	FIRE ALARM LEGEND
SYMBOL	DESCRIPTION
FMCP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL
DOC	DOCUMENT CABINET
DACT	DIGITAL ALARM COMMUNICATOR PANEL
NAC	NOTIFICATION APPLIANCE CIRCUIT PANEL
LOC	LOCAL OPERATING CONSOLE
SPD	SURGE PROTECTION DEVICE
CM	CONTROL MODULE
MM	MONITOR MODULE
F	MANUAL PULL STATION
\bigcirc P	SMOKE DETECTOR / PHOTOELECTRIC
\bigcirc ID	SMOKE DETECTOR / IN DUCT
$igodot_{co}$	CARBON MONOXIDE SENSOR
AASD	AIR ASPIRATING SMOKE DETECTOR
CD	COMBINATION SPEAKER / VISIBLE WALL MOUNTED. CD INDICATES CANDELA RATING.
C CD	COMBINATION SPEAKER / VISIBLE CEILING MOUNTED. CD INDICATES CANDELA RATING.
S	SPEAKER WALL MOUNTED.
C V S	SPEAKER CEILING MOUNTED.
CD	FIRE ALARM WALL MOUNTED VISUAL ONLY STROBE. CD INDICATES CANDELA RATING.
CD E C	FIRE ALARM CEILING MOUNTED VISUAL ONLY STROBE. CD INDICATES CANDELA RATING.
FS	FLOW SWITCH
Ts	TAMPER SWITCH
O V	BELL - VIBRATING

FIRE ALARM AND MASS NOTIFICATION GENERAL NOTES

- ALARM AND MASS NOTIFICATION SYSTEM MUST BE DESIGNED AND INSTALLED TO MEET THE REQUIREMENTS OF UFC 3-600-01, FC 3-600-09N, UFC 4-021-01, NFPA 70, NFPA 72, AND NFPA 101. SYSTEM SHALL BE SIMPLEX,
- 2. IT IS THE INTENT OF THESE DOCUMENTS TO PROVIDE DESIGN, MATERIALS, AND EQUIPMENT FOR A TOTALLY FUNCTIONING AND OPERATING FIRE ALARM AND MASS NOTIFICATION SYSTEMS, INCLUDING THE PROPER INTERFACING AND COORDINATION WITH OTHER BUILDING SYSTEMS.
- 3. THE GENERAL CHARACTER AND SCOPE OF THE WORK IS ILLUSTRATED IN THE SPECIFICATIONS AND THE DRAWINGS. THE SPECIFICATIONS AND DRAWINGS ARE DIVIDED INTO SEVERAL SECTIONS FOR CONVENIENCE ONLY AND THE CONTRACT DOCUMENTS MUST BE CONSIDERED AS A WHOLE. THE CONTRACTOR MUST BE RESPONSIBLE FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND VENDORS ENGAGED IN THIS
- 4. THESE DRAWINGS DEPICT GENERAL LOCATIONS OF FIRE ALARM AND MASS NOTIFICATION SYSTEM EQUIPMENT 26. CONTRACTOR MUST PROVIDE ADEQUATE AUDIBLE NOTIFICATION DEVICES TO MEET THE AUDIBLITY AND AND FIELD DEVICES. FINAL LOCATIONS, QUANTITIES, APPLIANCE RATINGS, ETC. MUST BE PROVIDED BY THE INSTALLING CONTRACTOR IN ACCORDANCE WITH THE APPLICABLE CODES, STANDARDS, AND CONTRACT
- 5. THE CONTRACTOR MUST OBTAIN REQUIRED PERMITS AND APPROVALS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR MUST PAY FOR AND SECURE PERMITS AND FEES FOR FIRE PROTECTION SYSTEMS WORK.
- 6. PROVIDE FINAL SYSTEM LAYOUT DRAWINGS INCLUDING BATTERY CALCULATIONS AND VOLTAGE DROP CALCULATIONS AND OBTAIN APPROVAL OF THE FIRE MARSHAL AND ALL AUTHORITIES HAVING JURISDICTION BATTERY CALCULATIONS MUST INCLUDE 20 PERCENT SAFETY MARGIN TO THE CALCULATED AMP-HOUR RATING PER NFPA 72. A BILL OF MATERIAL AND CONTACT ID POINT DESCRIPTION TABLE MUST BE INCLUDED IN THE FIRE ALARM AS-BUILT DRAWINGS.
