











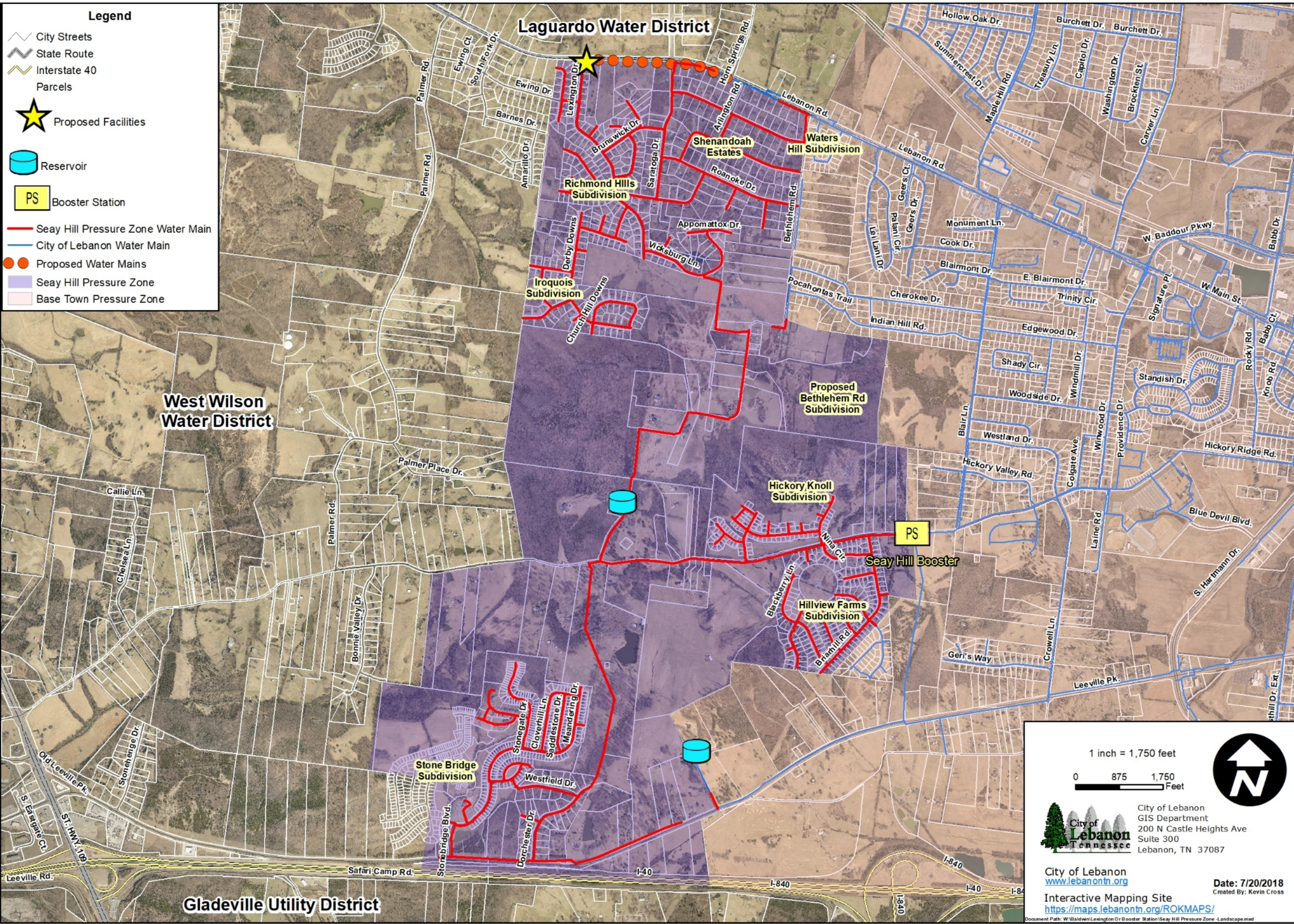


# Seay Hill Pressure Zone

# City of Lebanon, Tennessee

**Legend**

-  City Streets
-  State Route
-  Interstate 40
-  Parcels
-  Proposed Facilities
-  Reservoir
-  PS Booster Station
-  Seay Hill Pressure Zone Water Main
-  City of Lebanon Water Main
-  Proposed Water Mains
-  Seay Hill Pressure Zone
-  Base Town Pressure Zone



