REVISED

AGENDA ITEM NO. 17-10-4

REGIONAL PLANNING COMMITTEE

OCTOBER 6, 2017

ACTION REQUESTED: DISCUSSION

2019 SAN DIEGO FORWARD: THE REGIONAL PLAN DRAFT UNCONSTRAINED TRANSPORTATION NETWORK AND PROPOSED REVENUE CONSTRAINED NETWORK SCENARIOS DEVELOPMENT PROCESS

File Number 3102000

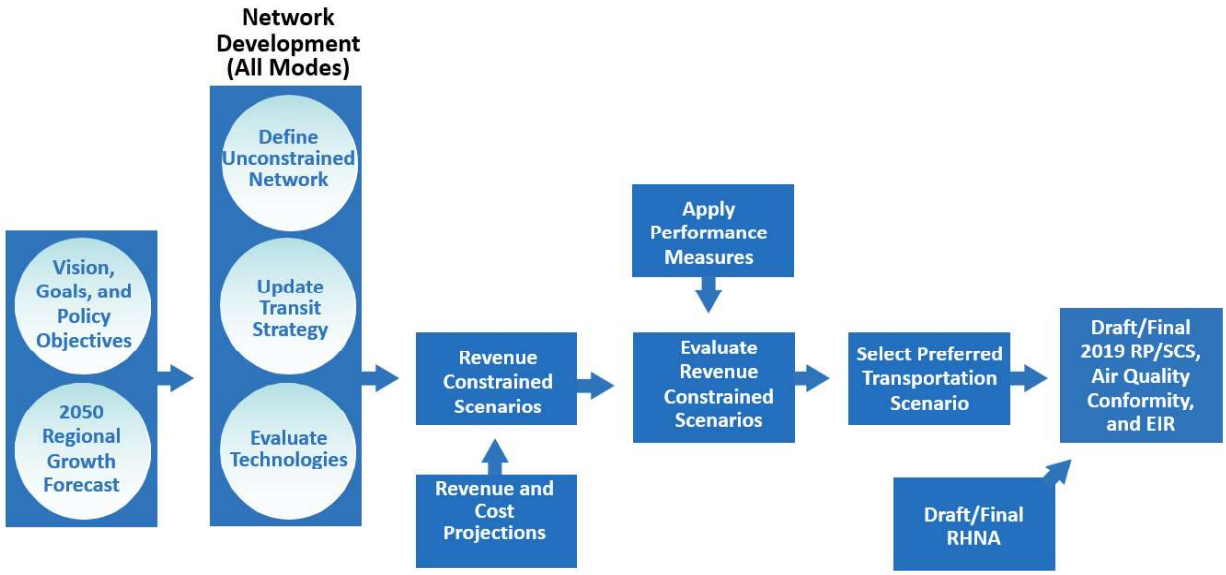
Introduction

SANDAG currently is updating San Diego Forward: The Regional Plan (Regional Plan). At its September 1, 2017, meeting, the Regional Planning Committee discussed the vision, goals, and policy objectives to guide the Regional Plan update and ideas for inclusion in the Emerging Transportation Technologies whitepaper. This report describes the current Unconstrained Transportation Network, which identifies the region's needs for transit, highway, active transportation, goods movement, arterial improvements, and operations to meet travel demand through 2050. This report also discusses options for developing transportation scenarios for the 2019 Regional Plan that could be implemented with anticipated revenues.

Discussion

Draft Unconstrained Transportation Network

The following flowchart visually depicts the network development process beginning with the Unconstrained Transportation Network, followed by Revenue Constrained Transportation Network Scenarios, and culminating with the Preferred Revenue Constrained Transportation Network.



Establishing the Unconstrained Transportation Network is an important step in developing the Regional Plan because it captures the broadest multimodal network from which Revenue Constrained Network Scenarios can be developed. The Unconstrained Transportation Network in the 2015 Regional Plan included updates of several transit routes based on the Urban Area Transit Strategy completed in 2011, reflected the Locally Preferred Alternative selected by Caltrans and the Federal Highway Administration for the North Coast Corridor project (four Managed Lanes) and the State Route 125 toll road franchise acquired by SANDAG in 2011, and included operational improvements on State Route 76 between the Pala Reservation and State Route 79.

