




BRIDGE EXPERIENCE


HOLDREGE & KULL has extensive experience providing environmental and geotechnical engineering, materials testing and special inspection, and storm water services related to bridge design and construction. Projects have ranged from local pedestrian/bicycle bridges to rural road bridges to large freeway interchange projects.

PROJECT EXPERIENCE


SAN FRANCISCO-OAKLAND BAY BRIDGE FOUNDATION SHORING

H&K provided shoring design to retain rock exposed in vertical cut faces of 90-foot deep foundation excavations for the new east span of the San Francisco-Oakland Bay Bridge. Preliminary investigations included geologic mapping, use of stereonet, and computer modeling to determine wedge, planar, and toppling failure potential. H&K designed a tensioned anchoring system that prevented slope failure and catastrophic collapse by compressing rock material exposed in the excavations. 


FLORISTON BRIDGE – TRUCKEE, CA

H&K provided materials testing services during replacement and rehabilitation of the Floriston bridge that connects two I-80 ramps spanning the Truckee River, requiring full Caltrans permitting and oversight. H&K conducted over 50 site visits to perform materials testing and sampling of structural fill, structural concrete, and steel piles. H&K adhered to Caltrans, ASTM and AASHTO test methods, as requested by the Resident Engineer. 

HIGHWAY 65 AT SUNSET BOULEVARD INTERCHANGE – PLACER COUNTY, CA

H&K provided quality assurance services for Placer County Department of Public Works under subcontract with the County's construction management firm for new interchange at the intersection of State Highway 65 and Sunset Boulevard. The project involved construction of a Highway 65 overpass, requiring fills up to 22 feet on the bridge approaches, on-ramps, and abutment areas. 

DORSEY DRIVE INTERCHANGE – GRASS VALLEY, CA

H&K provided constructability review, geotechnical engineering, naturally occurring asbestos sampling and testing, construction materials testing and inspection, and stormwater pollution prevention plan (SWPPP) services for a new interchange at State Route 49 and Dorsey Drive in Grass Valley, California. 

SIERRA COLLEGE PEDESTRIAN BRIDGE – TRUCKEE, CA

H&K prepared a geotechnical engineering report with recommendations for micropiles for a pedestrian bridge across Donner Creek at the Sierra College Truckee campus. The micropiles were designed for both tension and compression loads. H&K provided oversight during installation of the micropiles and performed materials testing services during bridge construction.



Professional Registrations

Geotechnical Engineer

Certified Engineering Geologist

Civil Engineer

Professional Geologist

Certified Hydrogeologist

Qualified SWPPP Developer/Practitioner

Certified Professional in
Erosion and Sediment Control

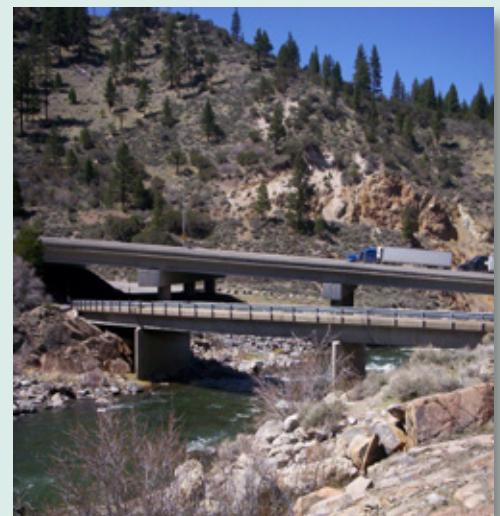
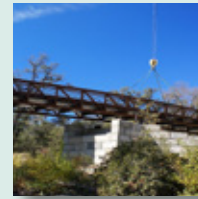
H&K professional staff hold registrations in:
California, Nevada, Arizona, Utah, Oregon,
Colorado, Maryland, Washington, and Hawaii

TYPICAL SERVICES

Geotechnical Services: Geotechnical investigations; foundation, footings, retaining wall, and shoring design; scour investigations and erosion control recommendations; CIDH pile mitigation plans; earthwork recommendations; rock and bridge deck coring.

Environmental Services: Phase I environmental site assessments, aerially deposited lead and naturally occurring asbestos surveys, asbestos dust mitigation plans, SWPPP development and monitoring.

Materials Testing and Special Inspection Services: Caltrans, AASHTO and ASTM test methods for laboratory and field testing of aggregate, soil, and sand materials for structural fill; inspection and testing of concrete, masonry, structural steel, hot mix asphalt, high strength bolts, anchors, and rock fall netting.



ADDITIONAL BRIDGE PROJECTS

	BRIDGE PROJECTS / SERVICES	GEOTECH.	ENV'L	MT&SI
	Allison Ranch Road over Wolf Creek - Grass Valley	X		X
	Dixon Mine Road over Wolf Creek - Alpine Co.	X	X	
	Auburn Road over Wolf Creek - Nevada Co.	X		
	Badger Street over Sutter Creek - Sutter Creek	X		
	Barton Road over Miners Ravine - Placer Co.	X		
	Brewer Road over Curry Creek - Placer Co.			X
	Brewer Road over Markham Ravine - Placer Co.			X
	Brewer Road over Kings Slough - Placer Co.			X
	Mt. Judah Access Road - Norden	X		X
	Little Truckee River - Sierra Co.	X		
	Constitution Avenue - Fairfield	X		
	Winchester Estates Subdivision - Placer Co.	X		X
	Hennes Pass Road Bridge Replacement - Sierra Co.	X		
	Highway 20 over Yuba River - Nevada & Yuba Cos.	X		X
	Hot Springs Road over Hot Springs Creek - Alpine Co.	X	X	
	Midway Pedestrian over Truckee River - Truckee	X		
	Richmond-San Rafael Seismic Retrofit - SF Bay	X		
	Glenshire/Truckee River - Placer Co.	X		
	Pine Forest/Comstock Drive - Truckee	X		
	Gray's Crossing (vehicle and pedestrian) - Truckee	X		X
	Calaveras River - Stockton	X		X
	Schaffer's Mill - Truckee	X	X	X
	Fiddletown Bridge - Amador Co.			X
	Interstate 280/Moorpark Overcrossing - Daly City	X		
	CIDH Pile Repair - 14 Caltrans Bridge Projects	X		X
	Cook Riolo Road over Dry Creek - Placer Co.			X
	Yolo Causeway Seismic Retrofit - Yolo Co.	X		
	Highway 50 over Weber Creek - El Dorado Co.	X		
	Johnny Cash Pedestrian Bridge - Folsom	X		
	Rancho Tehama Road over Elder Creek - Tehama Co.	X		X
	Retrac Road over Wolf Creek - Nevada Co.	X		
	Tahoe Nat'l Forest Road 35/Canyon Creek - Sierra Co.	X		
	Coon Creek (pedestrian, Hidden Falls Park) - Auburn	X		

GEOTECH. = Geotechnical Engineering ENV'L = Environmental Consulting
 MT&SI = Materials Testing & Special Inspection