

Appendix M

Transportation Project Evaluation Criteria and Rankings

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Introduction

This Appendix describes the process for developing evaluation criteria for prioritizing highway, Managed Lanes and Managed Lane connectors, freeway connectors, transit service, active transportation, and rail grade separation projects for inclusion in the Preferred Revenue Constrained Transportation Scenario of San Diego Forward: The Regional Plan. This Appendix also includes information on the screening criteria for the regional arterial system.

In past Regional Transportation Plans (RTP), SANDAG utilized transportation project evaluation criteria informed by the plan goals as elements of a multistep process to prioritize and evaluate transportation projects in the development of the preferred revenue constrained transportation network. For the Regional Plan, an extensive update effort was undertaken, which included a comprehensive review of the 2050 RTP criteria, efforts to streamline the criteria, incorporate new goals and policy objectives, and input from the public and a peer review panel.

The Board of Directors approved the transportation project evaluation criteria at its October 11, 2013, meeting. Project evaluation criteria were applied to each modal category of projects in the Unconstrained Transportation Network.

Background

Vision and goals

In early 2013, the Board of Directors provided input to frame questions for a statistically significant telephone survey intended to gauge public opinion and to inform the development of the vision and goals as the policy foundation for the Regional Plan. Based on the results of the telephone survey, the broad categories with the most support, in order of overall preference, included:

- Improving the regional economy, business climate, and local job opportunities
- Maintaining what we've built, including streets, highways, and public facilities
- Protecting the environment, reducing air pollution, and making better use of renewable energy sources
- Improving the transportation system to improve the flow of people and goods
- Locating future housing and new businesses near major employment centers and transit services to reduce commute times and traffic congestion

After discussion of the survey results, the Board crafted the vision and three goals for the plan: (1) Innovative Mobility and Planning, (2) Healthy Environment and Communities, and (3) Vibrant Economy. The Board of Directors accepted the vision and goals for the San Diego Forward: The Regional Plan on May 10, 2013. The vision and goals guide all elements of the Regional Plan, including the project evaluation criteria.

Transportation Project Evaluation Criteria Development Process

Using the evaluation criteria from the 2050 RTP and Sustainable Communities Strategy (SCS) as a starting point, staff initiated the review and refinement of the transportation project evaluation criteria for San Diego Forward: The Regional Plan in February 2013. A consultant team with strong technical expertise assisted in the development of the draft criteria. Revisions to the criteria and methodologies were made to align them with the vision and goals accepted for the Regional Plan and to take advantage of the enhanced modeling tool: the Activity Based Model.

Transportation project evaluation criteria

The project evaluation criteria for San Diego Forward: The Regional Plan is organized within the three goals established by the Board: (1) Innovative Mobility and Planning, (2) Healthy Environment and Communities, and (3) Vibrant Economy. Each individual criterion is nested into one of the three goals. The Transportation Project Evaluation Criteria are included in Tables M.1, M.3, M.5, M.7, M.9, and M.11.

The refinements that were incorporated into the project evaluation criteria for the Regional Plan can be organized into three broad areas: (1) model enhancement-related, (2) new criteria, and (3) reorganized criteria. The majority of proposed changes to the criteria have resulted from newer capabilities of the model enhancements, which allow greater analysis of household travel. Project evaluation criteria that have benefited from model enhancements include: *provides congestion relief, serves daily trips, facilitates FasTrak®/carpool/transit, pedestrian and bike mobility, serves Regional Comprehensive Plan (RCP) Smart Growth areas, provides accessibility, serves goods movement, and project cost-effectiveness*. Other new modal criteria are incorporated, including *physical activity, and access to schools, recreational areas, and beaches*.

Active transportation criteria were also included as a modal category for the first time in the Regional Plan and were developed through similar combined efforts with local jurisdictions, partner agencies, SANDAG working groups, other stakeholders, consultants, and the general public. The majority of the criteria are consistent with other modal categories, including *serves daily trips, safety, greenhouse gas and pollutant emissions, serves RCP Smart Growth areas, physical activity, accessibility, and cost-effectiveness, greenhouse gas reductions, disadvantaged communities¹ served by the project, and cost-effectiveness* criteria were added to the rail grade separation category to provide greater consistency of analysis across modal categories.

SANDAG has been developing active transportation enhancements to the Activity-based Model (ABM). The Active Transportation criteria were intended to be used with the active transportation-enhanced ABM. However, these enhancements were not completed in time to be used in application of the Active Transportation criteria, so the project rankings from *Riding to 2050: The San Diego Regional Bike Plan* was utilized.

Cost-effectiveness and jobs criterion

A more comprehensive cost-effectiveness and jobs criterion was included that builds upon the 2050 RTP/SCS method, which evaluated the person hours saved or ridership of the project relative to its capital costs and operating and maintenance costs. For the Regional Plan, the cost-effectiveness criterion monetized a number of factors such as fuel costs, greenhouse gas emissions, smog-forming pollutants, physical activity, travel time savings, safety, and the value of jobs created by the project, which were compared to the capital, operating, and maintenance cost of the project. While analyses such as the project cost-effectiveness criterion attempt to capture the economic effects of the projects as comprehensively as possible, such analyses may not fully reflect the importance of individual factors to the project prioritization process. As a result, some components of the project cost-effectiveness criterion also are reflected in other evaluation criteria to capture the relative importance of these factors.

Public outreach

SANDAG received input on the project evaluation criteria from regional stakeholders at meetings of the Active Transportation Working Group, Cities and County Technical Advisory Committee, community-based organization partners, Freight Stakeholders Working Group, Independent Taxpayer Oversight Committee (ITOC), Public Health Stakeholders Working Group, Regional Planning Technical Working Group, and the Tribal Transportation Working Group. Staff also sought input from other partner agencies including Caltrans, the Metropolitan Transit System (MTS), and the North County Transit District (NCTD). Input on the prioritization of transportation projects also was solicited from the public at the San Diego Forward: The Regional Plan workshops held throughout the region and at Caltrans

in June 2013. In addition to the workshop series, a public workshop was held on August 5, 2013, with more than 75 participants. More than 400 comments were collected from local jurisdictions, partner agencies, stakeholders, and the general public. This feedback provided valuable information that was considered in development of the final project evaluation criteria.

Peer review

A five-person peer review panel was created to review and assess the criteria, and to consider feedback and input that was proposed to be incorporated into the criteria. Panelists included staff from the San Francisco Bay Area Metropolitan Transportation Commission in Oakland, California and the Puget Sound Regional Council, Seattle, Washington. Experts from academia and the private sector included: Jennifer Dill, Professor, Nohad A. Toulon School of Urban Studies and Planning Director; Oregon Transportation Research & Education Consortium; Portland State University; Marty Wachs, Senior Principal Researcher at RAND, Distinguished Professor Emeritus in Urban Planning, University of California Los Angeles Luskin School of Public Affairs; and Joel Freedman, Manager, Systems Analysis Technical Resource Center, Parsons Brinckerhoff.

Based on the panel's review and comments received from working groups and the public, several refinements were made to the initial draft criteria. Additionally, individual criterion weightings were adjusted to provide greater consistency of common measures across modal categories.

Project evaluation criteria weightings

The project evaluation criteria weighting allocates roughly one-third of the total possible points for each of the goal focus areas. These proposed weightings reflect the highest regional priority areas, which are nested in the goals.

All mode categories have a 100-point scale, with each individual criterion allocated a specified maximum score. Feedback from the ITOC, as well as other SANDAG working group members, stakeholders, and the general public, was considered during the development of the proposed criteria weightings. As a result, additional weight was given to the greenhouse gas and pollutant emissions and cost-effectiveness criteria in the active transportation evaluation criteria, providing greater consistency with weighting of these criteria across modes.

Highway Corridors

SANDAG has used criteria for evaluating and ranking highway corridor projects since 1997. Using the 2050 RTP criteria as a starting point, a set of revised criteria which reflect the Board-adopted goals were developed.

The eleven highway evaluation criteria presented in Table M.1 quantify *congestion relief, project safety, provides access to evacuation routes, facilitates FasTrak/carpool/transit, pedestrian and bike mobility, minimizes habitat and residential impacts, greenhouse gas and pollutant emissions, serves RCP smart growth areas, physical activity, accessibility, serves goods movement and relieves freight system bottlenecks/capacity constraints, and project cost-effectiveness*. The approved highway criteria incorporates a number of refined or new elements including the daily person hours saved for disadvantaged communities; reduction in smog forming pollutants; increase in physical activity; and an expanded accessibility measure which quantifies access to jobs, schools, and recreation.

The highway network corridor evaluation was used to develop the Revenue Constrained Network alternatives and project phasing included in the Regional Plan. The 37 unconstrained highway corridors evaluated for the 2050 Regional Plan are listed in priority order in Table M.2.

The prioritized list of highway projects was used as a tool in assembling logical transportation networks of highway projects that complement transit and arterial projects. Priority order is not necessarily strictly followed. Rather, emphasis is placed upon developing meaningful networks in accordance with the Regional Plan goals and objectives.

Table M.1
Project Evaluation Criteria Highway Corridors

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Innovative Mobility & Planning</i>						
1	Provides Congestion Relief	A) What is the number of daily person-hours saved from implementing the project?*	Change in daily person-hours saved	10	35	Mobility Choices
		B) What is the number of daily person-hours saved for disadvantaged communities?	Change in daily person-hours saved for disadvantaged communities population	5		
2	Project Safety	How does the project compare against the statewide average for collisions?*	Project percentage of collisions measured against statewide average	5		Preservation and Safety of the Transportation System
3	Provides Access to Evacuation Routes	How will the project provide evacuation access for regional hazard areas?	Proximity analysis of hazard areas (dam failure, earthquake, flood, landslide, liquefaction, tsunami, and wildfire), weighted by population and employment	5		Preservation and Safety of the Transportation System, Partnerships and Collaboration, Binational Collaboration with Baja California
4	Facilitates FasTrak/ Carpool/Transit, Pedestrian and Bike Mobility	How will the project facilitate FasTrak/carpool/Managed Lane facilities and/or regional or corridor transit services and/or pedestrian and bike access?	Projects will receive points if they include FasTrak/carpool/Managed Lane facility, and/or regional or corridor transit services, and/or pedestrian and bike facilities, which is then weighted by combined carpool person volume + transit person volume	10		Mobility Choices, Complete Communities

Table M.1 (continued)
Project Evaluation Criteria Highway Corridors

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Healthy Environment & Communities</i>						
5	Minimizes Habitat and Residential Impacts	How will the project minimize negative habitat and residential impacts?*	Proximity analysis of preserve areas, native habitats, and housing (more than two dwelling units per acre)	5	30	Habitat and Open Space Preservation, Environmental Stewardship
6	Greenhouse gas and Pollutant Emissions	A) What is the reduction in CO ₂ emissions from implementing the project?*	Reduction in CO ₂ emissions	5		Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation
		B) What is the reduction in smog forming pollutants from implementing the project?*	Reduction in smog-forming pollutants	5		
7	Serves RCP Smart Growth Areas	What is the share of trips on the facility serving RCP Smart Growth Areas (Metropolitan Center, Urban Center, and Special Use Center)?*	Share of trips on facility serving existing/planned or potential Metropolitan Center, Urban Center, and Special Use Center is calculated, using select link analysis	10		Complete Communities, Regional Economic Prosperity, Habitat and Open Space Preservation
8	Physical Activity	What is the increase in physical activity?	Increase in time engaged in moderate transportation-related physical activity	5		Mobility Choices, Complete Communities

Table M.1 (continued)

Project Evaluation Criteria Highway Corridors

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Vibrant Economy</i>						
9	Accessibility	A) What is the improved access to jobs and schools?	Weighted average number of jobs and school enrollment accessible in 30 minutes by auto	4	35	Mobility Choices, Regional Economic Prosperity
		B) How will the project support access to recreational areas and beaches?	Acres of parkland/recreational areas and beaches within 1/4 mile of project	4		Complete Communities, Habitat and Open Space Preservation
		C) What percentage of users of the project access Indian reservations?	Select link used to determine origins and destinations served, total trips to/from Indian reservation areas	2		Mobility Choices, Partnerships and Collaboration
10	Serves Goods Movement and Relieves Freight System Bottlenecks/ Capacity Constraints	What is the improved average travel time for freight?*	Total travel time savings for medium and heavy truck classes	5		Mobility Choices, Regional Economic Prosperity, Binational Collaboration with Baja California
11	Project Cost-Effectiveness	What is the cost-effectiveness of the project?*	Enhanced cost-effectiveness measure incorporates the following components: - Project cost - Generalized delay costs - Fuel costs - greenhouse gas emissions - Smog-forming pollutants - Physical activity - Safety	20		Mobility Choices, Regional Economic Prosperity, Complete Communities, Binational Collaboration with Baja California, Preservation and Safety of the Transportation System, Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation

* Provides dual evaluation for both passenger vehicles and trucks.

