

## Top 10 Hints in the Electronic As-Built Approval Process

In an effort to make the electronic as-built review process more efficient, we have provided the following hints. It is our goal to assist you in seeing that your as-builts adhere to the cad standards and are accepted on the first submittal.

1. **Hydrants:** All hydrants should have valves. The water line serving the hydrant should be drawn from the center of the hydrant to the center of the valve (Figure 1). There should then be a line drawn from the valve to the main running along the street (Figure 2). The water main should be broken at the tie in point. Thus, resulting in three endpoints being snapped to one another (Figure 3).

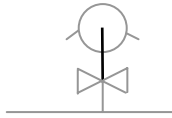


Figure 1

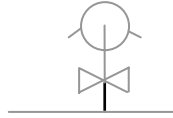


Figure 2

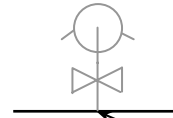
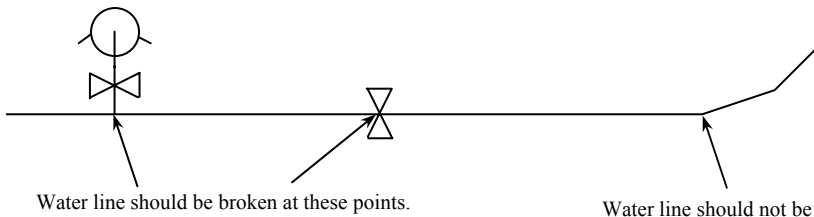
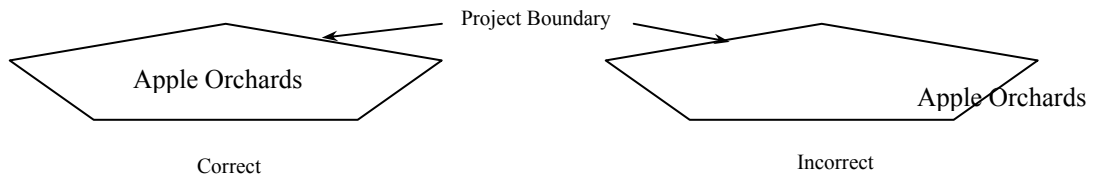


Figure 3

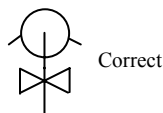
2. **Water Lines:** Water lines should only be broken at tees, hydrant tie-ins, valves, and reducers. Water lines should not be broken at bends. Please note that even though water lines are broken, their endpoints are snapped to the features and to one another.



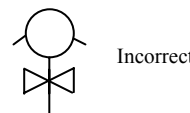
3. **Project Boundary Text:** Project boundary text need only be the name of the project and it should be contained within the closed project boundary polygon. (See the example below that shows a subdivision named Apple Orchards). The incorrect drawing shown here has the project name partially outside of the closed project boundary polygon. An as-built would also be considered incorrect if the entire project name were placed outside of the project polygon.



4. **Snapping:** When snapping line features to point features, it is important to remember that the lines should be snapped to the *center* of point features. Please note that the incorrect example has the line snapped to the edge of the fire hydrant rather than the center.



Correct



Incorrect

**Miscellaneous:**

5. Sewer tap distances should match those shown on the televising report. These are the only distances that are not required to be surveyed.
6. All sewer lines and taps should be digitized so that they flow in the correct direction - downhill from the house to the sewer main. Sewer mains are drawn from the upstream manhole to the downstream manhole. In AutoCAD, dynamic labels can be used to check direction.
7. All polygons must be closed. Polygons may give the appearance of being closed when in fact, they may not be. Look at the polygons properties. There should be an attribute box to indicate whether or not the polygon is closed.
8. All layers must be named exactly according to the CCWA As-Built Cad Standards. Using the CCWA cad template should eliminate any incorrect layer names. All items must be in their correct layer. Features that existed before the development plans were drawn should be placed in that feature's existing layer. For example: A water line that existed before the development was planned would be placed in the WATER\_EXISTING layer. All other water lines would be placed in the WATER\_LINE layer. CCWA does not require any layers other than those shown in the Cad Standards. Also, if a drawing does not contain certain features, those layer names are not required to be in the drawing. For example: A subdivision with no sewer would not be required to have any of the sewer layers.
9. File names should reflect the date of each submittal/resubmittal. (Apple Orchard submitted on May 1, 2004 would be Apple\_Orchard\_040501. Apple Orchard resubmitted on May 4, 2004 would be Apple\_Orchard\_040504).
10. In addition to the label on the disk/CD, all submittals and resubmittals should be accompanied by a cover letter containing the following information:

Cad File Name  
Project Name  
Company Name  
Contact Name  
Company Address  
Contact Phone Number

Providing CCWA with this information helps to ensure that review letters will be sent to the correct address.