E. LIGHTING CONTACTORS
1. Lighting contactors shall be normally open type with 120 volt coils.
2. Quantity of poles shall be as specified on the plan drawings but not less than 4 per contactor.
3. Separate contactors shall be provided for 277 volt lighting and 120 volt lighting.
4. Interface lighting contactors with Novar system as indicated on drawings.
5. Acceptable manufacturers are Cutler Hammer, Square D, General Electric and Siemens ITE. Contactors shall match panelboard manufacturer.

PART 3 - EXECUTION
3.01 INSTALLATION
A. Electrical service, metering and main distribution shall be as shown on the Drawings and as herein specified.
B. System Grounding: Shall be in strict accordance with the National Electrical Code, Local Governing Authorities and in accordance with the recommendations of the Utility Company.
C. Electrical Service:
1. Electrical service shall be from the Utility Company's transformer at 3 phase, 4 wire, 60 hertz with voltage as specified on the Drawings.
2. Furnish and install the secondary service from transformer to the current transformer cabinet and into the main service switches as shown on the Drawings. Leave sufficient slack cable, at the transformer locations for connection of the secondary conductors to the transformer by the Utility Company.
3. This Contractor shall contact the Utility Company to obtain all information necessary for the work, incorporate their instructions into the work, and obtain their approval of all work and material. Include all contractor related costs in base bid.
4. Provide transformer support pad in accordance with the Utility Company's standards. Work shall include pad, trench for ground wire, conduits, ells and miscellaneous hardware.
5. The Utility Company will furnish, install and connect all primary service conductors. Unless specifically noted otherwise.
NOTE TO DESIGNER: Modify specification for proper scope of work in relation to the landlord provided elements.
D. Grounding:
1. Provide an electrically continuous ground system from service to all points of utilization. In general, all pieces of electrical equipment shall be grounded as required by Federal, State and Local Codes and regulations, but special attention is called to the following items to be grounded as indicated:
a. All distribution equipment including switchboard, transformer and panelboards.
b. Conduit and other metallic raceways.
2. In general where grounding wire is shown use green color.
3. Provide complete isolated ground system for cash register and telephone system and other systems as indicated on drawings. All circuits serving cash registers and POS system shall be isolated and segregated from other circuits.

SECTION 16500
LIGHTING SYSTEMS AND CONTROLS
PART 1 - GENERAL
1.01 DESCRIPTION
A. Work Included:
1. Receiving, Installing and wiring lighting fixtures as shown on Drawings, Lighting Fixture Schedule, and as furnished by the Owner.
2. All fixtures shall be received, unloaded, inventoried, handled, stored, protected, uncrated, installed, wired, lamped etc. by the electrical contractor (EC). Contractor shall confirm condition, quantity, and specification of fixtures upon receipt. Contractor shall immediately report any damage, missing items, deviation from spec.
3. Installation of lighting fixtures shall be carefully coordinated with architectural, structural, mechanical and sprinkler drawings to avoid conflicts. If conflicts should arise, Contractor shall clarify with architect prior to proceeding with installation.
4. Refer to the Architectural Room Finish Schedules and Architectural and Structural details to determine conditions and finishes affecting the installation of the work. Include, to the full intent and meaning of these Specifications, all items of labor and materials necessary for design, detailing or adjustment of fixtures due to surrounding finishes and construction.