Table M.2
Highway Corridor Project Rankings

<i>TransNet</i> , Early Action Program (EAP)	Freeway/ Highway	From	To	Existing	With Improvements	Unconstrained Cost (\$2014) (millions)	Total Score	Regional Plan Project Rank
EAP (Env)	I-5	La Jolla Village Dr	Vandegrift	8F/10F+2HOV	8F/10F+4ML	\$3,045.2	57.7	1
EAP (Transit/Env)	I-805	SR 905	Carroll Canyon Rd	8F+2HOV	8F+2ML/8F+4ML	\$3,419.0	54.1	2
<i>TransNet</i>	SR 78	I-5	I-15	6F	6F+2ML/Operational	\$959.5	51.4	3
<i>TransNet</i>	I-5	SR 905	SR 15	8F	8F/10F+2HOV	\$651.5	45.2	4
n/a	SR 15	SR 94	I-805	6F	6F+2HOV	\$30.3	45.0	5
<i>TransNet</i>	SR 54	I-5	SR 125	6F	6F/8F+2HOV	\$232.3	37.2	6
<i>TransNet</i>	I-5	I-8	La Jolla Village Dr	8F/10F	8F/10F+2HOV	\$555.5	36.7	7
<i>TransNet</i>	I-5	SR 15	I-8	8F	8F+Operational	\$1,176.7	33.2	8
EAP (Transit)	I-15	I-8	SR 163	8F	8F+2HOV	\$55.6	31.6	9
EAP (Transit)	SR 94	I-5	I-805	8F	8F+2HOV	\$484.8	31.3	10
n/a	I-8	Los Coches	Dunbar Rd	4F/6F	6F	\$131.3	30.5	11
<i>TransNet</i>	SR 94	I-805	SR 125	8F	8F/10F+2ML	\$469.7	30.5	11
n/a	SR 76	I-15	Couser Canyon	2C	4C/6C+Operational	\$131.3	29.8	13
<i>TransNet</i>	I-8	2nd St	Los Coches	4F/6F	6F	\$35.4	29.2	14
<i>TransNet</i>	SR 125	SR 54	SR 94	6F	8F+2HOV	\$146.5	29.2	14
n/a	SR 125	SR 94	I-8	8F	10F+2HOV	\$292.9	29.1	16
n/a	I-8	SR 125	2nd St	6F/8F	6F/8F+Operational	\$166.7	28.9	17
n/a	I-15	Viaduct		8F	8F+2HOV	\$843.4	28.1	18
<i>TransNet</i>	SR 94	SR 125	Avocado Blvd	4F	6F	\$111.1	27.5	19
n/a	SR 52	I-5	I-805	4F	6F	\$111.1	26.5	20

Table M.2 (continued)

Highway Corridor Project Rankings

<i>TransNet</i> , Early Action Program (EAP)	Freeway/ Highway	From	To	Existing	With Improvements	Unconstrained Cost (\$2014) (millions)	Total Score	Regional Plan Project Rank
n/a	SR 15	I-5	SR 94	6F	8F+2HOV	\$136.4	26.3	21
n/a	SR 163	I-805	I-15	8F	8F+2HOV	\$333.3	25.9	22
n/a	SR 52	SR 125	SR 67	4F	6F	\$252.5	25.8	23
n/a	SR 125	SR 905	SR 54	4F	8F	\$232.3	25.2	24
n/a	SR 76	Couser Canyon	SR 79	2C	2C+Operational	\$632.8	25.1	25
n/a	SR 125	I-8	SR 52	6F	6F+2HOV	\$262.6	24.8	26
<i>TransNet</i>	SR 94	Avocado Blvd	Melody Ln	4C/2C	6C/2C+Operational	\$419.2	24.2	27
n/a	SR 905	I-5	I-805	4F	8F	\$156.6	23.6	28
<i>TransNet</i>	SR 56	I-5	I-15	4F	6F+2HOV	\$303.0	23.4	29
n/a	SR 15	Lake Hodges	SR 78	8F/10F	10F	\$232.3	21.7	30
<i>TransNet</i>	SR 67	Mapleview St	Dye Rd	2C/4C	4C	\$575.7	21.1	31
n/a	I-8	I-5	SR 125	8F/10F	8F/10F+Operational	\$666.6	20.7	32
n/a	SR 76	I-5	Melrose Dr	4E	6E	\$232.3	20.6	33
n/a	SR 52	I-805	I-15	6F	6F+2HOV	\$90.9	20.2	34
n/a	SR 67	I-8	Mapleview St	4F/6F	6F/8F	\$141.4	19.2	35
<i>TransNet</i> (2ML(R))	SR 52	I-15	SR 125	4F/6F	6F+3ML(R)	\$454.5	14.5	36
n/a	SR 905	I-805	Mexico	6F	8F	\$202.0	13.5	37

Table M.2 Legend

C = Conventional Highway Lanes
 F = Freeway Lanes
 HOV = High Occupancy Vehicle Lanes

ML = Managed Lanes
 ML(R) = Managed Lanes (Reversible)
 T = Toll Lanes

Transit Services

With key input from MTS and NCTD staff, updated criteria was created to prioritize transit service projects. The transit services category incorporates several new or refined criteria which includes providing access to evacuation routes, an expanded accessibility criterion which quantifies access to jobs, schools, and amenities, as well as the percentage of disadvantaged community users, and an expanded project cost-effectiveness criterion. Table M.3 includes the detailed criteria and weighting for prioritizing transit service projects. The 51 unconstrained transit routes evaluated for the Regional Plan are listed in priority order in Table M.4.

Table M.3
Project Evaluation Criteria Transit Services

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Innovative Mobility & Planning</i>						
1	Provides Time Competitive/ Reliable Transit Service	What is the percentage of the route located in priority treatment?	Analysis of percentage of transit route within dedicated transit guideway; dedicated arterial lane, interrupted rail, or Managed Lane; or HOV lane or arterial spot treatment	10	35	Mobility Choices, Complete Communities
2	Serves Daily Trips	What is the number of additional daily transit trips resulting from the project?	Change in daily transit linked trips	15		Mobility Choices, Complete Communities
3	Provides Access to Evacuation Routes	How will the project provide evacuation access for regional hazards?	Proximity analysis of hazard areas (dam failure, earthquake, flood, landslide, liquefaction, tsunami, and wildfire), weighted by population and employment	5		Mobility Choices, Partnerships and Collaboration, Binational Collaboration with Baja California, Preservation and Safety of the Transportation System
4	Daily System Utilization	What is the daily transit utilization?	Daily passenger miles/ daily service seat miles (system wide)	5		Mobility Choices, Complete Communities

Table M.3 (continued)

Project Evaluation Criteria Transit Services

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Healthy Environment & Communities</i>						
5	greenhouse gas and Pollutant Emissions	A) What is the reduction in CO ₂ emissions from implementing the project?	Reduction in CO ₂ emissions	5	30	Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation
		B) What is the reduction in smog forming pollutants from implementing the project?	Reduction in smog forming pollutants	5		
6	Serves RCP Smart Growth Areas	What is the share of trips on the transit service serving RCP Smart Growth areas?	Share of trips on transit service serving all existing/planned or potential Smart Growth Areas is calculated, using select link analysis	10		Complete Communities, Regional Economic Prosperity, Habitat and Open Space Preservation
7	Physical Activity	What is the increase in physical activity?	Increase in time engaged in moderate transportation-related physical activity	10		Mobility Choices, Complete Communities
<i>Vibrant Economy</i>						
8	Accessibility	A) What is the increase in job and school trips by transit?	Change in daily transit linked work and school trips	4	35	Mobility Choices, Regional Economic Prosperity
		B) How will the project support access to recreational areas and beaches?	Acres of parkland/ recreational areas and beaches within 1/4 mile of project	3		

Table M.3 (continued)

Project Evaluation Criteria Transit Services

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Vibrant Economy (continued)</i>						
		C) What is the increase in transit trips by disadvantaged communities?	Change in total transit trips by disadvantaged communities population	3		Mobility Choices, Partnerships and Collaboration
		D) How will the project facilitate pedestrian and bike access?	Project located within 1/4 mile of pedestrian and bike facilities	3		Mobility Choices, Complete Communities
		E) What is the increase in transit trips to federally recognized Indian reservations?	Change in total transit trips to/from Indian reservations	2		Mobility Choices, Partnerships and Collaboration
9	Project Cost-Effectiveness	What is the cost-effectiveness of the project?	Enhanced cost-effectiveness measure incorporates the following components: <ul style="list-style-type: none"> - Project cost - Fuel costs - greenhouse gas emissions - Smog forming pollutants - Physical activity - Safety 	20		Mobility Choices, Regional Economic Prosperity, Binational Collaboration with Baja California, Preservation and Safety of the Transportation System, Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation

Table M.4
Transit Service Project Rankings

<i>TransNet/</i> Early Action Program (EAP)	Service	Route	Project Description	Unconstrained Cost (\$2014) (millions)	Total Score	Regional Plan Project Rank
	Trolley	562	Carmel Valley to San Ysidro via Kearny Mesa	\$2,632.5	95.9	1
	Trolley	550	SDSU to Palomar Station via East San Diego, SE San Diego, National City	\$1,581.5	65.2	2
	Trolley	560	SDSU to Downtown via El Cajon Blvd/Mid-City (transition of Mid-City <i>Rapid</i> to LRT)	\$2,389.9	64.5	3
<i>TransNet/</i> EAP	COASTER	398	Double Tracking (includes all COASTER improvements, positive train control, extension to National City, and Camp Pendleton)	\$2,901.6	63.7	4
	Trolley	563	Pacific Beach to El Cajon Transit Center via Kearny Mesa, Mission Valley, SDSU	\$1,297.7	61.9	5
	BRT	650	Chula Vista to Palomar Airport Rd Business Park via I-805/I-5 (peak only)	\$81.9	51.6	6
<i>TransNet</i>	SPRINTER	399	Double Tracking (includes all SPRINTER improvements and extension to South Escondido)	\$945.5	51.5	7
	<i>Rapid</i>	28	Point Loma to Kearny Mesa via Old Town, Linda Vista	\$49.8	49.4	8
	<i>Rapid</i>	103	Solana Beach to Sabre Springs BRT station via Carmel Valley	\$66.8	47.4	9
	<i>Rapid</i>	10	La Mesa to Ocean Beach via Mid-City, Hillcrest, Old Town	\$87.7	44.9	10
	Trolley	561	UTC to Mira Mesa via Sorrento Mesa/Carroll Cyn (extension of route 510). Includes connection with COASTER at Scranton Rd	\$1,167.4	42.1	11
<i>TransNet</i>	BRT	680 and 688/ 689	Otay Mesa/San Ysidro to Sorrento Mesa via I-805 Corridor, Otay Ranch/Millenia, National City, Southeastern San Diego, Mid-City, Kearny Mesa	\$457.9	42.0	12

Table M.4 (continued)

Transit Service Project Rankings

<i>TransNet/ Early Action Program (EAP)</i>	Service	Route	Project Description	Unconstrained Cost (\$2014) (millions)	Total Score	Regional Plan Project Rank
	Trolley	522	Orange Line Express - El Cajon to ITC/Airport	\$197.2	41.6	13
	<i>Rapid</i>	30	Old Town to Sorrento Mesa via Pacific Beach, La Jolla, UTC	\$104.9	40.6	14
	Trolley	564	Otay Mesa East Border Crossing to Western Chula Vista via Otay Ranch/Millenia	\$1,000.7	40.5	15
	<i>Rapid</i>	41	Fashion Valley to VA Hospital via SR 163, Genesee, La Jolla Village Dr	\$55.4	40.2	16
	BRT	940	Oceanside to Sorrento Mesa via I-5, Carlsbad, Encinitas (peak only)	\$39.0	40.0	17
	<i>Rapid</i>	473	Oceanside TC to UC San Diego via Pacific Hwy, Del Mar Heights, El Camino Real and UTC	\$129.7	38.4	18
	Trolley	540	Blue Line Express - Santa Fe Depot to San Ysidro via Downtown	\$390.6	38.3	19
	<i>Rapid</i>	2	North Park to Downtown San Diego via 30th St / Broadway	\$38.9	35.6	20
	Trolley	566	Palomar St Trolley Station to UTC via Mid-City, Kearny Mesa (Route 562 Express)	\$334.9	35.5	21
	<i>Rapid</i>	477	East Camp Pendleton to Carlsbad Village via Vandergrift, College Blvd, Plaza Camino Real	\$80.0	33.7	22
	BRT	430	Oceanside to Escondido via SR 78	\$239.6	33.3	23
	<i>Rapid</i>	910	Coronado to Downtown via Coronado Bridge	\$25.7	31.9	24
	<i>Rapid</i>	11	Spring Valley to SDSU via SE San Diego, Downtown, Hillcrest, Mid-City	\$113.2	31.5	25
	BRT	905	Iris Trolley Station to East Otay Mesa via Otay Mesa	\$0.00	30.6	26

Table M.4 (continued)

Transit Service Project Rankings

<i>TransNet/ Early Action Program (EAP)</i>	Service	Route	Project Description	Unconstrained Cost (\$2014) (millions)	Total Score	Regional Plan Project Rank
	Streetcar	553	Downtown San Diego: Little Italy to East Village	\$139.4	30.6	26
	Streetcar	554	Hillcrest/Balboa Park/Downtown San Diego Loop	\$285.2	30.3	28
	<i>Rapid</i>	440	Carlsbad Pointsettia to Escondido TC to UC San Diego via Palomar Airport Rd, San Marcos Blvd, Mission Rd	\$51.3	30.3	28
	SPRINTER	588	SPRINTER Express. Escondido Transit Center - Oceanside Transit Center	\$243.9	30.2	30
	BRT	652	Downtown to UTC via Kearny Mesa Guideway/I-805	\$2.8	29.7	31
	BRT	653	Mid-City to Palomar Airport Rd via Kearny Mesa/I-805/I-5	\$10.5	29.4	32
	Streetcar	565	Mission Beach to La Jolla via Pacific Beach	\$246.0	29.0	33
	<i>Rapid</i>	709	H St Trolley to Millenia via H St Corridor, Southwestern College	\$37.0	28.2	34
	Streetcar	555	30th St to Downtown San Diego via North Park/Golden Hill	\$256.1	28.1	35
	<i>Rapid</i>	120	Kearny Mesa to Downtown via SR 163/Fashion Valley. No guideway.	\$77.9	27.9	36
	<i>Rapid</i>	635	Eastlake/EUC to Palomar Trolley Station via Main St Corridor	\$55.3	27.4	37
	Streetcar	557	El Cajon Downtown	\$164.5	26.7	38
	<i>Rapid</i>	639	Iris Trolley Station to North Island via Imperial Beach and Silver Strand, Coronado	\$54.2	26.2	39
	<i>Rapid</i>	636	SDSU to Spring Valley via East San Diego, Lemon Grove, Skyline	\$39.5	25.1	40
	<i>Rapid</i>	637	North Park to 32nd St Trolley via Golden Hill	\$32.6	24.9	41

Table M.4 (continued)

Transit Service Project Rankings

<i>TransNet/ Early Action Program (EAP)</i>	Service	Route	Project Description	Unconstrained Cost (\$2014) (millions)	Total Score	Regional Plan Project Rank
	BRT	870	El Cajon to Campus Point via Santee, SR 52, I-805	\$7.7	24.4	42
	<i>Rapid</i>	471	Downtown Escondido to East Escondido	\$31.7	24.3	43
	<i>Rapid</i>	474	Oceanside to Vista via Mission Ave/Santa Fe Rd Corridor	\$50.4	23.8	44
	BRT	692	Grossmont Center to Otay Town Center/Millenia via Southwest College, SR 125, Spring Valley	\$4.5	23.4	45
	BRT	890	El Cajon to Sorrento Mesa via SR 52, Kearny Mesa	\$12.7	23.1	46
	Streetcar	551	Chula Vista Downtown	\$137.8	22.5	47
	Streetcar	558	Escondido Downtown	\$51.2	22.4	48
	<i>Rapid</i>	638	Iris Trolley to Otay Mesa via Otay, SR 905 Corridor	\$38.2	21.6	49
	Streetcar	559	Oceanside Downtown	\$45.7	21.4	50
	Streetcar	552	National City Downtown	\$41.2	21.3	51

Active Transportation

For the first time, active transportation criteria were developed. These criteria were developed through similar combined efforts with local jurisdictions, partner agencies, SANDAG working groups, other stakeholders, consultants, and the general public. The majority of the active transportation evaluation criteria is consistent with other modal categories, including *and pollutant emissions* and *serves RCP smart growth areas*. SANDAG has been developing active transportation enhancements to the Activity-based Model (ABM). The Active Transportation criteria were intended to be used with the active transportation-enhanced ABM. These enhancements were not completed in time to be used to apply the Active Transportation criteria, so the project rankings from *Riding to 2050: The San Diego Regional Bike Plan* were utilized. The detailed criteria developed as part of the Regional Plan effort are shown in Table M.5. A list of ranked active transportation projects can be seen in Table M.6.

Table M.5
Project Evaluation Criteria Active Transportation

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Innovative Mobility & Planning</i>						
1	Serves Daily Trips	What is the change in the number of active transportation trips?	Change in active transportation mode trips or transit accessed by active transportation mode trips	15	35	Mobility Choices
2	Project Safety	Is the project located in an area with a high bike and pedestrian traffic incident rate?	Number of bike and pedestrian traffic incidents within 1/4 mile of project	5		Preservation and Safety of the Transportation System
3	System Connectivity	A) Does the project provide enhanced connectivity to/from transit station/stop areas, highway project areas, or rail grade separations?	Project located within 1/4 mile of transit, highway, or rail grade separation project areas	5		Mobility Choices, Complete Communities
		B) Does the project provide multimodal connections?	Project provides direct access to other transit, highway, rail grade separation, or active transportation projects	5		
4	Consistency with local plans	Is the improvement identified in a locally adopted plan?	Project is in a locally adopted plan	5		Partnerships and Collaboration

Table M.5 (continued)

Project Evaluation Criteria Active Transportation

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Healthy Environment & Communities</i>						
5	Reduced Bike/Pedestrian Stress Level	Does the project result in a safer facility for people biking and pedestrians?	Project area is currently unsafe for pedestrian and bike activity due to speeds, vehicular traffic volumes, conflict points such as freeway on/off-ramps, etc.	10	35	Mobility Choices, Preservation and Safety of the Transportation System
6	greenhouse gas and Pollutant Emissions	A) What is the reduction in CO ₂ emissions from implementing the project?	Reduction in CO ₂ emissions	5		Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation
		B) What is the reduction in smog forming pollutants from implementing the project?	Reduction in smog forming pollutants	5		
7	Serves RCP Smart Growth Areas	Is the project located near population and employment?	Population and employment in all smart growth areas within 1/4 mile distance of project	5		Complete Communities, Regional Economic Prosperity, Habitat and Open Space Preservation
8	Physical Activity	What is the increase in physical activity?	Increase in time engaged in moderate transportation-related physical activity	5		Mobility Choices, Complete Communities
9	Range of Users/Skill Levels Served	For major arterial street, are alternative routes attractive to all riders considered, or are the arterial or alternative routes traffic calmed?	Project results in route attractive to all riders	5		Mobility Choices, Preservation and Safety of the Transportation System

Table M.5 (continued)

Project Evaluation Criteria Active Transportation

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Vibrant Economy</i>						
10	Accessibility	A) Does the project support access to jobs and schools?	Employment and schools within 1/4 mile of project	4	30	Mobility Choices, Regional Economic Prosperity
		B) Does the project support access to recreational areas, parks, and beaches?	Acres of parkland/recreational areas and beaches within 1/4 mile of project	3		Complete Communities, Habitat and Open Space Preservation
		C) What percentage of the project users are from disadvantaged communities?	Disadvantaged communities population within 1/4 mile of project	3		Mobility Choices, Partnerships and Collaboration
11	Project Cost-Effectiveness	What is the cost-effectiveness of the project?	Enhanced cost-effectiveness measure may incorporate the following components: <ul style="list-style-type: none"> - Project cost - Generalized delay costs - Fuel costs - greenhouse gas emissions - Smog forming pollutants - Health and physical activity - Safety 	20		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

Table M.6**Regional Bike Plan Network Corridor Rankings***Early Action Program (EAP)*

EAP Priority	Project	Jurisdiction(s)	Funding Through Project Phase	Cost (\$2014)
1	Uptown - Fashion Valley to Downtown San Diego	San Diego	Const.	\$22,889,000
2	Uptown - Old Town to Hillcrest	San Diego	Const.	\$17,979,000
3	Uptown - Hillcrest to Balboa Park	San Diego	Const.	\$2,579,000
4	North Park - Mid-City - Hillcrest to Kensington	San Diego	Const.	\$5,727,000
5	North Park - Mid-City - Hillcrest to City Heights (Hillcrest-El Cajon Corridor)	San Diego	Const.	\$5,775,000
6	North Park - Mid-City - City Heights	San Diego	Const.	\$2,688,000
7	North Park - Mid-City - Hillcrest to City Heights (City Heights - Old Town Corridor)	San Diego	Const.	\$4,869,000
8	North Park - Mid-City - City Heights to Rolando	San Diego	Const.	\$4,319,000
9	San Diego River Trail - Qualcomm Stadium	San Diego	Const.	\$829,000
10	San Diego River Trail - Father Junipero Serra Trail to Santee	Santee	ROW	\$2,816,000
11	Coastal Rail Trail San Diego - Rose Creek	San Diego	Const.	\$20,636,000
12	Bayshore Bikeway - Main St to Palomar	Chula Vista/ Imperial Beach	Const.	\$2,959,000
13	Coastal Rail Trail Encinitas - Chesterfield to G	Encinitas	Const.	\$6,885,000
14	Coastal Rail Trail Encinitas - Chesterfield to Solana Beach	Encinitas	Eng.	\$100,000
15 to 18	Inland Rail Trail (combination of four projects)	San Marcos, Vista, County of San Diego	Const.	\$32,691,000
19	Coastal Rail Trail Oceanside - Wisconsin to Oceanside Blvd.	Oceanside	Const.	\$200,000
20	Plaza Bonita Bike Path	National City	Const.	\$400,000
21	Bayshore Bikeway - National City Marina to 32nd St	San Diego/ National City	Const.	\$1,503,000
22	I-15 Mid-City - Adams Ave to Camino Del Rio S	San Diego	Const.	\$9,341,000
23	Bayshore Bikeway - Barrio Logan	San Diego	ROW	\$4,604,000
24	Pershing and El Prado - North Park to Downtown San Diego	San Diego	Const.	\$7,282,000
25	Pershing and El Prado - Cross-Park	San Diego	Const.	\$613,000
26	Downtown to Southeast connections - East Village	San Diego	ROW	\$787,000
27	Downtown to Southeast connections - Downtown San Diego to Encanto	San Diego	ROW	\$3,045,000

Table M.6 (continued)

Regional Bike Plan Network Corridor Rankings

Early Action Program (EAP) (continued)

