

SECTION 287290
WANDERING MANAGEMENT ALARM SYSTEM

PART 1 - GENERAL **NOTE: WANDERING MANAGEMENT ALARM SYSTEM
EQUIPMENT AND DEVICES ~~ARE~~ **SHALL BE DELETED AS PART OF ALTERNATE
4.
(~~PROVIDE~~ CONDUIT, BOXES AND PULLWIRE FOR ROUGH-IN ~~ONLY UNDER
BASE BID~~ **SHALL BE PROVIDED**).****

1.1 RELATED DOCUMENTS/WORK

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section. All work specified in the following sections shall comply with all local and National codes and requirements.

1.2 SUMMARY

- A. Provide a complete and fully operational Wandering Management System (WMS). The purpose of the WMS is to create an open environment of care while assuring staff that residents who wander the area are secure. The system monitors doors, stairwells, hallways, and elevators with options that are configured to accommodate specific needs. The WMS allows staff and visitors to move about the facility without barriers, yet alerts staff immediately when a monitored resident wearing a wrist or ankle transmitter attempts to exit by sounding an alarm, locking a door, or paging a mobile staff member. The anti-tailgate feature prevents a wanderer from following a visitor or staff member through an authorized exit. Alarms must be reset at the monitored area to assure staff attention.
- B. The system is to provide coverage for door locations identified on the drawings. The proposed system must be compatible and utilize the existing doors located in the door locations.
- C. See riser diagrams and floor plans for specific equipment locations.
- D. Electrical Contractor shall provide all equipment required for security system including control devices, conduit and cabling, interfacing into the access control system and programming necessary to create Wandering Management system alarms.
- E. Provide complete system design, materials, labor, and all equipment for a complete Wandering Management System for the facility.
- F. System shall utilize a water-resistant, wireless radio transmitter that can be attached to a resident's wrist or ankle for monitoring purposes.
- G. If the system determines that a potential elopement is possible the system alarm shall be sounded. The system shall activate magnetic door locks and other security hardware.
- H. System shall utilize wired antennas and receivers located near points of exit for detection of the transmitter.
- I. System shall utilize magnetic locks for door lockdown at perimeter doors of coverage area.
- J. Contractor shall meet with facility staff members and shall provide services for all necessary design for complete coverage of area. Quantity of transmitters, basic coverage area, doors

required for lockdown, elevators for lockdown, and all other system operation requirements shall be determined by Owner. All contractor to Owner interface shall occur prior to bids being received on system.

- K. The system shall be capable of activating magnetic door locks and other security monitoring devices including interface with the elevator controller to hold elevator under system alarm conditions.
- L. Contractor shall provide all interface required between system and elevator controllers within coverage area to hold elevators under conditions determined by Owner.
- M. Contractor shall provide all interface required to the system from the fire alarm system such that all locks and elevator hold functions shall be disabled under a fire alarm condition.
- N. Contractor shall provide all necessary 120V power connections to system security devices, power supplies, control equipment, CPUs, and system accessories from nearest available spare circuit breaker on facility's critical emergency power branch.
- O. Delayed egress magnetic locks provided for security area shall be compliant with NFPA 101-1991 ed. and 2000 ed., and applicable State Building Codes.

1.2 RELATED SECTIONS INCLUDE THE FOLLOWING:

- A. Division 26 Sections for conduit
 - 1. NFPA 72G - Notification Appliances for Protective Signaling Systems.
 - 2. NFPA 72H - Guide for Test Procedures for Protective Signaling Systems.
 - 3. UL294 - Access Control Systems.

1.3 CLOSEOUT SUBMITTALS

- A. Section 01700 - Execution Requirements: Closeout procedures.
- B. Project Record Documents: Record actual locations of receiver antennas, exit alarm controllers, and head end equipment.
- C. Operation and Maintenance Data: Submit instructions for adjusting, operating, and extending the system, and repair procedures and spare parts documentation.
- D. Maintenance Contract: Submit maintenance contract for the system. Service is provided by Wandering Management System supplier/installer as part of a maintenance contract on a time and material basis. Service shall be available by modem or on site, as required.

1.4 QUALIFICATIONS

- A. Contractor, the system supplier/installer is proprietary. The General Contractor shall contact the company and individual identified below and include all work in the bid and scope of work.
- B. Wandering Management System Supplier/Installer:
- C. RF Technologies, Inc. - Contact is Ron Kosek, Sales Engineer at 800-669-9946.

