ADDRESS: 510 KING STREET | PROJECT No: 2019-07802 | DATE: 2019.06.14 | FILE NAME: 2019078EV3.dwg

SHEET TITLE: ELECTRICAL SPECIFICATIONS

1.1 ELECTRICAL SPECIFICATIONS

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE, SUBMIT AND FACILITATE ALL ITEMS RELATED TO MANITOBA HYDRO POWER SMART PROGRAM INCENTIVES.

2. REFER TO ARCHITECTURAL SPECIFICATIONS AND OTHER GENERAL CONDITIONS.

3. PROVIDE FOR A COMPLETE AND WORKING INSTALLATION AS HEREIN SPECIFIED AND AS SHOWN ON THE DRAWINGS.

4. THE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE, PROVINCIAL AND MUNICIPAL CODES AND REGULATIONS.

5. OBTAIN ALL PERMITS, APPROVALS AND PAY ALL RELATED FEES REQUIRED FOR THIS INSTALLATION.

6. ALL EQUIPMENT SUPPLIED UNDER THIS CONTRACT SHALL BE NEW AND BE C.S.A. APPROVED.

7. COORDINATE ALL CONDUIT RUNS AS SPECIFIED OR AS PER CONTRACT ADMINISTRATOR BEFORE INSTALLATION BEGINS.

8. ARRANGE FOR, AND COORDINATE, ROUGH-IN AND FINAL INSPECTIONS WITH INSPECTION AUTHORITIES, CONTRACT ADMINISTRATOR.

9. VISIT EXISTING SITE WHERE SUCH EQUIPMENT IS PRESENTLY INSTALLED, AND/OR OBTAIN OUTLETS, WIRING AND RECEPTACLE CONFIGURATIONS FROM EQUIPMENT MANUFACTURERS. EXACT CONFIGURATIONS MAY DIFFER FROM THOSE SHOWN ON THE DRAWINGS. INCLUDE ALL COSTS TO PROVIDE NECESSARY OUTLETS WIRING AND RECEPTACLES.

1.2 EXAMINATION

.1 EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS TO ENSURE THAT THE WORK UNDER THIS CONTRACT CAN BE SATISFACTORILY CARRIED OUT. REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR.

.2 THE CONTRACTOR SHALL EXAMINE THE SITE, LOCAL CONDITIONS AND CONSIDER HOW THEY MAY AFFECT THE PROJECT.

1.3 SUPERVISION

.1 SUPERVISE THE WORK AT ALL TIMES THROUGH A RESPONSIBLE AND COMPETENT JOURNEYMEN ELECTRICIAN / SUPERVISOR.

.2 FULL COOPERATION SHALL BE SHOWN WITH OTHER TRADES TO FACILITATE INSTALLATIONS AND TO AVOID DELAYS IN CARRYING OUT THE WORK.

1.4 ACCURACY OF DATA

.1 DRAWINGS ARE SCHEMATIC; EXACT LOCATIONS, DISTANCES, LEVELS AND OTHER DIMENSIONS SHALL BE GOVERNED BY THE BUILDING AS CONSTRUCTED.

.2 OUTLETS OR EQUIPMENT SHALL BE MOVED TO ANY POINT WITHIN A 10' RADIUS WHEN RELOCATION IS REQUESTED BY THE CONTRACT ADMINISTRATOR BEFORE THE WORK HAS BEEN SUBSTANTIALLY COMPLETED, WITHOUT ADDITIONAL COST.

.3 BRANCH CIRCUIT WIRING SHALL BE INSTALLED WITH CIRCUITS ARRANGED EXACTLY AS SHOWN ON THE DRAWINGS. CONDUIT AND CABLE RUNS MAY BE MODIFIED TO SUIT THE INSTALLATION.

1.5 APPROVAL OF MATERIAL

.1 REQUEST FOR APPROVAL OF MATERIAL AS EQUALS OR ALTERNATES TO THAT SPECIFIED SHALL BE SUBMITTED TO THE CONTRACT ADMINISTRATOR IN ACCORDANCE WITH B7.

