MEETING OF THE

REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE

Monday, September 30, 2019
10:00 a.m. – 12:00 p.m.

SCAG OFFICES
900 Wilshire Blvd., Ste. 1700
Policy Room A
Los Angeles, CA 90017
(213) 236-1800

VIDEOCONFERENCE AVAILABLE

VIDEOCONFERENCE https://scag.zoom.us/j/220315897
CONFERENCE NUMBER 669-900-6833
MEETING ID 220 315 897

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Steve Fox at (213) 236-1855 or via email at fox@scag.ca.gov.

SCAG, in accordance with the Americans with Disabilities Act (ADA), will accommodate persons who require a modification of accommodation in order to participate in this meeting. SCAG is also committed to helping people with limited proficiency in the English language access the agency's essential public information and services. You can request such assistance by calling (213) 236-1908. We request at least 72 hours (three days) notice to provide reasonable accommodations and will make every effort to arrange for assistance as soon as possible.
The Regional Transit Technical Advisory Committee may consider and act upon any of the items listed on the agenda regardless of whether they are listed as information or action items.

1.0 CALL TO ORDER
(Gary Hewitt, OCTA, Regional Transit TAC Chair)

2.0 PUBLIC COMMENT PERIOD - Members of the public desiring to speak on items on the agenda, or items not on the agenda, but within the purview of the Regional Transit Technical Advisory Committee, must fill out and present a speaker's card to the assistant prior to speaking. Comments will be limited to three minutes. The chair may limit the total time for all comments to twenty (20) minutes.

3.0 RECEIVE AND FILE

3.1 Minutes of the July 31, 2019 RTTAC Meeting 4
3.2 ADA Paratransit Demand Forecast 8
3.3 Tactical Transit Study 11

4.0 INFORMATIONAL ITEMS

4.1 Transit Asset Management Performance Target Setting 20 12
(Herb Higginbotham, Project Manager, Cambridge Systematics)

4.2 Redlands Rail Arrow Project 20 30
(Carrie Schindler, Director, Transit and Rail, SBCTA)

4.3 Regional Housing Needs Assessment (RHNA) Update 20 42
(Ping Chang, Manager, Compliance and Performance Monitoring, SCAG)

4.4 Draft Connect SoCal Transit/Rail Element 20 59
(Philip Law, Manager, Transit/Rail, SCAG)
5.0 STAFF REPORT

5.1 CARB Innovative Clean Transit – Upcoming Regional Meetings
(Philip Law, Manager, Transit/Rail, SCAG)

5.2 Integrated Rail Forecast Study
(Steve Fox, Senior Regional Planner, SCAG)

6.0 ADJOURNMENT

The next Regional Transit Technical Advisory Committee meeting is tentatively scheduled for Wednesday, January 29, 2020.
Regional Transit Technical Advisory Committee (RTTAC)  
of the  
Southern California Association of Governments  
Wednesday, July 31, 2019  

Minutes

THE FOLLOWING MINUTES ARE A SUMMARY OF ACTIONS TAKEN BY THE REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE (RTTAC). AN AUDIO RECORDING OF THE MEETING IS AVAILABLE FOR LISTENING IN SCAG’S OFFICE.

The Regional Transit Technical Advisory Committee held its meeting at SCAG’s Downtown Los Angeles Office. The meeting was called to order by Vice Chair, Joyce Rooney, Redondo Beach Transit.

**Members Present:**
- Joyce Rooney (Vice Chair)  Redondo Beach Transit  
- Lori Huddleston  LACMTA  
- Scott Green  LACMTA  
- Teresa Wong  LACMTA  
- Rory Vaughn  Metrolink  
- Danielle Dirksen  Metrolink  
- Joel Lessard-Clouston  Metrolink  
- Tracy Beidleman  Long Beach Transit  
- Stephanie Sampson  Los Angeles World Airports  
- Glenda Silva  Los Angeles World Airports  
- Evelyn Quintanilla  Los Angeles World Airports

**Videoconference:**
- Geraldina Romo  Antelope Valley Transportation Authority  
- Martin Tompkins  Antelope Valley Transportation Authority

**Teleconference and Web Meeting:**
- Tim McCormick  Big Blue Bus  
- Medford Auguste  LACMTA  
- James Lee  Torrance Transit  
- Martha Masters  Riverside County Transportation Commission  
- Alex Porlier  Santa Clarita Transit  
- Caitlin Zane  Culver City Bus  
- Herb Higginbotham  Cambridge Systematics

**SCAG Staff:**
- Philip Law  Stephen Fox  
- Stephen Fox  Hiroshi Ishikawa  
- Marisa Laderach  Tom Vo  
- Javiera Cartegena  Rachael Wagner
1.0 **CALL TO ORDER**

Joyce Rooney, Redondo Beach Transit, called the meeting to order at 10:02 a.m.

2.0 **PUBLIC COMMENT PERIOD**

No members of the public requested to comment.

