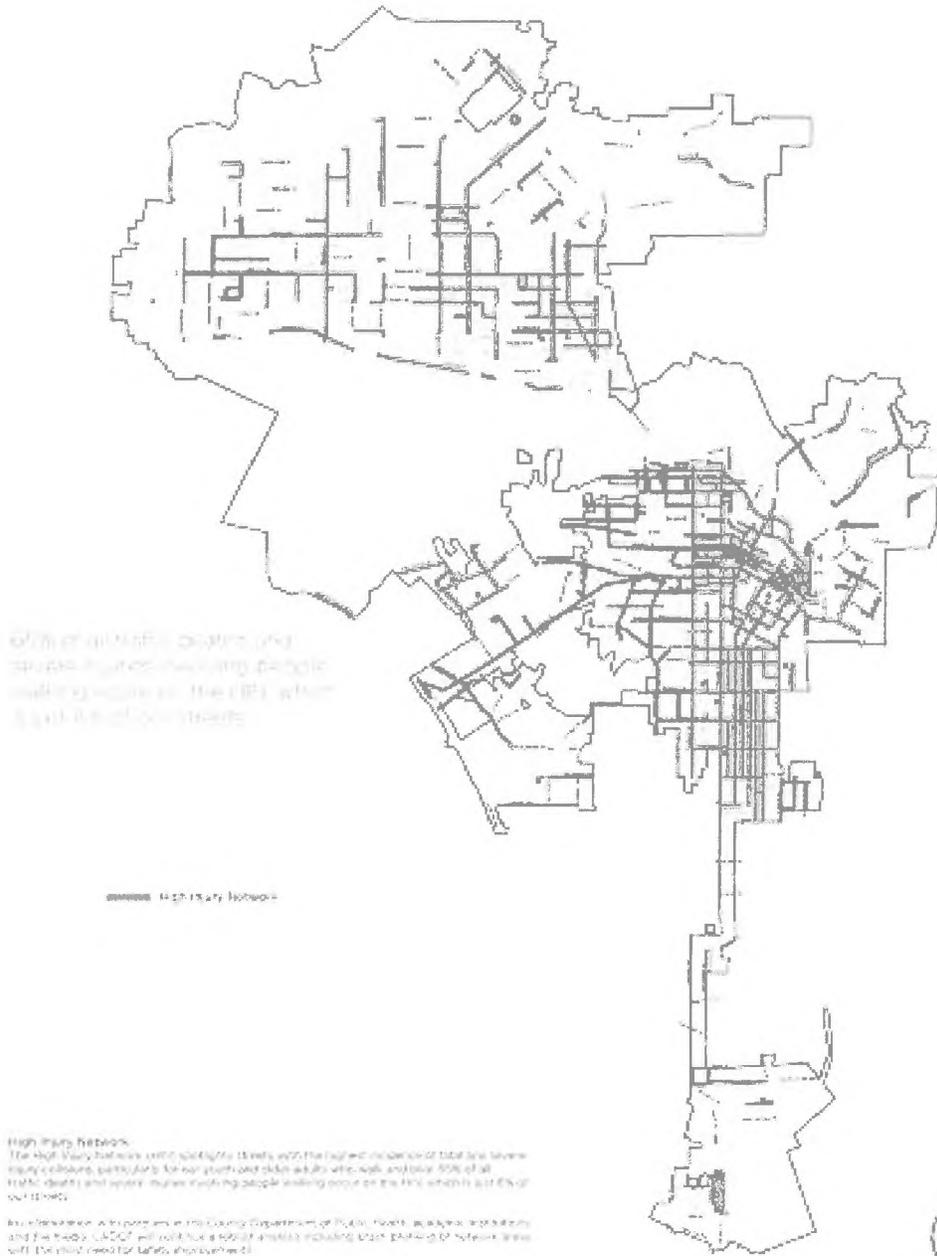
With a comprehensive understanding of crashes at spot locations and targeted areas with high densities where people walk (including transit locations and neighborhoods), LADOT and LAPD will work collaboratively to direct activities and investments along the HIN with the goal of reducing traffic violence on our streets.

FISCAL IMPACT

No direct impact to the City's General Fund is anticipated.

⁴ A.C. Fayish and Frank Gross, "Safety effectiveness of leading pedestrian intervals evaluated by a before-after study with comparison groups," Transportation Research Record No. 2198 (2010).

Exhibit A
The City of Los Angeles High Injury Network



visionzero.lacity.org

