



San Gabriel Valley Council of Governments
AGENDA AND NOTICE
OF THE MEETING OF THE SGVCOG PLANNING DIRECTORS
TECHNICAL ADVISORY COMMITTEES (TAC)
Thursday, March 23, 2017 12:00 PM

**PLANNERS'
TECHNICAL
ADVISORY
COMMITTEE**

Chair
Larry Stevens
City of San Dimas

Vice-Chair
Craig Hensley
City of Duarte

Thank you for participating in today's meeting. The Planners' Technical Advisory Committee encourages public participation and invites you to share your views on agenda items.

MEETINGS: *Regular Meetings of the Planners' Technical Advisory Committee are held on the fourth Thursday of each month at 12 PM at Upper San Gabriel Valley Municipal Water District-602 E. Huntington Dr., Suite B, Monrovia, CA 91016.* The Planners' Technical Advisory Committee agenda packet is available at the San Gabriel Valley Council of Government's (SGVCOG) Office, 1000 South Fremont Avenue, Suite 10210, Alhambra, CA, and on the website, www.sgvkog.org. Copies are available via email upon request (sgv@sgvkog.org). Documents distributed to a majority of the Committee after the posting will be available for review in the SGVCOG office and on the SGVCOG website. Your attendance at this public meeting may result in the recording of your voice.

CITIZEN PARTICIPATION: Your participation is welcomed and invited at all Planners' Technical Advisory Committee meetings. Time is reserved at each regular meeting for those who wish to address the Board. SGVCOG requests that persons addressing the Committee refrain from making personal, slanderous, profane or disruptive remarks.

TO ADDRESS THE PLANNERS' TECHNICAL ADVISORY COMMITTEE: At a regular meeting, the public may comment on any matter within the jurisdiction of the Committee during the public comment period and may also comment on any agenda item at the time it is discussed. At a special meeting, the public may only comment on items that are on the agenda. Members of the public wishing to speak are asked to complete a comment card or simply rise to be recognized when the Chair asks for public comments to speak. We ask that members of the public state their name for the record and keep their remarks brief. If several persons wish to address the Committee on a single item, the Chair may impose a time limit on individual remarks at the beginning of discussion. **The Planners' Technical Advisory Committee may not discuss or vote on items not on the agenda.**

AGENDA ITEMS: The Agenda contains the regular order of business of the Planners' Technical Advisory Committee. Items on the Agenda have generally been reviewed and investigated by the staff in advance of the meeting so that the Committee can be fully informed about a matter before making its decision.

CONSENT CALENDAR: Items listed on the Consent Calendar are considered to be routine and will be acted upon by one motion. There will be no separate discussion on these items unless a Committee member or citizen so requests. In this event, the item will be removed from the Consent Calendar and considered after the Consent Calendar. If you would like an item on the Consent Calendar discussed, simply tell Staff or a member of the Planners' Technical Advisory Committee.



PRELIMINARY BUSINESS

1. Call to Order
2. Roll Call
3. Public Comment (*If necessary, the Chair may place reasonable time limits on all comments*)

CONSENT CALENDAR (*It is anticipated that the Committee may take action on the following matters*)

4. Planners TAC Meeting Minutes – 2/23/2017
Recommended Action: Approve.

PRESENTATIONS

5. Affordable Housing: Presentaiton by Sarah Letts, Hollywood Community Housing Coalition
Recommended Action: for information.

ACTION ITEMS (*It is anticipated that the Planning TAC may take action on the following matters.*)

DISCUSSION ITEMS

6. Housing Related Legislation
Recommended Action: for discussion.
7. Drone Follow Up
Recommended Action: for discussion.

INFORMATION ITEMS

8. Measure M update
Recommended Action: for information.
9. 626 Golden Streets recap
Recommended Action: for information.

UPDATE ITEMS

10. Impact of Future Trends on Local Planning
- Driverless Future report
Recommended Action: for discussion.

EXECUTIVE DIRECTOR'S COMMENTS

CHAIR'S REPORT

11. Current City Projects
Recommended Action: For information.

ANNOUNCEMENTS

ADJOURN



SGVCOG Planner’s Technical Advisory Committee (TAC) Unapproved Minutes

Date: Thursday, February 23, 2017

Time: 12:00 PM

Location: Upper San Gabriel Valley Municipal Water District
602 E. Huntington Dr., Suite B, Monrovia, CA 91016

PRELIMINARY BUSINESS

1. Call to Order. The meeting was called to order at 12:03 PM.
2. Roll Call

Members Present

V. Reynoso, T. Pace, Alhambra
 J. Kasama, Arcadia
 A. Harbin, Baldwin Park
 B. Lee, Covina
 C. Hensley, Duarte
 B. Donovanik, El Monte
 E. Stadnicki, Glendora
 C. Hahn, Rosemead
 L. Stevens, San Dimas
 T. Steinkruger, L. DeLaCruz, San Gabriel
 V. Gonzalez, Sierra Madre
 J. Anderson, West Covina

Members Absent

Azusa
 Claremont
 Diamond Bar
 Irwindale
 La Verne
 Monrovia
 Monterey Park
 Pasadena
 Pomona
 South Pasadena
 Temple City
 Walnut

Guests

P. Doshi, AirMap
 B. Goodwin, AirMap
 B. Jensen, Economic Partnership

Staff

E. Wolf

3. Public Comment
There was no public comment.

CONSENT CALENDAR

4. Planners TAC Meeting Minutes – 1/26/2017
There was a motion to approve consent item 4 (M/S: C. Hensley/A. Harbin).

[Motion Passes]

AYES:	Alhambra, Arcadia, Baldwin Park, Covina, Duarte, El Monte, Glendora, Rosemead, San Dimas, San Gabriel, Sierra Madre, West Covina
NOES:	
ABSTAIN:	
ABSENT:	Azusa, Claremont, Diamond Bar, Irwindale, La Verne, Monrovia, Monterey Park, Pasadena, Pomona, South Pasadena, Temple City, Walnut

PRESENTATIONS

5. Model Drone Ordinance

B. Goodwin, AirMap, gave an overview of AirMap and the services that they provide to drone manufacturers and airspace owners/managers. On the manufacturing side, they provide three-dimensional mapping data used in drone programming, providing fail safes to keep them from flying into restricted areas. Airspace owners and managers rely on the company's data to identify the nature of drone threats to their airspace. Goodwin provided a brief history of drone use and regulation. Part 107 of FAA regulations stipulates the regulatory framework for drone operation. It covers hours of operation, line-of-sight restrictions, altitude, and registration, among other issues. Part 107 also requires agencies to consult with the FAA when making local rules. Cities do retain traditional authorities such as land use zoning, law enforcement, and privacy. Goodwin concluded with a review of a model ordinance and some of the do's and don'ts that should go into policy. L. Stevens requested data showing the extent of drone use within SGV in order to gauge the scope of use and determine if this is an issue worth much time and effort. He also asked for a draft city ordinance to help municipalities that want to craft a policy for their own use of drones.

ACTION ITEMS

DISCUSSION ITEMS

6. Housing Crisis and Possible Approaches to Solutions

L. Stevens provided copies of SB 35 (Wiener) and reviewed the bill. He led a discussion of SGV internal results from the League of CA Cities Housing Survey showing that none of the eight cities responding to the survey received housing permit applications sufficient to meet their RHNA quotas. Moreover, the results showed that cities are approving all applications that fall within zoning and other guidelines.

7. Impact of Future Trends on Local Planning

E. Wolf described the intention of the COG to make this the theme of this year's General Assembly. He discussed three recent articles on future trends: balloon-based internet service, Google's autonomous car company, and a self-driving prototype minibus. He solicited additional topics and contacts.

8. Measure M Guidelines

E. Wolf reviewed information relating to guideline development by the Policy Advisory Council and solicited ideas that cities would like to see incorporated into the guidelines.

INFORMATION ITEMS

9. SCAG Sustainability Planning Grants

E. Wolf presented the SGV projects that were selected for grants. L. Stevens asked how the projects that were not selected were ranked and how SCAG may fund those in the future.

10. Marijuana Ordinance Update

E. Wolf provided information on the County's Office of Marijuana Regulation. It is coordinating the actions of 15 different county departments. Likely, the county will allow commercial sales in some unincorporated areas. The office is developing public outreach materials. The COG will set up a presentation, hopefully in April.