3.0 **RECEIVE AND FILE**

3.1 Minutes of the April 29 and May 29, 2019 RTTAC Meetings
3.2 Connect SoCal: Emerging Transit Technologies
3.3 Partnerships Between Transit Agencies and Transportation Network Companies
3.4 Lessons Learned from the Pinellas Suncoast Transit Authority’s Direct Connect Pilot
3.5 2019 RTTAC Agenda Look Ahead

4.0 **INFORMATION ITEMS**

4.1 **Connect SoCal Outreach**

Javiera Cartagena, SCAG staff, provided an update on public outreach efforts for the 2020 Regional Transportation Plan/Sustainable Communities Strategy which is titled, “Connect SoCal.” Ms. Cartagena stated that 28 public workshops have been conducted to dialogue with the public to discuss regional issues and explore potential solutions. She noted there were greater than 500 participants in the workshops who were engaged and encouraged to share their views on the future of the region through a structured process including a formal survey. In addition, a tele-town hall meeting was conducted reaching over 200 – 700 participants throughout the call. Further, there was outreach to community based organizations particularly those who have been underrepresented in the past. This reached an additional 1,600 members of the public. In addition, an advertising effort was conducted to reach out to the public.

Ms. Cartegena reviewed survey results noting that 4,000 responses were received throughout the region using a web based technology. She stated housing affordability and traffic congestion were the top challenges reported in the survey. Transportation improvements such as safer streets, reduced travel times, improved access to transit were noted as top concerns. Additionally, growth near job centers and within cities particularly near transit were preferred by survey respondents.

Joyce Rooney, Redondo Beach Transit, asked how bilingual participation was conducted for the town hall tele-meetings. Ms. Cartagena responded that bilingual staff was available to translate the questions and responses.

4.2 **LAX LAMP and APM**

Glenda Silva, Los Angeles World Airports (LAWA), reported on LAWA’s Landside Access Modernization Program (LAMP). Ms. Silva stated that LAX served 87.5 million air passengers in 2018 and is currently in the midst of a $14.3 billion capital improvement program designed to improve traffic congestion and
passenger experience. She noted LAMP includes several components including an Automated People Mover (APM), Consolidated Rent-a-Car Facility (ConRAC), Intermodal Transportation Facility (ITF-W) as well as roadway improvements. She noted the Automated People Mover is a 2.25 mile elevated guideway that will be free to passengers that will access 3 stations outside the central terminal area and 3 stations inside of it. Further, each train can transport 200 passengers and it will take 10 minutes. An additional component is the APM Maintenance & Storage Facility which will contain a control system, test tracks, vehicle storage and a train wash.

Ms. Silva reviewed the Intermodal Transportation Facility which will provide a new pick-up and drop-off and parking location away from the terminal area. She noted the 1.7 million square feet facility will have 4,500 parking spaces offering short and long term parking in addition to a meet and greet area. Additionally, an Airport Metro Connector (AMC) Station will connect with the Crenshaw/LAX and Green Line Stations where passengers can take the APM to the terminal area. She next reviewed the Consolidated Rent-A-Car Facility (ConRAC) which will house all rental vehicle activity in a 5.3 million square feet facility with 17,000 parking stalls which will also link with the APM. Ms. Silva reviewed the construction schedule and the different communication tools to inform airport users during construction.

Lori Huddleston, LACMTA, asked about the previous use of the property on which the ConRAC will be built. Ms. Silva stated the land has been owned by LAWA for years and with this expansion effort it is now being completely turned over to them.

Tim McCormick, Big Blue Bus, asked about planning for municipal bus providers. Ms. Silva responded that those bus providers will be able to access the ITF in order to connect their riders with the Automated People Mover.

### 4.3 Bus/Rail Interface Plans for LAX

Scott Greene, LACMTA, reported on bus and rail interface plans for LAX. Mr. Greene stated that the LAX City Bus Center at 96th Street slightly east of Sepulveda Blvd. has been open since 2018. He noted currently the area is served by numerous bus lines averaging 1,200 weekday boardings. Further, this is an interim facility as all bus service will be consolidated at the Metro Airport Connector bus hub on Aviation Blvd. which will link to the Crenshaw/LAX light rail service and to the APM when it is opened. The Century/Aviation Station will also have stops for Big Blue Bus, Culver City Bus and Beach Cities Transit in addition to 4 Metro bus lines.

Joyce Rooney, Redondo Beach Transit, asked if the Century Aviation Station would have a direct pathway to the shuttle pick up area or would passengers need to walk along Century Blvd. where the sidewalks are narrow. Mr. Greene stated that customers would be required to walk along Century Blvd. and this would only be a 3-year temporary situation until the APM is opened.
4.4 Environmental Justice & Connect SoCal

Tom Vo, SCAG staff, gave an update on Environmental Justice Accessibility Performance Metrics. Fundamental principles of Environmental Justice (EJ) include ensuring the full and fair participation by all potentially affected communities in the transportation decision-making process and preventing the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations. Mr. Vo then described SCAG’s EJ Assessment Process, which has a robust public participation process. Mr. Vo also went over SCAG’s EJ policy, which is similar to the federal policy. This policy will be incorporated into Connect SoCal. Connect SoCal has an Environmental Justice technical report. The draft Connect SoCal document will be released in early November, and the final will be approved in April 2020.