PART 2 - PRODUCTS
2.01 MATERIALS
A. All lighting fixtures and lamps shall be furnished by Owner unless specifically noted otherwise.
PART 3 - EXECUTION
3.01 INSTALLATION
A. Fixtures: An outlet is to be provided for each fixture. All fixtures shall be located to suit the Architectural details of the areas involved. Unpack, assemble, wire and install all fixtures at the proper locations indicated on the Drawings.
B. Recessed Fixture Installation: Recessed fixtures shall be of type suitable for mounting in the type of ceiling as scheduled on the Drawings. Variations to catalog numbers indicated shall be made to assure proper mounting and fitting arrangements, prior to fabrication. Changes to be made by this Division Contractor must have prior written approval from the Architect.
C. Supports:
1. Each lighting fixture shall be rigidly supported from the building construction. Provide suspension hangers, stems and extra steel work for fixture support where required.
2. Confer with Ceiling Contractor to determine modifications required to make fixtures suitable for ceiling as installed.
3. Where recessed fixtures are called for, each shall be provided with the proper plaster frame or suitable adapter to receive the finished ceiling construction.
4. Where suspended acoustic tile ceilings on steel channels occur, outlets and fixtures shall be supported on members resting on the channel framework. In no case shall fixtures be supported from plaster or acoustic material.
5. Suspended fixtures shall be hung on suspension hangers furnished by the fixture manufacturer and shall be adjusted as necessary during installation to insure that all fixtures in the same room or area are at a uniform height from the floor. Mounting height shall be as specified, detailed or noted on the Drawings.
6. Any electrical lighting fixture which weighs more than 50 pounds shall be supported independently of the outlet box.
7. All fixtures with pendant lengths greater than 24" shall have two supports or be provided with a swivel type stem.
D. Fixture Wiring:
1. Fixtures shall be wired with white wire for the neutral and colored wire for phase wires, see Section 16100.
2. Housing of all fixtures must be grounded to conduit system.
3. Each fixture to be complete with holders, screws, sockets, wires, lamps, etc., as is necessary for a complete installation.
E. Operation and Controls:
1. Local switches as shown and wired.
2. Exit and directional signs shall be constantly on, and wired as shown.

SECTION 16600
SECURITY SYSTEM
PART 1 - GENERAL
1.01 DESCRIPTION
A. Work Included:
1. Provide necessary conduit and power for alarm and detection systems. This shall include the following:
a. Dedicated 20 Amp., 120 Volt circuit (s).
b. 3/4" conduit with pull wire to each door contact, sound detection, silent duress alarm, infrared sensor etc.
PART 2 - PRODUCTS
2.01 DESCRIPTION
A. All Equipment and associated installation and wiring of equipment shall be done by owner vendor. Contractor shall have an on site meeting with owner vendor prior to rough-in and installation of any raceways and backboxes for vendor system. Entire installation shall be fully coordinated as to exact location and requirements.
PART 3 - EXECUTION
3.01 RELATED DOCUMENTS
A. Performance:
1. Installation shall meet approval of the security system vendor and shall be in accordance with their requirements.
B. All conduit and wiring requirements shall conform with Section 16100, "Basic Materials and Methods" of this Specification.

SECTION 16620
ELECTRONIC ARTICLE SURVEILLANCE (EAS) SYSTEMS
PART 1 - GENERAL
1.01 DESCRIPTION
A. Work Included:
1. Provide necessary conduit and power for alarm and detection systems. This shall include the following:
a. Dedicated 20 Amp., 120 Volt circuit (s).
b. 3/4" conduit with pull wire to floor mounted detector at sales floor entrance/exit.

PART 2 - PRODUCTS
2.01 DESCRIPTION
A. All Equipment and associated installation and wiring of equipment shall be done by owner vendor. Contractor shall have an on site meeting with owner vendor prior to rough-in and installation of any raceways and backboxes for vendor system. Entire installation shall be fully coordinated as to exact location and requirements.
PART 3 - EXECUTION
3.01 RELATED DOCUMENTS
A. Performance:
1. Installation shall meet approval of the EAS system vendor and shall be in accordance with their requirements.
B. All conduit and wiring requirements shall conform with Section 16100, "Basic Materials and Methods" of this Specification.
END OF SECTION
SECTION 16630
CLOSED CIRCUIT TELEVISION (CCTV) SYSTEMS
PART 1 - GENERAL
1.01 DESCRIPTION
A. Work Included:
1. Provide necessary conduit and power for alarm and detection systems. This shall include the following:
a. Dedicated 20 Amp., 120 Volt circuit (s).
b. 3/4" conduit with associated wiring to each camera and monitor location. Refer to floor plans for locations.
c. Low voltage cabling from CCTV head end location to each camera and monitor for final termination to devices by owners vendor.

PART 2 - PRODUCTS
2.01 DESCRIPTION
A. All Equipment and associated installation and termination of wiring to equipment shall be done by owner vendor. Contractor shall have an on site meeting with owner vendor prior to rough-in and installation of all raceways, wiring and backboxes for vendor system. Entire installation shall be fully coordinated as to exact location and requirements.
PART 3 - EXECUTION
3.01 RELATED DOCUMENTS
A. Performance:
1. Installation shall meet approval of the CCTV system vendor and shall be in accordance with their requirements.
B. All conduit and wiring requirements shall conform with Section 16100, "Basic Materials and Methods" of this Specification.