UPDATE ITEMS

EXECUTIVE DIRECTOR'S COMMENTS

CHAIR'S REPORT

11. Current City Projects

J. Anderson reported that West Covina adopted its General Plan.

V. Gonzalez reported that LA County auctioned off several large hillside parcels near Sierra Madre.

ANNOUNCEMENTS

ADJOURN

The meeting adjourned at 1:44 P.M.

Incentives for the development of affordable housing

March 23, 2017

PRESENTED BY: SARAH LETTS, CURRENT
EXECUTIVE DIRECTOR OF HOLLYWOOD
COMMUNITY HOUSING CORPORATION (HCHC)
AND FORMER DIRECTOR AT FANNIE MAE

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Problem Statement

Local government can't control the market including developers & financing partners

Cities identify sites suitable for housing, but developers aren't actively pursuing opportunities

State agencies are critical of local government's progress in the development of housing for all income groups, especially affordable housing

Developers

Certainty

- NIMBY is a risk / Demonstrated political will to support affordable housing is a mitigant

Financial Incentives

- Soft Loans and/or Fee Waivers

Simplicity

Evidence of Political Will

Fees to provide capital for Affordable Housing

- Commercial linkage fee; impact fees, in-lieu fees

Forgo Revenue

- Waive permit fees, school fees, etc

Other Incentives

- Pass an Inclusionary Housing Ordinance
- Use City-owned land for the development of affordable housing
- Reduce parking requirements
- Prioritize / streamline the permit review process for affordable housing
- Authorize staff to commit capital

Financing Partners - Conventional

Conventional Lenders Prefer

- CRA markets
- Larger developments
- Low Risk
 - Operating subsidies can add risk
 - 9% tax credit deals less risky than 4% tax credit deals
 - Avoid environmental risks

Financing Partners - Government

Leveraging of local resources important to compete for scarce resources from County, State and Federal Government

County of Los Angeles (only for deals 500+ feet away from freeways)

- Strong preference for homeless housing (at least 50% of units)
- Projects can qualify for up to \$2.5 million in soft debt

State of California

- 9% tax credits & Tax-exempt bonds with 4% tax credits
- Veterans Housing & Homeless Prevention (VHHP) Program
- Cap & Trade / Affordable Housing & Sustainable Communities (AHSC)
- Dept. of Mental Health (DMH) – Special Needs Housing Program (SNHP)

Ideas to for SGV Cities to Collaborate

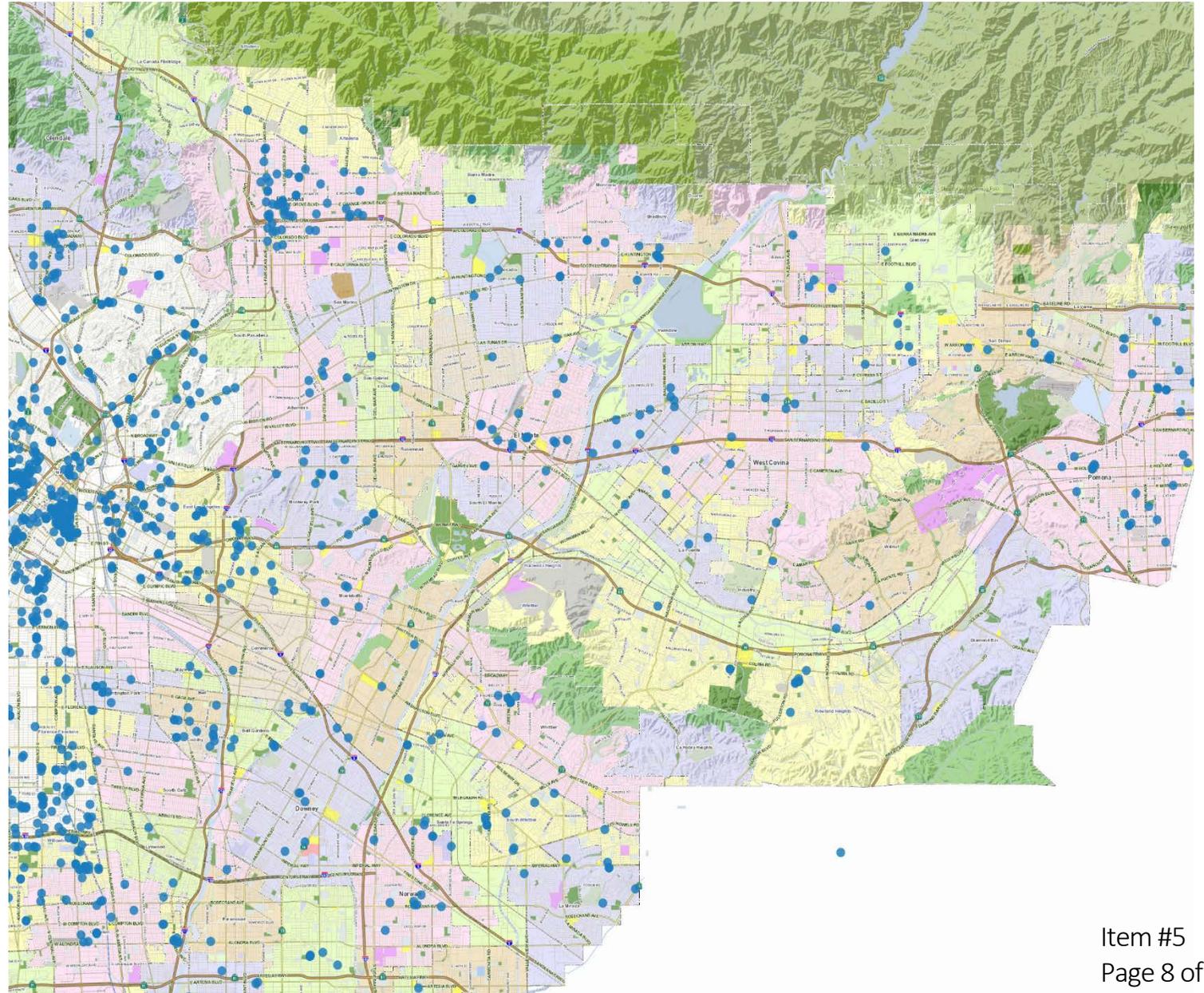
RFQ/P for City-owned sites

Marketing Campaign: Yes In My Backyard (YIMBY)