4.5 Transit Asset Management Performance Target Setting

Herb Higgenbotham, project manager with Cambridge Systematics (CS), gave an update on the Transit Asset Management (TAM) target setting process. He stated SCAG is about a third of the way through this process. This effort is based on new FTA rules requiring MPOs to set regional targets through the RTP/SCS process. These targets will be incorporated into 2020 Connect SoCal, then every four years RTP/SCS process. Earlier this month, training sessions were held in Los Angeles, Riverside, San Bernardino and Ventura counties. CS has also queried other MPOs to see how they are fulfilling these new federal requirements.

Targets will be set for both the short-term and the long-term, coinciding with Connect SoCal’s 2045 horizon year. Several funding scenarios will be considered, including a baseline, a constrained, based on the state-of-good-repair funding that is reasonably expected to be available, and an unconstrained scenario. TAM targets and funding figures are obtained from a bottom-up approach from transit operators and the county transportation commissions.

5.0 STAFF REPORTS

5.1 ADA Paratransit Study

Steve Fox, SCAG staff, noted that as a follow-up to an item discussed at the May 2019 meeting, SCAG has begun an ADA Paratransit Study with the goal to develop an ADA forecasting tool in addition to examining existing conditions and the use of new technology on ADA paratransit services. He noted meetings will be conducted with different transit agencies. He encouraged interest and participation from member agencies.

6.0 ADJOURNMENT

Joyce Rooney, Redondo Beach Transit, adjourned the meeting at 11:58 a.m.
SUMMARY:
The Americans with Disabilities Act (ADA) mandates that providers of public transportation provide alternative curb-to-curb service for seniors and the disabled within three-fourths of a mile of their fixed route transit network. In May 2019, SCAG commenced work on the ADA Paratransit Demand Forecast. This report updates RTTAC members on the study’s progress to date.

BACKGROUND:
Following the passage of the Americans with Disabilities Act of 1990, The FTA adopted four regulations to implement that statute, as well as the Rehabilitation Act of 1973. In particular, 49 CFR 37 mandated the provision of complementary paratransit for qualified individuals by providers of public transportation. This rule mandates that paratransit service shall be provided according to the following criteria:

(a) Service Area—(1) Bus. (i) The entity shall provide complementary paratransit service to origins and destinations within corridors with a width of three-fourths of a mile on each side of each fixed route. The corridor shall include an area with a three-fourths of a mile radius at the ends of each fixed route.

(ii) Within the core service area, the entity also shall provide service to small areas not inside any of the corridors but which are surrounded by corridors.

(iii) Outside the core service area, the entity may designate corridors with widths from three-fourths of a mile up to one and one half miles on each side of a fixed route, based on local circumstances.

(iv) For purposes of this paragraph, the core service area is that area in which corridors with a width of three-fourths of a mile on each side of each fixed route merge together such that, with few and small
exceptions, all origins and destinations within the area would be served.

Therefore, public transportation providers are mandated to provide complimentary paratransit service for trips within three-fourths of a mile of their fixed route service. This typically is provided by a dedicated paratransit vehicle picking the passenger up directly at their origin and dropping them off directly at their destination, from curb to curb. The mandate does not specify that the vehicle operator escort the passenger to or from the doorstep.

In addition to satisfying the ADA mandate, ADA Paratransit is also an important component of the Region’s integrated mobility system. This service provides mobility for seniors and the disabled, many of whom cannot provide for themselves. However, since it typically operates at a rate of one vehicle operator to one passenger, this service is very resource intensive, resulting in very low productivity and very high costs per passenger hour and mile. For example, in FY2015-16, ADA Paratransit and other demand response services resulted in 18.1% of all public transit revenue vehicle hours, but less than 2% of all unlinked passenger trips in the region. In addition, average paratransit trip lengths have doubled between FY1991-92 and FY 2015-16.