EAP Priority	Project	Jurisdiction(s)	Funding Through Project Phase	Cost (\$2014)
28	Downtown to Southeast connections - Downtown San Diego to Golden Hill	San Diego	ROW	\$2,825,000
29	San Ysidro to Imperial Beach - Bayshore Bikeway Connection (Border Access)	Imperial Beach/ San Diego	ROW	\$1,726,000
30	San Ysidro to Imperial Beach - Bayshore Bikeway Connection (Imperial Beach Connector)	Imperial Beach/ San Diego	ROW	\$860,000
31	Terrace Dr/Central Ave - Adams to Wightman	San Diego	Const.	\$1,407,000
32	San Diego River Trail - I-805 to Fenton	San Diego	Const.	\$1,741,000
33	San Diego River Trail - Short gap connections	San Diego	Const.	\$1,370,000
34	Coastal Rail Trail Encinitas - Leucadia to G St	Encinitas	Const.	\$4,763,000
35	Coastal Rail Trail San Diego - UTC	San Diego	ROW	\$791,000
36	Coastal Rail Trail San Diego - Rose Canyon	San Diego	ROW	\$2,508,000
37	Coastal Rail Trail San Diego - Pacific Hwy (W. Washington St to Laurel St)	San Diego	Const.	\$4,050,000
38	Coastal Rail Trail San Diego - Pacific Hwy (Laurel St to Santa Fe Depot)	San Diego	Const.	\$7,628,000
39	Coastal Rail Trail San Diego - Encinitas Chesterfield to Solana Beach	Encinitas	Const.	\$127,000
40	Coastal Rail Trail San Diego – Pacific Hwy (Taylor St to W. Washington St)	San Diego	Const.	\$3,994,000
41	San Ysidro to Imperial Beach - Bayshore Bikeway Connection	Imperial Beach/ San Diego	Const.	\$6,204,000
42	Coastal Rail Trail San Diego - Pacific Hwy (Fiesta Island Rd to Taylor St)	San Diego	Const.	\$7,270,000
43	San Diego River Trail - Father Junipero Serra Trail to Santee	Santee	Const.	\$7,412,000
44	Bayshore Bikeway - Barrio Logan	San Diego	Const.	\$13,591,000
45	Downtown to Southeast connections	San Diego	Const.	\$17,015,000
46	Coastal Rail Trail San Diego - UTC	San Diego	Const.	\$2,691,000
47	City Heights /Encanto/Lemon Grove	Lemon Grove/ San Diego	Const.	\$7,045,000
48	City Heights/Fairmount Corridor	San Diego	Const.	\$12,216,000
49	Rolando to Grossmont/La Mesa	La Mesa/ El Cajon/ San Diego	Const.	\$2,469,000
50	La Mesa/Lemon Grove/El Cajon connections	Lemon Grove/ La Mesa	Const.	\$5,458,000

Table M.6 (continued)

Regional Bike Plan Network Corridor Rankings

Early Action Program (EAP) (continued)

EAP Priority	Project	Jurisdiction(s)	Funding Through Project Phase	Cost (\$2014)
51	Coastal Rail Trail - Rose Canyon	San Diego	Const.	\$8,433,000
52	San Diego River Trail - Qualcomm Stadium to Ward Rd	San Diego	Const.	\$1,568,000
53	San Diego River Trail - Rancho Mission Road to Camino Del Rio North	San Diego	Const.	\$263,000
54	Coastal Rail Trail San Diego - Rose Creek Mission Bay Connection	San Diego	Const.	\$3,990,000
55	Coastal Rail Trail Carlsbad - Reach 4 Cannon to Palomar Airport Rd	Carlsbad	Const.	\$5,084,000
56	Coastal Rail Trail Carlsbad - Reach 5 Palomar Airport Rd to Poinsettia Station	Carlsbad	Const.	\$2,738,000
57	Coastal Rail Trail Encinitas - Carlsbad to Leucadia	Encinitas	Const.	\$6,634,000
58	Coastal Rail Trail Del Mar	Del Mar	Const.	\$396,000
59	Coastal Rail Trail San Diego - Del Mar to Sorrento via Carmel Valley	Del Mar/ San Diego	Const.	\$411,000
60	Coastal Rail Trail San Diego - Carmel Valley to Roselle via Sorrento	San Diego	Const.	\$867,000
61	Coastal Rail Trail San Diego - Roselle Canyon	San Diego	Const.	\$4,958,000
62	Chula Vista National City connections	Chula Vista/ National City	Const.	\$10,516,000
63	Pacific Beach to Mission Beach	San Diego	Const.	\$9,509,000
64	Ocean Beach to Mission Bay	San Diego	Const.	\$23,815,000
65	San Diego River Trail - Bridge connection (Sefton Field to Mission Valley YMCA)	San Diego	Const.	\$7,259,000
66	San Diego River Trail - Mast Park to Lakeside baseball park	Santee	Const.	\$10,335,000
67	I-8 Flyover (Camino del Rio South to Camino del Rio North)	San Diego	Const.	\$9,914,000
68	Coastal Rail Trail Oceanside - Broadway to Eaton	Oceanside	Const.	\$445,000
69	El Cajon - Santee connections	El Cajon/ La Mesa/ Santee	Const.	\$12,289,000
70	San Diego River Trail - Father JS Trail to West Hills Parkway	San Diego	Const.	\$2,883,000
71	Inland Rail Trail Oceanside	Oceanside	Const.	\$18,786,000
72	Coastal Rail Trail Carlsbad - Reach 3 Tamarack to Cannon	Carlsbad	Const.	\$4,814,000
73	Clairemont Dr (Mission Bay to Burgener)	San Diego	Const.	\$7,688,000

Table M.6 (continued)

Regional Bike Plan Network Corridor Rankings

Early Action Program (EAP) (continued)

EAP Priority	Project	Jurisdiction(s)	Funding Through Project Phase	Cost (\$2014)
74	Harbor Dr (Downtown to Ocean Beach)	San Diego	Const.	\$6,980,000
75	Mira Mesa Bike Blvd	San Diego	Const.	\$3,751,000
76	Sweetwater River Bikeway Ramps	National City	Const.	\$8,883,000
77	Coastal Rail Trail Oceanside - Alta Loma Marsh bridge	Oceanside	Const.	\$4,684,000
78	Coastal Rail Trail San Diego - Mission Bay (Clairemont to Tecolote)	San Diego	Const.	\$3,092,000
79	Bayshore Bikeway Coronado - Golf course adjacent	Coronado	Const.	\$2,817,000

Non-Early Action Program (EAP)

Non-EAP Priority	Corridor	Corridor Limits	Jurisdiction
80	Coastal Rail Trail	Del Mar segments	Del Mar
81	Central Coast Corridor	Coastal Rail Trail, Del Mar to Bayshore Bikeway	Del Mar, San Diego
82	Kearny Mesa-Beaches Corridor	Central Coast Corridor, Pacific Beach to I-15 Bikeway	San Diego
83	San Diego River Bikeway	Segments west of I-805	San Diego
84	SR 125 Corridor	San Diego River Bikeway, Santee to Otay Mesa Border Crossing	Santee, County, San Diego, Chula Vista
85	Mira Mesa Corridor	Coastal Rail Trail to I-15 Bikeway	San Diego
86	Mid-County Bikeway	Coastal Rail Trail, Del Mar to Inland Rail Trail	Del Mar, County, Escondido
87	Bay to Ranch Bikeway	Bayshore Bikeway to Chula Vista Greenbelt	Chula Vista
88	Escondido Creek Bikeway	I-15 Bikeway, Escondido to Valley Centre Rd	Escondido
89	Chula Vista Greenbelt	Bayshore Bikeway, San Diego to SR 125 Corridor	Chula Vista
90	SR 52 Bikeway	Coastal Rail Trail to San Diego River Bikeway	San Diego
91	Sweetwater River Bikeway	Bayshore Bikeway to SR 125 Corridor	National City, Chula Vista
92	Vista Way Connector	San Luis Rey River Trail to Inland Rail Trail	Vista, County
93	SR 905 Corridor	Border Access Corridor to Future SR 11 Border Crossing	San Diego, County

Table M.6 (continued)

Regional Bike Plan Network Corridor Rankings

Non-Early Action Program (EAP) (continued)

Non-EAP Priority	Corridor	Corridor Limits	Jurisdiction
94	Carlsbad-San Marcos Corridor	Coastal Rail Trail, Carlsbad to Inland Rail Trail, San Marcos	Carlsbad, San Marcos
95	I-15 Bikeway	Northern boundary of County to City Heights - Old Town Corridor	Escondido, City of San Diego
96	San Luis Rey River Trail	Coastal Rail Trail Oceanside to I-15 Bikeway (County)	Oceanside, County
97	Camp Pendleton Trail	Northern boundary of County to San Luis Rey River Trail	USMC
98	Encinitas - San Marcos Corridor	Coastal Rail Trail, Inland Rail Trail	Encinitas, San Marcos
99	I-8 Corridor	SR 125 Corridor to Japatul Valley Rd	County of San Diego
100	SR 56 Bikeway	Coastal Rail Trail to I-15 Bikeway	San Diego
101	El Camino Real	San Luis Rey River Trail to Coastal Rail Trail, Encinitas	Oceanside, Carlsbad, Encinitas
102	East County Northern Loop	SR 125 Corridor, La Mesa to SR 125 Corridor, County	El Cajon, La Mesa, County
103	East County Southern Loop	East County Northern Loop, El Cajon to SR 125 Corridor	County
Bike Plan EAP Estimated Cost (Priorities 1-79)			\$460.5 M
Regional Bike Plan Non-EAP Estimated Cost (Priorities 80-103)			\$276.7 M
Regional Bike Plan Estimated Cost			\$737.2 M

Managed Lane Connectors

Managed Lane connectors will facilitate direct Managed Lane to Managed Lane access and allow for continuous movement on the HOV or Managed Lanes network. The six criteria and weighting for the Managed Lanes Connectors are shown in Table M.7. The 22 Managed Lane connectors evaluated for the Regional Plan are listed in priority order by pairs in Table M.8.

Table M.7
Project Evaluation Criteria Managed Lane Connector

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Innovative Mobility & Planning</i>						
1	Provides Congestion Relief	What is the number of daily person-hours saved from implementing the project?	Change in daily person-hours saved	15	35	Mobility Choices
2	Provides Access to Evacuation Routes	How will the project provide evacuation access for regional hazard areas?	Proximity analysis of hazard areas (dam failure, earthquake, flood, landslide, liquefaction, tsunami, and wildfire), weighted by population and employment	5		Preservation and Safety of the Transportation System, Partnerships and Collaboration, Binational Collaboration with Baja California
3	Facilitates FasTrak/Carpool/Transit, Pedestrian and Bike Mobility	How will the project facilitate FasTrak/ carpool/Managed Lane facilities and/or regional or corridor transit services and/or pedestrian and bike access?	Projects will receive points if they include FasTrak/carpool/ Managed Lane facility, and/or regional or corridor transit services, and/or pedestrian and bike facilities, which is then weighted by combined carpool person volume + transit person volume	15		Mobility, Complete Communities

Table M.7 (continued)

Project Evaluation Criteria Managed Lane Connector

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Healthy Environment & Communities</i>						
4	Minimizes Habitat and Residential Impacts	How will the project minimize negative habitat and residential impacts?	Proximity analysis of preserve areas, native habitats, and housing (more than two dwelling units per acre)	15	30	Habitat and Open Space Preservation, Environmental Stewardship
5	greenhouse gas and Pollutant Emissions	A) What is the reduction in CO ₂ emissions from implementing the project?	Reduction in CO ₂ emissions	10		Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation
		B) What is the reduction in smog forming pollutants from implementing the project?	Reduction in smog forming pollutants	5		
<i>Vibrant Economy</i>						
6	Project Cost-Effectiveness	What is the cost-effectiveness of the project?	Enhanced cost-effectiveness measure incorporates the following components: <ul style="list-style-type: none"> - Project cost - Generalized delay costs - Fuel costs - greenhouse gas emissions - Smog forming pollutants - Physical activity - Safety 	35	35	Mobility Choices, Regional Economic Prosperity, Binational Collaboration with Baja California, Preservation and Safety of the Transportation System, Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation

Table M.8

Managed Lane Connector Project Rankings

<i>TransNet</i>	Freeway/ Highway	Intersecting Freeway/ Highway	Movement	Unconstrained Cost (\$2014) (millions)	Total Score	Regional Plan Project Rank
<i>TransNet</i>	I-15	SR 78	East to South and North to West	\$106	62.4	1
<i>TransNet</i>	I-5	I-805	North to North and South to South	\$101	61.6	2
	I-805	SR 52	West to North and South to East	\$91	56.8	3
	SR 15	I-805	North to North and South to South	\$81	53.2	4
	I-5	SR 15	North to North and South to South	\$197	52.4	5
	I-15	SR 52	West to North and South to East	\$131	49.5	6
	I-15	SR 56	East to North and South to West	\$172	48.4	7
	I-5	SR 78	South to East and West to North, North to East and West to South	\$253	47.8	8
	I-805	SR 94	North to West and East to South	\$101	46.1	9
	I-5	SR 56	South to East and West to North	\$177	41.1	10
	I-15	SR 163	North to North and South to South	\$162	40.5	11
	I-805	SR 94	West to South and North to East	\$217	37.4	12
	SR 94	SR 125	North to North and South to South	\$146	37.3	13
	I-5	SR 56	North to East and West to South	\$152	35.3	14
	I-805	SR 163	North to North and South to South	\$192	33.5	15
	I-15	SR 52	West to South and North to East	\$141	33.0	16
	I-805	SR 54	North to West and East to South	\$157	30.6	17
	I-805	SR 94	East to North and South to East	\$212	26.4	18
	I-5	SR 54	West to South and North to East	\$121	24.8	19
	SR 52	SR 125	North to West and East to South	\$111	23.4	20
	I-5	SR 54	South to East and West to North	\$121	22.3	21
<i>TransNet</i>	SR 15	SR 94	South to West and East to North	\$71	16.1	22

Freeway-to-Freeway Connectors

Freeway Connectors provide “missing link” connections between freeways. Many of the criteria from the highway corridor criteria are also utilized in this category. There are seven criteria for the Freeway Connectors, which are shown in Table M.9. The list of nine freeway-to-freeway connector projects evaluated for the Regional Plan can be seen in Table M.10 in priority order.

Table M.9
Project Evaluation Criteria Freeway Connector

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Innovative Mobility & Planning</i>						
1	Provides Congestion Relief	What is the number of daily person-hours saved from implementing the project?*	Change in daily person-hours saved	20	35	Mobility Choices
2	Project Safety	How does the project compare against the statewide average for collisions?*	Project percentage of crash rates measured against statewide averages	5		Preservation and Safety of the Transportation System
3	Provides Access to Evacuation Routes	How will the project provide evacuation access for regional hazard areas?	Proximity analysis of hazard areas (dam failure, earthquake, flood, landslide, liquefaction, tsunami, and wildfire), weighted by population and employment	10		Preservation and Safety of the Transportation System, Partnerships and Collaboration, Binational Collaboration with Baja California
<i>Healthy Environment & Communities</i>						
4	Minimizes Habitat and Residential Impacts	How will the project minimize negative habitat and residential impacts?*	Proximity analysis of preserve areas, native habitats, and housing (more than two dwelling units per acre)	15	30	Habitat and Open Space Preservation, Environmental Stewardship
5	greenhouse gas and Pollutant Emissions	A) What is the reduction in CO ₂ emissions from implementing the project?*	Reduction in CO ₂ emissions	10		Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation
		B) What is the reduction in smog forming pollutants from implementing the project?*	Reduction in smog forming pollutants	5		

Table M.9 (continued)

Project Evaluation Criteria Freeway Connector

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
<i>Vibrant Economy</i>						
6	Serves Goods Movement and Relieves Freight System Bottlenecks/Capacity Constraints	What is the improved average travel time for freight?*	Total travel time savings for medium and heavy truck classes	15	35	Mobility Choices, Regional Economic Prosperity, Binational Collaboration with Baja California
7	Project Cost-Effectiveness	What is the cost-effectiveness of the project?*	Enhanced cost-effectiveness measure incorporates the following components: <ul style="list-style-type: none"> - Project cost - Generalized delay costs - Fuel costs - greenhouse gas emissions - Smog forming pollutants - Physical activity - Safety 	20		Mobility Choices, Regional Economic Prosperity, Binational Collaboration with Baja California, Preservation and Safety of the Transportation System, Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation

* Provides dual evaluation for both passenger vehicles and trucks.

Table M.10

Freeway Connector Project Rankings

<i>TransNet</i>	Freeway/ Highway	Intersecting Freeway/ Highway	Movement	Unconstrained Cost (\$2014) (millions)	Total Score	Regional Plan Project Rank
	I-5	I-8	East to North and South to West	\$326	88.4	1
<i>TransNet</i>	I-5	SR 78	South to East and West to South	\$275	50.1	2
<i>TransNet</i>	SR 94	SR 125	South to East	\$61	46.4	3
<i>TransNet</i>	SR 94	SR 125	West to North	\$82	34.2	4
<i>TransNet</i>	I-5	SR 56	West to North and South to East	\$275	32.7	5
	I-5	SR 94	North to East	\$133	27.6	6
	I-15	SR 56	North to West	\$102	19.0	7

South Bay Expressway Connector Projects

	SR 905	SR 125	SB 125 to EB 905 & WB 905 to NB 125	\$20	85	1
	SR 905	SR 125	SB 125 to WB 905 & EB 905 to NB 125	\$77	39	2

Rail Grade Separation Criteria

The evaluation criteria for rail grade separation projects were initially developed by the San Diego Regional Traffic Engineers Council (SANTEC) composed of the local jurisdictions' traffic engineers. These criteria have been refined over the years when developing RTPs. The criteria approved by the SANDAG Board for San Diego Forward: The Regional Plan includes two new elements: the *reduction in greenhouse gas emissions* from implementing the project and *project cost-effectiveness*. These elements were added to provide consistency with evaluation criteria for other modes or project types. In addition, the *pedestrian benefits* criterion was refined for the Regional Plan as *pedestrian and bike/disadvantaged communities benefits* to be more inclusive of benefits to cyclists and to consider the share of disadvantaged communities (low-income, minorities, and seniors 75+) within a half mile of the project.

Projects were prioritized based on two criteria categories: project-specific criteria and Regional Housing Needs Assessment (RHNA) housing production. The project-specific criteria are worth 75 percent, and the RHNA housing production criteria comprises 25 percent of the total project score. The criteria and weightings are shown in Table M.11. The final rankings are included in Table M.12.

Table M.11
Project Evaluation Criteria

Rail Grade Separations

San Diego Forward: The Regional Plan Goals	No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Innovative Mobility & Planning	1	Peak-Period Exposure Index (PPEI) Factor	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	Calculation based on vehicle traffic during a selected three-hour period, total blocking delay during same period, and mathematical constant for time period	11	34	Mobility Choices
	2	Peak-Day Total Delay Exposure Index (PDEI) Factor	Product of the existing average daily traffic (ADT), the total number of trains, and an average train crossing delay time factor	Calculation based on average daily traffic, total number of trains, train crossing delay factor, and mathematical constant	11		
	3	Pedestrian and Bike/ Disadvantaged Communities Benefits	A) Number of pedestrians and people biking served in top 4 hours	Grade separation pedestrian bike crossing counts	4		Mobility Choices, Complete Communities
			B) What is the share of disadvantaged communities population in the proximity of the project?	Ratio of disadvantaged communities share of population within 1/2 mile of project compared to disadvantaged communities share of regional population			Mobility Choices, Partnerships and Collaboration
	4	Bus Operations Benefits	Number of buses served an hour, as well as proximity to transit center	Number of buses served by the grade separation	4		Mobility Choices, Complete Communities
5	Benefit to Emergency Services	Proximity to emergency service provider and lack of nearby alternative grade-separated crossing	Proximity analysis based on emergency service providers and alternative grade separation crossing	4		Mobility Choices, Complete Communities	

Table M.11 (continued)

Project Evaluation Criteria

Rail Grade Separations (continued)

San Diego Forward: The Regional Plan Goals	No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Healthy Environment & Communities	6	Accident History	Accident history in the past five years	Number of qualifying accidents involving vehicles, pedestrians, and bikes with trains, not including accidents involved in attempted suicides	11	26	Mobility Choices, Preservation and Safety of the Transportation System
	7	Proximity to Noise Sensitive Receptors	Proximity to sensitive receptors	Proximity analysis based on rail crossing located within 200-500 feet of sensitive receptors	4		Complete Communities, Partnerships and Collaboration
	8	greenhouse gas Emissions	What is the reduction in CO ₂ emissions from implementing the project?	Reduction in CO ₂ emissions	4		Environmental Stewardship, Energy and Climate Change Mitigation and Adaptation
	9	Serves RCP Smart Growth Areas	Is the project located near RCP Smart Growth Areas?	Population and employment in all smart growth areas within 1/4 mile distance of project	7		Complete Communities, Regional Economic Prosperity, Habitat and Open Space Preservation

Table M.11 (continued)

Project Evaluation Criteria

Rail Grade Separations (continued)

San Diego Forward: The Regional Plan Goals	No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Vibrant Economy	10	Truck Freight Operations	Percentage of daily truck traffic	Percentage of daily traffic of Class 4-Class 13 (as defined by FHWA)	3	15	Mobility Choices, Regional Economic Prosperity, Binational Collaboration with Baja California
	11	Funding Request	Percentage of total project costs contributed by the local agency including funds already committed from state, federal, or other source	Percentage of local contribution	4		Partnerships and Collaboration
	12	Project Cost-Effectiveness	What is the cost-effectiveness of the project?	Enhanced cost-effectiveness measure incorporates the following components: - Number of trains per day - AADT - Gate down time - Percent truck traffic - Safety	8		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

Table M.11 (continued)

Project Evaluation Criteria

Rail Grade Separations (continued)

San Diego Forward: The Regional Plan Goals	No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Regional Housing Needs Assessment (RHNA)	13	Regional Housing Needs Assessment (RHNA) (per Board Policy No. 033 adopted January 2012)	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	25	25	Complete Communities, Partnerships and Collaboration

Table M.12

Rail Grade Separation Project Rankings

Name	City	Unconstrained Cost (\$2014) (millions)	Average Daily Traffic	Trains Per Day	Total Score	Regional Plan Rank	Rail Designation
Palomar St	Chula Vista	\$41	44,364	206	62.63	1	Light Rail
Broadway/ Lemon Grove Ave	Lemon Grove	\$82	40,403	144	60.19	2	Light Rail
Ash St	San Diego	\$103	30,575	195	59.81	3	Light Rail
H St	Chula Vista	\$41	41,861	206	59.63	4	Light Rail
Washington St	San Diego	\$41	30,345	195	58.81	5	Light Rail
E St	Chula Vista	\$41	39,783	206	58.63	6	Light Rail
Broadway	San Diego	\$113	27,845	150	55.81	7	Light Rail
Taylor St	San Diego	\$113	42,670	195	55.81	7	Light/Heavy Rail
Euclid Ave	San Diego	\$41	37,000	144	50.81	9	Light Rail
28th St	San Diego	\$41	33,225	206	49.81	10	Light Rail
32nd St	San Diego	\$41	32,470	206	46.81	11	Light Rail
Civic Center Dr	Vista	\$41	34,916	68	44.44	12	Light Rail
Auto Parkway and Mission Ave	Escondido	\$36	27,623	68	42.13	13	Light Rail
Sorrento Valley Blvd	San Diego	\$134	37,990	51	40.81	14	Heavy Rail
Allison Ave/University Ave	La Mesa	\$103	24,700	144	40.50	15	Light Rail
North Dr	Vista	\$31	8,793	68	39.94	16	Light Rail
Vista Village Dr/Main St	Vista	\$62	24,927	68	39.44	17	Light Rail
Severin Dr	La Mesa	\$41	8,311	288	37.94	18	Light Rail
El Camino Real	Oceanside	\$41	38,000	68	36.06	19	Light Rail
Grand Ave/ Carlsbad Village Dr	Carlsbad	\$113	21,113	51	35.00	20	Heavy Rail
Melrose Dr	Vista	\$41	25,921	68	31.94	21	Light Rail
Mar Vista Dr	Vista	\$31	9,665	68	29.94	22	Light Rail
Los Angeles Dr	Vista	\$31	4,291	68	29.94	22	Light Rail
Guajome St	Vista	\$31	4,152	68	26.94	24	Light Rail
Leucadia Blvd	Encinitas	\$93	34,000	51	18.50	25	Heavy Rail
Tamarack Ave	Carlsbad	\$93	10,568	51	18.00	26	Heavy Rail
Cannon Road	Carlsbad	\$93	6,416	51	12.00	27	Heavy Rail

* Downtown heavy rail trench in San Diego (Washington, Laurel, Hawthorn, Ash and Broadway Streets) excluded from rankings due to construction feasibility issues.