1.5 SUBMITTALS

- A. Submit manufacturer's product data, including installation instructions, and individual system component specifications.
- B. Ratings and performance data.
- C. Operating and maintenance data.
- D. Submit manufacturer's training program, including training aids and training duration.

- E. Submit non-warranty service costs, including trip charge, response time, hourly rate, per diem expense and itemized major system component price list.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Code Alert® as manufactured by RF Technologies, Inc., Brookfield, WI (262) 790-1771

2.2 EQUIPMENT

- A. The wandering resident system specified herein shall have an alarm and locking capabilities.
- B. All manufactured products to comprise the wandering resident system shall be manufactured within the U.S.A.
- C. All manufactured products shall meet with all required federal requirements.
- D. All manufactured products shall be UL294 Listed.
- E. Products listed herein shall consist of, but are not limited to, adult transmitters (worn on the resident's ankle or wrist), Exit Alarm Control Units (located at each exit location to provide local alarm, means of alarm reset, exit status, authorized escort of monitored residents without alarm, and electro-magnetic lock controller), Antenna/Receivers (two for each exit location), Staff Alert Panels (providing audible indication of events in the departments), a system device network with associated devices and cabling, a server computer operating Wandering Management Software capable of outputting alarm event information to the access control system, client computers capable of receiving and transmitting data from other locations at the facility, and Central Power Supplies.
- F. Acceptable Manufacturers must have been established in the business for a minimum of ten years and completed five previous projects of similar installations.
- G. Acceptable Manufacturers shall provide On Call 24/7/365 Technical Phone Support.
- H. Acceptable manufacturers shall provide dual frequency antennas that can be easily changed in the field from 66kHz to 262kHz to readily adjust to RF noise issues.
- I. Acceptable manufacturers shall provide a fully supervised Wandering Management System for all connections, reed switch, tamper switch, antennas and the Staff Alert Panel.

2.2 BASIC SYSTEM OPERATION

- A. Code Alert Wandering Management System Exit Alarm Control Unit
 - 1. The Exit Alarm Control Unit shall receive data from the system Receive Antenna's and issue audible alarms if the door is opened.
 - 2. The Exit Alarm Control Unit shall have a keypad that is used to reset alarms and bypass the Exit Alarm Control Unit.
 - 3. The Exit Alarm Control Unit shall be capable of triggering CodeLock electromagnetic door locks to secure the monitored door when a transmitter is within the detection zone.
 - 4. The Exit Alarm Control Unit shall be capable of operating as a Delayed Egress device that can utilize a trigger mechanism to determine when an exit door that is equipped with an Electro-magnetic lock is having an unauthorized egress attempt. The exit alarm control unit shall be

available in models that work for NFPA-101 Life Safety Code (Model 60/70/80) or ICC/BOCA National Building Codes (Model 81).

5. The Exit Alarm Control Unit shall be capable of triggering an alarm at an optional Staff Alert Panel and/or an announcement at an optional CA316 Voice Alarm or computer(s).
6. Three LED indicators shall be located on the Exit Alarm Control Unit. They shall be: a red LED to indicate power to the system; a yellow LED to indicate that the exit alarm control unit has received a signal from the receivers; and a green LED which shall be lit when the unit's status is in the bypass mode.
7. The Exit Alarm Control Unit shall have an "anti-tailgate" feature; the bypass interval shall end when the door closes to prevent a monitored person from following the bypass exit.
The exit alarm control unit shall have a steel faceplate that is capable of being surface or flush mounted.
8. The Exit Alarm Control Unit shall be UL294 listed as an Access Control System.
9. The Exit Alarm Control Unit shall provide the capability of changing bypass codes by reprogramming through its keypad.
10. The Exit Alarm Control Unit shall communicate to a server PC via an RS-485 communication method over standard Category 5 UTP cabling. This communication shall be two-way and allow for supervision of the controller, notification of resident transports and automatic locking down of the doors.

