

Appendix N: Network Development and Performance

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Network Development and Performance

This appendix describes how the transportation system for the 2025 Regional Plan was developed and its resulting modeled performance. The network was developed through an iterative process that started with the amended 2021 Regional Plan and used recent data and stakeholder feedback to refine the projects, programs, and policies¹. The resulting network provides a balance between the projects that the region wants with the latest state and federal mandates that SANDAG is required to meet.

No-Build Projects

Before identifying investments for the Regional Plan that support regional goals, staff first identified projects to include in the “No-Build” scenario, which includes projects that already exist as part of the current transportation network and No-Build projects. No-Build projects are projects that would be built in the region in absence of the Regional Plan because they have recently been completed or are in progress and fully funded through construction. A list of No-Build projects is included in Table N.1. Performance reporting for future years compares No-Build and Build (2025 Regional Plan) scenarios to demonstrate the contribution of the projects and programs included in the 2025 Regional Plan.

Table N.1: No-Build Projects

Category	Project	Description	Note
Active Transportation	Pershing Bikeway	Downtown, Golden Hill, Balboa Park, North Park	Completed
Active Transportation	Bayshore Bikeway: Barrio Logan	Barrio Logan, Downtown, 32nd Street Naval Station	Under Construction
Active Transportation	Border to Bayshore Bikeway	Imperial Beach, San Ysidro	Under Construction
Active Transportation	Imperial Avenue Bikeway	East Village, Sherman Heights, Grant Hill, Mountain View	Under Construction
Active Transportation	Inland Rail Trail: Phase 3	Vista	Under Construction
Active Transportation	San Diego River Trail: Stadium Segment	Mission Valley, San Diego State University West	Completed
Active Transportation	Uptown Bikeways: Eastern Hillcrest Bikeways	Hillcrest	Under Construction
Active Transportation	Uptown Bikeways: Washington Street and Mission Valley Bikeways	Mission Hills, Hillcrest, Mission Valley	Under Construction

¹ Policies and programs are described in Appendix A.

Category	Project	Description	Note
Active Transportation	North Park/Mid-City Bikeways: University Bikeway	City Heights, Rolando, La Mesa	Under Construction
Active Transportation	Central Avenue Bikeway	City Heights, Normal Heights, Kensington-Talmadge	Under Construction
Active Transportation	North Park/Mid-City Bikeways: Howard Bikeway	North Park, City Heights	Final Design
Active Transportation	Coastal Rail Trail Encinitas: E Street to Chesterfield Drive (E Street-Santa Fe)	Encinitas	Final Design
Active Transportation	North Park/Mid-City Bikeways: Orange Bikeway	North Park, City Heights	Final Design
Active Transportation	Uptown Bikeways: Robinson Bikeway	Hillcrest, North Park	Final Design
Active Transportation	San Diego River Trail: Riverwalk Segment	Mission Valley	Under Construction
Active Transportation	Chollas Creek Bikeway to Bayshore Bikeway	Encanto, Southeastern San Diego, Barrio Logan, and Mid-City (select segments)	Final Design
Active Transportation	Coastal Rail Trail – Gilman Connector	La Jolla, City of San Diego	Final Design
Active Transportation	North Coast Bike Trail	Gilman Drive to San Luis Rey River Trail (select segments)	Final Design
Complete Corridors	I-5 North Coast Corridor (I-5/I-805 Merge to SR 78)	<ul style="list-style-type: none"> One Carpool/High Occupancy Vehicle (HOV) lane in each direction from Manchester Avenue to Palomar Airport Road. Construction Completion: 2022 One Carpool/HOV lane in each direction from Palomar Airport Road to SR 78. Construction Completion: 2023 	CAL09; Completed
Complete Corridors	SR 94/SR 125 Interchange/Arterial Improvements	Add auxiliary lanes	CAL68
Complete Corridors	SR 52 Operational Improvements	Santo Road to I-15 eastbound auxiliary lanes	CAL536
Complete Corridors	SR 11 (SR 125 to Enrico Fermi Drive)	New roadway between SR 125 and Enrico Fermi Drive	V11 (SANDAG ID: 1201101, 1201102, 1201103, 1201105)

Category	Project	Description	Note
Complete Corridors	SR 11/SR 905 Connectors	Southbound SR 125 to southbound SR 905 and southbound SR 125 to eastbound SR 11	CAL325A; Completed
Complete Corridors	SR 125/SR 905 Connector	South to west	CC148/CAL38C; Completed January 2022
Complete Corridors	SR 56 HOV Lanes– Phase I only	Phase I: Final design and construction of HOV operational lanes in the east and westbound directions on SR 56 from El Camino Real to Carmel Valley Road.	CAL114; Completed July 2024
Transit	Rapid 227	Otay Mesa to Imperial Beach	In service
Transit	Los Angeles – San Diego – San Luis Obispo (LOSSAN) Corridor Double Tracking	San Diego to Oceanside	SAN29, 64, 66, 73, 114, 119, 132
Transit	Copper Line	The Copper Line (East County Connector) service replaced the existing Green and Orange Line Trolley Service north of El Cajon Transit Center. Riders traveling north of El Cajon transfer to the Copper Line at the El Cajon Transit Center (where both the Green and Orange Line service stops).	Opened September 2024
Transit	COASTER Convention Center Station	COASTER route extension to a new station at the downtown San Diego Convention Center	Construction anticipated to start in 2025 with expected completion in 2029
Goods Movement	Otay Mesa CVEF Modernization	Otay Mesa Port of Entry (POE) Commercial Vehicle Enforcement Facility (CVEF) modernization: Improvements to the CVEF to reflect GSA’s proposed Otay Mesa POE Modernization Project	Completed December 2023

Network Development

The 2021 Regional Plan utilized comprehensive transportation data and analysis and public and stakeholder input, to create an integrated transportation system that would provide for more efficient and accessible regional travel and goods movement. The plan considered how and where people travel every day. At the most basic level, analyses were conducted to determine where people live, where they work, and how they get from one place to the other. Identifying these connections informed how the transportation network could best serve the daily travel patterns of people in the region.

The 2025 Regional Plan drew from the 2021 Regional Plan analyses and networks as travel patterns and the locations of major employment and activity centers have largely stayed the same since the prior plan's adoption. One caveat is the changing behavior resulting from the COVID-19 pandemic, particularly an increase in remote work. While overall travel decreased during the pandemic, travel activity has since bounced back significantly from pandemic lows, albeit with notable changes in trip-making behavior. The 2025 Regional Plan analysis is based on post-pandemic changes and effects. The 2025 Regional Plan also incorporated recent Comprehensive Multimodal Corridor Plan (CMCP) refinements.

Extensive public and stakeholder outreach was performed during network development to identify projects and programs to meet local mobility needs. This included input from the general public, community organizations, local partner agencies, Policy Advisory Committees, and the Board of Directors. San Diego region residents told us they needed better connections between types of transportation, shuttles for short trips, safe bikeway and pedestrian paths, more electric vehicle (EV) infrastructure, completed highway connectors, and improved interchanges. Rural communities in particular need safer roads, more transit options, and solutions for emergency evacuation. These comments helped shape the resulting network of mobility projects, including adding more microtransit services to connect to transit and other common destinations, as well as adding more Rapid bus routes along with increased service on local and rural bus routes.

Along with stakeholder feedback, updated data sets, transportation and technology trends, and updates in policy were used to refine the 2025 Regional Plan network. This incorporated a new regional growth forecast and surveys to capture post-pandemic trends in regional travel behavior, commercial vehicle trips, and more. Additional information about the travel behavior data and modeling is included in [Appendix M: Travel Demand Modeling Tools](#).

The approach to developing the 2025 Regional Plan network under each mobility strategy is described in detail below. The resulting final network is detailed in [Appendix A: Transportation Projects, Programs, Policies, and Phasing](#).

The success of each strategy relies heavily on the success of another, and the development of an integrated multimodal network was closely coordinated. Table N.2 illustrates how the mobility strategies support one another and where planning objectives and recommendations from one would influence the network development of another.

Table N.2: Relationship Between Strategies

	Transit	Complete Corridors	Flexible Fleets	Transportation System Management
Transit	--	--	Neighborhood Electric Vehicle (NEV) and microtransit services were identified throughout the region to provide additional connections to the transit network and also serve short neighborhood trips.	Transportation System Management strategies like Transit Signal Priority (TSP) will improve the on-time performance of existing and planned transit services. Trip planning and real-time location information provided by Transportation System Management will increase the ease and comfort of using transit service.
Complete Corridors	Managed lanes were identified in part based on where Rapid or express bus routes are planned to provide priority for transit and keep travel times low and reliable during peak traffic periods.	--	--	Transportation System Management technology equipment enables better traffic operations and helps balance loads on roadway infrastructure. Technology can also disseminate information to optimize trip planning.
Flexible Fleets	Flexible Fleet service areas were influenced by the presence of transit stations, as these on-demand transportation services will help facilitate station access.	Microtransit can use managed lanes for faster service in some corridors.	--	Transportation System Management includes a digital platform that compiles information from transportation sources including Flexible Fleets into a comprehensive data hub.
Transportation System Management	The locations of Transportation System Management strategies like TSP were based on locations of existing and planned transit services. Transit station amenities will also include technology elements like Wi-Fi to connect travelers with trip planning, real-time location information, and more.	Transportation System Management technology equipment that supports connected corridors and more safe, efficient movement of vehicles will be deployed along Complete Corridors. Real-time information will facilitate more dynamic operations of managed lanes and messaging to users.	The vision for Flexible Fleets is to have a singular platform on which varying modes of mobility can be booked as one ride. Transportation System Management is positioned to enable this functionality as a data platform that has availability between mobility as a service providers, infrastructure owner operators, and users.	--

Transit

Of all the mobility strategies, transit is the most fundamental to the region's goals for reducing traffic congestion, achieving state-mandated cuts in greenhouse gas (GHG) emissions, protecting the environment, and improving overall quality of life. The success of transit services is also intimately tied to the success of the other mobility strategies. The goals for Complete Corridors and Flexible Fleets will not be achieved without a network of high-speed, high-capacity, and frequent transit services that connect major residential areas with employment centers and basic services.

The transit network for the 2025 Regional Plan was established by considering existing routes, additional routes included in the 2021 Regional Plan, new concepts identified in recently completed CMCPs, and input from the public on the need for fast, safe, and reliable transit.

