

WORK--SCHEDULE & PROJECT PHASING:

PHASE ONE SHALL INCLUDE THE FOLLOWING REMOVAL AND NEW EQUIPMENT INSTALLATIONS.

PHASE 1: FM POWER AND NORMAL 600V SERVICE ENTRANCE REMOVALS

- REMOVE EXISTING SWB-#1 3000A-600V-3PH-3W SWITCH-BOARD, AND ENTRY CONDUITS AND WIRING.
- TAG AND IDENTIFY ALL CONDUITS AND FEEDERS BEFORE REMOVALS.
- CONFIRM PHASING IDENTIFICATION BEFORE REMOVALS.
- REMOVE 3000A BUS-DUCT BETWEEN HYDRO TRANSFORMERS AND EXISTING SWB-#1.
- REMOVE AND DISPOSE OF PANEL FDP-SA. BRANCH CIRCUIT AND CONDUITS SHALL BE TAGGED AND REINSTATED TO NEW PANELS.
- DISCONNECT EXISTING ATS SWITCH #1 AND RELOCATE TO NEW LOCATION.
- REMOVE REMOTE GENERATOR CONNECTION FROM SWB-#1. CABLES SHALL REMAIN AND REROUTED TO NEW SWB-#1
- REMOVE AND DISCONNECT EXISTING ATS SWITCH #3 AND FEEDERS.
- PROVIDE TEMPORARY POWER FOR ALL POWER INTERRUPTIONS.
- HOIST ALL REDUNDANT MATERIALS OUT THE ACCESS DOOR ADJACENT TO HYDRO VAULT.
- REMOVE EXISTING FIRE PUMP BREAKER.
- REMOVE HYDRO METER AND CO-ORDINATE WITH HYDRO OTTAWA.
- REMOVE FEEDERS BETWEEN ATS#3 AND FDP-SA.
- HYDRO METER FOR EXTERIOR POLE SERVICE TO REMAIN UNTIL PHASE 2.

PHASE 1: NEW EQUIPMENT AND RELOCATES.

- INSTALL NEW SWB-#1 COMPLETE WITH ALL EXISTING CONDUITS AND FEEDERS.
- INSTALL NEW SINGLE CONDUCTOR COR-FLEX CABLES BETWEEN EXISTING TRANSFORMERS 02 & 03 AND NEW SWB-#1.
- PROVIDE FIBER AND ALUMINUM PLATES FOR SINGLE CONDUCTOR COR-FLEX CABLES AS PER THE OESC.
- PROVIDE AND INSTALL NEW PANEL FDP-SA 800A-600V-4P-4W.
- RELOCATE ATS # 1 TO NEW ROOM ADJACENT TO THE GENERATOR ROOM.
- REPLACE ATS # 1 FEEDERS BETWEEN EMA- ATS-#1, ATS-#1 AND -EM AND SWB-#1 & ATS- # 1.
- PROVIDE AND INSTALL NEW ATS # 3- 400A-600V-3PH-3W.
- PROVIDE AND INSTALL NEW FEEDER BETWEEN ATS -#3 AND EM AND NEW FEEDER BETWEEN ATS-#3 AND FDP-SA.
- PROVIDE AND INSTALL NEW REMOTE LOAD-BANK CONNECTION IN ADJACENT EXTERIOR SHART.
- CO-ORDINATE NEW HYDRO METERING OF NEW 600V-SWB-#1 WITH HYDRO OTTAWA METERING.
- CONTRACTOR SHALL ALLOW FOR TEMPORARY POWER DURING THE CONSTRUCTION OF PHASE 1.
- COORDINATE ESA INSPECTIONS FOR OFF HOUR WORK AND FOR POWER REINSTATES.
- PROVIDE FIRE STOP FOR CONDUITS AND CONDUCTORS ENTERING THE MAIN ELECTRICAL ROOM AND THE HYDRO TRANSFORMER ROOM.
- ALL NEW MATERIAL SHALL BE MOVED INTO THE BUILDING VIA THE HATCH-DOOR ADJACENT TO THE HYDRO VAULT.
- PROVIDE SYSTEM GROUNDS AS PER THE OESC.
- REMOVE TEMPORARY POWER UPON COMPLETIONS.
- PROVIDE NEW 500MCM-3PH TECK CABLE BETWEEN SWB-#1 AND EXTERIOR GENERATOR CONNECTION BOX C/W TERMINATION LUGS.
- PROVIDE AND INSTALL NEW 600V-3PH, 3W 400A DISCONNECT SWITCH FOR STEP-UP TRANSFORMER (225KVA) IN PREPARATION FOR PHASE 2.