SECTION 16640
SOUND SYSTEM
PART 1 - GENERAL
1.01 DESCRIPTION
A. Work Included:
1. Provide necessary conduit and power for sound system. This shall include the following:
a. Dedicated 20 Amp., 120 Volt circuit (s) within office for amplifier and sound rack and on sales floor for DJ rack where required.
b. 3/4" conduit with pull wire to speaker and device location. Refer to floor plans for locations. Each speaker does not require an independent conduit home run to the office equipment.
c. Provide a 1" conduit from office rack to each building floor sales floor for speaker wiring on that floor.

PART 2 - PRODUCTS
2.01 DESCRIPTION
A. All Equipment and associated installation and wiring to equipment shall be done by owner vendor. Contractor shall have an on site meeting with owner vendor prior to rough-in and installation of all raceways, wiring and backboxes for vendor system. Entire installation shall be fully coordinated as to exact location and requirements.
PART 3 - EXECUTION
3.01 RELATED DOCUMENTS
A. Performance:
1. Installation shall meet approval of the sound system vendor and shall be in accordance with their requirements.
B. All conduit and wiring requirements shall conform with Section 16100, "Basic Materials and Methods" of this Specification.

SECTION 16650
TELEPHONE SYSTEM
PART 1 - GENERAL
1.01 DESCRIPTION
A. Work Included:
1. Provide necessary conduit and power for telephone system. This shall include the following:
a. Dedicated 20 Amp., 120 Volt circuit (s) for telephone equipment at telephone backboard.
b. 3/4" conduit with pull wire to each telephone location. Refer to floor plans for locations.
c. 1 1/4" conduit with pull wire to each cash wrap location. Refer to floor plans for locations.
d. Provide ground lug at telephone board and ground to electrical service ground location if present within tenant space or to grounded building steel.
B. Work by Telephone vendor:
1. All wiring, jacks and terminations for telephone instruments.
2. All telephone equipment.
C. Work by landlord:
1. Landlord shall provide a 2" empty conduit raceway to point of telephone utility connection to rear of tenant space.
PART 2 - PRODUCTS
2.01 MATERIALS
A. Conduits, fittings, and outlet boxes shall be as hereinbefore specified in Section 16100.
B. Wall boxes to be flush, 4" square, with extension ring.
C. Plates shall be furnished and installed with jacks by owners low voltage telephone vendor.
PART 3 - EXECUTION
3.01 INSTALLATION
A. Performance:
1. Installation shall meet approval of the telephone vendor and shall be in accordance with their requirements.
B. All conduit and wiring requirements shall conform with Section 16100, "Basic Materials and Methods" of this Specification.

SECTION 16660
DATA/POS SYSTEM
PART 1 - GENERAL
1.01 DESCRIPTION
A. Work Included:
1. Provide necessary conduit and power for telephone system. This shall include the following:
a. Dedicated 20 Amp., 120 Volt circuit (s) within office for POS/DATA equipment.
b. 1 1/4" conduit with pull wire to each cash wrap location. Refer to floor plans for locations.
c. 1" interconnecting conduit between each section of cashwrap.
B. Work by POS system vendor:
1. All wiring, jacks and terminations for POS system.
2. All POS equipment.
PART 2 - PRODUCTS
2.01 MATERIALS
A. Conduits, fittings, and outlet boxes shall be as hereinbefore specified in Section 16100.
B. Wall boxes to be flush, 4" square, with extension ring.
C. Plates shall be furnished and installed with jacks by owners low voltage POS system vendor.
PART 3 - EXECUTION
3.01 INSTALLATION
A. Performance:
1. Installation shall meet approval of the POS system vendor and shall be in accordance with their requirements.
B. All conduit and wiring requirements shall conform with Section 16100, "Basic Materials and Methods" of this Specification.

