

How to Spot Fire Alarm Contractor Shortcuts & Mistakes

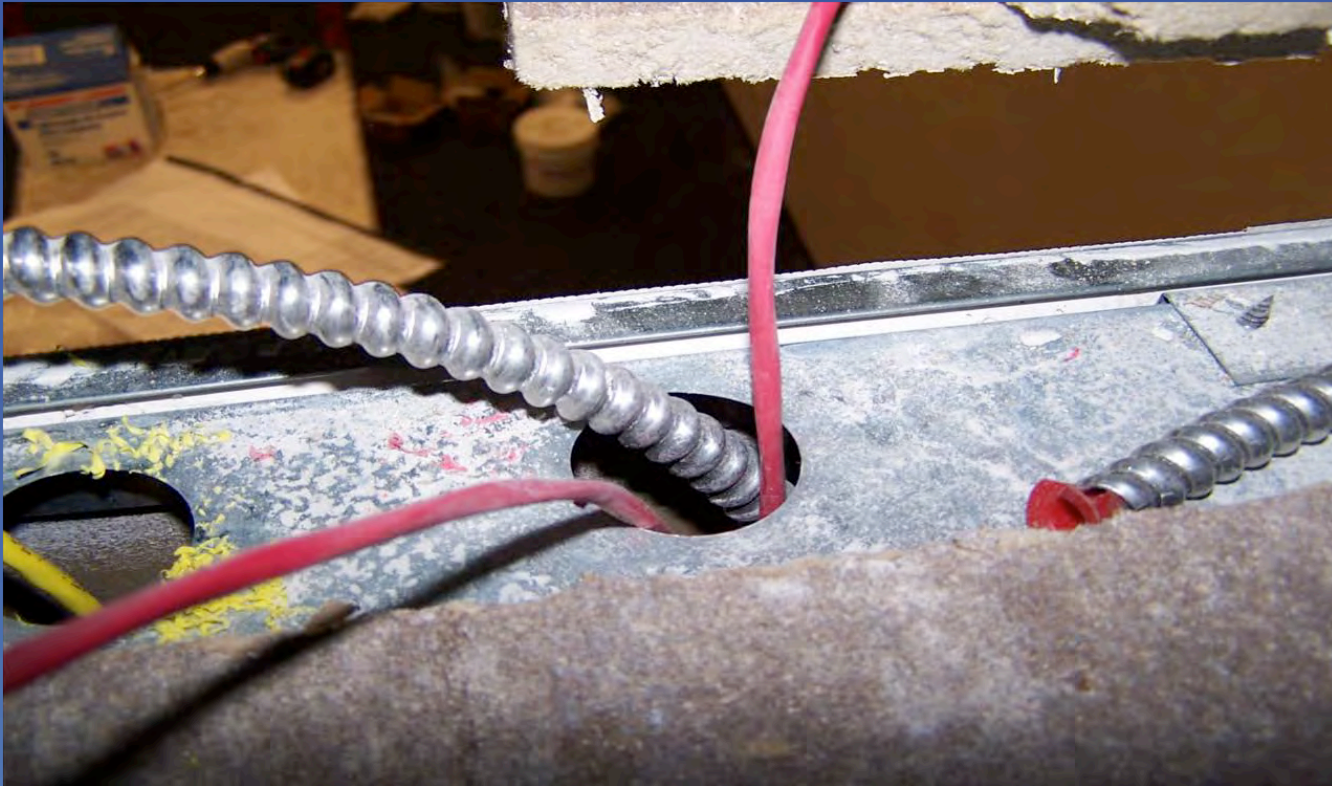
State Fire Marshal's Conference
October 15, 2012