PHASE 2: 4.16 KV DISTRIBUTIONS, REMOVALS

- PROVIDE TEMPORARY AND PARKING LOT LIGHTING DURING THE REMOVAL OF THE 4.16KV DISTRIBUTION.
- CONFIRM SYSTEM PHASING BEFORE REMOVALS AND RE-INSTATE.
- REMOVE AND DISPOSE OF THE 13.2-T1- CB1 SWITCH.
- REMOVE AND DISPOSE OF THE - TRANSFORMER T1- 3000KVA- 13.2// 2400KV//4.16KV CB1 SWITCH
- REMOVE AND DISPOSE OF THE SWG-#2.
- REMOVE FEEDER FEEDING EXTERIOR POLE LINE AND INSTATE TO NEW DISTRIBUTION SYSTEM.
- CO-ORDINATE HYDRO VAULT ACCESS AND REMOVALS WITH HYDRO OTTAWA.
- REMOVE THE CONDUITS AND CONDUCTOR BETWEEN THE MAIN HYDRO VAULT AND T-1 SWITCH AND BETWEEN T-1 SWITCH AND THE 300KVA TRANSFORMER.
- SEAL AND FIRE-STOP ALL WALLS UPON REMOVALS.
- HOIST ALL REDUNDANT MATERIALS OUT THE ACCESS DOOR ADJACENT TO HYDRO VAULT.
- FDP-SA: REMOVE ALL FEEDERS AND TAG FOR REROUTING TO NEW FDP-SA.
- INSTALL NEW FEEDERS BETWEEN SWB-#1 AND 400A-D/S, IN PREPARATION FOR PHASE 2 WORK.

PHASE 2: NEW AND RELOCATES FOR OUTDOOR POLE LINE

- FDP-SA: NEW PANEL, REINSTATE ALL EXISTING FEEDERS, 2 CONDUITS.
- PROVIDE AND INSTALL NEW STEP-UP TRANSFORMER 225KVA- STEP-UP 600V TO 4.16KV.
- INSTALL NEW 225 KVA- STEPS UP TRANSFORMER BELOW EXISTING POLE LINE FEEDER TO ENSURE CABLES CAN BE TERMINATED IN THE TRANSFORMER.
- INSTALL NEW FEEDERS BETWEEN 400A-D/S AND 225KVA STEP-UP TRANSFORMER.
- PROVIDE SYSTEM GROUNDS FOR 225 KVA.
- ALL NEW EQUIPMENT SHALL BE MOVED INTO THE BUILDING VIA EXISTING ROOF ACCESS HATCH ADJACENT TO HYDRO VAULT.
- COORDINATE REMOVAL OF PRIMARY METERING WITH HYDRO OTTAWA.

PHASE 3: BASEMENT DISTRIBUTION TRANSFORMERS AND PANELS REMOVALS

- REMOVE AND DISPOSE OF MCC #1. COORDINATE CONTROLS WITH CONTRACTOR.
- TAG AND IDENTIFY ALL WIRING PRIOR TO REMOVAL OF MCC #1.
- EXISTING SUPPLY FEEDER TO BE REINSTATED TO MCC-1 (STARTERS TO MATCH EXISTING LOADS).
- REMOVE AND DISPOSE OF PANELS 1-SB, PANEL AC, FDP-SB. BRANCH CIRCUITS AND CONDUITS SHALL BE TAGGED AND REINSTATED TO NEW PANELS.
- REMOVE AND DISPOSE OF TRANSFORMER 300KVA T-02, FOLLOWING INSTALLATION AND CONNECTION OF NEW TRANSFORMER IN ROOM ADJACENT TO HYDRO VAULT.
- REMOVE PRIMARY AND SECONDARY FEEDERS FOR T-02.
- HYDRO VAULT SWB-#1 CAN BE REMOVED AND REPLACED AFTER PHASE 1 & 2.

PHASE 3: BASEMENT NEW EQUIPMENT AND INSTALLATIONS

- PROVIDE AND INSTALL NEW T-02 TRANSFORMER LOCATED IN THE ROOM ADJACENT TO HYDRO VAULT RATED 600V-3H-3W-// 120V/208V 3PH-4W, 225KVA.
- INSTALL NEW FEEDER BETWEEN TRANSFORMER AND SWB-#1.
- INSTALL SECONDARY FEEDER BETWEEN TRANSFORMER T-02 AND PANEL FDP-SB.
- INSTALL NEW BRANCH CIRCUIT COMBINATION BREAKER PANEL FDP-SB.
- RE-INSTATE ALL BRANCH CIRCUIT CONDUITS TO NEW BREAKER PANEL.
- INSTALL NEW PANEL AC & 1-SB.
- PROVIDE SYSTEM GROUNDS FOR TRANSFORMERS AS PER THE OESC.
- PROVIDE BOND CONDUCTORS FOR ALL CONDUITS AND FEEDERS.
- PROVIDE ALUMINUM/FIBER PLATES FOR SINGLE CONDUCTOR CABLES AS PER THE OESC..
- ALL SINGLE CONDUCTOR CABLES SHALL BE INSTALLED ON CABLE RACKS (U-CHANNEL SUPPORT).
- INSTALL NEW MCC-1 RE-INSTATE ALL LOAD CIRCUITS AND SUPPLY FEEDER.
- PROVIDE SYSTEM GROUNDS FOR ALL MCC LOADS AND SUPPLY FEEDERS.
- INSTALL NEW SWG-#1, REFER TO HYDRO OTTAWA DRAWINGS.