DISCUSSION:
The ADA Paratransit Demand Forecast project includes the development of a forecasting tool to provide estimates of long-term demand for ADA paratransit trips, and also includes the production of an initial trip demand forecast for the years 2030 and 2045. The project includes significant outreach to partner agencies, and representatives of the elderly and disabled communities. Additionally, the study addresses the role of new mobility services in providing service to the elderly and disabled communities. The specific project tasks are:

Task 1 – Project Management
Task 2 – Stakeholder Engagement, including stakeholder interviews and focus groups
Task 3 – Data Collection, including an eligibility rules analysis, an existing conditions analysis and a review of technology and mobility innovations impacting paratransit
Task 4 - ADA Paratransit Demand Forecast Tool Development, including a forecasting tool instruction manual
Task 5 – Next Steps Analysis
Task 6 – ADA Paratransit Demand Costs, including cost estimates and long-term resource needs
Task 7 – Final Report
Study Progress to Date

A project kick-off meeting was held on April 30, 2019. Since that time, a stakeholder engagement plan was finalized, and stakeholder outreach has begun and is in process, including a stakeholder invitation letter and interviews with various transit agencies. Transit agencies interviewed or scheduled to be interviewed include Access Services, Gold Coast Transit District (GCTD), Imperial County Transportation Commission (ICTC), Los Angeles County Metropolitan Transportation Authority (LACMTA), Omnitrans, Orange County Transportation Authority (OCTA), Riverside Transportation Authority (RTA), and SunLine Transit Agency.

The consultant team has also begun a review of ADA paratransit demand forecast methodologies used by other paratransit providers in the industry. These include Massachusetts Bay Transportation Authority (MBTA), Miami-Dade Transit, Washington Metropolitan Area Transit Authority (WMATA) and Virginia Department of Rail & Public Transportation.

**NEXT STEPS:**
SCAG staff will periodically update RTTAC members during the course of the study. The project is expected to conclude in September 2020.
SUMMARY:

In this forthcoming TCRP report, researchers Anthony Garcia and Dana Wall document the current state of the practice of “tactical transit” projects, which apply a quick-build tactical urbanism approach to implementing short-term projects on a faster timeline and at low cost. The report examines 20 bus and streetcar projects across the country that involve both physical and operations improvements. Two of the pilots are located in the SCAG region: Go Ave 26 in Los Angeles, led by the nonprofit group LA Más, and the Los Angeles Bus Boarding Platforms on First St. and Figueroa St. in Downtown LA, led by the City of Los Angeles Department of Transportation.

The researchers provide a framework that identifies partnership models, broad categories of intended outcomes, and challenges and solutions. Partnership models include city lead with transit agency support, city and transit agency sharing equal responsibilities, and a third entity lead with city and/or transit agency support. Categories of outcomes include speed and reliability improvements, access and safety improvements, and rider experience improvements.

For each pilot project examined, the report summarizes four characteristics: project impetus, internal process and partnerships, procurement and implementation, and triumphs and lessons learned.

Suggestions or “pro tips” are provided for a set of eight challenges:

1. Assembling the team
2. Designing the project
3. Public outreach
4. Establishing metrics
5. Procuring materials
6. Implementation
7. Public support
8. Responding to challenges
To: Regional Transit Technical Advisory Committee (RTTAC)

From: Steve Fox, Senior Regional Planner, fox@scag.ca.gov

Subject: 2020 Connect SoCal Transit Asset Management Target Setting

SUMMARY:
This report updates RTTAC members on progress towards regional Transit Asset Management (TAM) target setting for 2020 Connect SoCal.

BACKGROUND:
The Federal Transit Administration (FTA) issued the Transit Asset Management Final Rule (49 CFR 625), effective October 1, 2016, to implement the asset management provisions of the Moving Ahead for Progress in the 21st Century Act (MAP-21). This Final Rule mandates the development of a National Transit Asset Management System, defines “state of good repair,” and requires transit providers to develop asset management plans. It further requires states, metropolitan planning organizations (MPOs), and transit providers to develop locally coordinated performance targets, and to report on progress towards meeting the targets to the National Transit Database. Transit operators were required to establish initial TAM targets by January 1, 2017, and SCAG was required to establish initial regional TAM targets within 180 days, or by July 1, 2017.

DISCUSSION:
SCAG staff has briefed the RTTAC regularly on the TAM target setting development process since the final rule was published. The RTTAC was last briefed at the July 2019 RTTAC meeting and progress on the TAM target setting process is detailed below.

County Transportation Commission (CTC) and Transit Agency Engagement. SCAG procured a consultant team led by Cambridge Systematics to assist with the data collection and target setting, using their web-based asset management software application called TransAM. There were four TransAM training workshops held over the summer in Los Angeles, Riverside, San Bernardino, and Ventura counties. Also, SCAG has convened a Project Advisory Group (PAG) comprised of CTCs and large transit agencies from all six SCAG counties to provide guidance on the target setting process. At its September 16th meeting, the PAG reviewed the draft TAM target setting methodology, and their input is incorporated into the draft TAM targets presented today (Attachment 1).
**Data Collection.** The data collection and input process has been very successful with 37 operators providing data into TransAM, and the L.A. County Group Plan has been inputted as well. Per federal regulation, four asset categories are reported on: Equipment (non-revenue vehicles), Facilities, Infrastructure and Rolling Stock (revenue vehicles). Assets and their cost data are based on CTC and operator inputs.

