

SEABC Young Members Group - Cal Poly Student Visit

By Michael Roberts, P.Eng

During the Week of March 22-27th, 2010, a Group of 11 students from Cal Poly San Luis Obispo, California held their first annual trip to Vancouver. In addition to a unique opportunity to visit the 2010 Winter Olympic city, the structural engineering students came with the intent to tour local engineering Firms in Vancouver. Beyond the office tours, three events were also organized by the SEABC YMG for the group to partake in for an opportunity to network and a more casual interaction with our local SEABC engineers.

- 1) A "Canadian Curling Experience" event was held at the North Shore Winter Club. The group consisted of Cal Poly Students and a handful of local SEABC members. The event included a brief introduction to the history of the sport, the basics of sweeping and throwing the rocks. For most, it was their first time walking on the ice surface (and using a broom!), however, most picked the basics up fast and realized their new extracurricular calling! A local walk from the winter club venue over a historic steel truss bridge and a newer concrete bridge over Highway 1 to a restaurant to share stories of slipping and sliding followed this successful event. A good time was had by all.
- 2) A fabrication shop tour to Dynamic Structures in Port Coquitlam was highly educational, entertaining and inspiring which showcased some of the unique signature structures that the company is involved around the world. An engaging presentation by Nathan Loewen highlighted many impressive observatory dome structures and cutting edge entertainment rides and associated technologies that the company is very involved in. A second presentation by Robert Gale of KWH Contractors showcased the new Coast Meridian Overpass structure. In addition to the presentation, Robert led the group on a guided tour to discuss the structure in place.
- 3) To conclude the week's events in Vancouver, the students were treated to an afternoon excursion and sightseeing along the recently upgraded Sea-to-Sky Highway. Of course, no tour would have been complete without a personalized tour of Howe Sound Brewing, a quick visit to the vanguard timber Squamish outdoor centre to see the giant woodsman, trying to spot eagles in Breckendale, and seeing Shannon Falls up close. A stop on Cypress mountain to overlook the "Olympic city" and the recent additions to the skyline followed by a visit to Ambleside park to gain a Lion's Gate view completed the day's busy events and left all the students eager to return to our beautiful city. Who knows, perhaps one of our local SEABC firm's will hire one of these aspiring young Californian engineers one day!

The SEABC Young Members group wishes to thank SEABC for its important financial support of the day tour event and helping to ensure that the visiting group felt welcome. Through both these successful events, we believe that that we have established a great inter-chapter connection that has the potential to open many opportunities for future collaboration and event coordination between our SEA members on the West Coast.

To fulfill our dual goals of community outreach and raising awareness of the profession of structural engineering, the Young Members Group sponsored a \$250 prize in this year's Greater Vancouver Regional Science Fair. Given that this was our first time getting involved in the science fair, we had no idea what to expect or how well our field would be represented among the science projects. We were pleasantly surprised to find that there were a handful of projects that related in some way to structural engineering. From bridge design, to the importance of bracing, to earthquakes, these were students were thinking about important structural engineering concepts, most without realizing it.

The recipients of our prize were Hannah Ker and Tara Bishop from Point Grey for their project "Earthquakes: Testing How Buildings Withstand Disaster." The girls cleverly built a shake table powered by an electrical drill and three 5-story mini-buildings with three different lateral force resisting systems: mass damping, base isolation, and cross bracing. They then tested the behaviour of these three buildings against an identical 5-story structure with no lateral force resisting system. It was clear that Hannah and Tara learned a lot about how structures can behave in an earthquake.

It is inspiring to talk to students who are excited about their projects and are beginning to grasp structural engineering concepts, and this made judging such a great experience. This was a fun project for everyone involved, and we are eager to sponsor the award again next year.

Some photos of the events:



Greater Vancouver Regional Science Fair Award
By Ilana Danzig, E.I.T.

Photo of the award winners:

