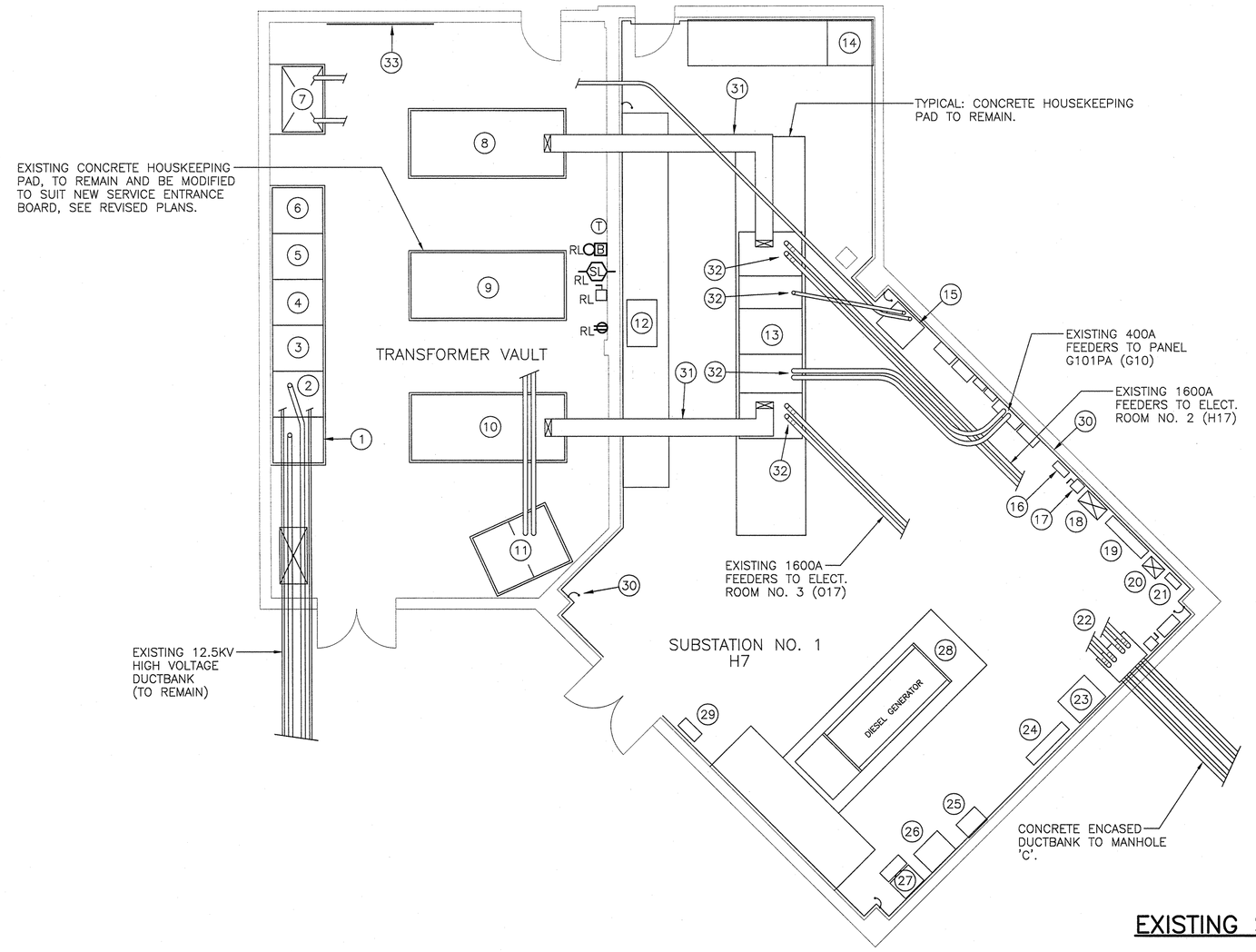

1. EXISTING INCOMING NO. 1 MAIN DISCONNECT. 600A BUS , 12.47KV, 60HZ, 3PH, 4W.
2. EXISTING INCOMING NO. 2 MAIN DISCONNECT. 600A BUS, 12.47KV , 60HZ, 3PH, 4W.
3. EXISTING CT'S & PT'S, UTILITY METERING.
4. EXISTING SPARE 600A BUS, 12.47KV, 60HZ, 3PH, 4W.
5. EXISTING FEEDER DISCONNECT TRANSFORMER 3A. 600A BUS, 12.47KV, 60HZ, 3PH, 4W.
6. EXISTING FEEDER DISCONNECT TRANSFORMER 1A. 600A BUS, 12.47KV, 60HZ, 3PH, 4W.
7. EXISTING 225KVA TRANSFORMER. 600V:4160Y/2400, 3PH, 3.2%, TO REMAIN.
8. EXISTING 2000KVA 12.47KV:347/600V TRANSFORMER '1A'.
9. EXISTING 2000KVA 12.47KV:347/600V SPARE TRANSFORMER, TO BE REMOVED. CONCRETE HOUSEKEEPING PAD, TO REMAIN.
10. EXISTING 2000KVA 12.47KV:347/600V TRANSFORMER '3A'.
11. EXISTING 4160V UNDERGROUND/OVERHEAD SALTWATER LOADBREAK 5KV SWITCHES, TO REMAIN.
12. EXISTING GENERATOR ROOM SUPPLY CABINET, TO REMAIN.
13. EXISTING 4000A, 347/600V, 3PH, 4W, 5 SECTION LOW VOLTAGE DISTRIBUTION BOARD, TO BE REMOVED. SEE REVISED PLANS FOR DETAILS.
14. EXISTING SEAWATER #2 JUNCTION BOX, TO REMAIN.
15. EXSITING TRANSFER SWITCH FOR SEAWATER NO. 4, LOOP 4, 600/347V, TO REMAIN.
16. EXISTING EMERGENCY PANEL H171EB, 100A, 120/208V, TO BE REMOVED.