B. Code Alert Wandering Management System 66KHz or 262K Receiver Antenna

1. The Code Alert Wandering Management Systems include an Exit Alarm Control Unit, (2) Receive Antennas, two normally closed reed switches, 94V-0 PVC raceway and ABS fittings, and wire.
2. Each opening up to 8' requires (2) Receive Antenna's, one on each side of the opening, as instructed in the Installation Manual. The Receive Antenna's receive the RF signal from the Wandering Management Transmitter, and indicate to the Exit Alarm Control Unit when there is a transmitter is in the area.
3. The Model 60/70/80 Exit Alarm Control Unit shall monitor the detection zone around the doorway, hallway or stairwell where it is mounted.
4. The Receiver shall receive the radio frequency signal sent by the Transmitters and send the signal to the Exit Alarm Control Unit.
5. The Receiver shall have a LED located inside the enclosure, which will pulse when a Transmitter is in the monitored zone. The LED is visible through a clear lens on the cover.
6. The Receiver shall be encased in flame resistant material.
7. The Receiver shall receive signals at 262 kHz. The receiver shall be able to be switched over (in the field by the installer) to the 66kHz frequency.

8. The Receiver shall be powered via the Exit Alarm Control Unit.
9. The Receive Antenna shall be dimensions 12.2" L x 1.77" W x 1.3" D.
10. Code Alert DuoLink Receive Antenna: 9450-0165K
- C. Model 30 Keypad Perimeter Locking and/or Alarm Systems
 1. Provide control devices as indicated on drawings as required to provide a complete system.
 2. The Model 30 Perimeter Alarm shall alarm when the protected door is opened, or if is a hallway application, if the Passive Infrared Detector senses motion.
 3. The Model 30 Perimeter Alarm shall have local annunciation when in alarm.
 4. The Model 30 Perimeter Alarm shall have two sets of Form "C" contacts for the connection to a Staff Alert Panel.
 5. The Electromagnetic CodeLock and/or alarm shall be activated unless the override device has temporarily turned it off.
 6. The Model 30 Perimeter Alarm shall have the ability to reset alarms and bypass the protected door and optional Electromagnetic CodeLock via codes on a keypad. The bypass override shall be programmable for 10 to 120 seconds.
 7. The Model 30 shall accept external peripherals for the reset and bypass functions.
 8. The Model 30 Perimeter Alarm is powered by a 16VAC 1.1 Amp transformer or by the 15VDC 9A Code Alert Central Power Supply.
 9. The Model 30 Perimeter Alarm system shall be capable of being upgraded to a Wanderer Monitoring System by adding additional components (Receivers) and reprogramming the controllers personality to become a model 60, 70, or 80 system.
 10. The Model 30 dimensions are as follows:
 - a. Model 30 surface mount: 4-½" w x 6 ½" h x 2" d.
 - b. Model 30 flush mount: 4 ½" w x 6 ½"h x ½"d".
 11. They shall be RF Technologies, Inc. part numbers:
 - a. Code Alert Model 30 Wandering System, Surface Mount 9450-3001-SK
 - b. Code Alert Model 30 Wandering System, Flush Mount 9450-3002-FK
- D. Model 70 Wandering Management System
 1. The Model 70 dimensions are as follows:
 - a. Model 70 surface mount: 4 ½"w x 6 ½"h x 2"d.
 - b. Model 70 flush mount: 4 ½"w x 6 ½"h x ½"d.
 2. The Model 70 Wandering Management Systems shall be Code Alert part numbers:
 - a. Code Alert Model 70 Wanderer Surface Mount 9450-7062-SK
 - b. Code Alert Model 70 Wanderer Flush Mount 9450-7062-FK
- E. Code Alert Model 70 Wandering Management System Transmitter
 1. The 1.5-year and 3-year Transmitter is used with the Model 70.
 2. Other than cosmetic, the Transmitter shall not be damaged or malfunction after a drop onto a tiled, concrete floor from a height of five (5) feet.

