

# WELCOME

*Bienvenido*





# Project Partners

*Socios del Proyecto*



**Federal Transit  
Administration**



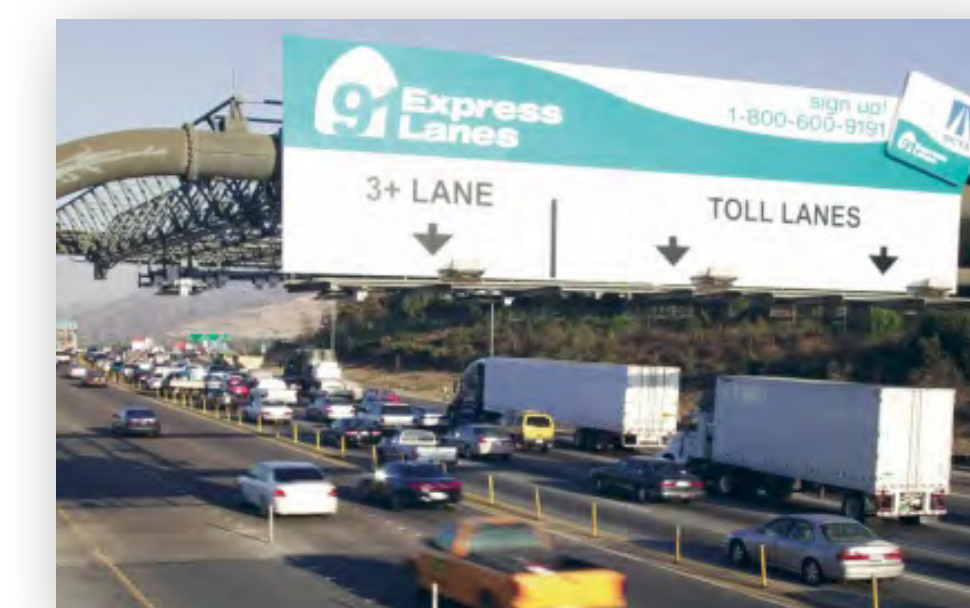


 "Our mission is to develop and deliver transportation solutions to enhance the quality of life and keep Orange County moving."

 "*Nuestra misión es desarrollar y ofrecer soluciones de transporte para mejorar la calidad de vida y mantener al Condado de Orange.*"

## About OCTA *Acerca de OCTA*

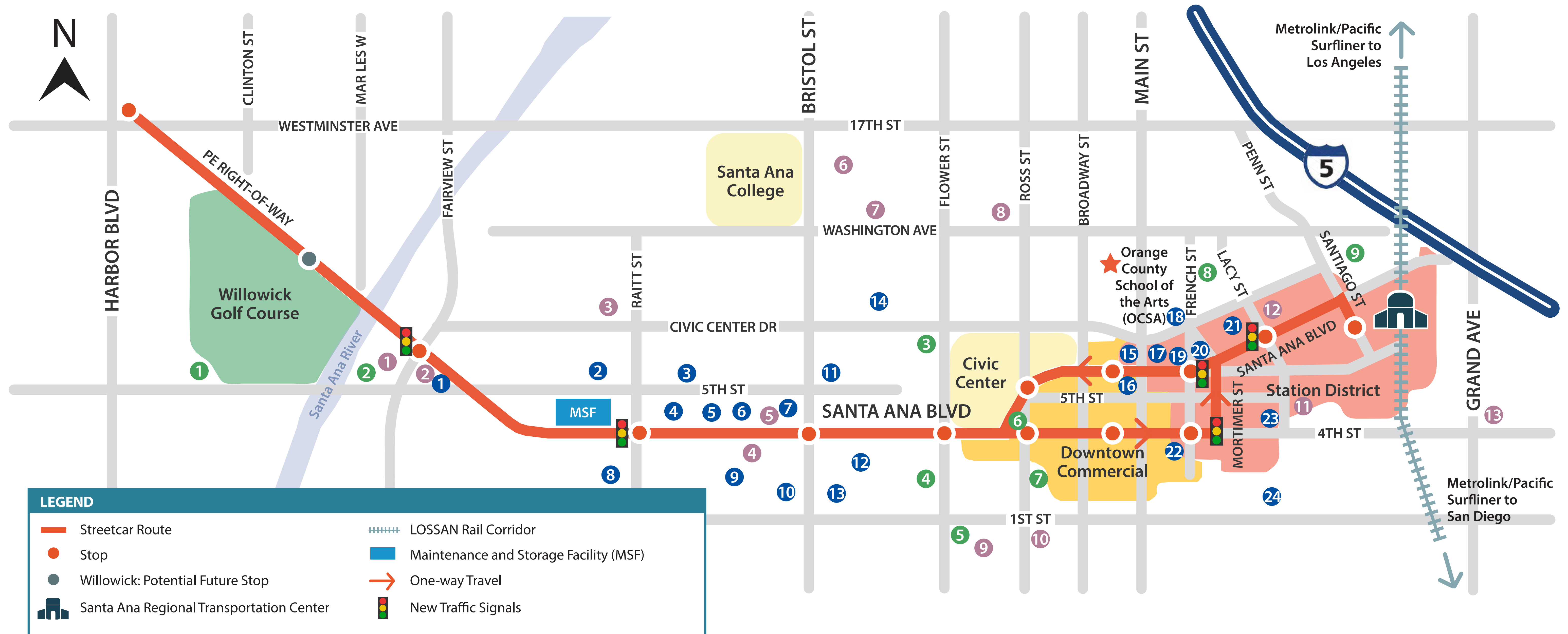
- Formed in 1991; OC's primary transportation agency  
*Formada en 1991, OCTA es la agencia de transporte principal del Condado de Orange*
- Governed by 18-member Board of Directors  
*Regulada po una Junta Directiva de 18 miembros*
- Multi-modal focus on freeways, streets and transit  
*Enfoque multimodal en las autopistas, las calles y el transporte público*
- OCTA programs and services include:  
*Los programas y sericios de OCTA incluyen:*
  - Freeways/ Autopistas
  - Streets and Roads/ Calles y carreteras
  - Bus Transit/ Servicio de autobús
  - 91 Express Lanes/ Carriles Rápidos en la Autopista 91
  - LOSSAN/ Corredor Ferroviario LOSSAN
  - Motorist Services/ Servicios para conductores
  - OCTAP
  - Rideshare/ Viajes Compartidos
  - Measure M/ Medida M
  - OC Streetcar