1 inch = 1,750 feet

0 875 1,750 Feet



City of Lebanon  
 GIS Department  
 200 N Castle Heights Ave  
 Suite 300  
 Lebanon, TN 37087

City of Lebanon  
[www.lebanontn.org](http://www.lebanontn.org)  
 Interactive Mapping Site  
<https://maps.lebanontn.org/ROKMAPS/>

Date: 7/20/2018  
 Created By: Kevin Cross

Document Path: W:\Baldwin\Lexington Dr Booster Station\Seay Hill Pressure Zone -Landscape.mxd

# Highway 70 Water Booster Station to Serve Seay Hill Pressure Zone – Fact Sheet

The Seay Hill pressure zone currently includes one water booster station located on Hickory Ridge Road and one 0.5 MG water storage tank located on Seay Hill. The booster station utilizes three pumps. One pump is capable of pumping 350 gpm, while three pumps operating simultaneously are capable of pumping a maximum combined 535 gpm. The maximum flow that can be pumped through this booster station is just over 770,000 gallons per day.

Referring to the planning document written in 2015, the Hickory Ridge booster station routinely operated two pumps in order to meet the peak demands placed on the Seay Hill pressure zone. In 2014, run times for the booster station were reviewed from August 19th through August 30th. On average, at least one pump ran for 19.5 hours a day during the review period. The operating times for the booster station indicate that the Seay Hill pressure zone had an average demand of approximately 428,000 gallons per day, or 297 gpm, in late 2014. As part of that review, a maximum day of 659,000 gallons was pumped on September 21, 2014. Meeting this maximum day condition required that all three pumps in the existing booster station operate. This operating condition leaves no redundancy in the system for pump failure.

It's reasonable to assume that demands are higher in the Seay Hill pressure zone today than they were in late 2014. The operation of the existing booster station has been altered to provide consistent and quality water service to the customers of the Seay Hill pressure zone. In time, without the construction of a second booster station and storage tank, the existing booster station and tank will not meet demands of the area served. It is also a TDEC requirement to provide 24 hours of storage in the system.

There are multiple reasons for building the booster station at the proposed location:

- This alternative provides the best redundancy for the pressure zone. By feeding the Seay Hill storage tank from two separate directions, it makes loss of service to customers less likely in the event of a water main break or loss of any pumps.
- As part of state SRF Loan requirements, three alternatives were reviewed. The proposed alternative represents the most cost effective alternative. This is due to the proximity of the proposed booster station to the 12" water main along Highway 70 and Lexington Drive.
- Additional pumping capacity is necessary to maintain and provide consistent and quality service for the customers in the Seay Hill pressure zone.
- The 12" water main located on Highway 70W terminates at Horn Springs Road. This 12" water main once fed LaGuardo Utility District; however, LaGuardo no longer purchases water from the City. In an effort to avoid water quality issues, the City installed a 2" "bleeder" line to allow some flow from the 12" water main. By constructing the booster station at the proposed location, flow will increase through this large water main, thereby, further promoting water quality.

