

**DEFINITIONS of core data elements for maintaining the spatial representation of parcels  
October 1, 2001 - Supporting graphics found in file mm-erd-j.dxf**

This list contains the data/metadata needed to maintain the geometry of parcels. Definitions of these terms are listed in italic.

**COORDINATED LOCATION**

*This table compiles data on all points that have coordinates. As an example, in a cluster of monuments, all purporting to be the center of section, each monument would be a row of data. The corner point status would indicate which of these is used as the parcel corner.*

Coordinated\_location\_ID

*Not always legal corner, but helpful in deriving most probable locations of Corner\_IDs.*

**Source of data field:** System-generated

Corner\_ID

*Same as in CDCS, but not always legal corner. Corner\_Point can be a tri-station or other feature that supports a geometric solution, in which case Corner\_ID field will be null.*

**Source of data field:** System-generated

Set\_by\_Agent\_ID

*Same as CP-Source Agent in CDCS, but the name is a bit more descriptive for now.*

Monument\_type

*Same as in CDCS*

Monument\_Date\_Set

*Same as in CDCS*

Weighting\_for\_representative\_corner

*A representative corner coordinates can be an averaged from the coordinate value of several monuments that are candidates for the true corner (Corner). A representative corner provides a spot to draw the Record Boundary Line until a qualified person can make a determination as to which of the monuments is correct. More research and fieldwork may be required. The computed coordinate value can be averaged, but there may be reasons to give one of the monuments more weighting in the average. A weighting value of 1.0 will give all coordinate values equal weighting. "Averaging for representative corner" will have a construction method code and the resulting coordinates will have an entry in Coordinate Value.*

Corner\_Point\_Status

*Similar to CDCS. An "official" flag. Supports both annotation and section subdivision algorithms.*

**COORDINATE VALUE**

Coordinate\_value\_ID

*This represents a piece of data about the point.*

**Source of data field:** System-generated

Coordinated\_location\_ID

*Not always legal corner, but helpful in deriving most probable locations of Corner\_IDs.*

**Source of data field:** System-generated

X\_Coordinate

*Same as in CDCS*

Y\_Coordinate

*Same as in CDCS*

Z\_Coordinate

*Same as in CDCS*

X\_Accuracy

*Same as in CDCS*

Y\_Accuracy

*Same as in CDCS*

Z\_Accuracy

*Same as in CDCS*

Horizontal\_Datum\_Name

*Name given to ellipsoid upon which geographic computations are conducted. NAD27 and NAD83 are common in the U.S.*

Horiz.\_Coordinate\_System\_Definition

*Name of the system that describes the mathematical surface, such as geographic (Latitude/Longitude) or any of a number of plane projections such as State Plane zones or Universal Transverse Mercator zones or locally defined projections. If the projection is local, then the parameters of the projection must be stored in a format not yet defined in this core data model.*

Projection\_Units

*Same as Washington State DNR model Planar\_Distance\_Units, perhaps. State Plane Zones in NAD83 are defined with meter units. Many implementations convert those values to feet. Projection\_Units specify which units are used in current coordinate values.*

Adjustment\_dataset\_ID (see Adjustment Attributes, below)

*Datasets not only describe the spatial footprint of the adjustment, but the purpose of the adjustment, ie. whether the adjustment was*

S *for analytical purposes (“technical adjustment”)*

S *for aligning the land grid to legacy raster-based data (“cartographically aligned”)*

Date\_Established

*This indicates the time the coordinate is available for use.*

### **COORDINATE VALUE MEASURED** (“Control”)

Measured\_Coordinate\_value\_ID

*Same as Corner Point ID, but not always legal corner. This represents a piece of data about the point.*

**Source of data field:** *System-generated*

X\_Coordinate\_Measured

*Same as in CDCS, but applies to a measured value.*

Y\_Coordinate

*Same as in CDCS, but applies to a measured value.*

Z\_Coordinate

*Same as in CDCS, but applies to a measured value.*

Source\_ID

*This ID points to a source document and is similar to C-Source Index in CDCS.*

Source\_ID\_qualifier

*This qualifier or suffix to the Source\_ID can optionally be used to define subsets of data identified in Source\_ID. It can provide additional data about a line, such as: tie-line, long chord, line to curve radius point, etc), but it is most useful when one source contains differing units of measure or when there are more than one value for any of the attributes listed in Source Attributes, below.*

