

South Bay Cities Council of Governments

January 9, 2017

TO: SBCCOG Steering Committee

FROM: Steve Lantz, SBCCOG Transportation Director

RE: SBCCOG Transportation Update – January 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

Looking Down The Road At Federal Transportation Priorities

With the U. S. election over, Republicans securing both houses of Congress, Elaine Chao being nominated as President Trump’s Transportation Secretary, and a holiday news lull, transportation pundits spent December speculating on the future of federal transportation policy during the next four years. Although details about specific policies have yet to be released, here is the current Washington speculation around the area of infrastructure.

Although the President-elect proposed \$1-trillion in spending to fix America’s roads, bridges, tunnels and more during his campaign, Trump and Senate Majority Leader Mitch McConnell independently said in mid-December healthcare reform and tax reform will be the first priority for their 2017 legislative agenda. Funding an expanded infrastructure investment program could be difficult since Republicans are wary of the trillion-dollar price tag. While Democrats have expressed a willingness to work with the new administration on an infrastructure bill, there has also been pushback on the specifics of the President-elect’s infrastructure plan, which will encourage private companies to take on infrastructure projects, due to Democrat’s historic opposition to privatization.

Trump’s nominee for Department of Transportation Secretary, Elaine Chao, who is a former Labor Secretary in the Cabinet of President George W. Bush and the wife of Senate Majority Leader Mitch McConnell, will lead the Trump administration’s regulatory initiatives. Not only does she have a history of rolling back regulations, she also has roots in the shipping industry. Her father, James S.C. Chao, is the founder and chairman of the Foremost Group, a shipping and trading enterprise.

Taking her cue from the President, Chao is expected to first focus on regulatory reform rather than infrastructure legislation. Labor unions previously have been

critical of Chao, especially regarding the minimum wage as well as labor law enforcement and worker safety. And lobbyists are already placing their “asks” in her inbox. Trucking organizations hope she will roll back regulations that “hinder small-business truckers and undermine overall transportation efficiency,” said Todd Spencer, executive vice president of Owner-Operator Independent Drivers Association. The American Association of Port Authorities wrote a letter to the President’s transition team, recommending “landside investments, modernized navigation channels and [improved] border security”.

Update on FAA Drone Registrations

Since finalizing its commercial drone rule in August, the Federal Aviation Administration (FAA) as of mid-December has registered drones for more than 581,000 hobbyists and has put another 41,000 drones on its books for commercial use. Nearly 13,000 people have passed the remote pilot certification test, while about 1,500 have failed. The agency has processed about 2,600 of the 4,300 applications for flying drones within controlled airspace and denied more than 1,900 of those requests. FAA also issued 130 regulatory waivers to allow night operations, flights over people and remote control of the drones beyond the pilot’s line of sight.

Proposed U. S. DOT Rule Would Require Vehicle-to-Vehicle (V2V) Communication Between Cars

Citing an enormous potential to reduce crashes on U.S. roadways, the U.S. Department of Transportation National Highway Traffic Safety Administration (NHTSA) on December 13th issued a proposed rule, for a 90-day comment period, that would advance the deployment of connected vehicle technologies throughout the U.S. light vehicle fleet.

The proposed rule could prevent hundreds of thousands of crashes every year by helping vehicles “talk” to each other. NHTSA estimates that automated safety applications could eliminate or mitigate the severity of up to 80 percent of non-impaired crashes, including crashes at intersections or while changing lanes.

Once deployed, V2V will provide 360-degree situational awareness on the road and will enhance vehicle safety and advance the federal autonomous vehicle technology program. V2V communications can detect developing threat situations hundreds of yards away, and often in situations in which the driver and on-board sensors alone cannot detect the threat. The technology uses a dedicated short range communications (DSRC) device to transmit data, such as location, direction and speed, to nearby vehicles. That data would be updated and broadcast up to 10 times per second to nearby vehicles, and using that information, V2V-equipped vehicles can identify risks and provide warnings to drivers to avoid imminent crashes. Vehicles that contain automated driving functions—such as automatic emergency braking and adaptive cruise control—could also benefit from the use of V2V data to better avoid or reduce the consequences of crashes.

