

# KENTFIELD FIRE PROTECTION DISTRICT



Developed by

Jim Galli, Battalion Chief

Approved by

Paul Smith, Fire Chief

**Fire Protection Standard 402**

**Fire Alarm System**

Date: 1-1-04

Revision: \_\_\_\_\_

Page: 1 of 4

This standard provides reference of materials to assist the engineer or designer in the preparation of the fire alarm system drawings, whether in the office or in the field. This information is critical to District inspectors and plan checkers who must interpret the notations of alarm system elements from the structural drawings of a building and who may need to verify the size and shape of structural elements and the type, quantity, and location of fire alarm system elements.

Standardized symbols for various components of building systems and miscellaneous components commonly used in the design of fire protection systems should be used from sources, including NFPA 170, *Standard for Fire Safety Symbols*, and NECA 100-1999, *Symbols for Electrical Construction Drawings*.

This Standard includes a comprehensive list from NFPA 72©, *National Fire Alarm Code*©, that itemize the information that must be provided for the system. This is required and essential to the inspector and plan reviewer when verifying that no information is missing from the working plans.

A fire alarm system "Record of Completion" shall be completed after the system is initially installed and the installation wiring has been checked. The installing contractor shall provide to the Fire District a final copy after completion of the operational acceptance tests. When more than one contractor is responsible for the installation, each contractor is required to complete the portions of the form for which he or she has responsibility.

# KENTFIELD FIRE PROTECTION DISTRICT



Developed by

Jim Galli, Battalion Chief

Approved by

Paul Smith, Fire Chief

## Fire Protection Standard 402

### Fire Alarm System

Date: 1-1-04

Revision: \_\_\_\_\_

Page: 2 of 4

## System Documentation

Installation instructions shall be submitted for every installed component

Yes No

- |                          |                          |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Battery calculation sheet  |
| <input type="checkbox"/> | <input type="checkbox"/> | Copies of UL certificates or FM placards   |
| <input type="checkbox"/> | <input type="checkbox"/> | Copy of the original inspection and Testing Form   |
| <input type="checkbox"/> | <input type="checkbox"/> | Copy of the fire alarm system specification  |
| <input type="checkbox"/> | <input type="checkbox"/> | Copy of the Fire Alarm System Record of Completion:  |
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Name and address of the protected property  |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Owner and phone number of the protected property  |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Name and phone number of the Authority Having Jurisdiction  |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Type of the alarm system or service   |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Applicable codes, standards, and other design criteria to which the system is required to comply                                      |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Type of building construction and occupancy   |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Fire department response point(s) and annunciator location(s)   |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Type(s) of fire alarm-initiating devices, supervisory alarm-initiating devices, and evacuation notification appliances to be provided |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Calculations, for example, secondary supply and voltage drop calculations   |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Intended area(s) of coverage   |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. Complete list of detection, evacuation signaling, and annunciator zones  |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. Complete list of fire safety control functions   |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. Complete sequence of operations detailing all inputs and outputs   |

Three (3) sets of fire alarm system drawings shall be submitted to the Fire District with the required Permit Application and deposit of fee.

Yes No

- |                          |                          |                               |
|--------------------------|--------------------------|-------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Property name and location |
|--------------------------|--------------------------|-------------------------------|

# KENTFIELD FIRE PROTECTION DISTRICT



Developed by

Jim Galli, Battalion Chief

Approved by

Paul Smith, Fire Chief

## Fire Protection Standard 402

### Fire Alarm System

Date: 1-1-04

Revision: \_\_\_\_\_

Page: 3 of 4

- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Drawing developer's name, company name, address and telephone number       |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Revision number and date   |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. Circuit identification   |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Terminal identification  |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Color-coding schemes   |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Location of devices and appliances   |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Type of devices, appliances, and equipment                                 |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Location of control equipment, annunciator(s), transmitters, and receivers |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Location of control relays to other systems or suppression systems        |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. Location of wiring and junction boxes                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. Type of cable or wiring method used for each circuit                      |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. Cable routing   |

Yes

No

- |                          |                          |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | An owner's manual:   |
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Detailed narrative of the system including:                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | a. Inputs  |
| <input type="checkbox"/> | <input type="checkbox"/> | b. Evacuation/relocation signaling   |
| <input type="checkbox"/> | <input type="checkbox"/> | c. Ancillary (control) functions   |
| <input type="checkbox"/> | <input type="checkbox"/> | d. Annunciation  |
| <input type="checkbox"/> | <input type="checkbox"/> | e. Sequence of operation, including an input/output matrix<br>(see Exhibit VIII.5) |
| <input type="checkbox"/> | <input type="checkbox"/> | f. Expansion capabilities  |
| <input type="checkbox"/> | <input type="checkbox"/> | g. Application limitations   |
| <input type="checkbox"/> | <input type="checkbox"/> | h. Revision of Basic Input Output Software (BIOS) installed                        |

# KENTFIELD FIRE PROTECTION DISTRICT



Developed by

Jim Galli, Battalion Chief

Approved by

Paul Smith, Fire Chief

## Fire Protection Standard 402

### Fire Alarm System

Date: 1-1-04

Revision: \_\_\_\_\_

Page: 4 of 4

Yes No

- |                          |                          |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Operator instructions   |
| <input type="checkbox"/> | <input type="checkbox"/> | a. Basic system operation  |
| <input type="checkbox"/> | <input type="checkbox"/> | b. How to acknowledge an alarm   |
| <input type="checkbox"/> | <input type="checkbox"/> | c. How to silence alarm signals  |
| <input type="checkbox"/> | <input type="checkbox"/> | d. How to silence a trouble signal   |
| <input type="checkbox"/> | <input type="checkbox"/> | e. How to reset system   |
| <input type="checkbox"/> | <input type="checkbox"/> | f. Operation of manual evacuation signaling  |
| <input type="checkbox"/> | <input type="checkbox"/> | g. How to perform routine maintenance, such as changing printer paper  |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. Detailed description of testing and maintenance as required and recommended by the manufacturer under a maintenance contract for every component of the system. |
| <input type="checkbox"/> | <input type="checkbox"/> | a. A list of system components that require periodic maintenance   |
| <input type="checkbox"/> | <input type="checkbox"/> | b. Step-by-step instructions for testing and maintenance for all installed equipment   |
| <input type="checkbox"/> | <input type="checkbox"/> | c. Schedule of testing and maintenance for all components per NFPA 72©, National Fire Alarm Code©, Chapter 7   |
| <input type="checkbox"/> | <input type="checkbox"/> | d. Detailed troubleshooting instructions for each type of anticipated trouble condition  |
| <input type="checkbox"/> | <input type="checkbox"/> | e. Service directory   |