

Owner
18726 40th Place NE
Lake Forest Park, WA 98155

Wednesday, October 3, 2018

City of LFP
17425 Ballinger Way NE
Lake Forest Park, WA 98155

Re: 2018-RUE-0001

To whom it may concern:

I own the residence at 18726 40th Place Northeast, and I have comments and relevant experience to share in the above-referenced matter, but as a matter of personal safety, I do not want my name to appear in searchable public records online in conjunction with my street address or city of residence.

Over the summer, I decided to upgrade from septic to a sewer connection, but I had concerns about trenching through the roots of 7 mature fir trees lining the driveway where the sewer stub for my property is located.

I sought a sewer professional with expertise in trenchless, pneumatic drilling. John Pestel of Mukilteo-based Side Sewer was the very first vendor I contacted, and his bid happened to be the lowest. He understood that I was concerned about not killing the trees, and that I did not fully understand the city's requirements for installing a sewer – trenchless or otherwise – nor the requirements for working around trees.

Mr. Pestel explained that he planned to excavate the sewer stub, located 6' below grade, and use his pneumatic drill to dig a tunnel at that depth to a location in my yard that was outside the drip line of the mature trees. He explained his drill can penetrate tough soil and rock up to 8" thick. Once the tunnel is drilled, a high-density polyethylene (HDPE) pipe is attached to the drill head so it can be dragged back through. HDPE pipe is denser than the polyethylene pipe typically used for trenched sewer applications, which is somehow important given that there's no gravel lining in the trenchless tunnel. (I'm sure the City Engineer would be able to explain in better detail.) The remainder of the distance to my main drain line would be trenched, and standard polyethylene pipe would be used in a gravel-lined bed, as is traditional for trenched sewers.

Mr. Pestel and I visited the City planning desk together one afternoon in August and conferred with the planning staff and City Arborist. Mr. Pestel learned he needed to confer with the City Engineer to determine whether soil conditions permitted use of HDPE instead of a gravel-lined bed. I learned that I needed to hire a consulting arborist to study the location of the sewer stub in relation to the trees and advise on whether a pneumatic drilling approach would work. I applied for a tree removal permit so that the City Arborist could perform a site visit and determine whether tree removal would be necessary to complete the sewer connection, based in part on the report of the consulting arborist.

EXHIBIT # 54.2

Mr. Pestel and the City Engineer met onsite and determined the soil conditions were appropriate for HDPE/trenchless. I hired a consulting arborist for \$300, Michael Oxman (www.treedr.com). We met onsite along with Mr. Pestel to review the plan. I am appending his report to this letter (with my name redacted). In summary, he advised that drilling 4-6' below grade would not affect the 7 doug firs surrounding my driveway because doug fir roots only grow to a depth of 3' below grade.

I supplied Mr. Oxman's report to the City Arborist and attended her site review. She confirmed Mr. Oxman's findings and signed off on the sewer permit with the caveat that a trenchless approach would be used below the tree roots near the driveway. **No tree removal permit was necessary for this project.**

Once the sewer was permitted, Mr. Pestel began drilling and the entire project went as planned, with the exception of an area of "tough dirt" he encountered mid-way along the tunnel's intended path. The drill bit went through this area, but the HDPE pipe got jammed as it got stuck on the compacted dirt. Mr. Pestel spent quite a bit of time trying to drill around this spot, but it didn't work. Eventually, he took a shovel, my garden hose, and his shop-vac to the site of the jam and gently dug down between the tree roots about 12-18". He then started watering the hole to soften the dirt, extracting bucket after bucket of mud, until the earth was soft enough to drag the HDPE pipe all the way through the tunnel.

I don't know much about the project or developer associated with 2018-RUE-0001, but if the very first and most cost-efficient sewer professional I consulted was able to install my sewer connection legally without harming 7 protected doug firs, at a residential site less than a mile from the site in question, then I would be stunned if the project developer could not accomplish the same.

Trees should not be punished for a developer's failure to investigate trenchless alternatives – and nor should a community that celebrates and relies on the fresh air, water, and shelter of our trees.

I will be happy to supply additional details if necessary. I can be reached at my home address, listed above.

Michael Oxman

Professional Tree Surgeon

ISA Certified Arborist #PN-0756A

10236 37th PL SW, Seattle WA 98146

(206) 949-8733 www.treedr.com michaeloxman@comcast.net

Arborist Report prepared for [REDACTED]

Address: 18726 40th PL NE, Lake Forest Park, WA

Arborist performing inspection: Michael Oxman, ISA Certified Arborist #PN-0756A TRAQ

Date of inspection: 8-6-2018

Assignment: Determine if proposed excavation for connection to city sewer would negatively impact trees.

Method of assessment: Visual, verbal.

Tools used: Camera.

Findings:

I spoke with the excavation contractor, who was working onsite. He marked the place next to the street where a 6' deep pit would be dug to access the city sewer stub. The photos show an orange traffic marker in the location where the pit will be dug.

He said the sewer line would be drilled horizontally underground from the street towards the house at a depth of 6 feet below ground level. This method of tunnelling under the driveway and the tree roots with a directional drill is a better alternative to trenching. A trench would have required the removal of many trees due to root cutting.

I found several mature native evergreen trees near the north end of the circular driveway. Two of the trees are Douglas Fir trees, one on each side of the driveway, closest to the street. These two trees have limbs that hang over the location of the pit. Each of the trees are 10' away from the pit. The driplines of these trees are contiguous, and extend 10' past the pit out into the street. The

EXHIBIT # 54.4

driplines of other trees on the property do not extend over the pit. The roots of this type of tree usually grow to a depth of 3 feet.

Tree #1 has a trunk 29" in diameter, and is outside the circular driveway, to the north.

Tree #2 has a trunk 23" in diameter, and is inside the circular driveway, to the south.

The condition of both trees is good, and their structure seems sound, in keeping with the other trees on the property. There are no signs of unusual amounts of dead branches, decay, insect infestation, cavities, or excessive root disturbance. The trees have a good rate of metabolism.

Conclusion:

Both trees would be able to maintain their stability in response to the amount of root loss that may occur as a result of the sewer line installation. The 6' depth of the path of the sewer line is well below the ordinary 3' depth of the tree roots, and drilling would probably not damage the trees enough to affect safety.

Recommendation:

Apply for a permit to install the sewer line by drilling from the street towards the house.