



LOSSAN

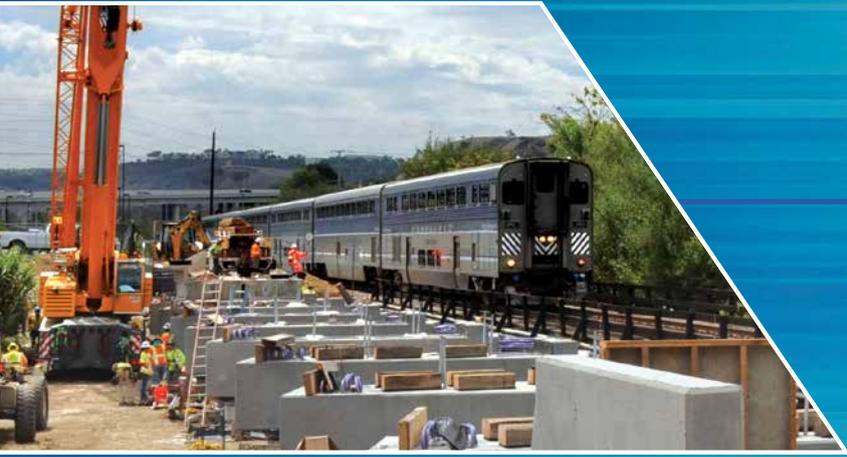
Los Angeles
San Diego
San Luis Obispo

Coastal Rail Corridor

San Diego Segment

Building Today. Boarding Tomorrow.





Building Today

Boarding Tomorrow



LOSSAN

Los Angeles, San Diego,
San Luis Obispo

Coastal Rail Corridor
San Diego Segment





What is LOSSAN?

The 351-mile Los Angeles–San Diego–San Luis Obispo (LOSSAN) Coastal Rail Corridor travels through a six-county coastal region in Southern California and is the second busiest intercity passenger rail corridor in the United States. The LOSSAN Corridor service includes 41 stations and more than 150 daily passenger trains, with an annual ridership of 2.7 million on Amtrak Pacific Surfliner intercity trains and 4.9 million on Metrolink and COASTER commuter trains.

The corridor also is the only viable freight rail link between San Diego and the rest of the nation. BNSF Railway operates the freight service with the Port of San Diego as a major customer.

The San Diego segment of the coastal rail line, built more than 125 years ago, connects to Orange County through Camp Pendleton and the cities of Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, and San Diego.

With the population in the San Diego region projected to grow by more than one million people by 2050, SANDAG is planning a future that relies more on our coastal rail line, which connects people to our transit, bike, and pedestrian networks. Our investments for tomorrow will improve our communities, the environment, and our quality of life, creating more choices for travelers and commuters to reach their destination.

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Two Tracks Are Better Than One

Much of the coastal rail line is single tracked, so trains traveling in opposite directions have to slow or stop when they cross paths.

During the next 20 years, SANDAG plans to construct approximately \$1 billion of improvements within the 60-mile San Diego segment. With more than 20 projects in the works, each project builds upon the next, adding to the transit and freight capacity and reliability of the rail system.

The projects work together collaboratively and are prioritized in three phases by need.

In various stages, SANDAG and its rail partners are:

- Double tracking approximately 30 miles
- Replacing rail bridges, some nearly 100 years old, with modern concrete or steel bridges
- Installing safety equipment and new train signaling
- Improving and adding parking at stations
- Improving tracks, including adding new switches and concrete rail ties, which make operations quieter
- Collaborating with North County Transit District (NCTD) and cities on their efforts to implement future Quiet Zones to limit train horn noise
- Incorporating grade separations for safe and legal crossings
- Adding new stations and platforms along the corridor



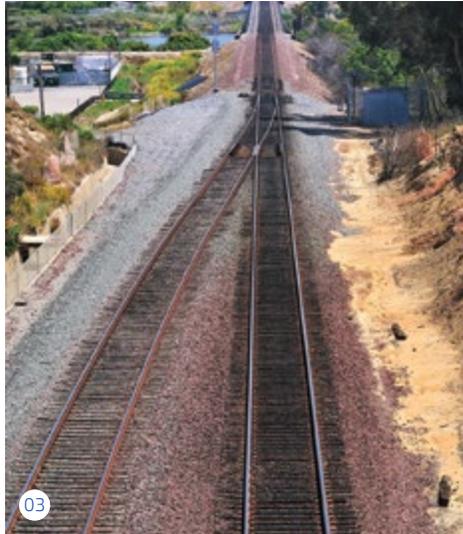
“ The LOSSAN rail enhancement projects will create the next generation of rail service in the coastal rail corridor. ”