- 7. PROVIDE FIRE ALARM AND MASS NOTIFICATION SPEAKERS AND STROBES THROUGHOUT THE PROJECT AREAS. PROVIDE ADDITIONAL NOTIFICATION APPLIANCE CIRCUIT (NAC) PANELS AS REQUIRED. EACH NAC LOADING MUST NOT EXCEED 75% OF ITS RATED OUTPUT.
- 8. PROVIDE DUCT SMOKE DETECTORS IN ALL SUPPLY DUCTS OF AIR HANDLING UNITS GREATER THAN 2,000 CFM . 32. PROVIDE SURGE PROTECTION FOR CIRCUITS THAT ENTER OR EXIT A BUILDING. PROVIDE RELAYS FOR SHUT DOWN OF ASSOCIATED AIR HANDLING UNITS.
- 9. PROVIDE MONITOR MODULES, TAMPER AND FLOW SWITCHES FOR THE SPRINKLER RISER AND CONTROL
- 10. WIRING FOR DEVICES MUST BE CLASS AS PROVIDE ALL FIRE ALARM CIRCUITS IN ELECTRICAL METALLIC TUBING (EMT) OR INTERMEDIATE METAL CONDUIT (IMC).
- 11. ALL RACEWAYS MUST BE FACTORY PAINTED RED. FLEXIBLE METALLIC OCNDUIT (FMC) SHALL NOT EXCEED 6 FEET AND MUST ONLY BE PERMITTED FOR CONNECTIONS TO JUNCTION BOXES TO FIELD DEVICES. PROVIDE A RACEWAY LISTED FOR THE INSTALLATION IN WET LOCATIONS, SUCH AS RIGID METALLIC CONDUIT (RMC) AND LIQUID TIGHT FLEXIBLE METAL CONDUIT (LFMC). WET LOCATIONS ARE CONSIDERED ANY LOCATION WITHIN A 5 36. PROVIDE A PARTS BOX ADJACENT TO THE FMCP. CABINET MUST BE STEEL, LOCKING, WITH HINGE-MOUNTED FOOT RADIUS OF FIRE SUPPRESSION EQUIPMENT AS DEFINED BY NFPA 70.
- 12. DEVICES MUST BE FACTORY FINISHED WHITE.
- 13. PROVIDE RECHARGEABLE SEALED LEAD ACID TYPE BATTERIES TO OPERATE THE FIRE ALARM SYSTEM UNDER 37. DUAL-ACTION, MANUAL FIRE PULL STATIONS MUST BE PROVIDED WITHIN 5 FEET OF EVERY EXIT OF THE SUPERVISORY CONDITIONS FOR 48 HOURS AND AUDIBLE AND ALARM DEVICES FOR AN ADDITIONAL 15 MINUTES OR 60 MINUTES FOR THE MASS NOTIFICATION SYSTEM IMMEDIATELY UPON LOSS OF POWER WHICHEVER IS GREATER.
- 14. INSTALLING CONTRACTOR MUST COORDINATE WITH MECHANICAL, ELECTRICAL AND OTHER TRADES TO FACILITATE INSTALLATION THAT IS COORDINATED AND CONSISTENT WITH BUILDING DESIGN, USE AND INTENT. 15. COORDINATE FINAL SYSTEM TESTING WITH OTHER CONTRACTORS TO PROVIDE FULL SYSTEM OPERATION AT
- 16. THE FIRE PROTECTION CONTRACTOR MUST BE RESPONSIBLE FOR SCHEDULING AND PERFORMING INSPECTIONS AND TESTS AS REQUIRED BY THE CONTRACTING OFFICER.
- 17. FLOOR AND WALL CONDUIT PENETRATIONS MUST BE SLEEVED AND SEALED AS REQUIRED.
