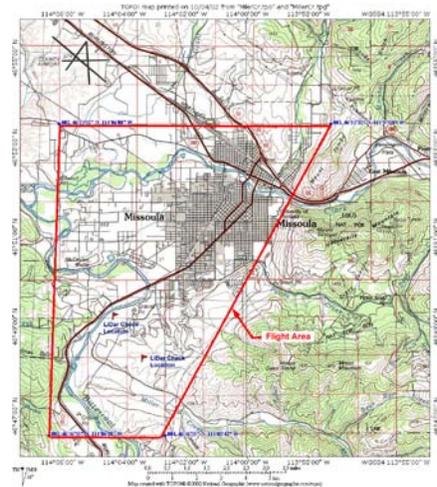




Miller Creek Road LiDAR Survey and Orthophotography, Missoula, MT; Federal Highway Administration – Western Federal Lands Highway Division

White Shield supported the Federal Highway Administration with LiDAR mapping services for the Miller Creek Road project area located within and adjacent to the City of Missoula, Montana. Specifically, the services included the acquisition of high resolution LiDAR and orthophotography of the project area. High resolution LiDAR data was obtained in the approximately 40 square miles project area using a helicopter platform flying at approximately 800’ above ground level. White Shield provided ground control for the LiDAR mapping and airborne GPS-controlled aerial photography. The field effort also included 15 miles of Q/C profile lines of the LiDAR mapping collected using continuous RTK GPS methods and x-sections in select areas. This project was designed to assist future traffic studies in the Missoula area, for the proposed Miller Creek Road Bridge over the Bitterroot River, and the preparation of an Environmental Impact Statement.



Six permanent control monuments were established to control the LiDAR mission and to facilitate the establishment of additional control for subsequent survey work (set to second order, Class II survey standards). The post-processed accuracy of the points derived from the high resolution LiDAR data was vertically accurate to 0.5 ft. at a 90% confidence interval. The high resolution LiDAR data was used to produce a GeoPak Digital Terrain Model (TIN/DTM). The data was "Bald Earth" at an approximate 3 ft. interval where the data penetrated the tree and vegetation canopy.



The Orthophotography was flown at 5,100 feet above the average ground elevation and with a photo scale of 1:10,200. A digital orthophoto mosaic having a pixel size of 0.5 ft. and was geo-referenced and scaled to within 1.6 ft. of the points collected with LiDAR. The image was delivered in geo-referenced TIFF and MR SID formats.