Gary Gallegos
Executive Director
SANDAG



02

- 01 Rail improvement projects will add additional parking spaces at transit stations.
- 02 COASTER trains pass each other without slowing in the double tracked sections of the corridor, ensuring on-time travel.
- 03 Currently, trains need to sit idle in sections of the coastal rail line if another train is approaching.
- 04 Crews complete rail bridge work.



03

The LOSSAN coastal rail program is a vital component of our regional plan to move San Diego forward. Today, the rail line accommodates more than 50 passenger and freight trains each day, moving more than seven million people and \$1 billion* in goods annually. According to SANDAG projections, these numbers will continue to grow.

Planned rail improvements will:

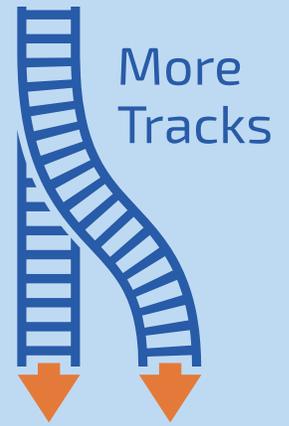
- Improve your travel experience, getting you to your final destination on-time
- Give operators the capacity to add more trains to their schedules each day, giving you more convenient and reliable choices to travel to work, home, the beach, or other coastal destinations
- Provide reliable goods movement for regional businesses



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LOSSAN rail projects are in various phases of planning, design, and construction and are being completed in coordination with NCTD, Amtrak, San Diego Metropolitan Transit System (MTS), Metrolink, BNSF Railway, Caltrans Division of Rail, and U.S. Department of Transportation (USDOT).

*Source: BNSF Railway. 2008: \$1B, 2050 estimate: \$2B.



More Tracks



More Trains



More Efficient Travel

OUR GOAL:

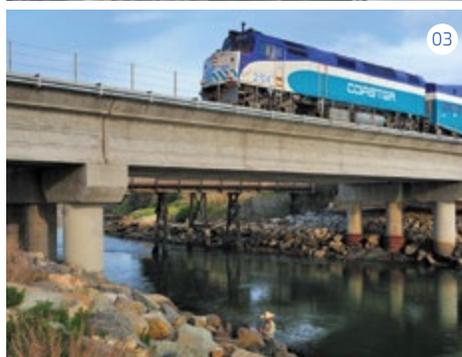
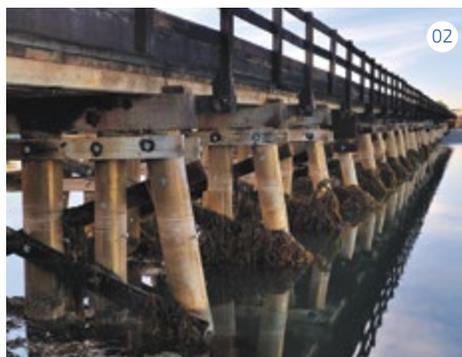
Double track
99%
of the 60-mile
San Diego
rail segment
BY 2050

Preserving and Enhancing Our Coastal Environment



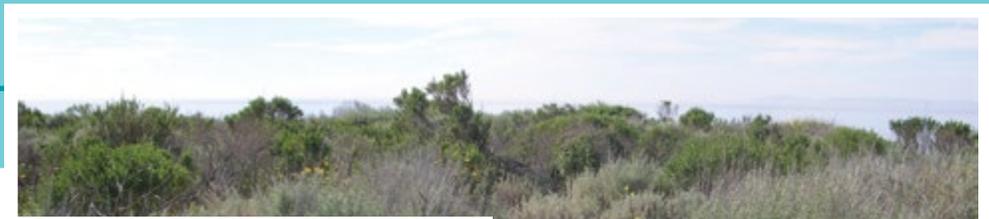
SANDAG ensures native habitats are protected, preserved, and enhanced during the construction of rail improvement projects. The enhancements in our coastal habitats and lagoons are being completed in collaboration with lagoon foundations and state and federal environmental resource agencies.

