Homebuying - A drainage experience

Engineered drainage protects your investment, and ensures stability and integrity of your property, your new home and your community for many years and many decades into the future.

What does water do when you put it at the top of a hill?

It flows down the hill, right?

Right, and that very simple fact causes more grief, more difficulty and more obstacles to building new homes than just about any other single factor. Because that same gentle trickle of water can turn your basement into an unplanned, unwelcomed swimming pool!

As one of today's builders, I want to develop a creative neighborhood plan; one with intersecting road patterns, an undulating boulevard here, and a change in level there.

Sure, if we planned a flat community, we wouldn't have a problem, and 20 years ago, flat was fine. All a builder had to do was clear a field, run a road straight through it, plunk new houses down on either side, and voila, we had a new community.

But in today's market, flat isn't fine. And to make our community work, good drainage is vital. Because if drainage isn't well planned, and your house is at the bottom of a gently landscaped hill, pretty soon you're going to have a flood in your basement.

Many people ask me, "Why can't you build a completely waterproof basement?" We can, and we do. We make our basements out of solid poured concrete, usually a minimum of eight inches thick. The walls are coated outside right from the very bottom to the top of the soil level with a thick bitmunous waterproofing compound that holds water back.

But consider this: water in the soil exerts pressure of several hundred pounds per square inch on the outside of that waterproofed wall. Inevitably, even the tiniest hairline fissure will eventually succumb to the pressure and let some water through. And even if there isn't the tiniest opening, water will simply saturate a compound and seep through it! Water is sneaky that way.

Part of the answer to drainage problems is simple: keep the water away from the house in the first place.

That's your next concern, right? Easy to say, but not easy to do, especially when you're building a whole new community, and to make that plan work, all the land has to slope away from your house, but also not slope towards any of the adjoining houses, not just on either side, but in front and back as well.

That's why builders of most new communities, include a small and shallow drainage ditch (a swale) that's built right into your property, to collect excess water from rain, melting snow, lawn sprinkling and car washing. The swale channels the water away from your house — and away from neighbors — right to the drainage system (storm sewer or storm drain) that's installed underneath the roads.

And that's also why you'll likely find a retaining wall between your property and the next. It's there to maintain the change in property level or grade, and to ensure that succeeding years of drainage don't cause erosion and change the drainage patterns.

You might ask, "Why did you put the swale, or that retaining wall, in this particular spot?"

I didn't, but my engineers did, specifying those details where necessary.

The municipality must approve our engineering drawings months before the first home is built in a new community; drawings that specify exactly how the contours of the land will look when the community is finally built.

A hundred years ago, nobody needed engineering drawings, drainage patterns, swales or retaining walls. You just picked a spot on your farm that was higher than the others and built your house on it. (You know what happens when you put water at the top of a hill and what happens when it flows to the bottom!) Today, we actually have to construct that high ground for each individual building lot.