**Regional Target Setting Methodology.** Individual operator targets are rolled up with weighted averages calculated by county for each asset type. This includes the six SCAG counties plus Metrolink as an additional geography. Then, county and Metrolink averages are rolled up into regional targets. The forecasted targets use three-year averages for a given point in time to even out fluctuations such as those caused by asset acquisitions. For example, the 2045 target is based on the average for years 2043, 2044 and 2045. For the 2019 current year, a single year average is used due to the lack of consistent historical data for 2017 and 2018.

**Target Setting Scenarios.** Three scenarios are analyzed: Baseline, Constrained and Unconstrained. The Baseline scenario represents the funding required to maintain the current 2019 state of good repair (SOGR) performance targets through the Connect SoCal 2045 horizon. The Constrained scenario represents targets that could be achieved with the SOGR funding available from Connect SoCal’s financial forecast, which is based on CTC input. The Unconstrained scenario represents the funding required for a full SOGR in 2045, meaning for example there would be 0% of vehicles at or past their useful life.

The draft TAM targets are in accordance with the Baseline scenario—reflecting a desire to maintain current conditions through the life of the plan. These are optimistic targets, in that there is not sufficient funding available in the financial forecast to cover the Baseline scenario. However, the data from the target setting analysis can be used to support regional efforts to advocate for additional revenue to meet our SOGR needs.

**NEXT STEPS:**
The draft TAM targets will be presented to SCAG’s Transportation Committee on October 3, 2019. The Draft 2020 Connect SoCal document will be released in early November 2019, and the next PAG meeting is scheduled for December 9, 2019. SCAG will continue coordination efforts with the CTCs and transit operators leading up to final Connect SoCal adoption in April 2020.

**ATTACHMENTS:**
1. PowerPoint Presentation
Transit Asset Management
Target Setting

\textit{Draft Regional Targets}

\textit{presented to}
Regional Transit Technical Advisory Committee (RTTAC)

\textit{presented by}
Cambridge Systematics, Inc.

September 30, 2019
Project Background

From these Inputs

 Operators:
  • Asset Inventories
  • Planned Investments
  • Performance Targets

SCAG:
  • 25-Year Funding Scenarios

Applied with these Decision Steps

  • Performance Targets
  • Asset Investments
  • Scenario Analysis

We get to these Outputs

For Each Scenario:
  • 25-Year County & Region Performance Targets
  • 25-Year County & Region Forecast Investments
  • Feeds into RTP
Data Collection

Five database training workshops help in June and July

Operators uploaded data into database
- 37 individual operators provided data
- Data from 34 agencies entered through combined upload (LA County Group Plan)
Target Setting Approach

Current Targets: Operator Targets Rolled Up:

» Weighted averages calculated, by county, for each asset type
» Averages rolled up to class and category
» County averages rolled up to SCAG regional targets

1) Baseline Scenario:

To maintain current target, how much funding is required?
2) Constrained Scenario:

Based on the available funding, what target are we likely to achieve?

3) Unconstrained Scenario:

What is the total funding needed to replace all assets past their useful life?
Analysis Methodology

Scenarios analyzed
- Three scenarios: Unconstrained, Baseline, and Constrained
- Four asset categories: Rolling stock, Equipment (service vehicles), Facilities, and Infrastructure
- Seven geographies: Six counties plus Metrolink

Input Data
- Asset inventory and cost data from operator inputs
- ULBs and performance targets from TAM plans and NTD reports

Funding Assumptions
- Unconstrained = funding need to clear current and future backlog
- Constrained = funding assumed to match SCAG’s RTP financial forecast (based on CTC input). Funding split between categories based on unconstrained need
- Baseline = funding based on what is required to maintain 2019 performance targets

Forecasted Targets
- Three-year averages
## 2019 Targets

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<th>Equipment (Pct of non-revenue vehicles &gt; ULB)</th>
<th>Facilities (Pct of facilities &lt; TERM scale 3)</th>
<th>Infrastructure (Pct of track segments with restrictions)</th>
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# Unconstrained Scenario

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## Baseline Scenario

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<td>Metrolink</td>
<td>$ 3,372</td>
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</tr>
<tr>
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</tr>
<tr>
<td></td>
<td></td>
<td>26.1%</td>
</tr>
<tr>
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</tr>
<tr>
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## Constrained Scenario

<table>
<thead>
<tr>
<th>Geography</th>
<th>Scenario Funding ($M)</th>
<th>2019 Targets</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Rolling Stock (Pct of revenue vehicles &gt; ULB)</td>
</tr>
<tr>
<td>Imperial</td>
<td>$ 11</td>
<td>71%</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>$ 12,110</td>
<td>31%</td>
</tr>
<tr>
<td>Orange</td>
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</tr>
<tr>
<td>Riverside</td>
<td>$ 336</td>
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</tr>
<tr>
<td>San Bernardino</td>
<td>$ 357</td>
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<td>SCAG Region</td>
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<td>31%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equipment (Pct of non-revenue vehicles &gt; ULB)</td>
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<tr>
<td></td>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Facilities (Pct of facilities &lt; TERM scale 3)</td>
</tr>
<tr>
<td></td>
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<td>34%</td>
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<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Infrastructure (Pct of track segments with restrictions)</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>NA</td>
</tr>
<tr>
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<td></td>
<td>NA</td>
</tr>
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</table>
Scenario Funding Needs

