

# Zooming to México on the Siempre Viva Bridge



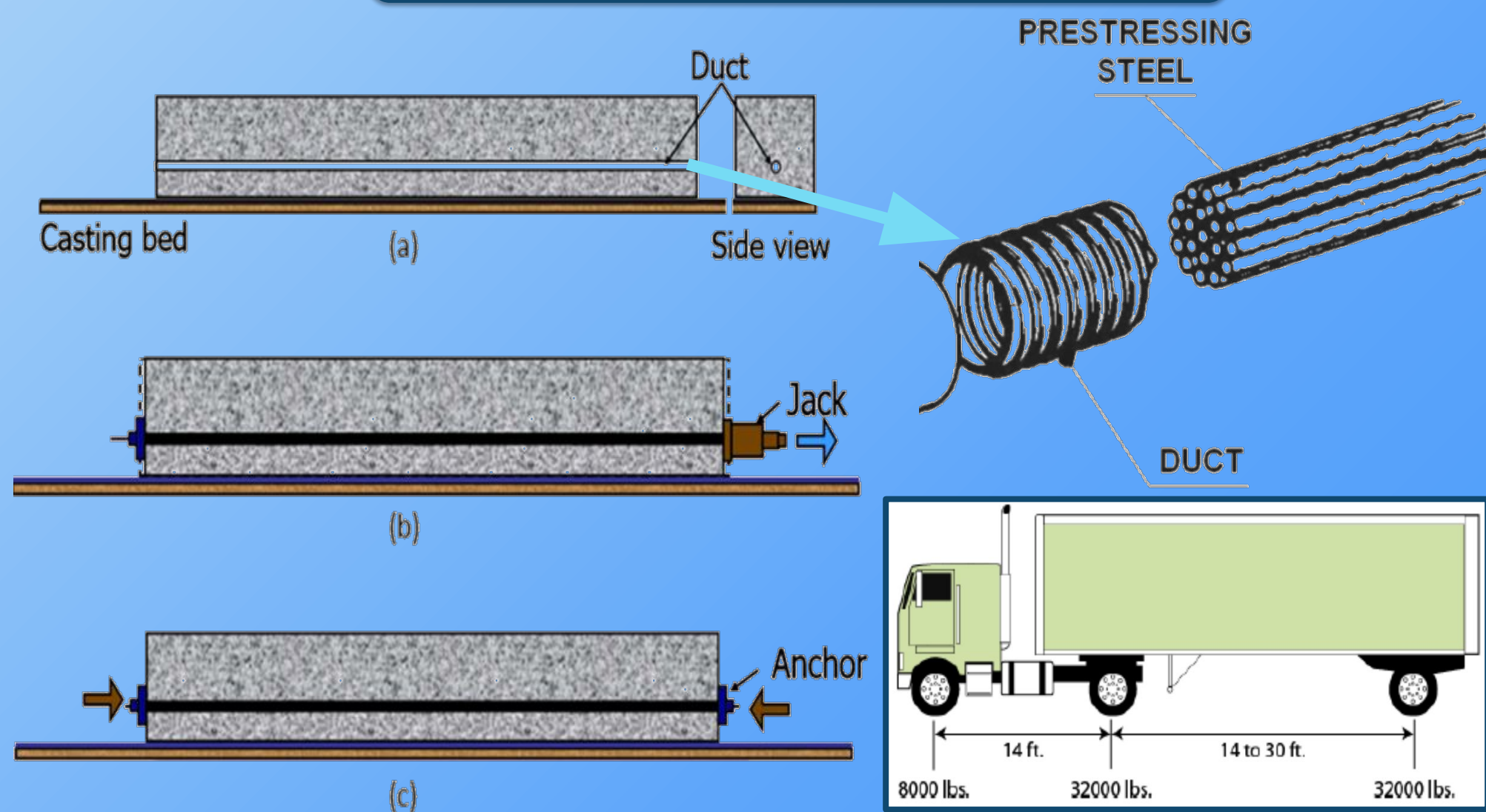
SB Consultants | Design Team S7

Project Manager: Bryan Perez ([perezb5@uci.edu](mailto:perezb5@uci.edu)) || Project Engineers: Isaiah Hernandez, Vinh Vu  
 Industry Advisors: Mina Pezeshpour, Peyman Kaviani, Cesar Sanchez, Reza Mortezaie, Ahmed Nasr  
 Faculty Advisor: Joel Lanning

