



### Fourteen Mile Slough (DSM) Levee Cutoff Wall, 2020 Stockton, CA



ROD Construction performed DSM levee Construction along the Fourteen Mile Slough levee patrol road.

#### Project highlights included:

- Limited access for equipment & material deliveries
- Care for property of adjacent homeowners
- Limited space for batch plant operations
- Limited space for spoils management
- In-house development of site-specific mix design

The remedial construction work for the project involved installing a DSM levee cutoff wall that mitigated under-seepage. The levee was degraded to create a work pad with enough room to fit the drill rig and support equipment. The Drill Rig tooling consisted of (3) 36-inch augers that simultaneously mix as one element. Each element was laid out to overlap the previous element creating a complete and continuous wall. Batch plant and drill rig operators communicated constantly and effectively, noting relevant data that was necessary for providing project quality control. An excavator was used to manage spoils along the narrow work pad on the levee crown. Spoils were placed on top of each drilled element, serving as a temporary cap to provide curing time for the wall. Altogether, 32.3k CY of earthen material was drilled.

During pre-construction, soil samples were extracted from the existing levee soils and examined as required by the contract. These samples were used to develop a soil, cement, and bentonite mix that met the contract specifications: ROD's calculated mix design was approved. ROD continued with the installation and completed the cutoff wall "Test Section" for the owner's approval. After a two-week review of all QA and QC tests, the Test Section was approved, and the remainder of the wall was installed. With the cooperation of Reclamation District 2074, ROD completed construction and restored the levee and patrol road to pre-construction conditions.

The construction on this project was completed ahead of schedule, on budget, and with positive remarks from the owner, stakeholders, and local residents.

#### Project Information

**Prime Contractor:**  
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**Owner:**  
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