MEETING NOTICE
AND AGENDA

CITIES/COUNTY TRANSPORTATION ADVISORY COMMITTEE (CTAC)
The CTAC may take action on any item appearing on this agenda.

Thursday, January 9, 2014
9:30 to 11 a.m.

SANDAG, 7th Floor Conference Room
401 B Street, Suite 800
San Diego, CA 92101-4231

Chair: Mario Sanchez, City of El Cajon
Vice Chair: Frank Rivera, City of Chula Vista

Staff Contact: Alex Estrella
(619) 699-1928
alex.estrella@sandag.org

AGENDA HIGHLIGHTS

• GRADE SEPARATION PROJECT NOMINATIONS
• SAN DIEGO FORWARD: THE REGIONAL PLAN: RESULTS OF ALTERNATIVE LAND USE SCENARIOS
• TransNet LOCAL STREET AND ROAD PROGRAM ANNUAL REPORT DATA/INFORMATION REQUEST

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To request this document or related reports in an alternative format, please call (619) 699-1900, (619) 699-1904 (TTY), or fax (619) 699-1905.
ITEM #  | RECOMMENDATION
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1. | WELCOME AND INTRODUCTIONS

2. | PUBLIC COMMENTS

Members of the public shall have the opportunity to address the CTAC on any issue within the jurisdiction of SANDAG that is not on this agenda. Anyone desiring to speak shall reserve time by completing a “Request to Speak” form and giving it to the meeting coordinator prior to speaking. Public speakers should notify the meeting coordinator if they have a handout for distribution to working group members. Public speakers are limited to three minutes or less per person. CTAC members also may provide information and announcements under this agenda item.

+3. | SUMMARY OF THE DECEMBER 5, 2013, CTAC MEETING  
APPROVE

Item 3 includes the December 5, 2013, CTAC meeting summary for review and approval.

REPORTS (4 through 8)

4. REGIONAL COMPLETE STREETS POLICY AND TransNet ROUTINE ACCOMMODATION REQUIREMENT  
APPOINT

With the departure of Bryan Jones from the City of Carlsbad, a new representative to the regional complete streets policy technical advisory group is needed from CTAC. In a related matter, a survey of local agencies on the implementation of the TransNet requirement for the routine accommodation of pedestrians and bicyclists will be distributed in the coming month. Staff will provide an overview and answer questions about the survey.

+5. GRADE SEPARATION PROJECT NOMINATIONS (John Dorow)  
INFORMATION

SANDAG would like to inform CTAC members that letters have been mailed to each local jurisdiction requesting nominations for grade separation projects.

+6. SAN DIEGO FORWARD: THE REGIONAL PLAN: RESULTS OF ALTERNATIVE LAND USE SCENARIOS (Carolina Gregor)  
INFORMATION

The results of the alternative land use scenarios to reduce greenhouse gas emissions were presented to the SANDAG Board in December. The Board report is attached and will be reported as an information item to the CTAC.
Chapter 3 of the FY 2012 TransNet Triennial Performance Audit report included Recommendation Nos. 3 through 6, which propose that SANDAG take a greater role in monitoring and reporting performance of the Local Street and Road program. To address these performance audit recommendations, over the past months staff worked with this committee along with an established CTAC Ad Hoc Working Group, to come up with proposed procedures and planned data/information to be gathered and reported to the Independent Taxpayer Oversight Committee (ITOC) on an annual basis. Staff would like to initiate the data coordination for the Local Street and Road Program through the use of the attached Data Collection Template. The information collected will serve as the basis for development of an annual report to ITOC.

8. CALIFORNIA DEPARTMENT OF TRANSPORTATION UPDATES

Caltrans will provide an update on various local programs, funding program deadlines, and announcements regarding upcoming conferences.

9. ADJOURNMENT AND NEXT MEETING

The next CTAC meeting is scheduled for Thursday, February 6, 2014.
SUMMARY OF THE DECEMBER 5, 2013, CTAC MEETING

Agenda Item 1: Welcome and Introductions

CTAC Vice Chair, Mario Sanchez (City of Poway), called the meeting to order. Self-introductions were conducted.

Agenda Item 2: Public Comments

Members of the public had the opportunity to address the CTAC on any issue. There were no public comments.

Bridget Enderle (SANDAG staff) requested that local jurisdiction officials participate in the Safe Routes to School (SRTS) survey. The survey will help collect information on the breadth and scope of SRTS capital and programmatic activities within the region. It is anticipated that the local jurisdiction questionnaire will be distributed to engineering and/or planning staff at cities and the County of San Diego within the SANDAG region. The deadline to participate in the SRTS survey is December 19, 2013. Survey results and recommended next steps will be provided in February 2014.

Agenda Item 3: Approve Meeting Summary

CTAC members were asked to review and approve the CTAC meeting summary of November 5, 2013.

Action: The meeting summary notes were approved.

Agenda Item 4: 2014 CTAC Schedule and Membership Roster

Alex Estrella (SANDAG staff) provided CTAC members with the current CTAC membership and alternate roster and requested that CTAC members submit changes to the roster by the end of the CTAC meeting.

Agenda Item 5: TransNet Local Street and Road Program, TransNet Ordinance and Expenditure Plan Implementation Guidelines Review

This Item was brought for CTAC discussion at the request of City of San Diego. Under the TransNet ORDINANCE AND EXPENDITURE PLAN RULES (SANDAG Board Policy No. 031), Rule No. 18 establishes the implementation provisions for the TransNet Local Street and Road Program, TransNet Ordinance and Expenditure Plan Implementation Guidelines, developed in 2006. The discussion focused on specific compliance provision guidelines associated with Smart Growth related infrastructure
improvements under the 70 percent Congestion Relief TransNet Ordinance Rules. CTAC members requested that staff provide guidance on possible changes to the existing guidelines that would provide greater flexibility for smart growth related infrastructure. CTAC members expressed that current language restricts the ability to receive credit under the 70 percent category to only existing or planned smart growth land use characteristic types as included in the Regional Comprehensive Plan. Staff and members agreed to revisit the specific provisions in an effort to assure that such guidelines reflect most current smart growth and or active transportation regional and local activities and initiatives. As an initial step forward, staff will solicit input from internal staff and management on the process and procedures likely to be required along the way including changes to the guidelines and approval process and report back to CTAC.