- Unconstrained Need
- Baseline Need
- Available Funding

DRAFT
SCAG Region – Funding vs Targets

Rolling Stock

- Unconstrained
- Baseline
- Constrained

Equipment

- Unconstrained
- Baseline
- Constrained

Facilities

- Unconstrained
- Baseline
- Constrained

Infrastructure

- Unconstrained
- Baseline
- Constrained
## Funding Summary

<table>
<thead>
<tr>
<th>Geography</th>
<th>Unconstrained Need ($M)</th>
<th>Baseline Funding Need ($M)</th>
<th>Constrained Funding ($M)</th>
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<tr>
<td>Imperial</td>
<td>$ 45</td>
<td>$ 45</td>
<td>$ 11</td>
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<tr>
<td>LA County</td>
<td>$ 21,404</td>
<td>$ 17,943</td>
<td>$ 12,110</td>
</tr>
<tr>
<td>Orange</td>
<td>$ 1,146</td>
<td>$ 1,114</td>
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</tr>
<tr>
<td>Riverside</td>
<td>$ 580</td>
<td>$ 546</td>
<td>$ 336</td>
</tr>
<tr>
<td>San Bernardino</td>
<td>$ 600</td>
<td>$ 485</td>
<td>$ 357</td>
</tr>
<tr>
<td>Ventura</td>
<td>$ 263</td>
<td>$ 248</td>
<td>$ 177</td>
</tr>
<tr>
<td>County Subtotal</td>
<td>$ 24,039</td>
<td>$ 20,381</td>
<td>$ 13,896</td>
</tr>
<tr>
<td>Metrolink</td>
<td>$ 4,358</td>
<td>$ 3,372</td>
<td>$ 7,326</td>
</tr>
<tr>
<td>SCAG Region</td>
<td>$ 28,397</td>
<td>$ 23,753</td>
<td>$ 21,222</td>
</tr>
</tbody>
</table>

### Diagram

- **Cumulative Unconstrained Need**
- **Cumulative Baseline Need**
- **Cumulative Funding Available**

**Graph:**
- The graph shows the cumulative unconstrained need, baseline need, and funding available from 2021 to 2045. The unconstrained need is consistently increasing, with peaks in funding available from 2027 onwards. The baseline need shows a consistent increase with funding available starting from 2023. The SCAG Region shows the highest funding availability, followed by LA County and Imperial. San Bernardino and Ventura have the lowest funding available.
Project Advisory Group Feedback

 Reviewed draft targets on 9/16 with PAG
  » Six CTCs plus Metrolink, Access Services, Omintrans, RTA, and Gardena

 Use 2019 Targets for Near and Long-Term
  » Maintaining current targets made most sense for 2045 long-term targets

 Share scenarios as part of RTP
  » Telling story of unmet need (baseline versus constrained) is important in the RTP

 PAG data request
  » Advisory group asked to see more detail behind the analysis
Next Steps

- Sept 30th
  - RTTAC Presentation

- October 3rd
  - Transportation Committee Presentation

- November
  - Draft RTP release
Questions?

Stephen G. Fox, SCAG Project Manager
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Philip Law, SCAG Transit Manager
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Herb Higginbotham, CS Project Manager
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Jon Overman, CS Deputy Project Manager
joverman@camsys.com / 213-372-3028
Bringing you the **NEXT GENERATION** of transit.

Carrie Schindler, PE
Director of Transit & Rail
SAN BERNARDINO VALLEY MASS TRANSIT CONNECTIVITY

LEGEND
- Redlands Passenger Rail (Future Arrow Service)
- Metrolink
- SBX Bus Rapid Transit
- TOD: Transit-Oriented Development
- Ontario Airport Rail Access (Future)
- Gold Line (Future)
- Central to Archibald Double Track (Future)
- Rancho to Lilac Double Track (Future)
- Omnitrans West Valley Connector - Phase I

Rail and Bus Connectivity
Esri Station
Quiet Zones

Positive Train Control

System Interoperability

Project Elements
Diesel Multiple Unit Conversion

**TIRCP Grant Award $30M**

- SBCTA received funding from Transit and Intercity Rail Capital Program (TIRCP) to complete research and development on zero or low emissions rail vehicles (ZEMU)

**Funding for:**

- Research on the conversion of Diesel Multiple Unit to Zero Emission Multiple Unit
- Development of suitable technology and procurement of the zero emission unit and testing on the Arrow corridor

