

South Bay Cities Council of Governments

November 13, 2017

TO: SBCCOG Transportation Committee
FROM: Steve Lantz, SBCCOG Transportation Director
RE: SBCCOG Transportation Update – November 2017

Adherence to Strategic Plan:

Goal A: Environment, Transportation and Economic Development. Facilitate, implement and/or educate members and others about environmental, transportation and economic development programs that benefit the South Bay.

FEDERAL

Smart Cities Bill Would Fund Local Initiatives To Enhance Infrastructure

The Smart Cities and Communities Act of 2017 (HR 3895) introduced on October 4th would set aside \$220 million per year to replace outdated infrastructure with smart technologies like connected roadway infrastructure, environmental sensors, and data analytics. In addition to the new funding, the bill would increase federal coordination of smart cities programs. Funds could be used by cities to pursue smart projects, enhance cybersecurity and privacy protections, and to develop a technologically-savvy workforce.

STATE

Caltrans Considering 3+ ExpressLanes on I-405, I-105 and I-210

All carpool and toll lanes that receive federal funds are required to maintain average speeds of 45 mph at least 90% of the time during peak periods. But speeds along some busy L. A. County segments, such as the northbound 110 between Slauson Avenue and downtown Los Angeles, fell as low as 30 mph last year during morning rush hour.

As part of a performance impact study, Caltrans and Metro are reconsidering the minimum number of passengers required to drive in the carpool lanes on stretches of the 405, 105 and 210 freeways. The failure to maintain speeds on more than 30% of its High Occupancy Vehicle (HOV) Lanes statewide may cause Caltrans to raise the minimum number of vehicle occupants in non-zero-emission vehicles from 2+ to 3+. Recommendations are due next fall.

One additional challenge to ExpressLane congestion is AB 544, signed into law in October, that extends authority of drivers of alternative fuel and plug-in electric vehicles to use HOV lanes until September 30, 2025 regardless of the number of passengers in the vehicle. Although a good incentive for conversion of the fleet to zero emission vehicles by 2025, allowing zero emission vehicles in HOV lanes and free in ExpressLanes poses challenges for encouraging more efficient use of vehicles and transit.

Governor Signs / Vetoes Transportation Bills

Governor Jerry Brown in mid-October signed a number of transportation bills into law and vetoed one, as follows:

AB 1082 allows an electric corporation to file with the California Public Utilities Commission (PUC), by July 30, 2018, a pilot program proposal for the installation of EV charging stations at school facilities and other educational institutions, giving priority to school facilities and other educational institutions located in disadvantaged communities. The PUC is required to review, modify, and decide whether to approve a proposal by December 31, 2018.

AB 1083 authorizes an electric corporation, in consultation with the Department of Parks and Recreation, PUC, Energy Commission, and State Air Resources Board, to file with the public utility commission (PUC), by July 30, 2018, a pilot program proposal for the installation of EV charging stations at state parks and beaches within its service territory. The bill would require the PUC to review, modify, and decide whether to approve a proposal by December 31, 2018. The bill also would require the department to determine which state parks or beaches are suitable for charging stations.

AB 1452 authorizes various local authorities to create designated electric vehicle charging stalls or spaces on public streets in their jurisdictions, from which vehicles that aren't using them for their intended purposes can be cited and removed from the designated stalls or spaces on public streets.

AB 390 makes it legal, starting January 1, 2018, for pedestrians to enter a crosswalk while a pedestrian countdown signal is flashing. Under previous state law, it was illegal to step into a crosswalk if the countdown timer was counting down—even if the person crossing the street had enough time to make it to the other side before the traffic light changed. The new law does not apply to older crossing signals that don't have a countdown timer. If the signal only shows "Walk" or "Don't walk," it's illegal to cross if that red hand is lit up.

Governor Brown vetoed AB 17, a student transit pass program. The bill originally included \$100 million in funding for the program, but the final bill was approved without a state funding source or amount. The Governor noted that Metro and many other transit agencies already have reduced fare programs for students. He wants a fuller discussion on how a statewide program would work and be funded.

California DMV Revises Autonomous Driving Rules To Get Ready For Self-Driving Future
Robot cars with no steering wheels, brake pedals or accelerator pedals — and no drivers — could be legal in California by June 2018 under updated regulations proposed by the Department of Motor Vehicles on October 11th. However, makers of the autonomous cars must certify their safety to federal regulators under standards that are still evolving, so actual deployment is likely to take longer.

California's rules apply only to vehicles under 10,000 pounds, meaning that autonomous trucks will be addressed separately. Long-distance autonomous trucks in platoons of connected vehicles are considered as one of the most promising applications for air quality, fuel conservation and efficient use of freeway lanes.

