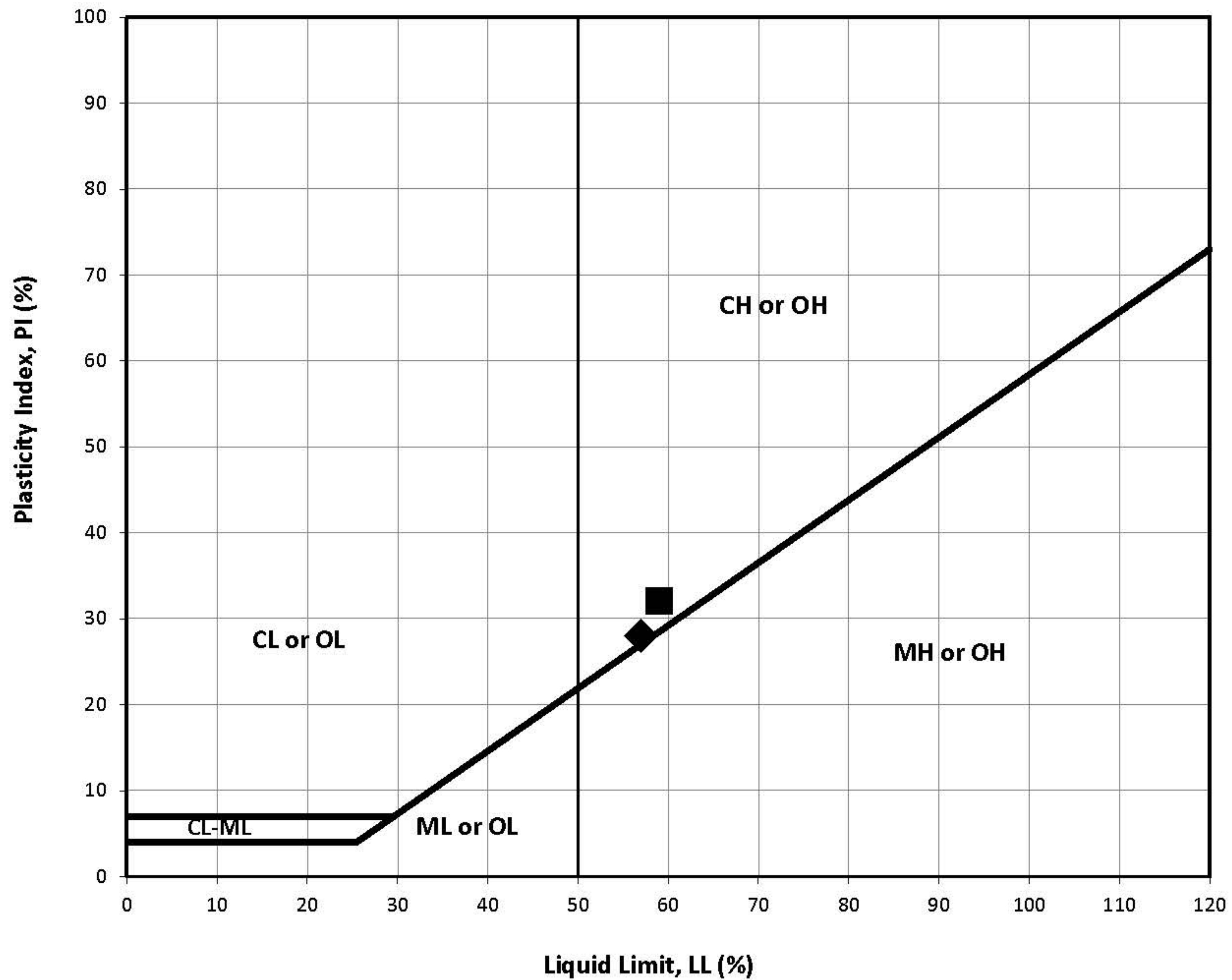


PLASTICITY CHART



| Symbol | Sample | Depth (feet) | Material Description | USCS | LL | PL | PI |
|--------|--------|--------------|--|------|----|----|----|
| ■ | B-1 | 10.0 to 11.5 | Reddish brown SILTY CLAY with some sand and gravel | CH | 59 | 27 | 32 |
| ◆ | B-4 | 2.5 to 4.0 | Reddish brown SILTY CLAY with some sand and gravel | CH | 57 | 29 | 28 |
| | | | | | | | |
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SUMMARY OF ATTERBERG LIMITS (ASTM D4318) TEST RESULTS

KAILUA ROAD INTERSECTION IMPROVEMENTS
VICINITY OF ULUOA STREET AND ULUMANU DRIVE
KAILUA, OAHU, HAWAII

| <u>Location</u> | <u>Depth</u> (feet) | <u>Test Type</u> | <u>Soil Description</u> | <u>Dry Density</u> (pcf) | <u>Moisture Contents</u> | | | <u>Ring Swell</u> (%) |
|-----------------|------------------------|------------------|---|-----------------------------|--------------------------|-------------------------|---------------------|--------------------------|
| | | | | | <u>Initial</u> (%) | <u>Air-Dried</u> (%) | <u>Final</u> (%) | |
| B-1 | 1.0 to 2.5 | Natural | Reddish brown SILTY CLAY with some sand and gravel | 92.8 | 34.0 | 21.2 | 38.8 | 2.1 |
| B-3 | 5.0 to 6.5 | Remolded | Brown SILTY CLAY with some sand and a little gravel | 100.5 | 22.6 | 12.8 | 28.8 | 8.9 |

Note: Samples tested were either relatively undisturbed (natural) or remolded in 2.4-inch diameter by 1-inch high rings. Samples were then air-dried overnight followed by saturating for a minimum of 24 hours under a surcharge pressure of 60 psf.