References

NFPA 72 – 2010 edition
NFPA 70 – 2011 edition
NFPA 2001 – 2012 edition

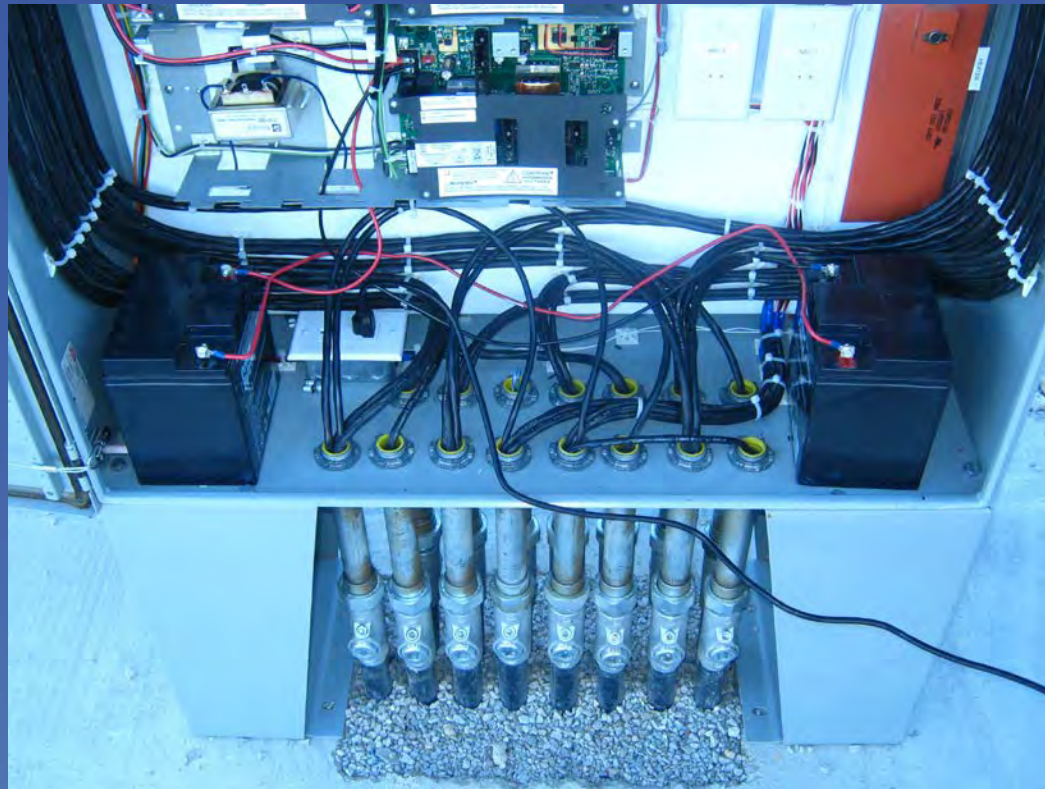


NFPA 70 300.4(B)(1)



Protect cable passing through metal assemblies (boxes, studs, panels, etc) with listed bushings or grommets

NFPA 70 300.5(B)