17. EXISTING 200A, 208V, 3P FUSED (AT 200A) DISCONNECT FOR PANEL H71EB 120/208V, TO BE REMOVED AND REPLACED WITH NEW TO MATCH EXISTING. EXTEND CONDUIT AND WIRING AS REQUIRED TO ACCOMMODATE NEW INSTALLATION.
18. EXISTING 45KVA TRANSFORMER. 600V:120/208V, EMERGENCY DISTRIBUTION TRANSFORMER, TO REMAIN.
19. EXISTING EMERGENCY PANEL H71EA, 347/600V, TO BE REMOVED.
20. EXISTING 45KVA TRANSFORMER FOR PANEL H71EL, 600V:120/208V, TO REMAIN.
21. EXISTING PANEL H71EL, 120/208V, TO REMAIN.
22. EXISTING GAL. STEEL PULL BOX, TO REMAIN.
23. EXISTING TRANSFER SWITCH H7 NO. 1, LOOP 1, 347/600V, TO REMAIN.
24. EXISTING PANEL H17EPA, 800A, 347/600V, 3PH, 4W, TO REMAIN.
25. EXISTING GENERATOR CONTROL PANEL, TO REMAIN.
26. EXISTING 100 IMP GAL DAY TANK, TO REMAIN.
27. EXISTING FUEL TRANSFER PUMP, TO REMAIN.
28. EXISTING 550KW EMERGENCY GENERATOR, TO REMAIN.
29. EXISTING ENCLOSED CIRCUIT BREAKER, 800A, C/W KIRK KEY INTERLOCK, TO REMAIN.
30. TYPICAL: EXISTING GROUND BUS AND ROD CONNECTION, TO REMAIN.
31. EXISTING 2500A BUS DUCT TO BE REMOVED.
32. EXISTING CONDUIT RUNS, TO REMAIN AND BE MODIFIED. SEE REVISED PLANS FOR DETAILS.
33. EXISTING COPPER GROUND BUS ON INSULATED STAND-OFFS LOCATED ON PERIMETER OF ELECTRICAL ROOM TO REMAIN.

EXISTING SUBSTATION NO. 1 (H7) FLOOR PLAN

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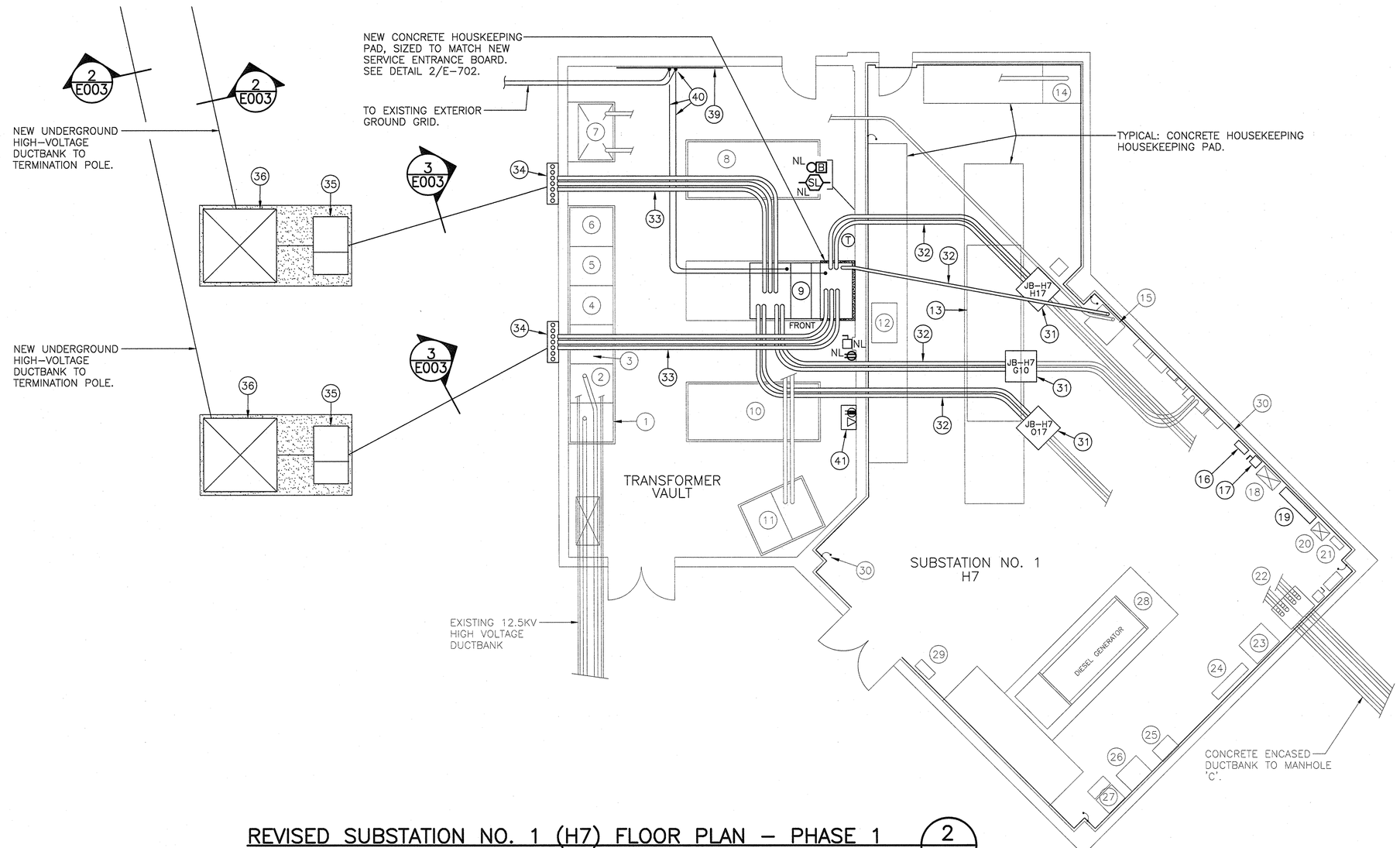
SCALE : 1:75