**Agenda Item 6: Proposed Selection Criteria for Selection of Regional Arterial Detection Implementation Strategy**

Alex Estrella (SANDAG staff) provided an update on the Implementation of the Regional Arterial Detection Strategy presented during the November 7, 2013, CTAC meeting and the November 21, 2013, SANTEC meeting that focused on the Draft Proposed Project Selection Criteria for selecting project candidates to be considered for implementing the Regional Arterial Detection Long-Term Priority Area. The long-term priority area will allow the region to identify a number of candidate projects for construction readiness and get them “shovel ready” as funding opportunities become available.

Overall, CTAC and SANTEC members expressed support for moving forward with the Proposed Project Selection Criteria with the recommendation that the monetary ranges proposed under the Project Sponsor Contribution scoring factor be reduced. Another suggestion during the CTAC meeting included to revise the language in the Regional Coordination scoring factor and include a score for projects that may include detection needs for corridor level signal timing improvements but only sponsored by a single agency.

CTAC members reached a quorum to proceed forward and apply the criteria for a planned call for projects be initiated in December 2013.

**Agenda Item 7: San Diego Forward: The Regional Plan: Climate Change Mitigation and Adaptation White Paper Outline**

Allison King Wood (SANDAG staff) presented CTAC members with a draft outline for the Climate Change Mitigation and Adaptation white paper for feedback. The white paper is intended to provide an overview of regional Greenhouse gas (GHG) emissions, strategies to both reduce GHG emissions (mitigation) and address impacts of climate change (adaptation), describe the existing climate change planning efforts in the region, and conclude with a discussion of key policy questions for consideration in the Regional Plan.

CTAC input included consideration for reduction in greenhouse gas emissions due to traffic signal coordination. Staff continues to solicit input on the white paper from stakeholders and working groups. For further input, please contact Allison King Wood (allison.king@sandag.org). The draft white paper is scheduled for completion in early 2014, and will be used to inform the climate change components of the Regional Plan.
Agenda Item 8: San Diego Regional Plug-in Electric Vehicle Readiness Plan

Anna Lowe (SANDAG staff) discussed the San Diego Regional Plug-In Electric Vehicle (PEV) Readiness Plan. The San Diego Regional PEV Readiness Plan discusses and addresses barriers to the deployment of PEV infrastructure in the San Diego region. This Plan is designed for local government officials as a resource to assist them in helping their local governments prepare their community for a growing PEV market.

In March 2012, the San Diego Regional Electric Vehicle Working Group (REVI) was formed through a California Energy Commission grant awarded to SANDAG. The REVI working group members include representatives from local and regional public entities, nonprofit organizations, utilities, educational institutions, labor and contractor associations, and the business community. The REVI has identified challenges, successes, and outstanding issues for continued PEV adoption and charging infrastructure deployment, which are outlined in the San Diego Regional PEV Readiness Plan.

The San Diego Regional PEV Readiness Plan is available at:
www.energycenter.org/programs/pev-planning/san-diego

For questions regarding the San Diego Regional PEV Readiness Plan, please contact Anna Lowe (anna.lowe@sandag.org).

Agenda Item 9: California Department of Transportation Updates

Caltrans staff provided the following updates:

- Caltrans has adopted a new Traffic Operations Policy Directive (13-02) called Intersection Evaluation Control. This policy establishes a context and performance-based evaluation process to identify viable and practical intersection control alternatives during the transportation planning, project identification and initiation processes. The directive will impact future projects that propose intersection modifications, interchange modifications, or new access points with the state highway system. For further information, members were encouraged to attend a planned presentation to SANTEC during the upcoming December 2013 meeting.

- On November 14, 2013, Caltrans approved the list of Cycle 6 projects to receive Highway Safety Improvement Funding. Of the 231 funded projects, 19 are in District 11.

- CTAC members requested that Caltrans provide more information at a future CTAC meeting on the MAP-21 implementation process including clarification on how project on the NHS will be impacted by MAP-21. Caltrans staff indicated that further clarification on how the NHS will be impacted by MAP-21 is pending and awaiting FHWA guidance and will return with an update to CTAC as information becomes available.

Agenda Item 10: Adjournment and Next Meeting

The next CTAC meeting is scheduled for Thursday, January 2, 2014.
GRADE SEPARATION PROJECT NOMINATIONS  

**Discussion**

SANDAG is seeking nominations for grade separation projects from each local jurisdiction. Grade separation projects will be evaluated based on criteria approved by the SANDAG Board of Directors on October 11, 2013, and the project evaluation results will be included in San Diego Forward: The Regional Plan. SANDAG will be requesting project nominations from each local jurisdiction. Each project nominated will be evaluated and ranked in accordance with the approved evaluation criteria.

Each project is evaluated based on congestion relief, regional housing needs assessment, accident history, local funding contribution, pedestrian benefits, bus operations impacts, benefit to emergency services, noise reduction, and truck freight benefits. The evaluation criteria are shown in Attachment 1. SANDAG will send nomination request letters to each local jurisdiction. A draft nomination request letter is shown in Attachment 2. Jurisdictions are requested to provide the data for each category included in the Rail Grade Separation Nomination Form (Attachment 3). The ranked Rail Grade Separation list from the 2050 Regional Transportation Plan (RTP) is shown in Attachment 4 for more information. The list of nominated projects will be submitted to the Metropolitan Transit System and the North County Transit District for review and comment.