SECTION 16721
FIRE ALARM SYSTEM
PART 1 - GENERAL
1.01 DESCRIPTION
A. Work Includes:
1. The contractor shall furnish and install a complete 24 VDC, electrically supervised, conventional / addressable fire alarm system as specified herein and indicated on the drawings. The system shall include but not be limited to all control panels, power supplies, initiating devices, audible and visual notification appliances, alarm devices, and all accessories required to provide a complete operating fire alarm system.
2. Furnishing and installing a complete extension of the existing fire alarm system for the tenant spaces, including all equipment, wiring, conduit, outlet and junction boxes and all accessories required.
3. Furnishing and installing a complete Fire alarm system for the tenant spaces, including all equipment, wiring, conduit, outlet and junction boxes and all accessories required.
B. Submit Drawings and receive approval from the Landlord and the Local Fire Prevention Bureau.

1.02 QUALITY ASSURANCE
A. The entire fire alarm system shall meet or exceed all State and/or Local Codes and ordinances.
B. Fire alarm system shall be in compliance with the following:
1. National Electrical Code (NEC)
2. NFPA Standards No. 70, 72, 101
3. Americans With Disabilities Act (ADA)
4. Village of Anywhere USA Fire Prevention Bureau.
5. International Building Code.
6. International fire code
C. All equipment furnished for this project shall be new and unused. All components shall be designed for uninterrupted duty. All equipment, materials, accessories, devices and other facilities covered by this specification or noted on the contract drawings and installation specification shall be best suited for the intended use and shall be provided by a single manufacturer. If any of the equipment provided under this specification is provided by different manufacturers, then that equipment shall be "Listed" as to its compatibility by Underwriters Laboratories (UL), if such compatibility is required by UL standards.
1.03 REQUIREMENTS OF REGULATORY AGENCIES:
A. Furnish a conduit and wiring riser diagram of the fire alarm system and service equipment as installed in the tenant remodeled spaces.
1.04 MANUFACTURER'S SERVICES:
A. The following supervision of installation shall be provided by a trained service technician from the manufacturer of the fire alarm equipment. The technician shall be U.L. certified and have had a minimum of two(2) years of service experience in the fire alarm industry.
B. The manufacturer's service technician shall be responsible for the following items:
1. Pre-installation visit to the job site to review equipment submittals and verify method by which the system should be wired.
2. During job progress make periodic job site visits to verify installation and wiring of system.
3. Upon completion of wiring, final connections shall be made under the supervision of this technician and final checkout and certification of the system.
4. At the time of final checkout, technician shall give operational instructions to the electrician, landlord and construction manager as well as any Urban Outfitter representative.

1.05 SUBMITTALS
A. Shop drawings for the complete fire alarm system shall be submitted for approval.
B. Shop drawings shall include the following data:
1. Catalog Data: Manufacturer's literature and illustrations.
2. Dimensions of equipment.
3. Complete wiring diagrams. Including point to point Wiring diagrams.
4. Manufacturer's installation and operation instructions.
5. Battery calculations for system.
6. Method of Operation document.
7. Voltage drop calculations.
1.06 SYSTEM OPERATION
A. The act of manually operating a manual station or the automatic operation of a thermodetector, smoke detector, or water flow switch shall cause the following:
1. Visually indicate at the fire alarm control/annunciator panel the area zone initiating the alarm.
2. The fire alarm control panel shall indicate both trouble and/or alarm conditions by zone.
3. Continuously sound all fire alarm audible and visual devices connected to the system until the system has been restored to normal.
4. Automatically shut down air handling units, as indicated on the Drawings.
5. Automatically disengage all magnetic door holders.
6. be arranged to transmit a fire alarm or trouble condition automatically to the fire station or Central monitoring system.
7. The general alarm devices may be silenced by entering a locked control cabinet and operating the proper silence switch. Operation of this switch shall be indicated by a trouble light and audible signal
B. When a device indicates any alarm condition the control panel must respond within three seconds. The General Alarm LED on the annunciator(s) should light and the LCD should prompt the user as to the current events. The alarm information must be stored in event memory for later review. When the alarmed device is restored to normal, the control panel shall be required to be manually reset to clear the alarm condition, except that the alarms may be silenced as programmed. An alarm shall be silenced by the silenced button at the main or by using a code and a button on the remote annunciators. When silenced, this shall not prevent the resounding of subsequent events if another event should occur (subsequent alarm feature). When alarms are silenced the silenced LED on the control panel, and on any remote annunciators shall remain lit, until the alarmed device is returned to normal.
C. When a device indicates a trouble condition, the control panel System Trouble LED should light and the LCD should prompt the user as to the current events. The trouble information must be stored in event memory for later review. When the device in trouble is restored to normal, the control panel shall be automatically reset. The trouble restore information must be stored in event memory for later review. Pushing the silence button at the main control or entering a code and pushing the silence button on the remote annunciators shall silence a trouble. When silenced, this shall not prevent the resounding of subsequent events if another event should occur.
D. Each multiplex buss loop shall be electrically supervised for opens and ground faults in the circuit wiring, and shall be so arranged that a fault condition on any loop will not cause an alarm to sound. Additionally, every addressable device connected to the multiplex buss will be supervised and individually identified if in a fault condition. The occurrence of any fault will light a trouble LED and sound the system trouble sounder, but will not interfere with the proper operation of any circuit which does not have a fault condition. Each indicating appliance circuit shall be electrically supervised for opens, grounds and short circuit faults, on the circuit wiring, and shall be so arranged that a fault condition on any indicating appliance circuit or group of circuits will not cause an alarm to sound. The occurrence of any fault will light the trouble LED and sound the system trouble sounder, but will not interfere with the proper operation of any circuit which does not have a fault condition.