PHASE 4: WELLINGTON WING REMOVALS

- REMOVE AND DISPOSAL OF 450KVA T-10 TRANSFORMER.
- REMOVE AND DISPOSAL OF PANEL FDP-W.
- REMOVE AND DISPOSAL OF ALL UPPER FLOOR BRANCH CIRCUIT PANELS, SBW,BW, 1W, 2W, 3W, 4W, 5W, 6WA, 6W, 7W, 8W, 9W1 AND 9W.
- ALL WIRING AND CIRCUITS SHALL BE TAGGED PRIOR TO REMOVAL AND PHASING.
- CONTRACTOR SHALL CUT THE WALL AROUND THE PANELS WITH A CLEAN STRAIGHT LINE CUT FOR REMOVAL.
- PANEL LOCATIONS SHALL BE ADJUSTED ON SITE TO SUIT THE EXISTING FEEDER AND BRANCH CIRCUITS TO AVOID WIRE SPLICING AND NEW FEEDER WIRES.
- WING POWER INTERRUPTIONS SHALL BE CO-ORDINATED ON SITE WITH THE DEPARTMENTAL REPRESENTATIVE.

PHASE 4: WELLINGTON WING NEW EQUIPMENT INSTALLATIONS.

- PROVIDE AND INSTALL NEW 225KVA-600V-120/208V T-10 TRANSFORMER.
- PROVIDE AND INSTALL NEW FDP-W COMBINATION 800A-120/208-3PH-4W BREAKER PANEL.
- REINSTATE ALL BRANCH CIRCUIT CONDUITS AND WIRING FOR FDP-W.
- CONFIRM PHASING FDP-W.
- PROVIDE AND INSTALL ALL UPPER FLOOR BRANCH CIRCUIT BREAKER PANELS 225A COPPER MAINS C/W 66 CIRCUIT SPACE.
- PROVIDE BREAKERS AS PER PANEL SCHEDULES (DRAWING E-17).
- BREAKER PANELS SB-W, B-W, 1-W, 2-W, 3-W, 4-W, 5-W, 6-WA, 6-W, 7-W, 8-W, 9-W1 AND 9-W.
- REINSTATE ALL BRANCH CIRCUITS AND CONDUITS FOR UPPER FLOOR PANELS.
- REINSTATE THE WALL AROUND THE BRANCH CIRCUIT PANELS WITH NEW STEEL-STUDS AND DRYWALL, PLASTER AND PAINT THE ENTIRE PANEL WALL, PAINT SHALL MATCH EXISTING COLOURS.
- CONFIRM BRANCH CIRCUIT PHASING.
- PROVIDE SPARE BREAKERS FOR UPPER WING PANELS: 5-15A-S/P, 4-20A-S/P & 2-15A-D/P.
- PROVIDE TYPED PANEL SCHEDULES.

PHASE 5: TOWER WING REMOVALS

- REMOVE AND DISPOSE OF 450KVA T-05 TRANSFORMER (ROOM SB-1A).
- REMOVE AND DISPOSE OF PANEL FDP-T.
- REMOVE AND DISPOSAL OF ALL UPPER FLOOR BRANCH CIRCUIT PANELS, B-T, 1-T, 2-T, 3-T, 4-T, 5-T, 6-T, 7-T, 8-T, 9-T-1, 9-T, 10-T, 12-T, 1-TA AND 1-TB.
- ALL WIRING AND CIRCUITS SHALL BE TAGGED PRIOR TO REMOVAL AND PHASING.
- CONTRACTOR SHALL CUT THE WALL AROUND THE PANELS WITH A CLEAN STRAIGHT LINE CUT FOR REMOVAL.
- PANEL LOCATIONS SHALL BE ADJUSTED ON SITE TO SUIT THE EXISTING FEEDER AND BRANCH CIRCUITS TO AVOID WIRE SPLICING AND NEW FEEDER WIRES.
- WING POWER INTERRUPTIONS SHALL BE CO-ORDINATED ON SITE WITH THE DEPARTMENTAL REPRESENTATIVE.

