

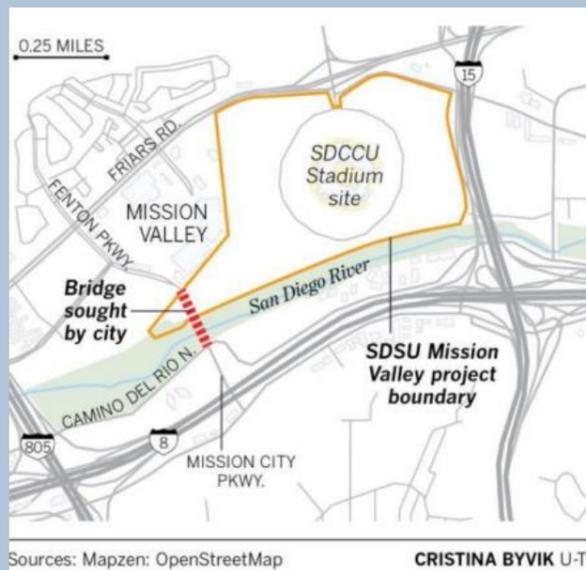
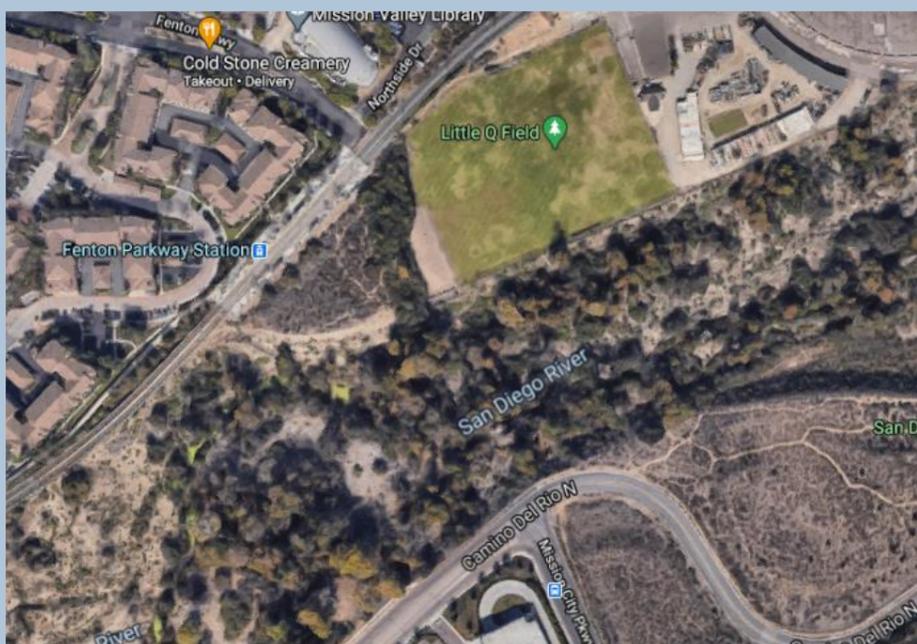
# Fenton Parkway Bridge

## PROJECT DESCRIPTION

The San Diego State University (SDSU) is seeking Design-Build Entities (D-BE) qualified to design and construct Fenton Parkway Bridge. This will be part of the SDSU West Campus development and will be over the San Diego River at the south end of existing Fenton Parkway. A connection over the river has been anticipated since the 1980s. The bridge was included in the 1985 version of Mission Valley's community plan, evaluated in other development-specific planning efforts. The bridge will extend Fenton Parkway over the San Diego River to Camino Del Rio North, thus introducing a rare north-south roadway not subject to flooding. Currently, the road abruptly ends at the Fenton Parkway trolley station, behind the IKEA-anchored Fenton Marketplace immediately adjacent to the new SDSU West Campus.

## PROJECT LOCATION

The bridge will join Fenton parkway with Camino Del Rio N road. Geo co-ordinates are 32.777720, -117.126185. It will be constructed on San Diego River.