1.6 SHOP DRAWINGS

.1 PROVIDE SHOP DRAWINGS FOR REVIEW BY THE CONTRACT ADMINISTRATOR, THE SHOP DRAWINGS MUST BE ASSEMBLED INTO COMPLETE BROCHURES.

.2 THE REVIEW OF THE SHOP DRAWINGS IS FOR THE SOLE PURPOSE OF ASCERTAINING CONFORMANCE WITH THE GENERAL DESIGN CONCEPT, THE REVIEW SHALL NOT MEAN APPROVAL OF THE DETAILED DESIGN INHERENT IN THE EQUIPMENT, THE RESPONSIBILITY FOR WHICH SHALL REMAIN WITH THE CONTRACTOR, THE REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL REMAIN RESPONSIBLE FOR CONFIRMING AND CORRELATING THE DIMENSIONS ON THE JOBSITE, AND FOR INFORMATION THAT PERTAINS TO THE FABRICATION PROCESS, CONSTRUCTION TECHNIQUES, AND INSTALLATION DETAILS, AND FOR COORDINATING ALL WORK OF THE RELATED SUB-TRADES.

.3 FABRICATION OF EQUIPMENT SHALL NOT COMMENCE UNTIL SHOP DRAWINGS OF SUCH EQUIPMENT HAVE BEEN REVIEWED AND APPROVED BY THE CONTRACT ADMINISTRATOR. TWO SETS SHALL BE SUBMITTED WITH LOCAL INSPECTION DEPARTMENT APPROVAL WHERE REQUIRED.

.4 THE ELECTRICAL SUB-CONTRACTOR SHALL REVIEW ALL MECHANICAL SHOP DRAWINGS - REQUIRING ELECTRICAL CONNECTION - AND COORDINATE VOLTAGE AND SIZES WITH DIVISION 15 AND GENERAL CONTRACTOR.

1.7 AS-BUILT DRAWINGS

.1 KEEP A RECORD SET OF DRAWINGS ON-SITE AT ALL TIMES RECORDING ANY CHANGES THAT MAY OCCUR. SUBMIT THESE DRAWINGS TO THE CONTRACT ADMINISTRATOR UPON COMPLETION OF THE WORK. AS-BUILTS SHALL INCLUDE TAGGING EXISTING AND NEW CIRCUITS AND EQUIPMENT.

.2 SUBMIT A CERTIFICATE OF INSPECTION FROM THE LOCAL INSPECTION AUTHORITY UPON COMPLETION OF WORK.

.3 THE CONTRACT ADMINISTRATOR RESERVES THE RIGHT TO RECOMMEND A PORTION OF THE CONTRACT FUNDS BE WITHHELD PENDING SUBMISSION OF ACCEPTABLE ON-SITE REDLINE DRAWINGS.

.4 TWO BIND HARD SET COPIES OF AS-BUILTS, PERMITS, TESTS AND OPERATIONS & MANUALS ARE TO BE SUBMITTED AFTER SUBSTANTIAL COMPLETION.

1.8 TESTING

.1 THE ELECTRICAL INSTALLATION SHALL BE COMPLETELY TESTED DEMONSTRATING THE EQUIPMENT AND SYSTEMS INSTALLED PERFORM IN THE MANNER INTENDED.

1.9 GUARANTEE

.1 THE SATISFACTORY OPERATION OF ALL WORK SHALL BE GUARANTEED FOR A PERIOD OF 12 CALENDAR MONTHS AFTER FINAL ACCEPTANCE OF THE BUILDING.

1.10 REQUEST FOR CHANGE

.1 ALL QUOTATIONS IN RESPONSE TO REQUEST FOR CHANGE SHALL BE SUBMITTED COMPLETE WITH AN ITEMIZED COST BREAKDOWN OF ALL MATERIALS AND LABOUR REQUIRED IN THE CHANGE.

1.11 GROUNDING

.1 THE ENTIRE INSTALLATION SHALL BE GROUNDED IN ACCORDANCE WITH THE LATEST EDITION OF CANADIAN ELECTRICAL CODE AND AS SHOWN ON DRAWINGS.