PHASE 5: TOWER NEW EQUIPMENT INSTALLATIONS

- PROVIDE AND INSTALL NEW 225KVA-600V-120/208V TRANSFORMER (T-05).
- PROVIDE AND INSTALL NEW FDP-T COMBINATION 800A-120/208-3PH-4W BREAKER PANEL.
- REINSTATE ALL BRANCH CIRCUIT CONDUITS AND WIRING FOR FDP-T.
- CONFIRM PHASING FDP-T.
- PROVIDE AND INSTALL ALL UPPER FLOOR BRANCH CIRCUIT BREAKER PANELS 225-A COPPER MAINS C/W 66 CIRCUIT SPACE.
- PROVIDE BREAKERS AS PER PANEL SCHEDULES (DRAWING E-17).
- BREAKER PANELS B-T, 1-T, 2-T, 3-T, 4-T, 5-T, 6-T, 7-T, 8-T, 9-T, 9-T-1, 9-T, 10-T, 12-T, 1T-A AND 1T-B.
- REINSTATE ALL BRANCH CIRCUITS AND CONDUITS FOR UPPER FLOOR PANELS.
- REINSTATE THE WALL AROUND THE BRANCH CIRCUIT PANELS WITH NEW STEEL-STUDS AND DRYWALL, PLASTER AND PAINT THE ENTIRE PANEL WALL, PAINT SHALL MATCH EXISTING COLOURS.
- CONFIRM BRANCH CIRCUIT PHASING.
- PROVIDE SPARE BREAKERS FOR UPPER WING PANELS: 5-15A-S/P , 4-20A-S/P & 2-15A-D/P.
- PROVIDE TYPED PANEL SCHEDULES

PHASE 6: CENTRE WING REMOVALS

- REMOVE AND DISPOSE OF 450KVA T-04 TRANSFORMER (ROOM SB-1A).
- REMOVE AND DISPOSE OF PANEL FDP-C.
- REMOVE AND DISPOSE OF ALL UPPER FLOOR BRANCH CIRCUIT PANELS, AC, BC, 1-CA, 1C, 2C, 3-CA, 3-C, 4-C, 4-C1, 5-CA, 5-C, 6C, 7-CA, 7-C, 8S, & 8-C2.
- ALL WIRING AND CIRCUITS SHALL BE TAGGED PRIOR TO REMOVAL AND PHASING.
- CONTRACTOR SHALL CUT THE WALL AROUND THE PANELS WITH A CLEAN STRAIGHT LINE CUT FOR REMOVAL.
- PANEL LOCATIONS SHALL BE ADJUSTED ON SITE TO SUIT THE EXISTING FEEDER AND BRANCH CIRCUITS TO AVOID WIRE SPLICING AND NEW FEEDER WIRES.
- REMOVE FEEDERS BETWEEN 1-SB AND PANEL NP.
- WING POWER INTERRUPTIONS SHALL BE CO-ORDINATED ON SITE WITH THE DEPARTMENTAL REPRESENTATIVE.
- PANEL NP AND NP1 (CIRCUITS AND CONDUITS SHALL BE TRANSFERRED TO ONE NEW PANEL).

PHASE 6: CENTRE WING NEW EQUIPMENT INSTALLATIONS

- PROVIDE AND INSTALL NEW 225KVA-600V-120/208V TRANSFORMER (T-04).
- PROVIDE AND INSTALL NEW FDP-C COMBINATION 800A-120/208-3PH-4W BREAKER PANEL.
- REINSTATE ALL BRANCH CIRCUIT CONDUITS AND WIRING FOR FDP-C.
- CONFIRM PHASING FDP-C.
- PROVIDE AND INSTALL ALL UPPER FLOOR BRANCH CIRCUIT BREAKER PANELS 225-A COPPER MAINS
- PROVIDE BREAKERS AS PER PANEL SCHEDULES (DRAWING E-17).
- BREAKER PANELS AC, BC, 1-CA, 1C, 2C, 3-CA, 3-C, 4-C, 4-C1, 5-CA, 5-C, 6C, 7-CA, 7-C, 8S, & 8-C2.
- REINSTATE ALL BRANCH CIRCUITS AND CONDUITS FOR UPPER FLOOR PANELS.
- RE-INSTATE THE WALL AROUND THE BRANCH CIRCUIT PANELS WITH NEW STEEL-STUDS AND DRYWALL, PLASTER AND PAINT THE ENTIRE PANEL WALL, PAINT SHALL MATCH EXISTING COLOURS.
- CONFIRM BRANCH CIRCUIT PHASING.
- PROVIDE SPARE BREAKERS FOR UPPER WING PANELS: 5-15A-S/P, 4-20A-S/P & 2-15A-D/P.
- PROVIDE TYPED PANEL SCHEDULES.
- PANEL NP. RELOCATE ALL CIRCUITS FROM NP - NP-1 TO NEW NP INCLUDING PANEL FEEDER FROM 1-SB TO NEW NP-1.