While the prior plan included a transit network relying on major infrastructure projects with lengthy development timelines, the 2025 Regional Plan has a greater emphasis on projects that can be completed more quickly. To quickly improve existing services across the region, 95 local, circulator, express, and rural bus routes will be upgraded with improved frequency and span of service (early morning and late evening). Furthermore, 44 new or upgraded Rapid routes will be available by 2035, improving options for existing riders and encouraging new ones. New rail projects have been reconsidered to ensure that the highest-performing routes are prioritized for implementation. As a result, an Airport Transit Connection is included by 2035, and the Purple Line is included as Light Rail Transit from Mission Valley to the U.S.-Mexico border by 2050.

All of these transit routes were assessed for potentially redundant service by examining routes along the same or parallel corridors and selecting those with the greatest potential ridership and ability to serve major destinations. Additionally, passenger-serving amenities such as bathrooms, lighting, shelter, Wi-Fi, and security were incorporated into the network. Other routes that could not reasonably be built by 2050 with identified funding, such as an extension of the Purple Line to Sorrento Mesa and an extension of the LOSSAN Corridor to the U.S.-Mexico Border, are included in the Unconstrained Project List (i.e., they do not have identified funding and are considered part of a financially "unconstrained" plan).

Complete Corridors

The goal of Complete Corridors is to provide travelers with a comprehensive multimodal roadway network that uses technology to support the diverse mobility needs of people throughout the region, while also supporting the other transportation strategies. The Complete Corridors include a system of managed lanes across the region with connectors and direct access ramps that support local and regional connectivity. Rural highways, an arterial network, active transportation projects, and projects that support goods movement are also included.

To evaluate potential revisions to the managed lanes and highway networks, corridor capacities were compared with traffic volumes reported through the Caltrans Performance Measurement System tool²—using a measure known as the volume to capacity ratio and other operational performance parameters such as speed and level of service. Estimates were then developed for peak traffic volumes along the key corridors in 2050, using forecasted³ 2050 traffic volumes and the number of lanes that exist today on these corridors. Transit routes were also considered, identifying where high volumes of buses could be supported by additional managed lanes. Regular coordination with the Caltrans Managed Lanes System Plan was maintained throughout the development of the managed lanes network to ensure general consistency between the two plans.

During the public workshops, stakeholders generally expressed a need for projects to ensure better traffic flow on freeways while aligning with the regional goals of improving air quality and reducing vehicle miles traveled (VMT). In some areas, stakeholders were opposed to widening freeways that would negatively impact their communities. Based on this feedback, the resulting Complete Corridor network selected strategic locations for highway improvements by adding lanes, finishing highway connectors, improving existing interchanges, or converting existing lanes into managed lanes. The managed lanes network sets aside key lanes and shoulders to move more people in multi-passenger vehicles, which will reduce traffic while supporting Rapid bus routes and carpooling on these highways.

The regional active transportation network also falls under the Complete Corridors strategy, with the goal to provide people of all ages and abilities with safe, comfortable, and convenient ways of reaching home, work, school, shopping, recreation, and other regional destinations. The following guiding principles informed the regional active transportation improvements included in the 2025 Regional Plan:

- Consider active transportation improvements identified in CMCPs while examining overlap with the Regional Arterial System.
- Apply network density assumptions consistent with the CROW (Dutch abbreviation for Information & Technology Centre for Transport and Infrastructure) Design Manual for Bicycle Traffic.⁴
- Provide direct connections to heavy rail, light rail, and Rapid transit stops.
- Provide safe active transportation connections across, and on either side of, freeways.
- Provide connections to many regional activity centers.
- Ensure no major gaps or missing links in the regional active transportation network.

² Caltrans 2022 Performance Measurement System (PeMS) analytic modules were used to extract data for the region's urban corridors.

³ Traffic forecasts were based on annual growth rates of 0.65% and 0.42% for north-south and east-west freeways, respectively.

⁴ <https://crowplatform.com>

Complete Corridors also are essential for the movement of goods throughout our region. Goods movement projects included in the 2025 Regional Plan were identified based on priorities outlined in the [San Diego and Imperial Counties Sustainable Freight Strategy](#). Projects included in the plan contribute the most to freight sustainability because of their significant economic, environmental, and equity benefits relative to their potential implementation challenges. Improvements are focused on our region’s roadways, railroads, seaports, airports, land ports of entry, and pipelines—as well as the technology to help the goods movement network function efficiently.

Flexible Fleets

Flexible Fleet services provide people with on-demand connections to regional transit services, short trips around neighborhoods, and mobility options in areas that may not have access to high-speed transit. These services will travel within and between community centers and provide people with connections to regional transit services.

Both the public and Board have shown significant interest in and support for Flexible Fleet services. The current plan includes expanded microtransit and NEV service areas, which help to fill transit gaps in the network.

NEVs are small, multi-passenger shuttles that provide on-demand rides within a defined service area. NEVs can provide a sustainable and convenient solution for short trips around communities or for expanding access to major transit stops. Rides are typically less than 15 minutes. Unlike microtransit vehicles, NEV shuttles can only operate along roadways that do not exceed 35 miles per hour and where roadway slopes do not exceed 20%.

Microtransit also offers on-demand public shuttle service for short trips within a defined service area. These services can seat more passengers than NEVs and can travel on higher speed roadways and accommodate a variety of topography. Microtransit can also be used to serve communities that are challenging to serve with fixed route transit. Microtransit and NEV zones were identified around high-capacity transit stops or where a mix of commercial and residential density would support on-demand services for local trips within the service area. The services were differentiated by considering topography, posted speed limits, existing and planned transit services, socioeconomic data, and residential and employment densities.

Transportation System Management

The Transportation System Management investments included in the 2025 Regional Plan are based on the 2021 Regional Plan (previously referred to as Next OS), SANDAG’s San Diego ITS Regional Architecture (2021), completed and underway CMCPs, completed and ongoing SANDAG Concepts of Operations (ConOps), and data from evolving technology trends since the 2021 Regional Plan. Additional areas that were considered for the 2025 Regional Plan include Freight Priority and Goods Movement Systems, Parking Management Systems, Smart Work Zone Management and Fleet Electrification, Wireless Charging and Charge Management Optimization. The updates made to Transportation System Management reflect technological advancements that enable further reach of Transportation System Management providing a more effective and equitable platform. In parallel with Transportation System Management updates, an [Emerging Technology white paper](#) was developed that also informed network updates.

Transportation System Management will continue to evolve in concert with other mobility strategies, with a strong link to Complete Corridors that encompasses many of the roadside technological devices (e.g., connected vehicle roadside units, smart intersection signal heads, and traffic signal controllers and cabinets) and Transit to improve efficiency of operations and availability of real-time information to users.

The Regional Arterial System

The Regional Arterial System (RAS) constitutes part of the local street and road network that, in conjunction with the system of highways and transit services, provides for a significant amount of mobility throughout the region. Regional arterials are longer contiguous routes that provide accessibility between communities within the region and that may also allow subregional trips to avoid freeway travel. The RAS includes roads eligible for the Regional Transportation Congestion Improvement Program included in the TransNet Ordinance and other funding. The 2025 Regional Plan network development process included a comprehensive review of the RAS segments, including the consolidation of continuous road segments, in addition to reviewing and incorporating new segments requested by local agencies. A RAS has been included as part of the Regional Transportation Plan (RTP) since 1989 and includes over 1,000 miles of roads.

Regional Arterial System Screening Criteria

To qualify for the updated 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 RAS. These characteristics 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 RAS is provided in Attachment N.2, Table N.2.1.

Project Evaluation

To develop the 2025 Regional Plan revenue-constrained transportation network, SANDAG considered various factors and inputs in both the development and phasing of the projects, programs, and services included in the network. Multimodal evaluation criteria including project readiness, anticipated VMT and air quality impacts, and nearby crash history were used to develop the project list and phasing. This evaluation process focused on projects that will have significant impacts to the region and constitute a significant portion of the 2025 Regional Plan's costs. Projects included in this process are limited to Transit and Complete Corridors with estimated costs of \$100 million or more.

The evaluation process consisted of a multi-phased approach, each with distinct areas of focus. Taken together these provide information on expected performance, logistics, and goal alignment to inform prioritization discussions.

The first phase identified projects that will help maximize benefits in the near term (by 2035) and anticipated VMT impacts. These details inform which projects support GHG emission reduction goals by the critical date of 2035 for consideration in decision-making. The second phase looked at social equity and emissions. The third phase looked at goods movement, non-single occupancy vehicle and asset conditions. The project evaluation process is further detailed in Attachment N.3: Evaluation Criteria.

Project Evaluation was just one of many considerations for project development and phasing. SANDAG considered various stakeholder needs and incorporated direction from the Board of Directors in refining the final network.

Performance Measures

The 2025 Regional Plan transportation network was modeled together with identified policies and programs⁵ to evaluate the plan's performance against measures consistent with regional, state, and federal goals.

To understand how changes to the transportation system can impact the region, SANDAG uses an advanced travel demand model called an activity-based model. The activity-based model simulates trips throughout the region and calculates the types of transportation options people choose, travel times, and much more. The future performance of the transportation system can be better understood from these simulated trips and are reflected through performance measures.

The 2025 Regional Plan performance measures are categorized into primary and supporting measures. Each measure is described below, and the results are detailed in Attachment N.4.

- Primary Performance Measures

⁵ Policies and programs are described in Appendix A.

- Access to Basic Needs: percentage of the population within 15 minutes of retail or a park and percentage of the population within 30 minutes of a medical facility via different transportation modes
- Access to Opportunities: percentage of the adult population within 30 or 45 minutes of employment centers or higher education institutions via transit
- GHG Emission Measures: reduction in exhaust from vehicles that contribute to GHG regionwide and per person from 2005 levels
- VMT Measures: number of vehicle miles traveled regionwide and per person
- Supporting Performance Measures
 - Access to High Schools⁶: percentage of the population within 30 minutes of a public or private high school via transit
 - Coastal Access: percentage of the population within 30 or 45 minutes of the coast via different transportation modes
 - Mode Share by Work Trips & All Trips: percentage of work trips and all trips during certain periods by different transportation modes
 - Access to Rail or Next Gen Rapid Transit Stops: number and percentage of people within 0.5 miles of a rail or Next Gen Rapid transit stop
 - Job Access to Rail or Next Gen Rapid Transit Stops: number and percentage of jobs within 0.5 miles of a rail or Next Gen Rapid transit stop
 - Access to Bike Facilities: number and percentage of people within 0.25 miles of a bike facility (i.e., class I and II, cycletrack, or bike boulevard)
 - Daily Transit Boardings: number of boardings on a typical weekday by different transit types
 - Transportation Related Physical Activity: total time (in minutes) engaged in transportation related physical activity per capita and percentage of the population engaged in 20 minutes or more of transportation related physical activity
 - Transportation System Use Costs: percentage of income consumed by out-of-pocket transportation costs and change in percentage of income consumed by out-of-pocket transportation costs from the base year
 - Average Particulate Matter (PM_{2.5}): average exposure to PM_{2.5} per person
 - Average Commercial Vehicle & Truck Travel Times: average trip travel time (in minutes) for commercial vehicles and trucks to/from freight distribution hubs
 - Truck Travel Time Index (TTI) by Facility Type: truck travel time index by highway or arterial
 - Average Heavy Duty Truck Delay by Facility Type: average heavy duty truck delay during certain periods by highway or arterial

⁶ The Access to High Schools performance measure does not include access via school bus.

