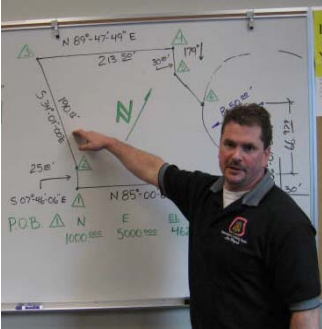


Taking JTM Sky High

By Nancy Arnold-Hunting



JTM Construction is fortunate to have Doug Whitted and his surveying expertise on the Olive 8 project team. His enthusiasm for the work he can accomplish with Total Station (TS) is contagious. His eyes light up when he talks about its sophisticated features such as reflectorless capabilities, 3D modeling, and Autocad interface. JTM's investment in the latest version of TS, a full integration of the satellite and traditional surveying tools, gives the Olive 8 project a high-tech advantage.

Methodically, Doug sets up TS on each concrete floor just hours after it has been poured. Using sticky targets that have been placed on surrounding buildings, he works his way clockwise around the floor, shooting points, triangulating, snapping line, creating as-builts. While JTM's carpenters follow him setting columns and the subcontractor places shoring for the next deck, Doug descends one floor to check the bottom of the slab for indications of deflection using monitoring cones based on engineering calculations and confirms that the deck has been poured within ACI tolerances. The advanced features of TS allow Doug to quickly gather data and save it on the handheld TDS, a mini PC with a Windows program. From the data collected, Doug provides the project team with horizontal and vertical control, monitoring and predicted slab deflection.

In addition to Olive 8, Doug has used TS on other projects for serpentine seat walls and ceilings, bioswales, and topographic models. He has provided assistance to crane erectors by using TS to plumb tower cranes at each jump.

In 2007, with the demand for trained surveyors increasing, Doug successfully completed the *Total Station II Train the Trainer* class offered by the Carpenters International Training Fund. He now shares his knowledge and experience by teaching Total Station I and Total Station II classes at the King County Carpenters Training Center and Renton Technical College. The class includes a recap of trigonometry, surveying theory, angles and distance measurement, an introduction to the software, and gives students practice using different surveying instruments. Class size is limited to nine students, maximizing hands-on time with equipment and Doug's personal attention.

For more information, Doug can be contacted at 253-820-0199 or at dwhitted@jtm-construction.com