# Streetcar Accessibility

## Accesibilidad del Tranvía



### Parks and Recreation

- 1 Cesar Chavez Campesino Park
- 2 Spurgeon Park
- 3 Santa Ana Stadium
- 4 Angels Community Park
- 5 Flower Street Park
- 6 Sasser Park
- 7 Birch Park
- 8 French Park
- 9 Logan Park

### Schools

- 1 Spurgeon Intermediate School
- 2 Vista Heritage Charter Middle School
- 3 Fremont Elementary School
- 4 Lydia Romero-Cruz Elementary School
- 5 Carver Elementary School
- 6 Wilson Elementary School
- 7 Heroes Elementary School
- 8 Willard Intermediate School
- 9 Santa Ana High School
- 10 Martin R. Heninger Elementary School
- 11 Garfield Elementary School
- 12 St Joseph's School
- 13 Frederick Remington Elementary School

### Churches

- 1 Templo Calvario Church
- 2 Templo Emanuel Church
- 3 Our Lady of the Pillar Church
- 4 Community Temple Church
- 5 New St Paul Baptist Church
- 6 La Iglesia De Dios Inc
- 7 New Covenant Church Of Orange County
- 8 Graceland Community Baptist Church
- 9 Greater Light Missionary Baptist Church
- 10 Johnson Chapel AME Church
- 11 Non Sectarian Church of God
- 12 Samoan Congregational Church
- 13 Starlight Baptist Church
- 14 Breath of Holy Fire Church
- 15 First Presbyterian Church of Santa Ana
- 16 Church of Scientology of Orange County
- 17 Episcopal Church-The Messiah
- 18 Christ Chapel MCC Santa Ana
- 19 Santa Ana United Methodist Church
- 20 Iglesia De Dios Pentecostal
- 21 St. Joseph Church
- 22 Hillsong Church Orange County
- 23 Church of the Living Lord
- 24 Church-Jesus Christ of L D S







# OC Streetcar Community Benefits

## *Beneficios a la Comunidad del Tranvía de OC*



- ④ Provides convenient, low-cost travel options for local residents/ *Ofrece opciones de viaje convenientes y de bajo costo para residentes locales*
- ④ Relieves traffic congestion and dependency on cars in the heart of Santa Ana/ *Alivia la congestión del tráfico y la dependencia de los automóviles en el corazón de Santa Ana*
- ④ Reduces local pollution caused by cars/ *Reduce la contaminación local causada por los automóviles*
- ④ Includes safety improvements/ *Incluye mejoras de seguridad:*
  - New signalized lights & crosswalks/ *Nuevo señalamiento de luces y cruces peatonales*
  - Accommodates protected bike lanes/ *Adapta carriles protegidas para bicicletas*
  - Improve lighting adjacent to new streetcar stops/ *Mejora la iluminación adyacente a las nuevas paradas del tranvía*
- ④ Promotes pedestrian and bicycle activity along the corridor/ *Promueve la actividad de peatones y bicicletas a lo largo del corredor*
- ④ Creates local jobs/ *Crea trabajos locales*



# OC Streetcar Connections

## *Conexiones del Tranvía de OC*



 Provides access to Downtown Santa Ana shops, restaurants and entertainment  
*Proporciona acceso a tiendas, restaurantes y entretenimiento del centro de Santa Ana*

 Links users to City, County and Federal services including:  
*Vincula a usuarios con servicios de la ciudad, condado y federales, que incluyen:*

- Santa Ana City Hall
- Santa Ana Public Library
- Santa Ana Police Department
- OC Sheriff's Office
- Orange County Social Services
- Federal courthouses

 Provides north-south connections to key destinations including:  
*Proporciona conexiones de norte-sur a destinos clave que incluyen:*

Harbor Blvd access connects riders from the beach to Disneyland, the Anaheim Convention Center and beyond  
*El acceso de Harbor Blvd conecta a pasajeros de la playa con Disneyland, el Centro de Convenciones de Anaheim y más allá*