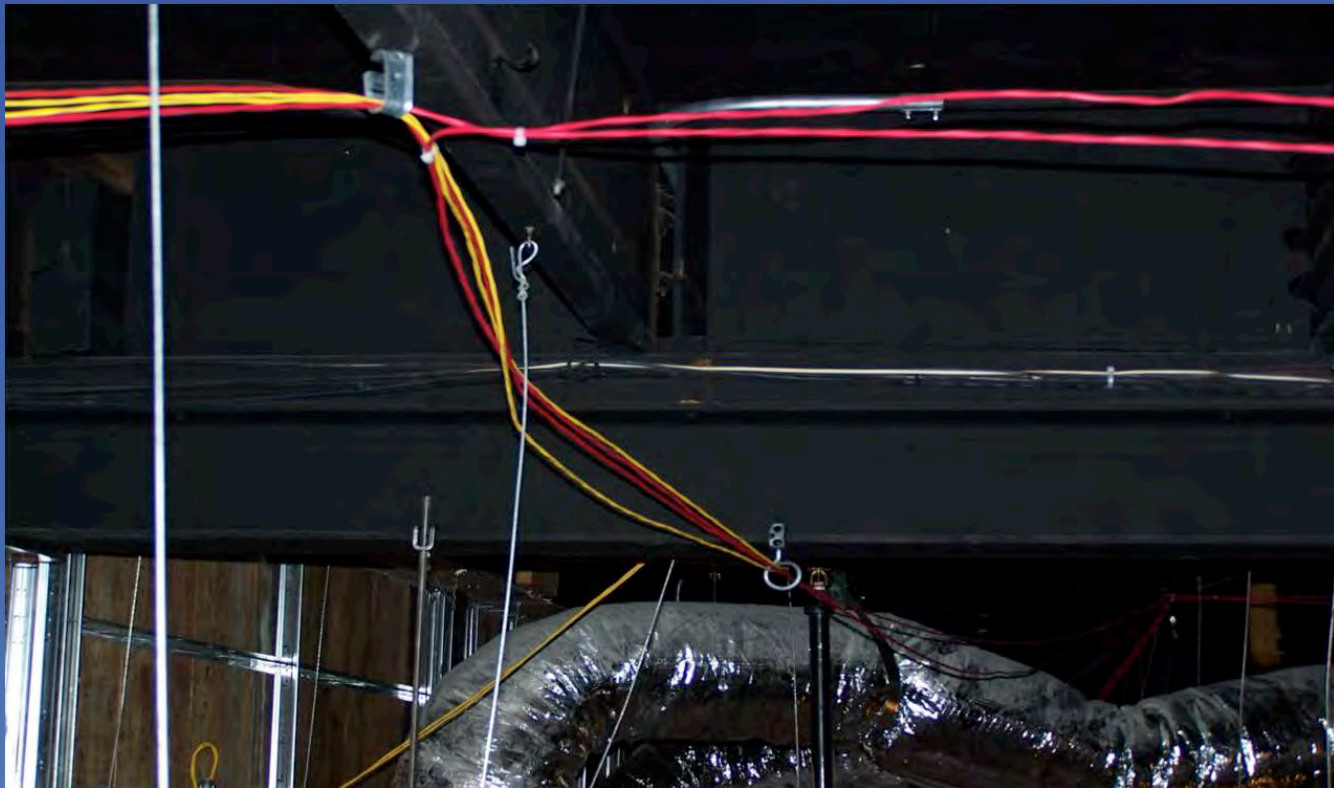
Wire installed underground must be rated for wet locations