1.12 WORKMANSHIP

.1 INSTALL EQUIPMENT, CONDUIT AND CABLES IN A WORKMANLIKE MANNER TO PRESENT A NEAT APPEARANCE TO THE SATISFACTION OF THE CONTRACT ADMINISTRATOR. INSTALL CONDUITS AND CABLE RUNS PARALLEL AND/OR PERPENDICULAR TO BUILDING GRID LINES & COLUMNS IN CEILING SPACES, CHASES & BEHIND FURRING. IN AREAS WHERE SYSTEMS ARE TO BE EXPOSED, INSTALL NEATLY AND GROUP TO PRESENT A TIDY APPEARANCE.

.2 INSTALL EQUIPMENT AND APPARATUS REQUIRING MAINTENANCE, ADJUSTMENT OR EVENTUAL REPLACEMENT WITH ADEQUATE CLEARANCES AND ACCESSIBILITY FOR SAME.

.3 INCLUDE, IN THE WORK, ALL REQUIREMENTS SHOWN ON THE SHOP DRAWINGS OR MANUFACTURERS' INSTALLATION INSTRUCTIONS.

.4 REPLACE WORK UNSATISFACTORY TO THE CONTRACT ADMINISTRATOR WITHOUT EXTRA COST.

.5 USE OF CLIPS FOR SECURING AC90 TO CEILING SYSTEM IS PROHIBITED.

.6 ALL CONDUITS MUST BE CLIPPED TO STRUCTURAL CONCRETE BY MEANS OF SUITABLE ANCHORS OR SUPPORTED BY UNISTRUT HANGERS AS CLOSE TO UNDERSIDE AS POSSIBLE. TYE WRAPS FOR WIRE HANGING AND FASTENING IS NOT ACCEPTABLE. PERFORATED STRAPPING IS ALSO UNACCEPTABLE. ALL ELECTRICAL COMPONENTS MUST BE SUPPORTED INDEPENDENTLY.

.7 ALL ELECTRICAL SUPPORTS AND HANGER SHALL CONFORM TO LATEST EDITION OF CANADIAN ELECTRICAL CODE AND/OR MANUFACTURER'S INSTALLATION INSTRUCTIONS .

2.0 MATERIALS AND INSTALLATION

2.1 OUTLET BOXES

.1 OUTLET, JUNCTION AND SWITCH BOXES SHALL BE GALVANIZED PRESSED STEEL OF SIZE AND TYPE TO SUIT EACH INDIVIDUAL APPLICATION.

.2 COMMERCIAL DUTY DUPLEX RECEPTACLES, DATA FACEPLATES SHALL BE WHITE & CSA APPROVED, C/W STAINLESS STEEL FACE PLATES MOUNTED 18" ABOVE FINISHED FLOOR OR OTHERWISE NOTED.

.3 LIGHT SWITCHES SHALL BE MOUNTED 42" ABOVE FINISHED FLOOR OR OTHERWISE NOTED.

.4 OUTLETS SHALL NOT BE LOCATED ANYWHERE ON THE EXTERIOR CURTAIN WALL. OUTLETS SHOWN SHALL BE MOUNTED ON THE NEAREST DIVIDING WALL 2' FROM OUTSIDE WALL, OR NEAREST FURRED OUT COLUMN.

.5 PROVIDE ALL REQUIRED ACCESS PANELS WITH SUITABLE FIRE RATINGS FOR THE WALL OR CEILING THEY ARE BEING INSTALLED IN.

2.2 WIRING METHODS

.1 EXISTING WIRING INCLUDING INSULATION THAT IS FRAYED, CRACKED OR DEEM NOT TO CODE SHALL BE REPLACED TO MEET CODE.

.2 UNLESS OTHERWISE SHOWN ON THE DRAWINGS, ALL WIRE SHALL BE COPPER, MINIMUM #12 AWG WITH 90 DEGREES CELSIUS X-LINK INSULATION. WIRING TO BE INSTALLED IN CONDUIT (INCLUDING WIRING ON ROOF DECK FLUTES WHERE APPROVED).

