THE NEW SURREY HOSPITAL

AND

BC CANCER CENTRE PROJECT

Schedule 1 – Statement of Requirements

Appendix 1Y – Spare Parts and Extra Stock Materials

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APPENDIX 1Y – SPARE PARTS AND EXTRA STOCK MATERIALS

PART 1. General

1.1 The Design-Builder will provide spare parts and extra stock materials as set out herein prior to Total Completion of the Project.

1.2 The spare parts and extra stock materials will match those installed in the Facility and meet the requirements as set out in Schedule 1 [Statement of Requirements].

1.3 Provide spare parts in additional to those listed below, as required to ensure uninterrupted operation of critical equipment where parts that might be subject to unexpected failure are not readily available to the Authority.

PART 2. Openings (Division 8)

2.1 The Design-Builder will provide the following Door Hardware:

2.1.1 Provide 2% spare parts of each of the following:

2.1.1.1 Each type of door lever and handle installed;

2.1.1.2 Hinges, door latch assemblies, and

2.1.1.3 Moving parts needed to maintain revolving or sliding doors.

2.1.2 Provide two (2) spare parts of each special tool provided by the manufacturer for door hardware installation and adjustment;

2.1.3 Provide spare cut keys equal to 2% for each type and spare blank keys in accordance with the key management plan as approved by the Authority.

2.1.4 Provide 4 (four) door closer bodies for each unique door closer type;

2.1.5 Provide 4 (four) additional wiring harnesses for each unique type used; and

2.1.6 Provide door controllers – two (2) of each type.

PART 3. Finishes (Division 9)

3.1 Provide 2% extra stock materials of each type and colour of floor finish materials installed. Extra stock will be of same production run as installed materials.

3.2 Provide 2% extra stock materials of each type of ceiling tile materials installed.

PART 4. Specialties (Division 10)

4.1 Provide 2% extra stock materials of each type and colour of wall protection materials installed which includes corner guards, bumpers and railings.

PART 5. Equipment (Division 11)

5.1 Provide 2% extra stock materials of each type and colour of privacy curtain materials installed.

PART 6. Furnishings (Division 12)

6.1 Provide 2% of extra stock materials each type and colour of roller window shade materials installed.

PART 7. Conveying Equipment (Division 14)

7.1 The Design-Builder will provide the following elevator spare parts:

7.1.1 Boards that need to be kept protected such as;

7.1.1.1 Manuals; and

7.1.1.2 Aerosols / lubes.

7.1.2 One (1) duplicate of each board in the controller;

7.1.3 One (1) complete safety edge or proximity edge;

7.1.4 Two (2) door hanger rollers;

7.1.5 Two (2) door gibbs for each type of elevator;

7.1.6 One (1) complete interlock for each type of elevator;

7.1.7 One (1) hall push button assembly of each type; and

7.1.8 One (1) car push button assembly of each type.

7.2 The Design-Builder will provide the following PTS system components:

Stations w/ Nexus Panels	**Qty**	**Transfer Unit's 1x6 and Mini TU**	**Qty**	**Blowers**	**Qty**
Slide plate Assembly 6"	2	Kit Solenoid Vacuum Bypass	4	Valve Motor Assy	2
Seal Receiver Motor 6"	4	Carrier Sensor 6"	2	Cam Follower	8
Gear Motor	4	Reed Switch Assy	4	4 Position PCB	4
Optical Full Sensor	4	Magnet Bracket	2	Guide	4
Touch Screen	2	Motor Ctrl Assy, DC, 1x6 TU, CTS 20/30	2	Bearing	4
Nexus Board w/ SD Card	2	Red to Bison Kit	2	Seal Disc	12
Kit PC Board Carrier Sensor	2	Rotational Harm Mini TU	4	Shift Bar Assy	2
2 Position Board	2	Electronic Module	2	Bearing Support	2
Nexus Panel	1	DC Motor Controller	2	DC Motor Controller	2
SD Cards	6	Gear Motor TU	1		

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Stations w/ Nexus Panels	Qty	Transfer Unit's 1x6 and Mini TU	Qty	Blowers	Qty
Retainer	10	Motor TU w/Chain	1		
Stud 1/4 Turn	10	PC Assy Enet 2	2		
Full Sensor	4	Electronic Module	1		
Carrier Sensor Assy	4	Red To Bison Kit for Mini TU	2		

PART 8. Mechanical (Division 21 - 25)

8.1 The Design-Builder will provide BMS controllers and terminal hardware as follows:

8.1.1 Two (2) sets of each unique element.

8.2 The Design-Builder will provide a complete set of replacement filters excluding HEPA filters, per AHU and fan-coil unit to meet Authority's specification.