NFPA 70 300.11



Wire cannot lay on ceiling grid

NFPA 70 300.11



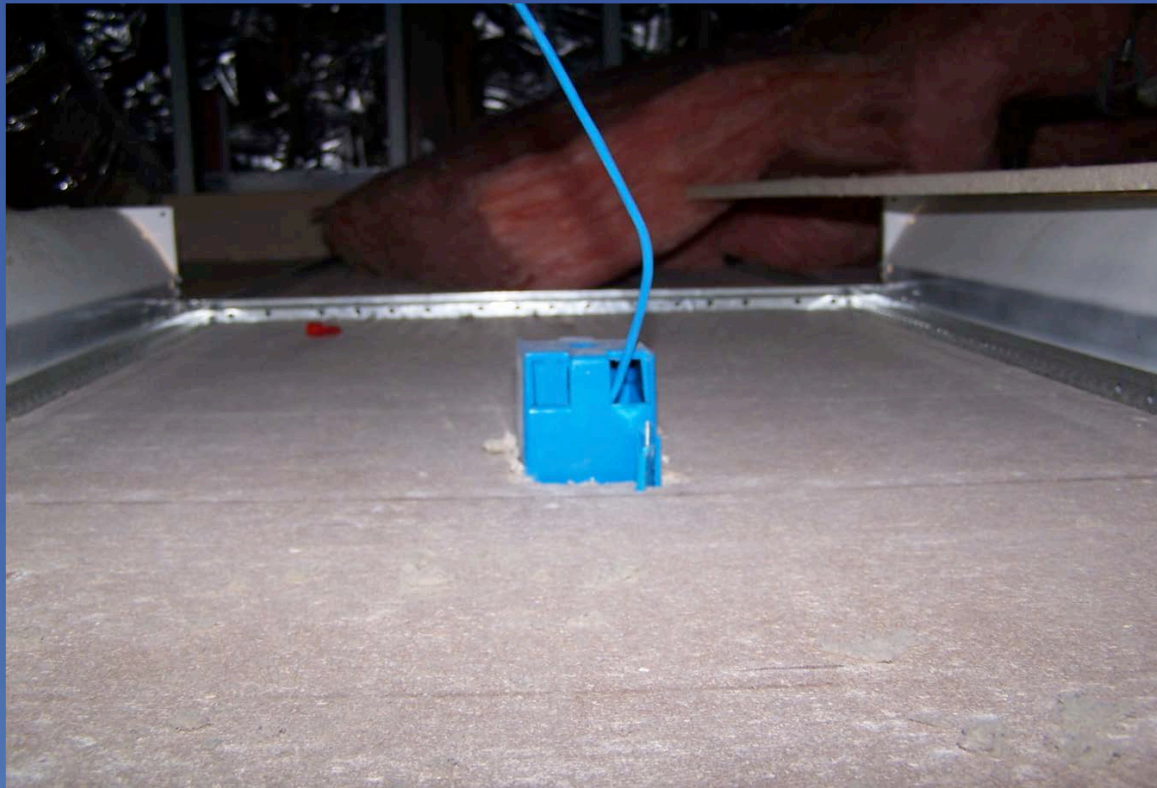
Cables must be securely fastened in place

NFPA 70 300.11



Wire may be mounted to support wires only if they are in addition to those required to support the ceiling grid and must be secured on both ends

NFPA 70 314.23



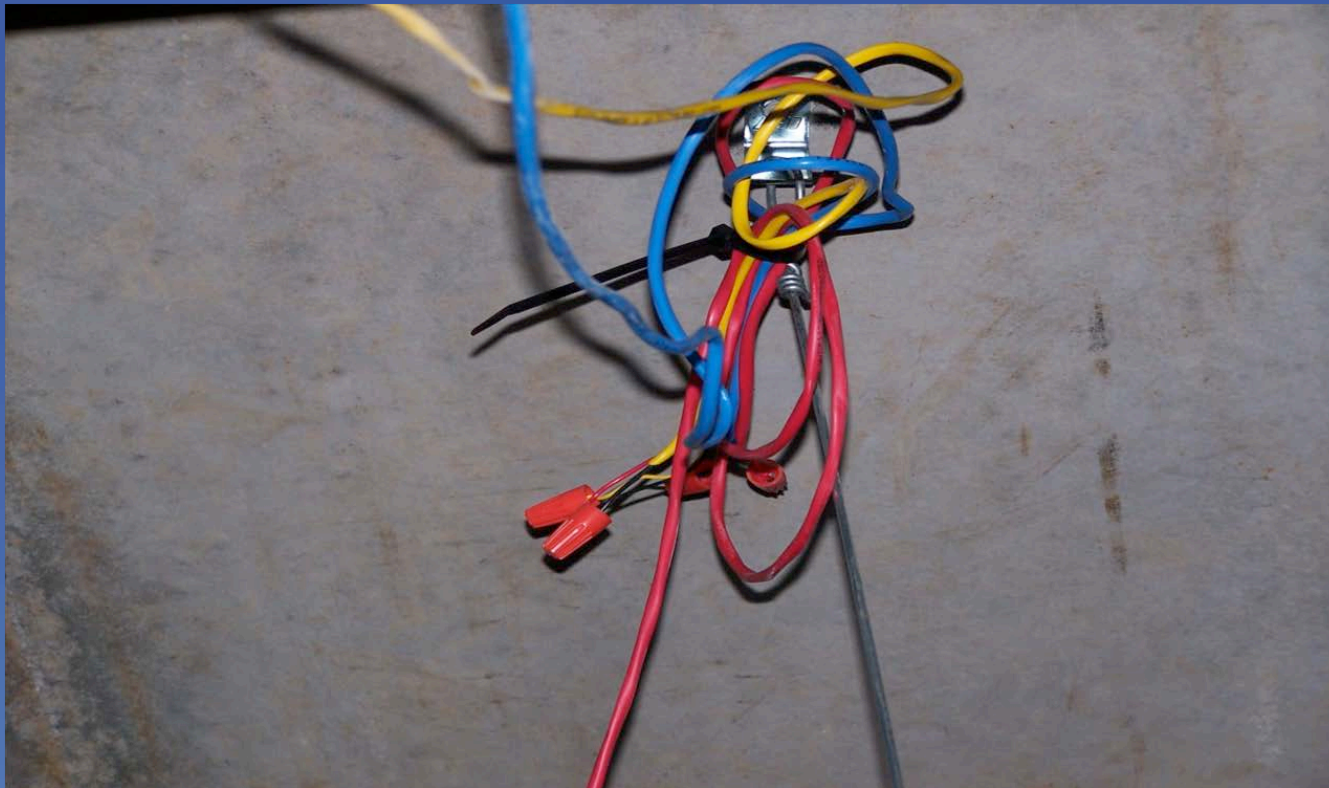
Properly support boxes installed in ceiling grid