Many of the rail projects will provide long-term benefits to the coastal habitat. The new, modern double track bridges will be longer and have wider column spacing. The smaller bridge footprints will improve water tidal flow and lagoon flushing for healthier lagoons. Additionally, the current wooden bridges require frequent and costly maintenance by NCTD. The new bridges will significantly reduce disturbance in the sensitive habitats caused by bridge and track maintenance.



“ Widening bridge spans and increasing tidal circulation is paramount for the health of our lagoon systems. ”

*Doug Gibson
Executive Director
San Elijo Lagoon Conservancy*



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Many of the rail improvement projects will enhance public access to the coastline and lagoon areas for those seeking to bike and walk to the coast or nearby habitats. The projects also will help facilitate construction of the Coastal Rail Trail, a planned bike route that runs 44 miles from Oceanside to Santa Fe Depot in Downtown San Diego.



05

06

- 01** New rail bridges will replace the existing wooden trestle bridges to improve tidal circulation in our lagoons.
- 02** The age and wood frame of rail bridges results in frequent and costly maintenance.
- 03** New bridges will have wider foundation spacing to create a more open lagoon view for sightseers.
- 04** Residents and visitors enjoy walking along our coastal lagoons. SANDAG recognizes the importance of preserving these coastal wetlands for future generations.
- 05** Rail project teams ensure construction does not occur during the breeding season for the California gnatcatcher, a threatened species.
- 06** The California clapper rail, an endangered species seen in our coastal lagoons, is monitored during construction to guarantee rail projects do not disturb its breeding season.
- 07** When complete, the 44-mile Coastal Rail Trail will connect six coastal cities, allowing people of all ages and abilities to visit and enjoy our many community assets.
- 08** A number of rare and endangered species live in southern coastal sage scrub. SANDAG will replant any coastal sage that is disturbed near the project.

Supporting Our Coastal Communities

For over a century, the coastal rail line has been a lifeline for our coastal cities. The rail line, once called the Santa Fe Railway, brought a flow of commerce to San Diego, famous Hollywood stars to the Del Mar Fairgrounds, and a new, more efficient way to travel. As cities grew around the railroad, the coastal rail line helped support their local economies and tourism, while providing transportation options for residents and businesses.



- 01** Commuters frequently sit in rush hour traffic. An enhanced rail system will provide an attractive alternative to driving and improve current traffic congestion on I-5 and other local streets.
- 02** Bikers enjoy the completed Coastal Rail Trail through Solana Beach.
- 03** The Santa Fe pedestrian undercrossing, completed in 2013, improves public access to the beach and downtown Encinitas.



Today, SANDAG and its partners are supporting a better transportation future for our local coastal communities. With more travel alternatives available, traffic will be reduced on nearby Interstate 5 (I-5) and other arterial streets and roads. SANDAG is planning additional rail undercrossings and enhancing existing at-grade

crossings, as well as helping plan and construct bike and pedestrian trails, such as the Coastal Rail Trail and the North Coast Bike Trail, to increase coastal access for communities. SANDAG and NCTD are also collaborating with cities to aid in the implementation of Quiet Zone technology to limit train horn noise at rail crossings.

“

These coastal rail projects are helping to build attractive transportation options and sustainable growth solutions.”

*The Honorable Lesa Heebner
City of Solana Beach*

A Coastal Rail Focus in the North Coast Corridor Program



North Coast Corridor
A better environment for the future

Many of the planned LOSSAN rail improvements are part of the North Coast Corridor Program (NCC Program), which offers a balanced transportation system to provide travelers with choices for the future in North County. The NCC Program comprises three primary focus areas – adding Express Lanes on I-5, double tracking the LOSSAN coastal rail line, and enhancing coastal habitat and coastal access.

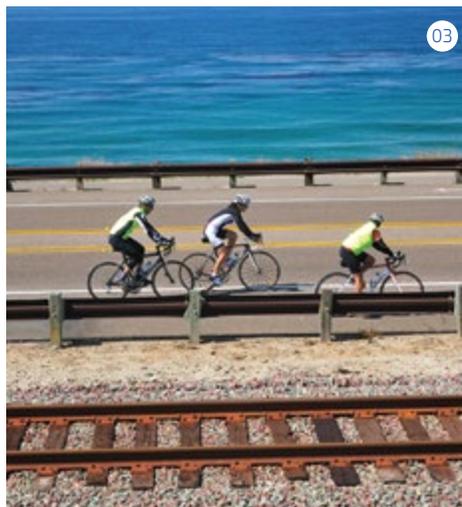
The NCC Program is focused on improving regional mobility and capacity to move people, not just cars. SANDAG and Caltrans have been collaborating with resource agencies and local cities for more than a decade to implement the more than \$6 billion package of transportation and resource enhancement projects from La Jolla to Oceanside over the next 40 years.