WILLARD HAGAN SITE  
OVERALL SITE PLAN



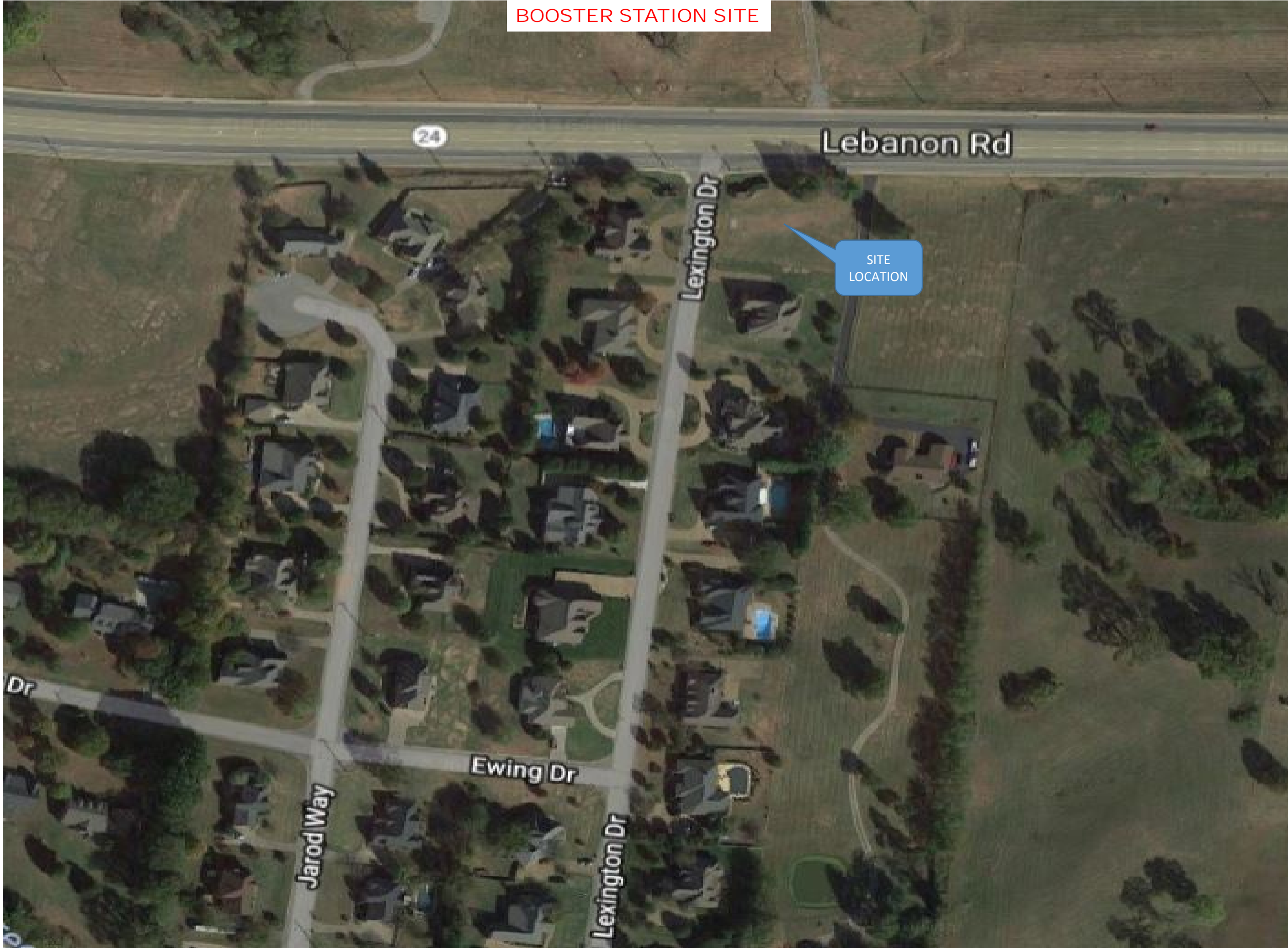
EQUIPMENT AREA/PIT



ELECTRICAL SERVICE & COMMUNICATIONS POLE



BOOSTER STATION SITE



Lebanon Rd

SITE  
LOCATION

Lexington Dr

Ewing Dr

Jarod Way

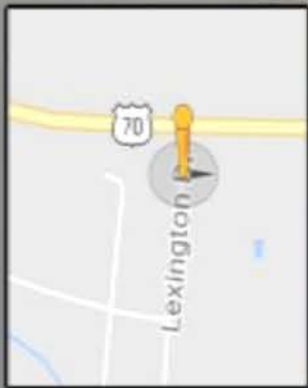
Lexington Dr

24

Dr

STREET VIEW

← Google, Inc.  
Street View - Jun 2012

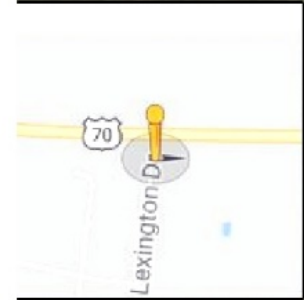


Google

Navigation controls including a compass, zoom in (+) and zoom out (-) buttons, and left and right arrow buttons.