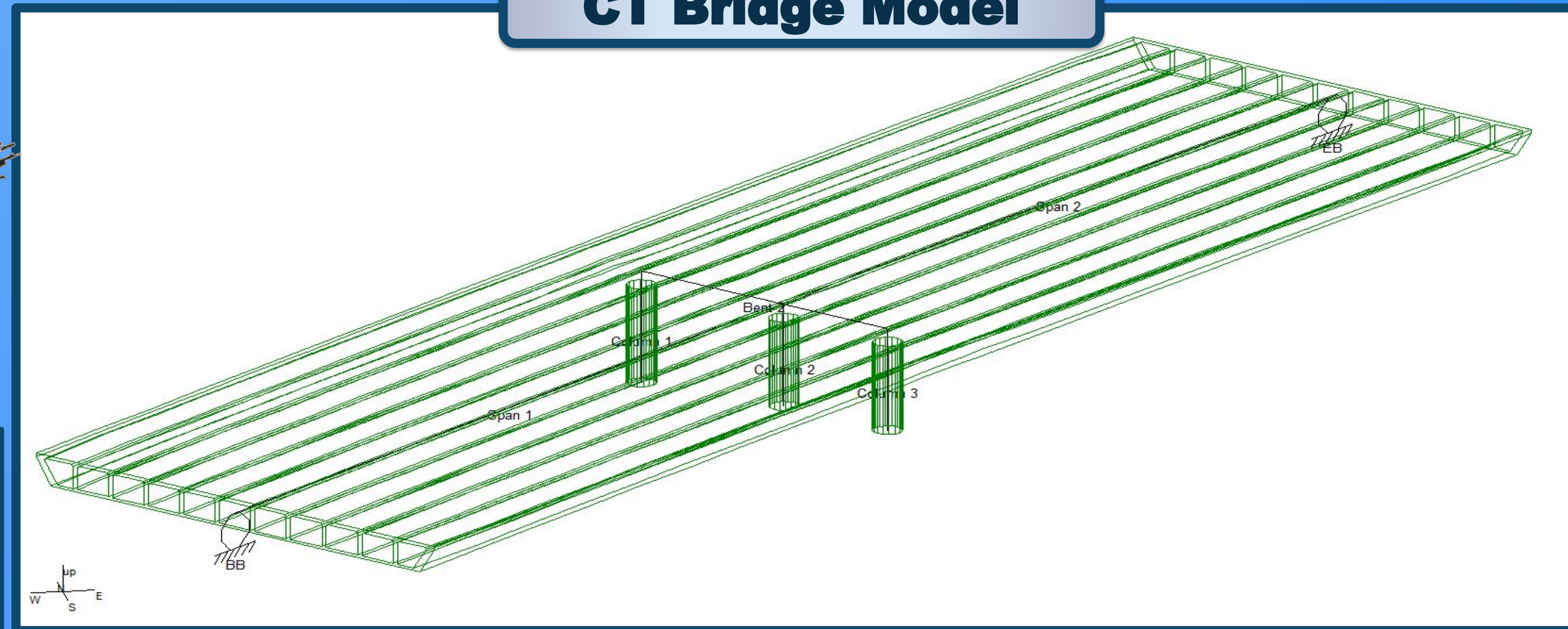
UCI Samueli School of Engineering  
 Department of Civil and Environmental Engineering



## Design Methods



## CT Bridge Model



## Comparative Costs

Section	Span Range	Cost Range
Wide Flange Girder	90-180 ft	\$300-500/SF
Steel Girders	60-300 ft	\$200-750/SF
CIP/PS Box Girder	100-250 ft	\$200-450/SF

## Project Description

SB Consultants will work with Caltrans to design a two-span cast-in-place prestressed (CIP-PS) concrete bridge over the State Route 11 to enhance San Diego-Baja California mobility and cut border wait times.