The primary performance measures support the plan’s goals by providing insights to the anticipated impacts of the future network. Each performance measure supports multiple goal areas. For instance, the “access to basic needs” performance measure supports the “convenient and reliable movement of people and goods” goal by showing the percentage of the population that can access retail and parks in a convenient time of 15 minutes via different transportation modes. This performance measure also supports the “equitable access to essential needs and opportunities” goal by showing the percentage of the population that can access these vital needs. Table 3 illustrates the multiple goals each primary performance measure supports.

Table N.3: 2025 Regional Plan Goals and Performance Measures

Goal Area	Performance Measure
Convenient and reliable movement of people and goods	<ul style="list-style-type: none"> • Access to Basic Needs • Access to Opportunities • VMT Measures
Equitable access to essential needs and opportunities	<ul style="list-style-type: none"> • Access to Basic Needs • Access to Opportunities
Healthy communities and environment for everyone	<ul style="list-style-type: none"> • Access to Basic Needs • GHG Measures • VMT Measures
Safe transportation network for all users	The activity-based model does not predict safety performance. Safety is monitored through the Traffic Safety Dashboard which informs implementation of the Regional Vision Zero Action Plan .

The modeled results of the performance measures are calculated regionwide and presented for three years: 2022, 2035, and 2050. The year 2022 serves as the base year and the outcomes reflect the current performance of the region’s existing transportation system. The years 2035 and 2050 are significant phases in the 2025 Regional Plan when projects and programs are planned. These phase years are included twice for each performance measure to reflect the differences between the No-Build and Build network. The No-Build network is the network without any 2025 Regional Plan projects, which only includes existing and in-progress projects as detailed in Table N.1. The Build network is the revenue-constrained 2025 Regional Plan network as described in Appendix A. The differences in the performance between the No-Build network and Build network are the expected changes from the strategies included in the 2025 Regional Plan.

The performance measures are also calculated for low-income, minority, and senior populations. For more information on the analysis and results for those performance measures of the 2025 Regional Plan, see [Appendix E: Title VI Analysis and Engagement](#).

Attachment N1: Data Sources Used in Network Development

Table N1.1: Network Development Data Sources

Data	Source	Geography	Time Period	Note
Transportation				
Peak Period Traffic Volumes	SANDAG	San Diego Region, Line layer	2016	2016 AM and PM peak period traffic flows based on ABM2+ Series 14
Person Origin and Destination by Time-of Day, Trip Purpose, Day Type	Teralytics; Replica	San Diego Region, Trips from origin census tract to destination tract	2022	Trip Purpose include "To Work", "To Home", and "To Other"; Day Types include "Weekday" and "Weekend"
Performance Measurement System Data	Caltrans	State of California	2022	
Road Network	SANDAG	San Diego Region, Line Layer	2023	Centerline segments for roads in the County
Roadway Traffic Volumes	SANDAG	San Diego Region, Line layer	2016, 2035 and 2050	Traffic volumes from SANDAG ABM2+ Series 14
Transit (Rail and Bus), Existing	SANDAG	San Diego Region, Line layer	2018 and 2019	From SANDAG ABM2+ Series 14
Transit Routes (Bus and Rail), Future (including ridership)	SANDAG	San Diego County, Line layer	2035 and 2050	2015 and amended 2021 Regional Plan and 2019 Federal RTP
CMCP Transportation Networks	SANDAG	Sub-Regional	2022-2024	Central Mobility Hub & Connections; Kumeyaay Corridor; South Bay to Sorrento; Coast, Canyons, Trails; San Vicente; North County
2021 Regional Plan Transportation Networks	SANDAG	San Diego County	2021	Transit Leap, Complete Corridors, Mobility Hubs, Flexible Fleets
Vehicle Miles Traveled	SANDAG	San Diego County	Base Year 2016	From SANDAG ABM2+ Series 14

Data	Source	Geography	Time Period	Note
Flexible Fleets Regional Scan Layers: Short Trip Density, Socioeconomics, Mobility Needs, Proximity to Transit, Limited Transit Access	Flexible Fleets Implementation Strategic Plan	San Diego County	2022	Likelihood Scores
Safety Focus Network and Systemic Safety Network	SANDAG	San Diego County	2018-2022	Vision Zero Action Plan products developed in parallel
Benefits and Feasibility Scoring Matrix	SANDAG	San Diego and Imperial counties	2023	San Diego and Imperial Counties Sustainable Freight Implementation Strategy
Regional Arterial System	SANDAG	San Diego Region, Line layer	2021	Network of regional arterials
Socioeconomic				
CalEnviroScreen 4.0	California Office of Environmental Health Hazard Assessment	State of California	2021	Cumulative Impact Score
Population by Income	SANDAG	San Diego County, Polygon layers by MGRA	2016	From SANDAG ABM2+ Series 14

Attachment N2: Regional Arterial System by Jurisdiction

Table N2.1: Regional Arterials by Jurisdiction

No.	Arterial	Limits	Jurisdiction
1	Alga Road	El Camino Real to Melrose Drive	Carlsbad
2	Aviara Parkway	Palomar Airport Road to El Camino Real	Carlsbad
3	Cannon Road	Carlsbad Boulevard to College Boulevard	Carlsbad
4	Carlsbad Boulevard	Eaton Street to La Costa Avenue	Carlsbad
5	Carlsbad Village Drive	I-5 to Carlsbad Boulevard	Carlsbad
6	College Boulevard	City of Oceanside city limits to Palomar Airport Road	Carlsbad
7	El Camino Real (S-11)	SR 78 to Olivenhain	Carlsbad
8	Faraday Avenue	Melrose Drive to College Boulevard	Carlsbad
9	La Costa Avenue	I-5 to El Camino Real	Carlsbad
10	Melrose Drive	City of Vista city limits to Rancho Santa Fe Road	Carlsbad
11	Olivenhain Road	El Camino Real to Rancho Santa Fe Road	Carlsbad
12	Palomar Airport Road	Carlsbad Boulevard to Business Park Drive	Carlsbad
13	Poinsettia Lane	Carlsbad Boulevard to Melrose Drive	Carlsbad
14	Rancho Santa Fe Road	Melrose Drive to Olivenhain Road	Carlsbad
15	Bay Boulevard	E Street to Stella Street	Chula Vista
16	Beyer Way	Main Street to City of San Diego city limits	Chula Vista
17	Bonita Road	E Flower Street to I-805	Chula Vista
18	Broadway	C Street to Main Street	Chula Vista
19	E Street	H Street to Bonita Road	Chula Vista
20	East H Street	Hilltop Drive to Mount Miguel Road	Chula Vista
21	H Street	E Street to Hilltop Drive	Chula Vista
22	Hunte Parkway	Proctor Valley Road to Eastlake Parkway	Chula Vista
23	J Street	Marina Parkway to Broadway	Chula Vista
24	L Street	Bay Boulevard to I-805	Chula Vista
25	La Media Road	Telegraph Canyon Road to Main Street	Chula Vista
26	Main Street	City of Chula Vista city limits to Eastlake Parkway	Chula Vista
27	Marina Parkway	H Street to J Street	Chula Vista
28	Olympic Parkway	I-805 to Hunte Parkway	Chula Vista
29	Orange Avenue	Palomar Street to I-805	Chula Vista

No.	Arterial	Limits	Jurisdiction
30	Otay Lakes Road	Bonita Road to Wueste Road	Chula Vista
31	Otay Valley Road	Main Street to East of SR 125	Chula Vista
32	Palomar Street	Bay Boulevard to Orange Avenue	Chula Vista
33	Paseo Ranchero (Heritage Road)	East H Street to City of San Diego city limits	Chula Vista
34	Proctor Valley Road	Mt. Miguel Road to Hunte Parkway	Chula Vista
35	Telegraph Canyon Road	I-805 to Otay Lakes Road	Chula Vista
36	Willow Street	Sweetwater Road to Bonita Road	Chula Vista
37	3rd Street	Orange Avenue to Alameda Boulevard	Coronado
38	4th Street	Orange Avenue to Alameda Boulevard	Coronado
39	Alameda Boulevard	Ocean Boulevard to 1st Street	Coronado
40	Pomona Avenue	Silver Strand Boulevard to 4th Street	Coronado
41	SR 75	City of San Diego city limits to City of Imperial Beach city limits	Coronado
42	Via de la Valle	Highway 101 to Jimmy Durante Boulevard	Del Mar
43	2nd Street	Greenfield Drive to Main Street	El Cajon
44	Avocado Avenue	Main Street to Chase Avenue	El Cajon
45	Avocado Avenue	Chase Avenue to Dewitt Court	El Cajon
46	Ballantyne Street	Broadway to Main Street	El Cajon
47	Bradley Avenue	Cuyamaca Street to County of San Diego limits	El Cajon
48	Broadway	SR 67 to East Main Street	El Cajon
49	Chase Avenue	El Cajon Boulevard to Rancho Valle Court	El Cajon
50	Cuyamaca Street	City of Santee city limits to Marshall Avenue	El Cajon
51	E Main Street	Broadway to Lavala Lane	El Cajon
52	El Cajon Boulevard	Chase Avenue to West Main Street	El Cajon
53	Fletcher Parkway	City of La Mesa city limits to SR 67	El Cajon
54	Greenfield Drive	Ballantyne Street to I-8	El Cajon
55	Jamacha Road	Main Street to Grove Road	El Cajon
56	Marshall Avenue	Cuyamaca Street to Washington Avenue	El Cajon
57	Navajo Road	SR 125 to Fletcher Parkway	El Cajon
58	Washington Avenue	El Cajon Boulevard to Granite Hills Drive	El Cajon
59	West Main Street	I-8 to Marshall Avenue	El Cajon
60	El Camino Real	Olivenhain Road to Manchester Avenue	Encinitas
61	Encinitas Boulevard	Highway 101 to Rancho Santa Fe Road	Encinitas
62	Highway 101	City of Carlsbad to City of Solana Beach	Encinitas
63	La Costa Avenue	Highway 101 to I-5	Encinitas