Google, Inc.

Street View - Jun 2012

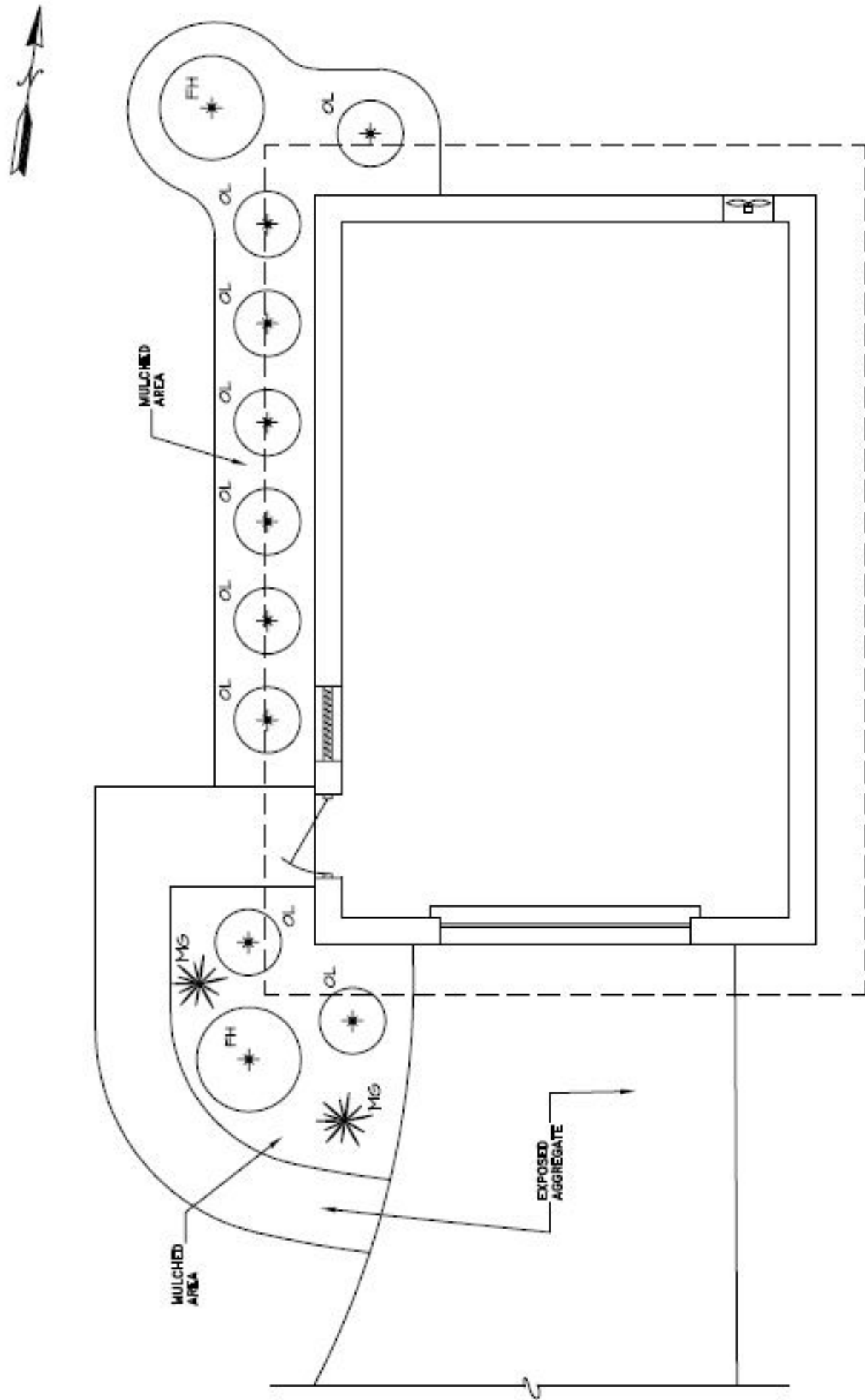


Google

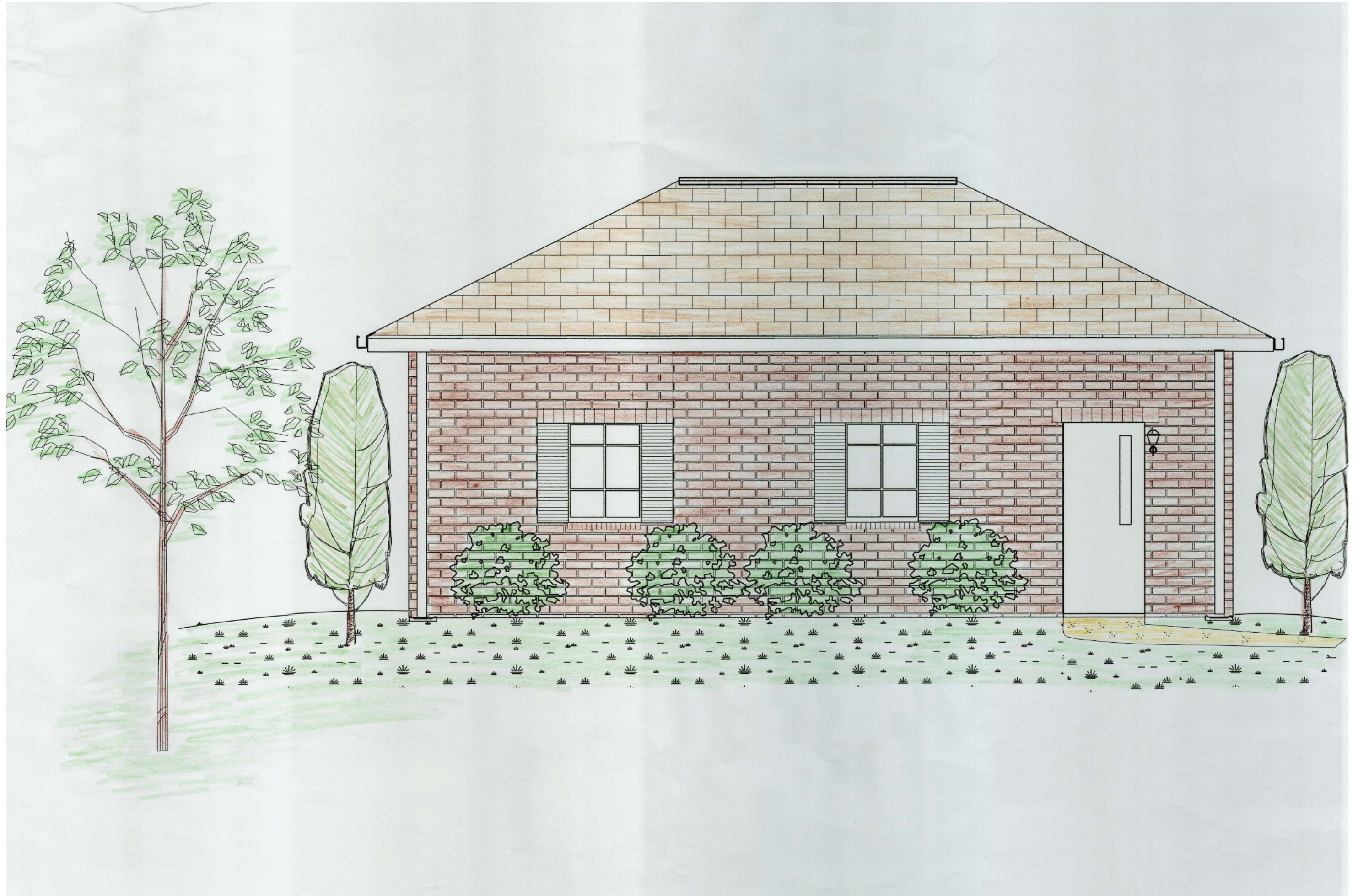
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# LANDSCAPE PLAN



ARTIST RENDERING



EXAMPLE BOOSTER STATION HOUSING



EXISTING SEWAGE PUMP STATION



EXISTING TELEPHONE CABINETS HWY 70