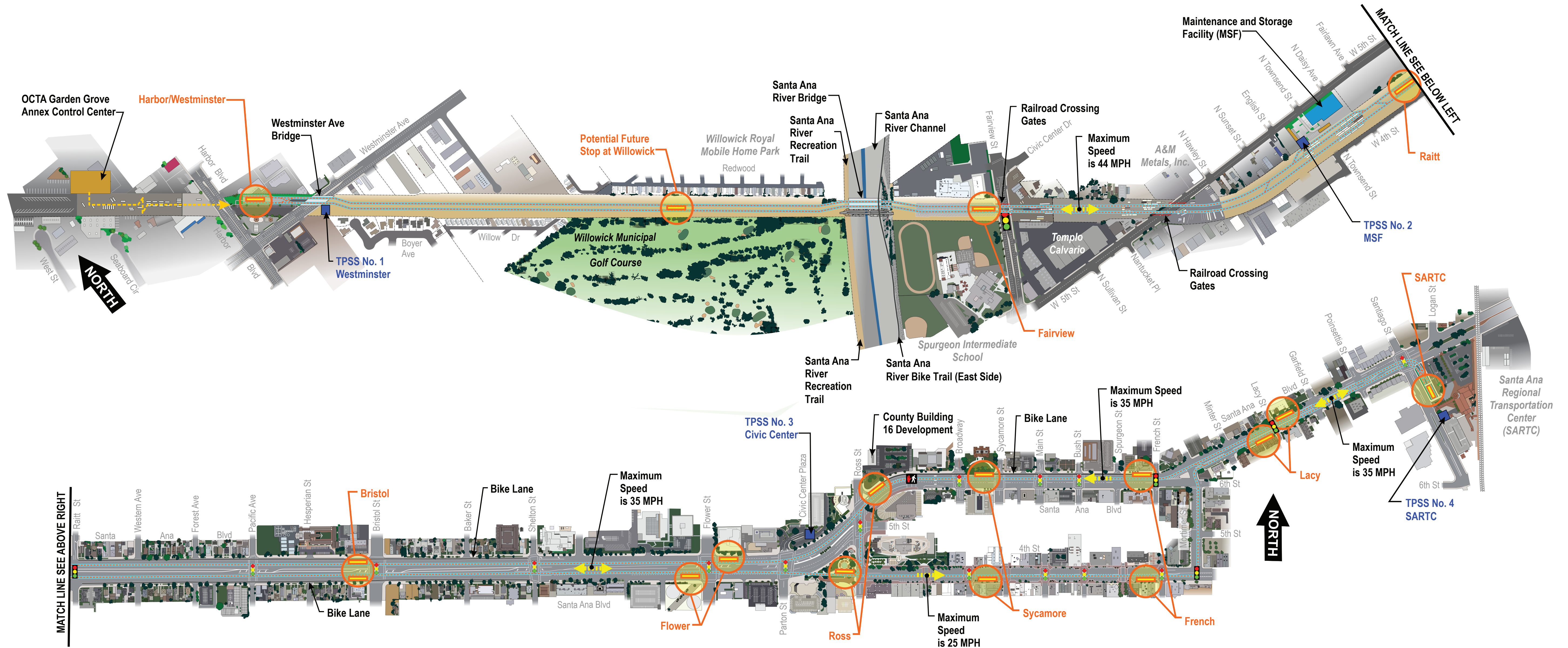
 Provides last-mile connections for Metrolink and Amtrak riders  
*Proporciona conexiones de última milla para pasajeros de Metrolink y Amtrak*

 Connects to 14+ bus routes along the corridor  
*Conexiones a más de 14 rutas de autobús a lo largo del corredor*



# Corridor Maps

## Mapa del Corredor



- Traction Power Substation (TPSS) / Subestación eléctrica de Tracción / Trạm Biến Áp Điện
- Fiber Optic Duct Bank / Banco de Ducto de Fibra Óptica / Nơi Tập Hợp Ống Sợi Quang
- New Traffic Signals / Nuevas Señales de Tráfico / Tín Hiệu Giao Thông Mới
- Existing Traffic Signals / Señales de Tráfico Existentes / Tín Hiệu Giao Thông Hiện Tại
- Pedestrian Signal / Señal Peatonal / Tín Hiệu Người Đi Bộ
- Stop Platform / Plataforma de la Parada / Bệ Dừng