No.	Arterial	Limits	Jurisdiction
64	Leucadia Boulevard	Highway 101 to El Camino Real	Encinitas
65	Manchester Avenue	El Camino Real to I-5	Encinitas
66	Olivenhain Road	El Camino Real to Los Pinos Circle	Encinitas
67	Ash Street	Lincoln Pkwy to Washington Avenue (SR 78)	Escondido
68	Barham Drive	City of San Marcos city limits to Mission Road	Escondido
69	Centre City Parkway	Country Club Lane (I-15) to entrance of the Caltrans I-15 ramp meter lanes (Caltrans R/W)	Escondido
70	Citracado Parkway	Centre City Parkway to Auto Parkway	Escondido
71	East Valley Parkway	Broadway to Valley Center Road	Escondido
72	East Via Rancho Parkway/ Bear Valley Parkway	East Valley Parkway to Sunset Drive	Escondido
73	El Norte Parkway	Nordahl Road to East Valley Parkway	Escondido
74	El Norte Parkway	Woodland Parkway to Rees Road	Escondido
75	Felicita/17th Avenue	I-15 to SR 78	Escondido
76	Grand Avenue/ 2nd Avenue/ Valley Boulevard	West Valley Parkway to East Valley Parkway	Escondido
77	Hale Avenue	Washington Avenue to I-15	Escondido
78	Lincoln Parkway	Broadway (SR 78) to Ash Street	Escondido
79	Mission Avenue	Andreason Drive to Centre City Parkway	Escondido
80	Mission Road	Barham Drive to Andreason Drive	Escondido
81	Valley Center Road	East Valley Parkway to County of San Diego limits	Escondido
82	Via Rancho Parkway	Del Dios Road to Sunset Drive	Escondido
83	Washington Avenue	Mission Road to El Norte Parkway	Escondido
84	West Valley Parkway	Claudan Road to Broadway	Escondido
85	SR 75	City of Coronado city limits to City of San Diego city limits	Imperial Beach
86	70th Street	Saranac Street to I-8	La Mesa
87	70th Street	University Avenue to Colony Road	La Mesa
88	El Cajon Boulevard	73rd Street to I-8	La Mesa
89	Fletcher Parkway	I-8 to City of El Cajon city limits	La Mesa
90	Grossmont Center Drive	I-8 to Fletcher Parkway	La Mesa
91	Jackson Drive	La Mesa Boulevard to City of La Mesa city limits	La Mesa
92	La Mesa Boulevard	University Avenue to I-8	La Mesa
93	Lake Murray Boulevard	I-8 to Dallas Street	La Mesa
94	Massachusetts Avenue	SR 94 to University Avenue	La Mesa

No.	Arterial	Limits	Jurisdiction
95	Spring Street	I-8 to SR 125	La Mesa
96	University Avenue	69th Street to La Mesa Boulevard	La Mesa
97	Broadway	Spring Street to Lemon Grove Avenue	Lemon Grove
98	College Avenue	Livingston Street to Federal Boulevard	Lemon Grove
99	Federal Boulevard	College Avenue to SR 94	Lemon Grove
100	Lemon Grove Avenue	Viewcrest Drive to SR 94	Lemon Grove
101	Massachusetts Avenue	Lemon Grove Avenue to SR 94	Lemon Grove
102	Sweetwater Road	Broadway to Troy Street	Lemon Grove
103	30th Street	National City Boulevard to 2nd Avenue	National City
104	Euclid Avenue	Cervantes Avenue to Sweetwater Road	National City
105	Harbor Drive	City of San Diego city limits to Civic Center Drive	National City
106	National City Boulevard	Division Street to 35th Street	National City
107	Palm Avenue	I-805 to 18th Street	National City
108	Paradise Valley Road	8th Street to City of San Diego city limits	National City
109	Plaza Boulevard	National City Boulevard to 8th Street	National City
110	Sweetwater Road	2nd Avenue to Plaza Bonita Center Way	National City
111	College Boulevard	North River Road to City of Carlsbad city limits	Oceanside
112	El Camino Real	Douglas Drive to SR 78	Oceanside
113	Highway 101	I-5 to Eaton Street	Oceanside
114	Melrose Drive	North River Road to Spur Avenue	Oceanside
115	Melrose Drive	North Santa Fe Avenue to W. Bobier Drive	Oceanside
116	Mission Avenue	Highway 101 to Frazee Road	Oceanside
117	North River Road	Douglas Drive to SR 76	Oceanside
118	North Santa Fe Avenue	SR 76 to Melrose Drive	Oceanside
119	Oceanside Boulevard	Highway 101 to Melrose Drive	Oceanside
120	Rancho del Oro Drive	SR 78 to SR 76	Oceanside
121	Vandegrift Boulevard	North River Road to Camp Pendleton	Oceanside
122	Vista Way	Jefferson Street to Thunder Drive	Oceanside
123	Camino del Norte	World Trade Drive to Pomerado Road	Poway
124	Community Road	Twin Peaks Road to Scripps Poway Parkway	Poway
125	Espola Road	Summerfield Lane to Poway Road	Poway
126	Pomerado Road	Stonemill Drive to Gateway Park Road	Poway
127	Poway Road	Springhurst Drive to SR 67	Poway
128	Scripps Poway Parkway	Springbrook Drive to Sycamore Canyon Road	Poway

No.	Arterial	Limits	Jurisdiction
129	Ted Williams Parkway	Pomerado Road to Twin Peaks Road	Poway
130	Twin Peaks Road	Pomerado Road to Espola Road	Poway
131	1st Avenue	Harbor Drive to I-5	San Diego City
132	4th Avenue	Market Street to Washington Street	San Diego City
133	5th Avenue	Market Street to Washington Street	San Diego City
134	6th Avenue	Ash Street to SR 163	San Diego City
135	10th Avenue	SR 163 to Park Boulevard	San Diego City
136	11th Avenue	G Street to SR 163	San Diego City
137	28th Street	I-5 to Harbor Drive	San Diego City
138	32nd Street	Harbor Drive to Wabash Boulevard	San Diego City
139	43rd Street	Meade Avenue to Thorn Street	San Diego City
140	47th Street	Fairmount Avenue to I-805	San Diego City
141	54th Street	Collwood Boulevard to Euclid Avenue	San Diego City
142	70th Street	Colony Road to Saranac Street	San Diego City
143	A Street	11th Avenue to Kettner Boulevard	San Diego City
144	Adams Avenue	Park Boulevard to I-15	San Diego City
145	Aero Drive	Linda Vista Road to I-15	San Diego City
146	Airway Road	Caliente Avenue to Paseo De Las Americas	San Diego City
147	Ash Street	Harbor Drive to 10th Avenue	San Diego City
148	Auto Circle	Camino del Rio North to Camino del Rio South	San Diego City
149	Balboa Avenue	Grand Avenue to Garnet Avenue	San Diego City
150	Barnett Avenue	Lytton Street to Pacific Highway	San Diego City
151	Bernardo Center Drive	Dove Canyon Road to I-15	San Diego City
152	Beyer Boulevard	City of Chula Vista city limits to Caliente Avenue	San Diego City
153	Beyer Way	4th Avenue to Picador Boulevard	San Diego City
154	Black Mountain Road	Carmel Valley Road to Carroll Canyon Road	San Diego City
155	Britannia Boulevard	Otay Mesa Road to Siempre Viva Road	San Diego City
156	Broadway	Harbor Drive to 11th Avenue	San Diego City
157	Cabrillo Memorial Drive	Cochran Street to Cabrillo National Monument	San Diego City
158	Caliente Avenue	Otay Mesa Road to Beyer Boulevard	San Diego City
159	Camino de la Reina	Mission Center Road to Qualcomm Way	San Diego City
160	Camino de Rio West	Rosecrans Street to I-8	San Diego City
161	Camino del Norte	Rancho Bernardo Road to World Trade Drive	San Diego City
162	Camino del Rio North	Mission Center Road to Fairmount Avenue	San Diego City

No.	Arterial	Limits	Jurisdiction
163	Camino del Sur	Dormouse Road to Camino del Norte	San Diego City
164	Camino Ruiz	Miramar Road to Capricorn Way	San Diego City
165	Camino Santa Fe	Sorrento Valley Boulevard to Miramar Road	San Diego City
166	Cañon Street	Rosecrans Street to Catalina Boulevard	San Diego City
167	Carmel Mountain Road	Camino del Sur to Camino del Norte	San Diego City
168	Carmel Mountain Road	Sorrento Valley Road to El Camino Real	San Diego City
169	Carmel Valley Road	Del Mar Heights Road to Dove Canyon Road	San Diego City
170	Carroll Canyon Road	I-805 to I-15	San Diego City
171	Catalina Boulevard	Cañon Street to Cochran Street	San Diego City
172	Cesar E. Chavez Parkway	I-5 to Harbor Drive	San Diego City
173	Clairemont Drive	Clairemont Mesa Boulevard to West Mission Bay Drive	San Diego City
174	Clairemont Mesa Boulevard	I-15 to Regents Road	San Diego City
175	College Avenue	Navajo Road to Livingston Street	San Diego City
176	Collwood Boulevard	Montezuma Road to 54th Street	San Diego City
177	Convoy Street	Linda Vista Road to SR 52	San Diego City
178	Dairy Mart Road	SR 905 to I-5	San Diego City
179	Del Mar Heights Road	I-5 to Carmel Valley Road	San Diego City
180	El Cajon Boulevard	Park Boulevard to 73rd Street	San Diego City
181	El Camino Real	Via de la Valle to Carmel Mountain Road	San Diego City
182	Euclid Avenue	54th Street to Cervantes Avenue	San Diego City
183	F Street	SR 94 to 10th Avenue	San Diego City
184	Fairmount Avenue	Mission Gorge Road to 47th Street	San Diego City
185	Fenton Parkway/ Mission City Parkway	Friars Road to Camino Del Rio North	San Diego City
186	Friars Road	Sea World Drive to Mission Gorge Road	San Diego City
187	Front Street	I-5 to Market Street	San Diego City
188	G Street	SR 94 to 10th Avenue	San Diego City
189	Garnet Avenue	Balboa Avenue to I-5	San Diego City
190	Garnet Avenue	Mission Bay Drive to I-15	San Diego City
191	Genesee Avenue	North Torrey Pines Road to SR 163	San Diego City
192	Gilman Drive	La Jolla Village Drive to I-5	San Diego City
193	Girard Avenue	Pearl Street to Torrey Pines Road	San Diego City
194	Governor Drive	I-805 to Regents Road	San Diego City
195	Grand Avenue	Mission Boulevard to Mission Bay Drive	San Diego City
196	Grape Street	North Harbor Drive to I-5	San Diego City