**Attachments:**
1. Project Evaluation Criteria – Rail Grade Separations
2. Draft Nomination Request Letter
3. Rail Grade Separation Nomination Form
4. 2050 RTP, Table TA 4.24 – Rail Grade Separation Rankings

Key Staff Contact: John Dorow, (619) 699-1915, john.dorow@sandag.org
<table>
<thead>
<tr>
<th>San Diego Forward: The Regional Plan Goals</th>
<th>No.</th>
<th>Criteria</th>
<th>Description</th>
<th>Proposed Calculation</th>
<th>Max Score</th>
<th>Total Percent</th>
<th>Policy Objectives</th>
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<tr>
<td>Innovative Mobility &amp; Planning</td>
<td>1</td>
<td>Peak-Period Exposure Index (PPEI) Factor</td>
<td>Product of the existing high directional traffic and the total measured blocking delay during the same three hours of the day experiencing the highest congestion at the crossing</td>
<td>Calculation based on vehicle traffic during a selected three-hour period, total blocking delay during same period, and mathematical constant for time period</td>
<td>11</td>
<td>Mobility Choices</td>
<td></td>
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<tr>
<td></td>
<td>2</td>
<td>Peak-Day Total Delay Exposure Index (PPEI) Factor</td>
<td>Product of the existing average daily traffic (AADT), the total number of trains, and an average train crossing delay time factor</td>
<td>Calculation based on average daily traffic, total number of trains, train crossing delay factor, and mathematical constant</td>
<td>11</td>
<td>Mobility Choices</td>
<td></td>
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<tr>
<td></td>
<td>3</td>
<td>Pedestrian and Bicycle/ Communities of Concern Benefits</td>
<td>A) Number of pedestrians and bicyclists served in top 4 hours</td>
<td>Grade separation pedestrian bicycle crossing counts</td>
<td>4</td>
<td>Mobility Choices, Complete Communities</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>B) What is the share of communities of concern population in the proximity of the project?</td>
<td>Ratio of communities of concern share of population within 1/2 mile of project compared to community of concern share of regional population</td>
<td>4</td>
<td>Mobility Choices, Partnerships and Collaboration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Bus Operations Benefits</td>
<td>Number of buses served an hour, as well as proximity to transit center</td>
<td>Number of buses served by the grade separation</td>
<td>4</td>
<td>Mobility Choices, Complete Communities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Benefit to Emergency Services</td>
<td>Proximity to emergency service provider and lack of alternative grade-separated crossing</td>
<td>Proximity analysis based on emergency service providers and alternative grade separation crossing</td>
<td>4</td>
<td>Mobility Choices, Complete Communities</td>
<td></td>
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<tr>
<td>Healthy Environment &amp; Communities</td>
<td>6</td>
<td>Accident History</td>
<td>Accident history in the past five years</td>
<td>Number of qualifying accidents involving vehicles, pedestrians, and bicyclists with trains, not including accidents involved in attempted suicides</td>
<td>11</td>
<td>Mobility Choices, Preservation and Safety of the Transportation System</td>
<td></td>
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<tr>
<td></td>
<td>7</td>
<td>Proximity to Noise Sensitive Receptors</td>
<td>Proximity to sensitive receptors</td>
<td>Proximity analysis based on rail crossing located within 200-500 feet of sensitive receptors</td>
<td>4</td>
<td>Complete Communities, Partnerships and Collaboration</td>
<td></td>
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<tr>
<td></td>
<td>8</td>
<td>GHG Emissions</td>
<td>What is the reduction in CO2 emissions from implementing the project?</td>
<td>Reduction in CO2 emissions</td>
<td>4</td>
<td>Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation</td>
<td></td>
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<tr>
<td></td>
<td>9</td>
<td>Serves RCP Smart Growth Areas</td>
<td>Is the project located near RCP Smart Growth Areas?</td>
<td>Population and employment in all smart growth areas within 1/4 mile distance of project</td>
<td>7</td>
<td>Complete Communities, Regional Economic Prosperity, Habitat and Open Space Preservation</td>
<td></td>
</tr>
<tr>
<td>Vibrant Economy</td>
<td>10</td>
<td>Truck Freight Operations</td>
<td>Percentage of daily truck traffic</td>
<td>Percentage of daily traffic of Class 4-Class 13 (as defined by FHWA)</td>
<td>3</td>
<td>Mobility Choices, Regional Economic Prosperity, Binational Collaboration with Baja California</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Funding Request</td>
<td>Percentage of total project costs contributed by the local agency including funds already committed from state, federal, or other source</td>
<td>Percentage of local contribution</td>
<td>4</td>
<td>Partnerships and Collaboration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Project Cost-Effectiveness</td>
<td>What is the cost-effectiveness of the project?</td>
<td>Enhanced cost-effectiveness measure may incorporate the following components: - Number of trains per day AADT - Gate down time - Percent truck traffic - Safety</td>
<td>8</td>
<td>Mobility Choices, Regional Economic Prosperity, Binational Collaboration with Baja California, Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation, Preservation and Safety of the Transportation System</td>
<td></td>
</tr>
<tr>
<td>Regional Housing Needs Assessment (RHNA)</td>
<td>13</td>
<td>Regional Housing Needs Assessment (RHNA) (per Board Policy No. 033 adopted January 2012)</td>
<td>RHNA-related criteria as described in Board Policy No. 033. Eligibility for Policy 33 points requires housing element compliance and submittal of Annual Housing Element Progress Reports to SANDAG. Based on Board Policy No. 033 Criteria: RHNA Share Taken; Regional Share of Cumulative Total of Lower-Income Units Produced; Total Number of Affordable Housing Units; Percent of Lower Income Households</td>
<td>Based on Board Policy No. 033 Criteria: RHNA Share Taken; Regional Share of Cumulative Total of Lower-Income Units Produced; Total Number of Affordable Housing Units; Percent of Lower Income Households</td>
<td>25</td>
<td>Complete Communities, Partnerships and Collaboration</td>
<td></td>
</tr>
</tbody>
</table>
Dear Director of Public Works:

SANDAG staff is developing a regional priority list for rail grade separation projects. The ranked priority list will be included in San Diego Forward: The Regional plan and will used as a tool to assist regional leaders in the allocation of future funding resources. As part of the evaluation process, SANDAG is requesting that each jurisdiction determine which railroad crossings within their jurisdictions warrant a grade separation. Each crossing submitted by your jurisdiction shall be evaluated and ranked in accordance with the Evaluation Criteria approved by the SANDAG Board of Directors on October 11, 2013. The approved evaluation criteria document is attached for more information.