The proposed rule would require automakers to include V2V technologies in all new light-duty vehicles. The rule proposes requiring V2V devices to “speak the same language” through standardized messaging developed with industry. Separately, Federal Highway Administration is also expected to issue guidance soon for Vehicle-to-Infrastructure (V2I) communications, which will help transportation planners integrate the technologies to allow vehicles to “talk” to roadway infrastructure such as traffic lights, stop signs and work zones to improve mobility, reduce congestion and improve safety. Privacy is also protected in V2V safety transmissions since the technology does not involve the exchange of information linked to or, as a practical matter, linkable to an individual, and the proposed rule would require extensive privacy and security controls in any V2V devices.

A light-duty vehicle is a car or a truck having a gross vehicle weight rating (curb weight plus payload) of no more than 8,500 pounds which is “(1) Designed primarily for purposes of transportation of property or is a derivation of such a vehicle, or (2) Designed primarily for transportation of persons and has a capacity of more than 12 persons, or (3) Available with special features enabling off-street or off-highway operation and use.

The U.S. Postal Service could enhance smart cities

According to a panel at the Smart Cities Summit held in Boston on December 7th, the future of the U. S. Postal Service (USPS) may revolve around gathering data by equipping their trucks with video cameras and vibration sensors to collect data on the condition of roads and other infrastructure such as bridge and water conditions. The Postal Service could map the city every day with its fleet of vehicles. The data could be automatically analyzed and sent to cities to enhance their infrastructure condition monitoring programs. If cities played along, the USPS could also derive a revenue stream that reverses billions of dollars of annual losses and provides stability to its 500,000 employees.

According to a USPS Inspector General report discussed at the summit, the idea that the Internet of Things and big data can revamp the USPS is well timed. For fiscal 2016, the USPS preliminary estimated net loss is \$5.6 billion. In addition, the USPS has hit its Treasury borrowing limit. The service needs a strategic plan for services that don't make money and is restricted by law to expand into non-postal businesses.

However, there are obstacles. Federal regulations prevent the Postal Service from entering non-postal businesses. Becoming a sensor network for smart cities would be a new business that would require approval. In addition, interoperability between regions, technologies and data flow would all have to be sorted out. And it is too early to predict whether these services will be a significant or even a consistent new line of business.

US DOT Funds \$12.5 Million METRANS Transportation Study

METRANS, the research collaboration between USC and California State University Long Beach, has been selected to lead a multi-state effort to study and solve a range of transportation concerns under a \$12.5 million grant awarded by the U.S. Department of Transportation. METRANS is expected to match the grant, bringing the total award for the five-year project to \$25 million.

The METRANS Transportation Center will lead the Pacific Southwest Region University Transportation Center. The new regional center is a partnership of USC, Cal State Long Beach, UC Davis, UC Irvine, UCLA, University of Hawaii at Manoa, Northern Arizona University, and Pima Community College in Tuscan, Arizona..

According to Genevieve Giuliano, the principal investigator for the grant and director of the METRANS Transportation Center, the research will focus on the following issues affecting states in the region — technology to address transportation problems, easing mobility for vulnerable populations, improving resilience while protecting the environment and managing mobility in high-growth urban areas.”

METRANS was established in 1998 as a collaborative research effort involving the USC Price School of Public Policy, the USC Viterbi School of Engineering and the Cal State Long Beach Center for International Trade and Transportation. The federal designation and grant will build upon METRANS’ ongoing efforts in interdisciplinary research, education and outreach.

Federal Transportation Funding Increase On Hold

The FY 2018 appropriations process has begun in earnest on Capitol Hill and even though Congress is not expected to pass a budget until next summer, both chambers passed continuing resolutions on December 8th and 9th that will provide funding for national security and federal operations (including disaster relief) through April 28, 2017.

As a result of the continuing resolutions, an infrastructure funding increase that was approved by Congress last year is once again on hold. Under the Fixing America's Surface Transportation (FAST) Act passed in December 2015, investments in Highway Trust Fund transportation projects were supposed to increase by \$2.4 billion starting in fiscal 2017.

STATE

\$6 Billion In Transportation Funding In Transportation Reforms Proposed

In SB 1 And AB 1

As reported last month, the California legislature failed to address state transportation funding shortfalls during the two-year special session. In the aftermath, two bills were introduced on December 5th. SB 1 (Senator Jim Beall)

and AB 1 (Assembly Member Jim Frazier) would provide over \$6 billion for state transportation funding, including \$2.25 billion for local streets and roads.

