

FIRE ALARM NOTES:

- 1. THE CONTRACTOR SHALL DEMOLISH, FURNISH, INSTALL EQUIPMENT, MATERIALS, TOOLS, LABOR, PROGRAMMING, DRAWINGS, CALCULATIONS, TESTING AND ALL ASSOCIATED DOCUMENTATION FOR A COMPLETE PEER TO PEER, GLOBAL ANNUNCIATING, FIBER OPTIC NETWORKED FIRE ALARM SYSTEM WITH MUNICIPAL SIGNAL TRANSMISSION OF ALARMS AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS FOR THE PORTLAND INTERNATIONAL JETPORT EXPANSION AND EXISTING FACILITY.
- 2. THE SCOPE OF WORK SHALL INCLUDE THE FOLLOWING:
 - A. ONE (1) SIMPLEXGRINNELL 4100U FACP, ASSOCIATED TRANSPONDER CABINETS, BOOSTER POWER SUPPLIES, AMPLIFIERS, INITIATING DEVICES, NOTIFICATION APPLIANCES, CONTROL AND MONITOR MODULES, FIBER MODEM AND ASSOCIATED RELAYS FOR BUILDING SAFETY INTERFACES FOR TERMINAL EXPANSION.
 - B. SIMPLEXGRINNELL FIRE COMMAND ANNUNCIATOR PANEL CONSISTING OF A INFOALARM COMMAND CENTER, FIRE DEPARTMENT COMMUNICATION PHONE WITH 6 SPARE REMOTE HEADSETS AND PAGING ZONE MODULE IN TERMINAL EXPANSION
 - C. TWO WAY FIRE DEPARTMENT COMMUNICATIONS IN TERMINAL EXPANSION
 - B. TWO (2) SIMPLEXGRINNELL 4100U FACP WITH FIBER MODEM FOR REPLACEMENT OF OF TWO EXISTING SIMPLEXGRINNELL 4020 FACPS IN EXISTING LOCATIONS.
 - B. SIMPLEXGRINNELL TRUE SIGHT WORKSTATION IN THE EXISTING OPERATIONS COMMUNICATION CENTER (OCC).
 - C. STROBES WITH EMERGENCY VOICE EVACUATION AND PAGING CAPABILITY IN TERMINAL EXPANSION
 - E. ONE DIGITIZE DET-68 INDOOR MASTERBOX FOR MUNICIPAL FIRE ALARM SIGNAL TRANSMISSION ADJACENT TO EXISTING MASTERBOXES.
- 3. THE PROJECT SHALL BE BASED ON A MIXED USE, NON-SEPARATED, A-3 USE GROUP OCCUPANCY IN ACCORDANCE WITH THE FOLLOWING CODES, STANDARDS, TESTING LABORATORIES AND UNDERWRITING AGENCY:
 - A. CITY OF PORTLAND BUILDING REGULATIONS (INTERNATIONAL BUILDING CODE 2003 AS AMENDED)
 - B. CITY OF PORTLAND FIRE CODE, 2005 EDITION
 - C. NFPA 1, UNIFORM FIRE CODE, 2006 EDITION
 - D. NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS 2007 EDITION.
 - E. NFPA 14 STANDARD FOR THE INSTALLATION OF STANDPIPE, PRIVATE HYDRANTS AND HOSE SYSTEMS, 2007 EDITION
 - F. NFPA 70, NATIONAL ELECTRIC CODE, 2005 EDITION
 - G. NFPA 72, NATIONAL FIRE ALARM CODE, 2007 EDITION
 - H. NFPA 90A, STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS, 2002 EDITION
 - I. NFPA 101, LIFE SAFETY CODE, 2006 EDITION
 - J. NFPA 415, AIRPORT TERMINAL BUILDINGS, FUELING RAMP DRAINAGE, AND LOADING WALKWAYS, 2008 EDITION
 - K. ADAAG, ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES, 2002 EDITION
 - L. UL LISTED PRODUCTS FOR FIRE ALARM USE CONSIDERING ENVIRONMENTAL CONDITIONS
 - M. FM GLOBAL APPROVED PRODUCTS
 - N. SIMPLEXGRINNELL PRINTED INSTALLATION INSTRUCTIONS
- 4. THE EXISTING SYSTEM AT THE AIRPORT IS A TWO NODE SIMPLEXGRINNELL 4020 NETWORK CONSISTING OF ADDRESSABLE AND CONVENTIONAL DEVICES AND TWO ANNUNCIATOR PANELS. THE EXISTING SYSTEM IS PROGRAMMED WITH ALARM VERIFICATION AND ALL NEW PROGRAMMING SHALL BE CONSISTENT WITH THE EXISTING SEQUENCE OF OPERATIONS AND TIMERS.
- 5. PRIOR TO THE START OF CONSTRUCTION AND TO SHOP DRAWING SUBMISSION, THE CONTRACTOR SHALL SCHEDULE A MEETING WITH THE CONSTRUCTION MANAGER AND THE CITY OF PORTLAND FIRE DEPARTMENT TO REVIEW THE PROPOSED ALARM PROGRAMMING MATRIX. IN THE EVENT THAT THE FIRE DEPARTMENT REQUIRES SOFTWARE CHANGES THAT DEVIATE FROM THE ALARM MATRIX PROVIDED IN THIS PACKAGE, THEN IT SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A COMPLETE PROJECT PHASING PLAN THAT SHALL BE SUBMITTED IN THE SHOP DRAWING PACKAGE FOR APPROVAL. PLEASE REFER TO THE PROJECT PHASING GUIDELINE ON THIS SHEET FOR SPECIFIC CONSTRUCTION SEQUENCING CRITERIA.