As your jurisdiction prioritizes and nominates a railroad crossing for grade separation consideration, please complete the attached Rail Grade Separation Nomination Form which includes the required technical data for each crossing and submit the form to SANDAG. Data forms submitted by your jurisdiction for the 2050 Regional Transportation Plan (RTP) are attached for your information. Also attached is a copy of the 2050 RTP Rail Grade Separation Rankings for your information.

Please submit forms to John Dorow at SANDAG by January 31, 2014. Hand written paper copies or electronic copies of the document sent via electronic mail are acceptable methods of delivery. Please do not hesitate to contact John Dorow at (619) 699-1915 or john.dorow@sandag.org with any questions. Documents may be mailed to John Dorow, SANDAG, 401 B Street, Suite 800, San Diego, CA 92101-4231.

Thank you for your assistance.

Sincerely,

Jim Linthicum
Director of Mobility Management and Project Implementation

JLI/JDO/fde

Attachments: 1. Project Evaluation Criteria – Rail Grade Separations
2. Rail Grade Separation Nomination Form
3. 2050 RTP Data Completed Data Forms
4. 2050 RTP Table TA 4.24 – Rail Grade Separation Rankings
RAIL GRADE SEPARATION NOMINATION FORM

<table>
<thead>
<tr>
<th>Name of City or County</th>
<th></th>
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<tbody>
<tr>
<td>Name of the Highway/Street nominated for grade separation.</td>
<td></td>
</tr>
<tr>
<td>Vehicular traffic in high direction during selected three-hour period, VT3. Include all vehicles that are impacted by the railroad gates down.</td>
<td></td>
</tr>
<tr>
<td>Total blocking delay during selected three-hour period, BD3 (seconds).</td>
<td></td>
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<tr>
<td>Peak-Day Average Daily Traffic, PD-ADT. Include all traffic that is impacted by the railroad gates down.</td>
<td></td>
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<tr>
<td>Peak-Day Total Number of Trains, PD-NT.</td>
<td></td>
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<tr>
<td>Average Peak-Day Blocking Delay (minutes).</td>
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<tr>
<td>Number of Qualifying Accidents in the past five years.</td>
<td></td>
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<tr>
<td>Have there been any fatal accidents in the last five years (yes or no)?</td>
<td></td>
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<tr>
<td>Is more than one traffic signal pre-empted (yes or no)?</td>
<td></td>
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<tr>
<td>Are more than two tracks crossing the roadway (yes or no)?</td>
<td></td>
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<tr>
<td>Is the crossing skewed more than 20 degrees (yes or no)?</td>
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<tr>
<td>Are offset roadway intersections present (yes or no)?</td>
<td></td>
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<tr>
<td>Estimated cost of the project including construction, engineering, and administrative costs ($).</td>
<td></td>
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<tr>
<td>Proposed local contribution ($).</td>
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<tr>
<td>Number of pedestrians and bicyclists served by grade separation during the top four hours.</td>
<td></td>
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<tr>
<td>Number of busses served by grade separation in one hour.</td>
<td></td>
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<tr>
<td>Is the grade crossing adjacent to a transit center (yes or no)?</td>
<td></td>
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<tr>
<td>The distance from the rail crossing area to a noise sensitive receptor (feet).</td>
<td></td>
</tr>
<tr>
<td>The distance from the rail crossing to the nearest emergency service provider (miles).</td>
<td></td>
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<tr>
<td>Is there an alternate grade separated crossing within ½ mile of the subject crossing (yes or no)?</td>
<td></td>
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<tr>
<td>Percentage of trucks in the PD-ADT (%)</td>
<td></td>
</tr>
<tr>
<td>At Grade Crossing Location</td>
<td>Rank</td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Washington, Laurel, Hawthorn, Grape, Ash, and Broadway Streets, San Diego</td>
<td>1</td>
</tr>
<tr>
<td>Taylor Street, San Diego</td>
<td>2</td>
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<tr>
<td>Broadway/Lemon Grove Avenue, Lemon Grove</td>
<td>3</td>
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<tr>
<td>Palomar Street, Chula Vista</td>
<td>4</td>
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<tr>
<td>H Street, Chula Vista</td>
<td>5</td>
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<tr>
<td>E Street, Chula Vista</td>
<td>6</td>
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<tr>
<td>Euclid Avenue, San Diego</td>
<td>7</td>
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<tr>
<td>Washington St./Sassafras St., San Diego</td>
<td>8</td>
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<tr>
<td>Vista Village Drive/Main Street, Vista</td>
<td>9</td>
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<tr>
<td>Civic Center Drive, Vista</td>
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<td>28th Street, San Diego</td>
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<td>Ash Street, San Diego</td>
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<td>Broadway, San Diego</td>
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<tr>
<td>32nd Street, San Diego</td>
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<td>Allison Ave/University Ave/La Mesa Blvd, La Mesa</td>
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<tr>
<td>Severin Drive, La Mesa</td>
<td>16</td>
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<tr>
<td>Sorrento Valley Blvd., San Diego</td>
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<tr>
<td>Melrose Drive, Vista</td>
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<td>El Camino Real, Oceanside</td>
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<td>Mar Vista Drive, Vista</td>
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<td>Los Angeles Drive, Vista</td>
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<td>Grand Avenue/Carlsbad Village Drive, Carlsbad</td>
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<tr>
<td>Guajome Street, Vista</td>
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<tr>
<td>Tamarack Avenue, Carlsbad</td>
<td>25</td>
</tr>
<tr>
<td>Cannon Road, Carlsbad</td>
<td>26</td>
</tr>
<tr>
<td>Leucadia Blvd., Encinitas</td>
<td>27</td>
</tr>
</tbody>
</table>

