



# Residential Lot Inspection Procedures

PDS

Engineering Services Division

ES Policy # 1-01

This handout describes the position of the City with regards to **SITE GRADE INSPECTIONS** of residential homes which have been identified as requiring an engineered plot plan prepared by a Professional Engineer/Registered Land Surveyor licensed in Kansas. The review of that plot plan and inspections of lots constructed in accordance with that plan are the responsibility of the Engineering Services Division of the Planning and Development Services Department.

The Engineering Services inspector will not redesign areas of the yard which are unattractive or which don't drain properly. The inspector's task is to verify that the grading of the yard is in conformance with the approved plot plan for that lot and check adjacent property to ensure that the plan as approved is still a workable plan. If that is not the case, site grading will not be approved.

Any change to the approved plot plan must be designed and sealed by a Professional Engineer/Registered Land Surveyor licensed in Kansas. If a change impacts adjacent lots, the owners of those lots must approve the change. Site grading inspections are requested through the Planning and Development Services Inspection line, at 895-6220. Inspections are scheduled to be completed by the end of the next business day following the request. Results will be posted at the building site, and will be entered into Overland Park's computerized inspection system within 24 hours following the inspection.

If an inspector arrives at a building site and determines that the builder does not have the site in an acceptable condition to inspect, which includes not meeting the conditions shown below, an unsatisfactory inspection result will be posted. **After two inspections, the inspector may charge a reinspection fee for any subsequent inspection.**

**Engineering Services' role** in a site grading inspection, formerly known as a PUB, is:

- To ensure that the site is graded in accordance with the approved plot plan for that lot.
- To ensure that the piped and above-ground storm drainage system which carries stormwater through a subdivision is constructed in accordance with the approved As-Built Grading plan submitted by the developer's engineer.

- To ensure that the site grading required by the approved plot plan will not negatively impact any other lots which do not require site grading inspection by Engineering Services.

**The builder's role** in site grading inspections is:

- The entire site should be graded as per the approved plot plan and be ready for sod placement. It should be free of large clods and ruts when the site inspection is requested.
- Property corners should be clearly staked if feasible. If the property corners are marked by "curb chips", then these marks must be clearly visible.
- At least three survey grade stakes, or "blue-tops", must be set for the flowline elevations along the centerline of each swale present.
- Previously constructed and inspected berms, if present, must still be in conformance with the development's approved As-Built grading plan.
- Area inlets, if present, should be clean and the area surrounding them should be graded so that when sod is laid it will match the top of the structure and edge of the concrete flume.
- Storm or sanitary manholes, if present, should be exposed and the ring and lid must be clean. The area surrounding them should be graded so that when sod is laid it will match the edge of the manhole ring.

**The inspector's role** in site grading inspections is:

- Inspection of the overall drainage of the lot.
  - ✓ The minimum slope allowed is 2% in the direction of the drainage.
  - ✓ No graded slope which is to receive sod should exceed 3:1 (3 ft horizontal to 1 ft vertical).
- Inspection of elevations.
  - ✓ Elevations of foundation walls, low openings, window wells, garage floors, or walkouts cannot be lower than those minimum allowable elevations shown on the approved plot plan.
  - ✓ If a lot slopes both to the front and to the back, it must have a high point location and elevation shown on the approved plot plan. This information

will be verified. The horizontal location must be within 5 ft and the elevation must be within 0.2 ft of the approved location.

- Inspection of a swale, if present.
  - ✓ Each flowline elevation shown on the approved plot plan will be verified. The elevations must be within 0.2 ft for swales with slopes of less than 3% and within 0.3 ft for swales with slopes greater than 3%.
  - ✓ The cross sectional shape will be carefully checked for compliance with the information shown on the approved plot plan. The bottom width must be at least as wide as shown. The side slopes can not be steeper than shown. Generally, rounding or softening of the shape of the swale is acceptable as long as the swale's cross-sectional area is increased by the rounding rather than decreased.
- Inspection of berms, if present.
  - ✓ Verify that previously constructed and inspected berms, if present, are still in conformance with the development's approved As-Built grading plan.
- Inspection of structures, if present.
  - ✓ Retaining walls must be constructed as shown on the approved plot plan.
  - ✓ Area inlets, if present, will be inspected to verify that the grading surrounding them is according to plan.
  - ✓ Storm or sanitary manholes, if present, will be inspected. The elevation must be compatible with the swale, if one is present, and must be within the elevation tolerances for a swale (0.2 ft – 0.3 ft). Any manholes which protrude in this situation must be adjusted or the pbt plan revised. The grading surrounding the manholes not associated with a swale will be inspected to verify that it is according to plan.