

SYSTEMS SPECIFICATIONS

Intercom 12" Analog Clock shall be hard wired and may not use battery power for its primary power source. Clock must be compatible with existing clock system. If site does not have an existing working clock system, stand-alone battery powered clocks shall be used. Stand-alone wall clock shall be American Time E58BAQD304BP Stand-alone dual face hallway clock shall be American Time E53BAQD204BP An 110v electric clock receptacle shall be installed at each clock location for future devices.

Security System Specifications Part 1 - General 2.01 Manufacturers Security System Manufacturer shall be DSC or DMP. See plans for the specific manufacturer required (no substitutions) Installer shall be certified by manufacturer to install and program the specified systems. (no substitutions) Peripheral device Manufacturers shall be according to equipment list. (No Substitutions) Cable Manufacturer shall be Genesis. (Or Equivalent) Security Systems Equipment security alarm control shall be dsc model # pc4020 or dmp model # xr550nl-g. (no substitutions) security alarm control communicator shall be dsc model # t-linkt250. dpm n/a. (no substitutions) security alarm keypad shall be dsc model # lcd4501 or dmp model # 7873. (no substitutions) security alarm keypad for all kitchen locations shall be dsc model # lcd4501 or dmp model # 7073. (no substitutions) security alarm 8 zone hardwire expander shall be dsc model # pc4108 or dmp model # 714-8. (no substitutions) security alarm 16 zone hardwire expander shall be dsc model # pc4116 or dmp model # 714-16. (no substitutions) security alarm power supply shall be dsc model # pc4204 or dmp systems = altronix model # smp3pmtcx. (no substitutions) security alarm power supply cabinet shall be dsc model # pc4051c. dmp n/a. (no substitutions) security alarm cabinet locks shall be dsc model # 11 or dmp model # 301. (no substitutions) security alarm 35X35 motion detector shall be honeywell model # dt-8035. (no substitutions) security alarm 50X60 motion detector shall be honeywell model # dt-8050. (no substitutions) security alarm window glass break sensor shall be honeywell model # fg-730. (no substitutions) security alarm door contact shall be ge model # 1076d-m. double pole double throw for all doors (no substitutions) each single door or double door shall be wired with 4 conductor wire. dmp systems shall be wired with 2 zones per single door or double door. one zone for security alarm and one zone for "door held open alert" security alarm c channel door magnets shall be gri model # mc180 security alarm surface window contact shall be alph model # ps-1541. (or equivalent approved by mps) security alarm overhead door & roof hatch contact shall be amseco model # odc-59a or for rail mount applications interlogix gq215al. (no substitutions) security alarm indoor siren shall be ademo model # wave2ex. (no substitutions) security alarm outdoor siren shall be atw model # ds301set. (no substitutions) security alarm outdoor strobe shall be amseco model # s401c. (no substitutions) Systems Installation installer shall be certified by manufacturer to install & program the specified systems. installer shall perform all programming required to complete the installation. moore public schools shall not be required to assist in any part of the installation or programming. All alarm junctions and or splices shall be soldered and insulated. All circuits and wiring shall be labeled at all terminating ends. All devices shall be mounted according to the manufactures specifications. All devices shall be properly adjusted and tested prior to job completion. All steel doors shall have wide gap contacts installed. All door contacts shall be recessed and door magnets shall be glued in place. All devices such as door contact (double doors wire as one), motion detectors, glass break detectors, etc. shall be wired individually on separate zones with end of line resistors at the devices. All air conditioning condensers accessible from the outside and roof shall have pressure switches installed on the high pressure side and be connected to the security alarm. Protective grommets shall be installed on all conduits to protect wire. All devices shall be wired with NON shielded cable. All panels, power supplies and modules shall be grounded. All wire shall be run in J hooks above ceiling with a minimum space of 4" from ceiling deck. All wire shall be in separate pathways 6" from other system wiring. No wire ties allowed. No wire shall be run between the red iron and roof deck. All wire visible from the finished floor shall be covered in decorative wire molding. All wire ran between building shall be in conduit and shall be non shielded direct burial cable. It shall be a minimum of 4 conductor 16 AWG copper. Installer shall have a commercial burglar technician on the job site at all times during installation. Installer will work closely with the electrical and or masonry contractors to ensure conduit, back boxes, door frame access conduit, etc. are in the proper locations and accessible. Follow and adhere to installation practices specified by NFPA-70 National Electric Code, Edition 2008.