**Total** $3,940

(1) Heavy rail trench only from Washington St. to Downtown San Diego estimated at $1.9 billion
(2) Included in the SPRINTER double-track project (West Mission Rd, San Marcos also is included at estimated cost of $40 million)
(3) Included in the COASTER double-track
(4) Included in Blue/Orange Lines frequency enhancements
SAN DIEGO FORWARD: THE REGIONAL PLAN:  
ALTERNATIVE LAND USE SCENARIOS  

File Number 3102000

Introduction

On September 13, 2013, the Board of Directors discussed three land use scenarios that could be analyzed for their potential to further reduce greenhouse gas (GHG) emissions beyond what is projected in the Series 13 Regional Growth Forecast. The Regional Planning and Transportation Committees, various working groups, and the public provided input to help shape the scenarios. This work fulfills a commitment made by SANDAG when it adopted the 2050 Regional Transportation Plan and its Sustainable Communities Strategy (2050 RTP/SCS) to evaluate alternative land use scenarios to further reduce GHG. Staff is seeking input from the Board of Directors on the analysis, which will help inform San Diego Forward: The Regional Plan.

The region’s vision of its future has been evolving for decades. This evolution is illustrated in the figures below, which show the region’s projected housing and job growth based upon local general plans in 1999 (left) and 2013 (right). Over just 14 years, local plans have been updated to concentrate growth within the urbanized areas of the region, closer to existing and planned transportation infrastructure, while increasing land area dedicated to open space and habitat preservation. These land use changes implement the vision and goals set forth in the Regional Comprehensive Plan, adopted by SANDAG in 2004. These changes have resulted in an estimated reduction in GHG emissions of between 25 and 30 percent.
**Alternative Scenarios**

The three alternative scenarios discussed by the Board of Directors are described below, with more detailed assumptions provided in Attachment 1. While each is different, all scenarios use the Series 13 Regional Growth Forecast as the numeric base; assume the same transportation network; include the same environmental constraints; protect university, military, and institutional lands; and assume entitled development projects to 2020. In addition, all three scenarios allocate all future growth within the identified boundaries shown below in brown, and assume no future growth outside the boundaries, except for currently entitled projects. The scenarios were created as a planning exercise and do not reflect locally planned land uses.

**Scenario A: Second Units and Infill**

Scenario A constrains future residential and employment growth to the west of the incorporated cities boundaries, and tests the impact of second units.

**Scenario B: Transit Oriented Development**

Scenario B concentrates new housing and jobs around existing and future transit stations included in the 2050 RTP/SCS. New development consists primarily of urban/compact development.

**Scenario C: Multiple Dense Cores**

Scenario C focuses future growth into four dense cores. New housing and jobs consist of urban/compact development concentrated in North County; Mid-County; the greater Downtown area; and South County / International Border.

**Greenhouse Gas Emissions Analysis**

The initial analysis indicates that projected GHG emissions decrease most significantly between the Series 9 and Series 13 Regional Growth Forecasts (between 25 and 30 percent). GHG emissions have the potential to continue to decrease in comparison to Series 13 under the three scenarios, although at a slower pace (up to an additional 3 percent). Scenarios B and C are projected to achieve the greatest reductions.

**Possible Alternative Futures**

![Maps of possible alternative futures]
This analysis has been conducted with a sketch modeling tool (known as “UrbanFootprint”), which is in use by several regional agencies throughout California. This tool requires less effort than the more complex transportation models and is intended to give indications or a “sketch” of the results. The “UrbanFootprint” sketch modeling tool allows us to more quickly run and compare scenarios based on several indicators, including GHG reductions. This tool could eventually be used by jurisdictions for local planning efforts, which if adopted, could be incorporated into future regional forecasts.

Similar to other planning tools, the assumptions used as inputs affect the resulting outcomes. Of particular note, since the three land use scenarios were evaluated, additional collaborative work has been undertaken across the state to develop consistent vehicle operating cost and other assumptions to be incorporated into the more complex transportation models that are used in the RTPs. Therefore, it is important to recognize that these initial GHG results produced through the sketch planning tool may vary from future model results that will be reported using the more complex land use and transportation models in San Diego Forward: The Regional Plan.

Concurrent with the scenario planning effort, SANDAG has been developing the Series 13 Regional Growth Forecast through the horizon year of 2050. In October, the Board accepted Series 13 for planning purposes for San Diego Forward: The Regional Plan and related planning efforts. The forecast is a separate and independent effort from the scenarios.

**Discussion and Next Steps**

Staff is seeking input from the Board of Directors on the land use scenario results and how the results may help shape a refined vision for the region’s future growth and development. The Board’s discussions and policy direction concerning the scenarios described in this report could influence the vision contained in San Diego Forward: The Regional Plan. Over time, land use plans are expected to continue to change as they have over the past 14 years. Local general and specific plan updates have collectively moved the region toward more compact development patterns, resulting in fewer projected GHG emissions. Similar actions in the future may move the region further in this direction. Board discussion is requested on the scenario results and on ideas for how the scenario results could be considered in San Diego Forward: The Regional Plan and combined with future innovations in technology.