Tours of existing affordable housing developments

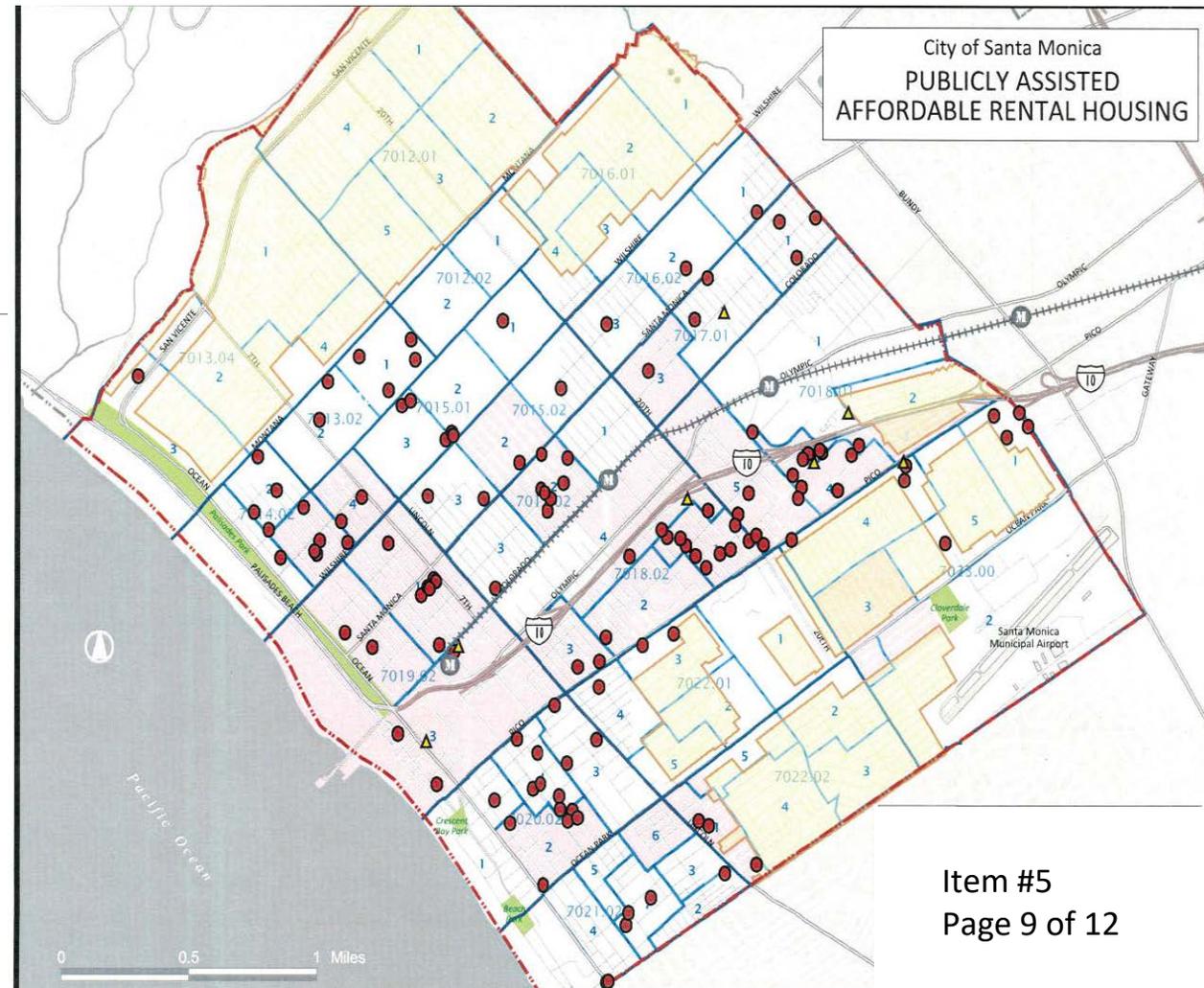
FAQs

Affordable Housing in LA County



Highlight what other communities are doing

In Brentwood, the Veteran's Administration is building 1,800 units of PSH for Vets as part of its redevelopment plans.



Santa Monica has 350 PSH and more than 3,400 affordable units, many located close to the beach and west of Lincoln.

Seeing is believing – Offer tours of affordable housing

Rehabilitation in Venice

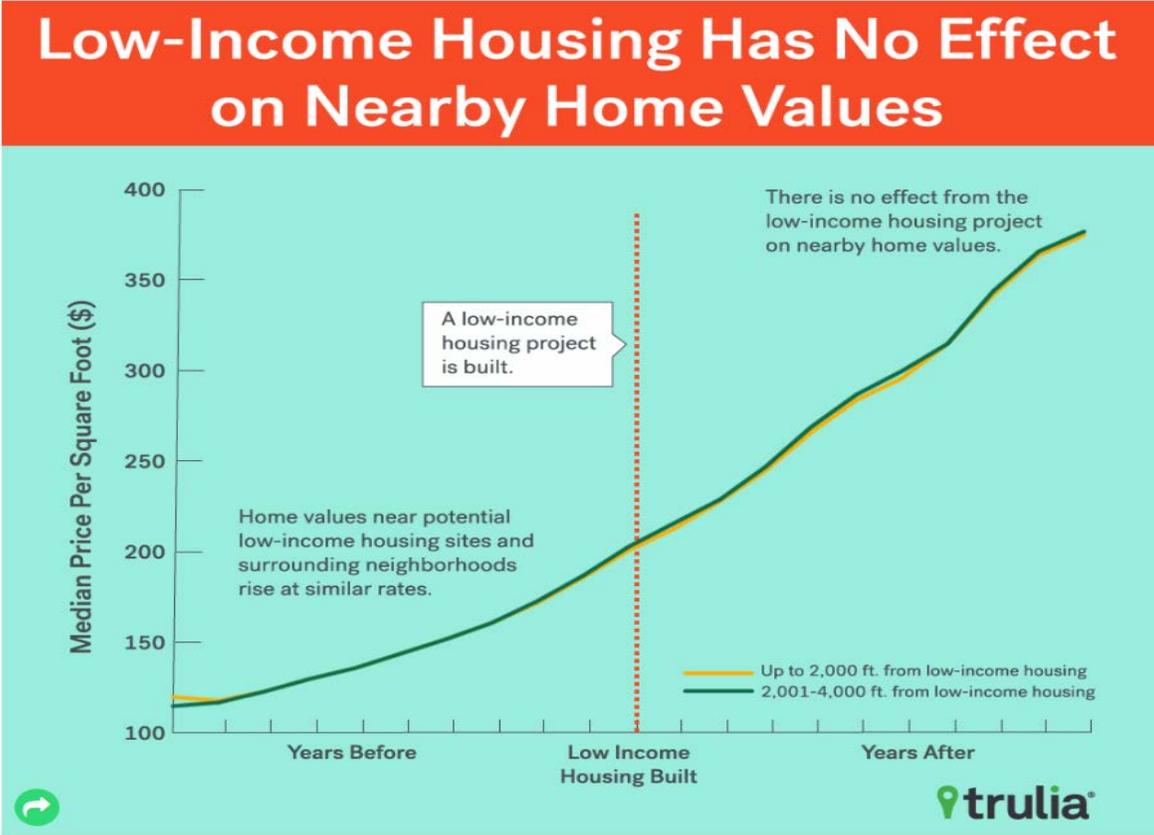


New Construction in Del Rey



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Affordable and Permanent Supportive Housing Communities are Good Neighbors

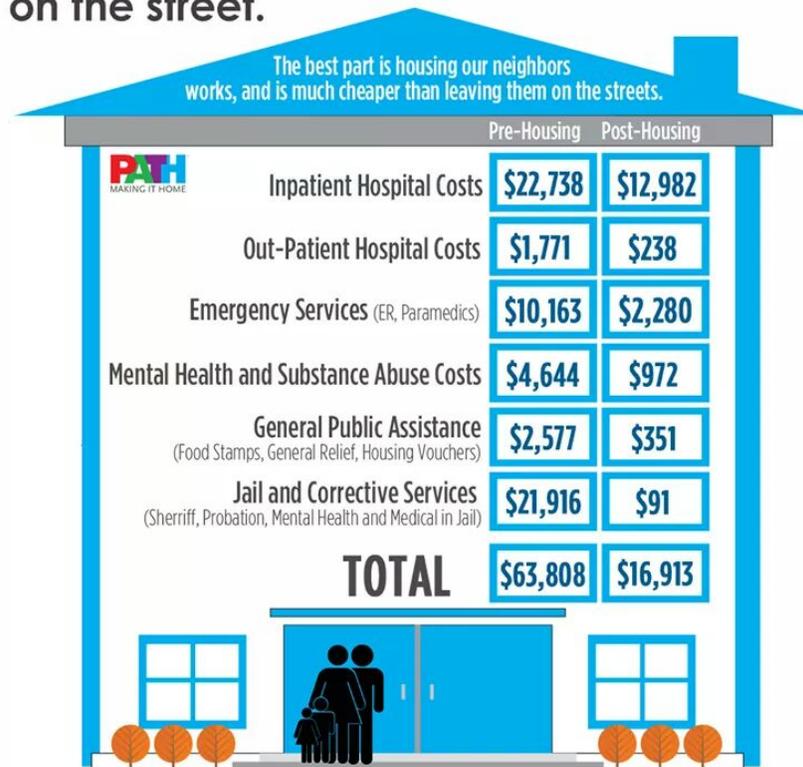


Multiple studies show that affordable and permanent supportive housing has contributed positively or had no impact on surrounding property values, and has contributed positively to community safety.

Permanent Supportive Housing Transforms Lives and Saves Public Money

Did you know?

It costs fewer tax payer dollars to provide housing than it does for a person to live on the street.



Stats from Economic Roundtable numbers in 2012 dollars. Infographic created by PATH.

2017 Proposed Housing Legislation

SB 540 (Roth) - This bill would authorize a local government, as defined, to establish a Workforce Housing Opportunity Zone by preparing an EIR pursuant to CEQA and adopting a specific plan that is required to include text and a diagram or diagrams containing specified information. The bill would prohibit a local government, for a period of 5 years after the plan is adopted, from denying any development that is proposed within the area of the zone if that development satisfies certain criteria, unless the local government makes certain findings. The bill would provide that, after the zone is adopted, a lead agency is not required to prepare an EIR or negative declaration for a housing development that occurs within the zone if specified criteria are met.