.3 WIRING IN CONCRETE OR MASONRY CONSTRUCTION SHALL BE INSTALLED IN STEEL ELECTRICAL METALLIC TUBING (EMT). PROVIDE A SEPARATE GROUNDING CONDUCTOR IN EMT CONDUIT RUNS EMBEDDED IN CONCRETE SLABS. CONDUITS INSTALLED IN AREAS EXPOSED TO MOISTURE SHALL HAVE WATERTIGHT FITTINGS.

.4 ALL WIRING IN FINISHED AREAS SHALL BE CONCEALED. ALL CONDUCTORS AND CONDUITS SHALL BE RUN PERPENDICULAR OR PARALLEL TO THE BUILDING CORE WALLS.

.5 CONDUIT AND WIRING SHALL BE GROUPED WHERE POSSIBLE AND CLIPPED IN A NEAT AND WORKMANLIKE MANNER.

.6 AC-90 CABLE TO BE USED FOR DROPS FROM CONDUIT SYSTEMS TO RECESSED LIGHTING FIXTURES IN ACCESSIBLE CEILINGS OR OUTLET BOXES IN STEEL STUD WALLS ONLY. HOME RUNS SHALL BE IN CONDUIT. MAXIMUM RUN OF AC-90 IN ACCESSIBLE CEILING SPACE SHALL BE 5'-0". .

.7 IF APPLICABLE, EACH CIRCUIT FOR COMPUTER EQUIPMENT, PRINTERS AND COPIERS SHALL HAVE A SEPARATE NEUTRAL CONDUCTOR. .

.8 PROVIDE ONE ISOLATED GROUND CONDUCTOR PER THREE 2 WIRE ISOLATED GROUND CIRCUITS.

.9 CONDUIT RUNS SHALL BE INSTALLED AND INSPECTED BEFORE AC-90 RUNS ARE INSTALLED TO ENSURE CONFORMANCE WITH ITEM .5 HEREIN.

.10 THREE WIRE AC-90 SHALL NOT BE USED FOR ISOLATED GROUND WIRING, UNLESS IT INCLUDES A GREEN INSULATED CONDUCTOR FOR THIS PURPOSE.

.11 ALL AC-90 USED FOR DROPS SHALL BE RUN TIGHT TO DECK AND FOLLOW LINES OF BEAMS AND BUILDING.

.12 ALL WIRING IN SERVICE AREAS TO BE IN SURFACE MOUNTED EMT. DO NOT RUN CONDUIT HORIZONTALLY ON WALLS, VERTICAL DROPS ONLY.

2.3 IDENTIFICATION OF EQUIPMENT

.1 ALL EQUIPMENT SHALL BE IDENTIFIED WITH 3/8" X 1-1/2" (1/8" LETTERS) ENGRAVED LAMACOID NAMEPLATES INDICATING PANEL AND CIRCUIT NUMBER (A-1). LAMACOIDS SHALL BE EITHER SCREWED OR RIVETED IN PLACE. WITH EXCEPTION TO RECEPTACLES AND LIGHTING SWITCHES, SELF ADHESIVE TYPE IS ACCEPTABLE.

.2 LAMACOIDS SHALL BE WHITE LETTERING ON RED FACE FOR EMERGENCY POWER AND FIRE ALARM DEVICES.

.3 BLACK LETTERING ON WHITE FACE FOR NORMAL POWER DEVICES AND COMMUNICATION PANELS.

.4 PROVIDE 1" X 3" LAMACOIDS FOR EACH NEW CDP BREAKER, INDICATING PANEL OR FEED BEING FED., IF APPLICABLE.

2.4 LUMINAIRES

.1 SUPPLY AND INSTALL LUMINAIRES AND ASSOCIATE COMPONENTS, AS PER LUMINAIRE SCHEDULE TO OPERATE AS INTENDED WITH MANUFACTURES INSTRUCTIONS.

.2 ALL LUMINAIRES SHALL BE 4000 K, UNLESS NOTED OTHERWISE.

.3 ALL SWITCHING SHALL BE RUN IN CONDUIT.