GARY L. GALLEGOS
Executive Director


Key Staff Contact: Carolina Gregor, (619) 699-1989, carolina.gregor@sandag.org

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i Future growth consists of approximately 333,000 new homes; 490,000 new jobs; and 975,000 more people between 2012 and 2050.

ii Transportation network consists of the currently adopted 2050 RTP/SCS revenue constrained network.

iii Environmentally constrained lands include parks, open space, protected lands, conserved habitat, and steep slopes.
UrbanFootprint Scenario Development Assumptions for SANDAG Alternative Land Use Scenarios
Prepared by Calthorpe Associates | November 22, 2013

The SANDAG alternative land use scenario development process explores alternative land use distributions to the Series 13 Regional Growth Forecast. Series 13 provides an updated base year (2012) environment for the San Diego region, and projects the region’s population, housing, and employment to 2050. Three land use alternatives, along with high-level assumptions, were outlined by the SANDAG Board of Directors, Policy Advisory Committee members, working group members, and the public. These alternatives (Scenarios A, B, and C) were then built by Calthorpe Associates using the ‘UrbanFootprint’ sketch modeling tool. For comparison purposes, Calthorpe Associates also ‘translated’ the Series 13 Forecast data into UrbanFootprint, and integrated a past-trend scenario based on the SANDAG Series 9 Forecast (1999) into the sketch modeling framework.

All scenarios are built upon a base year of 2012, with a horizon year of 2050. Each scenario accommodates the entire Series 13 Forecast to 2050, which consists of a growth increment of approximately 333,000 new housing units, 490,000 new jobs, and 975,000 new people. The year-2012 UrbanFootprint base data ‘canvas,’ the layer upon which all future growth or change is applied, was developed in close coordination with SANDAG staff based on the detailed parcel and related data of the Series 13 2012 base year datasets. In addition to these common forecast-level characteristics, the three alternative land use scenarios assumed the following constants:

- Used the same transportation network (the revenue constrained transportation network from the 2050 Regional Transportation Plan/Sustainable Communities Strategy [2050 RTP/SCS]);

- Included the same environmental constraints consistent with those depicted in the 2050 RTP/SCS, including parks, open space, protected lands, conserved lands, and steep slopes;

- Protected existing and planned university, military, and institutional lands, such as health care facilities and schools. Attributes\(^1\) from the Series 13 2050 Master Geographic Reference Areas (MGRAs)\(^2\) with Institutional/University/Military uses were passed directly into the respective MGRAs for all scenarios; and,

- Assumed the construction of development projects that are entitled for development between now and 2020. All MGRAs were passed attributes from the entitlement areas dataset if they were designated as having projects with plans that have already been approved ("Entitlement Area").

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\(^1\) Attributes consist of detailed information maintained by SANDAG on dwelling units, employment and land use (by type) for base and forecast years in its Geographic Information System (GIS).

\(^2\) Master Geographic Reference Areas (MGRAs) are geographic units roughly the size of a city block developed and maintained by SANDAG to support demographic modeling and forecasting.
Regional housing and employment distributions were controlled to four regional zones identified by SANDAG (shown in Figure 1). The residential and employment growth totals projected for each zone according to the Series 13 Forecast were maintained in each of the alternative land use scenarios, with the restriction that growth occur within specified scenario boundaries within each zone. Table 1 details the Series 13 dwelling unit and employment distribution into the four regional zones.

![Figure 1: SANDAG Regional Zones](image)

**Table 1: Series 13 Net Increment Growth by Zone**

<table>
<thead>
<tr>
<th>Zone</th>
<th>Dwelling units*</th>
<th>Employment*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>1</td>
<td>53,502</td>
<td>16%</td>
</tr>
<tr>
<td>2</td>
<td>181,717</td>
<td>56%</td>
</tr>
<tr>
<td>3</td>
<td>28,421</td>
<td>9%</td>
</tr>
<tr>
<td>4</td>
<td>62,180</td>
<td>19%</td>
</tr>
<tr>
<td>Total</td>
<td><strong>325,819</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Varies from series 13 forecast increment due to specific unit type or employment type losses for some types in some zones over the 38-year forecast period (2012-2050).*

Each of the land use alternatives was modeled to gauge its relative impacts on scenario performance metrics, including land consumption, passenger vehicle travel, greenhouse gas emissions, energy and water use, and local infrastructure costs. Modeling assumptions were developed by Calthorpe Associates in consultation with SANDAG staff and regional experts in relevant subject areas. As described in the following sections, each scenario varies in its growth boundaries, allocation of growth around high-quality transit nodes, integration of walkable street patterns, allocation of accessory units to existing single family parcels, and degree of growth focused within the defined Smart Growth Opportunity Areas (SGOAs) of the Smart Growth Concept Map. In all cases, scenario land uses were
translated or built using the library of UrbanFootprint Place Types, which depict a full spectrum of development options ranging from the most urban mixed use conditions to more suburban and rural single-use residential and employment patterns. In the case of SGOAs, Place Types allocated to specific SGOA areas were applied based on a ‘crosswalk’ between the SGOAs and UrbanFootprint Place Types, as laid out in Table 2.

Table 2: Smart Growth Opportunity Area to Place Type Crosswalk

<table>
<thead>
<tr>
<th>SANDAG SGOA Type</th>
<th>Primary Focus Type</th>
<th>UrbanFootprint Place Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Center</td>
<td>Residential</td>
<td>City Residential</td>
</tr>
<tr>
<td>Urban Center</td>
<td>Commercial</td>
<td>City Commercial</td>
</tr>
<tr>
<td>Urban Center</td>
<td>Mixed</td>
<td>City Mixed Use</td>
</tr>
<tr>
<td>Town Center</td>
<td>Residential</td>
<td>Town Residential</td>
</tr>
<tr>
<td>Town Center</td>
<td>Commercial</td>
<td>Town Commercial</td>
</tr>
<tr>
<td>Town Center</td>
<td>Mixed</td>
<td>Town Mixed Use</td>
</tr>
<tr>
<td>Community Center</td>
<td>Residential</td>
<td>Village Residential</td>
</tr>
<tr>
<td>Community Center</td>
<td>Commercial</td>
<td>Village Commercial</td>
</tr>
<tr>
<td>Community Center</td>
<td>Mixed</td>
<td>Village Mixed Use</td>
</tr>
<tr>
<td>Transit Corridor</td>
<td>Residential</td>
<td>Town Residential</td>
</tr>
<tr>
<td>Transit Corridor</td>
<td>Commercial</td>
<td>Town Commercial</td>
</tr>
<tr>
<td>Transit Corridor</td>
<td>Mixed</td>
<td>Town Mixed Use</td>
</tr>
</tbody>
</table>

In consultation with SANDAG staff, a series of scenario development ‘rules’ was developed to reflect different growth concepts, forming the basis of where and in what form growth would be allocated in each scenario. Scenarios were built in UrbanFootprint using the rules to establish spatial and quantitative distributions of land uses in terms of UrbanFootprint Place Types. The specific rules for each scenario are detailed in the following sections.