The DMV's rules acknowledge that federal authorities oversee vehicle safety, while the state's role is to enforce traffic regulations and licensing. The new regulations revise DMV directives

issued last March that required a backup driver at the wheel. The proposed new regulations include a template for carmakers to report on disengagements (when an operator has to take control of a robot car); specifying what information companies must include when notifying local governments about driverless testing; and outlining conditions under which companies need to amend their DMV applications for testing or deployment.

Federal rules are in flux, with Congress currently working on a bill (S 1885) to hammer out autonomous-driving regulations. Current federal regulations block sales of autonomous cars altogether, so Congress is trying to conceptualize a system that would allow autonomous vehicles to be made publicly available as they meet performance-based safety thresholds.

The federal law could preempt states' rights to enact their own self-driving rules. However, the U.S. Department of Transportation's recent "Vision for Safety 2.0" autonomous-car guidelines stress that the current regulations are voluntary.

REGION

Garcetti / Bonin Announce Playa Del Rey Lane Restorations, New Traffic Safety Measures

After months of complaints about increased commute times, the filing of two lawsuits and the launch of a recall effort against L. A. City Councilman Mike Bonin, Los Angeles Mayor Eric Garcetti and Bonin announced on October 18th that they will reverse this summer's decision to eliminate traffic lanes on major roadways in Playa del Rey.

Lane restoration work is scheduled to begin with Culver and Jefferson Boulevards on October 27, with work on Pershing Drive beginning in November. A remaining stretch of Vista del Mar, from Waterview to Culver Boulevard, will remain narrowed until after the Bureau of Engineering completes work in the area on the Dual Force Main project — a long-planned, multi-million-dollar project to prevent a sewage leak into the Santa Monica Bay. The city restored lanes on Vista del Mar in July.

In a joint statement, Garcetti and Bonin acknowledged the lane eliminations had been unsuccessful in Playa del Rey. Instead, the city will install new safety measures including:

- Speed Feedback Signs – LADOT will place speed feedback signs on Culver Boulevard and Pershing Drive, notifying drivers when they have exceeded the speed limit.
- Flashing Beacon Crosswalks – LADOT will add flashing beacons to the crosswalk at Culver Boulevard and Pershing Drive to better protect pedestrians as they cross the street.
- New Crosswalks – LADOT will install new flashing beacon crosswalks at Culver Boulevard and Earldom Avenue and at Pershing Drive and Rees.
- Speed Tables – LADOT will install speed tables at crosswalks to slow speeding traffic and protect pedestrians.
- "Rest in Red" Signals – The traffic signal at Culver and Nicholson and Culver and Vista Del Mar will be adjusted to require drivers to slow their speed as they approach downtown Playa del Rey from Culver Boulevard. "Rest in red" settings will also be applied to signals at Pershing and Manitoba, Pershing and Westchester Parkway, Culver and Vista Del Mar and Culver and

Nicholson.

- Leading Pedestrian Intervals – Commonly referred to as “pedestrian head start” signals, crossing signals will be adjusted to allow pedestrians to enter crosswalks at intersections before vehicles are allowed to make their turns. This will occur at three intersections - Pershing / Manchester, Pershing / Manitoba, and Pershing / Westchester Parkway.

25% Of 110 ExpressLane Solo Drivers Don’t Pay; New Enforcement Technology Coming

For nearly five years, the 110 Freeway’s carpool lanes have been open to solo drivers who are supposed to pay up to \$20 or more during the most congested periods of morning rush hour (drivers with two or more people in the vehicle are not charged for using the toll lanes). However, a recent Metro survey found that on any given morning, more than 25% of drivers in the toll lanes have evaded the single-occupant toll by simply setting their ExpressLane transponder switch on 2 rather than 1.

Los Angeles County toll lane drivers are charged a per-mile price that changes as often as every five minutes, based on the congestion in the paid lanes. As traffic slows down, the per-mile price rises until it hits a Metro-mandated ceiling of \$1.90 per mile. When the highest tolls have no effect on congestion in the lanes, Metro turns to “carpool only” mode that bars solo drivers from entering the lanes until travel speeds rise. The use of “HOV Only” status rose 15% over the last fiscal year, to 352 hours — an average of more than one hour per workday.

Metro currently relies on the California Highway Patrol for enforcement but the enforcement strategy is not effective for such a high violation rate. Rather than invest in more CHP enforcement, Metro is developing an automated system designed to detect the number of occupants in a car and issue a ticket if the transponder setting does not match. The system should be finished next year. Each violation will be double-checked by a human employee during the first six months of the program, with the goal of teaching the automated system to become more accurate.

Torrance Transit Replaces Line 4 With Expanded 4X Line

Torrance Transit Line 4X Express debuted on October 1 to replace Line 4. The new line provides bi-directional express bus service in the a. m. and p. m. peak periods on weekdays and on Saturday.