AB 1585 (Bloom) - This bill would establish in each city, county, and city and county in the state an affordable housing zoning board and procedures by which a public agency or nonprofit organization proposing to build affordable housing units, as defined, or a developer proposing to build a housing project that meets specified affordability criteria, could submit to that board a single application for a comprehensive conditional use or other discretionary permit. The bill would provide that the comprehensive permit would have the same force and effect as a conditional use or other discretionary permit issued by an affected local agency, but would prohibit the board from abrogating a provision of the general plan or zoning ordinances of the affected local agency except to grant a density bonus, as provided. The bill would require the Department of Housing and Community Development to establish a housing appeals committee. The bill would provide that the committee would not have jurisdiction if the affected local agency has permitted construction of unspecified percentages of its allocation of units for very low, low-, and moderate-income households in the previous regional housing needs allocation plan cycle. The bill would authorize the committee, following a public hearing conducted according to specified procedures, to affirm, modify, or reverse the decision of the board.

AB 1397 (Low) - This bill would revise the inventory of land suitable for residential development to include vacant sites and sites that have realistic and demonstrated potential for redevelopment to meet a portion of the locality's housing need for a designated income level. Existing law requires the inventory of land to include, among other things, a general description of existing or planned water, sewer, and other dry utilities supply, including the availability and access to distribution facilities. Existing law specifies that this information does not need to be identified on a site-specific basis. This bill would instead require parcels included in the inventory to have sufficient water, sewer, and dry utilities supply available and accessible to support housing development or be included in an existing general plan program or other mandatory program or plan to secure sufficient water, sewer, and dry utilities supply to support housing development within 3 years of the beginning the planning period.

AB 73 (Chiu and Caballero) - This bill would authorize a city, county, or city and county, including a charter city, charter county, or charter city and county, to establish by ordinance a housing sustainability district that meets specified requirements, including authorizing residential use within the district through the ministerial issuance of a permit. The bill would provide that a city, county, or city and county with a housing sustainability district would be entitled to a zoning incentive payment, subject to appropriation of funds for that purpose, and require that 1/2 the amount be provided upon zone approval by the office and 1/2 the amount upon verification by the department of the issuance of permits for the projected units of residential construction within the zone, provided that the city, county, or city and county has received a certificate of compliance for the applicable year.

SB 469 (Skinner) - This bill, among other things, would prohibit a city, county, or city and county from permitting or causing its inventory of sites identified in the housing element to be insufficient to meet its remaining unmet share of the regional housing need for lower- and moderate-income households. The bill also would expand the definition of “lower residential density” if the local jurisdiction has not adopted a housing element for the current planning period or the adopted housing element is not in substantial compliance, as specified. This bill would also condition the approval or development containing fewer housing units at each income level than its identified capacity upon identifying sufficient sites or rezones, as prescribed, to ensure no net loss of residential unit capacity.

AB 30 (Caballero) - This bill would authorize a legislative body of a city or county to identify an area of underperforming infill and direct the planning agency to prepare a specific plan, in accordance with the above described provisions and specified additional procedures, to provide for immediate development within that area. The bill would require the specific plan make certain findings relating to the need for affordable housing and to designate the specific plan area as an overlay zone in which development is permitted by right.

SB 35 (Wiener) - This bill would require an accessory dwelling unit development or a multifamily housing development that satisfies specified planning objective standards to be subject to a streamlined, ministerial approval process, as provided, and to not be subject to a conditional use permit. To qualify the development must be consistent with objective zoning standards and objective design review standards in effect at the time that the development is submitted to the local government pursuant to this section. For purposes of this paragraph, “objective zoning standards” and “objective design review standards” mean standards that involve no personal or subjective judgment by a line public official.

SB 2 (Atkins) - This bill would enact the Building Homes and Jobs Act. The bill would make legislative findings and declarations relating to the need for establishing permanent, ongoing sources of funding dedicated to affordable housing development. The bill would impose a fee, except as provided, of \$75 to be paid at the time of the recording of every real estate instrument, paper, or notice required or permitted by law to be recorded, per each single transaction per single parcel of real property, not to exceed \$225. The bill would require that revenues from this fee, after deduction of any actual and necessary administrative costs incurred by the county recorder, be sent quarterly to the Department of Housing and Community Development for deposit in the Building Homes and Jobs Fund, which the bill would create within the State Treasury. The bill would, upon appropriation by the Legislature, require that 20% of the moneys in the fund be expended for affordable owner-occupied workforce housing and 10% of the moneys for housing purposes related to agricultural workers and their families, and would authorize the remainder of the moneys in the fund to be expended to support affordable housing, home ownership opportunities, and other housing-related programs, as specified.

SB 3 (Beall) - This bill would enact the Affordable Housing Bond Act of 2018, which, if adopted, would authorize the issuance of bonds in the amount of \$3,000,000,000 pursuant to the State General Obligation Bond Law. Proceeds from the sale of these bonds would be used to finance various existing housing programs, as well as infill infrastructure financing and affordable housing matching grant programs, as provided. This bill would provide for submission of the bond act to the voters at the November 6, 2018, statewide general election in accordance with specified law.

AB 346 (Daly) – Existing law dissolved redevelopment agencies and community development agencies as of February 1, 2012, and provides for the designation of successor agencies to wind down the affairs

of the dissolved redevelopment agencies and to, among other things, make payments due for enforceable obligations and to perform duties required by any enforceable obligation. The housing successor may expend a specified amount per fiscal year for homeless prevention and rapid rehousing services, and must use all funds remaining thereafter for the development of affordable housing, as specified. This bill would authorize a housing successor to also use funds remaining in the Low and Moderate Income Housing Asset Fund for homelessness services, transitional housing, or emergency housing services, as well as for the development of affordable housing.



Measure M Draft Guidelines Executive Management Committee

March 16, 2017

Introduction

Measure M is Distinct from Measure R:

- **Measure M is more comprehensive & complex**
- **No sunset**
- **Increased oversight and evaluation mechanisms**

Therefore, these Guidelines must:

- **Reinforce fiduciary responsibility first and foremost**
- **Provide guidance framework for all aspects of Measure M, not just where guidance specifically indicated**
- **Use lessons learned from Measure R**

Measure M Direction

Metro is not here to escrow funds.

**Metro is here to manage dollars
to deliver projects and programs.**

Fiduciary Responsibility

Responsible funds management is imperative to deliver projects as promised.

Three Core Principles:

- **Timely Use of Funds**
- **Cashflow**
- **Multi-Year Funds Partnering & Related Toolbox**

Timely Use of Funds

Project Readiness:

- Demonstrate you are “ready to go” before locking down funds

Lapsing Policy:

- If money is not being used, reprogrammed to maximize delivery

Cashflow Management

Responsible funds management also means moving projects based on fund availability.

As part of that we address the following:

- **“Shovel Ready” – preparedness to move faster**
- **Cost Containment – maintain integrity of Measure M Commitments**
- **Comprehensive Assessments & Amendments – discipline in addressing changes**
- **Debt Policy & Contingency Funds – managing alignment of need & time**
- **3% Local Contribution – improve on Measure R**



Metro

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Example: 3% Local Contribution

- Definition includes “Walk-shed” of ½ mile from station;
- Eligible funds include Agency funds, Local Return, or Subregional Multi-year Program Funds;
- 30% Design Determines Local Contribution;
- Active Transportation Capital Improvements must be consistent with Metro design and policy; and
- Opt out for up to 15 Years of Local Return, withheld if no agreement by bid award*.

Multi-Year Subregional Programs (MSP)

MSP balances flexibility with Measure M goals. Flexibility exists within the following parameters:

- **Developed from Mobility Matrix**
- **Meet Guideline definitions**
- **Remain within Expenditure Plan program funding*, which includes ability of Subregions to borrow from their own multi-year program funding**

However, must meet Timely Use of Funds requirements.

Multi-Year Subregional Programs (MSP) cont'd.

Metro will create a MSP Toolbox in anticipation of requests for managing resource timing, within and across subregional programs.

Supplemental Fund Provision: Flexibility maximized when MSP project funding remains within local and subregional sources; requests for other Metro funds/resources to supplement project needs will trigger application of additional Metro policies.