### Operating Hours

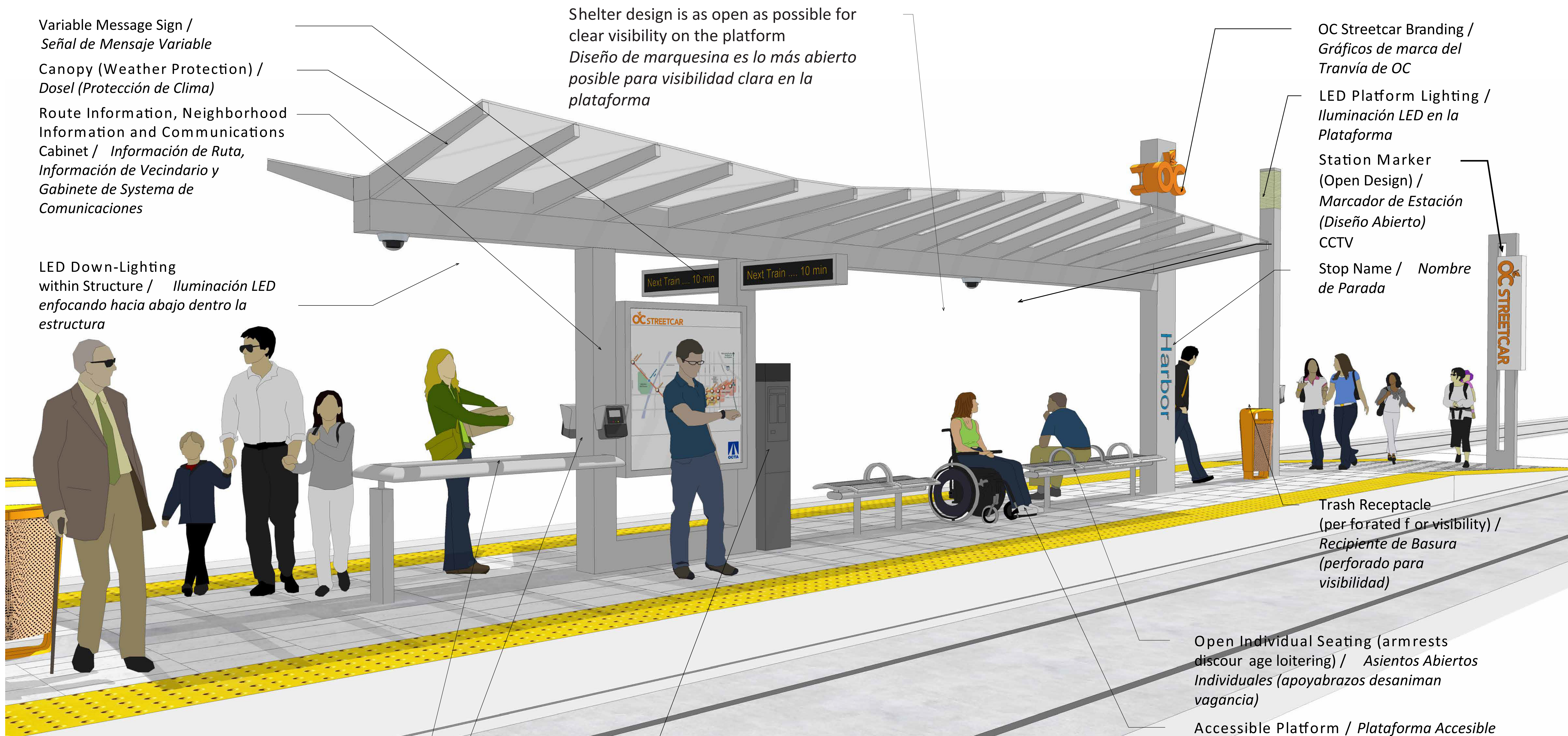
- Monday through Thursday: 6 AM to 11 PM (17 hours)
- Friday and Saturday: 6 AM to 1 AM (19 hours)
- Sunday/Holidays: 7 AM to 10 PM

Every 10 minutes (6 cars in service), from 6 AM to 6 PM week-days, and every 15 minutes (4 cars in service) otherwise. Fleet Size is 8. Opening year forecasted daily boardings is 7,300.



# Key Stop Features

## Características Claves de las Paradas



Variable Message Sign /  
*Señal de Mensaje Variable*

Canopy (Weather Protection) /  
*Dosel (Protección de Clima)*

Route Information, Neighborhood  
Information and Communications  
Cabinet / *Información de Ruta,  
Información de Vecindario y  
Gabinete de Sistema de  
Comunicaciones*

LED Down-Lighting  
within Structure / *Iluminación LED  
enfocando hacia abajo dentro la  
estructura*

Leaning Rail / *Riel para Recargar*

Ticket Validator / *Validador de boleto*

Ticket Vending Machine / *Máquina expendedora de boletos*

Shelter design is as open as possible for  
clear visibility on the platform  
*Diseño de marquesina es lo más abierto  
posible para visibilidad clara en la  
plataforma*

OC Streetcar Branding /  
*Gráficos de marca del  
Tranvía de OC*

LED Platform Lighting /  
*Iluminación LED en la  
Plataforma*

Station Marker  
(Open Design) /  
*Marcador de Estación  
(Diseño Abierto)*  
CCTV

Stop Name / *Nombre  
de Parada*

Trash Receptacle  
(perforated for visibility) /  
*Recipiente de Basura  
(perforado para  
visibilidad)*

Open Individual Seating (armrests  
discourage loitering) / *Asientos Abiertos  
Individuales (apoyabrazos desaniman  
vagancia)*

Accessible Platform / *Plataforma Accesible*



# Context Rendering - French and Santa Ana

*Rendimiento de Contexto - Calles French y Santa Ana*





# Context Rendering - French and 4th Street

*Rendimiento de Contexto - Calle French y 4th*



## Features:

- ① Level streetcar boarding
- ① Shaded shelters
- ① Security lighting



# Context Rendering - SARTC

*Rendimiento de Contexto - SARTC*





# Context Rendering - Harbor Blvd. Terminus

*Terminus Rendimiento de Contexto - Término de Harbor Blvd.*





# Context Rendering - Maintenance and Storage Facility (MSF)

*Rendimiento de Contexto Facilidad de Mantenimiento y Almacenamiento (MSF)*



Features of the Maintenance Storage Facility include:

- 8 new vehicles purchased, with 6 in service at one time
- 12 vehicle storage capacity
- Vehicle maintenance and servicing areas



