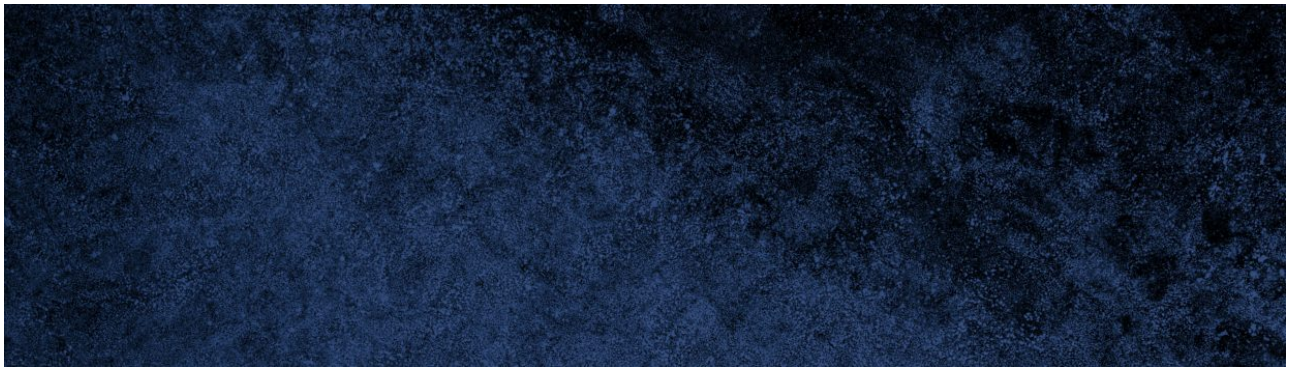
# California High Speed Rail. Verification, Validation & Self Certification



*CALIFORNIA HIGH SPEED RAIL. VERIFICATION, VALIDATION & SELF CERTIFICATION*

**Cliente: DRAGADOS-FLAT-**

**IRON JV**

California High Speed Rail. Verification, Validation & Self Certification (CP2-3).

The California High-Speed Rail Authority (Authority) is responsible for the planning, design, construction and operation of the first high-speed rail system in the nation. The California High-Speed Rail System will connect the mega-regions of the State, contribute to economic development and a cleaner environment, create jobs and preserve agricultural and protected lands.

## CP1 datasheet

Construction Package 2-3 (CP2-3) is a 60-mile (96km) route located within the counties of Fresno, Tulare, and Kings and the cities of Hanford, Corcoran and Allensworth. The Project calls for construction of at-grade, aerial, and possible below grade sections of high speed train, relocation of existing BNSF tracks for approximately 5.5 miles, possible crossing of existing BNSF railroad tracks, construction of waterway and wildlife crossings, and roadway reconstructions, relocations, and closures.

## CP4 datasheet

Verification, Validation, and Self Certification for the Design and Build contract of CP2-3 in order to

provide an integrateable system in the future for HSR of California.

V&V follows the traditional "V" systems engineering model and starts with the definition of Project Technical Requirements before design choices are made and the project is implemented. It includes:

- Requirement management
- Design management
- Interface Management
- Inspection and testing programme management
- Change Management
- QA/QC Management
- Verification and Validation

SENER was responsible for the following:

- Ensure that all technical contract requirements of Construction Packages 2- 3 for California High Speed Rail and the future Railway Systems are considered and traced including interface issues.
- Ensure that the resulting Design and Build Project will be provided in a way to allow a clear traceability, easy verification of compliance with the elements of design input, applicable norms and good engineering practices.
- Ensure submittal review compliance and reducing the review effort on the Authority's side through a Self-Certification process

In other words, to the contractor to take the control of the project and improve its result through a real Value Engineering process.

To do so, SENER was making sure that Contract Requirements specifying the characteristics of the final infrastructure are being addressed in the different project submittals :

- Final design drawings, specifications and reports
- Ready for construction drawings and specifications
- Inspection plans, procedures, and reports
- Test and acceptance plans, procedures, and reports
- Asbuilt drawings and specifications