MEMORANDUM

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TO: Jason Lau
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FROM: Nathan Tanaka

RE: Gravel Cap Recommendations
Former East Kapolei Pesticide Mixing and Loading Facility

In our report, recommendations for the design of the proposed asphalt pavement cover of the former East Kapolei Pesticide Mixing and Loading Facility were presented. However, we understand that a gravel cap of the contaminated area is being proposed in lieu of the asphalt pavement cover.

This memorandum presents subgrade preparation, gravel cap material, and compaction recommendations for the gravel cap. The minimum thickness for the gravel cap over the contaminated soils should be determined by the Environmental Engineer.

Subgrade Preparation
As presented in our report, the project site should be cleared of all vegetation, including large tree roots, and other deleterious material. Prior to placement of the gravel cap, the exposed subgrade should be scarified to a minimum depth of 6 inches, moisture conditioned to about 2 percent above optimum moisture content, and compacted to between 90 and 95 percent compaction as determined by ASTM D 1557. Overcompaction of the exposed subgrade above 95 percent compaction should be avoided.

Imported Fill / Gravel Cap Material
Imported granular fill for the gravel cap should be well-graded, non-expansive granular material. Specifications for the gravel cap should indicate a maximum particle size of 3 inches, and state that between 8 and 20 percent of soil by weight shall pass the #200 sieve. In addition, the plasticity index (P.I.) of that portion of the soil passing the #40 sieve shall not be greater than 10. Imported granular fill should have a CBR expansion value no greater than 1.0 percent and a minimum CBR value of 15 percent, when tested in accordance with ASTM D 1883.

Compaction
The gravel cap should be placed in horizontal lifts restricted to eight inches in loose thickness and compacted to between 90 and 95 percent compaction as determined by ASTM D 1557. Overcompaction of the gravel cap above 95 percent compaction should be avoided.

Please feel free to call if you have any questions or need any additional information.

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