No.	Arterial	Limits	Jurisdiction
197	Harbor Drive	Pacific Highway to City of National City	San Diego City
198	Hawthorn Street	I-5 to North Harbor Drive	San Diego City
199	Heritage Road	City of Chula Vista city limits to Siempre Viva Road	San Diego City
200	Imperial Avenue	Lisbon Street to Viewcrest Drive	San Diego City
201	Imperial Avenue	Park Boulevard to Lemon Grove Avenue	San Diego City
202	India Street	Laurel Street to I-5	San Diego City
203	Ingraham Street	West Mission Bay Drive to Grand Avenue	San Diego City
204	Jackson Drive	Mission Gorge Road to Dallas Street	San Diego City
205	Kearny Villa Road	Carroll Canyon Road to I-805	San Diego City
206	Kettner Boulevard	I-5 to India Street	San Diego City
207	La Jolla Boulevard	Pearl Street to Turquoise Street	San Diego City
208	La Jolla Parkway	Torrey Pines Road to I-5	San Diego City
209	La Jolla Shores Drive	Torrey Pines Road to North Torrey Pines Road	San Diego City
210	La Jolla Village Drive	North Torrey Pines Road to I-805	San Diego City
211	La Media Road	Lone Star Road to Southbound Truck Route	San Diego City
212	Lake Murray Boulevard	Dallas Street to Navajo Road	San Diego City
213	Laurel Street	North Harbor Drive to India Street	San Diego City
214	Linda Vista Road	Morena Boulevard to Convoy Street	San Diego City
215	Lone Star Road	La Media Road to City of San Diego/county boundary	San Diego City
216	Lytton Street	Rosecrans Street to Barnett Avenue	San Diego City
217	Market Street	Harbor Drive to Euclid Avenue	San Diego City
218	Mercy Road	Black Mountain Road to I-15	San Diego City
219	Mesa College Drive	I-805 to Armstrong Street	San Diego City
220	Midway Drive	West Point Loma Boulevard to Barnett Avenue	San Diego City
221	Mira Mesa Boulevard	I-805 to I-15	San Diego City
222	Miramar Road	I-805 to I-15	San Diego City
223	Mission Boulevard	Loring Street to West Mission Bay Drive	San Diego City
224	Mission Bay Drive	Grand Avenue to I-5	San Diego City
225	Mission Center Road	Camino del Rio North to Friars Road	San Diego City
226	Mission Gorge Road	Fairmont Avenue to Highridge Road	San Diego City
227	Montezuma Road	Fairmount Avenue to El Cajon Boulevard	San Diego City
228	Morena Boulevard	Balboa Avenue to Taylor Street	San Diego City
229	Navajo Road	Waring Road to SR 125	San Diego City
230	Nimitz Boulevard	I-8 to Harbor Drive	San Diego City

No.	Arterial	Limits	Jurisdiction
231	Nobel Drive	I-5 to Miramar Road	San Diego City
232	Normal Street	University Avenue to Park Boulevard	San Diego City
233	North Harbor Drive	Rosecrans Street to Grape Street	San Diego City
234	North Torrey Pines Road (S-21)	Carmel Valley Road to La Jolla Village Drive	San Diego City
235	Ocean View Hills Parkway	I-805 to Dennergy Road to Otay Mesa Road	San Diego City
236	Otay Mesa Road	Ocean View Hills Parkway to City of San Diego/county boundary	San Diego City
237	Otay Valley Road	Heritage Road to Datsun Street	San Diego City
238	Pacific Highway	Sea World Drive to Harbor Drive	San Diego City
239	Palm Avenue	13th Street to Dennergy Road	San Diego City
240	Paradise Valley Road	Munda Road to Meadowbrook Drive	San Diego City
241	Park Boulevard	Imperial Avenue to Adams Avenue	San Diego City
242	Pearl Street	La Jolla Boulevard to Girard Avenue	San Diego City
243	Picador Boulevard	Beyer Way to SR 905	San Diego City
244	Pomerado Road	I-15 (north) to Bernardo Heights Parkway	San Diego City
245	Pomerado Road	Stonemill Drive to I-15 (south)	San Diego City
246	Poway Road	I-15 to Springhurst Drive	San Diego City
247	Qualcomm Way	I-8 to Friars Road	San Diego City
248	Rancho Bernardo Road	Camino Del Sur to Summerfield Lane	San Diego City
249	Rancho Carmel Drive	Carmel Mountain Road to Ted Williams Parkway	San Diego City
250	Rancho Peñasquitos Boulevard	SR 56 to I-15	San Diego City
251	Regents Road	Genesee Avenue to Rose Canyon	San Diego City
252	Regents Road	Rose Canyon to Clairemont Mesa Boulevard	San Diego City
253	Rosecrans Street	Pacific Highway to Cañon Street	San Diego City
254	Ruffin Road	Kearny Villa Road to Aero Drive	San Diego City
255	Sabre Springs Parkway	Ted Williams Parkway to Poway Road	San Diego City
256	San Diego Mission Road	Mission Village Drive to Fairmount Avenue	San Diego City
257	San Ysidro Boulevard	Dairy Mart Road to East Beyer Boulevard	San Diego City
258	Scripps Poway Parkway	I-15 to Springbrook Drive	San Diego City
259	Sea World Drive	West Mission Bay Drive to Morena Boulevard	San Diego City
260	Siempre Viva Road	Heritage Road to Enrico Fermi Drive	San Diego City
261	Sorrento Valley Boulevard	Sorrento Valley Road to Camino Santa Fe	San Diego City
262	Sorrento Valley Road	Carmel Mountain Road to Sorrento Valley Boulevard	San Diego City

No.	Arterial	Limits	Jurisdiction
263	Southbound Truck Route	La Media to the Border Crossing (Otay Mesa)	San Diego City
264	Sports Arena Boulevard	I-8 to Rosecrans Street	San Diego City
265	Sunset Cliffs Boulevard	I-8 to West Mission Bay Drive	San Diego City
266	Taylor Street	Pacific Highway to Morena Boulevard	San Diego City
267	Ted Williams Parkway	I-15 to Pomerado Road	San Diego City
268	Texas Street	I-8 to University Avenue	San Diego City
269	Torrey Pines Road	Girard Avenue to La Jolla Village Drive	San Diego City
270	Twain Avenue	Fairmount Avenue to Mission Gorge Road	San Diego City
271	University Avenue	SR 163 to City of La Mesa	San Diego City
272	Valencia Parkway	Division Street to Imperial Avenue	San Diego City
273	Via de la Valle	Jimmy Durante Boulevard to El Camino Real	San Diego City
274	Vista Sorrento Parkway	Mira Mesa Boulevard to Carmel Mountain Road	San Diego City
275	Waring Road	College Avenue to I-8	San Diego City
276	Washington Street	Pacific Highway to Polk Avenue	San Diego City
277	West Bernardo Drive	I-15 to Bernardo Center Drive	San Diego City
278	West Mission Bay Drive	Mission Boulevard to I-8	San Diego City
279	West Morena Boulevard	Frankfort Street/Morena Boulevard to Cushman Avenue/Morena Boulevard	San Diego City
280	Woodman Street	SR 54 to Imperial Avenue	San Diego City
281	Alpine Boulevard	I-8/Dunbar Lane to I-8/Willows Road	San Diego County
282	Ashwood Street	Mapleview St to Willow Road/Wildcat Canyon Road	San Diego County
283	Avocado Boulevard	Dewitt Court to SR 94	San Diego County
284	Bear Valley Parkway	City of Escondido (north) city limits to City of Escondido (south) city limits	San Diego County
285	Bonita Road	I-805 to San Miguel Road	San Diego County
286	Borrego Springs/Yaqui Pass Road (S-3)	Palm Canyon Drive (S-22) to SR 78	San Diego County
287	Bradley Avenue	Wing Avenue/city limits to Mollison Avenue and city limits to Pepper Drive	San Diego County
288	Buckman Springs/Sunrise Highway (S-1)	SR 94 to SR 79	San Diego County
289	Buena Creek Road	South Santa Fe Avenue to Twin Oaks Valley Road	San Diego County
290	Camino del Norte	Rancho Bernardo Road to City of San Diego city limits	San Diego County
291	Campo Road	Spring Street to Sweetwater Springs/SR 94	San Diego County

No.	Arterial	Limits	Jurisdiction
292	Citracado Parkway	Greenwood Place to I-15	San Diego County
293	Cole Grade Road	SR 76 to Valley Center Road	San Diego County
294	Deer Springs Road	Twin Oaks Valley Road to I-15	San Diego County
295	Dehesa Road	Jamacha Road to Harbison Canyon Road	San Diego County
296	Dehesa Road*	Harbison Canyon Road to Sycuan Road	San Diego County
297	Del Dios Road	Via Rancho Parkway to Paseo Delicias	San Diego County
298	Dye Road	SR 67 to San Vicente Road	San Diego County
299	Dye Street	SR 67 to Dye Road	San Diego County
300	East Vista Way	SR 76 to City of Vista city limits	San Diego County
301	El Norte Parkway	Rees Road to Nordahl Road	San Diego County
302	Euclid Avenue	City of National City limits to City of National City limits	San Diego County
303	Gamble Lane	Eucalyptus Avenue to City of Escondido city limits	San Diego County
304	Gopher Canyon Road	East Vista Way to Old Highway 395	San Diego County
305	Jamacha Boulevard	SR 125 to SR 94	San Diego County
306	Jamacha Road	City of El Cajon city limits to SR 94	San Diego County
307	Keyes Road (southern traffic bypass)	Dye Road to SR 78 (Julian Road)	San Diego County
308	Lake Jennings Park Road	Mapleview St to I-8	San Diego County
309	Lake Wohlford Road	Valley Center Road (north) to Valley Center Road (south)	San Diego County
310	Las Posas Road	City of San Marcos city limits to Buena Creek Road	San Diego County
311	Lone Star Road	City of San Diego city limits to Siempre Viva Road	San Diego County
312	Mapleview Street	SR 67 to Lake Jennings Road	San Diego County
313	Mar Vista Drive	City of Oceanside city limits to City of Vista city limits	San Diego County
314	Melrose Drive	City of Oceanside city limits to City of Vista city limits	San Diego County
315	Mission Road (S-13)	I-15 to SR 76	San Diego County
316	Mountain Meadow Road	I-15/Deer Springs Road to Valley Center Road	San Diego County
317	Nordahl Road	El Norte Parkway to City of San Marcos city limits	San Diego County
318	Old Highway 80	Buckman Springs Road to I-8 (In-ko-pah)	San Diego County
319	Old Highway 80	SR 79 to Sunrise Highway	San Diego County