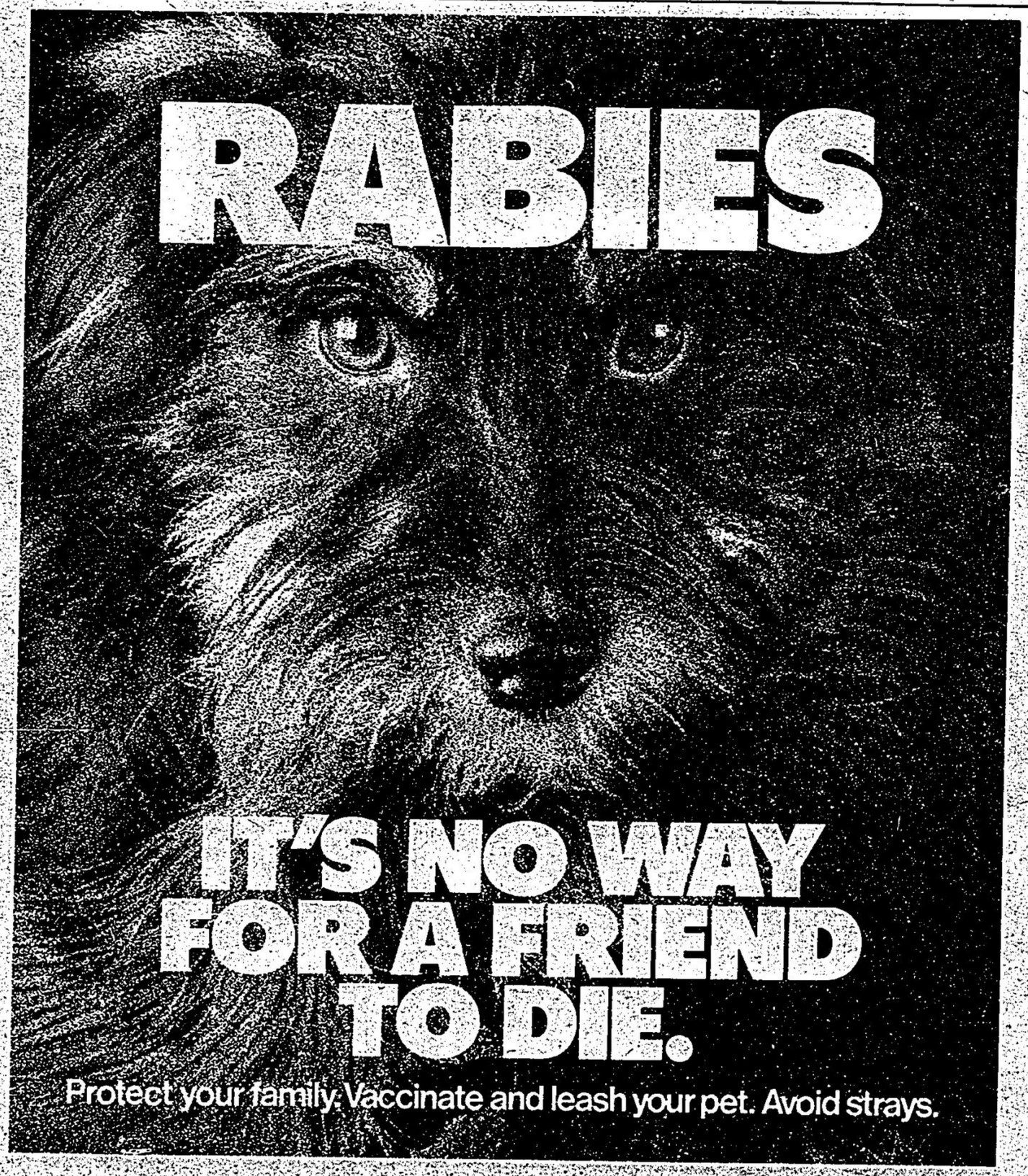
We rely on our engineers to use their knowledge to create complex drainage patterns, where every single slope of the land relates to every other single slope. Municipalities, too, have their own slope rules for our engineers to follow. For example, most municipalities demand a change of at least one per cent along a given property length. So, for example, if your lot is 120 feet deep, one end of it has to be at least 15 inches higher than the other.

That may not sound too difficult, but when you start to multiply that 15 inches here with another 15 inches there, then add gradients to make sure that water slopes away from he side of the house, you begin to realize just how complex a job building the land itself is in the first place.

Of course, it would be a lot simpler for me as a builder to just forget about drainage, retaining walls and swales, and let the water fall where it may.

But it wouldn't be right. I know that, and so do the engineers and the municipalities.

So the next time you look at those swales and those slopes and those retaining walls on your new home property, remember: they're there to protect your investment, and to ensure the stability and integrity of your property, your new home and your community for many years and decades into the future.



Last year in Ontario 2,150 people were treated for rabies exposure. As a result, the Ontario Ministry of Health is urging all residents to be extremely cautious. Since the disease is fatal to humans as well as pets, anyone who's been in contact with a rabid animal must take a series of shots.

You can protect your family by taking these simple precautions. First, vaccinate your pets against rabies. Second, keep them on a leash. Third, everyone, especially children, should be taught to avoid strays and wildlife that might carry rabies. Always wear gloves when handling a dead animal. Remember, farm animals can be infected too.

Protect your family and friends by protecting your pets from rabies. It's no way for a friend to die.

Ministry of Health
Ontario

Minister, Hon. Murray Elston
Premier, Hon. David Peterson