

ELECTRICAL NOTES:

INDICATED BY THE  SYMBOL ON THE DRAWINGS. (I.E.  INDICATES NOTE 1)

NOTE 1: EXISTING BATTERY CHARGERS FOR EXISTING GENERATORS. REMOVE BATTERY CHARGERS AND ASSOCIATED WIRING. MAINTAIN EXISTING 120V CIRCUITS FOR USE WITH TEMPORARY GENERATOR AND NEW GENERATOR BATTERY CHARGERS. EXTEND EXISTING CIRCUITRY AS REQUIRED.

NOTE 2: LOCATION OF TEMPORARY DISTRIBUTION PANEL IS APPROXIMATE. ELECTRICAL CONTRACTOR SHALL CONFIRM THE LOCATION ON SITE AND COORDINATE TEMPORARY ELECTRICAL INSTALLATION WITH THE NEW INSTALLATION. REFER TO DRAWING E-102 FOR DETAILS.

NOTE 3: PROVIDE NEW CIRCUIT BREAKER 208V, 2P, 50A TO EXISTING PANEL SB LOCATED IN BOILER ROOM. USE $\frac{3}{4}$ "AWG+8BOND IN 27mm EMT CONDUIT. EXISTING PANEL IS SQUARE D CAT.#NQQD4. CONFIRM REQUIREMENTS WITH MANUFACTURER BEFORE INSTALLATION.

NOTE 4: USE RGS CONDUIT FOR ALL RACEWAY CROSSING THIS AREA.

NOTE 5: NEW LOUVERS WILL BE INSTALLED. ALL EXISTING AND NEW RACEWAY SHALL BE RAISED AS NECESSARY TO ACCOMMODATE NEW LOUVERS HEIGHT.

NOTE 6: MAINTAIN A MINIMUM OF 1.5m CLEARANCE IN FRONT OF GENERATOR #1 MAIN CIRCUIT BREAKER.

NOTE 7: MAINTAIN A MINIMUM OF 1m CLEARANCE

NOTE 8: THE DESIGN INTENT IS TO:

- DISCONNECT EXISTING FEEDER.
- REROUTE EXISTING FEEDERS THROUGH NEW PULL BOX AND RETERMINATE ON TEMPORARY DISTRIBUTION PANEL AS PER DETAIL 2/E102.
- ONCE THE NEW SWITCHGEAR IS INSTALLED AND READY TO BE COMMISSIONED, DISCONNECT FEEDERS FROM THE TEMPORARY DISTRIBUTION PANEL AND RETERMINATE ON NEW PARALLELING SWITCHGEAR. EXISTING CABLE SHALL BE ROUTED THROUGH PULL BOX AND NEW EMT CONDUIT AS PER DETAIL 1/E102.
- SPlicing FOR EXISTING FEEDERS IS NOT PERMITTED.
- CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING FEEDERS.

NOTE 9: CONFIRM EXISTING CONDUCTORS ON SITE.

NOTE 10: EXISTING ATS ARE:

- ATS 1: 600A, 347/600V, 3 ϕ , 4P ASCO 962 CATALOGUE NUMBER #F9623060005-C, SERIAL NUMBER #X-67792.
- ATS 2: 600A, 347/600V, 3 ϕ , 4P ASCO 7000 SERIES CATALOGUE NUMBER #7962360005-C, SERIAL NUMBER #154938.
- ATS 3: 600A, 347/600V, 3 ϕ , 4P ASCO 7000 SERIES CATALOGUE NUMBER #7962360005-C, SERIAL NUMBER #154938.
- ATS 4: 200A, 347/600V, 3 ϕ , 4P ASCO 7000 SERIES CATALOGUE NUMBER #407ATB30200R5VC, SERIAL NUMBER #802633CAN.
- ATS 5: 40A, 347/600V, 3 ϕ , 4P EATON ATC-300 SERIES CATALOGUE NUMBER #ATC3C2X40040ESC, SERIAL NUMBER #23259300.

NOTE 11: EXISTING CIRCUIT BREAKERS TO BE RELOCATED ARE:

- CIRCUIT BREAKER FOR ATS #1: 600A, 3P, 600V, LSIG, CUTLER-HAMMER MODEL #HLD3600F, STYLE # 2A86773G15, TRIP UNIT 120A LES3600LSIG.
- CIRCUIT BREAKER FOR ATS #2: 600A, 3P, 600V, LSIG, CUTLER-HAMMER MODEL #HLD3600F, STYLE # 2A86773G15, TRIP UNIT 120A LES3600LSIG.
- CIRCUIT BREAKER FOR LOAD BANK #1: 600A, 3P, 600V, CUTLER-HAMMER TYPE LD/MDL, CATALOGUE #EOP4MT07, STYLE # 1483D43G07, VOLTS 120V.
- CIRCUIT BREAKER FOR LOAD BANK #2: 600A, 3P, 600V, CUTLER-HAMMER TYPE LD/MDL, CATALOGUE #EOP4MT07, STYLE # 1483D43G07, VOLTS 120V.
- CIRCUIT BREAKER FOR ATS #3: 600A, 3P, CUTLER-HAMMER CATALOGUE #HLD3600F, STYLE #2A86773G15, TRIP UNIT LT3600T.
- CIRCUIT BREAKER FOR ATS #4 AND ATS#5: 400A, 3P, 600V, EATON CATALOGUE #8985A38G04, STYLE #HKD3400F, TRIP UNIT 50A KES3250LSIG.

NOTE 12: CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE NEW CONDUIT, IF EXISTING CONDUIT COULD NOT BE REUSED.

NOTE 13: REMOVE NECESSARY PARTS FROM EXISTING GENERATORS TO ALLOW UNITS REMOVAL THROUGH EXISTING LOUVERS (SOUTH WALL). EXISTING LOUVERS DIMENSIONS ARE APPROXIMATELY 2438mm x 2133mm (8' x 7'). CARRY ALL NECESSARY COST TO ENLARGE EXISTING WALL OPENINGS AND TO RESTORE OPENING TO THE NEW CONDITION AS SHOWN ON ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS.

