GENERAL NOTES

1. ELECTRICAL CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS AND STANDBY POWER ROUTING PATH.
2. THIS SHEET IS A ONE-LINE DIAGRAM REPRESENTATION OF THE EMERGENCY FEEDER AND GENERATOR START CONTROL WIRING FROM APCF TO THE EMERGENCY DISTRIBUTION ROOM IN THE APS FACILITY. THE ONE LINE REPRESENTS THE STANDBY POWER FEEDERS, SIZED ON EP5.0.0 SERIES, AND 4#10 CONDUCTORS IN 3/4" CONDUIT FOR THE GENERATOR START CONTACTS.
3. COORDINATE ALL WORK IN APS WITH ARGONNE FACILITY MANAGER AND APCF PROJECT MANAGER. NOTIFY ARGONNE FACILITY MANAGER AND APCF PROJECT MANAGER BEFORE WORKING ON STANDBY POWER DISTRIBUTION SYSTEM. SCHEDULE WORK TO OCCUR AT DESIGNATED ADVANCED PHOTON SOURCE (APS) OPERATIONAL SHUTDOWN PERIODS.
4. PROVIDE JUNCTION/PULL BOXES AS REQUIRED PER NATIONAL ELECTRICAL CODE AND STANDARD INSTALLATION PRACTICE.
5. LOCATIONS WITHIN LOM 435 AND APS AR APPROXIMATE.
6. REFER TO ONE-LINE DIAGRAM SHEET EP5.0.0 SERIES FOR PANELBOARD FEEDERS.

SHEET KEYNOTES

1. PROVIDE NEW SIEMENS 800 A FRAME 600 A TRIP DRAW OUT BREAKER WITH SAME TRIP AS EXISTING BREAKERS IN STANDBY 480 V DISTRIBUTION SWITCHGEAR 'ESG-X2'. PROVIDE PLAQUE ON BREAKER, STYLE TO MATCH EXISTING, PLAQUE TO STATE:

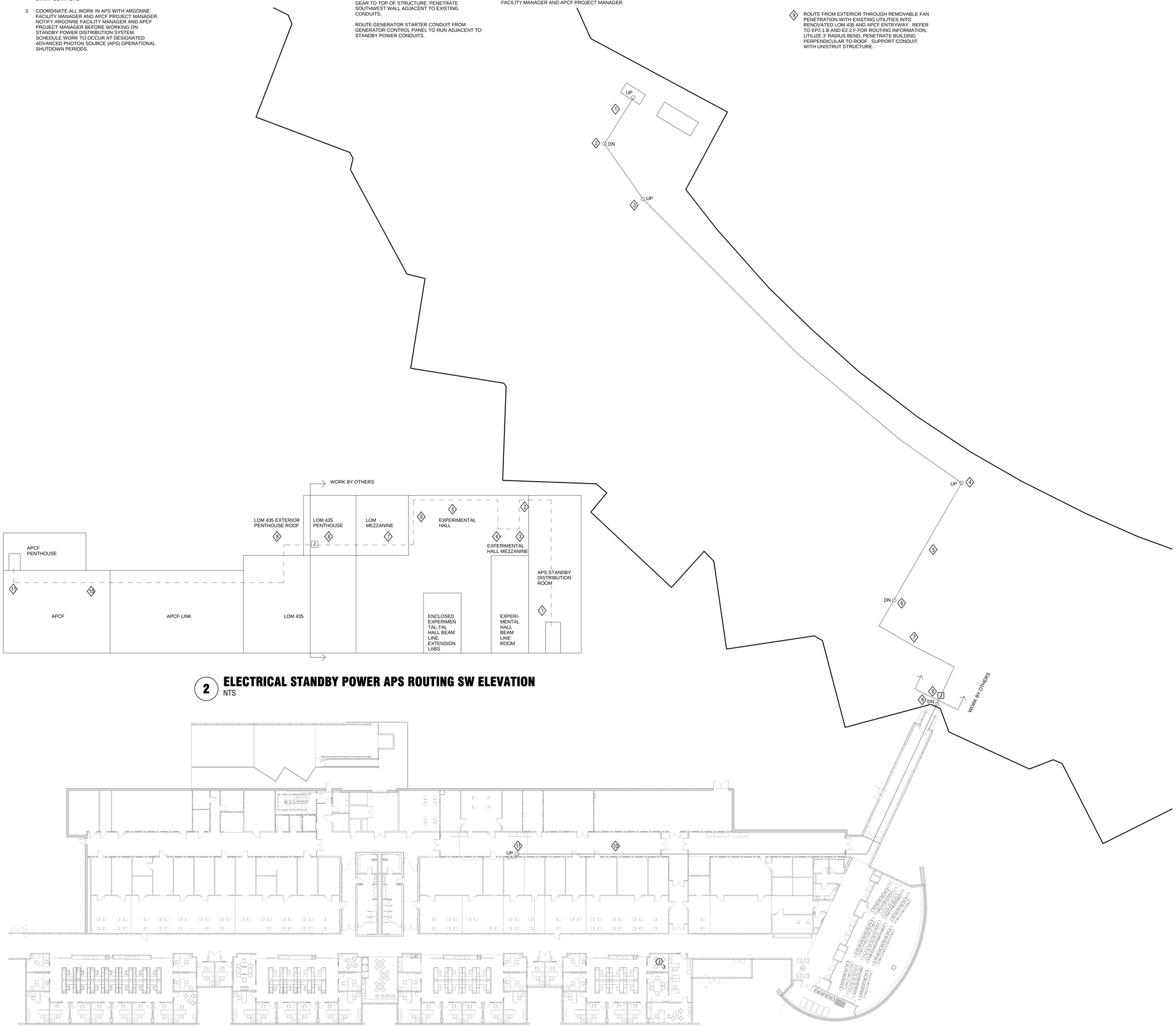
   ATS-APCF
   CB-EX2-8

   ROUTE STANDBY POWER CONDUITS, FROM SWITCH GEAR TO TOP OF STRUCTURE. PENETRATE SOUTHWEST WALL ADJACENT TO EXISTING CONDUITS.

   ROUTE GENERATOR STARTER CONDUIT FROM GENERATOR CONTROL PANEL TO RUN ADJACENT TO STANDBY POWER CONDUITS.
2. ROUTE CONDUIT ADJACENT TO EXISTING EMERGENCY FEEDERS, TIGHT TO STRUCTURE.
3. CONDUIT TO FOLLOW EXISTING CONDUIT RACK ABOVE.
4. TRANSITION FROM EXISTING CONDUIT RACK, AT APS COLUMN LINE 126, TO BELOW EXISTING DUCT WORK, ADJACENT TO EXISTING LIQUID NITROGEN PIPE.
5. COORDINATE FINAL ROUTE ABOVE EXPERIMENTAL HALL IN FIELD WITH ARGONNE NATIONAL LABS FACILITY MANAGER AND APCF PROJECT MANAGER.
6. ROUTE CONDUIT DOWN FROM BELOW DUCT TO PENETRATE LOM MEZZANINE AT COLUMN LINE 126. COORDINATE PENETRATION OF WALL WITH EXISTING UTILITIES LOM MEZZANINE.
7. ROUTE CONDUIT AT STRUCTURE IN LOM MEZZANINE FROM COLUMN LINE 126 TO COLUMN LINE 121.
8. ROUTE FROM LOM MEZZANINE TO LOM 435 MECHANICAL PENTHOUSE. PENETRATE PENTHOUSE WALL ADJACENT TO MECHANICAL UTILITIES THROUGH EXISTING REMOVABLE PARTITION TO EXTERIOR.

   APCF ELECTRICAL CONTRACTOR TO TERMINATE STANDBY FEEDER IN JUNCTION BOX SIZED PER NEC 314. COORDINATE FINAL LOCATION WITH ANL APCF PM IN THE FIELD.
9. ROUTE FROM EXTERIOR THROUGH REMOVABLE FAN PENETRATION WITH EXISTING UTILITIES INTO RENOVATED LOM 435 AND APCF ENTRYWAY. REFER TO EP2.1.B AND E2.2.F FOR ROUTING INFORMATION, UTILIZE 3' RADIUS BEND, PENETRATE BUILDING PERPENDICULAR TO ROOF. SUPPORT CONDUIT WITH UNISTRUT STRUCTURE.
10. ROUTE THROUGH APCF LER CORRIDOR. REFER TO EP 2.1.B FOR ROUTING INFORMATION.
11. UTILIZE LB TRANSITION DEVICES TO ROUTE CONDUIT VERTICALLY INTO ATS-APCF IN MECHANICAL PENTHOUSE. REFER TO EP2.2.B FOR LOCATION.

2 ELECTRICAL STANDBY POWER APS ROUTING SW ELEVATION
NTS



1 ELECTRICAL STANDBY POWER APS ROUTING
1" = 20'-0"

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SEALS AND SIGNATURES

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Argonne NATIONAL LABORATORY

FMS
Facilities Management Services

PROJECT TITLE ADVANCED PROTEIN CRYSTALLIZATION FACILITY, ARGONNE NATIONAL LABORATORY

PROJECT NO 08541-00

DRAWING TITLE

ELECTRICAL STANDBY APS ROUTING

DESIGNED DLW	A/E CADD FILE EP2.4.0	FACILITY NO(S)
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CHECKED BRB	CAD NO:	
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FACILITY DOCUMENT NUMBER J446-101-W-	EP2.4.0	REV. NO.

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