No.	Arterial	Limits	Jurisdiction
320	Old Highway 395/ Champagne/North Centre City	East Mission Road to City of Escondido city limits	San Diego County
321	Otay Lakes Road	Wueste Road to SR 94	San Diego County
322	Otay Mesa Road	City of San Diego city limits to Lone Star Road	San Diego County
323	Pala Temecula Road	SR 76 to Riverside County limits	San Diego County
324	Paradise Valley Road	City of San Diego city limits to Sweetwater Road	San Diego County
325	Paseo Delicias	El Camino del Norte to Via de la Valle	San Diego County
326	Rancho Bernardo Road	City of San Diego (west) city limits to City of San Diego (east) city limits	San Diego County
327	San Felipe Road/ Overland Route (S-2)	County Route S-22 to Imperial County Line	San Diego County
328	San Felipe Road/ Montezuma Valley Road/Palm Canyon Drive	SR 79 to Imperial County line	San Diego County
329	San Vicente Road/ 10th Street	SR 67 (Main Street) to Wildcat Canyon Road	San Diego County
330	Scripps Poway Parkway	Sycamore Canyon Road to SR 67	San Diego County
331	Siempre Viva Road	City of San Diego city limits to Lone Star Road	San Diego County
332	South Santa Fe Avenue	City of Vista city limits to City of San Marcos city limits	San Diego County
333	Sunrise Highway	SR 79 to I-8	San Diego County
334	Sweetwater Road (Bonita)	Willow Street to City of National City limits	San Diego County
335	Sweetwater Road (Spring Valley)	Jamacha Boulevard to Broadway	San Diego County
336	Sweetwater Springs Boulevard	Jamacha Boulevard to SR 94	San Diego County
337	Valley Center Road	SR 76 to City of Escondido city limits	San Diego County
338	Valley Center New Northern E to W Road	Cole Grade Road to Old Highway 395	San Diego County
339	Via de la Valle	City of San Diego city limits to Paseo Delicias	San Diego County
340	Via Rancho Parkway	Del Dios Road to City of Escondido city limits	San Diego County
341	Wildcat Canyon Road*	Ashwood Street to San Vicente Road	San Diego County
342	Willow Glen Drive	Jamacha Road to Dehesa Road	San Diego County
343	Willows Road	I-8 to Viejas Casino	San Diego County
344	Winter Gardens Boulevard	SR 67 to 2nd Street	San Diego County

No.	Arterial	Limits	Jurisdiction
345	Barham Drive	Twin Oaks Valley Road to Sunrise View	San Marcos
346	Borden Road	Las Posas Road to Woodland Parkway	San Marcos
347	Buena Creek Road	Twin Oaks Valley Road to Sunny Vista Lane	San Marcos
348	Discovery Street	San Marcos Boulevard to Twin Oaks Valley Road	San Marcos
349	Las Posas Road	West San Marcos Boulevard to North City Limits	San Marcos
350	Mission Road	Pacific Street to Barham Drive	San Marcos
351	Rancho Santa Fe Road	Mission Road to Melrose Drive	San Marcos
352	San Elijo Road	Twin Oaks Valley Road to Rancho Santa Fe Road	San Marcos
353	San Marcos Boulevard	Business Park Drive to Mission Road	San Marcos
354	South Santa Fe Avenue	Smilax Road to Pacific Street	San Marcos
355	Twin Oaks Valley Road	Deer Springs Road to Questhaven Road	San Marcos
356	Woodland Parkway	Barham Drive to El Norte Parkway	San Marcos
357	Carlton Hills Boulevard	Mast Boulevard to Mission Gorge Road	Santee
358	Cuyamaca Street	Mast Boulevard to City of El Cajon city limits	Santee
359	Magnolia Avenue	Mast Boulevard to Prospect Avenue/ SR 67	Santee
360	Mast Boulevard	SR 52 to Magnolia Avenue	Santee
361	Mission Gorge Road	City of San Diego city limits to Magnolia Avenue	Santee
362	Woodside Avenue	Magnolia Avenue to SR 67	Santee
363	Highway 101	City of Encinitas city limits to City of Del Mar city limits	Solana Beach
364	Lomas Santa Fe Avenue	I-5 to Highway 101	Solana Beach
365	Bobier Drive	North Melrose Drive to East Vista Way (S-13)	Vista
366	Branding Iron Drive	South Melrose Drive to SR 78	Vista
367	Business Park Drive	Sycamore Avenue to Palomar Airport Road/ San Marcos Boulevard	Vista
368	Cannon Road (Mar Vista Drive)	County of San Diego limits to SR 78	Vista
369	Civic Center Drive	SR 78 to East Vista Way (S-13)	Vista
370	East Vista Way	Civic Center Drive to County of San Diego limits	Vista
371	Emerald Drive	Hacienda Drive to Olive Avenue	Vista
372	Hacienda Drive	City of Oceanside city limits to Vista Village Drive	Vista
373	North Melrose Drive	SR 78 to Bobier Drive	Vista

No.	Arterial	Limits	Jurisdiction
374	North Santa Fe Avenue (S-14)	Main Street to North Melrose Drive	Vista
375	Olive Avenue	Emerald Drive to Vista Village Drive (S-13)	Vista
376	Shadowridge Drive	City of Oceanside city limits/Cannon Road to Sycamore Avenue	Vista
377	South Melrose Drive	City of Carlsbad to SR 78	Vista
378	South Santa Fe Avenue	Main Street to County of San Diego	Vista
379	Sycamore Avenue	South Santa Fe Avenue to South Melrose Drive	Vista
380	Thibodo Road	Mar Vista Drive (Cannon Road) to Sycamore Avenue	Vista
381	Vista Village Drive	Hacienda Drive to Civic Center Drive	Vista
382	West Vista Way	Thunder Drive to Vista Village Drive	Vista

Note: Line Nos. 295 and 340 marked by an asterisk () are included in the Regional Arterial System contingent upon being designated as a four-lane arterial by the County of San Diego.*

Figure N2.1: Regional Arterial System



Note: Some arterials are not visible in the figure due to the map extent.

Source: SANDAG

Attachment N3: Evaluation Criteria

Project Evaluation

To develop the 2025 Regional Plan projects, programs, and services, including the phasing of these investments, SANDAG considered various factors within a project evaluation process. This evaluation process focused on projects expected to have significant impacts on the region and constitute a significant portion of the Regional Plan's costs. Projects included for evaluation were limited to Transit and Complete Corridors with estimated costs of \$100 million or more. This included small roadway segment improvements that are part of a larger corridor.

The evaluation process consisted of three phases, each with distinct areas of focus. Taken together, these provided information on expected performance, logistics, and goal alignment to inform prioritization discussions.

The first phase identified projects that will help maximize VMT reduction benefits in the near term (by 2035). These details informed which projects support GHG emission reduction goals by the critical date of 2035 for consideration in decision-making. The second phase looked at social equity and emissions. The third phase looked at goods movement, non-Single Occupancy Vehicle (SOV), and asset conditions.

The following section provides the methodology for project evaluation, and the subsequent section summarizes how the evaluation was applied to each project type.

Project Evaluation was just one of many considerations for project development and phasing. SANDAG considered the various stakeholder needs and incorporated direction from its Board of Directors in refining the final network.

Project Evaluation Criteria Methodology

The following section provides additional detail on the three phases of the evaluation process:

Phase 1: Highest Priority for 2035

- **Project Readiness** identified projects that could be operational by 2035 if funding were available. Based on project type, this process assumed the length of time required from project start to end. SANDAG assumed that new rail projects generally require a minimum of 14 years to implement, while other projects could be implemented more quickly. As a result, this process assumed that new rail projects would not be ready for 2035 implementation unless planning was already underway. SANDAG assumed that all other projects could be implemented by 2035. The following table shows the project timelines associated with each project type.

Table N3.1: Project Readiness Duration Table

Project Type	Years
New Rail	14 years
Upgrades to Existing Rail	8 years
Rapid Bus	7 years
Maintenance Facilities	6 years
Managed Lanes, Connectors, Direct Access Ramps	5-6 years

- Anticipated VMT Impacts** identified which project types will help advance climate goals; specifically, SB 375 GHG target achievement. VMT is closely related to SB 375 GHG reduction calculations. Projects were categorized into 13 project types which are correlated with five VMT impact classes ranging from high increase to high decrease. Data from model outcomes and subject matter expertise were referenced to assign a class to each project type.

See Table N3.2 Anticipated Impacts Reference Table for more information on categorization for project types, project readiness, and their associated VMT impact.

Table N3.2: Anticipated Impacts Reference Table

Project Type	Project Readiness Open by 2035	VMT Impact
Rapid Projects	Yes	Low Decrease
Light Rail Transit Projects	Yes (upgrade) No (new line)	High Decrease
Streetcar Project	No	Low Decrease
Regional Rail Projects	Yes (upgrade)	High Decrease
Airport Transit Connection Project	Yes	Low Decrease
Converting General Purpose Lanes to Managed Lanes	Yes	High Decrease
Converting Existing Managed Lanes (HOV to HOT)	Yes	Low Increase
Constructing Additional Managed Lanes	Yes	High Increase
Interchange/Intersection improvement	Yes	Neutral
Managed Lane Connectors	Yes	Low Increase

The second and third phases of the evaluation process include a suite of support considerations to help inform equitable, safe, convenient, and healthy goal areas of the 2025 Regional Plan; goods movement; and additional items to capture national performance management goal areas.