Regional Arterial System

The Regional Arterial System (RAS) constitutes that part of the local street and road network which, in conjunction with the system of highways and transit services, provides for a significant amount of mobility throughout the region. The RAS includes roads eligible for the Regional Transportation Congestion Improvement Program (RCTIP) included in the *TransNet* Ordinance and other funding. The RAS was last updated through an extensive process as part of the 2030 RTP. Minor adjustments were requested by some local jurisdictions for the 2050 Regional Plan. A Regional Arterial System has been included as part of the Regional Transportation Plan (RTP) since 1989 and includes 1,090 miles of roads.

Regional arterials are considered to be longer contiguous routes that provide accessibility between communities within the region and which also may allow subregional trips to avoid freeway travel. Regional Plan RAS modifications and additions to the RAS are shown in bold in Table M.13.

Regional arterial system screening criteria

In order to qualify for the updated Regional Arterial System (RAS), arterials must meet at least one of four approved criteria shown below. The first criterion is that the arterial is already included in the existing RAS. Any additions to the network must meet one of the remaining three criteria:

- Provides parallel capacity in high-volume corridors to supplement freeways, state highways, and/or other regional arterials (Corridor)
- Provides capacity and a direct connection between freeways or other regional arterials, ensuring continuity of the freeway, state highways, and arterial network throughout the region without duplicating other regional facilities (Cross-corridor)
- Provides all or part of the route for existing or planned regional and/or corridor transit service that provides headways of 15 minutes or less during the peak-period.

There are certain design characteristics that can help facilitate regional trip movements on the Regional Arterial System. These characteristics can help to facilitate trip movement and include:

- Interconnection and systems management of traffic signals
- Raised or striped medians
- Limitation and separation of left-turn movements
- Limited driveway access and other access controls
- Grade separations at rail crossings
- Shoulders and bikeways to accommodate bike movement
- Pedestrian treatments at intersections
- Priority traffic signal systems for transit service
- Bypass or “queue-jumper” lanes for transit service at critical intersections
- Enhanced transit stops
- Pedestrian facilities designed according to the Regional Pedestrian Design Guidelines
- Modern roundabouts and alternate intersection design where appropriate
- Freeway interchange modifications in accordance with Caltrans standards

A complete listing of the Regional Arterial System is provided in Table M.13 and shown in Figure M.1. All freeway interchanges are considered part of the Regional Arterial System.

Table M.13
Regional Arterials by Jurisdiction

Arterial	Limits	Jurisdiction
1 Cannon Rd	Carlsbad Blvd to Buena Vista Dr	Carlsbad
2 Carlsbad Blvd	Eaton St to La Costa Ave	Carlsbad
3 Carlsbad Village Dr	Interstate 5 to Coast Blvd/Coast Highway	Carlsbad
4 College Blvd	City of Oceanside to Palomar Airport Rd	Carlsbad
5 El Camino Real (S-11)	State Route 78 to Olivenhain	Carlsbad
6 Faraday Ave	Melrose Dr to College Blvd	Carlsbad
7 La Costa Ave	Interstate 5 to El Camino Real	Carlsbad
8 Melrose Dr	City of Vista to Rancho Santa Fe Rd	Carlsbad
9 Olivenhain Rd	Los Pinos Circle to Rancho Santa Fe Rd	Carlsbad
10 Palomar Airport Rd	Carlsbad Blvd to Business Park Dr	Carlsbad
11 Poinsettia Lane	Carlsbad Blvd to Melrose Dr	Carlsbad
12 Rancho Santa Fe Rd	Melrose Dr to Olivenhain Rd	Carlsbad
13 Bay Blvd	E St to Stella St	Chula Vista
14 Beyer Way	Main St to City of San Diego	Chula Vista
15 Bonita Rd	1st Ave to Interstate 805	Chula Vista
16 Broadway	C St to Main St	Chula Vista
17 E St	H St to Bonita Rd	Chula Vista
18 East H St	Hilltop Dr to Mount Miguel Rd	Chula Vista
19 H St	E St to Hilltop Dr	Chula Vista
20 Hunte Parkway	Proctor Valley R to Eastlake Parkway	Chula Vista
21 J St	Marina Parkway to Broadway	Chula Vista
22 L St	Bay Blvd to Interstate 805	Chula Vista
23 La Media Rd	Telegraph Canyon Rd to Main St	Chula Vista
24 Main St	West City limits to Eastlake Parkway	Chula Vista
25 Marina Parkway	H St to J St	Chula Vista
26 Olympic Parkway	Interstate 805 to Hunte Parkway	Chula Vista
27 Orange Ave	Palomar St to Interstate 805	Chula Vista
28 Otay Lakes Rd	Bonita Rd to Wueste Rd	Chula Vista
29 Otay Valley Rd)	Main St to East of State Route 125	Chula Vista

Table M.13 (continued)

Regional Arterials by Jurisdiction

Arterial	Limits	Jurisdiction
30 Palomar St	Bay Blvd to Orange Ave	Chula Vista
31 Paseo Ranchero (Heritage Rd)	East H St to City of San Diego	Chula Vista
32 Proctor Valley Rd	Mt. Miguel Rd to Hunte Parkway	Chula Vista
33 Telegraph Canyon Rd	Interstate 805 to Otay Lakes Rd	Chula Vista
34 Willow St	Sweetwater Rd to Bonita Rd	Chula Vista
35 State Route 75	City of San Diego to City of Imperial Beach	Coronado
36 Via de la Valle	Highway 101 to Jimmy Durante Blvd	Del Mar
37 2nd St	Greenfield Dr to Main St	El Cajon
38 Avocado Ave	Main St to Chase Ave	El Cajon
39 Avocado Blvd	Chase Ave to Dewitt Court	El Cajon
40 Ballantyne St	Broadway to Main St	El Cajon
41 Bradley Ave	Cuyamaca St to County of San Diego	El Cajon
42 Broadway	State Route 67 to East Main St	El Cajon
43 Chase Ave	El Cajon Blvd to Rancho Valle Court	El Cajon
44 Cuyamaca St	City of Santee to Marshall Ave	El Cajon
45 E Main St	Broadway to Lavala Lane	El Cajon
46 El Cajon Blvd	Chase Ave to West Main St	El Cajon
47 Fletcher Parkway	City of La Mesa to State Route 67	El Cajon
48 Greenfield Dr	Ballantyne St to Interstate 8	El Cajon
49 Jamacha Rd	Main St to Grove Rd	El Cajon
50 Marshall Ave	Cuyamaca St to Fletcher Parkway	El Cajon
51 Marshall Ave	Fletcher Parkway to West Main St	El Cajon
52 Marshall Ave	West Main St to Washington Ave	El Cajon
53 Navajo Rd	State Route 125 to Fletcher Parkway	El Cajon
54 Washington Ave	El Cajon Blvd to Granite Hills Dr	El Cajon
55 West Main St	Interstate 8 to Marshall Ave	El Cajon
56 Coast Highway	City of Carlsbad to City of Solana Beach	Encinitas
57 El Camino Real	Olivenhain to Manchester Ave	Encinitas
58 Encinitas Blvd	Coast Highway 101 to El Camino Real	Encinitas
59 La Costa Ave	Coast Highway 101 to Interstate 5	Encinitas
60 Leucadia Blvd	Coast Highway 101 to El Camino Real	Encinitas

Table M.13 (continued)**Regional Arterials by Jurisdiction**

Arterial	Limits	Jurisdiction	
61	Manchester Ave	El Camino Real to Interstate 5	Encinitas
62	Olivenhain Rd	El Camino Real to Los Pinos Circle	Encinitas
63	Barham Dr	Los Amigos to Mission Rd	Escondido
64	Centre City Parkway	Country Club Lane (Interstate 15) to South Escondido Blvd/South Centre City Parkway (Interstate 15)	Escondido
65	Citracado Parkway	Centre City Parkway to State Route 78	Escondido
66	East Valley Parkway	Broadway to Valley Center Grade Rd	Escondido
67	East Via Rancho Parkway	Broadway to Sunset Dr	Escondido
68	El Norte Parkway	Nordahl Rd to Washington Ave	Escondido
69	El Norte Parkway	Woodland Parkway to Rees Rd	Escondido
70	Felicita/17th Ave	Interstate 15 to State Route 78	Escondido
71	Grand Ave/2nd Ave/Valley Blvd	West Valley Parkway to East Valley Parkway	Escondido
72	Hale Ave	Washington Ave to Interstate 15	Escondido
73	Lincoln/Ash Parkway	Broadway to Washington Ave	Escondido
74	Mission Ave	Andreason Dr to Centre City Parkway	Escondido
75	Mission Rd	Barham Dr to Andreason Dr	Escondido
76	Via Rancho Parkway	Del Dios Highway to Sunset Dr	Escondido
77	Washington Ave	State Route 78 to East Valley Parkway	Escondido
78	West Valley Parkway	Claudan Rd to Broadway	Escondido
79	State Route 75	City of Coronado to City of San Diego	Imperial Beach
80	70th St	University Ave to Colony Rd	La Mesa
81	70th St	Saranac St to Interstate 8	La Mesa
82	El Cajon Blvd	73rd St to Interstate 8	La Mesa
83	Fletcher Parkway	Interstate 8 to City of El Cajon	La Mesa
84	Grossmont Center Dr	Interstate 8 to Fletcher Parkway	La Mesa
85	Jackson Dr	La Mesa Blvd to North City limits	La Mesa
86	La Mesa Blvd	University Ave to Interstate 8	La Mesa
87	Lake Murray	Interstate 8 to Dallas St	La Mesa
88	Massachusetts Ave	State Route 94 to University Ave	La Mesa
89	Spring St	Interstate 8 to State Route 125	La Mesa
90	University Ave	69th St to La Mesa Blvd	La Mesa

Table M.13 (continued)**Regional Arterials by Jurisdiction**

Arterial	Limits	Jurisdiction
91 Broadway	Spring St to Lemon Grove Ave	Lemon Grove
92 College Ave	Livingston St to Federal Blvd	Lemon Grove
93 Federal Blvd	College Ave to State Route 94	Lemon Grove
94 Lemon Grove Ave	Viewcrest Dr to State Route 94	Lemon Grove
95 Massachusetts Ave	Broadway to State Route 94	Lemon Grove
96 Massachusetts Ave	Lemon Grove Ave to Broadway	Lemon Grove
97 Sweetwater Rd	Broadway to Troy St	Lemon Grove
98 30th St	National City Blvd to 2nd St	National City
99 Euclid Ave	Cervantes Ave to Sweetwater Rd	National City
100 Harbor Dr	City of San Diego to Interstate 5	National City
101 National City Blvd	Division St to 30th St	National City
102 Palm Ave	Interstate 805 to 18th St	National City
103 Paradise Valley Rd	8th St to Plaza Blvd	National City
104 Plaza Blvd	National City Blvd to 8th St	National City
105 Sweetwater Rd	2nd St to Plaza Bonita Center Way	National City
106 Coast Highway	Interstate 5 to Eaton St	Oceanside
107 College Blvd	North River Rd to State Route 78	Oceanside
108 El Camino Real	Douglas Dr to State Route 78	Oceanside
109 Melrose Dr	State Route 76 to Rancho Santa Fe Rd	Oceanside
110 Mission Ave	Coast Highway to Frazee Rd	Oceanside
111 North River Rd	Douglas Dr to State Route 76	Oceanside
112 North Santa Fe Ave	State Route 76 to Melrose Dr	Oceanside
113 Oceanside Blvd	Coast Highway to Melrose Dr	Oceanside
114 Rancho del Oro Dr	State Route 78 to State Route 76	Oceanside
115 Vandegrift Blvd	North River Rd to Camp Pendleton	Oceanside
116 West Vista Way	Jefferson St to Thunder Dr	Oceanside
117 Camino del Norte	World Trade Dr to Pomerado Rd	Poway
118 Community Rd	Twin Peaks Rd to Scripps Poway Parkway	Poway
119 Espola Rd	Summerfield Lane to Poway Rd	Poway
120 Pomerado Rd	Stonemill Dr to Gateway Park Rd	Poway
121 Poway Rd	Springhurst Dr to State Route 67	Poway

