

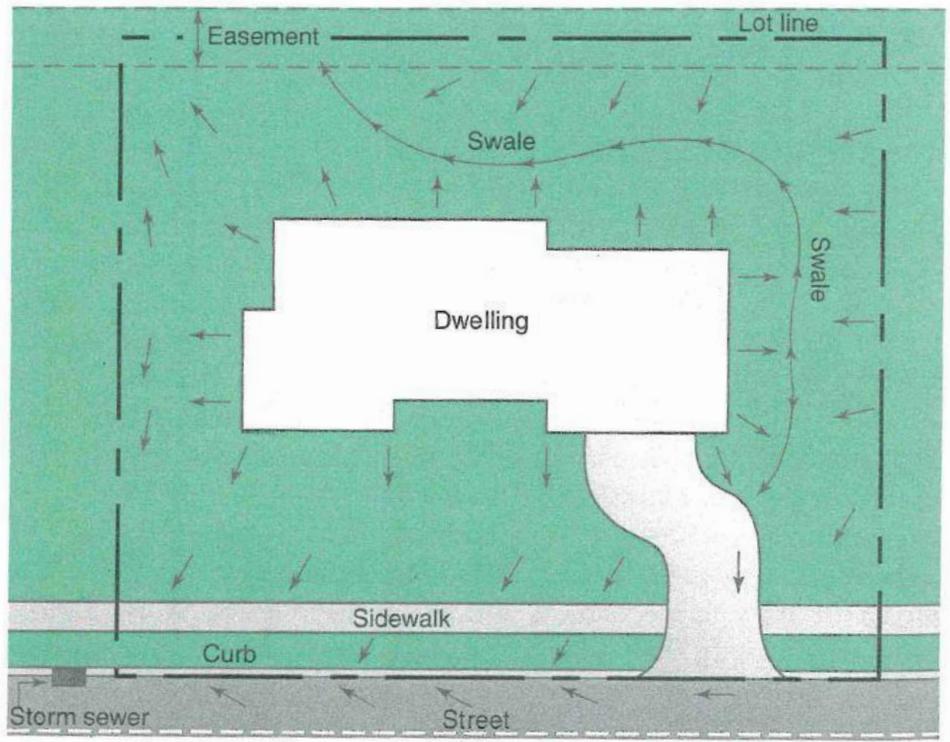
OCTOBER 2019

BUILDING

Below is an excerpt from the 2015 International Residential Code regarding Storm Drainage:

The IRC prescribes methods to direct surface water away from the foundation to an approved location. Water held against the foundation leads to wet or damp basements or crawl spaces and over time can cause damage to construction materials both inside and outside the structure. Mold thrives in such moist environments, contributing to an unhealthy living environment. In addition, water saturation of the soils adjacent to foundations increases the lateral pressure against the structure. Proper design of surface drainage also prevents nuisance ponding on the lot and possible flooding of structures during periods of heavy rains.

The IRC lends some discretion to the building official in determining alternate methods for adequate drainage. Department policy for verifying proper surface drainage on properties will likely vary depending on geographic location, permeability of soils and local history of damage and nuisances created by inadequate drainage. The building official is authorized to require submittal documentation sufficient to demonstrate compliance with the code. If deemed necessary, this may entail a detailed drainage plan with existing and proposed topographic contours, elevations, points of discharge and any containment features. The building official may require that a registered design professional prepare such drainage plans. In many cases, a drainage plan is already established as part of the master plan for the entire housing development and additional plans are not necessary. Other jurisdictions may require only some indication of the direction of drainage flow on the required site plan or may verify drainage on site visually without measurement at the time of inspection (Figure 3-5).



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FIGURE 3-5 Drainage plan



*****DO NOT FORGET TO CALL FOR FINAL INSPECTIONS.*****

The IRC is most concerned with drainage in the immediate vicinity of the structure. The surface of the final grade is required to fall a minimum of 6 inches within the first 10 feet away from the foundation (Figure 3-6).