Capture\_Methodology

*Example values here are digitized-from-7½’-maps, GPS, digitized from legacy GIS theme, tri-station.*

Station\_Name\_Published

*Used primarily on published tri-stations.*

Station\_ID\_Published

*Used primarily on published tri-stations.*

Coordinate Value Status

*Same as in CDCS, but add to domain: “Merge unadjusted value into adjusted dataset”*

Used\_in\_technical\_adjustment\_flag

*This flag also triggers whether point will be automatically used in next analytical/technical adjustment*

**Source of data field:** System-generated

Used\_in\_cartographically-aligned\_adjustment\_flag

*This flag also triggers whether point will be automatically used in next carto-aligned adjustment*

**Source of data field:** System-generated

## **COORDINATED LOCATION CONSTRUCTED**

Coordinated\_Location\_ID

*Unique identifier for the coordinated location.*

**Source of data field:** System-generated

Construction\_Method\_code

*This code explains which cogo method is used to create the point and therefore which set of arguments will be needed and where to find them. Also allow a code for “normal rule for section subdivision” as shorthand for rather elaborate processes.*

Coordinate\_Location\_ID\_for\_Construction-1

*Starting point for primary line of construction. From here a direction from this point is defined from several options listed here as A, B, C, D. Whichever is the populated option determines which definition has been used. If all direction values are null and the distance option is used, then direction is to be determined through a distance-distance intersection. If neither a distance or direction is defined, then there is a data error.*

Direction-A\_fixed\_value-1

*Same as Direction Value in CDCS*

Direction-A\_quadrant-1

*Same as Direction Quadrant, but can describe right/left and direction reference; from North or South.*

Direction-A\_unit-1

*Same as Direction Unit in CDCS*

Direction-A\_type-1

*Same as Direction Type in CDCS*

Direction-B\_to\_Coordinated\_Location\_ID-1-1

*Value would be the Coordinated\_Location\_ID-1 to which the line points.*

Direction-C\_Parallel\_From\_ID-1

*Value would be the Coordinated\_Location\_ID-1 that partially determines the direction by inverse.*

Direction-C\_Parallel\_To\_ID-1

*Value would be the Coordinated\_Location\_ID that partially determines the direction by inverse.*

Direction-D\_WtdMeanBrg-1\_Fr\_ID-1

*Value would be the Coordinated\_Location\_ID that partially determines the direction by inverse.*

Direction-D\_WtdMeanBrg-1\_To\_ID-1

*Value would be the Coordinated\_Location\_ID that partially determines the direction by inverse.*

Direction-D\_WtdMeanBrg-2\_Fr\_ID-1

*Value would be the Coordinated\_Location\_ID that partially determines the direction by inverse.*

Direction-D\_WtdMeanBrg-2\_To\_ID-1

*Value would be the Coordinated\_Location\_ID that partially determines the direction by inverse.*

Straight\_or\_Geodetic\_flag-1

*Is intersection to be determined along a straight line or along a geodetic line?*

Distance\_value-1

*Same as Distance Value in CDCS and is part of traverse or of distance-distance intersection*

Distance\_unit-1

*Same as Distance Unit in CDCS*

Measured\_line\_ID-1

*The primary line can be a line sequence which has a Measured\_line\_ID-1.*

#### Trim\_sequence\_portion\_to\_Coordinated\_Location\_ID-1

*Line sequences must overlap across the intersecting line so that intersection can be assured after adjustments. The segments of the line sequence to be trimmed are defined by the intersection Coordinated\_Location\_ID-1" created by this intersection to the "Trim\_sequence\_portion\_to\_Coordinated\_Location\_ID-1" which can be the "Coordinated\_Location\_ID-From-1" or "Coordinated\_Location\_ID-To-1" defining the endpoints of the line sequence or to another intersection point created along the line sequence.*

#### Distance\_proportion-1

*This is applied to distance from Coordinated\_Location\_ID-1 along line to Direction-B\_to\_Coordinated\_Location\_ID-1.*

#### Coordinated\_Location\_ID-2

*Starting point for secondary line used in construction. From here a direction from this point is defined from several options listed here as A, B, C, D. Whichever is the populated option determines which definition has been used. If all direction values are null and the distance option is used, then direction is to be determined through a distance-distance intersection. If neither a distance or direction is defined, then there is a data error.*

**Source of data field:** System-generated

#### Direction-A\_fixed value-2

*Same as Direction Value in CDCS*

#### Direction-A\_quadrant-2

*Same as Direction Quadrant, but can describe right/left and direction reference; from North or South.*

#### Direction-A\_unit-2

*Same as Direction Unit in CDCS*

#### Direction-A\_type-2

*Same as Direction Type in CDCS*

#### Direction-B\_to\_Coordinated\_Location\_ID-2

*Value would be the Coordinated\_Location\_ID to which the line points.*

**Source of data field:** System-generated

#### Direction-C\_Parallel\_From\_ID-2

*Value would be the Coordinated\_Location\_ID that partially determines the direction by inverse.*

**Source of data field:** System-generated

#### Direction-C\_Parallel\_To\_ID-2

*Value would be the Coordinated\_Location\_ID that partially determines the direction by inverse.*

**Source of data field:** System-generated

#### Direction-D\_WtdMeanBrg-1\_Fr\_ID-2

*Value would be the Coordinated\_Location\_ID that partially determines the direction by inverse.*

**Source of data field:** System-generated

#### Direction-D\_WtdMeanBrg-1\_To\_ID-2

*Value would be the Coordinated\_Location\_ID that partially determines the direction by inverse.*

**Source of data field:** System-generated

#### Direction-D\_WtdMeanBrg-2\_Fr\_ID-2

*Value would be the Coordinated\_Location\_ID that partially determines the direction by inverse.*

**Source of data field:** System-generated

#### Direction-D\_WtdMeanBrg-2\_To\_ID-2

*Value would be the Coordinated\_Location\_ID-1 that partially determines the direction by inverse.*

**Source of data field:** System-generated

#### Straight\_or\_Geodetic\_flag-2

*Is secondary line intersection to be determined along a straight line or along a geodetic line?*

Distance\_value-2

*Same as Distance Value in CDCS and is part of traverse or of distance-distance intersection*

Distance\_units-2

*Same as Distance Unit in CDCS*

Distance-Distance\_Rt-or-Lt\_solution

*For distance-bearing or distance-distance intersections: From Coordinated\_Location\_ID-1, looking toward the Coordinated\_Location\_ID-2*

Measured\_line\_ID-2

*The secondary line can be a line sequence which has a Measured\_line\_ID.*

**Source of data field:** System-generated

Trim\_sequence\_portion\_to\_Coordinated\_Location\_ID-2

*Line sequences must overlap across the intersecting line so that intersection can be assured after adjustments. The segments of the line sequence to be trimmed are defined by the intersection*

*Coordinated\_Location\_ID created by this intersection to the*

*Trim\_sequence\_portion\_to\_Coordinated\_Location\_ID which can be the*

*From\_Coordinated\_Location\_ID or To\_Coordinated\_Location\_ID defining the endpoints of the line sequence or to another intersection point created along the line sequence.*

**Source of data field:** System-generated

Offset\_distance\_to\_right

*This is the offset distance to the right of the line defined from*

*Coordinated\_Location\_ID\_for\_Construction-2 along line towards Direction-*

*B\_to\_Coordinated\_Location\_ID-2 If the offset is to the left, use negative distance value.*

Offset\_units

*Same as Distance Units in CDCS*

Point\_ID-1\_defining\_Bounding\_Line\_of\_offset\_line

*See Diagram 1 below*

**Source of data field:** System-generated

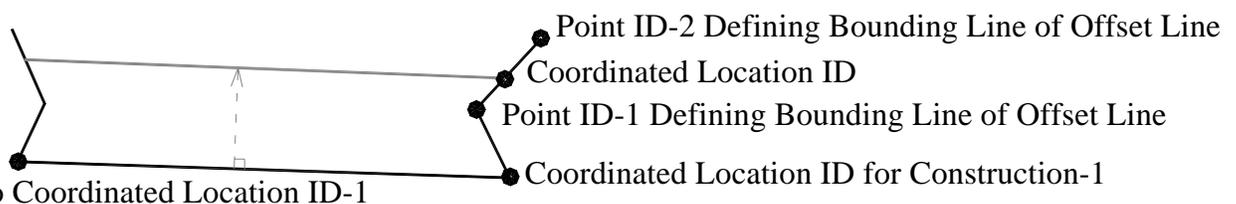
Point\_ID-2\_defining\_Bounding\_Line\_of\_offset\_line

