Survey Control Summary

The SE Section Corner of Section 6, Township 26 N, Range 5E and the W Quarter Corner of Section 6, Township 26 N, Range 5E located on the north of Bothell Way are the common regional control monuments for the Downtown Capital Projects, all being used by the various survey teams on these projects.

Horse Creek/98th Ave Corridor

City of Bothell, PACE Engineers (PACE), Berger ABAM (BA), Interwest Construction, and American Surveyors (AS) agreed that AS would hold and use PACE horizontal and vertical control values as the basis for construction layout. PACE recovered 14 control points within the downtown redevelopment project area in an effort to verify if there was a difference in the datum realizations as discovered by AS. The control recovered by PACE agreed with their previous published horizontal and vertical control originally established within acceptable tolerances. Their efforts also verified the monumentation along 98th which was used to calculate all of the right-of-way boundaries and easements for the corridor improvements. PACE control points 13, 14, and 21, based on the verification effort, have been deemed stable for vertical elevations. The PACE control points in the 80 series are new control points recently established by PACE, and have been verified as suitable for this project.

Main Street Extension

Berger ABAM (BA) advised that due to the loss of their DOWL/HKM control values, PACE control would now be acceptable for the layout of this project. DOWL/HKM’s control along 98th Ave could not be recovered (excepting one control point) because of recent construction. PACE control points will be used in the vicinity of 98th Ave. There is a vertical difference between Main Street Extension and Multi-Way Boulevard (MWB) projects’ datum (the DOWL/HKM datum was held in the BA plans) as the control was tracked to the east. The MWB control established by Perteet is 2 inches (0.17’) lower than the DOWL/HKM control along Main Street Extension.

Crossroads

Perteet established control for the Crossroads project beginning in 2007, checking between multiple published control points for both horizontal and vertical control. The published horizontal control was found to be within tolerance and after reviewing the data from differential level loops between various benchmarks, they held WSDOT monument GP 17522-155, monument ID 2372, for vertical control which has a published elevation of 49.888, NAVD 88 datum. Perteet ran subsequent level loops again in 2013 to check on reported discrepancies. While the original WSDOT monument had been destroyed, there still remained primary control set from that monument to verify that the elevations are still consistent between the control points. During the elevation verification, there were discrepancies of 0.17’+/- found between the PACE, DOWL/HKM control and Perteet’s control.

Six Oaks

The surveyor for Six Oaks used the same control points as PACE for Horse Creek/98th Ave

McMenamins Development

The McMenamin’s control appears to match the control used by Six Oaks and PACE.