# Context Rendering - Maintenance and Storage Facility (MSF)

*Rendimiento de Contexto Facilidad de Mantenimiento y Almacenamiento (MSF)*





# Context Rendering - Santa Ana River Bridge

*Rendimiento de Contexto - Puente de Santa Ana River*





# Context Rendering - Westminster Ave. Bridge

*Rendimiento de Contexto - Puente de Westminster Ave.*

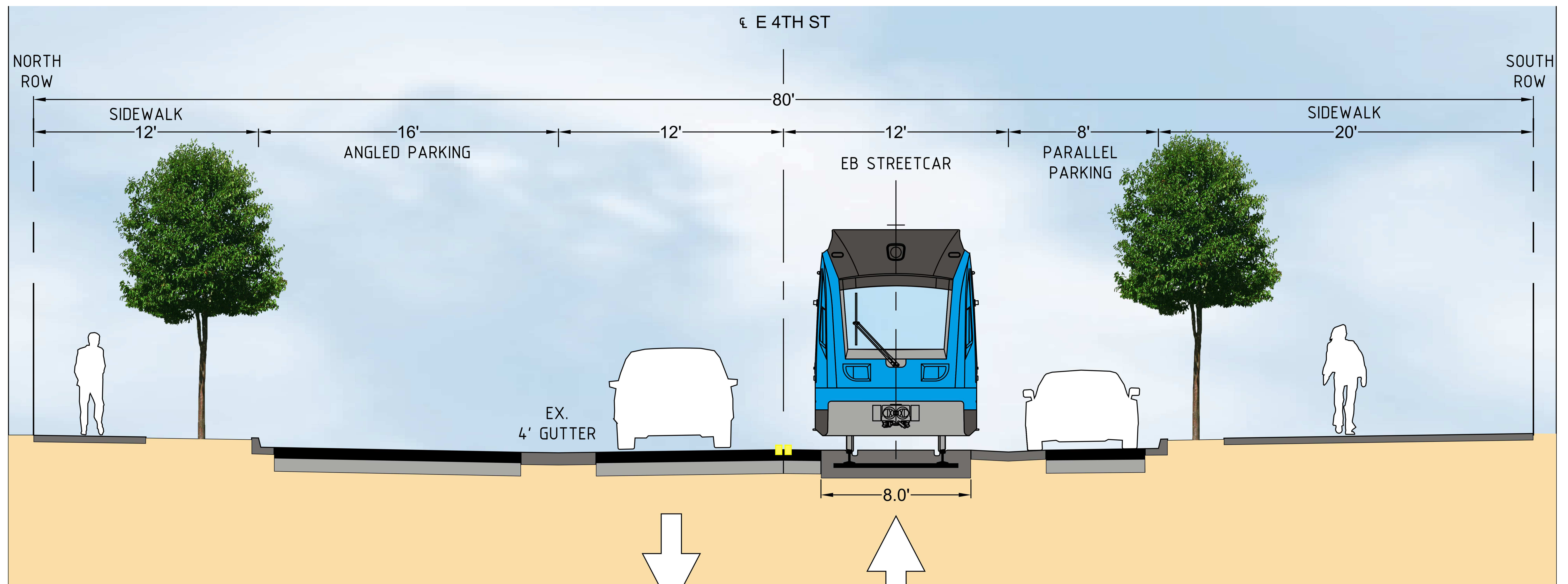




# Fourth St. (Looking East)

## Fourth St. (Mirando al Este)

- Remains one lane of traffic in each direction/  
*Permanece siendo un carril de tráfico en cada dirección*
- Streetcar operates in the travel lane/  
*Tranvía opera en el carril de tráfico*
- Sidewalk on south side of street is widened/  
*Banqueta del lado sur será ampliada*
- Diagonal parking replaced by curb-side parking on south side of street/  
*Estacionamiento diagonal será reemplazado por estacionamiento en el borde de la banqueta de la calle*

