

# Paso Robles Police Department Shooting Range Shade Structure



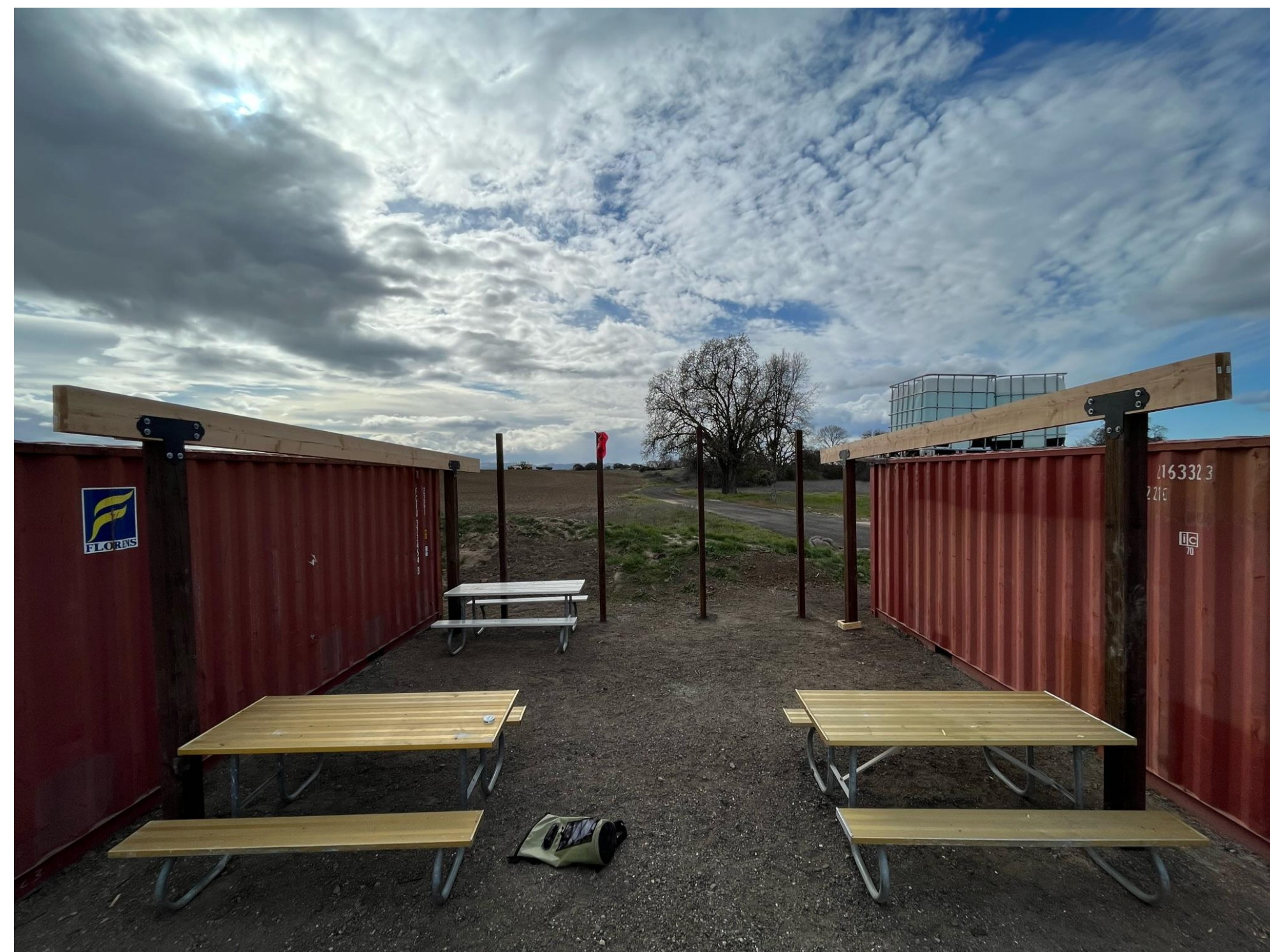
**Layout Complete, Columns Set and Poured**

This project came about by Construction Management Professor Daniel Knight asking previous students of his if they wanted to do a project based project for the Paso Robles Police Department. They had a whole host of things that needed to be done up at the Police Department shooting range, but the one they needed the most was a covered shade area. Paso Robles tends to get very hot in the summer, and without direct shade cover, training for the officers can become quite uncomfortable and cut their day short. A group of three students formed to undertake the project, which encompassed many different parts of the curriculum from the Cal Poly coursework. The process was essentially creating a design, using resources such as span tables and wind loading programs to calculate shear and lift loads. We then performed a take-off, obtained a cost of construction, and ordered our materials, compensating for the current long material lead times. We then performed the actual construction of the structure, implementing common construction and safety practices learned through different labs, which took approximately sixty hours worth of work not including preconstruction. All parties involved benefited and are proud of the work that was completed.

**Keywords:** Construction, Framing, Safety, Loading, Roofing



**2x10x20' Joist Framing Using Simpson Hangers**



**Beams Built From (2) 2x10s, Mounted to Columns with T Brackets**



**Project Complete**



**Corrugated Sheet Metal Roofing Attached, 1x12 Redwood Boards Attached to Wall**

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