PHASE 7 BANK WING REMOVALS

- REMOVE AND DISPOSE OF 450KVA T-03 TRANSFORMER (CAGED AREA), FOLLOWING INSTALLATION AND CONNECTION OF NEW TRANSFORMER IN ROOM ADJACENT TO HYDRO VAULT.
- REMOVE PRIMARY AND SECONDARY FEEDERS FOR T-03.
- REMOVE AND DISPOSE OF PANEL FDP-B.
- REMOVE AND DISPOSE OF ALL UPPER FLOOR BRANCH CIRCUIT PANELS B-B, 1-B, 2-B, 3-B, 4-B, 5-B, 6-B, 7-B, 8-B, 8-B1 AND 1B.
- ALL WIRING AND CIRCUITS SHALL BE TAGGED PRIOR TO REMOVAL AND PHASING.
- CONTRACTOR SHALL CUT THE WALL AROUND THE PANELS WITH A CLEAN STRAIGHT LINE CUT FOR REMOVAL.
- PANEL LOCATIONS SHALL BE ADJUSTED ON SITE TO SUIT THE EXISTING FEEDER AND BRANCH CIRCUITS TO AVOID WIRE SPLICING AND NEW FEEDER WIRES.
- WING POWER INTERRUPTIONS SHALL BE CO-ORDINATED ON SITE WITH THE DEPARTMENTAL REPRESENTATIVE.

PHASE 7: BANK WING NEW EQUIPMENT INSTALLATIONS

- PROVIDE AND INSTALL NEW 225KVA-600V-120/208V TRANSFORMER (T-03) IN ROOM ADJACENT TO HYDRO VAULT.
- INSTALL NEW FEEDER BETWEEN TRANSFORMER AND SWB#1.
- INSTALL NEW SECONDARY FEEDER BETWEEN TRANSFORMER T-03 AND PANEL FDP-B
- PROVIDE AND INSTALL NEW FDP-B COMBINATION 800A-120/208V-3PH-4W BREAKER PANEL.
- REINSTATE ALL BRANCH CIRCUITS FOR FDP-B.
- CONFIRM PHASING FDP-B.
- PROVIDE AND INSTALL ALL UPPER FLOOR BRANCH CIRCUIT BREAKER PANELS 225-A COPPER MAINS C/W 66 CIRCUIT SPACE.
- BREAKER PANELS B-B, 1-B, 2-B, 3-B, 4-B, 5-B, 6-B, 7-B, 8-B, & 8-B1.
- PROVIDE BREAKERS AS PER PANEL SCHEDULES (DRAWING E-17).
- REINSTATE ALL BRANCH CIRCUITS AND CONDUITS FOR UPPER FLOOR PANELS.
- REINSTATE THE WALL AROUND THE BRANCH CIRCUIT PANELS WITH NEW STEEL-STUDS AND DRYWALL, PLASTER AND PAINT THE ENTIRE PANEL WALL, PAINT SHALL MATCH EXISTING COLOURS
- CONFIRM BRANCH CIRCUIT PHASING.
- PROVIDE SPARE BREAKERS FOR UPPER WING PANELS: 5-15A-S/P , 4-20A-S/P & 2-15A-D/P.
- PROVIDE TYPED PANEL SCHEDULES.

PHASE 8: KITCHEN AREA REMOVALS

- REMOVE AND DISPOSE OF 3-100KVA T-06, T-07, & T-08 TRANSFORMER (8TH FLOOR).
- REMOVE AND DISPOSE OF PANEL D-600.
- REMOVE AND DISPOSE OF PANELS DM & M.
- ALL WIRING AND CIRCUITS SHALL BE TAGGED PRIOR TO REMOVAL AND PHASING.
- CONTRACTOR SHALL CUT THE WALL AROUND THE PANELS WITH A CLEAN STRAIGHT LINE CUT FOR REMOVAL.
- PANEL LOCATIONS SHALL BE ADJUSTED ON SITE TO SUIT THE EXISTING FEEDER AND BRANCH CIRCUITS TO AVOID WIRE SPLICING AND NEW FEEDER WIRES.
- WING POWER INTERRUPTIONS SHALL BE CO-ORDINATED ON SITE WITH THE DEPARTMENTAL REPRESENTATIVE.
- REMOVE FEEDERS BETWEEN T06, T07, T08 AND EXISTING PANEL D600.

PHASE 8: KITCHEN AREA NEW EQUIPMENT INSTALLATIONS

- PROVIDE AND INSTALL NEW 112.5KVA 600V/208(120V)-TRANSFORMER (T-06-07-08).
- PROVIDE AND INSTALL NEW D600 COMBINATION 120/208-3PH-4W BREAKER PANEL.
- REINSTATE ALL BRANCH CIRCUIT CONDUITS AND WIRING FOR D-600.
- CONFIRM PHASING D-600.
- PROVIDE BREAKERS AS PER PANEL SCHEDULES (DRAWING E-17).
- PROVIDE AND INSTALL NEW BREAKER PANELS DM & M.
- REINSTATE ALL BRANCH CIRCUITS AND CONDUITS FOR UPPER FLOOR PANELS.
- RE-INSTATE THE WALL AROUND THE BRANCH CIRCUIT PANELS WITH NEW STEEL-STUDS AND DRYWALL, PLASTER AND PAINT THE ENTIRE PANEL WALL, PAINT SHALL MATCH EXISTING COLOURS.
- CONFIRM BRANCH CIRCUIT PHASING.
- PROVIDE SPARE BREAKERS FOR UPPER WING PANELS: 5-15A-S/P, 4-20A-S/P & 2-15A-D/P.
- PROVIDE TYPED PANEL SCHEDULE.
- PROVIDE NEW FEEDERS BETWEEN D600 AND NEW 112.5KVA TRANSFORMER AND DISCONNECT SWITCH.