3. The Transmitter shall be easily cleaned using a soft-bristle brush with mild disinfectant soap in compliance with facility's disease control protocol.
 4. The Transmitter shall emit a radio frequency signal that is recognized by the system receivers.
 5. The Transmitter shall be worn on either the wrist or the ankle.
 6. The Transmitter shall have a single use band that is replaceable.
 7. The Transmitter shall have smooth, rounded edges and no moving parts that could pinch the resident or cause dermal abrasions.
 8. The Transmitter shall be attached to the resident using a single-use, disposable, reinforced nylon band material that does not contain latex. The band shall have two pairs of one-time metal closures.
 9. The Transmitter shall be water-resistant.
 10. The Transmitter shall be powered with a 3.5 V Lithium battery and have a 1.5 or 3 year battery life.
 11. The Transmitter shall operate at 66kHz or 262kHz.
 12. The server computer as a three-digit identification number shall recognize the Transmitter, which is an indication of the Transmitter number that is at the zone's location.
 13. The dimensions for this transmitter are: 2"w x 1.5" x h 5/8"d.
 14. The Transmitter shall be Code Alert part numbers:
 - a. CA9120/Model 70 3 Year 262kHz Transmitter: 9000-0423
CA9120/Model 70 3 Year 66kHz Transmitter: 9000-0413
 - b. CA9120/Model 70 1.5 Year 66kHz Transmitter: 9000-0432
 - c. CA9120/Model 70 1.5 Year 262kHz Transmitter: 9000-0434
 - d. CWTX 9120/70 1 Yr 262kHz Transmitter: 9000-0139
 - e. CWTX 9120/70 1 Yr 66 kHz Transmitter: 9000-0138
 - f. Gray Bands (Package of 10): 3000-0217K
 - g. Navy Bands (Package of 10): 3000-0213K
 - h. Reusable Locking Band with Key Kit: 3000-0251K
 - i. Reusable Locking Band: 3000-0250
- F. Model 80 Wandering Management System
1. The control unit dimensions are as follows:
 - a. Model 80 surface mount: 4 ½"w x 6 ½"h x 2"d.
 - b. Model 80 flush mount: 4 ½"w x 6 ½"h x ½"d.
 2. The Model 80 Wandering Management Systems shall be Code Alert part numbers:
 - a. Code Alert Model 80 Wanderer Surface Mount 9450-8062-SK
 - b. Code Alert Model 80 Wanderer Flush Mount 9450-8062-FK
- G. Code Alert Model 80 Wandering Management System Adult Transmitter
1. The 1-year and 2-year Transmitter is used with the Model 80.
 2. Other than cosmetic, the Transmitter shall not be damaged or malfunction after a drop onto a tiled, concrete floor from a height of five (5) feet.
 3. The Transmitter shall be easily cleaned using a soft-bristle brush with mild disinfectant soap in compliance with facility's disease control protocol.

4. The Transmitter shall emit a radio frequency signal that is recognized by the system receivers.
 5. The Transmitter shall be worn on either the wrist or the ankle.
 6. The Transmitter shall have a single use band that is replaceable.
 7. The Transmitter shall have smooth, rounded edges and no moving parts that could pinch the resident or cause dermal abrasions.
 8. The Transmitter shall be attached to the resident using a single-use, disposable, reinforced nylon band material that does not contain latex. The band shall have two pairs of one-time metal closures.
 9. The Transmitter shall be water-resistant.
 10. The Transmitter shall be powered with a 3.5 V Lithium battery and have a 1 or 2 year battery life.
 11. The Transmitter shall operate at 66kHz or 262kHz.
 12. The server computer as a three-digit identification number shall recognize the Transmitter, which is an indication of the Transmitter number that is at the zone's location.
 13. The dimensions for this transmitter are: 2"w x 1.5"h x 5/8"d.
 14. The Transmitter shall be Code Alert part numbers:
 - a. CA9120/Model 80 2 Year 262kHz Transmitter with ID: 9000-0424
 - b. CA9120/Model 80 2 Year 66kHz Transmitter with ID: 9000-0414
 - c. CA9120/Model 80 1 Year 262kHz Transmitter with ID: 9000 0437
 - d. CA9120/Model 80 1 Year 66kHz Transmitter with ID: 9000-0436
 - e. CWTX 9120/80 1 Yr 262kHz Transmitter with ID 9000-0141
 - f. CWTX 9120/80 1 Yr 66 kHz Transmitter with ID 9000-0140
 - g. Gray Bands (Package of 10): 3000-0217K
 - h. Navy Bands (Package of 10): 3000-0213K
 - i. Reusable Locking Band with Key Kit: 3000-0251K
 - j. Reusable Locking Band: 3000-0250
- H. Code Alert Wandering Management System Transmitter Tester for Model 70 and 80 Systems
1. The Transmitter Tester shall be used to verify proper operation of system Transmitters.
 2. The Transmitter Tester shall have a pushbutton that is depressed when testing the Transmitter.
 3. When tested, if the Transmitter is functioning properly, the green LED will blink and a tone will sound once per second. The Transmitter tester shall be compatible with the Model 60, 70, and 80 transmitters at both the 66KHz and 262KHz frequencies.
 4. One 9 V battery will power the Transmitter Tester.
 5. The Transmitter Tester shall be Code Alert part number: 9000-1000
- I. 15V, 9A CENTRAL POWER SUPPLY

1. The Central Power Supply connects multiple components to one central power source, significantly reducing installation time and labor. It eliminates the need to run cable from the fire alarm panel to each monitored CodeLock location (future option, not included in this specification), and the need to install individual 110VAC outlets at each location.