- 7. ALL WIRE AND CABLE SHALL HAVE A WIRE MARKER ON EACH END, BRADY OR EQUAL, ALL MARKERS SHALL BE TYPED, SHIELDS ON ALL SHIELDED CABLE SHALL BE CONTINUOUS, GROUNDED AT THE FIRE ALARM CONTROL PANEL ONLY, AND ISOLATED FROM GROUND ELSEWHERE.
- 8. WIRE AND CABLE SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING (EMT) AT ALL LOCATIONS INDOORS AND RIGID METAL CONDUIT OUTDOORS. THE MINIMUM CONDUIT SIZE SHALL BE 3/4".
- 9. CIRCUITS SHALL BE INSTALLED IN SEPARATE CONDUITS PER CLASS AND BY FUNCTION IN ACCORDANCE WITH NFPA 70 SECTION 725 AND 760 AND SIMPLEXGRINNELL REQUIREMENTS.
 - A. CLASS 1 AND NON-POWER-LIMITED FIRE ALARM CIRCUITS SHALL BE PERMITTED TO OCCUPY THE SAME CABLE ENCLOSURE, OR RACEWAY WITHOUT REGARD TO WHETHER THE INDIVIDUAL CIRCUITS ARE ALTERNATING CURRENT OR DIRECT CURRENT. PROVIDED ALL CONDUCTORS ARE INSULATED FOR THE MAXIMUM VOLTAGE OF ANY CONDUCTOR IN THE ENCLOSURE OR RACEWAY.
 - B. POWER-SUPPLY AND FIRE ALARM CIRCUIT CONDUCTORS SHALL BE PERMITTED IN THE SAME CABLE ENCLOSURE, OR RACEWAY ONLY WHERE CONNECTED TO THE SAME EQUIPMENT.
- 10. ACKNOWLEDGE, SILENCE AND RESETTING CAPABILITY FOR ALL NOTIFICATION AND INITIATING DEVICES SHALL BE AVAILABLE AT ALL FACPS AND ANNUNCIATOR.
- 11. VISUAL NOTIFICATION APPLIANCES SHALL BE SET TO THE CANDELA RATING ASSIGNED ON THE DRAWINGS.
- 12. SPEAKERS SHALL BE TAPPED AT ONE (1) WATT OR GREATER FOR INTELLIGIBILITY AS DETERMINED BY THE PORTLAND FIRE DEPARTMENT AT SUBSTANTIAL COMPLETION.
- 13. WHERE A FIRE ALARM SYSTEM COMPONENT CANNOT BE LOCATED AS SHOWN ON THE DRAWINGS DUE TO PHYSICAL CONDITIONS, THEY MAY BE MOVED UPON APPROVAL BY THE ENGINEER. DEVICES MOUNTED FOR THE CEILING SHALL BE UL LISTED FOR CEILING MOUNTED APPLICATIONS.
- 14. EXISTING CIRCUIT MODIFICATIONS SHALL BE MADE IN ACCORDANCE WITH THE DETAILS IN THIS PACKAGE.
- 15. FIRE ALARM CONDUITS SHALL BE LABELED AND IDENTIFIED PER THE PROJECT SPECIFICATIONS.
- 16. NOTIFICATION APPLIANCES LOCATED IN BAGGAGE MAKE-UP AREAS SHALL BE PROTECTED WITH UL LISTED WIRE GUARDS.
- 17. SYSTEM MANUFACTURER TO INCLUDE EXISTING INITIATING DEVICES IN NEW ALARM PROGRAMMING SEQUENCE. EXISTING INITIATING DEVICES SHALL BE GROUPED BY NEW AND EXISTING FIRE PROTECTION ZONES.
- 18. NEW AND EXISTING FIRE PROTECTION ZONES SHALL BE SHOWN ON TRUE SIGHT WORKSTATION. ANY CONDITION IN THE FIRE SYSTEM SHALL BE GRAPHICALLY SEGREGATED BY FIRE PROTECTION ZONE. NEW SPRINKLER POINTS SHALL SHOW POINT CONDITION IN THE AREA IN WHICH THE DEVICE SERVES AS WELL AS ITS PHYSICAL LOCATION.
- 19. STROBES SHALL BE SYNCHRONIZED PER NFPA 72.
- 20. CLASS A CIRCUIT SHALL BE SEPARATED BY 10 FT MINIMUM OR AS APPROVED BY THE ENGINEER. CONDUIT ROUTES SHALL BE SHOWN ON SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION.
- 21. ALL NEW CONDUITS AND JUNCTION BOXES ARE TO BE CONCEALED IN FINISHED AREAS AND SURFACE MOUNTED IN BAGGAGE MAKE UP AREAS UNLESS OTHERWISE NOTED.
- 22. ALL CONDUIT SHALL BE PERPENDICULAR OR PARALLEL TO BUILDING LINES.
- 23. CLASS A CIRCUITS SHALL BE SEPARATED BY A MINIMUM OF 10 FT.
- 24. FIRE ALARM SYSTEM WIRE SPECIFICATION SHALL BE AS FOLLOWS:

CIRCUIT TYPE	WIRE TYPE	CIRCUIT CLASS
ADDRESSABLE INITIATING CIRCUITS	16 AWG/2 COND. TWISTED SHIELDED	B
FACP NETWORK CIRCUIT	MULTIMODE 50/125µm FIBER	A
DATA RISERS	14 AWG/2 COND. TWISTED	A
DIGITAL AUDIO RISER	14 AWG/2 COND. TWISTED	A
SPEAKER CIRCUITS	14 AWG/2 COND. TWISTED	A
ADDRESSABLE STROBE	14 AWG/2 COND. TWISTED	A
CONTROL CIRCUITS	16 AWG/2 COND. TWISTED	B
MONITORING CIRCUITS	16 AWG/2 COND. TWISTED	B
ANNUNCIATOR SLC	14 AWG/2 COND. TWISTED	A
ANNUNCIATOR POWER	12 AWG/2 COND. TWISTED	A
FIRE DEPARTMENT COMM. PHONE	18 AWG/2 COND. TWISTED SHIELDED	B

- 25. EACH INITIATING DEVICE SHALL BE PROGRAMMED WITH A DESCRIPTION INDICATING FUNCTION I.E. SPRINKLER ZONE ## AND LOCATION BY ROOM NAME AND NUMBER.
- 26. ALL DEVICES SHALL HAVE ID TAGS AS SHOWN ON ALL PLAN AS DESCRIBED ON SYMBOL SHEET.
- 27. PROGRAM THE FIRE ALARM SYSTEM IN ACCORDANCE WITH FIRE ALARM I/O MATRIX PROVIDED IN FA12.02 AND THE FOLLOWING TABLE:

DEVICE TYPE	SIGNAL TRANSMISSION
MANUAL PULL STATION	ALARM
SMOKE DETECTOR	ALARM
HEAT DETECTOR	ALARM
WATERFLOW SWITCH	ALARM
PRESSURE SWITCH	ALARM
LOW AIR SWITCH	SUPERVISORY
TAMPER SWITCH	SUPERVISORY
DUCT SMOKE DETECTOR	SUPERVISORY
BHS DOOR CLOSURE	SUPERVISORY

- 28. ADDRESSABLE STROBES TO BE PROGRAMMED AND GROUPED TO CORRESPOND WITH SPEAKER CIRCUITS.
- 29. PROGRAM AND LABEL THE INFOALARM COMMAND CENTER TO HAVE THE FOLLOWING:
 - A. FIRE DRILL
 - B. SECURITY DOOR RELEASE BYPASSES
 - C. SECURITY DOOR RELEASE
 - D. CITY DISCONNECT
 - E. AIR HANDLING UNIT 1 & 2 SHUTDOWN BYPASS
 - F. ELEVATOR RECALL AND SHUNT TRIP BYPASS
- 31. THE FIRE ALARM SYSTEM SHALL BE ARRANGED SO ONE MASTER BOX DOES NOT SERVE MORE THAN 100,000 SQUARE FEET OF TOTAL FIRE AREA.
 - A. LEVELS ONE (1) THROUGH TWO (2), LEVEL (3), AND LEVELS FOUR (4) THROUGH FIVE (5) IN THE TERMINAL EXPANSION SHALL BE PROGRAMMED INDEPENDENTLY FOR A TOTAL OF 2 ZONES FOR THE MASTER BOX.
- 32. THE TERMINAL EXPANSION SHALL BE PROVIDED WITH A "KNOX BOX" WITH MAKE, MODEL AND SIZE AS DETERMINED BY THE PORTLAND FIRE DEPARTMENT. KNOX BOX SHALL BE LOCATED AS SPECIFIED BY THE FIRE DEPARTMENT. ALL KEYS REQUIRED TO OPERATE THE FIRE ALARM SYSTEM SHALL BE PLACED WITHIN THIS BOX.
- 33. NO WORK SHALL BE DONE ON ANY SPRINKLER SYSTEM OR FIRE DETECTION SYSTEM TIED TO THE CITY WITHOUT FIRST NOTIFYING THE DISPATCH CENTER TO PREVENT FALSE ALARMS. TELEPHONE: 874-8576
- 34. ALL EQUIPMENT INSTALLATIONS SHALL BE IN COMPLIANCE WITH APPLICABLE RULES AND REGULATIONS OF THE CITY OF PORTLAND FIRE CODE. THE INTERPRETATION OR APPLICATION OF THE CITY OF PORTLAND FIRE CODE SHALL BE RESOLVED BY THE FIRE MARSHALL BEFORE THE CONTRACTOR PROCEEDS WITH THE INSTALLATION.
- 35. AFTER ACCEPTANCE AND PRIOR TO OCCUPANCY THE INSTALLER SHALL PROVIDE AN ELECTRONIC DRAWING OF THE FIRE ALARM SYSTEM IN A FORMAT TO BE DETERMINED BY THE FIRE MARSHALL.
- 36. ALL CONTROL EQUIPMENT MUST HAVE TRANSIENT PROTECTION DEVICES TO COMPLY WITH UL864 REQUIREMENTS.
- 37. ALL APPLICATIONS FOR "FIRE ALARM PERMITS" SHALL BE MADE AT THE BUILDING INSPECTION OFFICE ON FORMS PROVIDED BY THE FIRE PREVENTION BUREAU. ALL INFORMATION REQUESTED ON THE FORMS SHALL BE COMPLETED WHEN APPLICABLE TO THE PROPOSED INSTALLATION AND ALL SUPPORTIVE DOCUMENTATION PROVIDED BEFORE THE PERMIT CAN BE REVIEWED.
- 38. THE FOLLOWING SHALL BE PROVIDED PER THE CITY OF PORTLAND FIRE DEPARTMENT:
 - A. COMPLETE DESCRIPTIVE DATA INDICATING "UL" LISTINGS FOR ALL SYSTEM COMPONENTS.
 - B. A COMPLETE DESCRIPTION OF THE SEQUENCE OF OPERATION.
 - C. A COMPLETE SYSTEM WIRING DIAGRAM FOR ALL COMPONENTS BEING CONNECTED TO THE SYSTEM.
 - D. FLOOR PLANS INDICATING THE PLACEMENT OF ALL EQUIPMENT.
 - E. ANNUNCIATOR DETAILS SHOWING THE LABELING OF ALL ZONES.
 - F. BATTERY CALCULATIONS.
- 40. DETECTION DEVICES LOCATED WITHIN CONCEALED SPACES OR SPACES DEEMED INACCESSIBLE BY THE CITY OF PORTLAND FIRE DEPARTMENT SHALL HAVE AN INDICATOR VISUAL TO THE FIREFIGHTER FROM ALL NORMALLY OCCUPIED SPACES.
- 41. DEFINED FIRE RATED EXIT SYSTEMS SHALL BE PROTECTED WITH SMOKE DETECTORS.
- 42. A GENERAL EVACUATION THROUGHOUT ALL FLOORS OF ALL BUILDINGS CONNECTED TO THE PORTLAND INTERNATIONAL JETPORT SHALL BE PROVIDED UPON ALL FIRE ALARMS UNLESS OTHERWISE APPROVED BY THE CITY OF PORTLAND FIRE DEPARTMENT.
- 43. A PRERECORDED EVACUATION MESSAGE SHALL USE A FEMALE VOICE AND SHALL STATE: ATTENTION PLEASE! THE FIRE ALARM SYSTEM HAS DETECTED AN EMERGENCY CONDITION WITHIN THE BUILDING. PLEASE PROCEED TO THE NEAREST STAIRWAY AND EXIT THE BUILDING. DO NOT USE THE ELEVATORS.
- 44. RE-ACCEPTANCE OF THE EXISTING FIRE ALARM SYSTEMS IS REQUIRED. A RECORD OF COMPLETION FOR EACH FACP SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72.
- 45. AT THE CONCLUSION OF THE PROJECT, ALL EXISTING PANELS THAT ARE NOT BEING RE-USED FOR THE 4100U FIRE ALARM SYSTEM SHALL BE REMOVED IN ITS ENTIRETY, INCLUDING ANY ABANDONED CONDUIT AND WIRING BACK TO ITS SOURCE. THE CONTRACTOR.