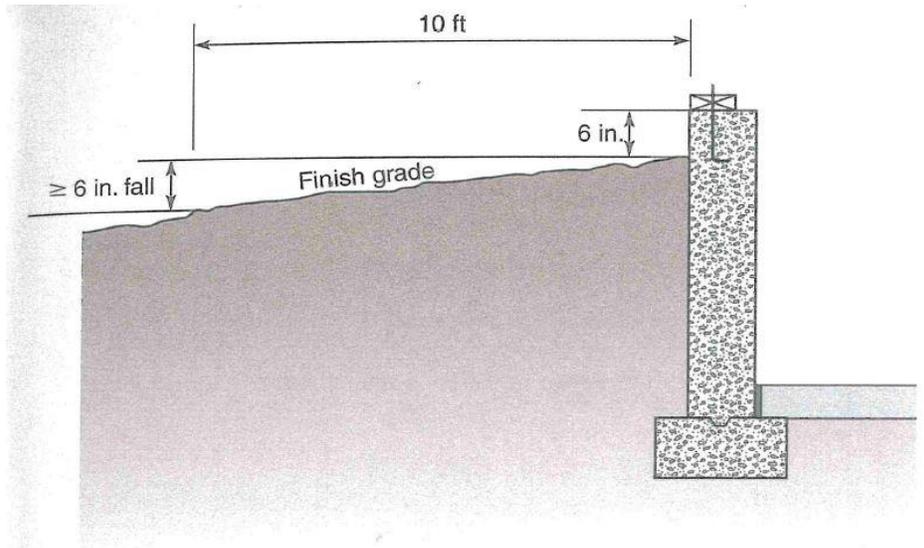


FIGURE 3-6 Grade sloped 6 inches in 10 feet to provide surface drainage away from foundation

Depending on local site conditions, it is not always possible to achieve that much fall and the code permits alternative designs to drain the water away from the foundation. In this case, the surface water may be directed to swales or drains to ensure adequate drainage away from the structure. Impervious surfaces within 10 feet of the foundation, such as concrete driveways, sidewalks and patios, must be sloped not less than 2 percent away from the structure (Figure 3-7). [Ref. R401.3, R404.1.6]

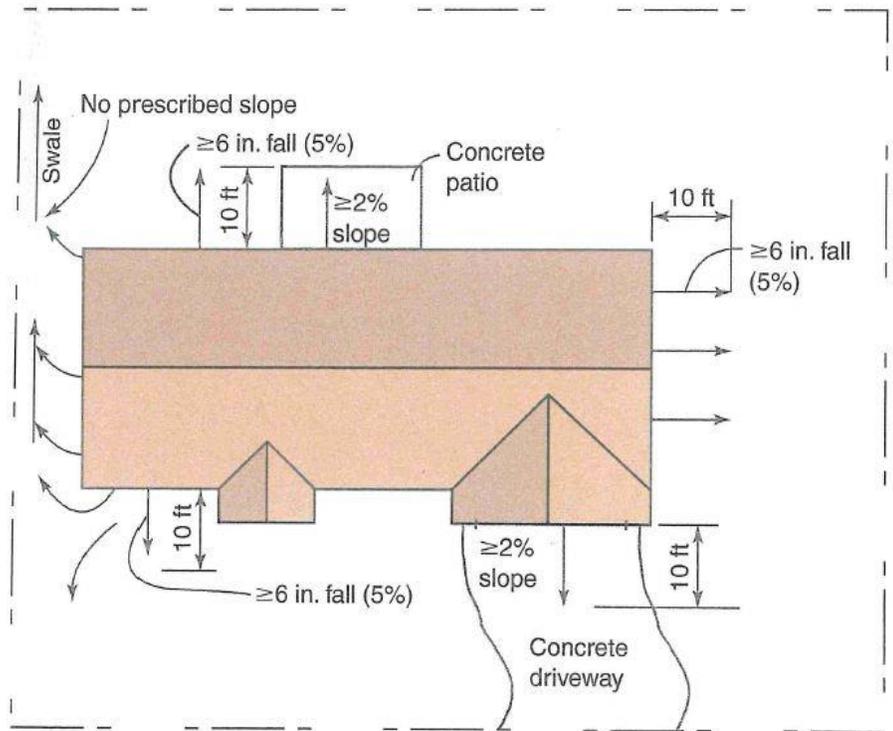


FIGURE 3-7 Grade to ensure surface drainage away from structure



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Though the prescribed slopes as previously discussed are concerned with the first 10 feet away from the structure, the IRC also has requirements for drainage to an approved location such as a storm drain, storm sewer inlet or the street gutter that leads to a storm drain. The drainage design must consider the entire lot for any impediments to drainage during heavy rains. [Ref. R401.6]



ONLINE PERMIT SUBMITTAL

The online permit submittal via Click2Gov will be turned back on starting November 1st, 2019. If you have any questions, please feel free to ask.

PLUMBING & MECHANICAL

The types of water heaters regulated by Chapter 5 of the 2015 Uniform Plumbing Code are fuel-gas burning, oil burning and electric, all of which heat POTABLE water. Chapter 5 also regulates the air supply and venting systems associated with these water heaters. These appliances should not be confused with boilers, which are regulated by the Uniform Mechanical Code. If an individual references back to Chapter 10 of the 2015 Uniform Mechanical Code, there is an exception: 1) Listed and approved potable water heaters with a nominal capacity not exceeding 120 gallons and having a heat input not exceeding 200,000 British thermal units per hour used for hot water supply at a pressure not exceeding 160 pounds-force per square inch (psi) and at temperatures not exceeding 210°F in accordance with the plumbing code. Therefore, water heaters are to be installed by a registered plumbing contractor with the City of Fremont and boilers are to be installed by a registered mechanical contractor with the City of Fremont.



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