Along with providing transit for commuters, the express service is designed to connect various points of interest between Torrance and Downtown Los Angeles, including the Del Amo Mall, Torrance Civic Center, USC, Exposition Park, the L.A. Convention Center, L.A. Live, and the Staples Center.

Rides will cost passengers \$2 each way. Senior citizens will be able to ride the Line 4X for 75 cents and students will be able to ride for \$1.

TRENDS

Academics Ponder Driverless Vehicle Impact on Cities

Urban planning as a profession is largely unprepared for autonomous vehicles. Through the convergence of automation, electrification and ride-sharing technologies, autonomous vehicles could significantly reshape real estate, urban development and city planning — as the automobile did a century ago.

Planners are just beginning to explore autonomous-vehicle-induced trip generation impacts on the smart city. Three Australian academics (Tan Yigitcanlar, Graham Currie, and Md. Kamruzzaman) published an article in September predicting that by 2040 autonomous vehicles will comprise up to half of all road travel. They see the potential for the technology to reshape the city in the following ways:

- decrease private motor vehicle ownership, congestion and air pollution;
- increase ride sharing, road safety, access and mobility;
- redesign or eliminate traffic signals;
- repurpose on-street and off-street parking for parks, affordable uses, or other higher valued uses in urban cores;
- improve mobility for people who are “transport-disadvantaged”;
- if autonomous vehicles are electric, convert gas stations to other uses, such as multi-use neighborhood centers; and
- if a significant share of the autonomous vehicle fleet is comprised of “shared vehicles” (i.e.: Uber, Lyft, micro-transit), convert residential garages to studio apartments, short-term rentals or granny flats.

The researchers also acknowledge some unknowns. For example, autonomous vehicles could use road networks more efficiently and thus free up some road space if trip generation rates and population growth are held constant. If so, current travel lanes could be redesigned for a whole new spectrum of social functions, street trees, walkways or bike lanes.

However, it is likely these vehicles will enable previously suppressed trips to be taken. The resulting increase in traffic volume could reduce the potential to free up road space for other uses.

With an autonomous-vehicle-dominated city, buildings and development will have to adapt to new patterns of traffic flow. They will need to be designed for door-to-door services – mainly accommodating the autonomous drop-offs and pick-ups at each and every site. Dedicated curbside parking spaces may be needed to allow autonomous deliveries and passenger boarding/alighting adjacent to higher density developments.

Autonomous vehicles also have the potential to induce more urban sprawl, as more effortless travel becomes available to more people. In conjunction with telecommuting enabled by technology, this may lead to a rethinking of the convenience of proximity to the city and major employment centers and enable low cost housing to be constructed on the urban fringes. By making travel cheaper and more convenient, autonomous vehicles might make the economics and practicality of sprawl more attractive for those that do not have to be in the office daily..

The authors note that a future involving widespread use of autonomous vehicles presents both land-use opportunities and challenges. Planners need to factor in autonomous travel into their planning and permitting processes. Progressive outcomes will require an objective assessment of their complex land-use, economic and community influences on our evolving cities. Planning

controls and land supply will be key instruments to control the balance between greenfield and infill developments.

Why You May Not Own Your Car Sooner Than You Might Expect

Although the driverless economy is 20 years off, car manufacturers are easing into the future hoping to sell lots of vehicles with the latest sophisticated driver-assistance technology - particularly for collision avoidance.

If built-in technology can prevent everything from fender benders to fatalities, that's most of the problem solved, at least as far as insurers are concerned. So, insurance costs come down for those that purchase the new technology. But there's a rub. The manufacturers are developing complex fail safe systems that will need to be maintained and upgraded by car owners.

The car manufacturers may be betting that the expense of their technology options will pale compared to insurance rates that will be borne by those without crash avoidance technology. But for the hordes of vehicle owners who may not be able to afford the new technology or the insurance increases, the liability will be crushing if it can be shown that the owner was negligent in equipping or properly maintaining the new technology.

A recent University of Texas study found, if the full cost of ownership is accounted for, potentially one-quarter of the entire U.S. driving population might be better off using ride services versus owning a car. To see if you would be better off to use a rideshare service or drive, use their calculator:

<http://www.rideordrive.org/calculator>.

To avoid the increased liability cost, rather than owning a car, you may choose to rent, lease, share or contract with the provider of vehicles – effectively changing car manufacturers and dealers into service providers rather than car sellers. Under the new service model, the service provider takes on the responsibility for the technology, and the liability, while also providing the latest versions in a very fast-changing market. Think about that other technology driven device you already use as often as your car. No one really falls in love with the particular smart phone they have at the moment, knowing the technology and model will change so the device is usually packaged into a service plan.