FIRE ALARM SYSTEM CONVERSION METHOD:

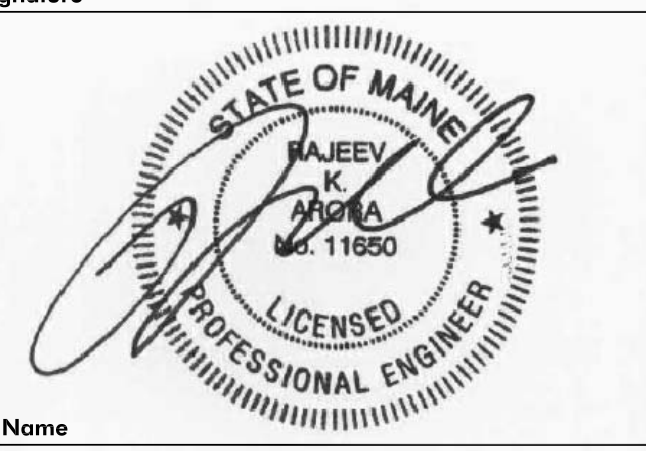
- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL LOCATIONS FOR NEW FIRE ALARM EQUIPMENT.
- 2. FINAL ROOM LAYOUTS AND PANEL LOCATIONS SHALL BE SHOWN ON SHOP DRAWINGS.
- 3. THE REPLACEMENT/CONVERSION METHOD SHALL BE AS FOLLOWS:
 - A. PROVIDE 4020 SOFTWARE, EXISTING PROGRAMMING/POINTS LIST, EXISTING SEQUENCE OF OPERATION, AND HISTORY LOG WITH FIRE ALARM SUBMITTAL
 - B. SIZE NEW 4100U PANELS AND AUXILIARY CABINETS AND MOUNT AS SHOWN ON THE APPROVED SHOP DRAWINGS
 - C. INSTALL AND PROGRAM THE NEW 4100U PANEL AND ASSOCIATED ANNUNCIATOR TO ACT AS A SLAVE PANEL TO THE 4020 NODE. INSTALL NECESSARY INPUTS AND OUTPUTS BETWEEN 4020 AND 4100U PANELS TO COMMUNICATE ALARM, SUPERVISORY AND TROUBLE BETWEEN BOTH PANELS, PER THE EXISTING FIRE ALARM PROGRAMMING MATRIX.
 - D. CONNECT EXISTING CONVENTIONAL NAC CIRCUITS TO 4100U NAC CIRCUITS.
 - E. PROGRAM TRUE SIGHT WORKSTATION.
 - F. CONVERT 4020 ADDRESSABLE CONVENTIONAL SLC CIRCUITS TO 4100U SLC CIRCUITS.
 - G. LOCAL INTERFACE/FINAL TEST ALL NOTIFICATION AND INITIATING POINTS ASSOCIATED WITH THE SYSTEM
 - H. MODIFY AND PROGRAM CLASS 'A' NETWORK RING TO INCORPORATE NEW PANEL
 - I. PROGRAM AND DOWNLOAD TRUE SIGHT WORKSTATION.
 - J. LOCAL INTERFACE/FINAL TEST ALL INPUT/CONTROL POINTS ASSOCIATED WITH THE SYSTEM
 - K. REMOVE EXISTING 4020 FIRE ALARM PANELS.