For the development of the 2019 Regional Plan, the Draft Unconstrained Transportation Network has been updated to take out those projects that have been fully implemented since the adoption of the 2015 Regional Plan in October 2015 or currently are under development, as shown in Attachment 1. Staff is proposing no other changes to the Unconstrained Transportation Network given that the Regional Plan will cover the same period through 2050. In addition, preliminary analysis of the Department of Finance population projections show trends similar to those included in the 2015 Regional Plan. Additionally, employment growth has exhibited relative stability since the 2015 Regional Plan projections were developed.

Attachments 2 through 5 illustrate modal components of the Draft Unconstrained Transportation Network (Transit, Highway, Active Transportation, and Goods Movement), which represent the menu of projects from which the revenue constrained scenarios can be developed. The Draft Unconstrained Transportation Network also includes local streets and roads improvements, intermodal transit centers, rail grade separations, and strategies to manage the overall transportation system including transportation technologies as well as demand management and systems management solutions.

Revenue Constrained Transportation Network Scenarios Development Process

In the current 2015 Regional Plan, SANDAG utilized transportation project evaluation criteria informed by the plan's goals as elements of a multistep process to evaluate and prioritize transportation projects by mode. The project rankings are used to guide the development of Revenue Constrained Transportation Network Scenarios. The Revenue Constrained Transportation Network Scenarios include various combinations of projects that could be implemented with the revenues that are reasonably expected through 2050. Attachment 6 includes the project evaluation criteria developed for the 2015 Regional Plan.

Although not required by state or federal regulations, the criteria for the 2015 Regional Plan were developed to incorporate substantial changes in travel demand modeling tools, and the new vision, goals, and policy objectives framework established by the Board of Directors. An extensive effort was conducted to develop this project evaluation criteria with input from the Active Transportation Working Group, Cities/County Transportation Advisory Committee, community-based organization partners, Freight Stakeholders Working Group, Independent Taxpayer Oversight Committee, Public Health Stakeholders Working Group, Regional Planning Technical Working Group, and the Tribal Transportation Working Group. Input also was sought from partner agencies including Caltrans, the Metropolitan Transit System, the North County Transit District, and at the Regional Plan workshops held throughout the region. Additionally, a peer review panel was convened to review and assess the criteria, and to consider feedback and input that was incorporated into the criteria. The panelists, which included experts from academia, other Metropolitan Planning Organizations (MPOs), and the private sector, provided recommendations for revision and enhancement to the draft criteria.

Based on the extensive work during the development of the 2015 Regional Plan on the project evaluation criteria, it is recommended that the 2019 Regional Plan use the existing evaluation criteria and focus on the complex revenue constrained network development process. This approach would allow the Regional Planning and Transportation Committees and the Board more time to weigh in on fiscally Constrained Transportation Network Scenarios. There are several new themes to consider in the process including the incorporation of new transportation technologies into the transportation networks, the inclusion of the *TransNet* Ten-Year Review (as required by the *TransNet* Ordinance), and the need to meet potentially more stringent greenhouse gas emissions reduction targets currently being updated by the California Air Resources Board for SANDAG and the other MPOs in California. Overall network connectivity, project readiness, and funding availability, will continue to guide the development of the Revenue Constrained Transportation Network Scenarios. All network scenarios will continue to be designed to support local land uses as reflected in local land use plans.

The development of network scenarios that are fiscally or revenue constrained will include near-term projects that can help provide interim benefits to travel corridors. For example, interim auxiliary lanes could potentially be advanced to relieve congestion on a corridor earlier than the additional general purpose or managed lanes are expected. Similarly, interim transit improvements can be made prior to the construction of the ultimate project such as Light Rail service starting first as *Rapid*. In this sense, benefits can be achieved much earlier in the process.

Network Performance Measures

A second set of metrics, known as network performance measures, typically is used to help the Policy Advisory Committees and the Board assess the relative performance of each of the Revenue Constrained Transportation Network Scenarios to inform the Board's selection of a preferred Revenue Constrained Transportation Network. The Regional Plan is developed based on the preferred Revenue Constrained Transportation Network. Attachment 7 includes the network performance measures developed for the 2015 Regional Plan.