0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m



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2. EXISTING INCOMING NO. 2 MAIN DISCONNECT. 600A BUS, 12.47KV , 60HZ, 3PH, 4W.
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4. EXISTING SPARE 600A BUS, 12.47KV, 60HZ, 3PH, 4W.
5. EXISTING FEEDER DISCONNECT TRANSFORMER 3A. 600A BUS, 12.47KV, 60HZ, 3PH, 4W.
6. EXISTING FEEDER DISCONNECT TRANSFORMER 1A. 600A BUS, 12.47KV, 60HZ, 3PH, 4W.
7. EXISTING 225KVA TRANSFORMER. 600V:4160Y/2400, 3PH, 3.2%.
8. EXISTING 2000KVA 12.47KV:347/600V TRANSFORMER '1A'.
9. NEW 3000A, 347/600V DISTRIBUTION SWITCHBOARD, SEE RISER DIAGRAM FOR DETAILS.
10. EXISTING 2000KVA 12.47KV:347/600V TRANSFORMER '3A'.
11. EXISTING 4160V UNDERGROUND/OVERHEAD SALTWATER LOADBREAK 5KV SWITCHES.
12. EXISTING GENERATOR ROOM SUPPLY CABINET.
13. OUTLINE OF EXISTING 4000A, 347/600V, 5 SECTION LOW VOLTAGE DISTRIBUTION BOARD. SHOWN FOR REFERENCE ONLY.
14. EXISTING SEAWATER #2 JUNCTION BOX.
15. EXSITING TRANSFER SWITCH FOR SEAWATER NO. 4, LOOP 4, 600/347V.
16. NEW EMERGENCY PANEL H171EB, 225A, 120/208V. SEE PANEL SCHEDULE FOR BREAKER DETAILS.
17. NEW 200A, 208V, 3P FUSED (AT 200A) DISCONNECT FOR PANEL H71EB 120/208V.
18. EXISTING 45KVA TRANSFORMER. 600V:120/208V, EMERGENCY DISTRIBUTION TRANSFORMER.
19. NEW EMERGENCY PANEL H71EA, 347/600V.
20. EXISTING 45KVA TRANSFORMER FOR PANEL H71EL, 600V:120/208V.
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25. EXISTING GENERATOR CONTROL PANEL.
26. EXISTING 100 IMP GAL DAY TANK.
27. EXISTING FUEL TRANSFER PUMP.
28. EXISTING 550KW EMERGENCY GENERATOR
29. EXISTING ENCLOSED CIRCUIT BREAKER, 800A, C/W KIRK KEY INTERLOCK.
30. TYPICAL: EXISTING GROUND BUS AND ROD CONNECTION.
31. NEW JUNCTION BOX (SIZE AS REQUIRED BY CEC), FOR FEEDER EXTENSION AS INDICATED. SEE TYPICAL JUNCTION BOX DETAIL 1/E702.
32. REVISED CONDUIT RUNS, TO BE MODIFIED AND EXTENDED. SEE RISER DIAGRAM FOR SIZING.
33. NEW RIGID GALVANIZED CONDUITS ROUTED FROM JUNCTION BOX TO DISTRIBUTION BOARD.
34. NEW 1200mm x 1200mm x 405mm DEEP 316L STAINLESS STEEL PULL BOX.
35. NEW EXTERIOR NEMA 3R, 2000A, 600V SERVICE ENTRANCE BREAKER, C/W ENERGY REDUCING MAINTENANCE SWITCH.
36. NEW UTILITY PAD MOUNTED 2000KVA TRANSFORMER.
37. REFER TO DETAIL 1/E-111 FOR PHASE 2 LAYOUT.
38. REFER TO DETAIL 1/E-108 FOR REQUIRED HVAC MODIFICATIONS.
39. EXISTING COPPER GROUND BUS ON INSULATED STAND-OFFS LOCATED ON PERIMETER OF ELECTRICAL ROOM TO REMAIN.
40. FEED THRU LUGS ON EXISTING GROUND BUS. SEE DETAIL 2/E-401 FOR CABLE DETAILS AND CONNECTIONS.
41. NEW WALL MOUNTED NETWORK SWITCH FOR METERING. SEE METERING SCHEMATIC 5/E-705. PROVIDE CAT 6 DATA DROP AND 120V RECEPTACLE. EXACT LOCATION OF SWITCH, DATA DROP AND RECEPTACLE TO BE CONFIRMED ON SITE. NEW RECEPTACLE TO BE CONNECTED TO EXISTING EMERGENCY POWER RECEPTACLE CIRCUIT WITHIN ELECTRICAL ROOM, DO NOT EXCEED 80% LOADING ON EXISTING CIRCUIT, TEST CIRCUIT LOAD PRIOR TO CONNECTION.
42. EXISTING CONDUIT ROUTINGS ARE ILLUSTRATED BASED ON VISUAL INVESTIGATION AND ARE CONSIDERED APPROXIMATE. CONTRACTOR IS TO CONFIRM EXACT ROUTING AND LOCATIONS ON SITE AND ADJUST LAYOUTS AS REQUIRED. NOT ALL EXISTING CONDUITS ARE NECESSARILY SHOWN. REFER TO RISER DIAGRAMS FOR THE EXACT EXTENT OF FEEDERS TO BE EXTENDED AND RECONNECTED. WHERE EXISTING FEEDERS STUB THROUGH THE FLOOR SLAB, THEY ARE TO BE SPLICED IN A JUNCTION BOX AT FLOOR LEVEL AND EXTEND VIA A UNISTRUT SUPPORT RACK UP TO THE CEILING SPACE AND ON TO NEW SWITCHBOARD LOCATION. TYPICAL FOR ALL SWITCHBOARD/PANEL BOARD REPLACEMENTS UNDER THIS CONTRACT.