Install all components as directed by Manufacturer's installation guidelines. All products shall bear the mark of UL or ETL for performance level. System installation shall meet all applicable Local/State codes and safety requirements where project is located. All products shall be new and un-used in original packaging. 1.03.02 Bidder/Installer Qualifications Bidding contractor shall be a local licensed Commercial Burglar Alarm Company with licensed Commercial Burglar Alarm technician(s) on staff. bidding contractor shall be certified by manufacturer to install & program the specified systems. bidding contractor shall perform all programming required to complete the installation. moore public schools shall not be required to assist in any part of the installation or programming. bidding contractor shall have at least one year experience installing dsc/dmp equipment. bidding contractor shall have a minimum of 5 years experience installing commercial burglar alarms. bidding contractor shall be able to provide insurance at the request of the owner. bidding contractor shall have a commercial burglar technician on the job site at all times during installation 1.04 Delivery, Storage, and Protection Contractor shall ensure that materials delivery to work area shall be coordinated with construction site manager responsible for materials distribution to all trades. Contractor is responsible for all materials, tools and vehicles left on the job site. Follow Manufacturer's recommendations for handling of materials. 1.05 Project Conditions 1.05.01 Environmental Requirements Contractor shall ensure that any pollutants produced during the Work are disposed off according to local, state or national regulations. Follow the most stringent guidelines. It is preferred that the Contractor recycle any used or un-used components during the course of the construction project. 1.06 Sequencing Contractor shall coordinate with Owner's project manager on sequencing of various trades and construction teams for the lifecycle of the project. 1.07 Scheduling Contractor shall provide a detailed construction schedule with hard dates for completion of roughing in cables, terminations and testing once scheduling sequence has been determined to the Owner's Project Manager. 1.08 Warranty Contractor shall provide a 1 year parts and labor warranty against defective workmanship and/or system component failure. (1 year warranty shall begin at job completion) Part 2 - Products 2.02 Source Quality Control Materials shall be purchased from Distributors authorized by system Manufacturers to sell new and un-used components. Part 3 - 3.01 Field Quality Control Contractor shall make available all ceiling and termination work for inspection by Manufacturer's representative or owner's representative. Contractor shall replace all defective components. 3.02 Adjusting No additional work outside of the contract scope of work shall be completed without the approval of the Owner or Owner's representative. 3.03 Cleaning Contractor shall sweep and mop the floors of all equipment rooms or connection point closets prior to turnover to the Owner. 3.04 Protection It is the responsibility of the Contractor to ensure equipment is protected from dust and water during the project with appropriate materials. Remove all protective covers and protective materials from equipment prior to turnover to Owner. 3.05 Schedules Coordinate work with Owner's project manager and follow scheduling sequence as established by Owner's project manager. It is recommended that the Contractor schedule closely with any other systems contractor to ensure turnover date is met. Contractor bidding will work closely with the electrical and or masonry contractors to ensure conduit, back boxes, door frame access conduit, etc. are in the proper locations and accessible. End of Section 1.02 Submittals 1.03.01 Prior to installation Show compete map of system design for approval by Owner. Security System Installation Completion Check List Part 1 - General 1.01 Section Includes Security System Completion Check List 1.02 Completion Check List A map of the entire system showing device numbers and wire routes has been left inside the main control panel and a copy has been given to Jack Phillips with MPS. All panel programming has been checked and is correct. Panel(s) has been tested for proper operation. All zones have been tested to verify proper description at keypad. 1.03 Quality Assurance 1.03.01 Qualifications