**Scenario A: Second Units and Infill/Redevelopment in Urban and Suburban Areas**

The focus of Scenario A is to constrain future residential and employment growth to the boundaries of existing incorporated jurisdictions (and within the unincorporated “islands” inside the incorporated city boundaries), and to test the impact of a focused distribution of second units to specified single family parcels (also known as accessory units or granny flats). This required that all Series 13 growth projected in the unincorporated areas outside of existing incorporated jurisdictional boundaries be reallocated to the Scenario A zone. The majority of accessory unit additions were focused within two miles of fixed-route transit.
stops, and the reallocation of other dwelling units and employment focused on SGOAs and the MGRAs within one mile of existing/planned fixed-route transit stops included in the 2050 RTP/SCS (including commuter rail, light rail, and bus rapid transit (BRT) stops). In addition to the common rules applied to all scenarios, Scenario A was built to meet the rules detailed as follows:

- **Growth constrained by the Scenario A boundary.** All new residential and employment growth fell within the Scenario A boundary as seen in Figure 2, except for Entitlement Areas and specified Institutional/University/Military zones from the Series 13 dataset.

- **Allocation of Series 13 2050 attributes within the Scenario A boundary.** To form the baseline scenario land use distribution, the first pass allocated Series 13 2050 attributes to all MGRAs within the Scenario A boundary.

- **Allocation of accessory units.** Parcels with a minimum size of 7,000 square feet and containing a single dwelling unit were identified as candidates for accessory units. Using the proportional zonal distribution of new single family units in the Series 13 2050 dataset, accessory units and their associated UrbanFootprint attributes (such as parcel acres and building square feet) were assigned to candidate parcels and loaded into the MGRA geography. The first pass of allocating accessory units placed 90 percent of the approximately 26,000 accessory units on candidate parcels within two miles of a high-quality/fixed route transit stop. The remaining 10 percent of units were assigned to candidate parcels outside of the two-mile buffer from transit stops.

- **Allocation of all remaining growth within Scenario A boundary using scenario rules.** The remaining growth from the Series 13 2050 dataset that fell outside of the Scenario A boundary, and was not single family or within an Institutional/University/Military area, was allocated within the Scenario A boundary. The rules allocated these remaining multi-family or attached housing units and jobs with a focus on SGOAs, transit proximity, and planned industrial areas (for industrial jobs). Additionally, these units were allocated so that total dwelling units, and total employment, including total retail, total office, and total industrial employment, were distributed across the four regional zones to match the distributions of the Series 13 2050 scenario.

- **All new growth avoided ‘constrained land’.** All parcels classified as constrained, which includes parks, open space, protected lands, conserved lands, and steep slopes, were not allowed to take new growth.

- **Allocation of base-year attributes to all no-change areas.** All remaining MGRAs that did not receive any new growth were passed attributes from the scenario base year (2012), as depicted in the UrbanFootprint base ‘canvas’ upon which all future growth or change is applied.
Scenario B: Transit Oriented Development

Scenario B was a highly constrained scenario that required that all new growth be focused within one mile of a high-quality/fixed route transit stop. To allocate a land use pattern to meet regional and zonal distributions of dwelling units and employment by type, Scenario B had a high proportion of “refill development” (infill and redevelopment) and urban/compact development. A detailed list of rules used to construct Scenario B follows:

- **Growth constrained by the Scenario B boundary.** All new residential and employment growth fell within the Scenario B boundary (one mile from high quality, fixed-route transit stops), except for Entitlement Areas and specified Institutional/University/Military zones from the Series 13 2050 dataset.

- **Allocation of units to SGOA MGRAs.** Growth was allocated to SGOA geographies within the Scenario B boundary. Place types were assigned based on the type of SGOA and a base-year assessment of whether a given MGRA had a residential, commercial, or mixed-use focus.

- **Allocation of units to transit proximate locations.** The next pass allocated units to transit-proximate locations using the base-year assessment of a given MGRA’s primary focus type and its proximity to transit within the Scenario B boundary. The intensity of new growth was determined by the quantity of dwelling units and employment to meet the zonal distributions of the Series 13 2050 scenario.

- **Allocation of industrial units to planned industrial MGRAs within the Scenario B boundary.** To meet the zonal distributions of industrial employment, industrial-focused Place Types were assigned to MGRAs within the Scenario B boundary that contained planned industrial land uses from the Series 13 2050 dataset.

- **All new growth avoided redevelopment of single family dwelling unit parcels.** A parcel-level analysis was used to identify which parcels fell within urban, greenfield, or constrained lands based on the UrbanFootprint landtype dataset. Single family parcels that fell within Scenario B boundaries, and were not specifically identified by SANDAG as being likely to redevelop or intensify in the Series 13 Forecast, were not allowed to take new growth or be redeveloped.

- **All new growth avoided ‘constrained land’.** All parcels classified as constrained, which includes parks, open space, protected lands, conserved lands and steep slopes, were not allowed to take new growth.

