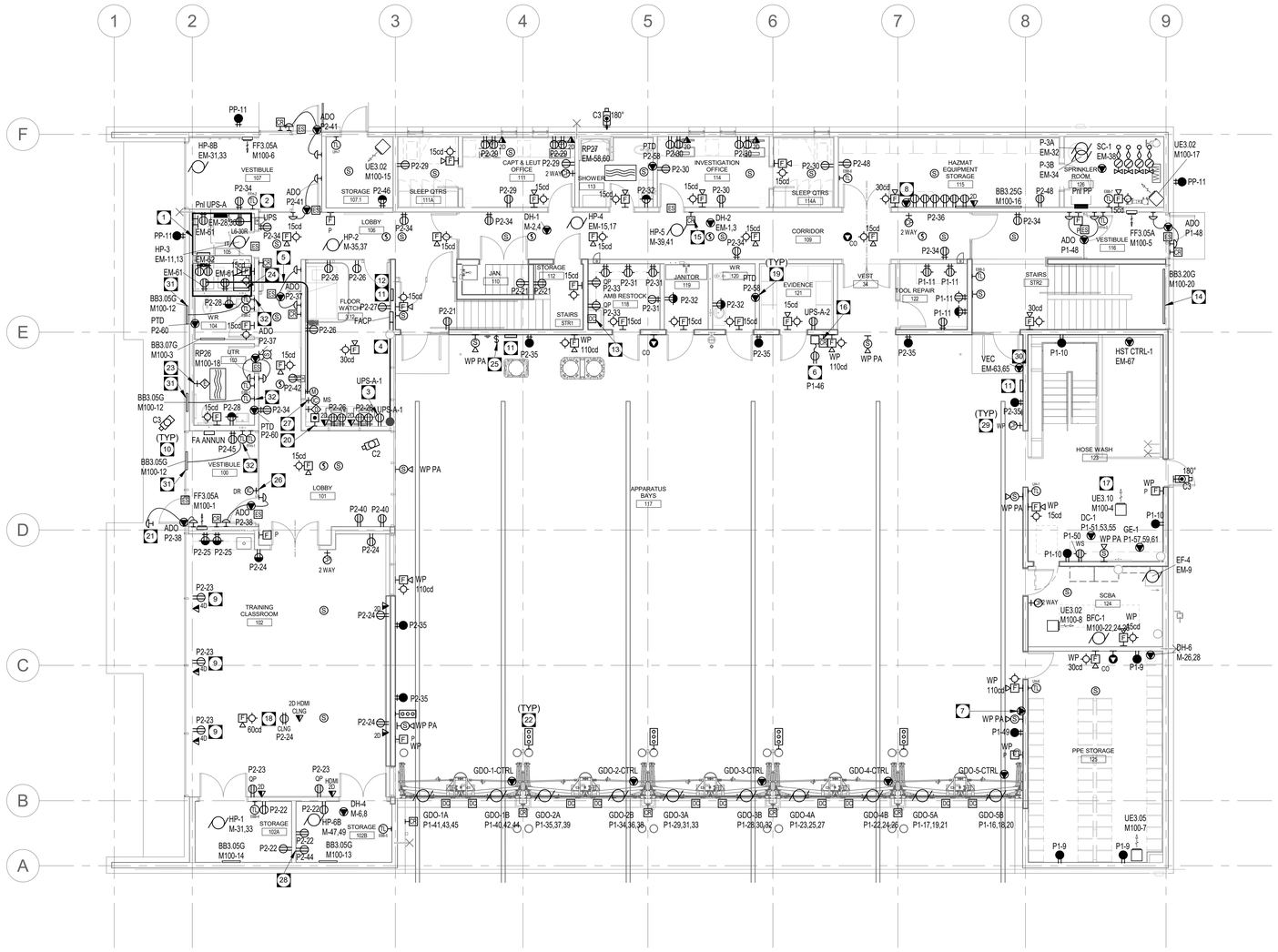

1 / EP2.1 MAIN FLOOR PLAN - POWER AND SYSTEMS

SCALE: 1 : 100

KEY NOTES

1. PLYWOOD BACKBOARD AROUND ROOM.
2. PROVIDE DUAL ONLINE CONVERSION 5KVA 120V/240V UPS COMPLETE WITH MAINTENANCE BYPASS APC SMART-UPS SRT05KXLT OR APPROVED EQUAL. PROVIDE L6-30P PLUG AND CORD CONNECTION. WIRE AND CONNECT OUTPUT CIRCUIT TO BRANCH PANEL UPS-A.
3. PROVIDE DEDICATED UPS 15A-1P CIRCUIT FOR OWNER SUPPLIED RADIO SYSTEM HEAD END EQUIPMENT.
4. PROVIDE 21MM EMT CONDUIT FROM RADIO SYSTEM HEAD END EQUIPMENT IN FLOOR WATCH TO ROOF ANTENNA LOCATION COMPLETE WITH EXTERIOR WEATHERPROOF GOOSE NECK ENTRANCE POINT. ANTENNA LOCATION TO BE COORDINATED WITH OWNER ON SITE. INSTALL ANTENNA CABLE AND MOUNT AS PROVIDED BY OWNER. TERMINATIONS AND ANTENNA INSTALLATION BY OWNER.
5. PROVIDE ONE SHIELDED 2C CABLE WITH GROUND (BELDEN P/N: B9451P) FROM THE PUBLIC ADDRESS/PAGING AMPLIFIER TO THE DESK IN FLOOR WATCH. CONFIRM FINAL LOCATION WITH OWNER PRIOR TO ROUGH-IN.
6. PROVIDE AUTOMATIC RETRACTABLE RECEPTACLE ON CORD REEL KUSSMAUL 091-220-20-120 FOR VEHICLE BATTERY CHARGERS. CONFIRM EXACT LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.
7. PROVIDE 120V/1PH DIRECT CONNECTION FOR SECONDARY DOOR CONTROL PANEL. CONFIRM EXACT LOCATION WITH ARCHITECTURAL DRAWINGS.
8. PROVIDE 120V/1PH DIRECT CONNECTION FOR CO2 BUMP STATION. CONFIRM EXACT LOCATION AND REQUIREMENTS WITH OWNER AND ARCHITECTURAL DRAWINGS.
9. OUTLETS MOUNTED ON COLUMNS. CONDUIT TO RUN CONCEALED IN COLUMN FROM CEILING. DEVICE BOXES TO BE LEGRAND WIREMOLD 500/700 SERIES OR APPROVED EQUAL. REFER TO ARCHITECTURAL DRAWINGS FOR DETAIL.
10. EXTERIOR CCTV CAMERAS TO BE MOUNTED TO UNDERSIDE OF SOFFIT.
11. WIRE AND CONNECT APPARATUS BAY DOOR OPERATORS AS SUPPLIED BY DOOR HARDWARE CONTRACTOR.
12. PROVIDE CONTROL PANEL TO HOUSE DOOR OPERATORS AND LIGHTING CONTROL FOR APPARATUS BAY. LIGHTING CONTROL TO BE WS3 SWITCHES AS PER DWG EL2.1
13. TAMPER ALERT FOR KNOXVAULT 4400 AND SENTRALOK-A SYSTEM. HOMERUN CONDUIT TO IT ROOM.
14. BASEBOARD HEATER TO BE FLOOR MOUNTED MODEL WITH A FINISHED BACK.
15. INVESTIGATOR'S OFFICE ACCESS CONTROL TO BE PROGRAMMED WITH DIFFERENT ACCESS RULES. CONFIRM REQUIREMENTS WITH OWNER DURING COMMISSIONING.