NFPA 70 300.15



Install devices onto listed electrical boxes - not open-backed mounting brackets

NFPA 70 300.15 and 760.30(B)(1)



Splices must be in a box

NFPA 70 300.16(B) and 760.3(K)



Install fitting on end of conduit to prevent abrasion

NFPA 70 314.16



Do not exceed maximum number of permitted conductors in a junction box

NFPA 70 358.26



Total conduit bends shall not exceed 360°

NFPA 70 760.24



Wire must be installed in a neat workmanlike manner

NFPA 70 760.30



Label wires at every junction and device

NFPA 70 760.41(B) and NFPA 72 10.5.5.2.3



Dedicated breaker marked red

NFPA 70 760.130(B)(2)



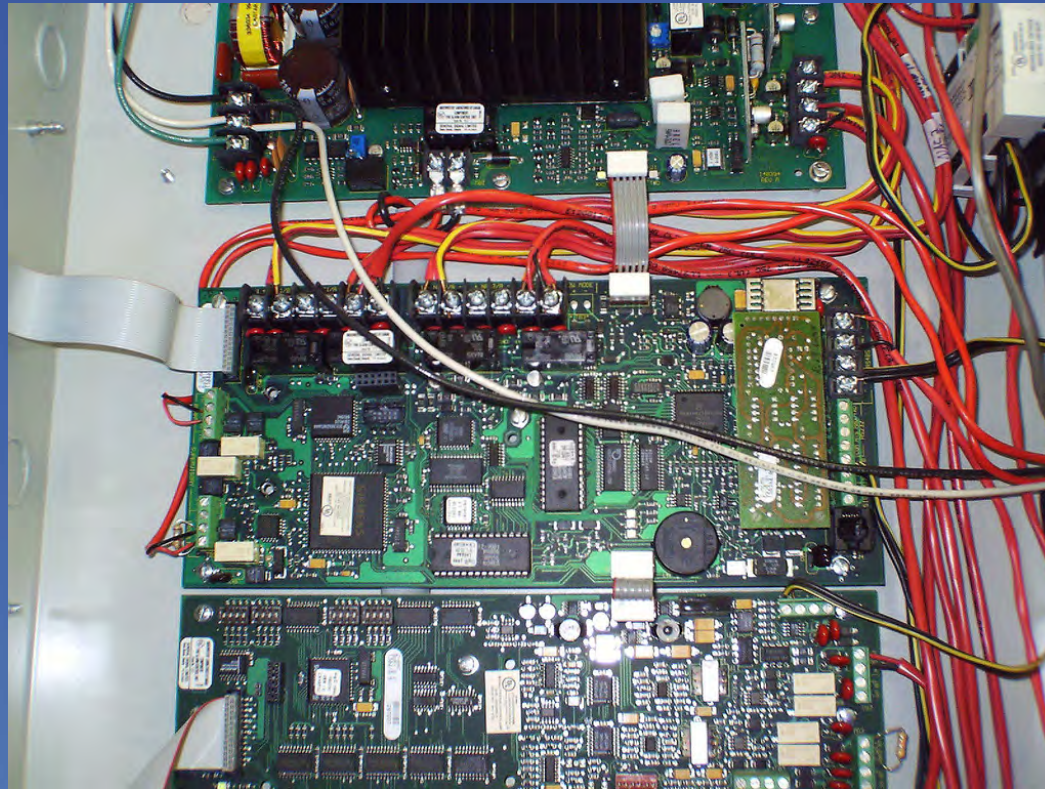
Must use conduit below 7'