- 18. PENETRATIONS OF THE BUILDING AIR BARRIER MUST BE SEALED TO MAINTAIN THE INTEGRITY OF THE AIR
- 19. CONDUIT SIZE AND PERCENTAGE OF FILL TO BE DETERMINED BY INSTALLING CONTRACTOR AND MUST
- COMPLY WITH APPLICABLE STANDARDS AND SYSTEM MANUFACTURER'S REQUIREMENTS 20. CONDUIT AND WIRING MUST BE CONCEALED ABOVE CEILINGS IN FINISHED AREAS AND AREAS WITH DROPPED CEILINGS. CONDUIT AND WIRING INSTALLED ABOVE CEILINGS MUST NOT INTERFERE WITH THE REMOVAL OF THE CEILING TILES, AND HVAC UNIT AIR FILTERS. IN AREAS WITHOUT CEILING, CONDUIT AND WIRING MUST BE INSTALLED AS TIGHT AS POSSIBLE TO UNDERSIDE OF FLOOR SLAB, UNLESS OBSTRUCTIONS REQUIRE OTHERWISE.

- 1. PROVIDE A COMPLETE, ADDRESSABLE, FIRE ALARM AND MASS NOTIFICATION SYSTEM IN THE FACILITY. FIRE 20. FIRE ALARM WIRING MUST NOT BE INSTALLED IN THE SAME CONDUITS OR JUNCTION BOXES AS LIGHTING, POWER OR OTHER WIRING.
 - 21. RUN WIRING TO CONTROL PANELS IN THE VERTICAL OR HORIZONTAL PLANE, MAKE TURNS AT 90 DEGREE ANGLES, AND TIGHTLY BUNDLE, WRAP, AND IDENTIFY CONDUCTORS INDIVIDUALLY WITH PERMANENT MARKINGS.
 - 22. PULL CONDUCTORS SPLICE FREE. THE USE OF WIRE NUTS. CRIMPED CONNECTORS. OR TWISTING OF CONDUCTORS IS PROHIBITED.
 - 23. TERMINATIONS MUST BE AT A TERMINAL STRIP. DEVICES MUST HAVE SCREW TERMINALS.
 - 24. SIGNALING LINE AND INITIATING DEVICE CIRCUITS MUST BE MINIMUM 16 GAUGE WIRE.
 - 25. WALL ADDRESSABLE CONTROL MODULES AND ADDRESSABLE MONITOR MODULES MUST BE LOCATED WITHIN 10 FEET OF THE DEVICES BEING MONITORED. DUCT SMOKE DETECTORS MUST BE WITHIN 3 FEET OF ADDRESSABLE RELAY.
 - INTELLIGIBILITY REQUIREMENTS OF NFPA 72 AND UFC 4-021-01. THE MINIMUM REQUIRED COMMON INTELLIGIBILITY SCALE IS 0.7.
 - 27. PROVIDE HORN SPEAKERS MOUNTED ON THE EXTERIOR OF THE BUILDING IN ADDITION TO PROVIDE NOTIFICATION OF ANY AREAS COMMONLY USED BY BUILDING OCCUPANTS. AREAS INCLUDE COURTYARDS, COVERED BREAK AREAS, DESIGNATED SMOKING AREAS, AND SIDEWALKS LEADING FROM THE BUILDING'S EXIT DOORS TO A PUBLIC STREET OR FROM PARKING AREAS FOR A DISTANCE UP TO 16 FEET FROM THE BUILDING.
 - 28. PROVIDE VISIBLE NOTIFICATION APPLIANCES IN COMMON AND PUBLIC SPACES AS REQUIRED BY THE APPLICABLE CODES TO MEET VISIBLE SIGNALING INTENSITY REQUIREMENTS.
 - 29. PROVIDE CLEAR STROBE MARKED "ALERT" FOR FIRE ALARM AND MASS NOTIFICATION SYSTEM NOTIFICATIONS. 30. COORDINATE DUCT SMOKE DETECTION WITH MECHANICAL DESIGN CONTRACTOR, DUCT SMOKE DETECTOR REMOTE LAMPS AND TEST STATION MUST BE WALL MOUNTED, ACCESSIBLE, VISIBLE, AND PERMANENTLY LABELED. THE DUCT DETECTORS MUST RECEIVE THEIR POWER AND RESET FROM THE FIRE ALARM CONTROL
 - 31. PROVIDE REMOTE TEST LAMPS FOR ANY INACCESSIBLE DEVICES

 - 33. PROVIDE WEATHERPROOF DEVICES AS REQUIRED AND AS INDICATED.