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Competitive Funds

Eligibility, technical criteria and competitive process will be further developed for the following capital areas:

- **2% ATP**
- **2% Highway**
- **2% Transit**

Operating, SGR & Regional Subsidies

Half of Measure M funds go to LA County transit operators, cities, Access and Metro to improve mobility in Los Angeles

Local Return (17%)	Transit Ops (20%)
ADA Paratransit/ Metro Discounts Seniors & Students (2%)	Rail Operations (5%)
Regional Rail (1%)	State of Good Repair (2%)

- **Guidelines were developed collaboratively with cities, transit operators and key stakeholders**
- **Measure R guidelines were used as the basis, incorporating new MM eligible uses and definitions**
- **New reporting requirements were included to satisfy Oversight Committee**

Key areas to highlight

Measure M	Key Area	Discussion
Local Return	Method of Allocation	<ul style="list-style-type: none"> ▪ Proposal is to move forward with minimum allocation of \$100K per jurisdiction ▪ Impact of reallocation: Est. \$585K ▪ City of LA: Est. \$230K and County of LA: Est. \$60K
ADA Paratransit/Metro Discounts for Seniors & Students	Two distinct uses	<ul style="list-style-type: none"> ▪ Comprehensive low-income program that combines our current fare subsidy programs ▪ Add to the \$100M in discounts in our fare structure ▪ Low-income program will be brought separately for Board approval
Regional Rail	Performance Measures	<ul style="list-style-type: none"> ▪ Ordinance requires performance criteria to increase % allocation in FY39 from 1% to 2% ▪ Service quality, safety, cost containment and investment measures ▪ Continue discussions with Metrolink

Evolving Process

Several areas require further procedural development and/or technical criteria.

Tax Oversight Committee: Guidelines provide framework for Committee review and reporting.

Metro Board has authority to adopt Guideline revisions consistent with assessment and amendment process to respond to changing circumstances.

Staff Recommendation

Request that the Board authorize the release of the Draft Measure M Guidelines for public comment



Questions?



Metro

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17% Local Return Process & Working Group

The following Measure M Program Guidelines for 17% Local Return are the result of the discussions held during meetings of the Measure M Local Return Working Group. A formal letter from Metro's Chief Executive Officer requesting volunteers for participation in the Working Group was sent out to all Los Angeles County jurisdictions and the County of Los Angeles in December 2016.

The Working Group was established and convened in January 2017, with the final Working Group meeting held on March 2, 2017. At the time of the last meeting, consensus was achieved on all provisions in the attached draft guidelines, except for the specific terms of allocation to the jurisdictions of Los Angeles County. Three scenarios were identified by the Working Group, minimums to be provided at the sub-regional level, incorporation of an employment-based measure, and minimum allocations ranging from \$100,000 to \$300,000 per jurisdiction. A majority of the Working Group members were in favor of the concept of a minimum allocation to each jurisdiction.

After evaluation of several scenarios, Metro is recommending:

Minimum allocation of \$100,000 per jurisdiction, reflecting a 0.43% contribution from donor cities to 8 small cities in year 1. Dollar impact would be highest for City of Los Angeles at \$230,873 and County of Los Angeles at \$60,253.

Measure M Local Return Working Group Membership

Name	Jurisdiction	Subregion
Audra McDonald	City of Avalon	Gateway
Aaron Kunz	City of Beverly Hills	Westside
Beverly Wong	City of Burbank	Arroyo Verdugo
Benjamin Chan	City of Calabasas	Las Virgines/Malibu
Rebecca Scott	City of Cerritos	Gateway
Mohammad Mostahkami	City of Downey	Gateway
Kristen Petersen	City of Duarte	San Gabriel Valley
Elaine Jeng	City of El Monte	San Gabriel Valley
Greg Carpenter	City of El Segundo	South Bay
Kathryn Engle	City of Glendale	Arroyo Verdugo
La Shawn Butler	City of Glendora	San Gabriel Valley
Andrew Brozyna	City of Hermosa Beach	South Bay
Alex Gonzalez	City of Industry	San Gabriel Valley
Judy Quinonez	City of La Mirada	Gateway
Sonia Southwell	City of Lakewood	Gateway
Abraham Bandegan	City of Long Beach	Gateway
Carlos Rios	City of Los Angeles	Central City San Fernando South Bay Westside
Buffy Bullis	City of Monrovia	San Gabriel Valley
Brian Kuhn	City of Palmdale	North County
Sebastian Hernandez	City of Pasadena	Arroyo Verdugo
Rene Guerrero	City of Pomona	San Gabriel Valley
Natalie Chan	City of Rancho Palos Verdes	South Bay
Joyce Rooney	City of Redondo Beach	South Bay

Daniel Wall	City of San Marino	San Gabriel Valley
Jason Smiko	City of Santa Clarita	North County
Joe Barrios	City of Santa Fe Springs	Gateway
Francie Stefan	City of Santa Monica	Westside
Charlie Honeycutt	City of Signal Hill	Gateway
Jacquelyn Ascosta	City of South Gate	Gateway
Claudia Arellano	City of Vernon	Gateway
Joanna Hankamer	City of West Hollywood	Westside
Mary Reyes	LA County DPW	All Subregions
Nalini Ahuja	Metro	N/A - Los Angeles County
Kelly Hines		
Tim Mengle		
Susan Richan		



Los Angeles County Metropolitan Transportation Authority

CITIZENS' ADVISORY COUNCIL BY-LAWS

(as amended June 26, 2008)

ARTICLE I: PURPOSE

Subject to the supervision of the Los Angeles County Metropolitan Transportation Authority Board of Directors, hereafter (MTA), the Citizens' Advisory Council, hereafter (CAC), shall consult, and will obtain and collect public input on those matters of interest and concern to the Community, and will communicate the CAC's recommendation with respect to such issues to the MTA. Issues may also be assigned to the CAC by the MTA for its review, comment and recommendation.

Subject to the direction and concurrence of the MTA, the CAC may also engage in such related activities as are appropriate to the discharge of its responsibilities, and bring matters of public concern to the attention of the MTA. In meeting its responsibilities, the CAC may conduct meetings and appoint committees and subcommittees.

ARTICLE II: MEMBERSHIP

A. **APPOINTMENT:** Each ~~current principal voting board member~~ of the MTA Board shall nominate four (4) public members to the CAC to serve at the pleasure of the appointing principal Board member ~~for a three-year term.~~ There is no limit as to the ~~number of terms~~duration that a CAC member may serve. Members of the CAC shall be selected so as to reflect a broad spectrum of interests and all geographic areas of the County. A maximum of one (1) representative per MTA Sector Governance Council may be appointed as a Citizens' Advisory Council member.

In the event that an appointing Board member leaves the MTA Board, then the CAC member who is an appointee of the Board member shall have ninety (90) days in which to seek an appointment from another member of the Board.

Only CAC members who have signed appointment letters on file with the office providing staff support to the CAC shall be members of the CAC in good standing with full privileges of voting and holding office.

B. **ATTENDANCE:** If a member has more than three unexcused absences in a row or ~~within a six-month period~~ calendar year period, the ~~Executive Committee will determine if the CAC Chairperson~~ shall notify the nominating board member of each

unexcused absence from the next two general meetings. ~~The Executive Committee may adopt attendance guidelines (the definition of “unexcused absences”) on annual basis.~~ Thereafter, the CAC Chairperson shall notify the nominating board member that, in accordance with these By-Laws, a vacancy exists due to unexcused non-participation. The CAC Chairperson shall request a new nomination be made. A principal Board member may re-nominate the inactive member or ~~the Executive Committee may recommend upon request of the CAC member or their appointer that the CAC member be designated as an Ex-Officio non-voting member.~~

ARTICLE III: OFFICERS

- A. **OFFICERS:** The officers of the CAC shall consist of the Chairperson, Vice-Chairperson, Secretary, and Chairperson Emeritus, each of whom shall be elected from among members of the CAC. The CAC, annually, at its June meeting and at such other time as there may be a vacancy, shall elect officers. The term of office shall be one year. Each shall serve for the balance of the current term. There is no limit to the number of consecutive terms that can be served.
1. **Duties of the Chairperson:** The Chairperson shall, preside at all meetings of the CAC and shall exercise and perform such other powers and duties as may be assigned by the CAC or prescribed herein.
 2. **Duties of the Vice-Chairperson:** The Vice-Chairperson shall perform the duties of the Chairperson in his or her absence, and when so acting shall have all the powers of and be subject to all the restrictions of the Chairperson.
 3. **Duties of Secretary:** The Secretary shall ~~cause the transmittal of transmit~~ action recommendations in a timely fashion to the Chief Executive Officer for distribution to the MTA Board. The Secretary shall keep or cause to be kept a book of minutes of all meetings of the CAC and shall ~~send-cause~~ a copy of such minutes of each meeting to ~~be distributed to~~ the MTA Board Secretary (for distribution to the MTA Board and other interested individuals), Chief Executive Officer, Executive Officers, and General Counsel as soon as possible after the minutes have been approved by the CAC. The Secretary shall give or cause to be given notice of all meetings (including the agenda) as may be required by law or by motion of the CAC, and shall have such other powers and perform such other duties as may be assigned by the CAC or prescribed herein. The Secretary shall maintain an up-to-date roster of members (and those individuals receiving agendas and minutes) and have it available at all meetings of the CAC. In the absence of both the Chairperson and the Vice-Chairperson the Secretary shall serve as the Chairperson Pro-Tempore and have all the powers and be subject to all the restrictions upon the Chairperson.
 4. **Duties of the Chairperson Emeritus:** The Chairperson Emeritus shall perform the duties of the Chairperson in the absence of the Chairperson, Vice-Chairperson or Secretary and shall have the powers of and be subject to all of

the restrictions of the Chairperson.