NFPA 70 760.130(B)(2)



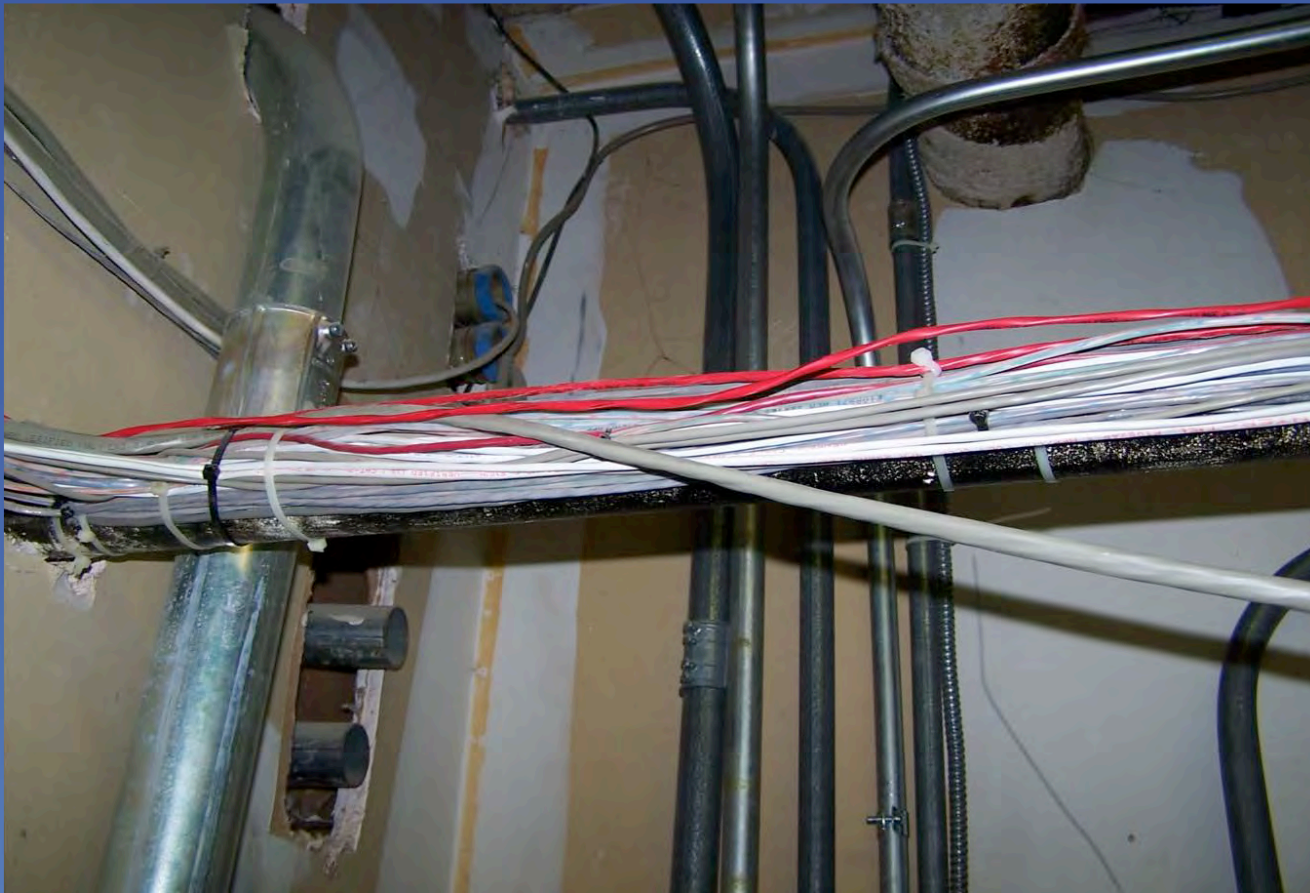
Must use conduit below 7'