**Source of data field:** System-generated

*See Diagram 1 below*

Diagram 1

Fixed\_Acreage\_Value



*Some deed descriptions call for a fixed acreage to be removed from a whole piece of land. Example:*

*“The South 6.00 acres of Lot 52”. To solve this geometry correctly requires information about the direction of the dividing line. In the absence of this data the intention must be guessed. The direction of the dividing line is populated above, in Direction-A\_fixed value-1 through Direction-D\_WtdMeanBrg-2\_To\_ID-1.*

Parent\_Parcel\_ID

*This value is extracted from the Parcel data.*

Percentage of Fixed Acreage

*In cases where a new parcel is described as the south ½ or south 34% of an existing parcel. This field*

*is related to Fixed\_Acreage\_Value. One of these fields must always be null or zero.*

Coordinated\_Location\_ID-2

*The acreage solution produces two points, Coordinated\_Location\_ID and Coordinated\_Location\_ID-2.*

## **ANGLE**

*An angle shows a relationship that a point has with two other points. An angle can reflect a measurement as reported on a deed or on a survey plat. An angle can also be a defined relationship, such as a point-on-line, which has an angle value of 180°.*

Coordinated\_location\_ID-At

*This represents a piece of data about the coordinated location.*

**Source of data field:** System-generated

Coordinated\_location\_ID-Backsight

*The Coordinated\_location\_ID of the endpoint of the first line that defines the angle.*

**Source of data field:** System-generated

Coordinated\_location\_ID-Foresight

*The Coordinate\_location\_ID of the endpoint of the second line that defines the angle.*

**Source of data field:** System-generated

Angle\_value

*Same as Angle in CDCS.*

Source\_ID

*This ID points to a source document and is similar to Source Index in CDCS.*

Source\_ID\_qualifier

*This qualifier or suffix to the Source\_ID can optionally be used to define subsets of data identified in Source\_ID. It can provide additional data about a line, such as: tie-line, long chord, line to curve radius point, etc), but it is most useful when one source contains differing units of measure or when there are more than one value for any of the attributes listed in Source Attributes, below.*

Point-On-Line\_flag

*This flag indicates that this point (at) is intended to be a point on the line between two other points (backsight and foresight). The angle value, by definition, is always 180°. Line coincidence can be derived by noting that the endpoints of a line are both “points on line” of the same longer, senior line. The senior line must be drawn through all the points defined for being on that line. Also the longer, senior line may not be represented in Line Measurement, such as the unsurveyed centerline of section.*

Used\_in\_technical\_adjustment\_flag

Used\_in\_cartographically-aligned\_adjustment\_flag

## **RECORD BOUNDARY**

Record\_Boundary\_ID

*Same as in CDCS.*

**Source of data field:** System-generated

Record\_Bounds

*Same as in CDCS*

**Source of data field:** System-generated

Measured\_Line\_ID

*System generated unique ID for a measurement of a line. The presence of this element here gives a tie to the parent line, if any, after the coordinate construction methods break the parent line into smaller segments. For example if a Measured\_Line\_ID references a line that measured North 2640 feet between monuments, but land is described in 10 acre units, the construction of those units involve splitting the line into two 1320 foot segments, then each of those are split into two 660 foot segments. The official bearing and distance of those lines is North 660 feet, yet the data structure at this point*

*does not support the storage of these numbers. The Measured\_Line\_ID provides each of the four segments with the annotation of the parent line. In this scenario the subdivisional lines that have not been measured directly will not have an official bearing and distance as there is no parent line. At present the official bearing and distance of subdivisional lines have never been computed.*