Phase 2: Social Equity and Emissions

- **Social Equity** applied subject matter expertise to assign the anticipated impact class of benefit, neutral, or burden based on project type. CalEnviroScreen 4.0 was used to identify projects located within social equity focus communities (areas with an index percentile score of 50% or higher). Projects that do not cross a social equity focus community were tagged not applicable (n/a).
- **Crash History** (Complete Corridors only) produced a high, medium, or low categorization using 2016-2020 SWITRS crash data near each project. The process identified project locations and applied a buffer distance based on the facility type. Crash data were overlaid on the buffered project area and the number of fatal and serious injury crashes were summed. The number of identified crashes was divided by the project area to account for varying project sizes.
- **Diesel Particulate Matter (Diesel PM)** provided context for air quality impacts a project may have on surrounding communities. This identified whether a project overlaps an area that is already burdened by diesel particulate pollution using CalEnviroScreen. Projects that overlap areas that have a score of 50% or greater on the CalEnviroScreen Diesel PM Indicator map were included in this selection. Projects were reviewed and assigned the diesel PM anticipated impact classification of decrease, increase, or neutral based on the project type.
- **Particulate Matter 2.5 (PM 2.5)** indicated if a project is expected to increase, decrease, or have a neutral effect on Particulate Matter 2.5 pollution. Projects were reviewed for their anticipated effects on vehicle speeds and assigned the anticipated impact category based on how those speeds contribute to PM 2.5 emissions. Tables relating speed to vehicle emission rates from the California Air Resources Board's Emission Factors (EMFAC) model were used in this qualitative analysis. Extra emphasis was given to the effect of truck speeds since emission rates are significantly higher for trucks than for passenger vehicles.

Phase 3: Additional Project Information

- **Goods Movement** (Complete Corridors only) identified projects that overlap with freight networks including critical urban freight corridors. These projects were assigned an anticipated impact of positive, neutral, or negative.
- **Transit/Non-SOV** supports the non-SOV element of the Congestion Mitigation and Air Quality Improvement Plan (CMAQ) portion of the federal performance management rule in addition to the Regional Plan "convenient" goal area by promoting sustainable transportation options. Transit system additions, enhancements, and transit supporting infrastructure (including Managed Lanes that incentivize transit and carpool) were denoted as benefiting Transit/Non-SOV travel under this evaluation element.
- **Asset Condition** identified projects that cross or are crossed by bridges that are considered in poor condition by federal performance standards. This supports federal transportation asset management performance target achievement. Project locations were compared against the National Bridge Inventory data and classified as "yes" if they cross or are crossed by a poor condition bridge, "no" if they do not, or "unknown" if the project location could not be determined. Projects that cross or are crossed by these facilities should incorporate strategies for addressing bridge needs.

Project Evaluation Criteria by Project Type

The evaluation of Transit projects and Complete Corridor projects focused on what significant impacts those projects would bring to the region. The following section provides a review of the evaluation process for major mode and project type.

Transit Projects

Rapid Projects

Rapid projects are anticipated to be operational by 2035 under the project readiness category. The anticipated VMT impact for individual projects in this service type is expected to result in a low decrease and scored as an anticipated benefit in social equity areas. When analyzing the CalEnviroScreen Diesel PM Indicator map, the Rapid projects were assigned a diesel PM anticipated impact classification of neutral. The Rapid projects indicate an expected decrease in PM 2.5 emissions.

Light Rail Transit Projects

Light Rail Transit projects that are upgrades to existing infrastructure could be operational by 2035 under the project readiness category. Light Rail Transit projects that are new rail lines are not anticipated to be operational by 2035. Both types of Light Rail Transit projects are expected to have a high decrease VMT impact and scored as a benefit within social equity areas. Diesel PM anticipated impact classification is neutral. Light Rail projects are expected to decrease PM 2.5 emissions.

Streetcar Project

Streetcar projects are not expected to be operational by 2035. The anticipated VMT impacts for streetcar service is low decrease. This project is anticipated to benefit social equity areas. In analyzing the CalEnviroScreen Diesel PM Indicator map, the anticipated diesel PM impact classification is neutral. The streetcar project is expected to decrease PM 2.5 emissions.

Regional Rail Projects

Regional Rail projects that are upgrades to existing infrastructure could be operational by 2035. The anticipated VMT impact for Regional Rail projects is a high decrease, and the projects scored as a benefit within social equity areas. Regional Rail projects are expected to remain neutral for diesel PM and decrease PM 2.5 emissions.

Airport Transit Connection Project

The Airport Transit Connection project readiness is expected to be operational by 2035. The anticipated VMT impact for this project is low decrease. This project scored as a benefit within social equity areas. In analyzing the CalEnviroScreen Diesel PM Indicator map, the anticipated diesel PM impact is neutral. The Airport Connection project is expected to decrease PM 2.5 emissions.

Complete Corridors

Converting General Purpose Lanes to Managed Lanes

Projects that convert a general-purpose lane to a managed lane could be operational by 2035 under the project readiness category. The anticipated impacts for VMT for this project type is high decrease and is expected to be a benefit for social equity areas. This project type is expected to have a negative impact to goods movement because it reduces the number of lanes available for trucks. This is expected to increase truck idling and increase diesel PM. The project is expected to have a neutral effect on PM 2.5 emissions because increased idling would be offset by decreased VMT.

Converting Existing Managed Lanes (HOV to HOT)

Projects that convert HOV lanes to HOT lanes could be operational by 2035 under the project readiness category. The anticipated impacts for VMT for this project type is low increase. It is expected to be a benefit for social equity areas as a source of revenue for other uses like transit service in the corridor. This project type is expected to have a neutral impact for goods movement because it does not change the number of lanes available to trucks. This is expected to have a neutral effect on diesel PM and PM 2.5 emissions because there would not be substantial changes in idling or VMT.

Constructing Additional Managed Lanes

Projects that construct additional managed lanes could be operational by 2035 under the project readiness category. This project type is expected to result in a high increase in VMT and be a burden for social equity areas. This project type is expected to have a positive impact on goods movement by reducing congestion in general purpose lanes, resulting in a less idling and decreased diesel PM emissions. PM 2.5 emissions are expected to be neutral due to the decreased idling offset by the increase in VMT.

Interchange and Intersection Improvements

The project readiness for projects that included interchange/intersection improvements, roadway straightening, shoulder improvements were anticipated to be completed by 2035. The VMT impacts for this project type was neutral and is expected to result in a benefit for social equity areas by improving safety and/or evacuation capacity, depending on specific project features. This project type is expected to have a positive impact for goods movement by making truck travel smoother and more efficient. This is expected to decrease diesel PM emissions. PM 2.5 emissions are expected to be neutral due to limited overall change in idling and VMT.

Managed Lane Connectors

The managed lane connector project type could be operational by 2035. They are expected to have a low increase in VMT and be a burden within social equity areas. This project type is expected to have a neutral impact for goods movement by not affecting lanes and connectors available to trucks. Diesel PM emissions are expected to be neutral. PM 2.5 emissions are expected to increase due to the increase in VMT.

Attachment N4: Performance Measure Results

Table N4.1: Primary Performance Measure Results

Performance Measure and Description	Modes or Units	2022 Base Year	2035 No Build	2050 No Build	2035 Build	2050 Build
Access to Basic Needs - Retail						
% of population within 15 mins of retail	Walk	71.4%	71.0%	72.9%	71.0%	72.9%
% of population within 15 mins of retail	Bike	94.5%	94.1%	94.7%	94.1%	94.6%
% of population within 15 mins of retail	e-Bike	96.2%	96.0%	96.4%	96.0%	96.3%
% of population within 15 mins of retail	Microtransit/NEV	2.3%	3.1%	3.2%	38.4%	38.0%
% of population within 15 mins of retail	Transit - accessed by walk or microtransit/NEV	71.0%	70.7%	71.0%	73.3%	74.1%
% of population within 15 mins of retail	Drive alone	99.1%	99.1%	99.1%	99.1%	99.1%
Access to Basic Needs - Parks						
% of population within 15 mins of parks	Walk	50.4%	50.1%	49.6%	50.1%	49.6%
% of population within 15 mins of parks	Bike	88.5%	88.5%	87.7%	88.6%	87.5%
% of population within 15 mins of parks	e-Bike	92.8%	93.0%	92.3%	93.0%	92.1%
% of population within 15 mins of parks	Microtransit/NEV	2.3%	3.1%	3.2%	38.0%	37.1%
% of population within 15 mins of parks	Transit - accessed by walk or microtransit/NEV	62.4%	62.6%	62.6%	65.8%	66.8%
% of population within 15 mins of parks	Drive alone	98.9%	98.9%	98.9%	98.9%	98.9%

Performance Measure and Description	Modes or Units	2022 Base Year	2035 No Build	2050 No Build	2035 Build	2050 Build
Access to Basic Needs - Medical Facilities						
% of population within 30 mins of medical facilities	Microtransit/NEV	2.3%	3.1%	3.2%	37.4%	36.7%
% of population within 30 mins of medical facilities	Transit: accessed by walk or microtransit/NEV	78.3%	78.2%	77.9%	82.1%	82.7%
% of population within 30 mins of medical facilities	Drive alone	99.9%	99.9%	99.9%	99.9%	99.9%
Access to Opportunities - Employment Centers						
% of adult population within 30 mins of Tier 1 employment centers	Transit: accessed by walk or microtransit/NEV	33.1%	33.9%	34.8%	39.9%	42.0%
% of adult population within 45 mins of Tier 1 employment centers	Transit: accessed by walk or microtransit/NEV	45.6%	46.2%	46.9%	56.4%	58.7%
% of adult population within 30 mins of Tier 2 employment centers	Transit: accessed by walk or microtransit/NEV	62.8%	63.4%	63.4%	71.6%	72.9%
% of adult population within 45 mins of Tier 2 employment centers	Transit: accessed by walk or microtransit/NEV	72.4%	72.9%	73.1%	80.1%	81.5%
% of adult population within 30 mins of all employment centers	Transit: accessed by walk or microtransit/NEV	79.4%	79.4%	79.7%	83.1%	83.7%
% of adult population within 45 mins of all employment centers	Transit: accessed by walk or microtransit/NEV	79.5%	79.6%	79.9%	83.3%	84.0%