16. EVIDENCE ROOM ACCESS CONTROL TO BE PROGRAMMED WITH DIFFERENT ACCESS RULES. CONFIRM REQUIREMENTS WITH OWNER DURING COMMISSIONING.
17. ALL DEVICES, EQUIPMENT AND CONTROLS IN HOSE WASH TO BE WET LOCATION RATED OR C/W WEATHERPROOF ENCLOSURES.
18. POWER AND DATA OUTLET FOR CEILING MOUNTED PROJECTOR. CONFIRM LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.
19. PAPER TOWEL DISPENSER TO BE BOBRICK B-39747 WIRE AND CONNECT AC ADAPTER KIT PART NO. 3974-57. COORDINATE ROUGH-IN LOCATION FOR 5-15R RECEPTACLE OR DIRECT CONNECT AS PER SHOP DRAWINGS.
20. REMOTE DOOR RELEASE FOR VESTIBULE. CONFIRM LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. COORDINATE REQUIREMENTS WITH DOOR HARDWARE SCHEDULES.
21. AUTOMATIC DOOR OPERATOR PUSHBUTTON TO BE MOUNTED ON BOLLARD.
22. INSTALL, WIRE AND CONNECT DOOR CONTROLS FOR BOLLARD MOUNTED APPARATUS BAY DOOR OPERATOR CONTROL AS SUPPLIED BY DOOR HARDWARE. ROUTE CONDUIT/WIRING BELOW SLAB INTO BOTOOM OF BOLLARD. REFER TO ARCHITECTURAL DRAWINGS FOR BOLLARD DETAILS.
23. PROVIDE PULL-CORD STATION (MANF: CREST, MODEL 5700CC OR APPROVED EQUAL). WIRE BACK TO DOME LIGHT ABOVE DOOR TO WASHROOM. PROVIDE 2/C #18AWG IN 27MM (1") CONDUIT.
24. 12U DATA CABINET FOR ACCESS CONTROL AND CCTV EQUIPMENT HEADEND.
25. WIRE AND CONNECT APPARATUS BAY FAN SPEED CONTROL ADJACENT TO DOOR CONTROL PANEL.
26. INTERCOM SYSTEM TO BE AIPHONE IX SERIES. PROVIDE IX-DVF-4A VIDEO INTERCOM STATION C/W SBX-IXGDM7 SURFACE MOUNT BOX. INSTALL ALL COMPONENTS ACCORDING TO MANUFACTURER'S SPECIFICATION FOR HOME RUN INSTALLATION. DO NOT DAISY CHAIN COMPONENTS.
27. INTERCOM MASTER STATION AIPHONE IX-MV7. CONFIRM FINISH AND LOCATION WITH OWNER PRIOR TO ROUGH-IN. PROVIDE ADDITIONAL MASTER STATIONS AS REQUIRED BY OWNER.
28. PROVIDE DEDICATED 5-15R RECEPTACLE FOR DEFIBRILLATOR.
29. ALL STATIONS DENOTED WITH CP SHALL BE 2 WAY CALL POINT STATIONS C/W MICROPHONE AND SPEAKER. CALL POINTS TO BE AIPHONE IX-SS-2G. DEVICES TO BE WIRED TO INTERCOM MASTER STATION LOCATED IN FLOOR WATCH.
30. VEHICLE EXHAUST FAN CONTROLLER. CONFIRM LOCATION WITH OWNER PRIOR TO ROUGH-IN.
31. BASEBOARD HEATER LOCATED IN CEILING SPACE ABOVE. CONFIRM LOCATION WITH MECHANICAL PRIOR TO ROUGH-IN.
32. THERMOSTAT TO BE LOCATED IN CEILING SPACE ABOVE. CONFIRM LOCATION WITH MECHNICAL PRIOR TO ROUGH-IN.