In an effort to minimize impacts to coastal lagoons, SANDAG and Caltrans will construct new rail bridges and highway improvement projects concurrently.

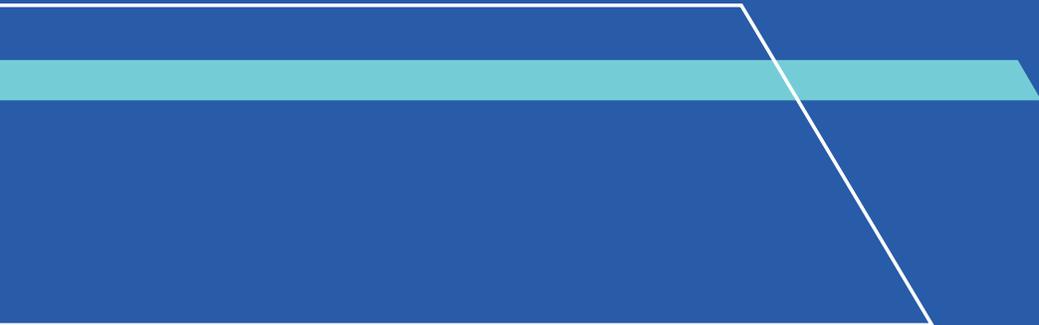
As a companion to the I-5 freeway, improvements to the San Diego segment of the LOSSAN corridor play a critical role in the movement of people and goods within the region's North Coast Corridor.



Moving People Not Just Cars



- 01** The Sorrento Valley COASTER Station serves one of San Diego's busiest employment centers, home to more than 126,000 jobs.
- 02** Rail passengers can transfer between Amtrak and Sprinter service at the Oceanside Transit Center.
- 03** The NCC Program will complete and enhance trail connections, closing gaps that inhibit bicyclists and pedestrians from reaching the coast.



“

Goods movement along
our coastal rail corridor
is critical to our region's
economic prosperity. ”

*Jerry Sanders
President and CEO
San Diego Regional Chamber of Commerce*

Forging San Diego: A Rail History

The establishment of America's transcontinental rail lines linking California to the rest of the country dates back to 1869, when the "last spike" was driven to join the



tracks from east to west. By around the start of the 20th century, the completion of four subsequent transcontinental routes in the United States and one in Canada would provide not only additional pathways

to the Pacific Ocean but also would forge ties to all of the economically important areas from coast to coast.

The establishment of a railroad in Southern California offered settlers in the San Diego region a far-reaching

transportation system that contributed to the area's population and economic growth. The LOSSAN Rail Corridor coastal intercity rail line, also known today as the Pacific Surfliner train route, is a transportation success story. Completed more than 125 years ago, the coastal communities of San Diego, Del Mar, Solana Beach, Encinitas, Carlsbad, and Oceanside flourished and grew as passenger and freight transportation options picked up steam to forge ties between the cities and the rest of the nation.

Below is a brief account of how the LOSSAN coastal rail line contributed to the early growth of our region and how today it continues to serve as an economic lifeline for San Diego.

1880 | 1890 | 1900 | 1910 | 1920 | 1930 | 1940

A

B

C

D

E

F

G

A 1888

Construction of the coastal rail line between San Diego and Los Angeles is completed.

B 1891

The original San Diego train route to the north (which ran through Temecula Canyon) floods and washes out, establishing the coastal rail line as the main rail route in Southern California.

C 1927

The flood of February 1927 washes out some of the wooden trestle rail bridges along the corridor, suspending service until they are rebuilt. According to the San Diego History Center, local bridges have also been subjected to major flooding in 1937, 1978, and 1980, highlighting the need for modern infrastructure improvements.

D 1938

Atchison, Topeka, and Santa Fe Railway (Santa Fe Railway), owner and operator of the coastal rail line at the time, forms the *San Diegan*, a 126-mile passenger route from Los Angeles to San Diego. The first train runs March 27, making two round trips a day.