2.3 CENTRAL POWER SUPPLY

- A. Upon activation of the fire alarm, the Central Power Supply shall deactivate all Code Alert magnetic CodeLocks while continuing to power the Wandering Management System.
- B. The Central Power Supply shall be a Class II UL Listed as a Releasing Device (49XM) and shall meet NFPA Standard 72 Fire-Protective Signaling Service requirements.
- C. The Central Power Supply shall be housed in a Steel Cabinet w/locking door and keyed power on/off switch.
- D. The Central Power Supply enclosure shall be painted to prevent corrosion and shall be gray in color.
- E. The Central Power Supply dimensions shall be 6"w x 16"h x 16"d (15cm x 41cm x 41cm).
- F. The Central Power Supply shall weigh 30 lbs. (14kg).
- G. The Central Power Supply shall have conduit knockouts on all 4 sides to permit conduit connection for hardwiring of the AC power.
- H. The Central Power Supply shall have over current protection from both AC Input and DC Output with fuses: 3.5A, 250V (AC) and 15A, 32V (DC).
- I. The power requirements of the Central Power Supply are Input: 120V AC, 3 Amp Max Single-Phase Power and Output: 15V DC, 9 Amp.
- J. The Central Power Supply shall be Code Alert's part numbers: 9450-0555

2.4 STAFF ALERT PANEL

- A. Single Zone Staff Alert Panel:
 1. Exits shall include a single zone annunciator located halfway down the hallway for ease of hearing by staff within that particular unit.
 2. When a monitored Exit Alarm Control Unit is in alarm, the Single Zone Staff Alert Panel shall provide an audible alarm.
 3. Power shall be supplied to the Single Zone Staff Alert Panel by the control unit it monitors.
 4. The Staff Alert Panel shall be surface mounted in a single gang enclosure.
 5. The Staff Alert Panel shall be Code Alert's part number: 3000-0430
- B. Eight Zone Staff Alert Panel:
 1. The Eight Zone Staff Alert Panel shall receive alarm signals from up to eight Model 30, 60, 70, or 80 Exit Alarm Control Units and alarm at a central location remote from the monitored zones. The Exit Alarm Control Units are hard-wired to the Eight Zone Staff Alert Panel.
 2. The Staff Alert Panel shall have a green LED. When this LED is illuminated, the panel is powered; when it is flashing, the panel is operating on the optional battery back up.

3. The Staff Alert Panel shall have eight red LED's corresponding to the eight zones monitored by Exit Alarm Control Units. The red LED's shall illuminate to indicate when the Exit Alarm Control Unit, corresponding to the LED, is in alarm. A space shall be provided to the right of the each red LED for a description of the Exit Alarm Control Unit location.
4. When a monitored Exit Alarm Control Unit is in alarm, loses power, or if the wire from it to the Staff Alert Panel is cut, the Eight Zone Staff Alert Panel shall provide an audible and visual alarm.
5. The Eight Zone Staff Alert Panel shall be either surface or flush mounted.
6. Power shall be supplied to the Staff Alert Panel by a 12 VDC 800mA transformer or the 15VDC 9A Code Alert Central Power Supply.
7. The Eight Zone Staff Alert Panel has dimensions of: Surface - 6½ w x 4½ h x 2½ d, and Flush Mount dimensions of: 6½ w x 4½ h x ½ d.
8. The Eight Zone Staff Alert Panel shall be Code Alert part numbers:
 - a. Eight Zone Staff Alert Panel (Surface Mount): 9450-0140K
 - b. Eight Zone Staff Alert Panel (Flush Mount): 9450-1410K