2.5 CUTTING AND PATCHING

.1 ARRANGE AND PAY FOR ALL CUTTING AND PATCHING AS REQUIRED FOR THE ELECTRICAL INSTALLATION.

.2 PROVIDE & INSTALL APPROPRIATE FIRE STOP AT ALL FIRE WALL &/OR FLOOR PENETRATIONS. ACCEPTABLE MANUFACTURERS: HILTI, DOW CORNING, FIRE-STOP SYSTEMS (ELASTA-SEAL) OR G.E. SILICONE.

.3 REFER TO MANUFACTURERS' SPECIFICATIONS FOR PRODUCT AND INSTALLATION DETAILS.

2.6 DEVICES

.1 COLORS OF RECEPTACLES, SWITCHES, OUTLETS SHALL BE WHITE , UNLESS NOTED OTHERWISE.

.2 SWITCHES SHALL BE HUBBELL, ARROW HART, BRYANT, LEVITON, WOODHEAD, PASS & SEYMOUR, 15 AMPS, 125 / 347 VAC. MOUNT SWITCHES 42" ABOVE FINISH FLOOR. UNLESS OTHERWISE NOTED. OCCUPANCY LIGHT SWITCHES SHALL NOT BE MOUNTED BEHIND DOORS OR LOCATIONS RESTRICTING THE SENSOR AREA.

.3 ACCEPTABLE MANUFACTURERS FOR RECEPTACLES SHALL BE HUBBELL, ARROW HART, BRYANT, LEVITON, WOODHEAD, PASS & SEYMOUR, MOUNT RECEPTACLES 18" ABOVE FINISH FLOOR, UNLESS OTHERWISE NOTED.

.4 PROVIDE STAINLESS STEEL COVER PLATES FOR DEVICES.

2.7 PUBLIC ADDRESS (PA) SYSTEM

1. AMPLIFIER
   - 1.1. TOA A-9120SM2
     - 1.1.1. RATED OUTPUT; 120 W
     - 1.1.2. AUDIO INPUT; MAX. 8 CHANNELS, MODULAR CONSTRUCTION
     - 1.1.3. PLUG-IN MODULE 9000 SERIES (D-001T) TO PROVIDE TWO INDEPENDENT BALANCED INPUTS MIC LEVEL TO LINE LEVEL..
     - 1.1.4. PLUG-IN MODULE 9000 SERIES (ZP-001T) ZONE PAGING MODULE (CONNECTS AMP TO ANALOG PABX, ALLOWING ZONE PAGING TO BE INITIATED FROM THE PABX)
     - 1.1.5. PLUG-IN MODULE 9000 SERIES (D-001R) 2-CHANNEL UNBALANCED INPUTS OF RCA JACKS

2. PAGING MICROPHONE
   - 2.1. TOA PM-660U
   - 2.2. PLUG-IN TO RECESS WALL PLATE WITH 3-PIN XLR CONNECTION. LOCATION AT RECEPTION DESK.

NOTES:

No.	REVISION/DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	DTA	2024 .02.02
0	ISSUED FOR CONSTRUCTION	DTA	2023 .07.04
000	REVISED TO CLIENT'S REQUEST. ISSUED FOR CLASS 3 COST ESTIMATE	DTA	2023 .02.23
00	ISSUED FOR CLASS 3 COST ESTIMATE	DTA	2019 .06.18

SEAL

PROVINCE OF MANITOBA
2024-02-02
X. WU
Member
2024
REGISTERED PROFESSIONAL ENGINEER

DRAWN	DTA	CHECKED	DESIGNED	DTA	APPROVED
DATE	2019.06.14	USER APPROVAL			

Winnipeg

THE CITY OF WINNIPEG
PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3–65 GARRY STREET, R3C 4K4

PROJECT

TURTLE ISLAND NEIGHBOURHOOD CENTRE
KITCHEN RENOVATIONS
DESIGN OF KITCHEN RENOVATIONS
510 KING STREET

SHEET TITLE

ELECTRICAL SPECIFICATIONS

POWER AND SYSTEMS

SCALE	PROJECT No:	SHEET No:
AS SHOWN	2019-07801	E3

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1