The network performance measures differ from the project evaluation criteria, which exclusively are used to rank individual projects by mode rather than evaluating the whole transportation network. Informed by the Board's vision and goals, the performance measures can help provide a "scorecard" to compare the network scenarios. It is anticipated that the network performance measures would need to be updated for the 2019 Regional Plan, including the solicitation of feedback from SANDAG working groups, the network of community-based organizations, the public, potential peer group review, Policy Advisory Committees, and the Board of Directors.

A review of the network performance measures will ensure that SANDAG aligns the network performance measures with the performance monitoring measures now required by the federal Moving Ahead for Progress in the 21st Century Act and the Fixing America's Surface Transportation Act. These acts established a new performance and outcome-based program, which includes national performance goals for the federal-aid highway program in the following areas: safety, infrastructure condition, congestion reduction, system reliability, freight movement and economic vitality, and environmental sustainability.

Next Steps

Policy Advisory Committee feedback on the Draft Unconstrained Transportation Network and proposed process to develop the Revenue Constrained Network Scenarios will be presented to the Board. Pending Board action, staff would begin updating transportation network performance measures over the next several months, concurrent with the update to the Emerging Transportation Technologies whitepaper. Draft performance measures would be brought to the Policy Advisory Committees in early 2018. Additionally, the Regional Planning and Transportation Committees will be asked to provide input and direction into the revenue estimates that will be used to develop the Revenue Constrained Transportation Scenarios.

CHARLES "MUGGS" STOLL
Director of Land Use and Transportation Planning

Attachments:
1. Draft Projects Completed and Under Development since the 2015 Adoption of San Diego Forward: The Regional Plan – October 2017
2. Draft 2050 Unconstrained Transit Network – October 2017
3. Draft 2050 Unconstrained Managed Lanes and Highway Network – October 2017
4. Draft 2050 Unconstrained Regional Bike Network – October 2017
5. Draft Unconstrained Goods Movement Strategy – October 2017
6. Project Evaluation Criteria from the 2015 Regional Plan
7. Network Performance Measures from the 2015 Regional Plan