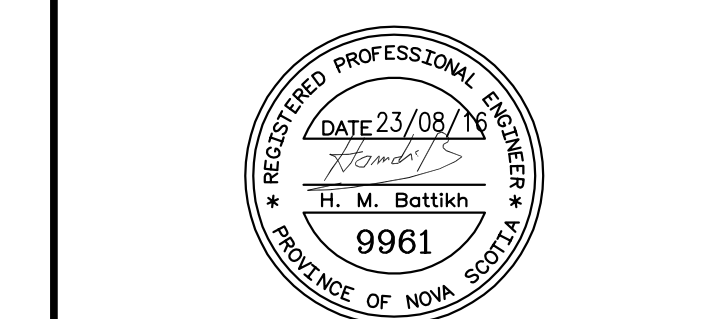
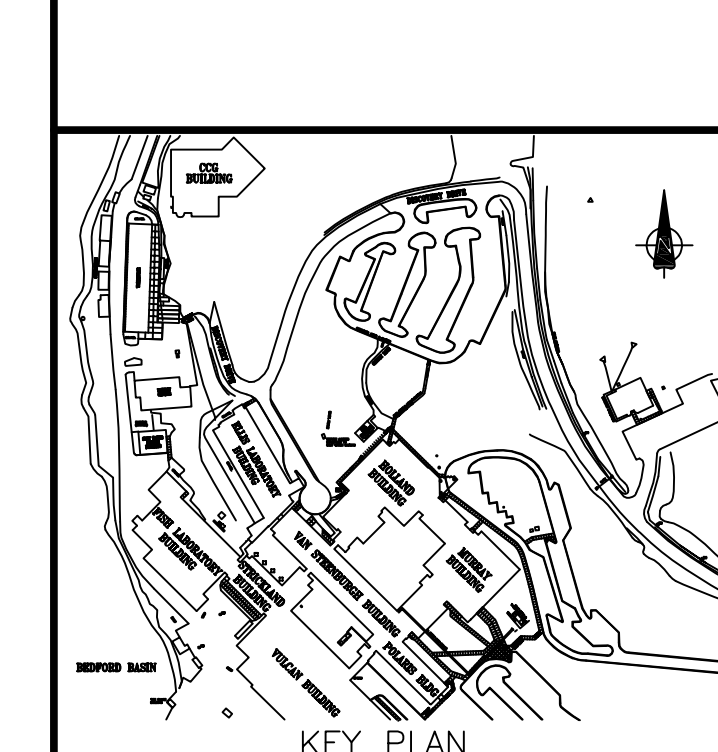
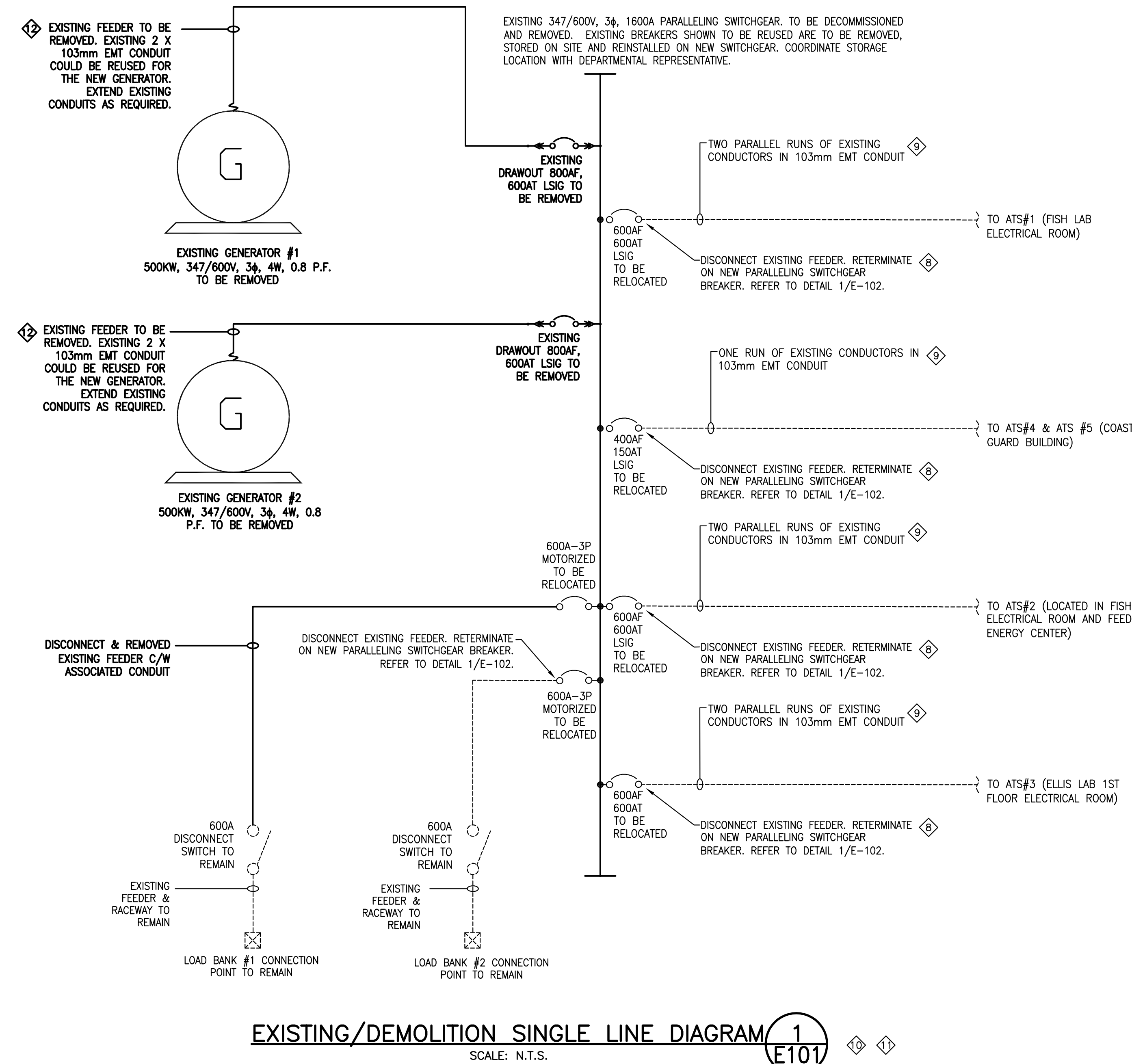
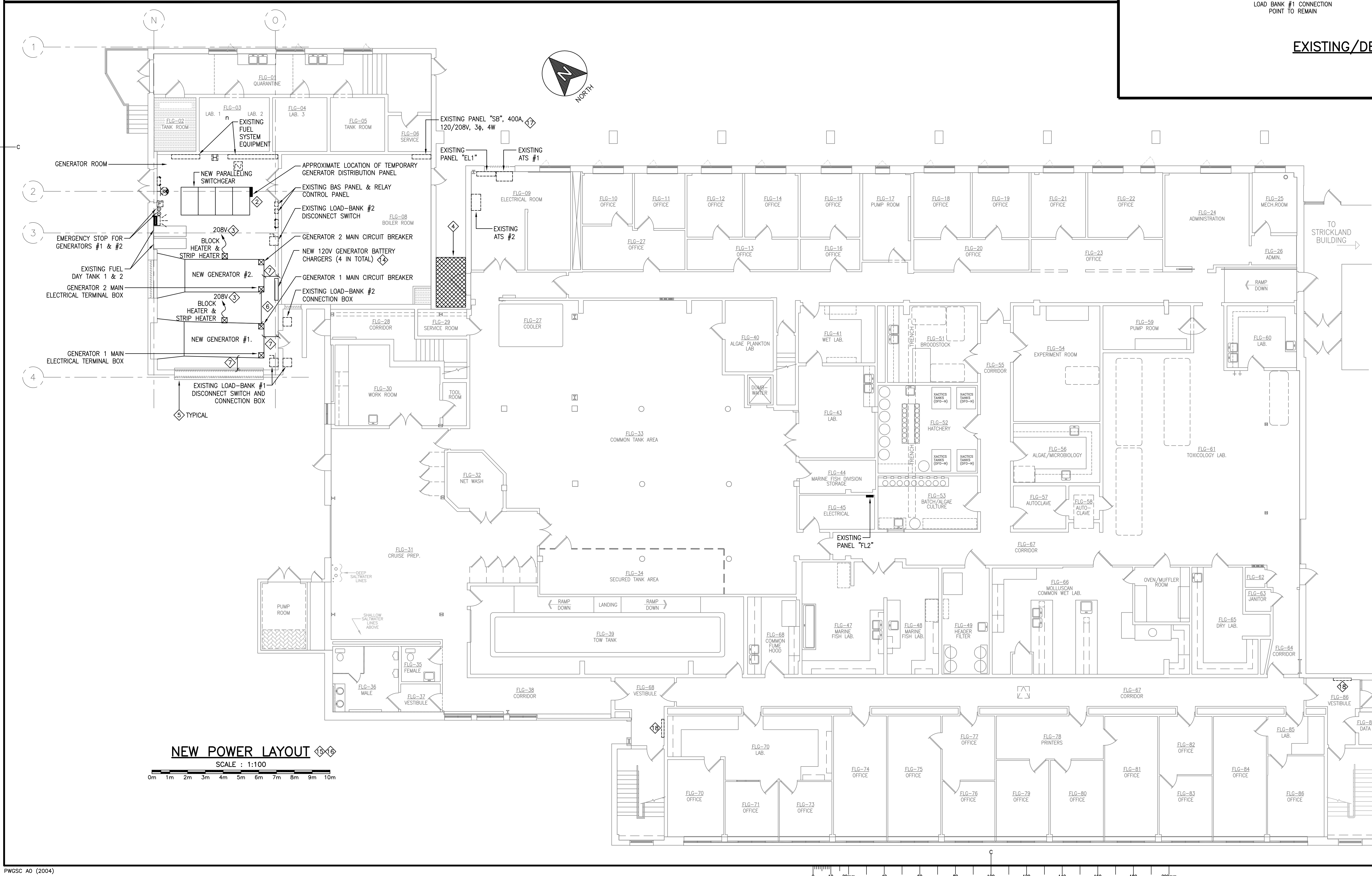
NOTE 14: IN ADDITION TO EXISTING 120V BATTERY CHARGERS CIRCUITRY, PROVIDE 2 NEW CIRCUIT BREAKERS 120V, 1P, 20A IN EXISTING PANEL SB LOCATED IN BOILER ROOM. USE $\frac{3}{4}$ "10AWG + #12BOND IN 21mm EMT CONDUIT. EXISTING PANEL IS SQUARE D CAT.#NQQD4. CONFIRM BATTERY CHARGER REQUIREMENTS BEFORE INSTALLATION.

