

CFLHD SURVEY CONTROL SHEET SPECIFICATIONS

- I** Prepare Survey Control Sheet(s) to be included with the PS&E Package. The purpose of the Survey Control Sheet is to list the coordinates, pertinent metadata, and graphically show the location of all Primary (2000 & 3000 Series) and Supplemental (5000 Series) Control Monuments for a particular project. Survey Control Sheets include the following:
- (a)** Use the standard FHWA border;
 - (1)** Place text in accordance with the CFLHD CADD Standards Manual, Chapter 5 – Annotation Standards and Specifications;
 - (2)** Place the following information in the upper left hand portion of the sheet:
 - (a)* The Project Designation and Project Name;
 - (b)* Date(s) of Field Work, by whom;
 - (c)* Date of Final Adjustment, by whom;
 - (d)* Project Units (Horizontal & Vertical);
 - (e)* Project Coordinate System:
 - (1)* State Zone;
 - (2)* Horizontal Datum (Epoch);
 - (3)* Geoid Model; and
 - (4)* Statement describing the horizontal control monument(s) and the datum used as a basis for the establishment of coordinate values;
 - (f)* Vertical Datum:
 - (1)* A statement describing the vertical control monument(s) and the datum used as a basis for the establishment of elevation values; and
 - (g)* The GPK file, Chain(s) used to define the Alignment,
 - (3)** Place the following information in the upper right hand portion of the sheet:
 - (a)* See FP-14, Sections 107.02 and Section 152 for Surveying and Staking Requirements. Set permanent monuments according to FP-14, Section 621.
 - (4)** A table listing:
 - (a)* Point Number;
 - (b)* Northing;
 - (c)* Easting;
 - (d)* Elevation;
 - (e)* Latitude;
 - (f)* Longitude;
 - (g)* Ellipsoid Height;
 - (h)* Mapping Angle;
 - (i)* Combined Factor;
 - (j)* Station and Offset from the final alignment and;
 - (k)* Description of Monument and stampings.

Note: Northing and Easting coordinate values will be State Plane Grid Coordinates.
 - (5)** Place the following information in the lower right hand portion of the sheet:
 - (a)* The creation date of the Control Data Sheet and the initials of the responsible individual(s) and;
 - (b)* Modification dates of the Control Data Sheet and the initials of the responsible individual(s).
 - (6)** Place the following statement in the lower left hand portion of the sheet;

- (a) Note: To precisely check distances between points as measured on the ground: inverse the State Plane Coordinates and divide the computed distance by the mean Combined Factor of the two points;
 - (b) To compute Geodetic Azimuth, use the following formula: $\text{Geodetic Azimuth} = \text{Grid Azimuth} + \text{Convergence Angle}$.
- (7) Place an open triangle symbol (T-Point cell), centered on the stated coordinate values of the all Control Monuments, within the drawing. The open triangle symbol will have a printed height of 0.10". Include the point number of the Control Monument in the drawing accordance with the CFLHD CADD Standards Manual, Chapter 5 – Annotation Standards and Specifications.