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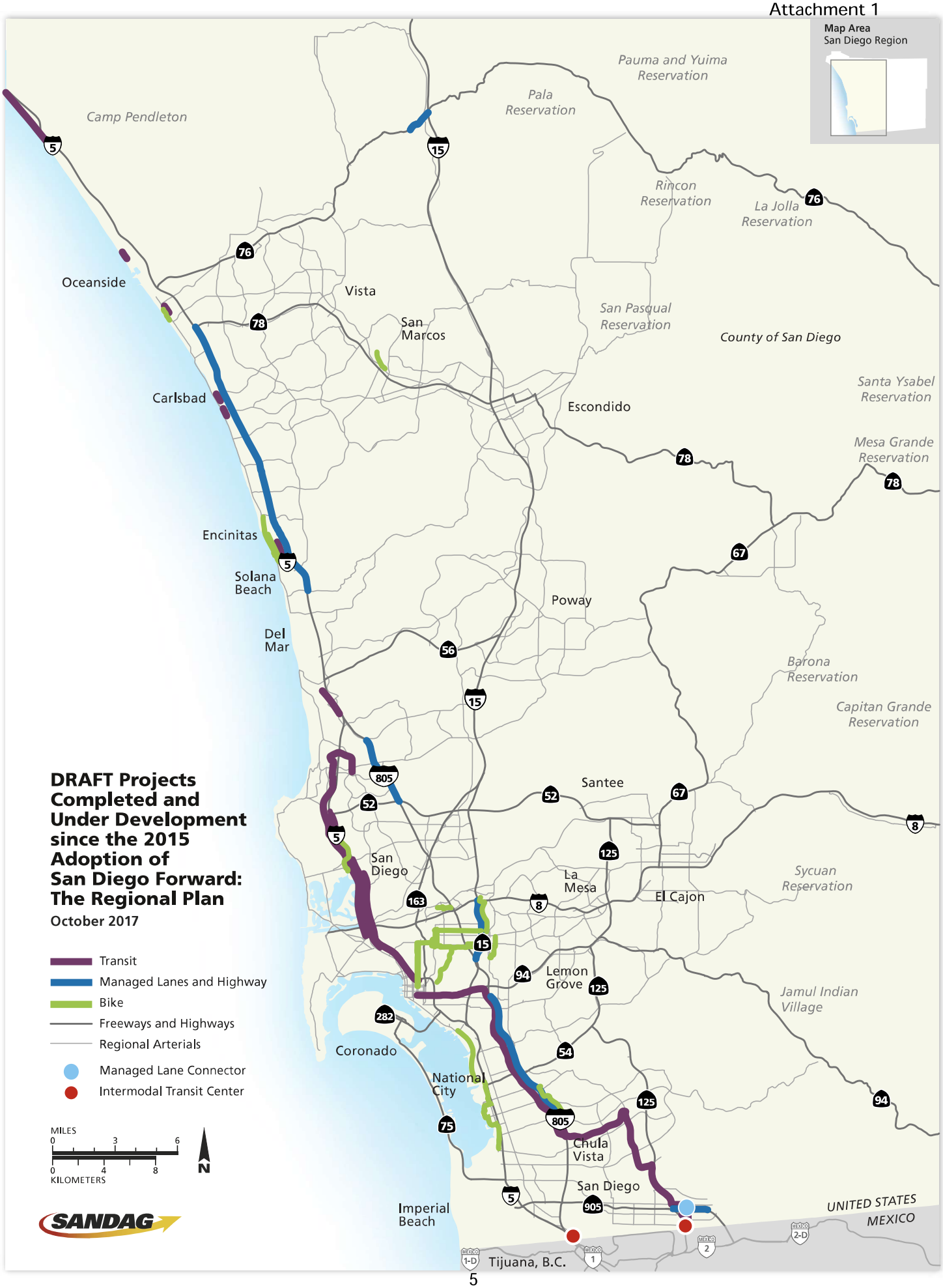
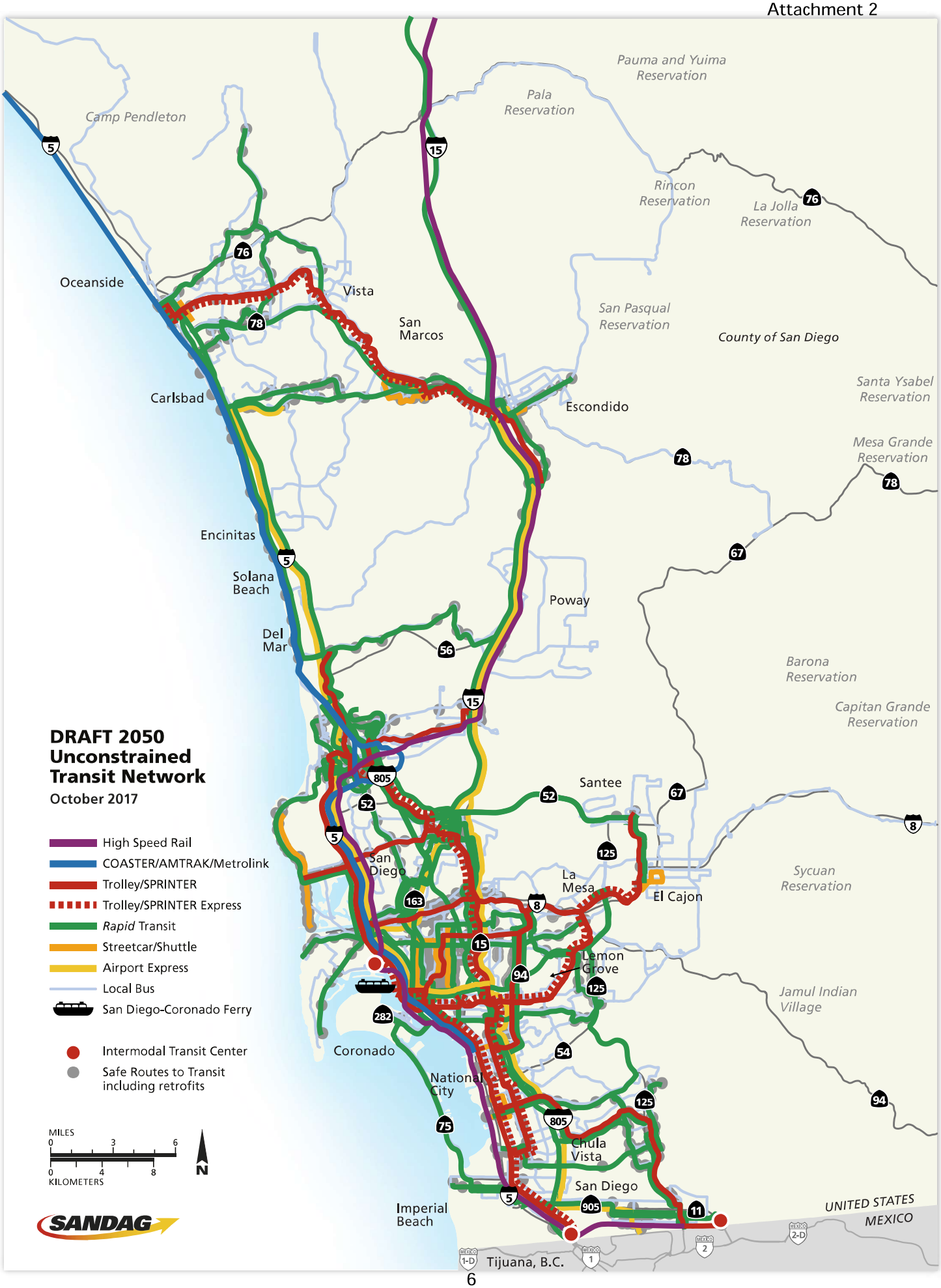