2.5 STAFF NOTIFICATION

- A. A server computer and optional client computers shall notify the staff if a wanderer system is in alarm.
- B. The System shall have the ability to provide audible notification of alarms at the main console and at remote annunciators in multiple locations as well as at the computer.
- C. The system shall be able to activate other ancillary security devices such as electromagnetic locks, elevator deactivation relays, strobe lights, CCTV systems, pagers, and piezo sounders during alarms.
- D. All system responses shall be configurable to facility need.
- E. Each system shall support multiple computer units in addition to non-computer remote annunciator units.
- F. The system shall report multiple transmitter alarms from single and/or multiple locations.
- G. The individual identity and alarm condition of each transmitter shall be reported.
- H. All significant changes in transmitter status shall be logged and time stamped in the computer program so that the sequence of logged events is known.
- I. The system shall support communication via a modem link to RF Technologies, off-site computer for remote diagnostic support.
- J. All components shall be microprocessor based to allow for expandability through firmware updates.
- K. All components shall be monitored continually by the system to eliminate non-functionality and loss of security by non-working units. An alarm shall sound if any portion of the system is compromised accidentally or on purpose.
- L. All components shall meet the requirements for a Class B digital device under part 15 of the FCC rules.

2.6 ACCEPTABLE MANUFACTURERS

- A. Code Alert® as manufactured by RF Technologies, Inc., Brookfield, WI (800) 669-9946

2.7 EQUIPMENT WANDERING MANAGEMENT SERVER PC

- A. A computer and software program (server PC) shall display all alarms on screen. The facility's floor plan will be incorporated to notate alarm location and a pop-up box shall provide: resident's name, transmitter number, group/floor and room number as well as space to include pertinent information such as medical condition, dietary information, photograph, etc. A box may be selected if the resident is known to be a wanderer risk. The main system shall not be dependent upon computer use to constitute a fully working system.
- B. The software shall have the ability to require users to enter unique, personal passwords in order to perform system actions including: moving residents to ancillary departments, discharging residents from the system, clearing alarms and changing system settings.
- C. An optional card reader unit may be used to eliminate redundant keystrokes.
- D. The software shall support the use of a "touch-screen" monitor to minimize the use of a traditional keyboard and mouse. The software shall be designed with large easy-to-touch on-screen buttons as well as a pop-up virtual keyboard for data entry.
- E. The software system shall have the ability to record and archive the history of all active transmitters on hard disk. In lieu of software a paper trail shall be generated. Such an archive shall include transmitter identification, alarm status, location and reset information.
- F. The System shall support modular expansion, be easily moved, supportable by facility personnel with the assistance of an 800# hotline. Training sessions can be purchased from RF Technologies, Inc. These sessions will cover the basic functions within the system (admitting residents, resetting devices, etc.). Sessions will cover 1st, 2nd, and 3rd shifts.
- G. The System shall generate an alarm whenever a transmitter signal enters the alarm area of an open door. It shall identify the specific transmitter number and the door location. Passive infrared sensors or door contacts connected to the door Management antennae assure that alarms are only generated when a transmitter enters the area while a door is open or the sensor is activated.
- H. The System shall also have the ability to generate alarms under the following conditions:
 - 1. An authorized exit has occurred but the resident has not returned to the facility within a certain time period
 - 2. An authorized exit has occurred and a second resident tries to "piggyback" through the protected exit
- I. To ensure reliable long-term operation, the Server PC shall be located on desktop or mounted to a wall with a VESA mounting bracket - No PC tower on the floor where dust and dirt can damage it. It shall be a modern silver color that brings a Hi-Tech look to security station and hides dirt. To reduce the number of connections and separate devices, the All-In-One PC shall have an

integrated 17" TFT LCD Touch Screen Display is equivalent in viewable area to a 19" CRT and integrated stereo sound speakers in the unit.

- J. The server PC shall provide one serial communication RS-232 output data stream for use by the Access Control System to interpret and respond.
- K. System performance shall be able to be monitored from off-site using "pcAnywhere" software through a modem connected to dedicated telephone line.
- L. System configuration settings shall be monitored by an on-site administrator and may, at the facility's option, be displayed and/ or modified from the service companies off-site computer.
- M. The system shall be able to download feature upgrades, additional functionality and/ or fixes from the remote site or factory.
- N. The server shall include an Uninterruptible Power Supply (UPS) to protect it from power surges, brownouts and other electrical damage.
- O. The Wandering Management server PC part number shall be: 0910-0155
- P. The Wandering Management touch-screen part number shall be: 0910-0110
- Q. The Wandering Management software part number shall be: 0880-0001