GENERAL NOTES:

- SWG-1, MV-13.2 SWITCH UPGRADE AND REPLACEMENTS BY HYDRO OTTAWA.
WORK TO BE COMPLETED ANY TIME AFTER PHASE 2 (COORDINATE WITH PROJECT GENERAL CONTRACTOR AND DEPARTMENTAL REPRESENTATIVE).
- METER MODIFICATIONS BY THE CONTRACTOR, COORDINATE WITH HYDRO OTTAWA METERING (PHASE 1).
- EXISTING 3-333KVA - T2-T3-T4 MV TRANSFORMERS SHALL REMAIN AS IS. PHASING IS TO BE IDENTIFIED PRIOR TO REMOVAL OF BUS-DUCT.
- EXISTING BUS-DUCT BETWEEN T2-T3-T4 TO BE REPLACED WITH SINGLE CONDUCTORS C/W RACK. REFER TO 3/E15.
- CLOUDED AREAS OF WORK AND UPGRADES (SINGLE LINE DIAGRAM DRAWINGS).
- CONTRACTORS SHALL SAFEGUARD ALL CORRIDOR FLOORS DURING THE REMOVAL AND TRANSPORTATION OF MATERIALS.
- FORKLIFTS, DOLLIES SHALL BE EQUIPPED WITH NON-SKID RUBBER WHEELS.
- DEMOLITION WITHIN THE ELECTRICAL ROOMS, VAULTS, ELECTRICAL CLOSETS AND STORAGE ROOMS SHALL HAVE DUST PROTECTION AROUND ALL EXISTING EQUIPMENT.
- DOOR FRAMES SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION.
- ACCESS IN CORRIDORS SHALL BE SCHEDULED WITH THE BUILDING DEPARTMENTAL REPRESENTATIVE.
- REDUNDANT MATERIALS SHALL BE REMOVED FROM THE SITE AT THE END OF EACH WORK PERIOD.
- MATERIALS AND EQUIPMENT SHALL NOT BE STORED IN HALLWAYS, CORRIDORS OR STAIRWELLS.
- CONTRACTOR SHALL ALLOW FOR SITE PROTECTION AROUND EXTERIOR TEMPORARY GENERATOR. LOCATION TO BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR SHALL CONFIRM ALL VOLTAGES, RATINGS, AND LOCATIONS ON SITE PRIOR TO PLACING EQUIPMENT ORDERS.
- CONTRACTOR SHALL CONFIRM AND VERIFY TOP FED OR BOTTOM FED FOR EACH PIECE OF EQUIPMENT PRIOR TO PLACING ORDER.
- CONTRACTOR SHALL REFER TO HYDRO OTTAWA DRAWING, ALL WORK RELATED TO THE DRAWING SHALL BE BY THE CONTRACTOR.
- REFERENCE ON HYDRO OTTAWA BY OTHERS SHALL BE BY THE CONTRACTOR.

DRAWING SCHEDULE

E0	ELECTRICAL SPECIFICATIONS
E1	SUB-BASEMENT FLOOR PLAN
E2	BASEMENT FLOOR PLAN
E3	FIRST FLOOR PLAN
E4	SECOND FLOOR PLAN
E5	THIRD FLOOR PLAN
E6	FOURTH FLOOR PLAN
E7	FIFTH FLOOR PLAN
E8	SIXTH FLOOR PLAN
E9	SEVENTH FLOOR PLAN
E10	EIGHTH FLOOR PLAN
E11	NINTH FLOOR PLAN
E12	TENTH FLOOR PLAN
E13	EXISTING SINGLE LINE DIAGRAM
E14	NEW SINGLE LINE DIAGRAM
E15	SUB-BASEMENT NEW ELECTRICAL FLOOR PLAN AND DETAILS, TWELFTH FLOOR PANEL UPGRADE
E16	NEW ELECTRICAL DETAILS
E17	NEW PANEL SCHEDULES
E18	SUB-BASEMENT WELLINGTON WING ELECTRICAL ROOM MODIFICATIONS
M1	SUB-BASEMENT WELLINGTON WING MECHANICAL ROOM MODIFICATIONS
S1	STRUCTURAL DETAILS
A1	SUB-BASEMENT WELLINGTON WING ROOM MODIFICATIONS
	92010585-COM-01
	92010585-COM-02

LEGEND

ITEM	DESCRIPTION
—	NEW EQUIPMENT NOUVEL EQUIPEMENT
---	EXISTING TO BE REMOVED/RELOCATED EXISTANT ETRE ENLEVE/DEPLACÉ
REL. ↶	INDICATES RELOCATE INDIQUE DEPLACÉ
①	DRAWING NOTE No. 1 NOTES DE DESSIN No. 1