Map Area
San Diego Region
Camp Pendleton
Pauma and Yuima Reservation
Pala Reservation
Rincon Reservation
La Jolla Reservation
Oceanside
Vista
San Marcos
San Pasqual Reservation
County of San Diego
Carlsbad
Escondido
Santa Ysabel Reservation
Mesa Grande Reservation
Encinitas
Solana Beach
Del Mar
Poway
Barona Reservation
Capitan Grande Reservation
Santee
Sycuan Reservation
San Diego
La Mesa
El Cajon
Lemon Grove
Jamul Indian Village
Coronado
National City
Chula Vista
Imperial Beach
Tijuana, B.C.
UNITED STATES
MEXICO
DRAFT Projects Completed and Under Development since the 2015 Adoption of San Diego Forward: The Regional Plan
October 2017
Transit
Managed Lanes and Highway
Bike
Freeways and Highways
Regional Arterials
Managed Lane Connector
Intermodal Transit Center
MILES
0 3 6
0 4 8
KILOMETERS
N
SANDAG


DRAFT 2050
Unconstrained
Transit Network
October 2017
High Speed Rail
COASTER/AMTRAK/Metrolink
Trolley/SPRINTER
Trolley/SPRINTER Express
Rapid Transit
Streetcar/Shuttle
Airport Express
Local Bus
San Diego-Coronado Ferry
Intermodal Transit Center
Safe Routes to Transit including retrofits
MILES
0 3 6
0 4 8
KILOMETERS
N
SANDAG
Camp Pendleton
Pauma and Yuima Reservation
Pala Reservation
Rincon Reservation
La Jolla Reservation
San Pasqual Reservation
County of San Diego
Santa Ysabel Reservation
Mesa Grande Reservation
Barona Reservation
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Del Mar
Poway
Santee
La Mesa
El Cajon
Lemon Grove
San Diego
Coronado
National City
Chula Vista
Imperial Beach
Tijuana, B.C.
UNITED STATES
MEXICO