REVISED SUBSTATION NO. 1 (H7) FLOOR PLAN – PHASE 1

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SCALE : 1:75

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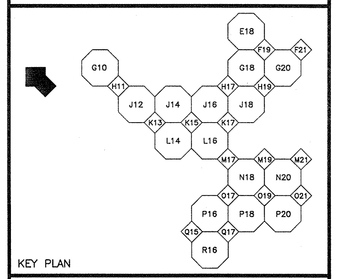
Public Works and Government Services Canada / Travaux Publics et Services gouvernementaux Canada



REGISTERED PROFESSIONAL ENGINEER
PEGL Newfoundland
BERNIE ROBSON
SIGNATURE
2016.08.26
DATE
NEWFOUNDLAND & LABRADOR

PROVINCE OF NEWFOUNDLAND AND LABRADOR
pegnl ENGINEERING PERMIT J0291
STANTEC CONSULTING LTD.
BR 04642
Signature or Member Number (Member-in-Responsible Charge)

revisions		date
0	ISSUED FOR TENDER	AUG 26 2016

project / projet

NORTHWEST ATLANTIC FISHERIES CENTRE MAIN ELECTRICAL UPGRADES

drawing / dessin

PARTIAL FLOOR PLANS SUBSTATION NO. 1 H7 PHASE 1

designed / conçu: B.Ropson
date: March 2016
drawn / dessiné: J. Dillon
date: March 2016
approved / approuvé
date
Tender / Soumission
PWGSC Project Manager / Administrateur de projets TPSGC: 2016-09-12

project number / no. du projet: R.072210.001

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