SHUTDOWNS AND TEMPORARY POWER PROVISIONS

PHASE 1: TEMPORARY POWER PROVISIONS (SWB-#1)

- BASE BUILDING 400KW- GENERATOR SHALL BE REMOVED OFF LINE.
- ELECTRICAL CONTRACTOR SHALL CONFIRM A, B, C PHASE ROTATIONS PRIOR TO REMOVALS.
- CO-ORDINATE WITH DEPARTMENTAL REPRESENTATIVE 2 WEEKS IN ADVANCE THAT BASE BUILDING GENERATOR WILL BE OFF LINE.
- CONTRACTOR SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE THAT THE SECURITY BOLLARDS WILL BE OFF LINE DURING THE TRANSFER TO TEMPORARY POWER.
- LOCK AND TAG OUT GENERATOR OUTPUT GENERATOR BREAKER.
- LOCK-AND TAG OUT FIRE PUMP BREAKER ON OUTPUT SIDE OF GENERATOR. (CONTRACTOR SHALL CO-ORDINATE WITH BUILDING TECHNICIANS TO ENSURE FIRE PUMP CONTROLLER DOES NOT ACTIVATE FIRE PUMP TO RUN DURING THE REMOVAL OF BASE BUILDING NORMAL POWER
- REMOVE ATS #1 FROM PANEL EMA.
- ATS # 2 FEED FROM EM SHALL REMAIN CONNECTED AND FED FROM THE TEMPORARY GENERATOR.
- REMOVE ATS (BOLLARDS) FOR PANEL UDP1-B1 (BOLLARDS) FROM EMA LOCK-AND TAG OUT BREAKERS. FEED ATS (BOLLARDS) 100 AMP FROM PANEL EM DURING PHASE ONE CONSTRUCTION.
- PANEL EM- REMOVE ATS-#1, ATS #3 BEFORE CONNECTING TO THE EXTERIOR TEMPORARY POWER
- GENERATOR SHALL BE RATED FOR 400KW-500KVA-347/600V C/W FEEDER CABLES, CRITICAL GRADE EXHAUST SYSTEM.
- CONTRACTOR SHALL HAVE GENERATOR TECHNICIAN ON SITE TO MONITOR THE GENERATOR AT ALL-TIMES DURING THE PHASE ONE CONSTRUCTION.
- CONTRACTOR SHALL ALLOW FOR FUEL SUPPLY TO THE TEMPORARY GENERATOR THE DURATION OF THE SHUT-DOWN RATED BY THE DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR SHALL ALLOW FOR 1 WEEK TEMPORARY POWER FOR PHASE ONE.
- TEMPORARY GENERATOR (400KW) SHALL FEED PANEL EM, FIRE-PUMP, ATS (BOLLARDS)- ATS 2 COM CENTER
- CONTRACTOR SHALL NOTIFY BUILDING DEPARTMENTAL REPRESENTATIVE 48 HOURS IN ADVANCE THE 8TH FLOOR KITCHEN WILL BE OFF LINE.

PHASE 2: TEMPORARY POWER PROVISIONS (T-1, SWG--#2, AND T1-CB1)

- DURING THE REMOVAL OF T-1, SWG--#2, AND T1-CB1 CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING FOR THE EXTERIOR PARKING LOTS ADJACENT TO THE CONFEDERATION BUILDING.
- CONTRACTOR SHALL CONFIRM A-B-C PHASE ROTATION PRIOR TO REMOVALS.
- ALLOW 5 TEMPORARY TOWABLE LIGHT TOWERS TO BE EVENLY SPACED TO PROVIDING TEMPORARY LIGHTING TO EACH PARKING LOT AREA.
- TYPE 44000 LUMENS-HEIGHT 30'-OUTRIGGERS 98"- 6000W GENERATOR -C/W 30GAL FUEL TANK.
- CONTRACTOR SHALL ALLOW FOR FUEL FOR EACH LIGHTING TOWER DURING NIGHT HOURS.
- CONTRACTOR SHALL MAN THE UNITS FOR FUEL REFILL AND TURN ON AND OFF DURING DAYLIGHT HOURS.
- CONTRACTOR SHALL NOTIFY THE DEPARTMENTAL REPRESENTATIVE DURING THIS WORK PHASE THE ADJACENT BUILDING (VEHICLE SCREENING) NORMAL POWER WILL BE DOWN AND THEIR BACKUP GENERATOR WILL BE THE ONLY SOURCE OF POWER.