8.3 The Design-Builder will provide the following process, potable and hydronic side inline filters:

8.3.1 Supply replacement filters per station and minimum of ten (10) of each type installed in the Facility.

8.4 The Design-Builder will provide one (1) complete set of pumps

8.4.1 One (1) replacement mechanical seals and casing gasket for every two (2) same sized pumps; and

8.4.2 Flex coupling for every three (3) pumps of the same type size.

8.5 The Design-Builder will provide a complete set of fans:

8.5.1 replacement V-belts for each fan;

8.5.2 replacement motor for every five (5) equal sized/type motors; and

8.5.3 Spare VFD panel for each type.

8.6 Plate Heat Exchanger: The Design-Builder will provide:

8.6.1 One (1) set of end plates for each size; and

8.6.2 For a shell and tube HX, one (1) gasket, if used.

8.7 The Design-Builder will provide one (1) set of special tools if required to service equipment as recommended by the manufacturer.

8.8 The Design-Builder will provide one (1) repair kit for every backflow preventer installed.

8.9 The Design-Builder will provide plumbing fixtures as follows:

8.9.1 two (2) spare fixtures for each type of toilet, sink (excluding flush rim and scrub sinks) and associated faucets.

PART 9. Electrical (Division 26)

9.1 The Design-Builder will provide the following lighting and fixtures spare parts:

9.1.1 Three (3) of each type of luminaire.

9.2 The Design-Builder will provide the following electrical switches and fixtures spare parts:

9.2.1 Fifty (50) hospital grade receptacles (50% red, 50% white);

9.2.2 Five (5) hospital grade GFCI receptacles;

9.2.3 Five (5) weather tight receptacle covers;

9.2.4 Fifty (50) cover plates for duplex receptacles;

9.2.5 Twenty-five (25) occupancy sensor dimming switches;

9.2.6 Twenty (20) occupancy sensor dimming switches;

9.2.7 Twenty (20) ceiling mounted occupancy sensor switches;

9.2.8 Ten (10) daylight sensors;

9.2.9 Ten (10) lighting control addressable modules; and

9.2.10 One (1) lighting control panel electronics board.

9.3 The Design-Builder will provide the following high voltage electrical equipment spare parts:

9.3.1 One (1) spare 25kV, 600A rated breaker;

9.3.2 One (1) spare 12.5kV, 600A rated breaker;

9.3.3 Two (2) spare 12.5kV, 1200A rated breaker;

9.3.4 The rating and features of the spare breakers will match the most common breakers installed in the distribution;

9.3.5 Spare auxiliary breaker contacts wired to a terminal block (convertible a/b); and

9.3.6 One (1) of each type of digital meter (including CT and PT).

9.4 The Design-Builder will provide the following low voltage electrical equipment spare parts:

9.4.1 Two (2) spare 1600A frame draw out breakers;

9.4.2 Four (4) spare draw out breaker trip units;

9.4.3 Two (2) spare MCCB breakers for each of the following:

9.4.3.1 100A;

9.4.3.2 200A; and

9.4.3.3 400A.

9.4.4 Five (5) spare MCCB breakers for each of the following:

9.4.4.1 15A; and

9.4.4.2 20A

9.4.5 Two (2) of each type of digital meter including CT's and PT's; and

9.4.6 One (1) spare HMDI interface touch panel.

9.5 The Design-Builder will provide the following electrical accessory spare parts. Accessories to include necessary devices required for operation and maintenance of the equipment and include:

9.5.1 Necessary cranks, lift motors, wrenches, dollies or other tools required to manipulate the movable carriage structure including a maintenance closing lever for the Energy Centre and the Main Electrical Room in the Facility;

9.5.2 Two counterbalanced hoists on wheels with swivel boom, heavy duty winch with positive locking safety latch and lockable wheels, lifting yoke with hooks to allow lifting of a breaker element;

9.5.3 Two electrically operated breaker remote racking devices with minimum 7.6m (25'-0") long umbilical cord and operator pendant. Remote racking device to be capable of being locked-on to the breaker without opening the cubicle door and allow the operator to remotely open/close and rack in/out the breaker. Remote racking device to operate on an external 120V AC power supply;

