

# COMMUNITY DEVELOPMENT AND SERVICES BUILDING AND FIRE SAFETY FIRE SAFETY ENGINEERING

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# Fire Pump Plan Review Checklist

#### **GENERAL INFORMATION:**

| 1.   | Plan Reviewer's Name:  | Date:                               |            |      |
|------|--|-------------------------------------|------------|------|
| 2.   | Date of Plan: Last Revision:                                       | Date of Revision:                   |            |      |
| 3.   | NICET Level: I II III IV or P.E. Name:                             |                                     |            |      |
| 4.   | General Comments:  |                                     |            |      |
| 5.   | City of Henderson General Notes:                                   |                                     | Υ          | N 🗌  |
| 6.   | Pump GPM rating, Head (pressure), are provided:                    |                                     | Y 🗌        | N 🗌  |
| 7.   | Copy of the factory pump test curve is provided:                   |                                     | Y 🗌        | N 🗌  |
| 8.   | Complete material submittals are provided (including fire pur      | mp):                                | Y 🗌        | Ν    |
| 9.   | Plan view and cross-sectional views of installed equipment a       | are provided:                       | Y 🗌        | N 🗌  |
| 10   | D. Equipment symbol legend is provided:                            |                                     | Y 🗌        | N 🗌  |
| 1    | Room Dimensions are provided:                                      |                                     | Y 🗌        | Ν    |
| 12   | 2. Driver, pump, and controller manufacturer, respective mode      | ls, and driver type are specified:  | Y 🗌        | N 🗌  |
|      | (Check an answer. Space is provided at the end of each             | section for written comments and ex | kplanation | ns.) |
| SITE | E PLAN:  |                                     |            |      |
| 1.   | 1 Underground piping plan provided:                                | N/A 🗌                               | Y 🗌        | N 🗌  |
| 1.   | 2 Witnessed flow test included or HGL no more than 6 months        | s old:                              | Υ          | N□   |
| 1.   | 3 North arrow shown correctly on all drawings:                     |                                     | Y 🗌        | N 🗌  |
| 1.   | 4 Graphic scale shown correctly on all drawings:                   |                                     | Y 🗌        | N 🗌  |
| 1.   | 5 Fire Department Connection (FDC) location is acceptable:         | N/A 🗌                               | Υ          | N□   |
| 1.   | 6 Exterior horn/strobe is provided at the FDC or riser room:       | N/A 🗌                               | Y 🗌        | N 🗌  |
| 1.   | 7 Post Indicator Valve (PIV) is located at least 5 ft. from the be | uilding: N/A                        | Y 🗌        | N 🗌  |
| 1.   | 8 Test header shown on the exterior wall:                          |                                     | Y 🗌        | Ν    |
| С    | OMMENTS / EXPLANATIONS:  |                                     |            |      |
|      |  |                                     |            |      |

| JMP ROOM or BUILDING:   |   |
|---|---|
| 2.1 Fire pump room shall be 2 hour construction:  | Y 🗌 N 🗆   |
| 2.2 Fire pump building shall be separated from the protected building by 50 ft.:  | Y 🗌 N 🗆   |
| 2.3 Fire pump room and/or building protected with a fire sprinkler system:  | Y 🗌 N 🗆   |
| 2.4 Source of heat to maintain 40°F(hard wired for electrically powered devices):   | Y 🔲 N 🗆   |
| 2.5 Fire pump and/or building shall be provided with a floor drain.   | Y 🗌 N 🗆   |
| 2.6 Provision shall be made for ventilation of fire pump room or house:   | Y 🗌 N 🗆   |
| 2.7 Combustion air calculations provided (diesel powered fire pumps):   | Y 🗌 N 🗆   |
| 2.8 Artificial light provided:  | Y 🗌 N 🗆   |
| COMMENTS / EXPLANATIONS:  |   |
|   |   |
|   |   |
|   | Y 🗌 N 🗆   |
| JCTION PIPING:  | Y   |
| JCTION PIPING:  3.1 Proper size:  |   |
| JCTION PIPING:  3.1 Proper size:  3.2 OS & Y valve is located in the suction piping:  | Y   |
| JCTION PIPING:  3.1 Proper size:  3.2 OS & Y valve is located in the suction piping:  3.3 No other valve except an OS&Y valve is within 50 ft of pump suction flange:   | Y   N   Y   N   |
| JCTION PIPING:  3.1 Proper size:  3.2 OS & Y valve is located in the suction piping:  3.3 No other valve except an OS&Y valve is within 50 ft of pump suction flange:  3.4 Elbows in the proper orientation or more than 10 pipe diameters away from suction flange:  | Y   N   Y   N   Y   N   |
| JCTION PIPING:  3.1 Proper size:  3.2 OS & Y valve is located in the suction piping:  3.3 No other valve except an OS&Y valve is within 50 ft of pump suction flange:  3.4 Elbows in the proper orientation or more than 10 pipe diameters away from suction flange:  3.5 Eccentric reducer (if needed) installed correctly:  | Y   N   Y   N   Y   N   |
| JCTION PIPING:  3.1 Proper size:  3.2 OS & Y valve is located in the suction piping:  3.3 No other valve except an OS&Y valve is within 50 ft of pump suction flange:  3.4 Elbows in the proper orientation or more than 10 pipe diameters away from suction flange:  3.5 Eccentric reducer (if needed) installed correctly:  3.6 Pump by-pass:   | Y   N   Y   N |
| JCTION PIPING:  3.1 Proper size:  3.2 OS & Y valve is located in the suction piping:  3.3 No other valve except an OS&Y valve is within 50 ft of pump suction flange:  3.4 Elbows in the proper orientation or more than 10 pipe diameters away from suction flange:  3.5 Eccentric reducer (if needed) installed correctly:  3.6 Pump by-pass:  3.7 Liquid filled pressure gage shown on the suction side of the pump: | Y   N   Y   N |