Performance Measure and Description	Modes or Units	2022 Base Year	2035 No Build	2050 No Build	2035 Build	2050 Build
Access to Opportunities – Higher Education						
% of adult population within 30 mins of higher education	Transit: accessed by walk or microtransit/NEV	68.2%	69.3%	69.7%	75.2%	76.1%
% of adult population within 45 mins of higher education	Transit: accessed by walk or microtransit/NEV	75.2%	75.7%	75.9%	80.4%	81.2%
SB 375 GHG Emission Measures						
On-road CO ₂ emissions - regionwide	Tons/day	35,142	37,007	37,432	35,651	35,563
Change in on-road CO ₂ emissions from 2005 level - regionwide	Tons/day	-4,369	-2,504	-2,079	-3,860	-3,948
On-road CO ₂ emissions - per capita	Pounds/day	21.4	21.8	22.0	21.0	20.9
Change in on-road CO ₂ emissions from 2005 level - Per Capita	Pounds/day	-4.6	-4.2	-4.0	-5.0	-5.1
VMT Measures						
All vehicle classes - regionwide	Miles	77,898,460	83,026,484	84,788,117	81,005,512	81,524,632
All vehicle classes - per capita	Miles	23.73	24.43	24.95	23.83	23.99

Table N4.2: Supporting Performance Measure Results

Performance Measure and Description	Modes or Units	2022 Base Year	2035 No Build	2050 No Build	2035 Build	2050 Build
Access to High Schools						
% of population within 30 mins of high schools	Transit - accessed by walk or microtransit/NEV	77.5%	77.5%	77.7%	81.2%	81.9%
Coastal Access						
% of population within 30 mins of the coast	Microtransit/NEV	0.8%	0.9%	0.9%	6.4%	6.3%
% of population within 30 mins of the coast	Transit - accessed by walk or microtransit/NEV	21.5%	22.7%	22.6%	27.2%	27.6%
% of population within 30 mins of the coast	Drive alone	93.7%	94.0%	94.4%	94.7%	94.9%
% of population within 45 mins of the coast	Microtransit/NEV	0.8%	0.9%	0.9%	6.4%	6.3%
% of population within 45 mins of the coast	Transit - accessed by walk or microtransit/NEV	35.2%	37.1%	37.5%	47.2%	50.9%
% of population within 45 mins of the coast	Drive alone	98.6%	98.6%	98.7%	98.7%	98.7%

Performance Measure and Description	Modes or Units	2022 Base Year	2035 No Build	2050 No Build	2035 Build	2050 Build
Mode Share by Work Trips & All Trips						
% of work trips during peak period	Bike & walk	5.2%	5.8%	6.2%	6.1%	7.1%
% of work trips during peak period	Carpool	8.0%	8.0%	8.0%	9.1%	9.9%
% of work trips during peak period	Drive alone	84.5%	83.7%	83.3%	81.0%	79.0%
% of work trips during peak period	Other (TNC, Micromobility, Taxi, School bus)	1.0%	1.1%	1.2%	1.0%	1.1%
% of work trips during peak period	Transit	1.4%	1.4%	1.3%	2.7%	2.9%
% of work trips all day	Bike & walk	12.5%	13.2%	14.1%	13.7%	15.1%
% of work trips all day	Carpool	9.5%	9.3%	8.9%	10.5%	10.8%
% of work trips all day	Drive alone	76.2%	75.5%	75.0%	73.0%	71.0%
% of work trips all day	Other (TNC, Micromobility, Taxi, School bus)	0.8%	0.9%	1.0%	0.8%	0.9%
% of work trips all day	Transit	1.0%	1.0%	1.0%	2.1%	2.2%
% of all trips	Bike & walk	16.2%	17.1%	18.3%	17.8%	19.9%
% of all trips	Carpool	33.6%	31.9%	30.9%	32.5%	31.8%
% of all trips	Drive alone	48.0%	48.8%	48.8%	46.3%	44.8%
% of all trips	Other (TNC, Micromobility, Taxi, School bus)	0.9%	0.9%	0.9%	0.9%	0.9%
% of all trips	Transit	1.3%	1.2%	1.2%	2.5%	2.6%

Performance Measure and Description	Modes or Units	2022 Base Year	2035 No Build	2050 No Build	2035 Build	2050 Build
Access to Rail or Next Gen Rapid Transit Stops						
People within 0.5 miles of a rail transit stop	Number	211,255	256,587	268,014	262,819	389,592
People within 0.5 miles of a rail transit stop	Percent	6.4%	7.5%	7.9%	7.7%	11.5%
People within 0.5 miles of a Next Gen Rapid transit stop	Number	229,729	301,483	314,928	1,080,349	1,115,260
People within 0.5 miles of a Next Gen Rapid transit stop	Percent	7.0%	8.9%	9.3%	31.8%	32.8%
People within 0.5 miles of either a rail or Next Gen Rapid transit stop	Number	374,375	463,228	488,289	1,149,392	1,190,123
People within 0.5 miles of either a rail or Next Gen Rapid transit stop	Percent	11.4%	13.6%	14.4%	33.8%	35.0%
Job Access to Rail or Next Gen Rapid Transit Stops						
Jobs within 0.5 miles of a rail transit stop	Number	318,514	341,509	363,907	352,636	453,198
Jobs within 0.5 miles of a rail transit stop	Percent	14.9%	15.3%	15.3%	15.8%	19.1%
Jobs within 0.5 miles of a Next Gen Rapid transit stop	Number	269,595	301,281	324,701	1,002,415	1,062,130
Jobs within 0.5 miles of a Next Gen Rapid transit stop	Percent	12.6%	13.5%	13.7%	44.9%	44.8%
Jobs within 0.5 miles of either a rail or Next Gen Rapid transit stop	Number	460,293	496,999	535,223	1,075,564	1,143,536
Jobs within 0.5 miles of either a rail or Next Gen Rapid transit stop	Percent	21.5%	22.3%	22.6%	48.2%	48.2%

Performance Measure and Description	Modes or Units	2022 Base Year	2035 No Build	2050 No Build	2035 Build	2050 Build
Access to Bike Facilities						
People within 0.25 miles of a bike facility (class I and II, cycletrack or bike boulevard)	Number	2,342,185	2,532,919	2,527,806	2,606,521	2,941,142
People within 0.25 miles of a bike facility (class I and II, cycletrack or bike boulevard)	Percent	71.3%	74.5%	74.4%	76.7%	86.5%
Daily Transit Boardings						
Number of boardings on a typical weekday	Rail	125,148	135,777	133,401	235,897	276,589
Number of boardings on a typical weekday	Next Gen Rapid	28,577	31,369	31,621	250,909	261,702
Number of boardings on a typical weekday	Local Bus and Express Bus	131,515	127,933	124,793	210,117	217,259
Number of boardings on a typical weekday	All transit boardings	285,239	295,078	289,814	696,923	755,550
Transportation Related Physical Activity						
Total time engaged in transportation related physical activity per capita	Minutes	12.21	12.39	13.12	13.61	15.56
% of population engaged in 20 mins or more of transportation related physical activity	Percent	16.5%	16.7%	17.4%	18.3%	20.0%
Transportation System Use Costs						
% of income consumed by out-of-pocket transportation costs	N/A	9.2%	8.0%	8.0%	9.0%	9.4%
Change in % of income consumed by out-of-pocket transportation costs	N/A	N/A	-1.2%	-1.2%	-0.2%	0.2%

Performance Measure and Description	Modes or Units	2022 Base Year	2035 No Build	2050 No Build	2035 Build	2050 Build
Average Particulate Matter (PM_{2.5})						
Average exposure to PM _{2.5} per capita	N/A	4.49	4.77	4.98	4.67	4.82
Average Commercial Vehicle & Truck Travel Times						
Average trip travel time for commercial vehicles and trucks to/from freight distribution hubs	Minutes	15.41	15.54	15.61	14.86	14.92
Truck Travel Time Index (TTI) by Facility Type						
Highway (SHS ⁷)	N/A	1.08	1.09	1.09	1.08	1.09
Arterial	N/A	1.20	1.21	1.21	1.15	1.15
Highway (SHS) + Arterial	N/A	1.13	1.14	1.14	1.11	1.11
Average Heavy Duty Truck Delay by Facility Type						
All day - All Heavy Duty (HHD + MHD + LHD ⁸)	Highway (SHS)	4,808	5,975	6,863	5,300	6,506
All day - All Heavy Duty (HHD + MHD + LHD)	Arterial	21,867	25,461	27,823	19,458	20,840
AM and PM peak - All Heavy Duty (HHD + MHD + LHD)	Highway (SHS)	4,698	5,790	6,622	5,108	6,199
AM and PM peak - All Heavy Duty (HHD + MHD + LHD)	Arterial	11,043	12,715	13,695	10,186	10,614

⁷ State Highway System

⁸ Heavy-heavy-duty, medium-heavy-duty, and light-heavy-duty

Table N4.3: Corridor Travel Times (AM peak period) (in minutes)

Corridor and Modes	2022 Base Year	2035 No Build	2050 No Build	2035 Build	2050 Build
Oceanside – Downtown San Diego					
By Transit	62	49	49	40	38
By Auto	65	65	64	60	60
By Carpool	65	64	64	53	52
Escondido – Downtown San Diego					
By Transit	47	49	50	54	52
By Auto	46	48	49	47	47
By Carpool	41	43	44	40	39
El Cajon – Kearny Mesa					
By Transit	101	87	86	62	57
By Auto	30	29	28	24	23
By Carpool	30	29	28	23	22
Mid City – UTC					
By Transit	64	64	64	54	43
By Auto	28	29	28	25	25
By Carpool	28	29	28	21	20
Western Chula Vista – Mission Valley					
By Transit	75	75	75	45	28
By Auto	29	28	29	26	24
By Carpool	29	28	29	25	23
Carlsbad – Sorrento Mesa					
By Transit	37	30	30	26	26
By Auto	42	41	40	39	37
By Carpool	42	41	40	36	35

Corridor and Modes	2022 Base Year	2035 No Build	2050 No Build	2035 Build	2050 Build
Escondido – Oceanside					
By Transit	57	57	57	57	57
By Auto	31	32	32	29	29
By Carpool	31	32	32	26	26
San Ysidro – Downtown San Diego					
By Transit	39	39	39	25	22
By Auto	25	26	26	23	23
By Carpool	25	26	26	22	20
Otay Ranch – UTC					
By Transit	87	88	88	68	59
By Auto	54	57	51	48	49
By Carpool	51	53	51	41	39
Pala/Pauma – Oceanside Transit Center					
By Transit	148	148	148	141	137
By Auto	51	51	52	47	48
By Carpool	51	51	52	47	48
SR 67 (Ramona) – Downtown San Diego					
By Transit	134	136	135	107	102
By Auto	77	78	78	74	73
By Carpool	76	76	76	73	70