2.8 WANDERING MANAGEMENT CLIENT PC

- A. The Client PC shall be another computer location on the same network. The Client PC shall allow the same basic user functions as the Server PC. The computer shall contain the program for the wandering management system. The program shall be self-monitoring.
- B. The computer shall monitor the messages that are received from the individual alarm transmitters from the unit/area it is monitoring and send the associated alarm message to the quick look displays, walkie-talkies, and pagers, as well as display the message on the computer display specific to the unit/area.
- C. If a transmitter has a low battery, a message is sent to the computer and displayed in a report.
- D. The computer shall have the capability to send custom messages across the pagers.
- E. The system supplier/installer shall be able to monitor and modify the system program via remote connection to the computer.
- F. An uninterruptible power supply (UPS) shall be provided with the computer to protect it against power outages and power transients.
- G. The computer shall be include a touch-screen 17" LCD Monitor, stereo speakers, and CD-ROM. The operating system shall be WINDOWS XP.
- H. The software system shall have the ability to record and archive the history of all active transmitters on hard disk. In lieu of software a paper trail shall be generated. Such an archive shall include transmitter identification, alarm status, and location.
- I. The software shall have the ability to require users to enter unique, personal passwords in order to perform system actions including: moving residents to ancillary departments, discharging residents from the system, clearing alarms and changing system settings. An optional card reader unit may be used to eliminate redundant keystrokes.

- J. The software shall support the use of a "touch-screen" monitor to minimize the use of a traditional keyboard and mouse. The software shall be designed with large easy-to-touch on-screen buttons as well as a pop-up virtual keyboard for data entry.
- K. The Wandering Management client PC part number shall be: 9450-5030
In addition to the wandering management system Client computer, the vendor shall provide part numbers for the Uninterruptible Power Supply, the client Software, appropriate client Licenses, and hardware necessary to connect the Client PC onto the server PC network.
RS-485 DEVICE NETWORK
- L. The system shall utilize RS-485 communication between the devices and a central hub. The RS-485 communication shall be via Category 5 UTP cabling utilizing punch down panels with the standard EIA-TIA 568B wiring scheme. The RS-485 communication shall allow for up to 4000 feet between the control units and the server PC.

PART 3 - EXECUTION

3.1 GENERAL

- A. All equipment shall be installed specifically in accordance with equipment manufacturer's recommendations.
- B. Where cabling is not run in conduit above dropped ceilings and may penetrate rated smoke or firewalls, furnish and install approved empty conduit sleeve and bushings. Conduit and rated wall penetrations shall be sealed with approved fire resistant caulking or sealant.

3.2 TRAINING OF PERSONNEL

- A. Supply to the facility a minimum of one (1) complete user manual, which shall provide for the proper use, maintenance, and operation of the system by staff members after the initial training period.
- B. Training sessions can be purchased from RF Technologies, Inc. These sessions will cover the basic functions within the system (admitting residents, resetting devices, etc.). Sessions will cover 1st, 2nd, and 3rd shifts.

3.3 INSTALLATION

- A. Install Wandering Management System in accordance with manufacturer's instructions.
Install system at locations as required. Modification of devices to provide complete system coverage area shall be provided at no cost to Owner.
- B. Connect system to a grounded, 120 VAC Uninterruptible Power Supply (UPS). Provide power for system from nearest 120V Critical emergency power spare circuit breaker.
Connect UPS system to emergency power system.
- C. Determine proper location of all system equipment.

3.4 FIELD QUALITY CONTROL

- A. Test after installation is complete to verify system is properly installed and operating.

3.5 ADJUSTING

- A. Adjust system as required to perform properly.

3.6 DEMONSTRATION

- A. Provide a minimum of 4 hours of on-site training by manufacturer or manufacturer's representative. Training shall be conducted in (2) 2-hour training sessions.

VA SIERRA NEVADA HEALTH CARE SYSTEM
COMMUNITY LIVING CENTER
VAMC, RENO, NV
RBB PROJECT #1017200

VA PROJECT #654-317
VA CONTRACT #VA 261-P-0933

- B. Training sessions can be purchased from RF Technologies, Inc. These sessions will cover the basic functions within the system (admitting residents, resetting devices, etc.). Sessions will cover 1st, 2nd, and 3rd shifts.
- C. Demonstrate system to Owner's personnel.
- D. Train Owner's personnel in proper operation and maintenance.

- - - E N D - - -