Map Area
San Diego Region
DRAFT 2050
Unconstrained
Managed Lanes and
Highway Network
October 2017
Existing Managed Lanes
Managed Lanes
General Purpose Lanes
Toll Lanes
Operational Improvements
Existing Facility
Freeway Connectors
ML Connectors
Freeway & ML Connectors
Bicycle/Pedestrian Improvements at Freeway Interchanges
C = Conventional Highway
F = Freeway
ML = Managed Lanes
T = Toll Road
R = Reversible Lanes
OPS = Operational Improvements
E = Expressway
MILES
KILOMETERS
N
SANDAG
Camp Pendleton
Oceanside
Carlsbad
Encinitas
Solana Beach
Del Mar
Vista
San Marcos
Escondido
Pala Reservation
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Sycuan Reservation
Poway
Santee
El Cajon
La Mesa
Lemon Grove
Jamul Indian Village
San Diego
Coronado
National City
Chula Vista
Imperial Beach
Tijuana, B.C.
UNITED STATES
MEXICO
2C+OPS
4C
4C/6C+OPS
8F+4T
6E
8F+4ML
6F+2ML
10F+4ML
4F
8F/14F+4ML
8F/14F+ 4ML
6F+3ML(R)
6F+3ML(R)
6F
6F/8F
6F/8F +OPS
8F+ 2ML
8F+2ML
6F+2ML
8F/10F+ 2ML
8F+ 4ML
8F/10F+OPS
8F+OPS
6F+ 2ML
8F/10F +2ML
10F+2ML
6C
6F/8F+ 2ML
8F
4T


Map Area
San Diego Region
Camp Pendleton
Pauma and Yuima Reservation
Pala Reservation
Rincon Reservation
La Jolla Reservation
Oceanside
Vista
San Marcos
San Pasqual Reservation
County of San Diego
Carlsbad
Escondido
Santa Ysabel Reservation
Mesa Grande Reservation
Encinitas
Solana Beach
Del Mar
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Barona Reservation
Capitan Grande Reservation
Santee
Sycuan Reservation
San Diego
La Mesa
El Cajon
Lemon Grove
Jamul Indian Village
Coronado
National City
Chula Vista
Imperial Beach
Tijuana, B.C.
UNITED STATES
MEXICO
DRAFT 2050 Unconstrained Regional Bike Network
October 2017
Class I - Bike Path
Cycle Track
Bike Boulevard
Enhanced Class II - Bike Lane
Enhanced Class III - Bike Route
Freeways and Highways
Regional Arterials
MILES
0 3 6
0 4 8
KILOMETERS
N
SANDAG


Map Area
San Diego Region
Pechanga Reservation
Camp Pendleton
County of San Diego
Pauma and Yuima Reservation
Pala Reservation
Rincon Reservation
San Pasqual Reservation
Viejas Reservation
Sycuan Reservation
Jamul Indian Village
Oceanside
Vista
San Marcos
Carlsbad
Escondido
Encinitas
Solana Beach
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Poway
Santee
San Diego
La Mesa
El Cajon
Coronado
National City
Chula Vista
Imperial Beach
San Diego
Tijuana, B.C.
Tecate
UNITED STATES
MEXICO
DRAFT Unconstrained Goods Movement Strategy
October 2017
Commercial/Industrial Land Use
2012 San Diego Data and 2013 Baja California Data
Highway/Road/Managed Lanes
Freight Rail
Burlington Northern Santa Fe Railway (BNSF)
shared with COASTER/SPRINTER
San Diego and Imperial Valley Railroad (SDIY)
shared with MTS Trolley
Baja California Railroad, Inc. (BJRR) in Mexico/Desert Line in USA
Air Cargo
Port of San Diego
Land Port of Entry
San Ysidro Rail Port of Entry
Otay Mesa Truck Port of Entry
Tecate Truck Port of Entry
Otay Mesa East
Future Truck Port of Entry
Logistics Center/Yard (Concept)
not location-specific
Potential Truck Rest Stops (Concept)
not location-specific
MILES
KILOMETERS
N
SANDAG
Key Project Locations
Air Cargo
1 San Diego International Airport Access Improvements
Border
2 Southbound Truck Route Improvements
3 SR 11/Future Otay Mesa East Border Truck Crossing
4 SR 125
Maritime
5 Port Terminal and Access Improvements Harbor Drive
Rail
6 LOSSAN/SPRINTER Burlington Northern Santa Fe Railroad (BNSF)
7 Baja California Railroad, Inc. (BJRR) in Mexico/Desert Line in USA
Freeway/Highway
8 I-5
9 I-15
10 I-805
11 SR 94/125, I-8
12 SR 52/54/56/94
13 SR 78

Table M.1

Project Evaluation Criteria Highway Corridors

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Innovative Mobility & Planning						
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
Healthy Environment & Communities						
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
Vibrant Economy						
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.3