NFPA 70 760.136



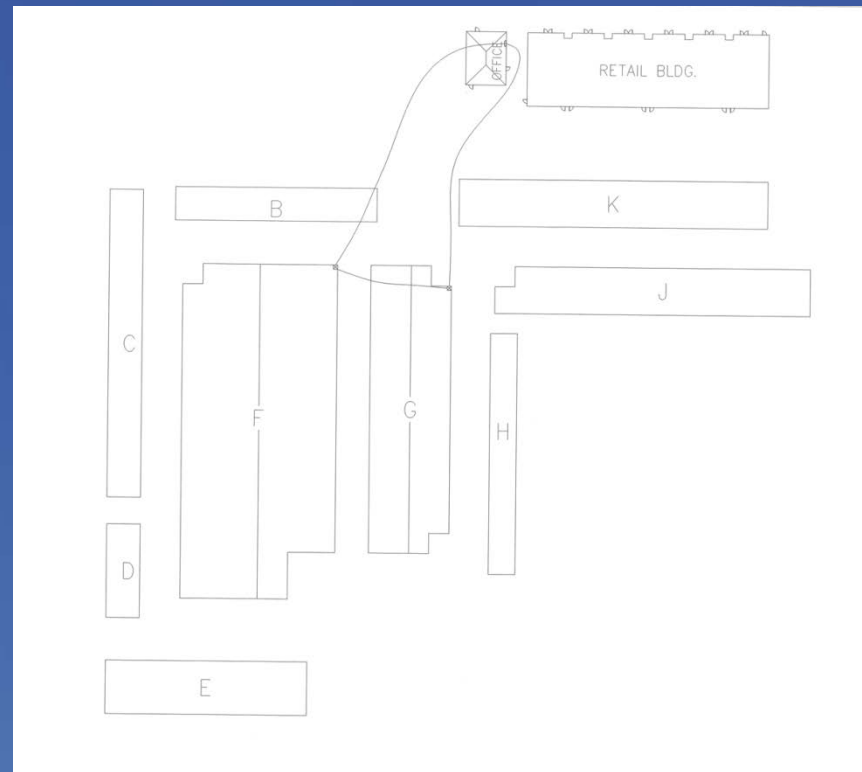
Run separate from conductors of electric light, power, etc

NFPA 70 760.143



Wire cannot be attached to outside of conduit

NFPA 70 800.90 via 760.32



Use surge suppressors where wire leaves or enters a building

NFPA 72 10.3.2



Devices must be installed in accordance with manufacturer's instructions

NFPA 72 10.14.3.1



Initiating devices must be installed so as to minimize nuisance alarms

NFPA 72 10.17.1.1



Panel must be grounded

NFPA 72 12.2.4.4



Must be free of ground faults

NFPA 72 12.2.4.4



Must be free of ground faults

NFPA 72 17.4.1



Smoke detectors must be installed at least 3' from supply or return air register

NFPA 72 17.7.1.11.3



Smoke detectors shall not be installed until after all other construction trades have completed cleanup

NFPA 2001 4.3.1.3



All wire for clean agent extinguishing systems must be installed in conduit

Questions?

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