SUMMARY OF RING SWELL TEST RESULTS

KAILUA ROAD INTERSECTION IMPROVEMENTS
VICINITY OF ULUOA STREET AND ULUMANU DRIVE
KAILUA, OAHU, HAWAII



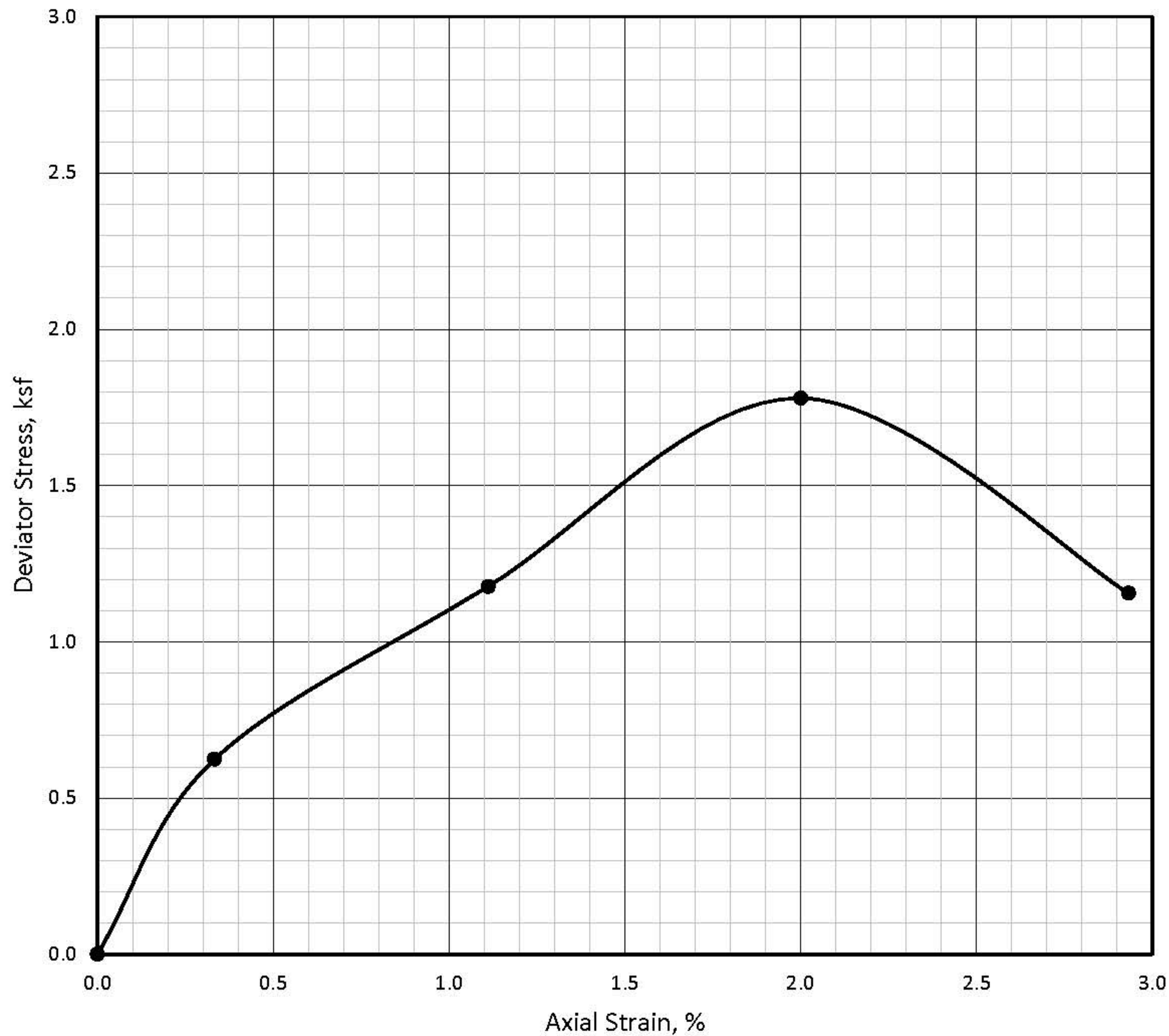
Kokua Geotech LLC
Soil and Foundation Engineering

PROJECT NO.: 110922-00

DATE: DECEMBER 2023

PLATE

B-2



Location: B-1
 Depth: 5.0 to 6.5 feet
 Description: Reddish brown to brown SILTY CLAY w/sm sand & a little gravel

Dry Density: 77.8 pcf
 Moisture: 37.5 %
 Sample Diameter: 2.42 inches
 Sample Length: 5.0 inches

Unconfined Compressive Strength: 1.8 ksf
 Axial Strain at Failure: 2.0 %
 Strain Rate: 1.04 %/min.

SUMMARY OF UNCONFINED COMPRESSION (ASTM D2166) TEST RESULTS

KAILUA ROAD INTERSECTION IMPROVEMENTS
 VICINITY OF ULUOA STREET AND ULUMANU DRIVE
 KAILUA, OAHU, HAWAII