



August 31, 2023

Goodwyn Mills Cawood

6120 Powers Ferry Road NW
Suite 200
Atlanta, GA 30339

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www.gmcnetwork.com

GMC Architecture
Attn: Amy Bell
VP of Architecture
6120 Powers Ferry Rd., NW, Suite 200
Atlanta, GA 30339

RE: DeKalb County Schools: Sequoyah Middle & High School Fire Flow Test

Dear Ms. Bell

Goodwyn Mills Cawood, LLC (GMC) has performed a flow test for the above-mentioned site. The results of the test are as follows: All pressures are in (psi) and all flows are in (gpm). Available flow is based on Hazen-Williams Formula.

$$Q_R = Q_F \times h_r^{0.54} / h_f^{0.54}$$

Where Q_R = Available Flow, Q_F = Observed Flow, h_r is the drop in pressure to the desired residual baseline (20 psi), and h_f is the drop in pressure to the actual residual pressure that was measured in the field.

	<u>Static Pres.</u>	<u>Flow/Pressure</u>	<u>Residual Pres.</u>	<u>Available</u>
<u>Flow FH</u>	108.0	1,250/55.0	64.0	1,818

1. Flow FH @ 3495 Aztec Rd.
300 feet Santa Fe Trail.
On 8/25/23 @ 9:30 a.m.

The site will have more than adequate flow available to meet minimum fire flow needs of 750 gpm. The Fire Hydrant flow is based on an orifice diameter of 2-1/2". Flow was conducted by GMC's Tony Van De Ryt and Lauren Rainey. The distance between hydrants is 593 feet. The flowing hydrant is located 300 feet north of Santa Fe Trail on Aztec Rd. and the pressure hydrant is located at the northeast corner of Arbor Creek Ln. and Aztec Rd.

Should you have any questions, please call our office.

Sincerely,

Goodwyn Mills Cawood, LLC

Curtis Barber, PE
Engineering Production Manager

Enclosures



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Hydrant Flow Test Work Sheet

City or County Dekalb County Schools – Sequoyah MS & HS

Target Hydrant # (FDZ # -Hydrant # STA. #) 3495 Aztec Rd. (House #)

Address of target hydrant 3456 Aztec Rd, Doraville, GA 30340

Date of Test 8/25/2023 Time of Test 9:30 am

Testers/Assignment Tony Van De Ryt & Lauren Rainey

Target Hyd. **B** Static 108 psi Residual 64 psi

Flow Hyd. **A** Hyd. # (FDZ# - Hyd STA. #) 1,250 gpm

of ports flowed 1 Diameter 2.5"

of ports flowed _____ Diameter _____

Pitot or flow meter reading 1,250 gpm

Pitot or flow meter reading 55 psi

Comments: _____

Test Conducted by: Tony / Lauren

_____ **Office Use Only** _____

Test requested by: Dekalb County Schools

Address: 1780 Montreal Road, Tucker, GA 30084-6705

Phone: (678) 676-1320

Date contacted: August 2023

The Hydrant Flow Test Calculator measures the rated capacity at 20 psi of a fire hydrant. The rated capacity calculation is useful in determining the total water supply at a given point in the hydrant or water main. The calculation offers more useful information than the test flow by itself and is used by insurance underwriters. For more information see NFPA 291 and AWWA M-17.

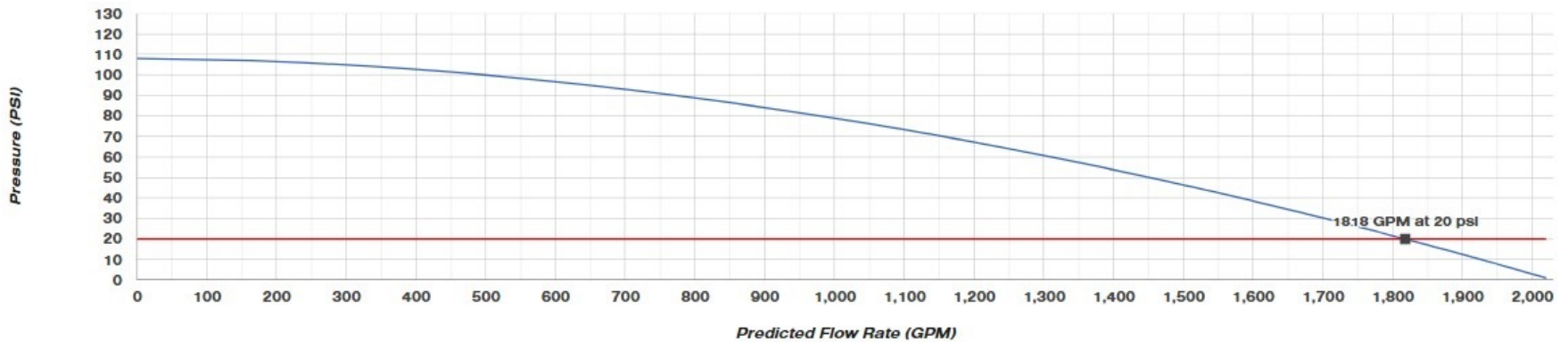
Static Pressure (PSI):

