

TREE ROOT SYSTEM PROTECTION PLAN



A new foundation may or may not be required. Expansive footers are highly unlikely. The submitted plans depicted the footers diagrammatically in a manner mimicking the existing. The existing deck's foundation consists of wood posts set upon 16" square concrete piers. The northernmost pier is presently concealed by fill. The piers likely rest upon a larger concrete footer. A photo of the visible condition is attached.

In any case our forthcoming foundation design will avoid or accommodate the existing elm's root system. This will be accomplished as outlined below. Our forthcoming piers are 10" square, smaller than the existing 16" squares.

The new foundations will be located in approximately the same area as the existing piers. A water pressure nozzle will be utilized in conjunction with the gentle displacement of soil in determining the extents of the existing footer concrete and any existing root locations. A professional engineer will then evaluate the bearing capacity of the existing conditions (footer and soil) under the loading of our proposed reconstruction. The loading for the replacement deck is substantially the same as was for the existing deck.

Depending on the outcome of this exploration and evaluation we have a variety of non-destructive foundation options:

- 1) Utilize the existing concrete to no ill effect.
- 2) Use an auger type (deep, small diameter hole) foundation that has almost no footprint and owes its capacity to the friction generated by long the sides of the hole's depth.
- 3) In the unlikely event that a root conflicts with an auger location; we will locate clear locations to implement a series of smaller augers that will support a bridge beam that will exist apart from any located roots.

In any event; should conflicting roots be located and prior to any action that has the potential to disturb them; Chris Smith or other Certified Arborist will be summoned for evaluation, recommendations and the filing of a written report.

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