



## Fleet Elementary School

### Community Newsletter (November 2017)

This is the November update on the status and progress of construction for the project. All monthly updates will also be posted to the project website and can be accessed via the following link:

<https://www.apsva.us/design-and-construction/new-elementary-school-jefferson-site/>

The excavation for the 2-level underground parking garage is 85% complete at this time and is scheduled to be fully completed in early December.

Support of excavation (SOE) activities are ongoing. At this time all shoring piles are in place, and lagging and tie-back installation/testing is approximately 90% complete. SOE activities are scheduled to be completed in late November.

Excavation is also taking place at the future bus loop to put that area on design subgrade. Once bus loop excavation is complete, stone will be installed for stabilization, and to serve as an access road for construction vehicles within the site.

Excavation of the bus loop to design subgrade has also allowed the geothermal subcontractor to commence work on the well field that is north of the garage excavation (located directly under the bus loop). There is also a well field to the south of the garage excavation. Each well field, north and south, consists of approximately 36 wells (for a total of 72), in 6 circuits of 12 wells each. Each vertical well will be drilled to a depth of approximately 560 feet. The wells are of a closed loop type, meaning that we do not circulate ground water within our geothermal piping. Instead, the circulating fluid within the wells is contained in piping and the piping is encased in grout. Heat exchange between the geothermal fluid contained within the pipe and the surrounding earth is through the grout. The geothermal wells are part of the geothermal heating and cooling system for the school, and will contribute greatly to the project's net-zero energy goals by reducing energy use for heating and cooling.

If you are interested in learning more about how geothermal heating and cooling works, I would encourage you to visit the following website:

<https://energy.gov/energysaver/geothermal-heat-pumps>



**GARAGE EXCAVATION**



**GARAGE EXCAVATION**



**TEMPORARY STAIR FOR ACCESS TO GARAGE EXCAVATION**



**GARAGE AND BUS LOOP EXCAVATION**



**DRILLING OF TIE-BACKS FOR SUPPORT OF EXCAVATION PILES**



**GEOTHERMAL WELL DRILLING**



**GEOTHERMAL WELL DRILLING**

Once excavation of the garage is complete, construction of footings and foundations for the garage and building structure will commence. To allow commencement of this work, a Footing to Grade permit is required. The permitting process is well along the way, and we are targeting permit approval within the next 2 weeks.

To expedite construction of the building structure (both for structural concrete and steel), a tower crane will be erected on site within the building pad. We are still working out the exact location of the crane to minimize impact on adjacent neighbors and maximize effectiveness for the work onsite. A crane permit will need to be pulled for erection and operation. We are targeting permit approval in the month of December so that the crane is ready for operation shortly after the 1<sup>st</sup> of the new year.

Construction of improvements to the west side sidewalk at S. Old Glebe Rd will commence within the next couple of weeks. A right of way (ROW) permit is required for this work and the application for that permit has recently been submitted. The goal of the sidewalk improvements is to provide a clear 4-foot-wide path on the west side sidewalk from the 1<sup>st</sup> Road S. intersection to the northernmost extent of the project. Currently, there are utility poles right in the middle of the sidewalk at several locations. While the project does not have sufficient funds to move the poles out of the sidewalk (which is a very expensive operation) the county has approved installation of sidewalk nubs around the poles that will result in the 4-foot-wide clear access path. This work will require that portions of the sidewalk and parking lane on the west side of the street be closed while the work is taking place. We will provide additional notice to affected parties once the ROW permit is released and we have a more specific schedule for the work in place.

Please contact me with any questions you may have regarding this update.

Steve Stricker  
Senior Project Manager  
Arlington Public Schools  
Design & Construction Services  
O 703-228-7749  
C 571-220-0048  
[steven.stricker@apsva.us](mailto:steven.stricker@apsva.us)