Grading & Drainage, New One-and Two-Unit Dwellings

Planning and Development Services Department

www.lawrenceks.org/pds

GRADING & DRAINAGE, NEW ONE-AND TWO-UNIT DWELLINGS

This information is made available to enhance construction uniformity and compliance with building codes, the Lawrence Land Development Code, and construction permitting and inspection procedures. This document is intended to assist contractors and homeowners in understanding the minimum code grading and drainage requirements for new one-and two-unit dwelling permits issued.

NEW ONE-AND TWO-UNIT DWELLINGS LOCATED IN SUBDIVISIONS

Provide finish floor elevation on plot plan per City-approved civil engineer grading plans attached to permit file.

Provide top of wall elevation and finish grade elevation for basement foundation wall construction on plot plan per City-approved civil engineer grading plans attached to permit file. Top of wall minimum 6" above finish grade (with masonry veneer 4") per R404.1.6.

Contractor to acknowledge finish floor elevation and the allowable tolerance minus (-) 0.0 feet to plus (+) 0.3 feet. Contractor must meet the approved finish floor elevation for grading and drainage standards for approved final occupancy.

Indicate on plot plan proposed drainage pattern. Contractor shall not revise drainage swales and grading per City-approved civil engineer plans. Grading plans attached to permit file.

Additional grading of drainage swales, use of retaining walls, regrading of site shall require Cityapproved building permit construction plans submitted to Building Safety Division for review and written approval PRIOR TO their construction and prior to issuance of the certificate of occupancy.

Residential building elevations shall clearly indicate slope of grade.

NEW ONE-AND TWO-UNIT DWELLINGS LOCATED IN INFILL LOTS

Provide finish floor elevation on plot plan, indicate existing street grade and the proposed finish grade at the residential finish floor elevation.

Provide top of wall elevation and proposed finish grade elevation for basement foundation wall construction on plot plan. Top of wall minimum 6" above finish grade (with masonry veneer 4") per R404.1.6.

Indicate on plot plan proposed drainage pattern. Proposed drainage swales, use of retaining walls, regrading of site shall require proposed grading plan.

Residential building elevations shall clearly indicate slope of grade.

R401.3 Drainage. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection that does not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall not fewer than 6 inches within the first 10 feet. Exception: Where lot lines, walls, slopes or other physical barriers prohibit 6 inches of fall

within 10 feet, drains or swales shall be constructed to ensure drainage away from the structure. Impervious surfaces within 10 feet (3048 mm) of the building foundation shall be sloped not less than 2 percent away from the building.

INSPECTION REQUIRED

Effective November 1, 2024, the City of Lawrence requires a supplementary inspection for new construction one- and two-unit dwelling permits. Initial Elevation Inspection shall be scheduled and approved before the footing inspection may be scheduled. In preparation for this inspection, you will be required to provide a marker (driven stake) and/or accompanying information regarding the proposed finished floor elevation (slab foundation) or top of wall elevation (basement or crawlspace). Attached images of acceptable examples may be found below. Please be aware that same day inspections are available provided they are requested before 2pm. <u>Our staff would prefer to have the initial elevation inspection scheduled in advance.</u>



- An **INITIAL ELEVATION** inspection is required for all new one-and two-unit dwelling permits issued. The INITIAL ELEVATION inspection shall occur prior to the FOOTING inspection to confirm the finish floor elevation provided on the plot plan.
- The **FINAL INSPECTION** is required for all new one-and two-unit dwelling permits issued. The checklist for the final inspection shall include review of the surface drainage, site conditions, retaining walls, etc. to match City-approved building permit construction plans.

*Please review the sample requirements of local jurisdictions for finish floor elevations.

<u>J105.1.5 Finished Floor Elevation Certificate</u>

A *registered design professional* shall certify the lowest habitable finished floor elevation to the elevation on the approved plans upon completion of the slab inspection and placement or the placement of the final construction form for the finished floor. All certifications required by this section shall be provided to and accepted by the *building official* prior to performance of any additional inspections. The minimum finished floor elevation shall comply with the approved plans and the allowable tolerance shall be minus (-) 0.0 feet to plus (+) 0.3 feet of the finished floor elevation detailed on the approved plans. **UPCODES**

A site plan must be uploaded, to scale the size and location of new construction, existing structures, distances from lot lines, the established street grades and the proposed finished grades; and it shall be drawn in accordance with an accurate boundary line survey. **OLATHE**

The finished floor elevation of the garage must be labeled. **BLUE SPRINGS (illustration below)**

The illustration to the right shows the information that is requested to be shown on the plot plan for lots with sidewalks. The finished floor elevation of the garage, back of curb elevations at each corner of the driveway and the mid-point, and the ADA note should all be included.

