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re: Chestnut Springs Fire Flow Report

ISO: $NFF = (C)(O)[1 + (X + P)] = 1200 * 0.85[1 + (0 + 0)] = 1020 \rightarrow 1000 \text{ gpm}$

Where:

NFF = Needed Fire Flow

(C) = Construction factor, including effective area: $C = 1000$

(O) = Occupancy factor: $C-2 = 0.85$

(X + P) = Exposures and communication (openings) factor: 0

$C = 18F\sqrt{A} = 18 * 1.5 * \sqrt{1800} = 1145 \rightarrow 1200$

Where:

F = the coefficient related to the construction type = 1.5

A = the effective building area (assumed) = 1800 sf

NFPA: required flow 1500 gpm

Per the attached Water Flow Report dated 05/17/22, the water flow is **3444 gpm** at 20 psi.

Please contact me at 307.680.1772 if you have any questions.

Respectfully,



Digitally signed by
Carol Chadwick
DN: c=US,
o=Florida,
dnQualifier=A01410
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CE0005954C,
cn=Carol Chadwick
Date: 2022.06.17
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Carol Chadwick, P.E.

City of Lake City Water flow report

HYDRANT # & LOCATION: **1128 NE Washington Street** DATE: **5/17/2022**
TEST BY: **Al/Daniel** Day: **Tuesday** Time: **8:45** Minutes: **2**
WATER SUPPLIED BY: **Municipal**
PURPOSE OF TEST: **request**

DATA

FLOW HYDRANT(S)	A1	A2	A3
SIZE OPENING:	2.5	2.5	2.5
COEFFICIENT:	0.8		
PITOT READING:	40		
GPM:	943	0	0

TOTAL FLOW DURING TEST: **943** GPM

STATIC READING: **64** PSI RESIDUAL: **60** PSI

RESULTS: AT 20 PSI RESIDUAL **3444** GPM AT 0 PSI **4216** GPM

ESTIMATED CONSUMPTION: **1887** GAL

REMARKS:

