Title: Directions for Displaying ASCE Utility Quality Level to Plans

5/31/2018

To improve the consistency and quality in the presentation of existing utility information of the construction plan sets that are generated for the Delaware Department of Transportation it is recommended that ASCE Utility Quality Level be displayed.

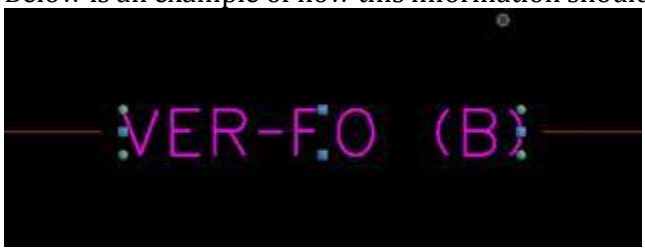
ASCE Quality Levels

Quality levels are assigned to the underground utilities within the project area in order to accurately convey the degree of risk associated with each utility based on the amount of Subsurface Utility Engineering (SUE) work performed on each utility. There are four recognized quality levels of underground utility information ranging from Quality Level D (the lowest level) to Quality Level A (the highest level). Each of the four utility quality levels is described as follows:

- **Quality Level D** - QL-D is the most basic level of information for utility locations. It comes solely from existing utility records or verbal recollections, both typically unreliable sources. QL-D is useful primarily for project planning and route selection activities.
- **Quality Level C** - QL-C is the most commonly used level of information. It involves surveying visible utility facilities (e.g., manholes, valve boxes, etc.) and correlating this information with existing utility records (QL-D information).
- **Quality Level B** - QL-B involves the application of appropriate surface geophysical methods to determine the existence and horizontal position of virtually all utilities within the project limits. This activity is called "designating". The information obtained in this manner is surveyed to project control. It addresses problems caused by inaccurate utility records, abandoned or unrecorded facilities, and lost references.
- **Quality Level A** - QL-A, also known as "locating", is the highest level of accuracy presently available and involves the full use of the subsurface utility engineering services. It provides information for the precise plan and profile mapping of underground utilities through the nondestructive exposure of underground utilities, and also provides the type, size, condition, material and other characteristics of underground features. Locating is most commonly done through use of a test hole or test pit. It should be noted that, a QL-A quality level is only is assigned to a utility only at the position of the locating and not to the whole underground utility line.

Plan Presentation

Quality Levels on plans will be added by showing the appropriate ASCE Utility Quality Level designation in parenthesis after the owner and facility type. This information should be added to the UT.dgn strip file so that the utility owner information, facility type and quality level will be conveyed on each sheet in the plans where the existing underground utility facilities are shown. Below is an example of how this information should be displayed:



In addition, the Legend sheet reference file has also been updated in order to properly convey this information. An (X) has been added to the Existing Utility Legend next to the Utility Company

owner information. This X will not change in the legend but is intended to let the plan reader know that this value is the ASCE Quality Level that is shown on the plan sheets.

UTILITY COMPANY FACILITIES	
—XXX (X)—	EXISTING UTILITY NAME
—XXX (X)—	EXISTING UTILITY NAME
—XXX (X)—	EXISTING UTILITY NAME
—XXX (X)—	EXISTING UTILITY NAME

(X) REPRESENTS ASCE DEFINED SUE QUALITY LEVEL

Test hole information should be displayed on the plans in accordance with EI GO-09-001 entitled "Displaying Subsurface Information Within the Plan Set".