**Source of data field:** *System-generated*

Record\_Boundary\_Legal\_Status

*Same as in CDCS*

Record\_Boundary\_Comment

*Same as in CDCS*

Type\_of\_line

*Domain is “Measured\_straight\_line”, “Curved\_line\_circular”, “Curved\_line\_spiral”, “Offset\_to\_spiral\_line”, “Curved\_median\_line” and “Line\_sequence”. This field determines which tables to access.*

## **LINE MEASUREMENT**

*A measured straight line can be any vector that supports the analysis of the survey geometry. A straight chord of a curve can represent a curve in an adjustment, then the chord line is made invisible to subsequent operations.*

Measured\_Line\_ID

*System generated unique ID for a measurement of a line.*

**Source of data field:** *System-generated*

Coordinated\_Location\_ID\_From

*With Coordinated\_Location\_ID\_To, identifies the line.*

Coordinated\_Location\_ID\_To

*With Coordinated\_Location\_ID\_From, identifies the line.*

Distance\_Value

*Same as in CDCS, except that it applies to chords that connect the ends of circular and spiral curves. These chords can be used to constrain adjustments in least square analysis.*

Direction\_Value

*Same as in CDCS, except that it applies to chords that connect the ends of circular and spiral curves. These chords can be used to constrain adjustments in least square analysis.*

Distance\_Residual\_from\_last\_technical\_adjustment

Direction\_Residual\_from\_last\_technical\_adjustment

*These statistics on feature adjustment are useful in subsequent data analysis.*

Boundary\_Defining\_Flag

*Same as in CDCS. This is also used for default annotation and is a input source for calculations determining proportionate values during automatic section subdivision.*

Visibility\_Flag

*This is used to hide lines that are not boundaries or to prevent multiple depictions of a single measured line feature.*

Source\_ID

*This ID points to a source document and is similar to RB-Source Index in CDCS.*

Source\_ID\_qualifier

*This qualifier or suffix to the Source\_ID can optionally be used to define subsets of data identified in Source\_ID. It can provide additional data about a line, such as: tie-line, long chord, line to curve radius point, etc), but it is most useful when one source contains differing units of measure or when there are more than one value for any of the attributes listed in Source Attributes, below.*

Used\_in\_technical\_adjustment\_flag

*This flag also triggers whether point will be automatically used in next analytical/technical adjustment*

Used\_in\_cartographically-aligned\_adjustment\_flag

*This flag also triggers whether point will be automatically used in next analytical/technical adjustment*

### **CURVED LINE CIRCULAR**

Measured\_Line\_ID

*Similar to Record\_Boundary\_ID in CDCS.*

Radius

*Same as in CDCS.*

Radius\_unit

*Same as in CDCS.*

Central\_Angle

*Same as in CDCS.*

Angle\_Format\_Code

*Same as Direction Units in CDCS, but should also define the format, ie DDMSS.sss.*

Direction

*Same as in CDCS.*

Degree\_of\_curve

*Same as in CDCS.*

Degree\_format\_code

*Defines the format, ie DDMSS.sss*

Length\_of\_Curve

*Same as in CDCS.*

Type\_of\_Degree\_of\_Curve

*Same as in CDCS.*

### **CURVED LINE SPIRAL**

Measured\_Line\_ID

*Similar to Record\_Boundary\_ID in CDCS.*

Spiral\_length

*Arc length of spiral curve or spiral curve segment*

Curve\_Radius\_distance\_begin

*Radius of spiral at Coordinated\_Location\_ID\_From. Value is infinite except in spiral curve segments.*

Curve\_Radius\_unit\_begin

*Same as Distance Unit in CDCS*

Curve\_Degree\_of\_curvature\_begin

*Another way of stating Curve\_Radius\_begin*

Curve\_Degree\_Format\_Code\_begin

*Same as Direction Unit in CDCS*

Curve\_Radius\_distance\_end (could be infinite)

*Radius of spiral at Coordinated\_Location\_ID\_To. Value is infinite except in spiral curve segments.*

Curve\_Radius\_unit\_end

*Same as Distance Unit in CDCS*

Curve\_Degree\_of\_curvature\_end

*Another way of stating Curve\_Radius\_begin.*

Curve\_Degree\_Format\_Code\_end

*Same as Direction Unit in CDCS*

### **OFFSET TO SPIRAL LINE**

*Note on Offset\_Spiral\_Line: The point identifiers from the feature of Line\_Measurements pertain to the endpoints of the offset and the curve values from the feature of Curved\_Line\_Spiral pertain to the spiral centerline. [The offset to a spiral is not mathematically definable. It is not a spiral if it is*