### **DISCHARGE PIPING:** ΝП 4.1 Proper size: 4.2 Liquid filled pressure gage shown on the discharge side of the pump: NΠ $Y \square$ ΝП 4.3 Listed check valve: 4.4 Listed discharge isolation valve (system side of check valve): $Y \square$ N ΥΠ $N \square$ 4.5 Test header valve supervised in the closed position (note on drawing): 4.6 Pressure relief valve (when required) is located between the discharge flange and check valve: Y N $\square$ 4.7 Pressure relief valve shall discharge back into suction side of pump or other approved location: Y NΠ (Per City of Henderson Waste Water Municipal Code 14.14.020) **COMMENTS / EXPLANATIONS: WATER FLOW TEST DEVICES:** $Y \square N \square$ 5.1 Proper number of 2½" hose valves installed on test header: $Y \square N \square$ 5.2 Test header piping of the proper size: N/A $Y \square N \square$ 5.3 Flow meter installed per the manufacturer's instructions: N/A Y N 5.4 Proper size of flow meter: **COMMENTS / EXPLANATIONS:** JOCKEY PUMP: Υ 6.1 Jockey pump bypasses fire pump: NΠ 6.2 Separated and dedicated sensing line for the jockey pump: ΝП 6.3 Sensing lines ½" diameter and of brass, copper, or stainless steel piping: N $Y \square$ 6.4 No shut off valves in the sensing lines: N ΝП 6.5 Suction and discharge valves shall be indicating: $Y \square$ N 6.6 Check valve in discharge line: **COMMENTS / EXPLANATIONS:**

## **ELECTRIC DRIVE FOR FIRE PUMPS:**

| 6.11 Service connection dedicated to the fire pump installation:                           |     |     |     |  |  |
|--|-----|-----|-----|--|--|
| 6.12 One disconnecting means for overcurrent protection installed to fire pump controller: |     |     |     |  |  |
| 6.13 Fire pump disconnecting means located remote from building disconnecting means:       |     |     |     |  |  |
| 6.14   |     |     | N 🗌 |  |  |
| 6.15   |     |     | N 🗌 |  |  |
| 6.16   |     | Υ   | N 🗌 |  |  |
| 6.17 Alternate source of power provided:   |     |     | N□  |  |  |
| 6.18 Maximum velocity does not exceed 32 feet per second:                                  |     | Y 🗌 | N 🗌 |  |  |
| 6.19 Gridded system(s) is (are) "peaked":  | N/A | Υ   | N 🗌 |  |  |
| 6.20 Grid "flow diagram" showing quantities and directions of flow is included:            | N/A | Y 🗌 | Ν   |  |  |
| 6.21 Additional fixed flow(s) is (are) added at the proper location(s):                    | N/A | Y 🗌 | N 🗌 |  |  |
| COMMENTS / EXPLANATIONS:   |     |     |     |  |  |
|  |     |     |     |  |  |
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| Signature(s) / Date(s):  |     |     |     |  |  |
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