

## Application of Recycled Materials in Highway Projects

**Principal Investigator:**

Professor Phillip Ooi

**Co-Principal Investigator:**

Professor Adrian Ricardo Archilla

**Project Sponsor:**

Brandon Hee

**Need:**

Limited sources of virgin aggregate, lack of landfill space and the importance of sustainable construction has prompted the use of recycled materials in Hawaii such as glass cullet, recycled concrete aggregate (RCA), and recycled asphalt pavement (RAP)

**Objective:**

Investigate geotechnical properties of recycled materials and develop guidelines for the use of recycled glass, recycled concrete aggregate, and reclaimed asphalt pavement for use in HDOT projects

**Duration:**

February 1, 2006 – January 31, 2009

**Cost:**

\$362,870

**Update:**

- Conducted literature research on use of recycled materials in other state DOTs.
- Obtained samples of recycled materials
- Conducted preliminary tests to evaluate geotechnical properties (ongoing)
- Completed preliminary HDOT specs on use of recycled materials (to be updated pending further testing, evaluation and research)