SPECIFICATIONS:

<u>GENERAL:</u>

SUPPLY ALL LABOUR, EQUIPMENT AND MATERIALS NECESSARY TO INSTALL COMPLETE AND OPERATIONAL, THE ELECTRICAL SYSTEMS HEREIN AND SHOWN ON THE DRAWINGS.

WHERE THE TERM "PROVIDE" IS USED IT SHALL BE UNDERSTOOD TO INCLUDE LABOUR, MATERIALS AND SERVICES NECESSARY TO SUPPLY AND INSTALL ITEMS OR WORK REFERRED TO.

DRAWINGS AND SPECIFICATIONS:

THESE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PROVIDE FOR A COMPLETE AND OPERATIONAL ELECTRICAL INSTALLATION. THE RESPONSIBILITY FOR SUPPLYING AND INSTALLING MATERIALS ESSENTIAL TO ACHIEVE THIS SHALL BE PART OF THIS SECTION, EXCEPT WHERE SPECIFICALLY NOTED THAT SUCH OR MATERIALS IS NOT INCLUDED.

CODES AND STANDARDS;

ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES INCLUDING BUT NOT LIMITED TO THE ONTARIO BUILDING CODE CURRENT REVISION (REFERRED TO AS OBC HEREAFTER) AND THE CURRENT VERSION OF THE ONTARIO ELECTRICAL SAFETY CODE INCLUDING ALL AMENDMENTS AND RELEVANT BULLETINS (REFERRED TO AS OESC HEREAFTER).

PERMITS, FEES AND INSPECTION:

THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ELECTRICAL INSPECTION CERTIFICATE FOR WORK. THE ELECTRICAL CONTRACTOR SHALL INFORM THE GREER GALLOWAY GROUP (GGG HEREAFTER) OF ANY DEFICIENCIES FOUND BY THE ELECTRICAL SAFETY AUTHORITY. A COPY OF THE ELECTRICAL INSPECTION CERTIFICATE SHALL BE FORWARDED TO THE GREER GALLOWAY GROUP UPON COMPLETION OF THE WORK.

<u>MATERIALS:</u>

ALL MATERIALS SUPPLIED SHALL BE NEW AND SHALL CONFORM IN ALL RESPECTS TO THE DRAWINGS AND SPECIFICATIONS. SUPPLIED MATERIAL SHALL ALSO BE CSA OR ULC APPROVED.

GUARANTEES:

GUARANTEE ALL WORK FOR ONE YEAR FOLLOWING THE DAY OF FINAL ACCEPTANCE BY THE OWNER. THIS GUARANTEE SHALL INCLUDE WORK AND MATERIALS FOR ALL PROBLEMS RESULTING FROM IMPROPER INSTALLATION OR EQUIPMENT FAILURE OR DEFECTS.

PROTECTION AND REPAIR:

TAKE ALL NECESSARY PROVISIONS TO ENSURE THE SAFETY OF OCCUPANTS AND PERSONNEL. PROTECT FINISHED AND UNFINISHED WORK FROM DAMAGE RESULTING FROM ON-GOING WORK. PROVIDE FULL DUST PROTECTION AND KEEP EQUIPMENT DRY AND CLEAN AT ALL TIMES. PROTECT EXISTING SERVICES NOT INCLUDED IN SCOPE OF WORK. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT NO COST TO THE OWNER, ANY DAMAGES TO SURFACES AND FINISHES CAUSED DIRECTLY OR INDIRECTLY AS A RESULT OF HIS WORK.

<u>CUTTING AND PATCHING:</u>

GET WRITTEN APPROVAL FROM THE OWNER FOR ANY REQUIRED CUTTING. COORDINATE WITH GENERAL CONTRACTOR TO PERFORM ALL CUTTING/CORE DRILLING AND PATCHING FOR ELECTRICAL INSTALLATIONS.

<u>CLEAN UP:</u>

AT THE END OF EACH DAY, PERFORM REGULAR CLEAN UP TASKS AND REMOVE ALL TOOLS, EQUIPMENT, ETC. TO ENSURE CLEANLINESS OF PREMISES.