**SBCTA ZEMU Program Approach**

**Phase 1** – Planning

**Phase 2** – Design & Engineering

**Phase 3** – Project Implementation and Construction
Diesel Multiple Unit Conversion

Power Pack
Selection of Preferred Technology

<table>
<thead>
<tr>
<th>Cost</th>
<th>Capital, Operations &amp; Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>Right-of-Way, Charging &amp; Fueling, Utilities</td>
</tr>
<tr>
<td>Environmental Considerations</td>
<td>Land use, GHGs, Aesthetics, Noise, Socio-Economic</td>
</tr>
<tr>
<td>Operations</td>
<td>Range, Scalability, Reliability, Operations, Life Span</td>
</tr>
<tr>
<td>Regulatory Compliance</td>
<td>FRA, NFPA, CPUC</td>
</tr>
<tr>
<td>Implementation Schedule</td>
<td>Timeline for Planning, Design, Construction phases</td>
</tr>
<tr>
<td>Risk Analysis</td>
<td>Identify and document risks for further analysis</td>
</tr>
</tbody>
</table>

www.goSBCTA.com
909.884.8276

@goSBCTA
Determining Housing Need for Cities:
The Regional Housing Needs Assessment (RHNA)

Ping Chang
Manager, Compliance & Performance Monitoring
Southern California Association of Governments

September 30, 2019
Different Causes of the Housing Crisis

- Unpredictable discretionary permitting process
  - California Environmental Quality Act (CEQA)
- Lack of funding for developers, builders, and cities
- Construction costs
- High cost of land

....the problem is still the same, we’re not building enough housing
The Housing Crisis is Caused by a Lack of Housing Supply

Building Permits, SCAG Region 1970-2016

- Single Family Units
- Multi-Family Units (2+ Units)
Purpose of RHNA

A DROP IN HOME BUILDING

1970-1980
1 NEW UNIT PER
1.74 PERSONS ADDED

1990-2000
1 NEW UNIT PER
4.52 PERSONS ADDED

2010-2018
1 NEW UNIT PER
3.32 PERSONS ADDED
The Cost of Not Housing

Overcrowding

Outmigration and Loss of Talent

Health and Safety Issues

Economic Impacts
Regional Housing Needs Assessment

• State housing law requirement to determine regional housing needs

• 8 year planning period

• 5th cycle: 2013-2021
• 6th cycle: 2021-2029

• Final allocation adoption October 2020
Objectives of RHNA

1) To increase the housing supply and mix of housing types, tenure and affordability within each region in an equitable manner

2) Promoting infill development and socioeconomic equity, the protection of environmental and agricultural resources, and the encouragement of efficient development patterns
Objectives of RHNA

3) Promoting an improved intraregional relationship between jobs and housing

4) Allocating a lower proportion of housing need in income categories in jurisdictions that have a disproportionately high share in comparison to the county distribution

5) Affirmatively furthering fair housing
The RHNA Process

- Summer 2019: HCD Regional Determination
- Fall 2019: Methodology
- Winter 2020: Draft RHNA Allocation
- Oct 2020: Final RHNA Allocation
- Oct 2021: Local Housing Element Update (October 2021-October 2029)

Final RTP/SCS: Apr 2020
HCD provides a regional determination in consultation with SCAG and the Department of Finance (DOF)

4th Cycle regional determination (2006-2014)
- 699,368

5th Cycle regional determination (2013-2021)
- 412,137

6th Cycle regional determination (2021-2029)
- 1,344,740 (pending HCD Final Written Determination in response to SCAG’s objection)
How should we distribute regional housing need?

• Local input on household growth?
• High quality transit areas?
• Job accessibility?
• Household income distribution?
• Social equity considerations?
Public Review

• Full proposed methodology available online: www.scag.ca.gov/rhna

• Four public hearings in August and extensive outreach throughout the SCAG region

• Over 300 written comments on the methodology were received by the September 13 comment deadline
After reviewing all comments, SCAG staff will recommend one option as the draft RHNA methodology.

<table>
<thead>
<tr>
<th>Draft RHNA Methodology: Review Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Workshop of Draft Methodology</td>
</tr>
<tr>
<td>RHNA Subcommittee</td>
</tr>
<tr>
<td>CEHD Policy Committee</td>
</tr>
<tr>
<td>Regional Council</td>
</tr>
</tbody>
</table>

**HCD Review**
- HCD reviews and provides comments on draft RHNA methodology, 60 days
After the distribution of the draft RHNA allocation, jurisdictions may file an appeal within 45 days
- HCD and other jurisdictions may file an appeal to any jurisdiction’s draft RHNA allocation

Appeals **cannot** be based on
- Voter-approved measures that restrict residential permits issued
- Underproduction of units based on the prior RHNA allocation
- Stable population numbers based on the last RHNA cycle

Additional 45 day comment period for jurisdictions and HCD to review submitted appeals before public hearing
Successful appeals are reallocated back to the region

Must be consistent with the Connect SoCal (Sustainable Communities Strategy) development pattern

Final RHNA Allocation adoption October 2020
Thank you!