The new state revenue would be created by increases to taxes on gas, diesel, and vehicle fees. The revenue will be shared on a 50/50 basis by the state and local governments. The bills, which have minor differences, propose readjusting the state's obsolete gas tax and reforming the user-pays system to ensure all motorists contribute their fair share to the maintenance of the roads. Increased fees would include:

- Increasing the per-gallon gas tax by 12 cents in phases over three years; 6 cents the first year to 9 cents in the second year and 12 cents in the third year. SB 1 phases in the 12 cent increase over three years, while AB 1 does not include a phase-in period.
- Ending Board of Equalization's annual adjustment of the price-based per-gallon gas excise tax rate to 17.3 cents.
- Increasing the diesel excise tax by 20 cents and the sales tax by 4 percent; raising \$853 million in revenue annually. SB 1 also would impose a 0.5 percent increase to this sales tax which would generate a \$40 million set aside for intercity rail and commuter rail.
- Enacting an annual \$100 fee on zero-emission vehicles and increase annual registration fee for all vehicles by \$38 per vehicle, raising about \$1 billion annually. SB 1 imposes a \$100 Vehicle Registration Fee on zero emission vehicles while AB 1 imposes a \$165 Vehicle Registration Fee.
- Returning \$500 million in vehicle weight fees currently used for transportation debt service back to road maintenance. The revenue would be gradually returned in \$100 million increments over five years. SB 1 phases-in a percentage of the truck weight fees back to transportation projects, while AB 1 phases-in specific weight fee amounts every year. SB 1 caps the weight fee transfer at 50 percent in FY 2020-21, while AB caps the weight fee transfer at \$500 million in FY 2020-21.

The bills also call for speeding up the repayment of \$706 million in loans made to the General Fund from various transportation-related accounts and increases the Cap and Trade allocation for mass transit, doubling the current allocations for the Transit and Intercity Rail Capital Program and the Low Carbon Transit Operations Program. In addition to funding increases and reallocations, SB 1 seeks up to \$70 million in Caltrans efficiencies and reserves those savings for human-powered transportation, such as bicycle and pedestrian.

Other reforms in SB 1 and AB 1 include:

The League of California Cities has summarized key proposed reforms:

- Establishes local reporting requirements.
- Requires cities and counties to maintain existing general fund levels (from FY 10 to FY 12) to qualify for state transportation funding.

- Makes permanent the National Environmental Protection Act (NEPA) delegation authority (see story below).
- Requires state and local agencies to create programs that promote employment in advanced construction through pre-apprenticeship as a condition of receiving RMRA funds.
- Incorporates “complete streets” design concepts into the Caltrans Highway Design Manual.
- Moves the California Transportation Commission from within the California State Transportation Agency, to establish it as its own entity within state government.
- Creates the Office of Transportation Inspector General as an independent entity and office within state government to ensure transportation funds are used efficiently and in compliance with laws. The Governor would appoint the inspector general to a six-year term and the inspector general would be authorized to conduct audits and investigations involving state transportation funds with all affected state agencies.
- Permanently extends and expands the limited CEQA exemption for transportation repair, maintenance, and minor alteration projects to existing roadways. Expands the exemption to cities and counties with populations greater than 100,000 and applies the exemption to state roadways.
- Creates an Advanced Mitigation program for transportation projects. Authorizes the Natural Resources Agency to prepare, approve, and implement advance mitigation plans for one or more planned transportation projects. An advanced mitigation plan is defined as a regional or statewide plan that estimates the potential future mitigation requirements for one or more transportation projects and identifies mitigation projects, sites, or credits that would fulfill some or all of those requirements. Authorizes the agency to administer the program, establish mitigation banks, secure areas for the purpose of providing mitigation, and allow transportation agencies to use mitigation credits to fulfill mitigation requirements. The program’s intention is to supplant existing CEQA requirements, not substitute for them.

