

# O'LEARY-BURKE CIVIL ASSOCIATES, PLC

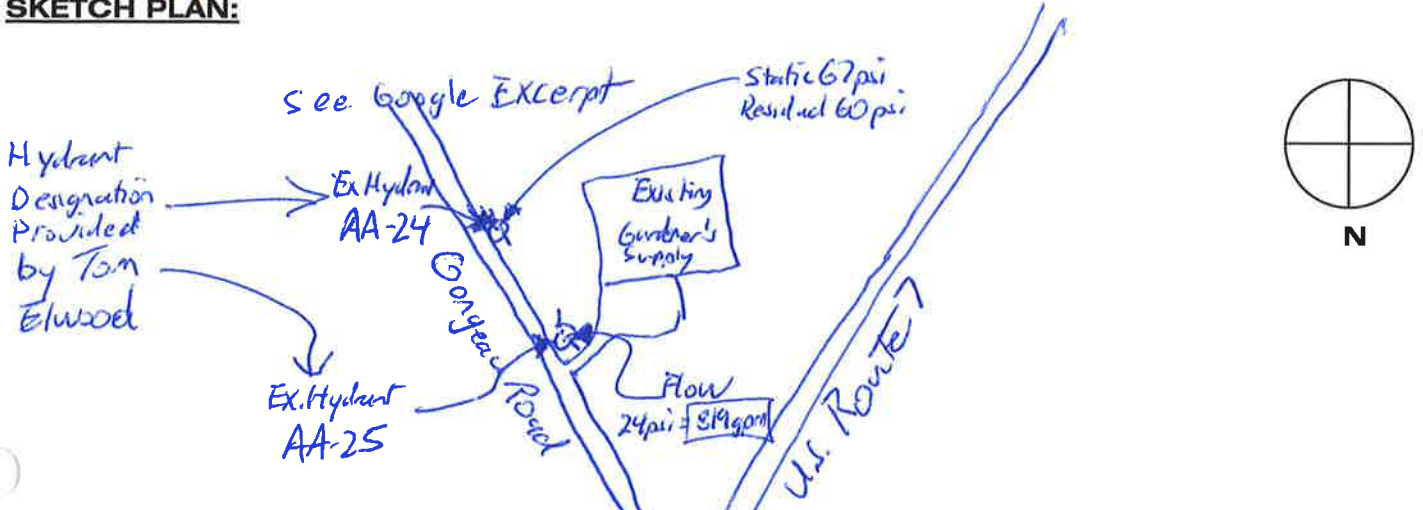
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## HYDRANT FIRE FLOW TEST

PROJECT Gonyeau Road - Jimmo Bldg on Route 7 PROJECT # 2021-107  
MUNICIPALITY Milton DATE 2/15/2023  
DATE 2/15/2023 TIME 10:30-10:45 INSPECTOR Karl M. CHECKED BY RWC

48°F Air Temp.

### SKETCH PLAN:



### MEASUREMENTS:

1. USE 2 1/2" HYDRANT OUTLET (INDICATE IF OTHER THAN 2 1/2") ✓ 2-1/2"
2. Static Pressure 67 psi
3. Flow Readings: Hydrant #1 819 GPM AA-25  
Hydrant #2 \_\_\_\_\_ GPM  
Total Available Flow \_\_\_\_\_ GPM
4. Residual Pressure 60 psi (must be less than 10 psi below static pressure)
5. Discharge at 20 psi residual 2,489 GPM (Use formula #2)

### FORMULAS:

1)  $Q = 29.83 CD^2P^{1/2}$

2)  $Q_{20} = Q_F \frac{H_R^{0.54}}{H_F^{0.54}}$   $H_R = 67 - 20 = 47 \text{ psi}$   
 $H_F = 67 - 60 = 6 \text{ psi}$

$Q_{20} = 819 \left( \frac{47^{0.54}}{6^{0.54}} \right) = \boxed{2,489 \text{ gpm}}$

**Q** = Discharge in GPM  
**C** = Hydrant Coefficient (0.90)  
**D** = Diameter of outlet in inches  
**P** = Velocity Pressure in psi

**Q<sub>20</sub>** = Discharge at 20 psi  
**Q<sub>F</sub>** = Actual Test Discharge  
**H<sub>R</sub>** = Drop from original static pressure to 20 psi residual  
**H<sub>F</sub>** = Pressure drop during test in psi

02/15/2023

67 psi Static  
60 psi Residual



Imagery ©2023 Maxar Technologies, USDA/FPAC/GEO, Map data ©2023 200 ft

Ryan@greenmtnsprinkler.com

24 PSI = **819 GPM**

Ryan Raine

3 different gauges

1 Brand New calibrated





10 - 50 PSI  
 Little Hose Monster™  
 Open Atmosphere

PSI	GPM	GPM
10	493	529
11	517	555
12	540	579
13	562	603
14	584	626
15	604	648
16	624	669
17	643	689
18	662	709
19	680	729
20	698	748
21	715	766
22	732	784
23	748	802
24	764	819
25	780	836
26	795	853
27	811	869
28	825	885
29	840	900
30	854	916
31	869	931
32	882	946
33	896	960
34	910	975
35	923	989
36	936	1003
37	949	1017
38	962	1031
39	974	1044
40	987	1057
41	999	1071
42	1011	1084
43	1023	1096
44	1035	1109
45	1046	1122
46	1058	1134
47	1069	1146
48	1080	1158



51 - 70 PSI  
 Little Hose Monster™  
 Open Atmosphere

PSI	GPM	GPM
51	1114	1194
52	1125	1206
53	1136	1217
54	1146	1229
55	1157	1240
56	1167	1251
57	1178	1262
58	1188	1273
59	1198	1284
60	1208	1295
61	1218	1306
62	1228	1317
63	1238	1327
64	1248	1338
65	1258	1348
66	1267	1358
67	1277	1369
68	1286	1379
69	1296	1389
70	1305	1399