Project Evaluation Criteria Transit Services

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Innovative Mobility & Planning						
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
Healthy Environment & Communities						
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
Vibrant Economy						
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		Complete Communities, Habitat and Open Space Preservation

Table M.3 (continued)

Project Evaluation Criteria Transit Services

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Vibrant Economy (continued)						
		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: - 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.5

Project Evaluation Criteria Active Transportation

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Innovative Mobility & Planning						
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
Healthy Environment & Communities						
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
Vibrant Economy						
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: - 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.7

Project Evaluation Criteria Managed Lane Connector

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Innovative Mobility & Planning						
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
Healthy Environment & Communities						
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		
Vibrant Economy						
6	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	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.9

Project Evaluation Criteria Freeway Connector

No.	Criteria	Description	Proposed Calculation	Max Score	Total Percent	Policy Objectives
Innovative Mobility & Planning						
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
Healthy Environment & Communities						
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
Vibrant Economy						
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: - 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.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		Mobility Choices
	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 Partnerships and Collaboration
	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		
	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 N.1

San Diego Forward: The Regional Plan: Performance Measures

Goals	Policy Objectives	Key Questions	Performance Measure
Innovative Mobility and Planning	Mobility Choices	1. Are travel times reduced?	1A. Average peak-period travel time to work (drive alone, carpool, transit, bike, and walk) (Communities of Concern and Non-Communities of Concern)
			1B. Daily vehicle delay per capita (minutes)
		2. Are more people walking, biking, using transit and sharing rides?	2A. Increase in walk, bike, transit, and carpool mode share
		3. Is the transportation system safer?	3A. Annual projected number of vehicle (driver/passenger) injury/fatal collisions per vehicle miles traveled (VMT)
			3B. Annual projected number of bike/pedestrian injury/fatal collisions per bike/pedestrian miles traveled (BPMT)
Vibrant Economy	Regional Economic Prosperity, Partnerships and Collaboration	4. Do the transportation investments help to improve the regional economy?	4A. Benefit/Cost Ratio of transportation investments
			4B. Average truck/commercial vehicle travel times to and around regional gateways and distribution hubs (minutes)
		5. Are the relative costs of transportation changing similarly for all communities?	5A. Change in percent of income consumed by transportation costs (communities of Concern and Non-Communities of Concern)
		6. Are connections to neighboring counties, Mexico, tribal lands, and military bases/ installations improved?	6A. Average travel times to/from tribal lands (minutes)
			6B. Average travel times to/from Mexico (minutes)
			6C. Average travel times to/from neighboring counties (Imperial, Orange, Riverside) (minutes)
			6D. Average travel times to/from military bases/installations (minutes)

Table N.1 (continued)

San Diego Forward: The Regional Plan: Performance Measures

Goals	Policy Objectives	Key Questions	Performance Measure
Healthy Environment and Communities	Complete Communities, Habitat and Open Space Preservation, Environmental Stewardship	7. Does the transportation network support smart growth?	7A. Percentage of population/employment within 0.5 miles of high frequency (<=15 min peak and midday) transit stops (Communities of Concern and Non-Communities of Concern)
			7B. Percentage of population/employment within 0.5 miles of a transit stop (Communities of Concern and Non-Communities of Concern)
			7C. Percentage of population/employment within 0.25 miles of a bike facility (class I and II, cycletrack, and bike boulevard) (Communities of Concern and Non-Communities of Concern)
			7D. Average travel distance to work (drive alone, carpool, transit, bike, and walk) (miles)
			7E. Total time engaged in transportation-related physical activity per capita (minutes)
			7F. Percent of population engaging in more than 20 minutes of daily transportation related physical activity
		8. Is access to jobs and key destinations improving for all communities?	8A. Percent of population within 30 minutes of jobs and higher education (Communities of Concern and Non-Communities of Concern)
			8B. Percent of population within 15 minutes of goods and services (retail, medical, parks, and beaches) (Communities of Concern and Non-Communities of Concern)
		9. Is the region's air quality improving?	9A. On-road smog-forming pollutants (pounds/day) per capita
		10. Are GHG emissions reduced?	10A. On-road CO2 emissions (pounds/day) per capita and regionwide