ARTICLE IV: WORK PROGRAM

In June of each year, the CAC shall adopt an Annual CAC work program, which outlines the activities and priorities of the CAC for the coming year.

ARTICLE V: SUBCOMMITTEES

A. **SUBCOMMITTEES:** Subject to the direction and concurrence of the MTA, the CAC may create subcommittees and appoint liaisons to accomplish its Work Program and its responsibilities. The subcommittees and liaisons may parallel the MTA committees and perform other functions as required. The subcommittees will monitor developments and issues within their respective subject areas. They will also assist the CAC Executive Committee provide for timely development of CAC recommendations. The following subcommittees of the CAC are hereby created:

1. **Executive Committee:** This committee shall include the Chairperson, Vice-Chairperson, Secretary, Chair Emeritus, and chairpersons of the Standing Committees. This committee shall see to the ongoing operation of the CAC.
2. **Standing Committees:** The CAC may create standing committees to accomplish its work program and to help in its responsibility to advise the Board of the MTA. The committees will parallel committees of the MTA. The chairpersons of these committees will be elected by the members of the standing committees and they or their alternates will also serve as the CAC liaison to the parallel MTA Committee. The committee will be responsible for an assigned portion of the work program, which relates to the responsibility of their parallel MTA Committee.
3. **Ad Hoc Committees:** Ad Hoc Committees may be formed to study and make recommendations on a specific issue or take specific action on behalf of the CAC. The Chairperson of the CAC or of a Standing Committee may appoint an Ad Hoc Committee whose chairperson will be elected by the members of that committee. An Ad Hoc Committee can also be formed by any four members of the CAC with the approval of a majority vote of the CAC members present. The Chairperson of the CAC will be informed of the members and the purpose of any such committee. The findings and recommendations of the Ad Hoc Committees must first be submitted to the Executive Committee of the CAC and then to the CAC at a regularly scheduled meeting. Further action, as appropriate, requires a majority vote of the CAC members present at a regular scheduled meeting of the CAC. The Ad Hoc Committees shall exist for a period of 90 days and may be extended for an additional 90 days by the majority vote of

the CAC.

ARTICLE VI: MEETINGS

- A. **AGENDA:** Matters to be placed on the agenda for any ~~regular general~~ meeting may be ~~filed with submitted or recommended to~~ the Secretary by any member of the CAC ~~to the Executive Committee. If the Executive Committee at its meeting recommends placement on general meeting agenda, it shall be agendized.~~ The Secretary shall cause the agenda to be prepared ~~and posted in accordance with the Brown Act and copies thereof to be mailed or delivered to each member of the CAC, the CEO, the Executive Officers, General Counsel, and the Board Secretary of the MTA at least three working days prior to the regular meeting date.~~
- B. **REGULAR MEETINGS:** The CAC will hold regularly scheduled monthly meetings the fourth Wednesday of each month and from time to time thereafter, unless such day is a holiday, in which case the meeting shall be held on the following Wednesday or the day before the MTA Board meeting, or to any date suggested by the majority of the CAC membership.
- C. **EXECUTIVE COMMITTEE MEETINGS:** Regular meetings of the Executive Committee shall be held the first Friday each month and from time to time thereafter, unless such day is a holiday, in which case the meeting shall be held on the following Friday, or to any date suggested by the majority of the CAC membership.
- D. **STANDING COMMITTEE MEETINGS:** The Standing Committee meetings will be held at the time and place designated by the members of the Standing Committees.
- E. **AD HOC COMMITTEE MEETINGS:** The AD Hoc Committee meetings will be held at the time and place designated by the members of the Ad Hoc Committee.
- F. **SPECIAL MEETINGS:** A special meeting may be called at any time by the MTA, Chairperson, or in his or her absence, by the Vice-Chairperson, or by a majority of the members. When a majority of the members call a meeting they shall deliver either personally or by mail written notice signed by a majority of the members to the Secretary and MTA staff liaison or by the MTA. Such notice shall be postmarked at least 72 hours before the time of such meeting as specified in the notice. The call and notice shall specify the time and place of the special meeting and the business to be transacted. No other business shall be transacted at such meeting.
- G. **RALPH M. BROWN ACT:** All meetings of the Committee shall be called, noticed and conducted in the manner prescribed by the Section 54952.3 of the Government Code (the Ralph M. Brown Act).
- H. **QUORUM:** ~~For the General CAC meetings, a~~ majority of existing, appointed members of the CAC, including at least one elected officer of the CAC, shall constitute a quorum for the transaction of business, and all official acts of the CAC shall require

the affirmative vote of a majority of the members present. For the Executive Committee meetings, a majority of the Executive Committee members shall constitute a quorum for the transaction of business.

- I. **ADDRESSING COMMITTEE ON AGENDA ITEMS**: No person or member shall address the Committee at any meeting until first recognized by the Chairperson. The decision of the Chair not to recognize a person may be changed by vote of a majority of the members of the CAC present at the meeting. The Chairperson may, in the interest of facilitating the business of the CAC, limit the amount of time which a person or member may use in addressing the CAC.

ARTICLE VII: AMENDMENTS

Amendments to By-Laws: The CAC By-laws may be amended from time to time by the CAC by a vote of a two-thirds majority of the membership as listed on the membership roster at the time of such a vote. Any proposed By-laws amendment must be properly noticed on the agenda of a regularly scheduled CAC meeting and scheduled for a membership vote at the next regularly scheduled CAC meeting. Any amendments to the By-laws are subject to MTA Board approval.

ARTICLE VIII: POWERS

The Council is created and given perpetual succession by terms of the Los Angeles County Metropolitan Transportation Authority Act. The CAC shall, however, have no powers or existence separate or apart from that of the MTA.

No member of the CAC shall make representation to the MTA or any other body or body representative or person as representing the CAC unless specifically authorized by a majority vote of the CAC or the CAC Executive Committee.

END OF BYLAWS

Elon Musk's wager that Tesla can fix South Australia's blackouts brings the energy future closer

Samantha Masunaga and Ivan Penn Contact Reporters

Tesla Inc. Chief Executive [Elon Musk](#)'s latest gamble may be less futuristic than a Mars trip, but it signals that the energy industry's long-sought vision of large-scale electricity storage may not be that far off.

Musk made a bet that his company can get a grid-connected battery system in South Australia installed and working within 100 days to help alleviate blackouts — and if it can't, he said, the company will do the work for free. He has a reason to be confident: Tesla delivered a slightly smaller system to Southern California Edison in December after only 90 days.

The energy sector anticipates a storage boom but sees use of natural gas plants coupled with solar and wind energy as a bridge to a time when electricity produced by clean energy resources can be collected at a reasonable cost.

Is Musk, again, ahead of his time, or is energy storage finally ready for prime time?

“I would say, ‘Not yet, but getting close,’” said Robert McCullough, an energy consultant who runs Oregon-based McCullough Research. Storage is still too expensive, but multiple companies are competing to push the price lower, he said.

Musk made the wager Thursday night in a brief back-and-forth on Twitter with Australian software billionaire Mike Cannon-Brookes.

Cannon-Brookes had tweeted a link to an [Australian news report](#) that cited Tesla executive Lyndon Rive as saying he would “commit” to installing the

megawatt-hours of batteries needed to prevent the recent blackouts in South Australia. Heat waves across the region have caused energy demand to spike, which has put increased pressure on the infrastructure there.