E 1940-1950s

During and after World War II, San Diego's military bases grow rapidly and necessitate the addition of freight services to the coastal rail line.

F 1941

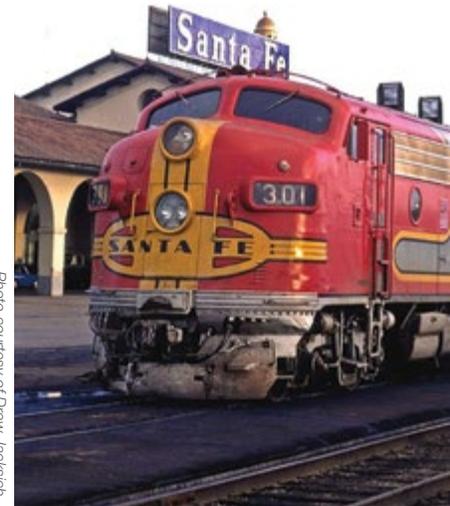
The *San Diegan* service increases to five round trips per day.

G 1946

The Santa Fe Railroad begins offering racetrack specials, bringing spectators and horses from Los Angeles to the first Bing Crosby Stakes held at the Del Mar Fairgrounds.

H 1960s

Financially, rail passenger service begins to struggle as passenger volumes decrease due to automobile/airline competition.