PROJECT PHASING GUIDELINES:

- 1. ALL WORK THAT WILL REQUIRE ANY PART OF THE FIRE ALARM SYSTEM TO BE OUT OF SERVICE WILL NEED TO BE PERFORMED BETWEEN THE HOURS OF 12 AM AND 4 AM. ALL WORK IN THE PUBLIC AREAS SHALL ALSO BE REQUIRED TO BE PERFORMED BETWEEN THE HOURS OF 12 AM AND 4 AM. WORK DONE ON THE THIRD SHIFT WILL REQUIRE A TENANT ADVISORY AND COORDINATION WITH THE RESPECTIVE FLIGHT SCHEDULES AND AIRPORT OPERATIONS.
- 2. CONTRACTOR SHALL COORDINATE WITH AIRPORT ENGINEERING AND PREPARE A SCHEDULE OF SYSTEM SHUTDOWNS (AREAS TO BE AFFECTED) IN THE TWO (2) WEEK LOOK AHEAD SCHEDULE AS INDICATED BELOW. REQUESTS FOR SYSTEM SHUTDOWNS NEED TO BE SCHEDULED A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF THE EVENT. COORDINATION OF SYSTEM SHUTDOWNS SHALL BE THRU PWM ENGINEERING REPRESENTATIVE. DUE TO CHANGES IN WEATHER AND AIRPORT OPERATIONS THE AMOUNT OF TIME ALLOWED FOR THE SYSTEM TO BE SHUTDOWN WILL BE AT THE DISCRETION OF THE PWM ENGINEER. ALSO, PWM WILL ADVISE INSURANCE UNDERWRITER OF SYSTEM SHUTDOWN AREAS AND DURATION AS REQUIRED, BASED ON CONTRACTOR'S SHUTDOWN SCHEDULE.
- 3. THE CONTRACTOR SHALL UPDATE HIS SCHEDULE AND PHASING PLAN ON A MONTHLY BASIS, FOR SUBMISSION TO PWM ENGINEERING. A TWO (2) WEEK LOOK AHEAD WILL ALSO BE REQUIRED, EVERY TWO (2) WEEKS.
- 4. AT NO TIME, SHALL MORE THAN ONE NODE BE PUT OUT OF SERVICE IN ANY MANNER OR AT ANY TIME. THE CONTRACTOR SHALL PERFORM WORK ON, NO MORE THAN ONE NODE AT A TIME FROM START OF REPLACEMENT. PRIOR TO EACH NODE BEING PUT BACK INTO SERVICE AT THE CONCLUSION OF EACH PHASE, A FULL TEST OF ALL DEVICES AND APPLIANCES WILL BE PERFORMED FOR THE PWM TO ACCEPT AND APPROVE.
- 5. THE CONTRACTOR SHALL BE REQUIRED TO CONDUCT A 4100U TRAINING SESSION AT THE START OF INSTALLATION FOR SELECT PERSONNEL AS DICTATED BY PWM ENGINEERING. PWM MAINTENANCE WILL HAVE TO BE NOTIFIED TWO (2) WEEKS IN ADVANCE FOR TRAININGS TO BE PROVIDED FOR EACH SHIFT PERSONNEL ON ALL THREE (3) WORK SHIFTS.
- 6. THE PHASING PLAN IS A GUIDELINE AND DOES NOT CONSTITUTE CONTRACTOR MEANS AND METHODS. THIS PHASING PLAN/SCHEDULE IS PROPOSED ONLY AND IS INTENDED TO PROVIDE GUIDANCE TO THE CONTRACTOR AS TO HOW PWM ENGINEERING EXPECTS WORK TO PROCEED.
- 7. CONTRACTOR SHALL REVIEW THE ENTIRE PROJECT AND SUBMIT A PHASING PLAN THAT MEETS THE REQUIREMENTS OF THE DRAWINGS, SPECIFICATIONS AND SUGGESTED PHASING PLAN TO PWM ENGINEERING FOR APPROVAL PRIOR TO START OF WORK.
- 8. THE CONTRACTOR SHALL PREPARE AND SUBMIT FINAL WORK SCHEDULE AND PHASING PLAN TO THE PWM ENGINEER WITHIN TEN (10) WORKING DAYS FROM THE NTP.

Issue	Date & Issue Description	By	Check
	10/26/09		
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Seal/Signature



Project Name
PWM TERMINAL EXPANSION

Project Number

CAD File Name
 FA0.00

Description
 FIRE ALARM GENERAL NOTES

Scale
 As Indicated