Table M.13 (continued)**Regional Arterials by Jurisdiction**

Arterial	Limits	Jurisdiction
122 Scripps Poway Parkway	Springbrook Dr to Sycamore Canyon Rd	Poway
123 Ted Williams Parkway	Pomerado Rd to Twin Peaks Rd	Poway
124 Twin Peaks Rd	Pomerado Rd to Espola Rd	Poway
125 1st Ave	Harbor Dr to Interstate 5	San Diego City
126 4th Ave	Market St to Washington St	San Diego City
127 5th Ave	Market St to Washington St	San Diego City
128 6th Ave	Ash St to State Route 163	San Diego City
129 10th Ave	State Route 163 to Imperial Ave	San Diego City
130 11th Ave	G St to State Route 163	San Diego City
131 32nd St	Harbor Dr to Wabash Blvd	San Diego City
132 47th St	State Route 94 to Interstate 805	San Diego City
133 54th St	El Cajon Blvd to Euclid Ave	San Diego City
134 70th St	Colony Rd to Saranac St	San Diego City
135 A St	11th Ave to Kettner Blvd	San Diego City
136 Adams Ave	Park Blvd to Interstate 15	San Diego City
137 Aero Dr	State Route 163 to Interstate 15	San Diego City
138 Airway Rd	Caliente Ave to State Route 125	San Diego City
139 Ash St	Harbor Dr to 10th Ave	San Diego City
140 Auto Circle	Camino del Rio North to Camino del Rio South	San Diego City
141 Balboa Ave	Mission Bay Dr to Interstate 15	San Diego City
142 Barnett Ave	Lytton St to Pacific Highway	San Diego City
143 Bernardo Center Dr	Camino del Norte to Interstate 15	San Diego City
144 Beyer Blvd	Main St to East Beyer Blvd	San Diego City
145 Beyer Way	Main St to Palm Ave	San Diego City
146 Britannia Blvd	Otay Mesa Rd to Siempre Viva Rd	San Diego City
147 Black Mountain Rd	Del Mar Heights Rd to Carroll Canyon Rd	San Diego City
148 Broadway	Harbor Dr to 11th Ave	San Diego City
149 Cabrillo Memorial Dr	Cochran St to Cabrillo National Monument	San Diego City
150 Camino del Norte	Camino San Bernardo to World Trade Dr	San Diego City
151 Camino del Rio North	Mission Center Rd to Mission Gorge Rd	San Diego City
152 Camino Ruiz	Mira Mesa Blvd to Miramar Rd	San Diego City

Table M.13 (continued)**Regional Arterials by Jurisdiction**

Arterial	Limits	Jurisdiction
153 Camino Ruiz	State Route 56 to Camino del Norte	San Diego City
154 Camino Santa Fe Ave	Sorrento Valley Blvd to Miramar Rd	San Diego City
155 Canon St	Rosecrans St to Catalina Blvd	San Diego City
156 Carmel Mountain Rd	Camino del Norte to Rancho Peñasquitos Blvd	San Diego City
157 Carmel Mountain Rd	Sorrento Valley Rd to El Camino Real	San Diego City
158 Carmel Valley Rd	North Torrey Pines Rd to El Camino Real	San Diego City
159 Catalina Blvd	Canon St to Cochran St	San Diego City
160 Clairemont Dr	Clairemont Mesa Blvd to Interstate 5	San Diego City
161 Clairemont Mesa Blvd	Interstate 15 to Regents Rd	San Diego City
162 College Ave	Navajo Rd to Livingston St	San Diego City
163 Collwood Blvd	Montezuma Rd to El Cajon Blvd	San Diego City
164 Convoy St	Linda Vista Rd to State Route 52	San Diego City
165 Cesar E. Chavez Parkway	Interstate 5 to Harbor Dr	San Diego City
166 Dairy Mart Rd	State Route 905 to Interstate 5	San Diego City
167 Del Dios Highway	Via Rancho Parkway to Claudan Rd	San Diego City
168 Del Mar Heights Rd	Interstate 5 to Carmel Valley Rd	San Diego City
169 El Cajon Blvd	Park Blvd to 73rd St	San Diego City
170 El Camino Real	Via de la Valle to Carmel Mountain Rd	San Diego City
171 Euclid Ave	54th St to Cervantes Ave	San Diego City
172 F St	State Route 94 to 10th Ave	San Diego City
173 Fairmount Ave	Interstate 8 to State Route 94	San Diego City
174 Friars Rd	Sea World Dr to Mission Gorge Rd	San Diego City
175 Front St	Interstate 5 to Market St	San Diego City
176 G St	State Route 94 to 10th Ave	San Diego City
177 Garnet Ave	Balboa Ave to Mission Bay Dr	San Diego City
178 Genesee Ave	North Torrey Pines Rd to State Route 163	San Diego City
179 Gilman Dr	La Jolla Village Dr to Interstate 5	San Diego City
180 Grand Ave	Mission Blvd to Mission Bay Dr	San Diego City
181 Governor Dr	Interstate 805 to Regents Rd	San Diego City
182 Grape St	North Harbor Dr to Interstate 5	San Diego City
183 Harbor Dr	Pacific Highway to City of National City	San Diego City

Table M.13 (continued)**Regional Arterials by Jurisdiction**

Arterial	Limits	Jurisdiction
184 Hawthorn St	Interstate 5 to North Harbor Dr	San Diego City
185 Heritage Rd	Otay Mesa Rd to Siempre Viva Rd	San Diego City
186 Heritage Rd	Otay Valley Rd to City of Chula Vista	San Diego City
187 Imperial Ave	Park Blvd to Lisbon St	San Diego City
188 Ingraham St	Sunset Cliffs Blvd to Grand Ave	San Diego City
189 Kearny Villa Rd	Pomerado Rd to Aero Dr	San Diego City
190 Kettner Blvd	Interstate 5 to India St	San Diego City
191 La Jolla Blvd	Pearl St to Turquoise St	San Diego City
192 La Jolla Parkway	Torrey Pines Rd to Interstate 5	San Diego City
193 La Jolla Shores Dr	Torrey Pines Rd to North Torrey Pines Rd	San Diego City
194 La Jolla Village Dr	North Torrey Pines Rd to Interstate 805	San Diego City
195 La Media Rd	Otay Mesa Rd to Siempre Viva Rd	San Diego City
196 Lake Murray Blvd	Dallas St to Navajo Rd	San Diego City
197 Laurel St	North Harbor Dr to Interstate 5	San Diego City
198 Lemon Grove Ave	Lisbon St to Viewcrest Dr	San Diego City
199 Linda Vista Rd	Morena Blvd to Convoy St	San Diego City
200 Lytton St	Rosecrans St to Barnett Ave	San Diego City
201 Market St	Harbor Dr to Euclid Ave	San Diego City
202 Mercy Rd	Black Mountain Rd to Interstate 15	San Diego City
203 Mesa College Dr	Interstate 805 to Marlesta Dr	San Diego City
204 Midway Dr	West Point Loma Blvd to Barnett Ave	San Diego City
205 Mira Mesa Blvd	Interstate 805 to Interstate 15	San Diego City
206 Miramar Rd	Interstate 805 to Interstate 15	San Diego City
207 Mission Blvd	Loring St to West Mission Bay Dr	San Diego City
208 Mission Bay Dr	Grand Av to Interstate 5	San Diego City
209 Mission Center Rd	Camino del Rio North to Friars Rd	San Diego City
210 Mission Gorge Rd	Interstate 8 to Highridge Rd	San Diego City
211 Montezuma Rd	Fairmount Ave to El Cajon Blvd	San Diego City
212 Morena Blvd	Balboa Ave to Interstate 8	San Diego City
213 Navajo Rd	Waring Rd to Fanita Dr	San Diego City
214 Nimitz Blvd	Interstate 8 to Harbor Dr	San Diego City

Table M.13 (continued)**Regional Arterials by Jurisdiction**

Arterial	Limits	Jurisdiction
215 North Harbor Dr	Rosecrans St to Grape St	San Diego City
216 North Torrey Pines Rd (S-21)	Carmel Valley Rd to La Jolla Village Dr	San Diego City
217 Ocean View Hills Parkway	Interstate 805 to State Route 905	San Diego City
218 Otay Mesa Rd	State Route 905 to State Route 125	San Diego City
219 Pacific Highway	Sea World Dr to Harbor Dr	San Diego City
220 Palm Ave	State Route 75 to Interstate 805	San Diego City
221 Paradise Valley Rd	Plaza Blvd to Meadowbrook Dr	San Diego City
222 Park Blvd	Imperial Ave to Adams Ave	San Diego City
223 Picador Blvd	Palm Ave to Interstate 905	San Diego City
224 Pomerado Rd	Interstate 15 (north) to Interstate 15 (south)	San Diego City
225 Poway Rd	Interstate 15 to Springhurst Dr	San Diego City
226 Qualcomm Way	Interstate 8 to Friars Rd	San Diego City
227 Rancho Bernardo Rd	Interstate 15 to Summerfield Lane	San Diego City
228 Rancho Carmel Dr	Carmel Mountain Rd to Ted Williams Parkway	San Diego City
229 Rancho Peñasquitos Blvd	State Route 56 to Interstate 15	San Diego City
230 Regents Rd	Genesee Ave to Clairemont Mesa Blvd	San Diego City
231 Rosecrans St	Interstate 8 to Canon St	San Diego City
232 Ruffin Rd	Kearny Villa Rd to Aero Dr	San Diego City
233 Sabre Springs Parkway	Ted Williams Parkway to Poway Rd	San Diego City
234 San Ysidro Blvd	Dairy Mart Rd to East Beyer Blvd	San Diego City
235 Scripps Poway Parkway	Interstate 15 to Springbrook Dr	San Diego City
236 Sea World Dr	West Mission Bay Dr to Morena Blvd	San Diego City
237 Siempre Viva Rd	Heritage Rd to State Route 905	San Diego City
238 Sorrento Valley Blvd	Sorrento Valley Rd to Camino Santa Fe Ave	San Diego City
239 Sports Arena Blvd	Interstate 8 to Rosecrans St	San Diego City
240 Sunset Cliffs Blvd	Interstate 8 to West Mission Bay Dr	San Diego City
241 Ted Williams Parkway	Interstate 15 to Pomerado Rd	San Diego City
242 Texas St	Interstate 8 to University Ave	San Diego City
243 Torrey Pines Rd	Girard Ave to La Jolla Parkway	San Diego City
244 University Ave	State Route 163 to City of La Mesa	San Diego City
245 Valencia Parkway	Market St to Imperial Ave	San Diego City