PART 2 PRODUCTS
2.01 MATERIALS
A. (if existing system)
Fire Alarm Control Panel; existing
1. Provide new power supples to support required peripheral devices in the existing fire alarm control panel.
2. Installation shall be under the direct supervision of the Landlord's Fire Alarm Vendor Representative.
3. All programming shall be done by the Landlord's Fire Alarm Vendor and those related costs shall be this Contractors responsibility.
4. Existing fire alarm system is manufactured by....

A. (if NEW system)
Fire Alarm Control Panel; New
1. The FACP must be capable of expansion to a maximum of 16 total amps via bus connected expander modules that supervise low battery, loss of AC and loss of communication.
2. The FACP must be capable of supporting up to eight (8) conventional fire zones and 247 addressable points. Each multiplex buss shall be capable of supporting a maximum of 128 devices each. The communication protocol on the multiplex buss loop must be digital.
3. The panel must have a built in 32 character LCD annunciator/keypad with the capability of having an additional four supervised remote annunciators/keypads connected in the field.
4. The FACP must have a built in UL approved digital communicator. The communicator must allow local and remote up/downloading of system operating options, event history, and detector sensitivity data for addressable detectors.
5. The main communication bus shall be capable of Class A or Class B configuration with a total bus length of 5,900 feet (1,798 m).
6. The multiplex buss and Data Communication Bus (options bus) shall be wired with standard NEC 760 compliant wiring, no twisted, shielded or mid capacitance wiring is required for standard installations. All FACP screw terminals shall be capable of accepting 14 AWG (1.8 mm) to 18 AWG (1.2 mm) wire. All system wiring shall be in accordance with the requirements of NFPA 70, the National Electrical Code (NEC) and also comply with article 760 of the NEC.
7. Power Limited Wiring; for Power Limited wiring, use FPL, FPLR or FPLP approved wiring.
8. Annunciator; the main control must have a built in annunciator with a 32 character LCD display and feature LED's for General alarm, System trouble, System Silence and Power.
9. The annunciator must be able to silence and reset alarms through the use of a keypad entered code, or by just pushing the desired function key, depending on how the system is configured. The annunciators must have three levels of user codes that will allow the limitation of operating system programming to authorized individuals.
10. The digital communicator must be an integral part of the control panel and be capable of reporting all points and all zones of alarm, supervisory, and trouble as well as all system status information such as loss of AC, low battery, ground fault, loss of supervision to any remote devices with individual and distinct messages to a central station or remote station. The communicator must also be capable of up/downloading of all system programming options, Event history and Sensitivity compliance information to a PC on site or at a remote location.
11. The FACP will have two form "C" dry contacts that can be programmed for alarm, trouble notification, water flow, and supervisory.
12. A ground fault detection circuit shall be provided to detect positive and negative grounds on all field wiring. The ground fault detector shall operate the general trouble devices as specified but shall not cause an alarm to be sounded. A single ground fault will not interfere with the normal operation, such as alarm, or other trouble conditions.
13. All low voltage circuits will be protected by microprocessor controlled circuit breakers or has a self restoring circuit breaker for the following: smoke detector power, main power supply, indicating appliance circuits, battery standby power and auxiliary output.
B. Power Supply and Charger:
The entire system shall operate on 24 VDC power supply with the rated current available of 4 Amps. The FACP must have a battery charging circuit capable of complying with the following requirements: a. (60) hours of battery standby with five (5) minutes of alarm signaling at the end of this sixty (60) hour period (as required per NFPA 72 remote station signaling requirements) using rechargeable batteries with automatic charger to maintain standby sealed lead-acid batteries in a fully charged condition. The power supply shall comply with UL Standard 864 for power limiting. The FACP will indicate a trouble condition if there is a loss of AC power or if the batteries are missing or of insufficient capacity to support proper system operation in the event of AC failure. A "Battery Test" will be performed automatically every three minutes to check the integrity of the batteries. The test must disconnect the batteries from the charging circuit and place a load on the battery to verify the battery condition. In the event that it is necessary to provide additional power one or more of the model D7038 Distributed Modules shall be used to accomplish this purpose.