Uber Pulls Self-Driving Cars From California Roads

Uber has pulled its self-driving cars from California roads. A week after Uber launched self-driving service with 16 vehicles in San Francisco, on December 20th, the California Department of Motor Vehicles demanded it stop until the company got a special testing permit to run on public roads. The DMV confirmed that it had moved to revoke the registrations of 16 cars, saying officials had determined that the registrations were improperly issued because the vehicles were not properly marked as test vehicles. Uber said it was not obligated to have a permit because its vehicles require monitoring by a person in the car and announced it had relocated the self-driving cars to Arizona and will be expanding its self-driving pilot program in the next few weeks.

After self-driving Uber cars were spotted committing a range of traffic violations in San Francisco, the company has admitted that its autonomous vehicles have a

"problem" with the way they make right turns across bike lanes. An Uber spokesperson said that the company was working to fix a programming flaw that could allow the cars making unsafe turns through the city's cycling lanes. Rather than merging into bike lanes early to make right-hand turns, as per California state law, the Uber vehicle reportedly pulled across the bike lanes at the last second, risking collisions with oncoming cyclists. The cars' human "safety drivers" were reportedly told that they should take manual control when turning right in a street with a bike lane while engineers try to fix the vehicles' programming.

REGION

Metro Authorizes \$600 million LAX 96th Street Transit Station For Design Phase

The Metro Board of Directors on December 1st certified the final environmental impact report for the nearly \$600 million Airport Metro Connector's 96th Street Transit Station that will connect the Green and Crenshaw/LAX light rail lines to an automated people mover that will serve the LAX central terminal area. The multimodal transit center will be built on a 9.5-acre site one mile east of the airport. In addition to the people mover station, the project will include three light rail platforms, a bus plaza, a bicycle hub and passenger pick-up and drop-off areas. Construction is expected to begin in fiscal year 2018-19 and finish between 2021 and 2023, concurrent with the delivery schedule for the people mover.

Metro To Offer Rail Line, Station Naming Rights To Corporations, Colleges

The Metro Board of Directors approved a new advertising program in which stations and rail lines will be adorned with an institution's name and logo, for a price, under a new Corporate Sponsorship/Naming Rights Program. Under the policy, Metro will allow corporations, colleges, and medical centers to brand a particular rail or bus line, station or Metro building with the institution's name and logo. Metro executives say the move will not only make routes and destinations easier for riders to recognize and remember, but also will help riders distinguish landmarks and entry points to various communities across Metro's transit system. Metro expects the new advertising policy will yield millions of dollars annually in revenue.

The staff recommendation noted similar corporate sponsorship programs in San Diego, Chicago, Cleveland, and Denver that generate millions of dollars annually from their programs. The new policy requires advertisers to "uphold the location and historic reference name of the property" to ensure that it remains easily identifiable and recognizable by the general public. Metro will also not consider advertising proposals from some business sectors – including adult entertainment, tobacco, firearms, and political and religious organizations.

The partnerships will fall into two categories: Short-term Sponsorships (agreements extending a maximum of 12 months or less for assets such as programs, events, seasonal events, or temporary station re-namings); and, Long-term Sponsorships (agreements lasting a minimum of five years for assets such as

transit services, rail lines, stations, buildings, etc.). The approved rate structure allows a revenue-generating, payment-in-kind, or value-in-kind options.

Metro will contract with a qualified and independent firm with extensive experience in valuations of naming rights opportunities to ensure that Metro receives fair market value for the naming of its property and assets.

Metro Announces Minor Route Changes On San Pedro Lines 910/950 To Improve Safety and Service

Effective December 11th, Metro made a minor northbound route change to improve safety in San Pedro. Line 910/150 buses now use Beacon Street instead of Harbor Boulevard. Passengers who board northbound buses on Harbor Boulevard at 1st Street should board on Beacon Street at 1st. Passengers who board northbound buses at the Harbor-Beacon Park & Ride Lot should board on northbound Beacon Street at O'Farrell Street. There are no changes to the southbound route. Three additional buses have also been added to the line to improve on-time performance. In order to improve access and reduce overcrowding during peak travel periods, Line 950 buses are now serving the I-110 Harbor Transitway Slauson and Manchester Stations.

L. A. City Council Authorizes Electric Car Sharing Program For Disadvantaged Neighborhoods

The Los Angeles City Council on December 13th authorized a contract with BlueCalifornia to operate an electric car-sharing program to some L. A. City disadvantaged neighborhoods. Users can check out electric vehicles for single trips or short periods and return the car to any charging station.