*parallel to the spiral centerline.]*

Measured\_Line\_ID

*Similar to Record\_Boundary\_ID in CDCS.*

Coordinated\_Location\_ID\_Centerline\_From

*The geometry of the spiral centerline, listed above, are applied to the endpoints of the spiral centerline.*

Coordinated\_Location\_ID\_Centerline\_To

*The geometry of the spiral centerline, listed above, are applied to the endpoints of the spiral centerline.*

Offset\_distance\_value

*The offset distance from the centerline.*

Offset\_distance\_unit

*Same as Distance Unit from CDCS*

Offset\_direction\_code

*The offset direction can be right or left. The offset direction value varies throughout the curve.*

### **CURVED MEDIAN LINE**

*A curved line median is a parabolic curve that can be described with one line (directrix) and one point (focus), and the directions of lines going into and out of the focus..*

Measured\_Line\_ID\_Directrix

*Similar to Record\_Boundary\_ID in CDCS.*

Coordinated\_Location\_ID\_Focus

*The outside points defined by the directrix, together with the two lines associated with the focus, work together to define the curve.*

Coordinated\_Location\_ID\_Focus\_BS

*A line on the bank opposite from the directrix, formed between the Coordinated\_Location\_ID\_Focus\_BS and the Coordinated\_Location\_ID\_Focus, is used to construct the median line.*

Coordinated\_Location\_ID\_Focus\_FS

*A line on the bank opposite the bank from the directrix, formed between the Coordinated\_Location\_ID\_Focus and the Coordinated\_Location\_ID\_Focus\_FS, is used to construct the median line.*

### **LINE SEQUENCE**

*The purpose of the Line\_sequence is provide a shorthand version of line data that are derived from GIS coverages or other map data. This data is not subject to adjustment and analysis, but is used where terrain features are called out as boundaries.*

Measured\_Line\_ID

*Similar to Record\_Boundary\_ID in CDCS.*

Point\_sequence

*This is a sequence of coordinates between the From\_Point\_ID and the To\_Point\_ID. This could also be a sequence of point IDs whose coordinates are contained in a new category, 3.C.5 Corner\_Point\_Derived\_from\_Map\_Line, but I think there should be a driving reason for assigning point IDs to these multitudes of points.*

Line\_sequence\_name

*Name of physical feature exactly as found in legal description of a boundary. Examples: "center of Deer Creek", "boundary between Blue Salmon watershed and East Grand watershed", "center of county road No. 312", "2200 foot contour line", "270 foot offset east of the power line", "ridgeline of Big Bill Ridge".*

Coverage\_source

*This is some link to a map document or GIS coverage.*

Error\_circle\_radius

*This is a distance value from each coordinate within which the true value should fall 95% of the time.*

Error\_circle\_radius\_units

*Same as Distance Units in CDCS.*

## **SOURCE ATTRIBUTES**

*This category contains source-level metadata that describes four kinds of measurements: control coordinates, distances, directions and angles.*

Source\_ID

*This ID points to a source document and is similar to Source Index in CDCS.*

Source\_ID\_qualifier (user-defined subset of source)

*This qualifier or suffix to the Source\_ID can optionally be used to define subsets of data identified in the Source\_ID.*

Source\_document\_title

*Domain such as "mineral survey of MS1872", "melody acres subdivision, phase 132". This is much like Source Index from CDCS and may eventually be that.*

Survey\_Agent

*Similar to Agent in CDCS, but more descriptive for now*

Survey\_date

*Similar to Source Date in CDCS, but more descriptive for now*

Measured\_coordinate\_\_horizontal\_datum\_name

*Same as in Washington State DNR model. This is the native datum in which the coordinates are published.*

Measured\_coordinate\_\_coordinate\_system\_definition

*Same as in Washington State DNR model. This is the native coordinate system in which the coordinates are published.*

