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|  | Fayetteville Public Works Commission Water Resources Engineering Department |
| Fire Flow Calculations Exhibit |

A hydrant flow test may be scheduled by completing the Fire Hydrant Flow Test Application found at [www.faypwc.com/design-standards](http://www.faypwc.com/design-standards/).

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| 1. Project Information | | | | | | | | | | | |
| a. | | Date: | | | | | | | | | |
| b. | | Project Name: | | | | | | | | | |
| c. | | Project Owner/Developer: | | | | | | | | | |
| d. | | Site Address: | | | | | | | | | |
| e. | | PIN(s): | | | | | | | | | |
| 2. Hydrant Flow Test Results | | | | | | | | | | |
| a. | Static pressure observed at the residual hydrant during test | | | | | | | |  | psi |
| b. | Residual pressure observed at residual hydrant during test | | | | | | | |  | psi |
| c. | Flow rate observed at flow hydrant(s) during test | | | | | | | |  | gpm |
| 3. Building Code Requirements and Site Design Flows | | | | | | | | | | | |
| a. | | Proposed Building Construction Type per NC Building Code (IA, IB, IIA, IIB, IIIA, IIIB, IV, V-A, V-B) | | | | | | |  | |
| b. | | Proposed building area to be protected by fire flow | | | | | | |  | SqFt |
| c. | | Minimum required fire flow per NC Building Code  Building is equipped with a fire suppression sprinkler system (List sprinkler design flow) | | | | | | |  | gpm  gpm |
| d. | | Minimum fire flow duration per NC Building Code | | | | | | |  | Hr |
| e. | | Max metered instantaneous flow (including yard irrigation) | | | | | | |  | gpm |
| 4. Hydraulic Calculations | | | | | | | | | | | |
| Indicate either a.) Calculations are Attached OR b.) Calculations are not Required | | | | | | | | | | | |
| a. | | Calculations and/or model results are attached. \* | | | |  | |  |  |  | |
| Minimum residual pressure at max metered flow  Minimum residual pressure at fire flow + metered flow | | | |  | | psi at  psi at |  | gpm  gpm | |
| b. | | Calculations are not required (not applicable for projects including water main extensions)  Indicate that the following two conditions have been met:   * + 1. The residual hydrant for the flow test is the same hydrant that has been approved by the Fire Marshal to provide flow protection for the project; **AND**     2. The flow rate observed during the fire flow test exceeds the minimum required fire flow. | | | | | | | | | |
| 5. Required Attachments | | | | | | | | | | | |
| Indicate that the following documents are attached to this Exhibit: | | | | | | | | | | | |
|  | | Yes | N/A | |  | | | | | | |
| a. | |  |  | Hydraulic calculations/model results (if required in item 4) | | | | | | | |
| b. | |  |  | The hydrant flow test report | | | | | | | |
| c. | |  |  | The overall utility plan for the project which shows the approved hydrant(s) | | | | | | | |
| 6. Engineer Certification | | | | | | |  | | | | |
| a. | | Engineer’s Name: | | | | |  | | | | |
| b. | | Firm: | | | | |  | | | | |
| c. | | Phone: | | | | |  | | | | |
| d. | | E-mail: | | | | |  | | | | |
| **\*Summary of Model results shall include**   1. Report tables for all nodes including elevation, demand, and pressure 2. Report tables for all pipes including diameter, start and stop nodes, length, friction factors, flowrates, and head loss 3. Report tables for pumps including pump curve, elevation, calculated flow, and calculated head 4. Report tables for reservoirs/tanks including elevation and flow 5. Map or schematic of model with all components clearly identified | | | | | | | Seal and Signature | | | | |