L. A. Metro Is Developing A Technology-Driven Micro-transit Service

Metro issued a request for proposals on October 25th to bring a new service known as “MicroTransit” to the region through a pilot program. Metro will hire a team made up of tech firms, urban planners, and marketers that will work hand-in-hand with the agency to design and run the new pilot project.

Metro's goal of the project is to determine whether this type of on-demand service will provide a convenient new option for their current riders while also encouraging new riders to use the transit system.

Metro's definition of MicroTransit is a shared-ride vehicle, smaller than a traditional bus but larger than a sedan, that you can order (like you would a Lyft or Uber) that is not tied to a fixed route or even a fixed schedule. It will follow turn-by-turn instructions from a navigation system that uses live traffic conditions and real-time requests for pick-ups and drop-offs to dynamically generate the most efficient possible trips for Metro riders. Trips will be designed to integrate

with Metro's larger transit network with a low fare to extend the reach of Metro's fixed route bus and rail networks and reduce transfers.

The solicitation is divided into two parts. In part one, the private sector will support Metro with planning and design of the service. In part two, the private sector will help to guide Metro on the implementation and evaluation of the new service. The actual service will be operated by Metro employees.

MicroTransit is considered a premium service, so the fare will likely be higher than Metro's regular \$1.75 bus or rail fare but likely cheaper than a similar ride in a Lyft, Uber, taxi or other private mobility services. Metro doesn't believe its service will compete with private mobility services. The agency's transit integration design goals will focus the new technology on serving pooled rides and connections to other transit, accessibility for passengers with disabilities and service for those without smartphones or bank accounts. Metro envisions that MicroTransit could be useful in parts of their service area that aren't quite dense enough to support frequent bus service, or in areas where getting to bus or rail stops can be tricky due to distance or multiple transfers.

Metro's MicroTransit innovation comes at a time that public transit agencies across the nation are losing riders to Uber and Lyft services. An October 2017 study from UC Irvine shows that people are indeed switching. A large share of ride-hailing traffic is substituting for more efficient modes of transportation. Findings from the study:

- After using ride-hailing, the average net change in transit use is a 6% reduction among Americans in major cities.
- Ride-hailing attracts Americans away from bus services (a 6% reduction) and light rail services (a 3% reduction) but serves as a complementary mode for commuter rail services (a 3% net increase in use).
- 49% to 61% of ride-hailing trips would have not been made at all, or by walking, biking, or transit.

Honolulu's 'Distracted Walking' Law Cites Cellphone Users In Crosswalks

Police in Honolulu on October 25th began writing tickets for people who get distracted by their cellphones (or a tablet, or video game) while walking in a crosswalk. Honolulu holds the unfortunate distinction of being a major city with more pedestrians being hit in crosswalks, particularly our seniors, than almost any other city in the country.

Honolulu is the first major city in the country to pass such a law, citing a high rate of pedestrians being hit in crosswalks. Under the new law, the only legal reason for a pedestrian to use a cellphone while crossing a street or highway would be to call 911 to report an emergency.

As the law took effect, the city of Honolulu [cited a National Safety Council warning](#) that when pedestrians use a cellphone, "this distraction can cause them to trip, cross roads unsafely or walk into motionless objects such as street signs, doors or walls." After thousands of distracted walking injuries were reported, the NSC says, it added a new category to track the trend in its annual statistical report, Injury Facts.

L.A. Is Testing A High-tech Streetlight That Can Charge Your Smartphone & Car

The [Los Angeles City Bureau of Street Lighting](#) — which manages some 215,000 streetlamps — is exploring a whole new generation of “smart lighting” that seeks to both declutter the street and offer more technology than has ever existed in a single pole.

The city has installed what it is calling a “smart node” on Wilshire Boulevard near the La Brea Tar Pits. The device looks a lot like a typical streetlight pole, but is packed with technology designed to support mobile cellphone service, surveillance cameras, and even electric vehicle charging.

The smart node pilot project (as of today there’s still just one pole) includes an emergency beacon on top that can flash different colors. Just beneath is an LED lighting fixture. The device also includes cellphone antennas, Wi-Fi capabilities, speakers to broadcast music or announcements, video surveillance cameras, electric vehicle charging ports, and mobile phone charging ports as well as a standard 110-volt outlet. Future testing could also involve plugging in any number of sensors, being envisioned by city technology officials to gather data on temperature, CO2, gunshot detection, and traffic volume information.

The pilot pole is a logical extension of street lighting upgrades Los Angeles City has already been involved in to replace its old sodium-vapor streetlights with smart LED versions that use less energy and save money and replace old poles with "smart poles," which include 4G LTE wireless hotspot technology. The city has replaced about 100 of these poles and has plans to install about 500 in the next four years.