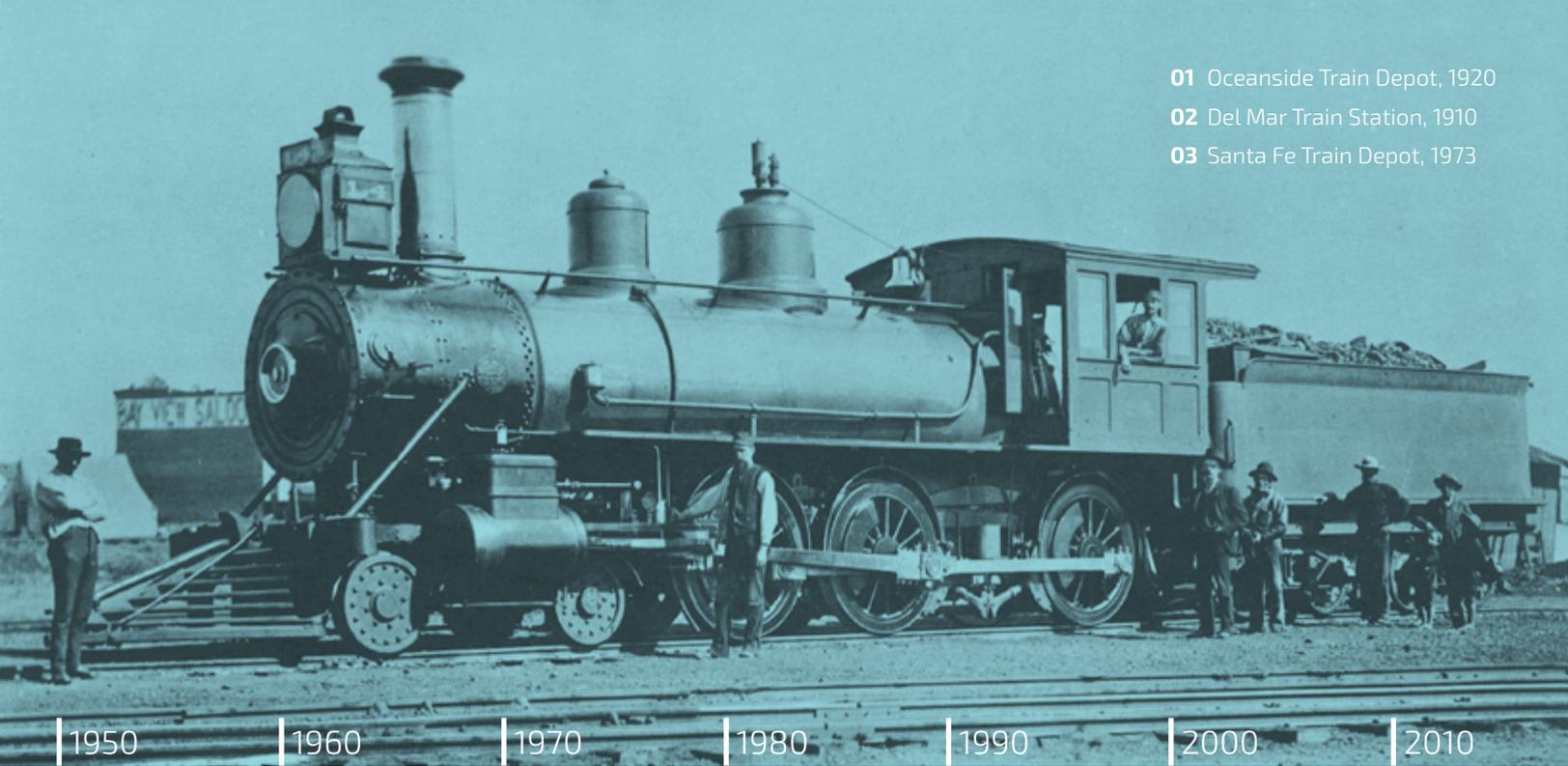
I 1970

Congress passes the Rail Passenger Service Act to create the National Railroad Passenger Corporation, later called Amtrak, to preserve regional passenger rail lines.

J 1971

Amtrak takes over operation of the nation's passenger service on May 1 and continues operation of the *San Diegan* route.





- 01 Oceanside Train Depot, 1920
- 02 Del Mar Train Station, 1910
- 03 Santa Fe Train Depot, 1973

1950 | 1960 | 1970 | 1980 | 1990 | 2000 | 2010



03

K 1975
The California State Senate creates the North County Transit District (NCTD), which at the time was referred to as the North San Diego County Transit Development Board. (The name was officially changed in 2005.) NCTD was charged with planning, constructing, and operating public transit in North San Diego County.

L 1982
NCTD begins planning for the COASTER commuter rail service.

M 1987
San Diego voters approve *TransNet* to provide funding for future transit projects, including projects on the coastal rail line.

N 1989
Local agencies along the *San Diegan* route form the Los Angeles-San Diego (LOSSAN) Rail Corridor Agency to foster cooperation and advocate for improved service. Later, membership was expanded to the north to include San Luis Obispo.

O 1994
NCTD and MTS purchase the 60 miles of coastal rail line for COASTER trains from Santa Fe Railway.

P 1995
The COASTER commuter rail route, connecting San Diego and Oceanside, begins service on February 27.

Q 1996
The Santa Fe Railway and another rail holding company, Burlington Northern Railroad, merge to form BNSF Railway, which today continues to provide freight goods movement on the coastal rail line.

R 2000
Amtrak rebrands the *San Diegan* passenger service route to *Pacific Surfliner* after the rail line's nickname, the "Surf Line."

S 2003
Pacific Surfliner's annual ridership tops 2 million, making it Amtrak's fastest growing passenger corridor nationwide.

T 2012
LOSSAN Board of Directors approves the LOSSAN Corridorwide Strategic Implementation Plan, the framework document for future service improvements.

U Today
The LOSSAN rail corridor is the second busiest intercity rail corridor in the nation supporting commuter, intercity, and freight rail services. One in every nine Amtrak riders uses the corridor. During the next 20 years, SANDAG plans to construct approximately \$1 billion in improvements in the San Diego segment, including a primary effort to double track the corridor from Orange County to Downtown San Diego. To date, more than half of the San Diego corridor has been double tracked. Other infrastructure improvements include bridge and track replacements, new platforms, pedestrian undercrossings, and other safety and operational enhancements.

Nearly \$1 billion in planned rail improvements will create 12,000 local jobs.



Half a Cent Makes a Big Impact on Local Transportation

TransNet

Your Tax Dollars
Keep San Diego Moving

For a quarter century, the voters of the San Diego region have approved and committed to *TransNet*, a long-term, half-cent sales tax dedicated to financing local transportation projects. For most of the rail improvement projects, SANDAG will leverage *TransNet* funding with federal and/or state funding to complete the financing of the projects.

Although some of the projects are not fully funded, SANDAG has the unique capacity to get them “shovel ready,” so when funding becomes available they are able to move forward quickly. The nearly \$1 billion in planned rail investments will create approximately 12,000 local planning, engineering, and construction jobs for the region.

The coastal rail improvement projects are some of the region’s highest priority transit projects. They are all identified in the SANDAG Early Action Program, which prioritizes transportation projects that will offer the most traffic relief for commuters as soon as possible during the next ten years.



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