PHASE AFTER PHASE 1 AND 2: TEMPORARY POWER PROVISIONS (SWG-#1 MAIN HYDRO VAULT)

- PROVIDE TEMPORARY POWER FOR FULL BUILDING CONNECTED LOAD DURING THE REMOVAL AND RE-INSTATE OF THE SWG#1
- CONFIRM BUILDING A-B-C PHASE ROTATION.
- CO-ORDINATE POWER SHUT-DOWN WITH HYDRO OTTAWA.
- TAG-AND LOCK-OUT BASE BUILDING GENERATOR DURING THIS PHASE CONSTRUCTION.
- ALLOW 2-WEEK NOTICE TO BUILDING DEPARTMENTAL REPRESENTATIVE FOR FULL BUILDING POWER OUTAGE UNTIL EXTERIOR TEMPORARY GENERATOR IS ON LINE.
- BUILDING WILL BE OFF LINE FOR THE CONNECTION OF THE TEMPORARY GENERATOR.
- PROVIDE 1-1000KW-1250KWAW-347/600V EXTERIOR TEMPORARY GENERATOR. CONTRACTOR SHALL ALLOW FOR REDUNDANCY IF TEMPORARY GENERATOR FAILS OR FAULTS.
- TEMPORARY GENERATOR SHALL BE CONNECTED TO THE EXTERIOR REMOTE GENERATOR CONNECTION POINT LOCATED ON THE BANK STREET SIDE.
- ALLOW FOR 1.5 WEEK FOR POWER GENERATOR RENTAL AND FUEL.
- CONTRACTOR SHALL HAVE A GENERATOR TECHNICIAN OF SITE AT TIMES DURING TEMPORARY POWER.
- TEMPORARY GENERATOR FUEL BY THE CONTRACTOR; ALLOW FOR 80% CONNECTED LOAD.

PHASE 3, 4, 5, 6, 7, & 8

- SHUTDOWN AFFECTS ISOLATED WINGS AT DIFFERENT TIMETABLES.
- NO TEMPORARY POWER PROVISIONS REQUIRED FOR THE SHUTDOWNS.
- CONTRACTOR SHALL SCHEDULE THE POWER INTERRUPTIONS WITH BUILDING DEPARTMENTAL REPRESENTATIVE 2 WEEKS IN ADVANCE FOR WEEKEND SHUTDOWN AND POWER RESTORED AT START OF WORK WEEKS.
- IF CONTRACTOR CHOOSES TO SHUT DOWN MORE THAN ONE WING OVER A WEEKEND PERIOD THEY SHALL ENSURE ADEQUATE MANPOWER IS ON SITE FOR EACH ELECTRICAL ROOM.
- THE 8th FLOOR POWER INTERRUPTIONS SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.



Public Works and
Government Services
Canada

Travaux publics et
Services gouvernementaux
Canada

National Centre of Expertise
Architectural and Engineering Services
Real Property Services Branch

Centre d'expertise national
Services d'architecture et génie
Direction générale des services
immobiliers



300-2611 QUEENSWAY DRIVE
OTTAWA, ONTARIO CANADA K2B 8K2
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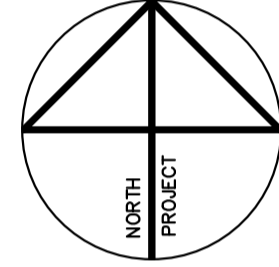
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prior to proceeding with the work.

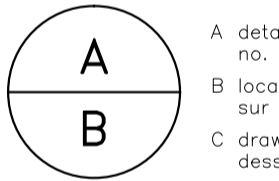
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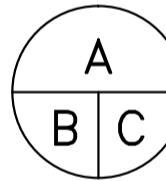
North/Nord



G	ISSUED FOR REV.1 EMIS POUR REV.1	09/FEB/15
F	ISSUED FOR TENDER EMIS POUR SOUMISSION	03/FEB/15
E	ISSUED FOR 100% REVIEW EMIS POUR RÉVISION 100%	15/JAN/15
D	ISSUED FOR 100% REVIEW EMIS POUR RÉVISION 100%	15/DEC/14
C	ISSUED FOR 99% REVIEW EMIS POUR RÉVISION 99%	19/NOV/14
B	ISSUED FOR 66% REVIEW EMIS POUR RÉVISION 66%	07/OCT/14
A	ISSUED FOR 33% REVIEW EMIS POUR RÉVISION 33%	13/AUG/14
revisions		date



A detail no.
no. de détail
B location drawing no.
sur dessin no.
C drawing no.
dessin no.



project

HIGH AND LOW VOLTAGE -
ELECTRICAL UPGRADES

AMÉLIORATIONS ÉLECTRIQUES -
HAUTE ET BASSE TENSION

229 WELLINGTON STREET
OTTAWA, ONTARIO

drawing

dessin

ELECTRICAL SPECIFICATIONS

scale	AS SHOWN	
designed	C. McGuire	conçu
date	20/06/2014	
drawn	M.A. DUFOUR	dessiné
date	20/06/2014	
reviewed	K. BOCHERT	examiné
date	20/06/2014	
approved	K. BOCHERT/C. MCGUIRE	approuvé
date	20/06/2014	
Tender	Soumission

PWC Project Manager Administrateur de projets IPC
project number no. du projet

R.069893.001

drawing no. no. du dessin

E0