The pilot program will be located in communities that are within the top 10 percent of the highest need communities on the California EPA's CalEnviroScreen index -- a tool that was used to identify neighborhoods most impacted by pollution and poverty: Westlake, Pico-Union, and neighborhoods north of USC, as well as portions of downtown, Hollywood, and Koreatown. The Shared-Use Mobility Center, a nonprofit organization that supports the program, said the pilot is expected to recruit a minimum of 7,000 new car-sharing users, who in turn are expected to sell or avoid purchasing 1,000 private vehicles and reduce annual greenhouse gas emissions by approximately 2,150 metric tons of CO₂.

The program is being funded by \$1.67 million grant from the California Air Resources Board, a \$10 million investment from the company, and \$1.82 million in support from the city. BlueCalifornia will initially create a 100-car electric fleet and 200 charging stations as part of the contract. BlueCalifornia is a subsidiary of the French company Bolloré Group, which has been operating electric car sharing in Paris since 2011 and also launched a car-share program in Indianapolis last year. Officials hope to expand the pilot beyond L.A. and use cap and trade funds to help reach California's stated goal of getting 1.5 million electric vehicles on the road by 2025.

TRENDS

Lyft Partnership Benefits The Village to Village Network in Palo Alto Pilot Program

In a nod to the burgeoning importance of seniors as a target demographic of technology companies, Lyft and Home Care Assistance announced the ridesharing company will donate 1% of fares booked through the in-home care company to the Village to Village Network, an organization that helps seniors live independently.

Under the partnership, older adults in the Palo Alto area can bypass the Lyft smartphone app and instead request a Lyft ride by calling Home Care Assistance. Lyft's competitor, Uber, announced a similar partnership with 24Hr HomeCare earlier this year.

The emergence of ties between the ridesharing companies and in-home care companies underscores a convergence of interests between the two segments: Ridesharing services can extend the ability of older adults to live independently while the 50-plus demographic provides a lucrative market for tech companies. The AARP estimates adults over the age of 50 account for \$7.6 trillion dollars of annual economic activity in the U.S. The pilot program is responding to a 2015 study by the Pew Research Center that found only 27 percent of 65-plus adults own a smartphone.

The program is the culmination of years of work by the Shared Use Mobility Center, a nonprofit that works to connect private enterprise with public agencies to encourage shared mobility options. The center has collaborated with the city on a plan to take 100,000 cars off the road over the next five years.

Will Carsharing Kill Transit?

During 2016, the following question heated up in transportation chat rooms and blog sites: Would Carsharing make transit obsolete or would car ownership decline with the emergence of millennials?

In 1993, the founders of the TransitCenter developed a consumer product called TransitChek that made it convenient for employers and employees to take advantage of the new commuter federal tax benefit. The TransitChek product became a profitable business. The proceeds of the sale of the TransitChek business to a private sector company in 2012 fund the group's foundation activities.

The TransitCenter responded in December to the latest screeds from anti-transit types that ride-hailing apps like Uber and Lyft are going to make fixed-route bus or rail service obsolete. TransitCenter makes the argument that transit and ride-hailing services complement each other. They make the following three arguments in support of the continued viability of transit (and ride hailing):

1. Uber and Lyft hog too much space

If everyone that rides the LA Metro Bus system suddenly crowds onto the 405 in an Uber or every passenger on New York's L train has to hail a ride over the Williamsburg Bridge The result would be total gridlock. Uber and Lyft have some advantages in certain contexts. But car services can't overcome urban geometry.

2. Even lightly-used transit beats heavily-used ride-hailing services

Not every bus is packed, but even a mostly-empty bus can use streets more efficiently than Uber cars. A bus carrying about 10 passengers per service hour is generally considered to be “low-performing”, For an Uber or Lyft driver to serve ten people per hour would require the driver to pick up and drop off a new passenger every six minutes, which is physically impossible in American cities.”

3. Demand for transit peaks at different times than demand for taxis

If you look at when Uber and Lyft are most popular, it's during the night, when transit runs less often. Meanwhile, transit is at its fullest during the a.m. and p.m. rush. Not many people use Uber and Lyft for regular commuting. Transit and ride-hailing services can complement each other — especially at times or in places where transit is less frequent or lightly used.