All zones have been tested to verify proper reporting to the monitoring station. All zones have been tested to verify they are in their proper partition(s). All sirens and strobes have been tested for proper operation. All motion detectors have been adjusted for proper sensitivity and have been walk tested. All motion detectors have been sealed to prevent air and insects from entering. All glass break detectors have been adjusted for proper sensitivity and tested. All cabinets are labeled on the outside with module numbers and zone numbers. All cabinets are labeled on the inside with module numbers by the corresponding module and zone descriptions. All user card and key fobs have been programmed and tested for proper partition access. The monitoring station has the correct account information such as call list, zone descriptions etc. End of Section 1.09 References NFPA-70 National Electrical Code 2008 edition NFPA-72 National Fire Alarm Code UL 1666 - Standard for Safety of Flame Propagation Height NFPA 262 - Flame Travel and Smoke of Wires and Cables Local Authority Having Jurisdiction 1.10 Definitions AWG - American Wire Gauge BICSI - Building Industry Consulting Service International EIA - Electronics Industry Alliance FCC - Federal Communications Commission NECA - National Electrical Contractors Association NFPA - National Fire Protection Agency UL - Underwriters Laboratory Access Control System Specifications Access Control Equipment Part 1 - Manufacture Access Control Manufacturer shall be Keyscan. (No Substitutions) Peripheral device Manufacturers shall be according to equipment list. (No Substitutions) Cable Manufacturer shall be Genesis. (Or Equivalent) 1.01 Access Control Equipment Description Access Control System Manufacture shall be Keyscan (No Substitutions) Access Control Management Software - Aurora (This software is already installed and in use. It is listed for information purposes only) Reader Control Panels shall be (No Substitutions) Keyscan CA 250 = 2 Door Keyscan CA 4500 = 4 Door Keyscan CA 8500 = 8 Door Each Reader Control Panel shall be equipped with (2) 16VAC 40VA Transformer Each Reader Control Panel shall be equipped with (1) 12V 7AH Battery One 2,4 or 8 Door Reader Control Panel per site shall be equipped with (1) Keyscan Netcom2p module. If the site has an existing 2,4 or 8 Door Control Panel with a Netcom2P already installed, then a Netcom 2P is not needed and CIM or CIM-Link modules shall be used to connect the new Control Panel to the existing Control Panel. All Reader Control Panels shall be linked together with either CIM or CIM-Link modules. Each new Reader Control Panel shall be capable of 2 doors minimum Elementary School Card Readers shall be (No Substitutions) HID 13.56 MHz SINGLE GANG BACK BOX MOUNT READ ONLY CONTACTLESS SMART CARD READER KEYSKAN HIGH SECURITY FORMAT C/W 36 BIT WIEGAND OUTPUT- Part # KR40SE (For use in all locations except where mullion mount reader size is required to fit) HID 13.56 MHz MULLION MOUNT READ ONLY CONTACTLESS SMART CARD READER - KEYSKAN HIGH SECURITY FORMAT C/W 36 BIT WIEGAND OUTPUT- Part # KR10SE (For use on mullion mount locations where single gang reader KR40SE is too large) HID 13.56 MHz SINGLE GANG BACK BOX MOUNT READ ONLY C/W KEYPAD CONTACTLESS SMART CARD READER HIGH SECURITY FORMAT C/W 36 BIT WIEGAND OUTPUT- Part # KRK40SE (Do not use unless noted) Jr High & High School Card Readers shall be (No Substitutions) HID 13.56 MHz SINGLE GANG BACK BOX MOUNT READ ONLY CONTACTLESS SMART CARD READER - HID ICLASS SE R40 Part # 920NTNNEK00000 (For use in all locations except where mullion mount reader size is required to fit) HID 13.56 MHz MULLION MOUNT READ ONLY CONTACTLESS SMART CARD READER - FULL MULLION HID ICLASS SE R16 Part # 910NTNNEK00000 or MINI-MULLION HID ICLASS SE R10 Part # 900NTNNEK00000 (For use on mullion mount locations where single gang reader R40 is too large) All Readers require 22/6 STR OAS Wire Elementary, Jr High & High School Access Control Cards shall be (No Substitutions) Access Control Strikes and locks shall be (No Substitutions unless approved by Moore Public Schools) RCI 0163X32D 1/2 inch Rim RCI 0162X32D 3/4 inch Rim RCI F0162X32D 3/4 inch Rim Fire Rated RCI F2164X32D Where storm doors are installed, install compatible power motor and power supply to activate door hardware unless installed by door contractor. Egress Motions shall be (No Substitutions)