- **Allocation of base-year attributes to all no-change areas.** All remaining MGRAs that did not receive any new growth were passed attributes from the scenario base year (2012), as depicted in the UrbanFootprint base ‘canvas’ upon which all future growth or change is applied.
Scenario C: Multiple Dense Cores

Scenario C was governed by a similar set of rules to Scenario B, but utilized a modified scenario boundary that focused growth within four existing urbanized areas in the SANDAG region. As a result, Scenario C is highly focused on refill development (infill and redevelopment) within urban cores and around high quality transit, fixed-route stops. The scenario rules are as follows:

- **Growth constrained by the Scenario C boundary.** All new residential and employment growth fell within the Scenario C boundaries, except for Entitlement Areas and specified Institutional/University/Military zones from the Series 13 2050 dataset.

- **Allocation of units to SGOA MGRAs.** Growth was allocated to SGOA geographies within the Scenario C boundaries. Place Types were assigned based on the type of SGOA and a base-year assessment of whether a given MGRA had a residential, commercial, or mixed-use focus.

- **Allocation of units to transit proximate locations.** The next pass allocated units to transit-proximate locations using the base-year assessment of a given MGRA’s primary focus type, and its proximity to transit within the Scenario C boundaries. The intensity of new growth was determined by the quantity of dwelling units and employment required to meet the zonal distributions of the Series 13 2050 scenario.

- **Allocation of industrial units to planned industrial MGRAs within the Scenario C boundaries.** To meet the zonal distributions of industrial employment, industrial focused place types were assigned to MGRAs within the Scenario C boundaries which contained planned industrial land uses from the Series 13 2050 dataset.

- **All new growth avoided redevelopment of single family dwelling unit parcels.** A parcel level analysis was used to identify which parcels fell within urban, greenfield, or constrained lands based on the UrbanFootprint landtype dataset. Single family parcels that fell within Scenario C boundaries, and were not specifically identified as being likely to redevelop or intensify in the Series 13 Forecast, were not allowed to take new growth or be redeveloped.

- **All new growth avoided ‘constrained land’.** All parcels classified as constrained, which includes parks, open space, protected lands, conserved lands and steep slopes, were not allowed to take new growth.

- **Allocation of base-year attributes to all no-change areas.** All remaining MGRA's that did not receive any new growth were passed attributes from the scenario base year (2012), as depicted in the UrbanFootprint base ‘canvas’ upon which all future growth or change is applied.
TransNet LOCAL STREET AND ROAD PROGRAM ANNUAL REPORT
DATA/INFORMATION REQUEST

Introduction

Chapter 3 of the FY 2012 TransNet Triennial Performance Audit report included Recommendation Nos. 3 through 6, which propose that SANDAG take a greater role in monitoring and reporting performance of the Local Street and Road program. To address these performance audit recommendations, staff worked with this committee along with an established CTAC Ad Hoc Working Group, to come up with proposed procedures and planned data/information to be gathered and reported to the Independent Taxpayer Oversight Committee (ITOC) on an annual basis.

At the October 9, 2013, ITOC meeting, Maryam Babaki, CTAC lead of the CTAC Ad Hoc Working Group, and staff presented ITOC with a proposed approach for collecting readily available information from local agencies to serve as the basis for an annual TransNet Local Street and Road Program report. The proposed approach was discussed by ITOC and subsequent direction was given to staff to work with CTAC to develop an annual report structured to provide a summary of major projects accomplished by each local agency using TransNet Local Street and Program funds.

Discussion

Attachment 1 includes the TransNet Local Streets and Roads Program ITOC Annual Report Data collection template. Per direction of the ITOC, the template is structured to attain a summary of TransNet Local Streets and Roads Program project highlights including:

1. Local agencies will be requested to provide a narrative description under Section A. The narrative is intended to provide information on key projects/phasing accomplished for the particular reporting year supplemented with readily available performance related data or statistics as appropriate. For illustration purposes, Attachment 1 provides an example of Section A program highlight narrative.

2. Under Sections B and C, local agencies will be requested to provide a listing of TransNet Local Streets and Roads Program efforts/projects accomplished for the particular reporting year and in progress/planned for the following reporting year, respectfully.
Next Steps

Staff would like to initiate the coordination of the Local Street and Road Program Data and Information for a TransNet Local Streets and Roads Program ITOC Annual Report planned for presentation to ITOC in May 2014. Staff is requesting that local agencies submit completed templates to Alex Estrella at alex.estrella@sandag.org by Friday, February 14, 2014, for FY 2013 (July 1, 2012 – June 30, 2013).

Attachment: 1. TransNet Local Street and Road Program Annual Report Data/Information Request Template

Key Staff Contacts: Alex Estrella, (619) 699-1928, alex.estrella@sandag.org
The FY 2012 TransNet Triennial Performance Audit report included Recommendation Nos. 3 through 6, which proposes that SANDAG work with local agencies take a greater role in monitoring and reporting on the TransNet Local Street and Road Program. Based on input from the Cities/County Transportation Advisory Committee, the Independent Taxpayer Oversight Committee (ITOC) directed that SANDAG work with local agencies to develop an annual report that summarizes major projects accomplished by each jurisdiction using TransNet funds. The following template will serve as the basis for collecting data and information on an annual basis every fiscal year and will include readily available performance data and statistics. Please submit completed templates to Alex.Estrella@sandag.org by Friday, February 14, 2014.

Jurisdiction Name: ____________________________________________________________

Name of person filling out form: ________________________________________________

Phone Number of person filling out form: ________________________________________

Email Address of person filling out form: _________________________________________

A. TransNet Local Street and Road Program Highlights and Summary

In FY 13, the City reached a key milestone in the completion of Environmental Design/Construction Phase for project X. The City also initiated work on XXX project. Overall, Local Street and Road Program funds allowed for the completion/pavement rehabilitation of 14 centerline miles, added 47,024sf of sidewalk, added 12 street lights, added 1 traffic signal & upgraded/modified 2 traffic signals.

B. Please List TransNet Local Street and Road Program Projects Completed

C. Please List TransNet Local Street and Road Program Projects in Progress/Scheduled to be Completed during Next Fiscal Year

Comments/Notes:
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

[Attachment 1]