

Analysis of Fire Response (Fire Flow Capability)

The following is a brief analysis of initial attack fire stream capability for interior operations by the Olympia Fire Department. Although we can generate more fire flow for defensive type operations, I believe this is a realistic assessment of maximum initial interior attack line capability.

RESPONSE PERSONNEL

| UNITS | TOTAL PERSONNEL |
|----------------|---------------------------|
| 4 Engines | 12 |
| 1 Truck | 3 |
| 2 Medic Units | 4 |
| 1 Command | 1 |
| <u>8 Units</u> | <u>20 Total Personnel</u> |

INITIAL PERSONNEL ASSIGNMENTS

| | |
|------------------|---------------------------|
| IC | 1 |
| Fire Attack | 3 |
| Stand-by (2 out) | 2 |
| S & R | 3 |
| Back-up | 3 |
| Vent | 3 |
| RIT | 2 (minimum) |
| On-deck | 2 |
| Safety | 1 |
| | <u>20 Total Personnel</u> |

Four hose streams are the maximum number of attack lines that can be placed in operation on initial interior attack. The total GPM per line varies from 150 GPM (1-3/4" hose) to 250 GPM (2-1/2" hose).

Maximum fire flow capability for initial interior attack is 600 to 1000 GPM.

I have provided an example of fire flow requirements for a building using our Fire Flow Worksheet. The example is calculated with and without fire sprinkler protection. The example is a 2000 square foot single family dwelling.