Bosch DS160 or Honeywell IS310 Door Contacts shall be GE Model # 1076D-M Double Pole Double Throw (To be utilized for Access Control and Security Alarm) (See security alarm specs) Power Supply for locking hardware **Power supply in Keyscan Controller is for the Control and Readers only. Power Supplies shall be sized to meet requirements of Strikes and locks with a maximum of 80% amp load. Power Supply shall have form "C" contacts for supervision that is connected to Keyscan Control Aux Input. 24 VDC Securtron-AccuPower-AQM20-8C/16C, AQDS-8C or equal. 2.01 Systems Installation All junctions and or splices shall be soldered and insulated. All circuits and wiring shall be labeled at all terminating ends. All devices shall be mounted in accordance to the manufactures specifications. All devices shall be properly adjusted and tested prior to job completion. All controllers shall be labeled outside with their corresponding modules and installed with lock. All controllers shall have a Cat 6 network cable Blue in color ran from the nearest network cabinet and labeled with drop number. All card readers shall be labeled with their corresponding reader number. All doors with access control shall have contacts installed for door status indication. Steel doors shall have wide gap door contacts installed. All doors with access control shall have egress motions installed to allow system to detect proper egress. (including doors with panic exit hardware.) Protective grommets shall be installed on all conduits to protect wire. All panels, power supplies and modules shall be grounded. All wire shall be run in J hooks above ceiling with a minimum space of 6" from ceiling deck. All wire shall be in separate pathways 6" from other system wiring. No wire ties allowed. No wire shall be run between the red iron and roof deck. All wire visible from the finished floor shall be covered in decorative wire molding. All wire ran between building shall be in conduit and shall be direct burial cable. Installer shall have a licensed Access Control technician on the job site at all times during installation. Installer will work closely with the electrical and or masonry contractors to ensure conduit, back boxes, door frame access conduit, etc. are in the proper locations and accessible. Follow and adhere to installation practices specified by NFPA-70 National Electric Code, Edition 2008. Follow and adhere to installation practices specified by the Manufacturers. 3.01 Bidder/Installer Qualifications Bidding contractor shall be a local licensed Access Control Company with licensed Access Control technician(s) on staff. Bidding contractor shall have at least one year experience installing Keyscan Access Control Systems. Bidding contractor shall have a minimum of 5 years experience installing commercial Access Control Systems. Bidding contractor shall be able to provide insurance at the request of the owner. Bidding contractor shall have a commercial Access Control technician on the job site at all times during installation. 3.01.1 Submittals NY drawn by NY checked by APRIL 2023 date revisions 3.01.2 Prior to installation Show compete map of system design for approval by Owner. 3.01.3 Prior to final acceptance Provide a soft CAD copy As-Built showing layout of Controller Panel, Card Readers, Power Supplies and all mounted equipment upon Substantial Completion. Ensure all warranties specify that the Owner is entitled to all rights guaranteed by the warranty for various components. 3.02 Quality Assurance 3.02.1 Qualifications Install all components as directed by Manufacturer's installation guidelines. All products shall bear the mark of UL or ETL for performance level. System installation shall meet all applicable Local/State codes and safety requirements where project is located. All products shall be new and un-used in original packaging. Access Control Installation Completion Check List Part 4 - General 4.01 Section Includes Access Control System Completion Check List 4.02 Completion Check List A map of the entire system showing device numbers and wire routes has been left inside the main controller panel and a copy has been given to Rodney Cobb with MPS. All system programming has been checked and is correct. Panel(s) has been tested for proper operation. All card readers are labeled with reader number and have been tested to verify proper operation. All user card and key fobs have been programmed into system and tested to verify proper operation. All egress motion detectors have been adjusted for proper sensitivity and have been walk tested. All controllers are labeled on the outside with module numbers. All controllers are labeled on the inside with module numbers by the corresponding module.



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STRUCTURAL

SALAS O'BRIEN

MECHANICAL / ELECTRICAL

NY drawn by NY checked by APRIL 2023 date revisions

MOORE PUBLIC SCHOOLS BOARD OF EDUCATION MOORE, OKLAHOMA



OFFICE ADDITION - SOUTHGATE ELEMENTARY SCHOOL

sheet no:

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