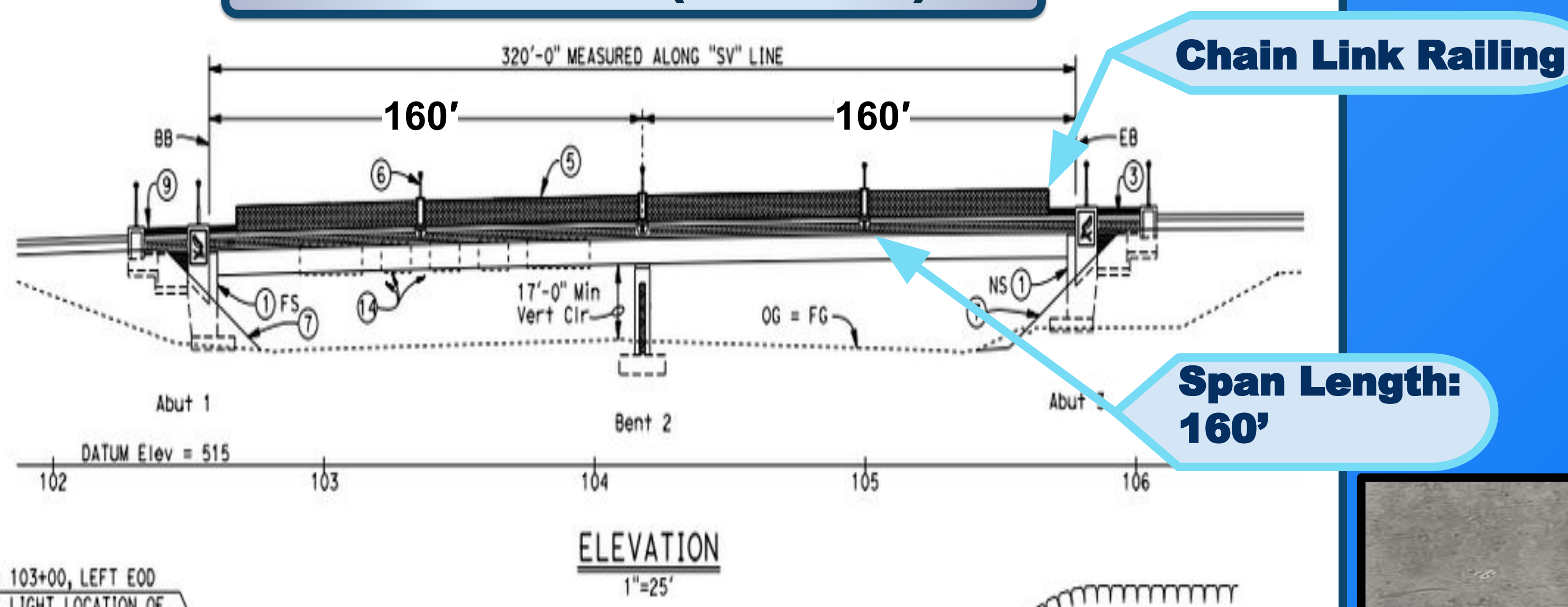
## Design Constraints

- Minimum Vertical Clearance
- Minimum Required Lanes
- Minimum Superstructure Depth
- Load Combination Limit States



Deck Thickness: 8"

## General Plan (Elevation)



Column Diameter: 5'-6"

Girder Spacing: 9'-3"

Column Height: 22'

Concrete Barrier (732SW)

## General Plan (Typical Section)