GENERAL NOTES

A. EXPOSED WIRING SHALL NOT BE PERMITTED. WIRING SHALL BE RECESSED IN WALL OR CONCEALED IN CONDUIT ROUTED THROUGH WALL ASSEMBLY.

B. WHERE CONNECTED TO A 20A. BRANCH CIRCUIT SUPPLYING AN INDIVIDUAL RECEPTACLE (SIMPLEX OR DUPLEX), THE RECEPTACLE SHALL BE RATED AT 20A.

C. PROVIDE LOCKABLE ENCLOSURES WITH COMMON KEY ON ALL STARTERS AND DISCONNECT SWITCHES LOCATED IN PUBLIC AREAS. KEYS SHALL BE HANDED OVER TO OWNER AT END OF PROJECT.

D. FINAL CONNECTION TO ALL MECHANICAL EQUIPMENT SHALL BE FLEXIBLE. CONFIRM FINAL CIRCUIT BREAKER AND WIRE SIZE WITH MECHANICAL EQUIPMENT SHOP DRAWINGS. ADJUST CIRCUIT BREAKER AND WIRE SIZE AS REQUIRED WITHOUT ADDITIONAL COST TO OWNER.

E. PROVIDE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT. MINIMUM REQUIREMENTS: 100mm (4")HIGH, 4% AIR ENTRAINED, POLY FIBER REINFORCED CONCRETE. 100mm (4") LONGER THAN EQUIPMENT TO BE PLACED ON IT. REFER TO ARCHITECTURAL DETAIL DRAWINGS FOR TRANSFORMER, GENERATOR, OR SWITCHGEAR PADS THAT MAY EXCEED THESE REQUIREMENTS.

