

## FIRE HYDRANT FLOW TESTING FIELD FORM

Project: **Johnsonville Elementary School**

Owner: **Harnett County School System**

LKC Engineering, PLLC  
140 Aqua Shed Court  
Aberdeen, NC 28315



Date: 12/1/2020

Test No.	Time	Gauge Hydrant (Location 1)			Gauge Hydrant (Location 2)			Flow Hydrant		
		Hydrant No.	Static Pressure (psi)	Residual Pressure (psi)	Hydrant No.	Static Pressure (psi)	Residual Pressure (psi)	Hydrant No.	Pitot Pressure (psi)	Measured Flow (gpm)
1	10:30 AM	695	104	76	19,590	77	69	18,495	24	840
2										
3										
4										
5										
6										
7										
8										
9										
10										

Performed By: LKC Engineering, PLLC

Witnessed By:

NOTES: Hydrant #'s taken from Harnett County GIS



LKC Engineering, PLLC  
 140 Aqua Shed Court  
 Aberdeen, NC 28315  
 PH: (910) 420-1437  
 FAX: (910) 637-0096  
 License #P-1095

**FIRE FLOW TEST RESULTS:**

Test Number 1  
 Test Date & Time 12/1/2020 - 10:30  
 Client \_\_\_\_\_  
 Location Johnsonville Elementary School  
 Performed by J Maples, Logan willams  
Sam Tracy

Static Pressure	104	psi	Location: <u>Hwy 87 &amp; Hwy 27 intersection</u>
Residual Pressure	76	psi	Location: _____
Nozzle inside Diameter		inches	(measure nozzle used)
Pitot Tube Pressure	24	psi	Location: <u>Infront of School (hydrant #18,495)</u>
Discharge rate (measured)	840	gpm	Flow Measuring Device: <u>PollardWater Pitot Gauge</u>
Required Residual Pressure	30	psi	(varies - 20psi minimum)

Formula:  $Q_R = Q_F \times \left(\frac{H_R}{H_F}\right)^{0.54}$

Q(R) = Rated Capacity (in gpm) at 20 psi residual  
 Q(F) = Total test flow (gpm) from at pitot pressure  
 H(R) = Static Pressure - 20psi  
 H(F) = Static Pressure - Residual Pressure

Q(R) =	840	74	28
	Q(F)	H(R)	H(F)

Available Fire Flow Q(R) =	<b>1,420</b>	gpm at 30 psi residual
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Performed By: Jackson Maples 12/1/2020  
 Date  
 Certified By: \_\_\_\_\_  
 Date

Notes: Residual hydrant #695 (hydrant #'s taken from Harnett County GIS)



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**FIRE FLOW TEST RESULTS:**

Test Number 1  
 Test Date & Time 12/1/2020 - 10:30  
 Client \_\_\_\_\_  
 Location Johnsonville Elementary School  
 Performed by J Maples, Logan willams  
Sam Tracy

Static Pressure	77	psi	Location: <u>Hwy 24 &amp; Hwy 27 Infront of Self Storage</u>
Residual Pressure	69	psi	Location: _____
Nozzle inside Diameter		inches	(measure nozzle used)
Pitot Tube Pressure	24	psi	Location: <u>Infront of School (hydrant #18,495)</u>
Discharge rate (measured)	840	gpm	Flow Measuring Device: <u>PollardWater Pitot Gauge</u>
Required Residual Pressure	30	psi	(varies - 20psi minimum)

Formula:  $Q_R = Q_F \times \left(\frac{H_R}{H_F}\right)^{0.54}$

Q(R) = Rated Capacity (in gpm) at 20 psi residual  
 Q(F) = Total test flow (gpm) from at pitot pressure  
 H(R) = Static Pressure - 20psi  
 H(F) = Static Pressure - Residual Pressure

Q(R) =	840	47	8
	Q(F)	H(R)	H(F)

Available Fire Flow Q(R) =	<b>2,185</b>	gpm at 30 psi residual
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Performed By: Jackson Maples 12/1/2020  
 \_\_\_\_\_ Date