9.5.4 Instruction and maintenance manuals for equipment furnished and copies of relay calibration, and final 'as left' settings;

9.5.5 Control jumpers, when required, to connect from the secondary device on the stationary structure, to the removable element when it is in the disconnected position, permitting electrical operation of the circuit breaker. Each jumper to consist of a receptacle and plug assembly, with interconnecting flexible cable;

9.5.6 120V DC systems to be provided with spare cell lift (complete with strap and spreader), set connecting bolts, set intercell connectors and set niter-rack and load terminal lugs;

9.5.7 Spare digital metering equipment including spare CTs, PTs, wiring harness, each type of meter and one spare HMI touchscreen; and

9.5.8 Spare protection, sensing and control devices including relays, sensors etc. Additionally, provide spare relay trip units, ground sensing devices etc.

9.6 The Design-Builder will provide the following miscellaneous electrical accessory spare parts:

9.6.1 One (1) spare breaker per switchboard, MDP and CDP of each type used.

9.7 The Design-Builder will provide the following maintenance materials for the Diesel Power Generation:

9.7.1 Four (4) sets of fuel filter replacement elements;

9.7.2 Four (4) sets of lube oil filter replacement elements;

9.7.3 One (1) set of air cleaner filter elements;

9.7.4 Five (5) of each size of fuse utilized in the generator set, including any fuses installed in individual components;

9.7.5 Five (5) of each size or type of indicating lamp; and

9.7.6 One (1) complete set of engine belts.

9.8 The Design-Builder will provide the following spare parts:

9.8.1 Two (2) complete rotating rectifiers and surge suppressor assemblies;

9.8.2 One (1) set of special tools for routine unit servicing; and

9.8.3 One (1) spare Engine Generator Control (EGC) unit and one (1) spare load sharing unit, or equivalent;

9.8.4 One (1) spare complete PLC which is programmed, tested and ready for operation.

9.9 The Design-Builder will provide the following engine component spare parts:

9.9.1 One (1) starter and gasket set;

9.9.2 Two (2) set of fan belts;

9.9.3 One (1) auxiliary fuel transfer pump;

9.9.4 One (1) starter solenoid;

9.9.5 Special tools as required for the maintenance of the equipment provided;

9.9.6 One (1) spare pre-programmed Engine Control Panel for any that are installed for maintenance use as a replacement (e.g. Cummins Power Command PCC3300 with integral HMI320);

9.9.7 Two (2) sets of spare fuses of each rating; and

9.9.8 One (1) spare breaker.

PART 10. Communications (Division 27)

10.1 Clock system components – enough to repair or replace two (2) clocks of each type.

PART 11. Electronic Safety and Security (Division 28)

11.1 The Design-Builder will provide the following fire alarm component spare parts:

11.1.1 Ten (10) pull stations;

11.1.2 Ten (10) smoke detectors;

11.1.3 Three (3) heat detectors;

11.1.4 Three (3) duct smoke detectors;

11.1.5 Five (5) monitoring modules;

11.1.6 Five (5) control relays; and

11.1.7 Ten (10) isolation modules.

11.2 The Design-Builder will provide the following for the access control system spare parts:

11.2.1 Five (5) spare card readers;

11.2.2 Two (2) spare card reader/keypads;

11.2.3 Three (3) door access controllers; and

11.2.4 Ten (10) door contacts.

11.3 The Design-Builder will provide the Authority with spare sprinkler heads of each type installed, storage cabinets for each type of head and a wrench suitable for each head type as follows:

11.3.1 Six (6) extra sprinklers for less than 300 sprinklers;

11.3.2 Twelve (12) for 300 to 1,000 sprinklers; and

11.3.3 Twenty-four (24) for over 1,000 sprinkler heads of each type.

11.4 The Design-Builder will provide the following for the panic duress system spare parts:

11.4.1 Five (5) of each type of fixed panic duress device;

11.4.2 Five (5) of each type of wireless staff panic duress device; and

11.4.3 Three (3) wireless panic duress antennas.

11.5 The Design-Builder will provide the following for the panic IPVS system spare parts:

11.5.1 Five (5) of each type of camera;

11.5.2 Ten (10) of each type of camera mounting and lenses;

11.5.3 One (1) spare network switch;

11.5.4 One (1) spare multiplexer; and

11.5.5 One (1) spare DVR.