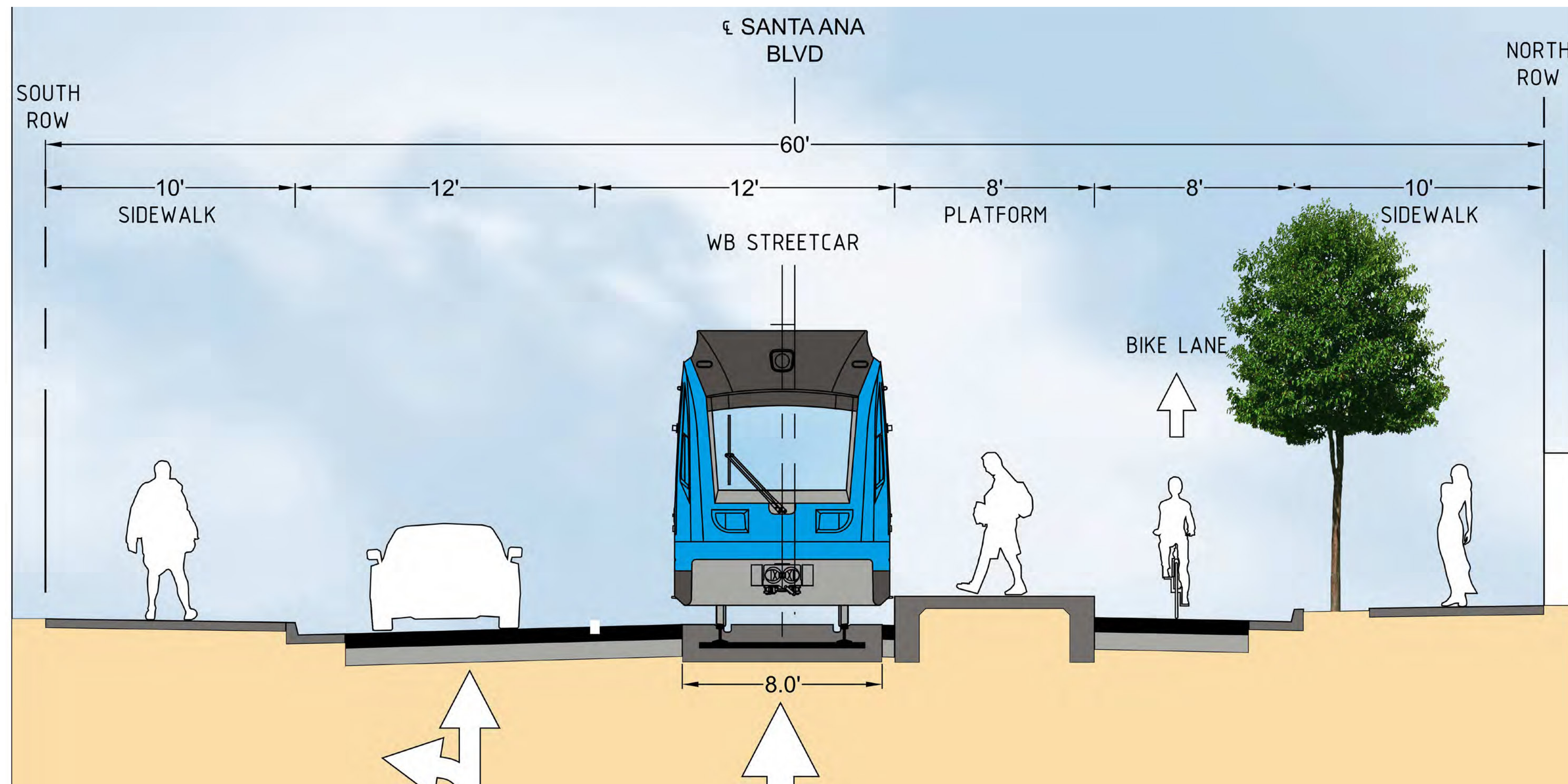




# E. Santa Ana Blvd. – At Sycamore (Looking West)

## E. Santa Ana Blvd. – En Sycamore (Mirando al Oeste)

- Two westbound travel lanes/  
*Dos carriles de trafico hacia el oeste*
- Streetcar operates in the travel lane/  
*Tranvía opera en el carril de tráfico*
- Buffered bicycle lane on south-side of street passes behind platform/  
*Carril protegido para bicicletas pasa detras de la plataforma en el lado sur de la calle*
- Allows for right-hand turns/  
*Permite giros a la derecha*