Certified By: \_\_\_\_\_  
 \_\_\_\_\_ Date

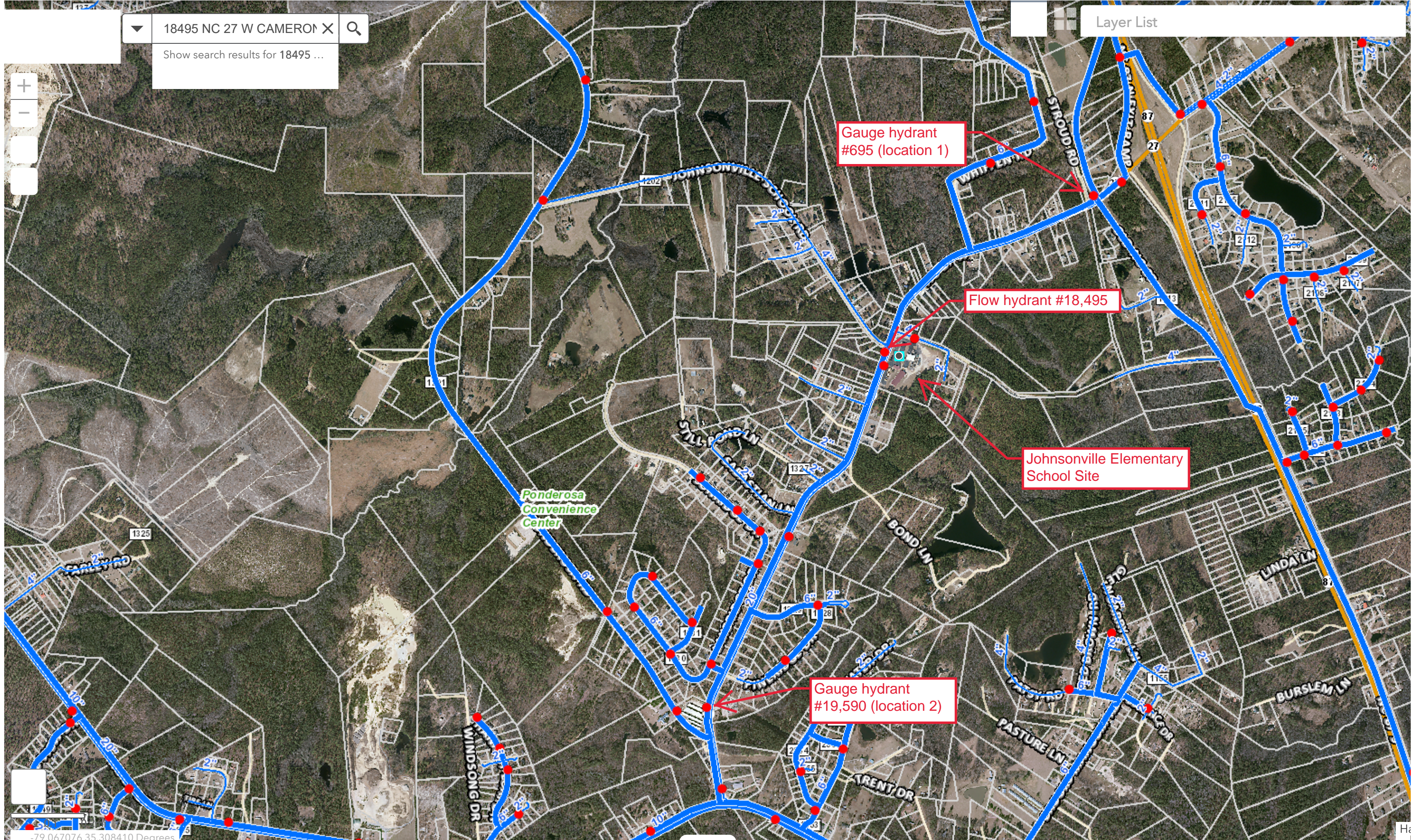
Notes: Residual hydrant #19,590 (hydrant #'s taken from Harnett County GIS)



18495 NC 27 W CAMERON X

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Layer List



-79.067076 35.308410 Degrees