Will Autonomous Car Fleets Replace Transit And Personal Auto Ownership? Somewhat!

For the last century, the nation's automakers have been able to count on a fundamental fact of American life: You pretty much need a car to get around. During the past year, the auto industry has turned its attention to two interconnected and immediate market challenges: develop self-driving vehicles within the next five years targeted at short trips while re-tooling their core business. If these types of cars and services proliferate, people will have more freedom to not own automobiles and America's automotive industry will need to fundamentally change.

Automotive industry forecasters expect people in metropolitan areas to own fewer cars in the future. But they are not ready to predict a big drop in the total number of vehicles sold, which this year will total more than 17 million cars and light trucks in the United States and about 75 million globally. That is, in part, because so many people have more than a last mile to cover.

Automakers are generally betting that sales of vehicles to fleet services will offset any decline in sales to individual consumers. Boston Consulting Group predicts that 44,000 cars will be sold to ride-sharing fleets in North America in 2021, more than making up for an expected net decline in consumer sales of about 8,000 vehicles.

The bigger impact might be on how the automotive industry — not just carmakers, but also fleet service operators, parts makers and the like — makes its

money in years to come. According to the consulting firm PwC, the global automotive industry generates about \$400 billion a year in profits. About 41 percent of that profit — or about \$164 billion — comes from new vehicle sales. By 2030, PwC forecasts that even as overall automotive profits grow to about \$600 billion, profits from new vehicle sales will drop from about 41% to about 29%. By then, PwC predicts that “mobility services” — including ride-hailing and other types of last-mile transportation services — will represent about 20% of the automotive industry’s profits.

Ford Motor company sees mobility services as potentially more profitable than its traditional business of making and selling cars. Manufacturing vehicles requires billions of dollars in investments in plants and engineering — costs that are often difficult to recoup. Mobility services would require less upfront investment than manufacturing and profit margins could be more like 20% instead of the 8% Ford tries to achieve today.

The technology race is also escalating between West Coast tech firms and Detroit. Google and Tesla have been at the forefront in creating cars with the ability to drive themselves. And many automakers have opened California outposts to become part of the high-tech scene. Uber and Lyft, the app-based ride-hailing services, are both based in San Francisco. But General Motors, Ford Motor and Fiat Chrysler Automobiles are all engaged in autonomous vehicle projects based in Detroit’s environs.

And the state of Michigan is laying the ground for even more self-driving development work. The latest step came in early December when Gov. Rick Snyder signed a package of laws to permit more extensive testing of self-driving cars on public roads, while clearing the way for use of autonomous vehicles in trials by ride-hailing services. Michigan’s new laws allow the testing of autonomous vehicles that have no steering wheel or gas and brake pedals. California prohibits testing of such cars on public roads. Michigan is also allowing more extensive testing of autonomous trucks traveling in groups or platoons.

Even before Michigan passed its new laws, the state was gaining ground. Earlier this year Google’s self-driving car project, now called Waymo, partnered with Fiat Chrysler to develop a fleet of 100 self-driving minivans and opened a technical office in Novi, Mich., near Detroit. The modified Pacifica vans, engineered in Michigan and assembled at Fiat Chrysler’s plant in Windsor, Ont., just across the river from Detroit, were delivered to Waymo in mid-December. The two companies tested the first prototypes at Fiat Chrysler’s proving grounds near Ann Arbor.

The city of Pittsburgh is also intent on competing with Detroit as a self-driving technopolis. Because of some pioneering research in self-driving technology at Carnegie Mellon University, Pittsburgh has emerged as a key development site. Delphi Automotive, a maker of automobile components, is also working on self-driving systems in Pittsburgh. Nevada and Arizona are also vying to lure companies that are testing and developing self-driving cars. What’s at stake is a

potential economic boost — the millions of dollars automakers and others are spending on research and engineering, and the high-paying jobs they are creating.

In a more full-circle example of its new focus (no, not the Focus), Ford is sponsoring a bicycle-sharing program in the San Francisco area, with the goal of having 7,000 blue, Ford-branded bikes in operation by 2018.