NOTE 15: PROVIDE NEW HOUSEKEEPING PAD FOR PARALLELING SWITCHGEAR. ENLARGE AND ADJUST EXISTING GENERATORS HOUSEKEEPING PAD TO SUIT NEW GENERATOR DIMENSIONS.

NOTE 16: CONFIRM LOCATION OF TEMPORARY GENERATOR WITH DEPARTMENTAL REPRESENTATIVE BEFORE INSTALLATION.

NOTE 17: ALLOW TO PROVIDE 4 X 20A-1P CIRCUIT BREAKERS IN EXISTING PANEL "SB" FOR MECHANICAL EQUIPMENT CONTROL CIRCUITS IN GENERATOR ROOM. US $\frac{3}{4}$ "10AWG + #12BOND IN 21mm EMT FOR EACH.

NOTE 18: EXISTING VESTIBULE FORCE FLOW HEATERS (2) SHALL BE RE-FED FROM A NEW 1P-15A BREAKER (CCT. #33) IN EXISTING EMERGENCY PANEL "FL2". NEW BREAKER FRAME TO MATCH EXISTING, REDUNDANT CIRCUITRY TO BE REMOVED.



4	ISSUED FOR TENDER	08/23/2016
3	RE-ISSUED FOR 100% REVIEW	07/18/2016
2	ISSUED FOR 100% REVIEW	06/15/2016
1	ISSUED FOR 70% REVIEW	04/08/2016

revisions

project

**BIO GENERATOR UPGRADES
FOR CAMPUS HEATING
SYSTEM**
BEDFORD INSTITUTE OCEANOGRAPHY
DARTMOUTH - NS

drawing

**EXISTING/DEMOLITION
POWER PLAN, NEW
POWER PLAN &
EXISTING SINGLE
LINE DIAGRAM**

designed

date

drawn

date

approved

date

Tender

Submission

Project Manager

Administrateur de projets

project number

no. du projet

E-101

E-09M/000-E-544709