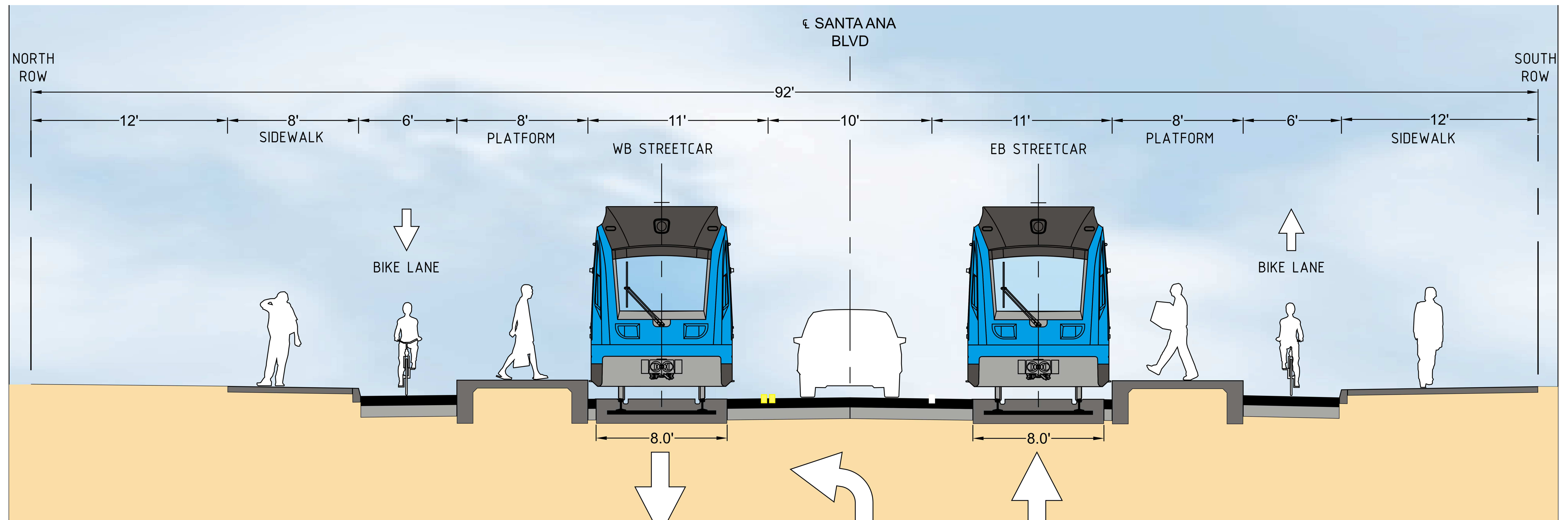




# W. Santa Ana Blvd. – At Bristol Station (Looking East)

## W. Santa Ana Blvd. – En la estación Bristol (Mirando al Este)

- Stops located on west side of Bristol St./  
*Paradas ubicadas en el lado oeste de Bristol St*
- Streetcar operates in the travel lane/  
*Tranvía opera en el carril de tráfico*
- Bicycle lane behind the platforms/  
*Carril de bicicleta detrás de las plataformas*
- Allows for left-hand turns/  
*Permite giro a la izquierda*

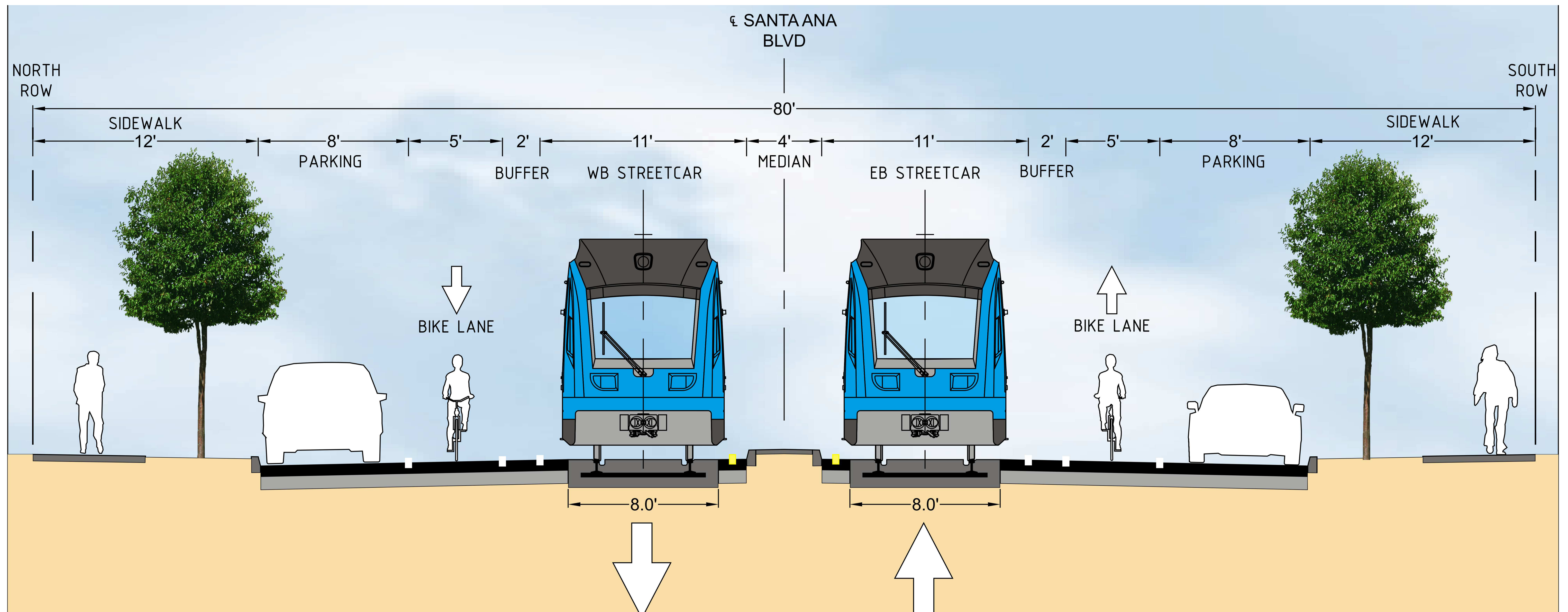




# W. Santa Ana Blvd. – Raitt St. to Bristol St. (Looking East)

## W. Santa Ana Blvd. – Raitt St. a Bristol St. (Mirando al Este)

- One lane of traffic in each direction/ *Un carril de tráfico en cada dirección*
- Streetcar operates in the travel lane/ *Tranvía opera en el carril de tráfico*
- New 4' landscaped median/ *Nueva mediana ajardinada de 4 pies*
- Buffered bicycle lane in each direction/ *Carril protegido para bicicletas en cada dirección*
- Curb-side parking lane in each direction/ *Estacionamiento al borde de la baqueta en cada dirección*





# Construction Process

*Proceso a la Construcción*

*Relocate  
utilities*

*Build track,  
platforms and  
electrical  
system*

*Perform  
civil work*

*Conduct  
testing and  
operations*

*Service  
begins*



# Pre-Construction Activities

## Proceso Previo a la Construcción



**2018**  
Pre-Construction  
Pre-construcción  
Tiền xây dựng



**2019 - 2022**  
Construction  
Construcción  
Xây Dựng



**Early 2022**  
Testing & Operations  
Pruebas y Operaciones  
Kiểm Tra & Hoạt Động

### OVERHEAD UTILITIES

**SERVICIOS PÚBLICOS SOBRE EL SUELO**  
TIỆN ÍCH TRÊN MẶT ĐẤT

Overhead utilities may include above-ground electrical lines, telephone lines, cable lines and poles. Crews will first conduct necessary demolition, relocation, modification or construction of new utilities, and then crews will perform road work to restore the area.