F. UNLESS NOTED OTHERWISE, THE CIRCUITING INDICATED ON THE DRAWINGS IS REPRESENTATIONAL ONLY. CONFIRM CIRCUITING REQUIREMENTS ON SITE.

G. CIRCUIT NUMBERS AT DEVICES CORRESPOND TO PANELBOARD BREAKERS (SEE PANELBOARD SCHEDULE). BRANCH CIRCUITS SHALL BE SIZED ACCORDING TO THE CIRCUIT BREAKER RATING AND VOLTAGE DROP REQUIREMENTS, UNLESS INDICATED OTHERWISE ON THE ELECTRICAL EQUIPMENT SCHEDULE.

H. MINIMUM CONDUIT SIZE SHALL BE 21mm (3/4") UNLESS NOTED OTHERWISE.

I. CONDUIT AND WIRE SHALL NOT BE INSTALLED BELOW FLOOR SLAB UNLESS INDICATED ON PLAN BY DASHED CONDUIT/LINE.

J. EMPTY CONDUIT SHALL BE C/W PULL WIRE AND PLASTIC BUSHINGS.

K. ALL LOW VOLTAGE CABLES OR CONDUCTORS OPERATING AT LESS THAN 50 VOLTS SHALL BE IN METAL RACEWAY WHERE INSTALLED WITHIN WALLS OR INACCESSIBLE SPACES. LOW VOLTAGE VABLES MAY BE RUN IN CABLE SUPPORT HOOKS ABOVE ACCESIBLE CEILING.

L. ALL CONDUCTORS OPERATING AT 50 VOLTS OR GREATER SHALL BE IN RACEWAY. ALL RACEWAY WITHIN THE STRUCTURE ABOVE THE FLOOR SLAB SHALL BE METAL. RACEWAY BELOW THE FLOOR SLAB AND UNDERGROUND RACEWAY OUTSIDE THE STRUCTURE SHALL BE PVC.

M. INSTALL CONDUIT WITH NO MORE THAN TWO (2) 90° BENDS BETWEEN PULL BOXES, AND NO MORE THAN 30m (100'-0") BETWEEN PULL BOXES. PULL BOXES SHALL BE INSTALLED FOR STRAIGHT THRU PULLS ONLY.

N. PROVIDE VERIFICATION OF FIRE ALARM SYSTEM FOR ALL DEVICES.

O. ALL COMMUNICATIONS CABLES SHALL BE INSTALLED IN CONDUIT OR SUPPORTED BY CABLE HOOKS. PROVIDE BUSHINGS AT THE ENDS OF ALL CONDUIT WHERE STUBBED ABOVE ACCESSIBLE CEILINGS OR WHERE DROPPED INTO CABLE TRAY. PROVIDE CABLE HOOKS ABOVE ACCESSIBLE CEILINGS FOR CABLE INSTALLATION WHERE NOT INSTALLED IN CONDUIT OR CABLE TRAY.

P. ELECTRICAL CONTRACTOR SHALL COORDINATE QUANTITIES AND LOCATIONS OF ALL FLOW SWITCHES AND SUPERVISED VALVES REQUIRING CONNECTION TO FIRE ALARM SYSTEM WITH SPRINKLER CONTRACTOR.

Q. REFER TO FIRE ALARM RISER DIAGRAM AND ZONE SCHEDULE FOR INITIATING ZONES AND SIGNAL CIRCUITS.

R. ALL FIXTURES, DEVICES AND SWITCHED MOUNTED IN CONCRETE MASONRY WALLS AND CONCRETE WALLS TO HAVE CONCEALED WIRING.

S. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR FIXTURE ALIGNMENTS AND MOUNTING HEIGHTS AT SELECT LOCATIONS.

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0	2023-02-03	ISSUED FOR CONSTRUCTION

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A.O. SOWUNMI
Member 43015
2023-02-03
REGISTERED PROFESSIONAL ENGINEER

Project

WFPS STATION 9

1083 AUTUMNWOOD DRIVE

Sheet Title

MAIN FLOOR - POWER PLAN

Project No. 22028

Sheet EP2.1

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