

DOT Innovative Term Agreement for Land surveying Services
Glenn Highway 66-92, Kings River Section, AKSAS No. 54990

TIN CERTIFICATION
R&M Consultants, Inc.
Glenn Highway, Kings River
TIN: Kings River

AKSAS Project NO: 54990
Date Prepared: 12-12-15

Preface:

Field work for this survey was performed between October 17th and December 14nd, 2015.

Measurements for the ground surface were almost entirely made with RTK GPS. Lack of foliage allowed RTK measurements with few RMS spikes.

A total station was used for densely treed areas and various planimetrics such as abutments and piers under the Kings River Bridge.

Check positions were measured before, after, and oftentimes during RTK and total-station surveys.

Once the ground survey was complete, a separate survey was performed where random RTK measurements were made throughout the project. These points were compared to elevations sampled from the TIN at the same location.

TIN Analysis:

Criteria: Federal Geographic Data Committee (FGDC) publication *Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy (NSSDA)*.

TIN Checks:

The King River TIN was tested and found to be vertically accurate within 0.74' feet at the 95% confidence level.

65 of the 68 tested locations found the TIN accurate within ½ the contour interval of 2' contour mapping (1').

68 of the 68 tested locations found the TIN accurate within the contour interval of 2'.

Position Checks:

213 check positions (1.7% of all shots) were measured. None exceeded 0.22' of known elevation.

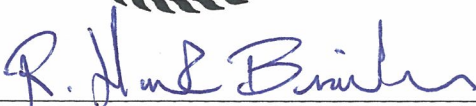
151 (71%) compared vertically within 0.05' of control elevation.

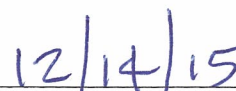
206 (97%) compared vertically within 0.10' of control elevation.

211 (99%) compared vertically within 0.14' of control elevation.

TIN "King River" is located within AutoCAD Civil3d drawing: King River basemap.dwg.




Randal H. Brinker, L.S. 8852


Date