*Los servicios públicos sobre el suelo quizás puedan incluir líneas eléctricas que van por encima del suelo, líneas telefónicas, líneas de cable y postes de electricidad. Los equipos en primer lugar realizarán la demolición, reubicación, o construcción que sea necesaria de los nuevos servicios públicos, y después de eso, los equipos realizarán la obra en la carretera con el fin de restaurar la zona.*

Các tiện ích trên mặt đất có thể bao gồm đường dây điện trên mặt đất, đường dây điện thoại, đường dây cáp và cột điện. Trước tiên đội ngũ xây dựng sẽ tiến hành phá dỡ, di dời, sửa đổi hoặc xây dựng các tiện ích mới cần thiết, và sau đó sẽ xây dựng đường xá để khôi phục khu vực.

### UNDERGROUND UTILITIES

**SERVICIOS PÚBLICOS SUBTERRÁNEOS / TIỆN ÍCH NGẦM**

Underground utilities may include storm drains, water pipelines, gas pipelines, electrical lines, fiber optic lines, telephone lines, cable lines, and underground conduits for traffic signals and roadway lighting. Crews will first survey existing utilities conditions using excavation, potholing or radar. Once completed, crews will excavate the soil, construct new or modified utilities, backfill soil and conduct road work to restore the area.

*Los servicios públicos subterráneos quizás puedan incluir desagües pluviales, tuberías de agua, tuberías de gas, líneas eléctricas, líneas de fibra óptica, líneas telefónicas, líneas de cable, y conductos subterráneos para la señalización del tráfico y para la iluminación de la carretera. En primer lugar, los equipos realizarán un estudio de las condiciones de los servicios públicos, mediante excavaciones, espeleología o radar. Una vez se haya completado, los equipos van a excavar el suelo, construir nuevos o modificados servicios públicos, se rellenará el suelo y se realizarán reparaciones en la carretera con el fin de restaurar la zona.*

Tiện ích ngầm có thể bao gồm cống thoát nước mưa, đường ống dẫn nước, đường ống dẫn khí, đường dây điện, đường cáp quang, đường dây điện thoại, đường dây cáp và đường ống ngầm đèn tín hiệu giao thông và đèn chiếu sáng đường bộ. Đội ngũ xây dựng trước tiên sẽ khảo sát tình trạng của tiện ích hiện có bằng cách sử dụng hố đào, khảo sát hốc sâu hoặc sử dụng radar. Sau khi hoàn tất, đội ngũ xây dựng sẽ đào đất, xây dựng các tiện ích mới hoặc sửa đổi, lấp đất và tiến hành xây dựng đường xá để khôi phục lại khu vực.

### DURING CONSTRUCTION

You may notice:

- Construction vehicles and equipment.
- Noise and dust.
- Road and lane closures.

We will work to minimize construction impacts to the maximum extent possible.

### DURANTE LA CONSTRUCCIÓN

Usted puede notar:

- Vehículos y equipo de construcción.
- Ruido y polvo.
- Cierres de carretera y carriles.

Vamos a trabajar para reducir al mínimo los efectos de la construcción, hasta donde sea posible.

### TRONG QUÁ TRÌNH XÂY DỰNG

Bạn có thể chú ý thấy:

- Xe và thiết bị xây dựng.
- Tiếng ồn và bụi.
- Đóng đường và làn đường.

Chúng tôi sẽ làm việc để giảm thiểu tác động xây dựng đến mức tối đa có thể.



# Utility Relocation

## Reubicación de Servicios Públicos

### Utility work

- Utility companies began to move their services in 2018
  - Telecom
  - Southern California Edison
  - Southern California Gas
- The OC Streetcar contractor, Walsh Construction Co., began relocating utilities in 2019
  - Sanitary sewer
  - Water





# Track Work

## *Trabajo del Tranvía*

- Demolition
- Install track in roadway
- Build platforms
- Install overhead power system (catenary) for streetcars








- Ⓞ Restore and restripe roadway
- Ⓞ Replace curb and gutter
- Ⓞ Install new traffic signals





# Testing and Operations

## *Pruebas y Operaciones*

-  Test track on Pacific Electric Right-of-way
  - Initial testing of the OC Streetcar vehicle will be performed for approximately 3 months on this section of the track
  - Operator training will be conducted on this section of track
-  Traction Power Sub-stations
  - The traction power sub-stations will be turned on to energize the overhead catenary system (OCS), which powers the overhead wiring
  - The power disconnects will be tested to ensure functionality of the system
-  Signal and Intersections
  - Gated crossings will be tested to ensure they are integrated with traffic signals
  - Signal timing will be adjusted at intersections to ensure the streetcar can safely enter and clear intersections with minimum impacts to traffic flows.





Vehicle  
*Vehículo*





# Stay Connected

*Manténgase Conectado*



[OCstreetcar.com](http://OCstreetcar.com)



(844) 7GO-OCSC or (844) 746-6272

(714) 560-5374 – Tresa Oliveri, Community Outreach Officer



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