According to the report, Rive said the higher production capacity of Tesla's Gigafactory battery production plant in Nevada could help address South Australia's energy crisis within 100 days of being asked.

Tesla and its partner Panasonic began [mass producing lithium-ion battery cells](#) at the Gigafactory two months ago.

"How serious are you about this bet?" Cannon-Brookes tweeted Thursday. "If I can make the \$ happen (& politics), can you guarantee the 100 MW in 100 days?"

Musk responded, "Tesla will get the system installed and working 100 days from contract signature or it is free. That serious enough for you?"

Cannon-Brookes asked Musk to give him seven days to "try [to] sort out politics and funding," and he suggested Musk send him a price quote — "mates rates."

Musk's Tesla Motors bought solar power firm [SolarCity](#) last year, creating a one-stop shop for clean-energy customers interested in electric vehicles and solar panels. The combined company is named Tesla. SolarCity was headed by Rive and his brother Peter Rive, who are Musk's cousins.

Musk often has made grand announcements, but — especially on the autos side — product rollouts haven't always happened on schedule.

Tesla's Model X SUV was expected to arrive in early to mid-2014, but it was actually delivered to customers in late 2015 after production difficulties with the "falcon-wing" doors, which open straight out and up from the vehicle.

Analysts also largely expect Tesla's plans to begin deliveries of its mass-market Model 3 sedan by later this year to slip. Musk himself acknowledged the timeline was ambitious when he first unveiled a prototype of the car in Hawthorne last year, saying he did feel "fairly confident" it would be delivered in 2017 — a statement that [drew chuckles from the audience](#).

On the power side, though, Tesla has shown it can make good on an ambitious plan when it [recently unveiled](#) the 80-megawatt-hour storage project at Southern California Edison's Mira Loma substation in Ontario. Tesla's delivery in 90 days after signing the contract with Edison last September was hailed as remarkably speedy.

"Aliso Canyon is a good case study of how fast energy storage can be deployed if a bunch of factors and stakeholders are aligned," said Ravi Manghani, director of energy storage for Boston-based GTM Research.

Manghani said there are "several caveats to that kind of fast delivery," including clearing regulatory hurdles. But if those obstacles can be overcome consistently, "then I think it's fair to say that storage has arrived," he said.

That project has nearly 400 Tesla Powerpack lithium-ion battery units on a 1.5-acre site in Ontario, and it can store enough energy to power 2,500 homes for a day or 15,000 homes for four hours.

The site uses the batteries to store electricity at night and during other off-peak hours so the electrons can be put back into the grid when power use increases.

At the project's unveiling in January, California Public Utilities Commission President Michael Picker described its completion as "unprecedented fast action."

The utilities commission ordered the battery storage units to supplement capacity after the Aliso Canyon natural gas storage went offline.

Aliso Canyon has sat largely idle after experiencing the nation's largest methane leak in October 2015, and regulators and utility companies raised concern about potential blackouts in Southern California.

The Mira Loma project is Tesla's largest storage project. Its second-largest is a 52-megawatt-hour storage facility in Hawaii.

"Everybody's excited about this Australia situation, but we recently completed our two biggest projects," said Alexi Georgeson, a Tesla spokeswoman.

A 100-megawatt-hour project like what is proposed for Australia would require about 500 Powerpacks made up of more than 8 million individual battery cells.

Airbus' new concept is a car, a drone, and a train all in one

by [Sean O'Kane@sokane1](#) Mar 7, 2017, 10:28am EST

Airbus just announced a new conceptual car-and-drone project called Pop.Up. And I know. I know! This feels like the 100th car-drone concept we've shown you in the last few years. (Hell, it's not even the first one announced at the Geneva Motor Show.) But this time, the car *is* the drone. The drone *is* the car. And, in Airbus' fantastic future world, you can seamlessly transition from car to flying car to train all without lifting your butt off the seat. Okay, I'm listening.

Pop.Up revolves around a small, Smart Car-sized monocoque (or "passenger capsule," as Airbus calls it) that can be used in multiple modes of transportation. The conceptual video, seen above, shows a woman summoning the capsule to her home in self-driving car form. It takes her to a parking garage where a giant quadcopter scoops the capsule up to fly her the rest of the way to her destination. Later in the video we see a row of the capsules embedded inside a sort of train (or hyperloop), too.



The whole system is (theoretically) powered by artificial intelligence, which Airbus says will develop a "seamless travel experience" by dodging congestion. There's also an augmented reality component, which at one point is used to prod the rider for feedback on a proposed bike lane.

Airbus partnered with Italian design firm Italdesign, which shaped production cars like the original Volkswagen Golf and dozens of concepts for BMW, Alfa Romeo, and more. But this particular design is so futuristic that it plays like concept bingo. Vertical take-off and landing? Check! Zero-emission electric motors? Check! AI and AR? Double check!

Pop.Up is a neat idea that is more likely to show up in a video game before it ever crosses into a reality. Unsurprisingly, Airbus hasn't announced a time frame for the project.

<https://www.youtube.com/watch?v=F4lcpfVsdY4>

Driverless trucks may put human drivers out of work sooner than later

By **Rachel Uranga**, *Long Beach Press Telegram*



The Mora family, including Frank Mora Sr., left, with wife Hilda and son Frank Jr., have built their livelihood in the trucking business. The industry could be transformed in the coming years as the push for automated vehicles comes into play. (Photo By Robert Casillas/Daily Breeze)

For decades, trucking has provided big-rig driver Frank Mora and his family a decent living. He doesn't expect that will last forever.

Most major truck manufacturers and several well-funded startups are busy testing automated or driver-free vehicles.

Test models of cars that will whisk passengers around town without a human at the wheel have attracted much media attention. But it's apparent that when driverless vehicles hit the road for real, they'll be driven by commerce, and that means trucks will likely lead the pack.

Mora, whose family has been in the trucking business for three decades, said he can easily understand the appeal of a machine that can be run 24 hours a day without forced breaks for rest and with less labor. The technology is already out there.

From completely driverless big rigs to platooned trucks that could be manned by a single driver and eventually automated, the testing is underway.

"Sure, as an owner I could save a lot of money on wages," he said. "As to whether I think it's safer, it's too soon to tell. I am sure that there are ... maneuvers that only humans can do."

Success for the technology could summon a seismic shift for California's 218,000 truck and delivery drivers — 2.5 million across the nation — according to the latest count from the Bureau of Labor Statistics.

“This is not the far future,” said Xiao Yun Lu, a research engineer at Partners for Advanced Transportation Technology (PATH) at UC Berkeley. “This is the near future.”

The economy churns on the goods truckers carry to markets, retail stores and, increasingly, directly to consumers. Many believe automation can make the business safer, cut operator costs and address intermittent shortages of truck drivers.

“There is a very strong commercial motivation,” said Steven Shladover, a research engineer and manager at PATH. “(Trucks) are out there on the road all day and every day, unlike passenger vehicles which are parked 95 percent of the time. When people buy trucks, they are looking for a return on the investment.”

For truckers like Mora, life will change.

“There is nothing we can do to stop it or change it,” said 28-year-old driver Mora, who spent much of his childhood inside the cab of an 18-wheeler. “But with change there is always opportunity.”

PLATOONS LEAD THE PACK

It's already happening.

- Otto, a subsidiary of Uber, tested an automated truck with a 120-mile beer run across Colorado last year.
- Freightliner, a truck produced by Daimler Trucks North America, glided across the Hoover Dam in 2015.
- Startup Starsky Robotics last week announced it is testing a kit for trucks that will allow big rigs to drive alone on highways, remotely controlled.

While self-driving cars offer the prospect of making roads safer and reducing traffic, these hulking trucks promise commercial benefits that could hasten their development.

“Platoons” could lead the pack. Volvo Trucks was one of six truck manufacturers that last year rolled out partially automated big rigs across Europe so regulators could test their ability to safely caravan. The testing went smoothly, but in Europe, as in the United States, regulators are still grappling with how to handle vehicles that soon won't need humans.

The technology, known as platooning, allows two or more cargo trucks to ride in tandem, talking to one another. It's considered one of the lowest levels of automation, including some simple features already known to drivers of luxury vehicles, such as automated braking. Analysts believe platoons have the potential to come to market quicker because of fewer regulatory hurdles. Already several states have adopted legislation allowing variations.