 - 34. DEVICES MOUNTED IN SUSPENDED CEILING MUST BE MOUNTED IN THE CENTER OF THE CEILING TILE. 35. PROVIDE A DOCUMENTATION CABINET ADJACENT TO FIRE ALARM CONTROL PANEL. CABINET MUST BE STEEL WITH LOCKING, HINGE MOUNTED DOOR PROMINENTLY LABELED "SYSTEM RECORD DOCUMENTS". CABINET MUST STORE LIFE SAFETY, FIRE ALARM, AND SPRINKLER AS-BUILT DRAWINGS AND NFPA 72 RECORD OF COMPLETION IN PAPER FORMAT. CD/DVD OF SITE-SPECIFIC SOFTWARE, FIRE ALARM AND SPRINKLER AS-BUILT DRAWINGS, NFPA 72 RECORD OF COMPLETION, AND OPERATIONS AND MAINTENANCE MANUALS MUST BE STORED IN A CD JEWEL CASE.
 - DOOR, KEYED THE SAME AS THE FMCP. CABINET MUST INCLUDE SPARE PARTS AS DEFINED IN THE PROJECT SPECIFICATIONS, PLUS FOUR (4) FUSES FOR EACH FUSED CONDUIT.
 - BUILDING. MANUAL PULL STATIONS MUST BE RESET WITH THE USE OF A KEY ONLY. USE OF A WRENCH, HEX KEY, ALLEN KEY, OR ALLEN WRENCH TO OPEN A MANUAL PULL STATION MUST NOT BE PERMITTED.
 - 38. WATER FLOW ALARM AND VALVE TAMPER SWITCHES ATTACHED TO THE BUILDING WET-PIPE SPRINKLER
 - SYSTEM TO PROVIDE REQUIRED SUPERVISION MUST BE CONNECTED TO THE FIRE ALARM SYSTEM. 39. INSTALL A POINT REPORTING DIGITAL ALARM COMMUNICATOR TRANSMITTER THAT IS COMPATIBLE WITH THE SUR-GARD SYSTEM III MULTI-PLATFORM DIGITAL TELEPHONE RECEIVER AND IS PROGRAMMED TO REPORT BY POINTS VIA CONTACT ID PROTOCOL. PROVIDE TWO (2) CAT 6 UTP CABLES INSIDE 1-INCH CONDUIT FROM THE FMCP TO THE TELEPHONE EQUIPMENT ROOM.
 - $40.\ \mathsf{THE}\ \mathsf{GOVERNMENT}\ \mathsf{WILL}\ \mathsf{INSTALL}\ \mathsf{THE}\ \mathsf{TRX-}401\ \mathsf{MASS}\ \mathsf{NOTIFICATION}\ \mathsf{TRANSCEIVER}.\ \mathsf{THE}\ \mathsf{CONTRACTOR}\ \mathsf{MUST}$ PROVIDE CONDUIT FOR MOUNTING THE MASS NOTIFICATION ANTENNA, CONDUIT FOR THE MASS NOTIFICATION ANTENNA CABLE, CONDUIT TO CONNECT THE TRANSCEIVER TO THE FIRE ALARM CONTROL PANEL, AND 120V POWER FOR THE TRANSCEIVER
 - 41. PROVIDE AND ATTACH A LEGIBLE, TYPED LABEL ON ALL ADDRESSABLE DEVICES TO INDICATE ITS ADDRESS. FOR ANY DEVICE LOCATED ABOVE A FALSE CEILING, CONTRACTOR MUST PROVIDE A LEGIBLE, TYPED LABEL ATTACHED TO THE CEILING GRID THE DEVICE NOMENCLATURE AND ADDRESS.
 - 42. PROVIDE AN AIR ASPIRATING SMOKE DETECTOR FOR PROTECTION OF THE SERVER ROOMS 304A AND 304B.

NA/FAC RQ Jordan Michael Baker INTERNATIONAL FOR COMMANDER NAVFAC MARINE CORPS BASE CAMP LEJEUNE SATISFACTORY TO DATE DES **JAM** | DRW **ADH** | CHK **DJW** BRANCH MANAGER CHIEF ENG/ARCH FIRE PROTECTION AND ATLANTIC NORFO
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