

Utility Access Driveways

Plans for utility access driveways shall be submitted per the following:

Plans submitted require both a plan view and a profile and sometimes a grading plan is needed as well.

The **plan view** must show:

1. Stationing,
2. Radii of centerline horizontal curves,
3. Points of curvature and tangency of the horizontal curves,
4. Horizontal curves that tie the driveway to the roadway,
5. Width of the pavement,
6. Width of the easement, and
7. The turnaround area for fire apparatus.

The minimum width of pavement permitted is 16 feet. However, the portion of the driveway in the right of-way must be 20 feet.

Turning templates are needed to show that the fire truck can make the necessary movements. The design vehicle is a BUS-40 as it is similar to the fire truck in that it has a 40-foot length and a 25-foot wheelbase.

The turning templates should be applied on a separate plan view.

Dead end driveways in excess of 150 feet in length shall be provided with an approved area for turning around fire apparatus. For layouts and dimensions of the **turn around area**, Appendix D of the International Fire Code (IFC) may be used as a guideline.

The **profile** must show:

1. Stations,
2. Grades,
3. Vertical curves,
4. Points of vertical intersection of the grades, and
5. No grade shall exceed 15%.

The **typical cross section** of pavement to be provided meets the driveway requirements of what Knox County uses for business driveways on capital projects.

The section is as follows:

1. a compacted subgrade with 4 inches of base (mineral aggregate type "A", grade "D"),
2. 1-3/4 inches binder (bituminous hot mix grade B-M), and
3. 1-1/4 inches topping (asphaltic concrete surfacing grade "D").

This cross-section provides 7 inches of material.

The need for a **grading plan** is decided on a case-by-case basis. The effects of stormwater runoff on the side slopes of the proposed access driveway may

require curbs, culverts, catch basins or road side swales. Once again the need for these items is decided on a case-by-case basis

If a utility wishes to collocate on an existing structure that does not have vehicular access, then access must be provided and will need to meet the conditions listed above.”