

Tim Agnello, Realtor® and Engineering Geologist

Residential Lot Development and Landsliding on the Cincinnati Hillslopes

Originally published in *The Hillside Trust Outlook*, Summer 2003

In past *Outlook* articles landslides have been attributed to rock quarry activity and road building on a geologically weak hillside. On the western Mill Creek hillside adjacent to downtown Cincinnati in lower Price Hill landsliding can be associated with both small residential building projects to extensive grading efforts for a large 100+ unit residential subdivision. The Price Hill hillside area today can best be categorized as predominately green space. However, the "green" character of the hillside masks numerous failed early attempts to develop the "natural" hillside. The present real estate on the hillslope is composed predominately of unimproved (i.e. no houses) parcels with a smattering of residential single family homes and, to a lesser extent, condominium and apartment complexes.

A large portion of the hillside is platted for residential development, although housing is conspicuously absent. There are numerous residential sized parcels platted for single family residences that either remain unimproved or represent failed early development efforts. Plat maps from the early 1800's show a smattering of houses on the hillside that no longer exist, presumably damaged by landsliding.



Oblique aerial photograph of east Price Hill's "green" hillside. City of Cincinnati Photograph.

Small Residential Project & Landslide

Small residential projects have initiated landsliding that often extends to adjoining parcels. Above the Warsaw-Waldvogel Viaduct on Maryland Avenue a residential construction project (4 units) caused a landslide that threatened the older adjacent housing to either side of the project. Construction entailed a 12 foot vertical cut in the hillslope between two residential homes at 2325-2341 Maryland Avenue in 1979. The one hundred foot wide exposed and unsupported vertical cut failed during the rainy season. The four unit condominium project and landslide brought on a one million dollar lawsuit against a builder, architect, excavator, engineering firm, and geotechnical engineering firm. Vertical cuts as high as seven feet have initiated hillside movement in the past such as the Mt Adams landslide that occurred in the late 1970's.

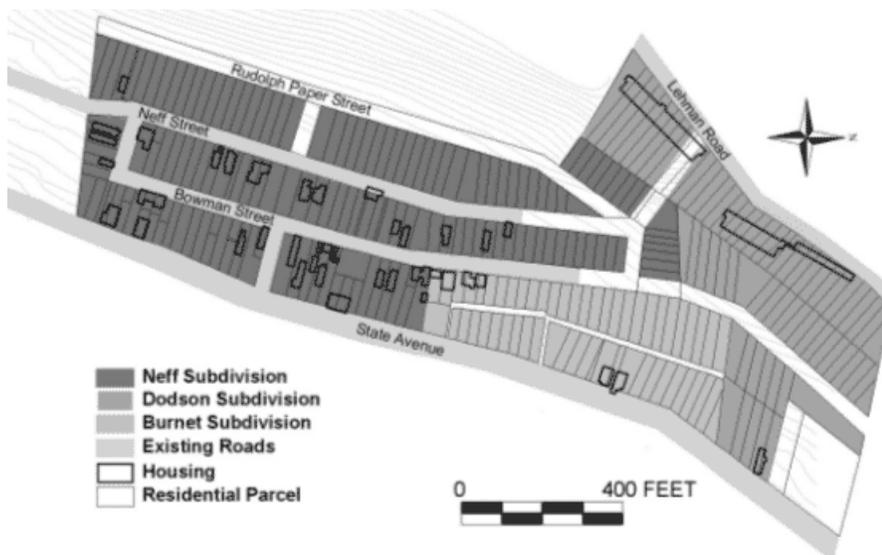
Failed Subdivision Tracts

Peter Rudolph Neff owned a large tract of ground in the area of what is now the Cincinnati Bible College property. The parcel tract(s) extended down the Price Hill hillside and fronted onto the Mill Creek. The land was subdivided and dedicated in 1888, however, the 1869 Titus' Atlas map shows a portion of Neff tract located on the hillslope below the Cincinnati Bible College already subdivided for residential housing.

Within the platted Neff subdivision between Rudolph Avenue (presently a paper street) and State Street there are 154 platted residential lots with presently only 32 lots being utilized for housing, leaving 89% of the land unimproved (photo). Today, a project of this magnitude left unimproved would bankrupt a builder/developer. There is little indication that this project ever had any success at all in fact it was probably disastrous for individuals who purchased the lots in the 1800's (?). Landsliding is pervasive up slope of the present day housing located in the Neff subdivision due to the extensive and repetitive human activity.

Presently, there is only one house (abandoned) located uphill of Neff Street within the original Neff subdivision. At least one house below Neff Street is in distress due to ground movement. It seems that housing on the periphery of landslides fight the losing battle first. The wood frame house's western (up slope) limestone foundation is bulging several feet along with the associated wall on either side of the house. The wall exhibits a history of repairs and the house is racked out of square.

Additionally, another subdivided area located below Lehman Road, just north of the Neff subdivision exhibits landsliding associated with an area that was extensively graded in the late 1800's. The subdivision for the Estate of Wm. B. Dodson was platted December 31, 1875 and numerous unimproved residential lots are clearly visible on present day auditor's map.



Underutilized residential parcels below the Cincinnati Bible College and Lehman Road.

Cincinnati's Legacy

Past landsliding in conjunction with failed residential housing developments is not limited to Price Hill but has occurred on other "green" hillslopes in Greater Cincinnati. Extensive unimproved hillside tracts of ground subdivided and associated with paper streets can easily be located on the auditor's parcel maps. The demand to develop unimproved land within the City of Cincinnati is strong especially hillside ground that commands a view. Sometimes these "green" hillsides are undergoing a second and possibly third wave of development. The engineering cost, infrastructure cost, and cost to the homeowner, and taxpayer has been steep.

From: www.OhioValleyLandslides.com © 2007 Tim Agnello