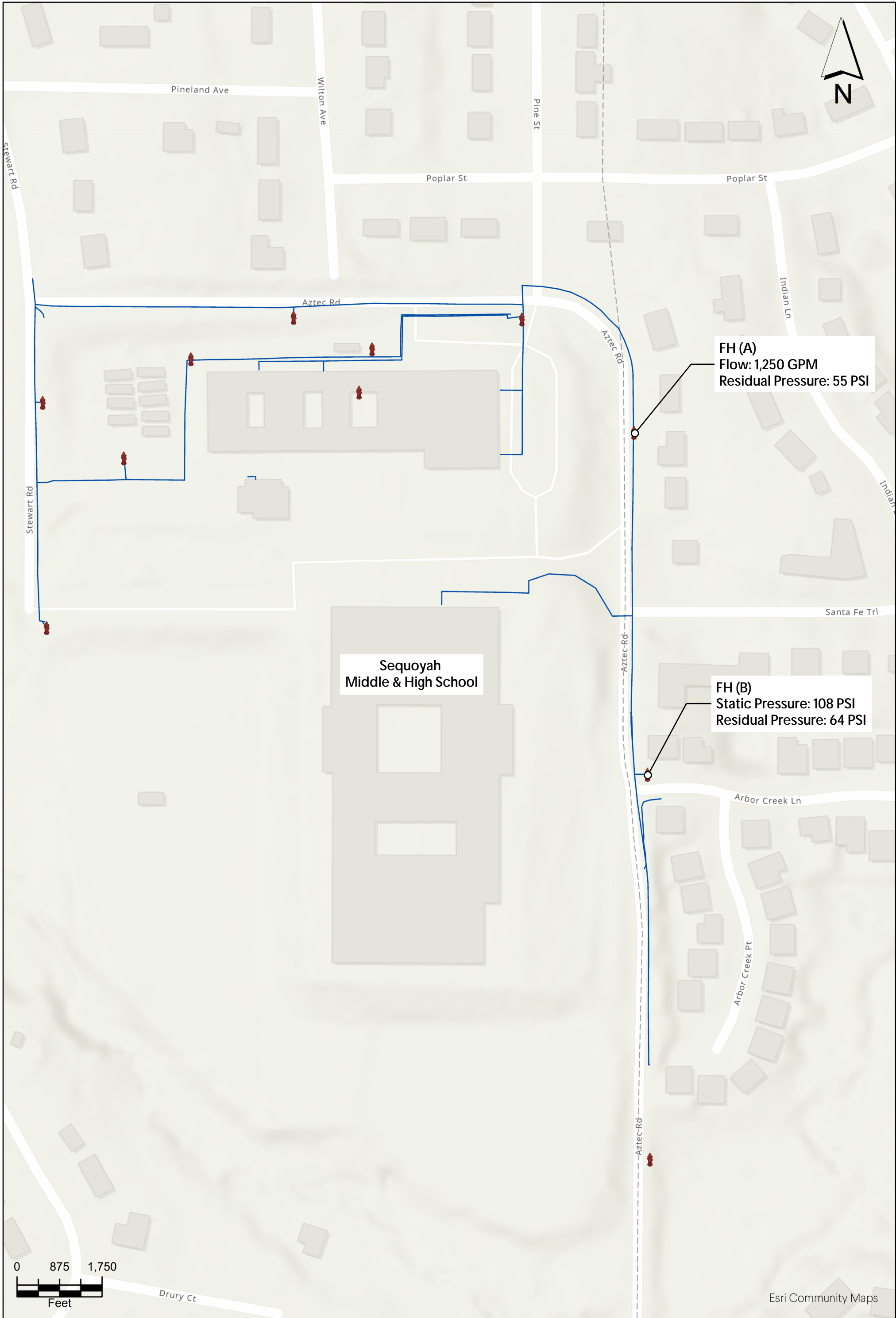
Residual Pressure (PSI):

Total Test Flow Rate (GPM):

Calculate

GPM at 20 psi: 1818
Class: AA
Marking color: Light Blue
% Pressure Drop: 41%

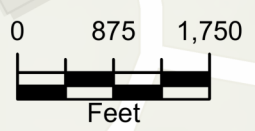




FH (A)
 Flow: 1,250 GPM
 Residual Pressure: 55 PSI

FH (B)
 Static Pressure: 108 PSI
 Residual Pressure: 64 PSI

**Sequoyah
 Middle & High School**



Sequoyah Middle & High School
 DeKalb County, GA
 GMC#: CATL230020
 DATE: 8/31/2023
 DRAWN BY: CM



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Esri Community Maps

T:\Projects\GA\DeKalb County School District\CATL230020 - Sequoyah Middle & High School\6 DESIGN\Reports\Civil Flow Test\Updated GIS\FH Flow Test Map