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CITY OF PENDLETON PHOTO CONTROL

NARRATIVE OF SURVEY:

The purpose of this survey was to establish horizontal and vertical positions on certain photo control points needed for control for the City of Pendleton's aerial mapping project. The project area is approximately 6 1/2 miles in width east to west and 4 1/2 miles miles in depth north to south.

Three Ashtech P-12 dual frequency receivers and one Ashtech Super CA single frequency receiver were used for data collection. Data was processed using Ashtech GPPS processing software and adjusted by Ashtech Fillnet least squares adjustment software. The field work was done in late February and early March, 1996.

Four NGS control stations were held for horizontal control. They are Station "Big Hill Reset, (Class A), Station "Pendleton", (Class B), Station "Pendair", (Second Order), and Station "Sparks", (Second Order). Elevations are based on the City of Pendleton's vertical control network. Nine vertical control points, distributed throughout the project area, were held for vertical control. They are Station Nos. 33, 43, 50, 68, 82, 84, 97, 108, and 110. Elevations from established Pendleton bench marks were transfered to the vertical control stations by differential leveling.

Aerial mapping will be done on the City of Pendleton's local coordinate system. To convert from State Plane Coordinates to the local City grid, use the following procedure. Translate State Plane Coordinates to the City coordinate of N 49582.840, E 50139.559 at NGS Station "Pendleton". Rotate about NGS Station "Pendleton" to the bearing of N 56°58'57" W between Station "Pendleton" and the NGS Station "Pendleton LDS Church Spire". Using a "adjust to grid" coordinate geometry program, apply the combined factor of 1.000118121 about Station "Pendleton" to arrive at local City Co-ordinates. The procedure gives a reasonable match between converted State Plane Coordinates and existing City coordinates. Differences between converted coordinates and City values increase with the distance from NGS Station "Pendleton", and discrepancies of 0.2 to 0.3 feet can be expected between converted coordinates and City values in the Pendleton Airport and Reith areas.