What's the hurry? Savings. Platooned trucks drive tightly together, cutting as much as 20 percent in fuel costs, by some estimates. And one of trucking companies' biggest expenses is what goes in the tank, according to an American Transportation Research Institute.

Can these packs of trucks maneuver successfully without help from human hands? That's one question Caltrans officials will be looking at when they oversee a federally backed test of a three-truck Volvo platoon, starting Wednesday.

It will be the first time platoon driving will be tried in Southern California. The trial will focus on how safe these vehicles can be with other cars weaving in and out around them.

"These trucks are not going to be taking away jobs," said Aravind Kailas, a U.S.-based technology planner at Volvo. "It's targeting safety to get on the road."

In the trials, drivers will sit behind the wheels of three 53-foot Volvo big-rig trucks. All will steer the vehicles, but the second and third driver won't touch the gas or break pedal.

The test will be similar to the drill staged in Rotterdam but with a much shorter route, along the 110 Freeway to the Port of Los Angeles, where hundreds of cargo-loading trucks stream in and out of daily.

They will communicate through a complex system of radar, cameras and Wi-Fi.

"What you are achieving when these trucks talk to one another is the ability to brake synchronously at the same time," Kailas said. "If the first truck brakes, the second and third truck brake at the same time."

This won't be a test for speed. None of the trucks will travel faster than 55 mph.

"The No. 1 thing we want to show," Kailas said, "is that this is a technology that is targeting safety,"

ANXIETY AT THE WHEEL

"Everything is pretty much possible," said Wokil Hayder, director of autonomous and automated driving for Volvo Trucks in Sweden, "but whether you want to do it is another thing."

As the technology barrels forward, some anxiety is evident among regulators and consumers alike.

While a Consumer Technology Association poll found [70 percent of 2,001 people surveyed](#) ready to test out an autonomous vehicle, a University of [Michigan](#) poll revealed less than 16 percent were willing to let the machines completely take over.

California, where many of the startups pursuing the technology call home, has been slow to adopt autonomous vehicle regulations, while Michigan, home to the auto industry, has shot ahead.

Headlines from last summer could stoke anxiety, too. The death of a man driving a Tesla Model S car in autopilot mode renewed concerns about the technology. After an

investigation, U.S. regulators, however, found no evidence of defects. CEO Elon Musk, who operates a Tesla design center in Hawthorne as well as the SpaceX rocket-building facility, applauded the decision.

What needs to happen before these vehicles are fully deployed is a “mind-set change,” Volvo’s Hayder said. Motorists may fear sharing the road with “heavy, long big trucks” without drivers. But the long-range goal is to make robot-powered trucks safer than their human-steered counterparts.

“We have a huge opportunity,” said Marques McCammon, general manager for connected vehicle solutions at Wind River, a subsidiary of Intel that has been developing software for self-driving vehicles.

Smart vehicles, with more electronic eyes than humans, will have a greater ability to sense obstacles or other danger. New, “smarter” road systems that communicate with vehicles could “change the paradigm,” he said.

In 2015, 35,092 people died in car accidents, according to the National Highway Safety Transportation Administration. The agency estimates 94 percent of all accidents were caused by human error.

“Think about what this could mean for safety alone,” McCammon said.

HOW LONG?

Experts disagree about just how long it will take to get driverless big rigs on the road and just how human-free they will ever be.

Platooning, for example, is a long way from robots at the wheel.

Shladover estimates it could be decades.

“All the truck drivers are not going to lose their jobs,” he said, “and there are a lot of other crazy predictions floating around out there. A transportation system doesn’t change that quickly. It takes a long time for vehicle fleets to turn over.

“Even when we got a government mandate that all new vehicles have to be equipped with seat belts, it took 11 years to get up to 90 percent of the vehicles (in compliance),” he added.

But plenty of folks are more bullish.

The head of Connecticut-based transportation and logistics company XPO told a conference of maritime professionals in Long Beach last week that he expects to see driver-free trucks “everywhere” in the next decade.

And Noel Perry, an economist specializing in freight, said he expects to see driverless trucks come online in 10 years and for platooning to be operational by 2020.

That could eliminate hundreds of thousands of jobs, with median pay about \$40,000 for each, according to the Department of Labor.

That notion doesn't sit well with Sam Loesche, a lobbyist for the Teamsters union, which represents about 40,000 truck and delivery drivers nationwide.

"You can never be in a situation where you automate jobs overnight and expect that to be the best interest of the country," Loesche said. "I don't think we have even seen technology that is proven and reliable.

"These drivers are the face of business," he said. "They interact on a day-to-day basis with customers, and their relationship strengthens brands. I would say anyone who writes off the role of the working class in this country ... does so at their own risk."

For Perry, the arrival of automated trucking is not a drama pitting jobs and families vs. a robotically enhanced bottom line. It's simply where the business needs to be, he said.

"It will mean trucking is cheaper and safer," he said.

A DRONE-SLINGING UPS VAN DELIVERS THE FUTURE

IF YOUR IMAGE of the future of drone deliveries involves swarms of quadcopters pouring out of Amazon warehouses like [flying monkeys](#) leaving the Wicked Witch's castle, you'll be disappointed. They're far more likely to be dispatched from trucks parked not too far from your house.

Anything else is simply too big a hassle. Companies like UPS and Amazon prize efficiency above all, and deploying a fleet of drones from a warehouse in the middle of nowhere wastes time. Making them fly all the way back wastes energy. And you [still need trucks](#), because drones can't schlep more than a few pounds. But if you put the drones in the truck and fling them at houses to cover the last mile or so, well, then you're on to something. You're saving the driver the trouble of parking the truck, getting out, finding the package, and hoofing it to the door. Think of it as a paperboy riding his bike down the street, tossing the newspaper onto each porch.



UPS

UPS made a test run Monday in Tampa, Florida. Sid Perrin trundled through a rural neighborhood in a UPS van with an odd lump on the roof. Instead of taking a long

driveway to a remote blueberry farm, she put the truck in park, climbed into the back, and placed a package in the belly of a drone. Back in the driver's seat, she tapped a command on a touch screen. The roof of the truck retracted, the drone took flight, and Perrin continued up the road to her next destination.

The drone, meanwhile, flew a short distance to the house, deposited the package, and found the truck—where it plugged itself into a charger to await its next flight. And damned if it didn't work.

“A trial like this is important, because it's not just a drone itself doing something, but all the support processes, and the people,” says Timothy Carone, a physicist and expert on automation at the University of Notre Dame. “As a test, it's more realistic, because it's looking at how it all integrates into the business.”

UPS deployed a super-sized version of the consumer drones you already know. It weighs 9.5 pounds, sports eight rotors, and can stay aloft for 30 minutes. The van is a diesel-electric hybrid, and although the driver must come to a stop to dispatch drones, everything else about it works just like any other UPS delivery truck. The setup comes from Workhorse Group, an Ohio company that builds hybrid electric trucks, and the University of Cincinnati. They [first showed it off](#) in 2014.



UPS

If this sounds like an overly complex solution to a fairly minor problem, you know squat about the logistics of delivering a gazillion packages each day. UPS calculates that cutting just one mile from the route each of its 66,000 drivers follows each day would save the company \$50 million a year. If a truck can make drones cover that last mile, they'll easily pay for themselves. "Our drivers are still key, and our drones aren't going to be replacing our service providers, but they can assist and improve efficiency," says Mark Wallace, senior vp of global engineering and sustainability at UPS.

Amazon, UPS, 7-Eleven, Google, and others, are eager to deploy drones, because how fast you can get orders to customers is crucial in the competitive online shopping world. Amazon Prime Air is providing super rapid deliveries by drone, but only to [two customers in the south of England](#), from a fixed fulfillment center. 7-Eleven is slinging everything from slurpees to flu medicine, to 12 customers in a fixed drone testing area in Nevada. Others are piggybacking on the moving vehicle idea. Mercedes-Benz joined drone developer Matternet on a [networked delivery van](#) concept with two drones docked on the roof. German engineers are [teaching drones to land in nets on the roofs of cars](#), and Darpa has figured out how to [pluck a speeding drone from midair](#).

It'll be a while before UPS drones are buzzing up to your door, but UPS is working with the FAA to make it happen... at some point. That will require drafting a new rules to allow commercial drone deliveries and amending a current rule requiring drone operators keep their machines within sight. Until then, Perrin and her fellow drivers will continue schlepping your orders to your door. So remember to say thank you next time.