

## **Good CAD Characteristics**

Good CAD = No or Minimal Post Migration Cleanup

1. No empty layers
2. Properties are set as “BYLAYER.”
3. CAD lines mapped to converted IIM geodatabase polygon features must close.
4. Geometries are topologically clean with no undershoots, overshoots, zero length Polyline, overlapping objects, snapping errors, intersection errors, self-intersection errors and duplicates.
5. Lines and closed polygons are drawn as polylines (LWPOLYLINE).
6. Inner polygons or inner closed lines that constitute an island or a donut within the same polygon in the same layer shall not be created. Each closed Polyline object must be a single polygon.
7. Ellipses, Splines and Arcs are not used. In case arcs or ellipses need to be created to shape drawing objects, these shall be converted into polylines and should be digitized in such a way that the space between the vertexes along the length of the chord shall be consistent with the drawing object shape and size.
8. The insertion point of an attribute block must not be placed at the default origin values equal to 0, 0. The point shall be placed at the lower left-hand side of the Block Attribute corner. Each block attribute (insertion) point must fall inside the area of the object polygon. The insertion point must spatially “reside” inside the corresponding polygon object.
9. Annotation mapped to converted IIM geodatabase polygon features must be within the boundaries of that polygon.
10. The DWG file does not contain objects like hatch, solid, xref, xline, line, dimension line, groups, unused blocks, unused line types, unused hatch styles et cetera.
11. The drawing objects do not have elevation, width and thickness.
12. The drawing file does not have any 3D objects such as 3D poly, heights, etc.

13. The drawing file must not have any proxy objects, such as unreferenced insertion points.

14. Drawing details such as title, borders and other textual attributes must be placed in the layer "A-ANNO" or "A-ANNO-TEXT".

15. Layers are ON -- Freeze layers rather than layers OFF.

16. External references are bound using the Bind option (instead of the insert option).

### **OK to BAD CAD**

OK to BAD CAD contains one or more of the following errors in varying degrees and will require some post migration cleanup -- typically > 1% and <= 5% of features needing cleanup.

1. Empty layers

2. Properties are not set as "BYLAYER."

3. Features mapped to different indoor map layers are in one CAD Layer

4. CAD lines mapped to converted AIIM geodatabase polygon features do not close.

5. Geometries are not topologically clean-- containing undershoots, overshoots, zero length Polyline, overlapping objects, snapping errors, intersection errors, self-intersection errors and/or duplicates.

6. Features mapped to polygon indoor map geometries are modeled as Lines and closed polygons are not drawn as polylines (LWPOLYLINE).

7. Polygons or inner closed lines that constitute an island or a donut within the same polygon in the same layer are used.

8. Ellipses, Splines and Arcs are used.

9. The insertion point attribute blocks are placed at the default origin, where values equal to 0, 0, and therefore, the insertion point does not spatially "reside" inside the corresponding polygon object.

10. Annotation mapped to converted to AIIIM geodatabase polygon features are not within the boundaries of that polygon.

11. Annotation makes significant use of leader lines

12. The DWG file contains objects like hatch, solid, xref, xline, line, dimension line, groups, unused blocks, unused line types, unused hatch styles etc.

13. The drawing has elevation, width and thickness.

14. The drawing file has 3D objects such as 3D poly, heights, etc.

15. The drawing file has proxy objects, such as unreferenced insertion points.

16. Layers are OFF instead of Frozen

17. External references are bound using the Insert option.