Table M.13 (continued)**Regional Arterials by Jurisdiction**

Arterial	Limits	Jurisdiction	
246	Via de la Valle	Jimmy Durante Blvd to El Camino Real	San Diego City
247	Vista Sorrento Parkway	Sorrento Valley Blvd to Carmel Mountain Rd	San Diego City
248	Wabash Blvd	32nd St to Interstate 5	San Diego City
249	Washington St	Pacific Highway to Park Blvd	San Diego City
250	Waring Rd	College Ave to Interstate 8	San Diego City
251	West Bernardo Dr	Interstate 15 to Bernardo Center Dr	San Diego City
252	West Mission Bay Dr	Mission Blvd to Sunset Cliffs Blvd	San Diego City
253	Woodman St	State Route 54 to Imperial Ave	San Diego City
254	Alpine Blvd	Interstate 8/Dunbar Lane to Interstate 8/Willows Rd	San Diego County
255	Avocado Blvd	Dewitt Court to State Route 94	San Diego County
256	Bear Valley Parkway	City of Escondido (north) to City of Escondido (south)	San Diego County
257	Bonita Rd	Interstate 805 to San Miguel Rd	San Diego County
258	Borrego Springs/Yaqui Pass Rd (S-3)	Palm Canyon Dr (S-22) to State Route 78	San Diego County
259	Bradley Ave	Wing Ave to Winter Garden Blvd	San Diego County
260	Buckman Springs/Sunrise Highway (S-1)	State Route 94 to State Route 79	San Diego County
261	Buena Creek Rd	South Santa Fe Ave to Twin Oaks Valley Rd	San Diego County
262	Camino del Norte	Rancho Bernardo Rd to City of San Diego	San Diego County
263	Campo Rd	Spring St to Sweetwater Springs/State Route 54	San Diego County
264	Citracado Parkway	Greenwood Place to Interstate 15	San Diego County
265	Cole Grade Rd	State Route 76 to Valley Center Rd	San Diego County
266	Deer Springs Rd	Twin Oaks Valley Rd to Interstate 15	San Diego County
267	Dehesa Rd	Jamacha Rd to Harbison Canyon Rd	San Diego County
268	Dehesa Rd*	Harbison Canyon Rd to Sycuan Rd	San Diego County
269	Del Dios Highway	Via Rancho Parkway to Paseo de Delicias	San Diego County
270	Dye Rd	State Route 67 to San Vicente Rd	San Diego County
271	Dye St	State Route 67 to Dye Rd	San Diego County
272	East Vista Way	State Route 76 to City of Vista	San Diego County
273	El Norte Parkway	Rees Rd to Nordahl Rd	San Diego County
274	Euclid Ave	City of National City to City of National City	San Diego County
275	Gamble Lane	Eucalyptus Ave to City of Escondido	San Diego County

Table M.13 (continued)**Regional Arterials by Jurisdiction**

Arterial	Limits	Jurisdiction
276 Gopher Canyon Rd	East Vista Way to Old Highway 395	San Diego County
277 Jamacha Rd	City of El Cajon to State Route 94	San Diego County
278 Jamacha Rd	State Route 125 to State Route 94	San Diego County
279 Keyes Rd (Southern Traffic Bypass)	San Vicente Rd to State Route 78 (Julian Rd)	San Diego County
280 Lake Jennings Park Rd	State Route 67 to Interstate 8	San Diego County
281 Lake Wohlford Rd	Valley Center Rd (north) to Valley Center Rd (south)	San Diego County
282 Las Posas Rd	City of San Marcos to Buena Creek Rd	San Diego County
283 Lone Star Rd	City of San Diego to Loop Rd	San Diego County
284 Maplevue St	State Route 67 to Lake Jennings Rd	San Diego County
285 Mar Vista Drive	City of Oceanside to City of Vista	San Diego County
286 Melrose Dr	City of Oceanside to City of Vista	San Diego County
287 Mission Rd (S-13)	Interstate 15 to State Route 76	San Diego County
288 Mountain Meadow Rd	Interstate 15/Deer Springs Rd to Valley Center Rd	San Diego County
289 Montezuma Valley/Palm Canyon (S-22)	State Route 79 to Imperial County Line	San Diego County
290 Nordahl Rd	El Norte to City of San Marcos	San Diego County
291 Old Highway 80	Buckman Springs Rd to Interstate 8 (In-ko-pah)	San Diego County
292 Old Highway 80	State Route 79 to Sunrise Highway	San Diego County
293 Old Highway 395/Champagne/ North Centre City	East Mission Rd to City of Escondido	San Diego County
294 Otay Lakes Rd	Wueste Rd to State Route 94	San Diego County
295 Otay Mesa Rd	City of San Diego to Loop Rd	San Diego County
296 Paradise Valley Rd	City of San Diego to Sweetwater Rd	San Diego County
297 Paseo Delicias	El Camino del Norte to Via de la Valle	San Diego County
298 Rancho Bernardo Rd	City of San Diego (west) to City of San Diego (east)	San Diego County
299 San Felipe Rd/Overland Route (S-2)	County Route S-22 to Imperial County Line	San Diego County
300 San Vicente Rd/10th St	State Route 67 (Main St) to Wildcat Canyon Rd	San Diego County
301 Scripps Poway Parkway	Sycamore Canyon Rd to State Route 67	San Diego County
302 Siempre Viva Rd	City of San Diego to Loop Rd	San Diego County
303 South Santa Fe Ave	City of Vista to City of San Marcos	San Diego County
304 Sunrise Highway	State Route 79 to Interstate 8	San Diego County

Table M.13 (continued)**Regional Arterials by Jurisdiction**

Arterial	Limits	Jurisdiction
305 Sweetwater Rd (Bonita)	Willow St to City of National City	San Diego County
306 Sweetwater Rd (Spring Valley)	Jamacha Blvd to Broadway	San Diego County
307 Sweetwater Springs Blvd	Jamacha Blvd to State Route 94	San Diego County
308 Valley Center Rd	State Route 76 to City of Escondido	San Diego County
309 Valley Center New Northern E to W Rd	Cole Grade Rd to Old Highway 395	San Diego County
310 Via de la Valle	City of San Diego to Paseo Delicias	San Diego County
311 Via Rancho Parkway	Del Dios Highway to City of Escondido	San Diego County
312 Wildcat Canyon Rd*	Mapleview St to San Vicente Rd	San Diego County
313 Willow Glen Dr	Jamacha Rd to Dehesa Rd	San Diego County
314 Willows Rd	Interstate 8 to Viejas Casino	San Diego County
315 Winter Gardens Blvd	State Route 67 to 2nd St	San Diego County
316 Barham Dr	Twin Oaks Valley Rd to Los Amigos	San Marcos
317 Borden Rd	Las Posas Rd to Woodland Parkway	San Marcos
318 Buena Creek Rd	Twin Oaks Valley Rd to Sunny Vista Lane	San Marcos
319 Discovery St	San Marcos Blvd to Twin Oaks Valley Rd	San Marcos
320 Las Posas Rd	West San Marcos Blvd to North City Limits	San Marcos
321 Mission Rd	Pacific St to Barham Dr	San Marcos
322 San Elijo Rd	Twin Oaks Valley Rd to Rancho Santa Fe Rd	San Marcos
323 Rancho Santa Fe Rd	Mission Rd to Melrose Dr	San Marcos
324 San Marcos Blvd	Business Park Dr to Mission Rd	San Marcos
325 South Santa Fe Ave	Smilax Rd to Pacific St	San Marcos
326 Twin Oaks Valley Rd	Deer Springs Rd to Questhaven Rd	San Marcos
327 Woodland Parkway	Barham Dr to El Norte Parkway	San Marcos
328 Cuyamaca St	Mission Gorge Rd to City of El Cajon	Santee
329 Magnolia Ave	Mast Blvd to Prospect Ave/State Route 67	Santee
330 Mast Blvd	State Route 52 to Magnolia Ave	Santee
331 Mission Gorge Rd	City of San Diego to Magnolia Ave	Santee
332 Woodside Ave	Magnolia Ave to State Route 67	Santee
333 Coast Highway	City of Encinitas to City of Del Mar	Solana Beach
334 Lomas Santa Fe Ave	Interstate 5 to Coast Highway	Solana Beach

Table M.13 (continued)**Regional Arterials by Jurisdiction**

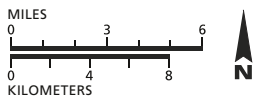
Arterial	Limits	Jurisdiction
335 Bobier Dr	North Melrose Dr to East Vista Way	Vista
336 Cannon Rd (Mar Vista Dr)	South Melrose Dr to State Route 78	Vista
337 East Vista Way	Escondido Ave to County of San Diego	Vista
338 Emerald Dr	Sunset Dr to State Route 78	Vista
339 Escondido Ave	State Route 78 to East Vista Way	Vista
340 North Melrose Dr	State Route 78 to Bobier Dr	Vista
341 North Santa Fe Ave	Main St to North Melrose Dr	Vista
342 Olive Ave	Emerald Dr to Vista Village Dr	Vista
343 South Melrose Dr	City of Carlsbad to State Route 78	Vista
344 South Santa Fe Ave	Main St to County of San Diego	Vista
345 Sycamore Ave	South Santa Fe Ave to South Melrose Dr	Vista
346 Thibodo Rd	Mar Vista Dr (Cannon Rd) to Sycamore Ave	Vista
347 Vista Village Dr	State Route 78 to Escondido Ave	Vista
348 West Vista Way	Thunder Dr to Vista Village Dr	Vista

* Included in the Regional Arterial System contingent upon being designated as a four-lane arterial by the County of San Diego.



Figure M.1
Regional Arterial System
 October 2015

- Freeways and Highways
- Regional Arterials



Federal Guidance

The Regional Plan considers projects and strategies that support the eight areas described in 23 U.S. §134(h). Many of these topics have been incorporated into the evaluation criteria as highlighted in the sections below. Additional consideration is included in the performance measures which are discussed in Appendix N.

Economic vitality

Each project category includes a project cost-effectiveness criterion. The transit, highway, and connector cost-effectiveness criterion compare the project cost to the monetized benefits/dis-benefits of: fuel costs, greenhouse gas emissions, smog-forming pollutants, physical activity, safety, generalized delay costs (highway and connectors), as well as the value of jobs created by the construction of the project.

Transportation safety

The evaluation of transportation safety is included in the Highway Corridor criteria where the percentage of collisions is compared against the statewide average. This approach is consistent with the California Strategic Highway Safety Plan (SHSP). The value of the reduction or increase in injury and fatal accidents is also included in the cost-effectiveness criterion in the Highway Corridor, Transit Services, Freeway and HOV Connectors criteria, and is also incorporated into the Rail Grade Separations criteria.

Transportation security

Transportation security is specifically addressed under the evaluation of proximity analysis of hazard areas (dam failure, earthquake, flood, landslide, liquefaction, tsunami, and wildfire), weighted by population and employment. This criterion is included under both the Highway Corridor and Transit Services project evaluation.

Accessibility and mobility

Accessibility and mobility are incorporated into a number of the project evaluation criteria. Accessibility to jobs, school, recreational areas and beach, and Indian reservations is evaluated. Travel time savings is also included in the highway and connector criteria. The active transportation and transit criteria evaluate the system wide increase in the respective active transportation or transit trips resulting from the project.

Environment and quality of life

Preservation of the environment is incorporated into a number of criteria including reduction in greenhouse gas and smog forming pollutants, and minimizing habitat and residential impacts. The value of greenhouse gas and smog forming pollutants emissions are also monetized and included in the cost-effectiveness criterion.

The criteria also awards points to projects which serve smart growth areas as identified in the Regional Comprehensive Plan. For the first time, a specific measure for public health was integrated into the evaluation criteria, which measures the increase in time engaged in moderate transportation-related physical activity. Access to jobs and amenities, cleaner air and preserved habitats, travel time savings, and physical activity all help to improve the quality of life in the San Diego region.

Integration and connectivity

The project evaluation criteria evaluates enhanced integration of the transportation system for both people and freight. A goods movement criterion quantifies the total travel time savings for medium and heavy trucks for highway and freeway connector projects.

Multimodal integration of the transportation system for people is also evaluated by the project's provision of access to other transit, highway, rail grade separation, or active transportation projects.

Promote efficient system management

The Regional Plan strives to provide an efficient transportation system for the movement of people and goods. Criteria are included which quantify the travel time savings for people and goods and also award points for highway projects which include Managed Lanes, which can be optimally operated to serve transit, carpools, and, when capacity is available, single occupant vehicles (for a fee). The Regional Plan also funds projects and programs including Transportation Systems Management and other strategies to assure efficient management and operation of the transportation system. Additional information and funding levels for these and all transportation projects can be viewed in Chapter 3.

Preserve existing transportation system

The Regional Plan funds projects and programs to assure the maintenance and operation of the transportation system. Additional information and funding levels for these and all transportation projects can be viewed in Chapter 3.

Endnotes

- ¹ Working with the *San Diego Forward: The Regional Plan* community-based organization network, “Disadvantaged Communities” are defined as low-income (200 percent of Federal Poverty Rate), minority, seniors (75+), and single-parent households with children under 18 years of age.