## DESIGN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL STANDARDS

1. State of California Department of Transportation (CALTRANS)
2. Federal Highway Administration (FHWA)

### Structural Design

1. AASHTO Highway Design Manual, Bridge Section
2. Caltrans Bridge Design Specification Manual - Foundations
3. Caltrans Bridge Design Specification Manual - Retaining Wall

### Traffic Study

1. Manual on Uniform Traffic Control Devices (MUTCD)
2. Caltrans Highway Design Manual
3. AASHTO Highway Design Manual, Bridge Section

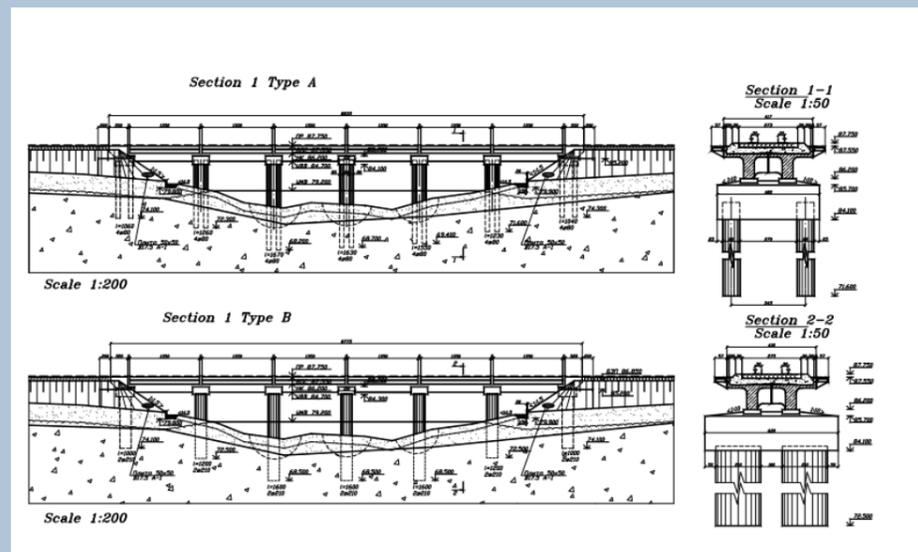
## Geotech

1. American Society for Testing and Materials (ASTM)
2. American Concrete Institute (ACI) Building Code Requirements for Structural Concrete
3. California Department of Transportation (Caltrans) Division of Engineering and Testing Services
4. United States Geological Survey (USGS) for Soil Descriptions and Survey
5. San Diego Regional Planning Agency (SANDAG) for Maps Demographic & GIS

## BRIEF INTRODUCTION

First, site and bridge information are collected in a geotechnical report, traffic lessons, and existing AutoCAD drawings. During site visits, the team traveled through uneven roads, identified potential construction sites, and took over bridge images to capture current conditions. From the information gathered, a solution was developed to solve the problem.

It is summarized that the bridge will have same elevation as that of Fenton parkway and Camino Del Rio N road. There's a railway crossing as well. Since the orientation of the bridge won't be like a straight road therefore, horizontal curves will also be provided according to the design vehicle input parameters. *The bridge will look like as presented under:*



Since the San Diego river is dry and contains dense vegetation and trees, therefore, the natural habitat living will duly be addressed. Environmental impacts of the bridge construction will be mitigated as much as possible.

## DISCIPLINES INVOLVED

This project shall address the following disciplines:

- **Site Civil Engineering** – Street improvement plans, traffic signal plans, grading design, and an engineer's estimate.
- **Structural** - Structural calculations for bridge design.
- **Storm Water** - Drainage study and SWQMP with recommendations for storm water quality BIM's/LID's
- **Geotechnical** – Study to identify development constraints, structural bridge recommendations, and/or soil mitigation measures.

## TEAM MEMBERS

- Abdullah Alghanim (PM)
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