Measured\_coordinate\_\_projection\_unit

*Same as Washington State DNR model Planar\_Distance\_Units, perhaps. State Plane Zones in NAD83 are defined with meter units. Many implementations convert those values to feet. Projection\_Units specify which units are used in current coordinate values.*

Measured\_coordinate\_\_vertical\_datum\_name

*Same as in Washington State DNR model. This is the native datum in which the elevation is published.*

Measured\_coordinate\_\_error\_estimate

*The distance amount that the horizontal coordinates are expected to be different than their true value. This estimate is indispensable in analyzing the geometry of the network.*

Measured\_coordinate\_\_error\_estimate\_units

*The units used in defining the error estimates.*

Measured\_line\_straight-or-geodetic\_flag

*This flag marks a measured line as a planar (straight) line, such as a centerline of section and most private surveys or a geodetic (curved) line, such as a BLM/GLO section line. This flag is needed to define which kind of calculations are employed when calculating new coordinates on the line (proportion and intersection). This flag should work in conjunction with the straight-or-geodetic\_flag in coordinate\_value\_constructed, which has the same purpose, but is most useful in defining constructed lines.*

Recorded-measurement-or-vectorized-scan-of-plat\_flag

*This flag can help certify data to a higher or lower level of trustability.*

Distance\_unit

*Same as in CDCS*

Distance\_type

*Same as in CDCS*

Distance\_correction\_constant

*A known constant to apply to each distance in this set of measurements.*

Distance\_correction\_ppm

*A known multiplier to apply to each distance in this set of measurements.*

Distance\_error\_estimate\_constant

*The constant amount which the distance is expected to be different from its true value. This value is indispensable in analyzing the geometry of the data. This protects good data from being overadjusted.*

Distance\_error\_estimate\_ppm

*The ratio which the distance is expected to be different from its true value. This value is indispensable in analyzing the geometry of the data. This protects good data from being overadjusted.*

Direction\_quadrant

*Same as in CDCS, but can describe right/left and direction reference; from North or South.*

Direction\_unit

*Same as in CDCS*

Direction\_type

*Same as in CDCS*

Direction\_correction

*A known constant to apply to each distance in this set of measurements.*

Direction\_error\_estimate

*The amount which the direction is expected to be different from its true value. This value is indispensable in analyzing the geometry of the data.*

Measured\_angle\_unit

*Similar to Direction Units in CDCS*

Measured\_angle\_error\_estimate

*The amount which the measured angle value is expected to be different from its true value. This value is indispensable in analyzing the geometry of the data. This protects good data from being overadjusted and has other utility like forcing points to be on a line*

## **ADJUSTMENT ATTRIBUTES**

Adjustment\_dataset\_ID

*This is the name of file or data table that was used to create the coordinate solutions.*

Adjustment\_type

*Datasets not only describe the spatial footprint of the adjustment, but the purpose of the adjustment, ie. whether the adjustment was*

*S* *for analytical purposes or*

*S* *for aligning the land grid to legacy raster-based data or*

Adjustment\_date

*Indication of currency of data*

Adjusting\_agent

*Audit trail for*

*S* *quality assurance*

*S* *support certification of data (was adjusting agent a registered land surveyor)*

*S* *access to individual who knows what is going on with the data*

Standard-error-of-unit-weight\_of\_adjustment

*This is a useful measure of how well the error estimates relate to the data quality.*

Software\_used

*Brand, product, version.*

## **POINT ID ALIASES**

*This table cross-references all system point identifiers with inhouse identifiers, like GCDB IDs.*

Coordinated\_Location\_ID

*Not always legal corner, but helpful in deriving most probable locations of Corner\_IDs.*

Region\_Scheme

*Named regions (datasets) that are the basis for the Inhouse ID scheme, like Township or grant.*

Inhouse\_ID

*Reference to legacy IDs. This can be an agency's readable, rule-based IDs. Persisting these IDs is necessary to:*

- S provide ties to IDs printed or hand-written on paper documents during data collection.*
- S support software that utilizes the rules in rule-based numbering, such as in section subdivision.*
- S assist data editors in recognizing patterns in data.*

*The Inhouse\_ID is a numbering scheme associated with a named region like a township or grant so the full unique identification of the alias is the concatenation of Region\_Scheme and Inhouse\_ID.*