C. Signal Initiating Devices; furnish and install signal initiating devices as shown on the Drawings.
D. Thermodetectors 135° RR & FT
E. Smoke Detectors with addressable base. Provide smoke detectors with auxiliary contacts as required.
The detector shall be UL listed compatible with the fire alarm control panel. The smoke detector shall have a flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on solid. The LED shall flash at a 1/sec rate if the chamber is out of calibration range. The detector may be reset by actuating the control panel's reset switch. The vandal security-locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field selectable when required. All detectors shall have the "Chamber Check" feature with the addressable detectors sending a contaminated chamber signal to the FACP.
F. Manual Fire Alarm Stations shall be non-coded, break glass, double action type, with a key operated test-reset lock in order that they may be tested, and so designed that after actual Emergency Operation, they cannot be restored to normal except by use of a key. An operated station shall automatically condition itself so as to be visually detected, as operated, at a minimum distance of fifty feet, front or side. Manual Stations shall be constructed of die cast metal with clearly visible operating instructions on the front of the stations in raised letters. Stations shall be suitable for surface mounting on matching back box, or semi-flush mounting on a standard single-gang box, and shall be installed within the limits defined by the Americans with Disabilities Act (ADA) dependent on Manual Station accessibility or per local requirements.
G. Duct Photoelectric Smoke Detectors are furnished preinstalled in roof top units and wired by electrical contractor. Interface with fire alarm system through a new addressible interface module.
H. Water flow and tamper switches are to be furnished under another Section but wired by this Contractor and provided with addressable monitor modules.
I. Provide and install visual devices in all public use areas and in non public areas, such as work areas and as indicated on the drawings. The visible and audible/visible signal shall be Bosch Multi-candela signal devices with field selectable settings of 15, 30, 75, 110cd and be listed by Underwriters Laboratories Inc.
J. The notification appliance (combination audible/visible units only) shall produce a peak sound output of 90db or greater as measured in an anechoic chamber. The signaling appliance shall also have the capability to silence the audible signal while leaving the visible signal energized with the use of a single pair of wires. All visual devices shall be synchronized.
K. The visible signaling appliance shall maintain a minimum flash rate of 1 Hz or greater regardless of power input voltage. The appliance shall meet the candela requirements of the blueprints presented by the Engineer and ADA.
L. The appliance shall be polarized to allow for electrical supervision of the system wiring. The unit shall be provided with terminals with barriers for input/output wiring and be able to mount to a single gang or double gang box or double workbox with the use of an adapter plate. The unit shall have an input voltage range of 16 - 33 Volts with either direct current or full wave rectified power.
M. Furnish and install as shown on the Drawings, slave fan shutdown relays.
N. Magnetic Door Holders - Furnish and install as shown on the Drawings, semi-flush wall mounted magnetic door holders. Where wall unit is not possible to install, furnish and install closure mounted on door(s) frame.
2.02 SPRINKLER SYSTEM
A. Sprinkler water flow valves and tamper switches are furnished by other Divisions and shall be wired to the fire alarm system by this Division of the work.
2.03 Elevator (IF APPLICABLE)
A. Interface fire alarm with elevator and elevator recall system. Provide addressable interface modules for each floor recall system. Activation of smoke detector in machine room or at top or bottom of shaft shall initiate elevator recall to first floor. Activation of smoke detector on first floor shall initiate elevator recall to second floor and activation of smoke detector on second floor shall initiate elevator recall to first floor.
B. Heat detector shall be provided in machine room where sprinkled, within two feet of each sprinkler head. Interface with elevator disconnect switch to shut down power to elevator on sense of heat in machine room. Heat detectors shall operate at 135 Degrees F and sprinkler heads shall be 212 degree heads.
C. Heat detector shall be provided at top and bottom of elevator shaft room where sprinkled. Provide within two feet of each sprinkler head. Interface with elevator disconnect switch to shut down power to elevator on sense of heat in shaft. Heat detectors shall operate at 135 Degrees F and sprinkler heads shall be 212 degree heads.
PART 3 EXECUTION
3.01 SYSTEM WIRING
A. All final connections shall be made under direct supervision of Manufacturer's factory engineer. After final checkout, Owner's personnel shall be verbally instructed in use and operation of system, and shall be provided with four(4) copies of written instructions.
B. Color Coding: For fire alarm system shall match existing Building standards.
C. Prepare conduit and wiring risers, (point to point) for construction and records. Submit to municipality Fire Prevention Bureau and Landlord for approval prior to start of any work.
D. The installer shall coordinate the installation of the fire alarm equipment.
E. All conductors and wiring shall be installed according to the manufacturer's recommendations. It shall be the installer's responsibility to coordinate with the supplier, regarding the correct wiring procedures before installing any conduits or conductors.
F. System components shall be installed in accordance with the latest revisions of the appropriate NFPA pamphlets, the requirements contained herein, National Electrical Code, local and state regulations, the requirements of the fire department and other applicable authorities having jurisdiction (AHJ).
G. All wire used on the fire alarm system shall be UL Listed as fire alarm protection signaling circuit cable per National Electrical Code, Article 760. The use of FPL, FPLR or FPLP wiring for power limited applications.
3.02 WARRANTY & FINAL TEST
A. The contractor shall warrant all equipment and wiring free from inherent mechanical and electrical defects for one year (365 days) from the date of final acceptance.
B. Before the installation shall be considered completed and acceptable by the awarding authority, a test of the system shall be performed as follows:
1. The contractor's job foreman, a representative of the owner, and the fire department shall operate every building fire alarm device to ensure proper operation and correct annunciation at the control panel.
2. At least one half of all tests shall be Performed on battery standby power
3. Where application of heat would destroy any detector, it may be manually activated.
C. The communication loops and the indicating appliance circuits shall be opened in at least two (2) locations per circuit to check for the presence of correct supervision circuitry.
D. When the testing has been completed to the satisfaction of both the contractor's job foreman and construction manager, a notarized letter cosigned by each attesting to the satisfactory completion of said testing shall be forwarded to the owner and the fire department.
E. The contractor shall leave the fire alarm system in proper working order, and, without additional expense to the owner, shall replace any defective materials or equipment provided by him under this contract within one year (365 days) from the date of final acceptance by the awarding authority.
F. Prior to final test the fire department must be notified in accordance with local requirements.
3.03 AS BUILT DRAWINGS, TESTING, AND MAINTENANCE INSTRUCTIONS
A. A complete set of reproducible "as-built" drawings showing installed wiring, color coding, and wire tag notations for exact locations of all installed equipment, specific interconnections between all equipment, and internal wiring of the equipment shall be delivered to the owner upon completion of system.
B. Operating and instruction manuals shall be submitted prior to testing of the system. Three (3) complete sets of operating and instruction manuals shall be delivered to the owner upon completion. User operating instructions shall be provided prominently displayed on a separate sheet located next to the control unit in accordance with UL Standard 864.

Date: 09/22/14

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DRAWN BY: DJQ CHECKED BY: KLS/PJF
NSA PROJECT NUMBER: 2013-99
PROJECT PHASE: CD
HEI PROJECT NUMBER: R14-1941.000

ISSUE / DATE:

100% CHECKSET	07-11-2014
BID/PERMIT	08-01-2014

REVISION :

SHEET TITLE :
ELECTRICAL SPECIFICATIONS

SHEET NO :
E601