To learn more about what we do, please visit:

www.scag.ca.gov
Connect SoCal – Transit and Rail

Philip Law
Transit/Rail Manager
September 30, 2019
SCAG Region Per Capita Ridership Down Since 2007

- Preliminary data for 2018 suggests the decline is continuing
- Rate of decline for bus ridership may be slowing
- Metro data show decline in total Metro Rail ridership in 2018
  - Ridership “bump” from Expo Line and Foothill Gold Line extensions has disappeared
SCAG & UCLA Identify Rising Vehicle Ownership as Cause

- 2000 to 2015 – SCAG region added 2.3 million people & 2.1 million cars, or 0.95 vehicles/new resident (4X the rate of the 1990s)
- Vehicle ownership increased disproportionately among groups most likely to take transit
- The regional pool of transit users is changing
  - Fewer heavy-use “transit dependents” over time
  - More “discretionary riders” with access to cars
- No easy answers
  - Broaden the base of occasional riders
  - Manage automobile use
Impact of Transportation Network Companies (TNCs)

• San Francisco County Transportation Authority found that TNCs accounted for roughly 50% of the increase in traffic congestion between 2010 and 2016

• Various studies report that between 43% and 61% of TNC trips substitute for transit, walk or bike travel, or would not have been made at all

• University of Kentucky found Uber and Lyft decrease rail ridership by 1.3% per year and bus ridership by 1.7% per year
Strategies: Adjust to Market Demand and Changing Needs

- Support transit operator efforts to re-design the regional bus system to better support travelers’ needs
  - Metro NextGen Bus Study
  - OC Bus 360 and OCTA Transit Master Plan
  - Long Beach Transit – Systemwide Transit Analysis & Reassessment
- Address critical gaps in networks and services
  - Airport Metro Connector
  - Riverside Transit Agency First and Last Mile Mobility Plan
Strategies: Leverage Technology

- Ensure technology innovations support regional goals by partnering with private providers to complement and support fixed route transit service
  - Improve first/last mile connections
  - Provide shared on-demand service where/when fixed route transit isn’t cost-effective
  - Share best practices and promote regional coordination and consistency
Strategies: Mobility as a Service

- Develop integrated multi-modal trip planning and payment systems, laying groundwork for “mobility as a service” with transit as backbone
  - Metro TAP system upgrade
  - California Integrated Travel Project
Strategies: Beyond Transit

- Be bold with policy levers including parking management and congestion pricing
- Support local jurisdictions in planning for curb space management, dedicated transit lanes
- Plan for growth near transit investments including high quality transit areas
- Support investments in clean transportation fueling infrastructure and accelerate deployment of zero emission vehicles
Transit Capital Projects

- Bus Rapid Transit and High Quality Transit Corridors
- Urban Rail Expansion and Fixed Guideway Gap Closures
  - Metro Rail Expansion (extensions and new lines)
  - OC Streetcar
  - Arrow / Redlands Rail
- Metrolink – Southern California Optimized Rail Expansion (SCORE)
Transit Asset Management (TAM)

- In 2012, Congress established performance-based planning requirements, including for TAM
- In 2016, the TAM Final Rule became effective, requiring transit operators to develop TAM plans, establish annual targets, and report on performance
- In July 2017, the Regional Council established initial regional targets and directed staff to work with transit operators to:
  - Obtain the operator TAM plans (due Oct. 2018) and associated data
  - Update the target methodology
  - Develop regional targets for the 2020 RTP update

Los Angeles Railway (LARy), 16th Street Bus Repair Area (interior). 1928
Photo from Metro Library and Archive: https://creativecommons.org/licenses/by-nc-sa/2.0/legalcode
## Draft TAM Targets for Connect SoCal

<table>
<thead>
<tr>
<th>County</th>
<th>Rolling Stock (% of revenue vehicles &gt;= ULB)</th>
<th>Equipment (% of non-revenue vehicles &gt;= ULB)</th>
<th>Facilities (% of facilities &lt; TERM scale 3)</th>
<th>Infrastructure (% of track segments with restrictions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperial</td>
<td>0.0%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>14.4%</td>
<td>27.3%</td>
<td>5.8%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Orange</td>
<td>8.2%</td>
<td>18.6%</td>
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<tr>
<td>Riverside</td>
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<td>12.2%</td>
<td>9.4%</td>
</tr>
</tbody>
</table>

Notes: ULB = Useful Life Benchmark; TERM = Transit Economic Requirements Model; NA = Not Applicable
TAM Target Setting – Next Steps

- Continue coordination with transit operators to refine targets
- Return to TC with final TAM targets prior to April 2020 Connect SoCal adoption
- Continue to improve methodology, data collection and analysis for future RTP updates
- Report on progress towards meeting targets in future RTPs and Federal Transportation Improvement Programs (FTIPs)
- Use the data generated in this analysis to call for increased funding for TAM
Thank You