EQUIPMENT DISPOSAL AND DECOMMISSIONING:

THE CONTRACTOR WILL TAKE ALL NECESSARY STEPS TO HAVE EQUIPMENT THAT WAS REMOVED OR REPLACED AS PART OF ANY WORK DISPOSED OF OR DECOMMISSIONED IN ACCORDANCE WITH APPROPRIATE DISPOSAL OR DECOMMISSIONING PROCESSES, APPLICABLE LAWS, AND IN ACCORDANCE WITH COMMERCIALLY REASONABLE ENVIRONMENTAL PRACTICES.

THE CONTRACTOR MUST SUBMIT WRITTEN PROOF OR EVIDENCE OR ACKNOWLEDGEMENT THAT THE DISPOSAL OF ALL MATERIALS WAS DONE IN ACCORDANCE WITH ALL CURRENT DISPOSAL REQUIREMENTS.

ACCEPTABLE DOCUMENTS:

 INVOICES OR DISPOSAL CERTIFICATES FROM THE DISPOSAL FACILITY THIS DOCUMENTATION MUST BE ON THE DISPOSAL FACILITY'S LETTERHEAD, INVOICE, OR CERTIFICATE.

MINIMUM INFORMATION REQUIRED:

- BUILDING NAME AND ADDRESS
- EQUIPMENT DESCRIPTION (LAMPS, MOTORS, COOLING EQUIPMENT, ETC.)
- EQUIPMENT QUANTITIES
- DISPOSAL FACILITY NAME

THE CONTRACTOR MUST SUBMIT A COMPLETED RETROFIT PROGRAM DISPOSAL FORM IF THE DISPOSAL INVOICES OR CERTIFICATES DO NOT PROVIDE ENOUGH INFORMATION TO VERIFY THE EQUIPMENT DETAILS AS REPORTED IN THE INCENTIVE APPLICATION. REFER TO ARCHITECTURAL SPECIFICATION MANUAL APPENDIX A FOR AN EXAMPLE OF A DISPOSAL FORM.

SHOP DRAWINGS:

PRIOR TO DELIVERY OF ANY PRODUCTS TO THE SITE AND ADEQUATELY IN ADVANCE TO PERMIT SUFFICIENT TIME FOR CHECKING, SUBMIT SHOP DRAWINGS FOR REVIEW OF REQUIREMENTS AS SPECIFIED IN THIS DIVISION.

SHOP DRAWINGS SHALL BE SUBMITTED FOR THE FOLLOWING LIST OF MATERIAL. GGG RESERVES THE RIGHT TO REQUIRE SUBMISSION OF SHOP DRAWINGS FOR ADDITIONAL MATERIAL NOT LISTED BELOW. ONLY SHOP DRAWINGS LISTED OR REQUESTED WILL BE REVIEWED BY GGG.

- PANELS AND PANEL BOARDS
- CIRCUIT BREAKERS AND FUSES
- DISCONNECTS, SWITCHES

MANUFACTURE OF PRODUCTS SHALL CONFORM TO REVIEWED SHOP DRAWINGS.

KEEP ONE COMPLETE SET OF REVIEWED SHOP DRAWINGS AT THE JOB SITE DURING CONSTRUCTION.

CLOSE OUT DOCUMENTATION:

SUBMIT ONE COPY OF THE ELECTRICAL INSPECTION CERTIFICATE TO THE GREER GALLOWAY GROUP

SUBMIT THREE (3) COPIES OF ELECTRICAL OPERATING AND MAINTENANCE MANUALS AT CONCLUSION OF WORK. MANUALS SHALL BE ASSEMBLED IN HARD COVERED 3-RING BINDERS AND SHALL INCLUDE THE FOLLOWING:

STATEMENT OF WARRANTY REVIEWED SHOP DRAWINGS

INSTALLATION AND MAINTENANCE INFORMATION FOR ALL EQUIPMENT, INCLUDING NAMES AND ADDRESSES OF NEAREST SUPPLIERS.

ELECTRICAL INSPECTION CERTIFICATE PROVIDE TWO (2) SETS OF DRAWINGS PRINTED ON WHITE PAPER, CAREFULLY MARKED UP IN RED PEN TO SHOW ALL ACTUAL DEVIATIONS FROM WORKING

DRAWINGS. INDICATE ACTUAL LOCATION AND CIRCUIT NUMBERS FOR ALL DEVICES.

SITE EXAMINATION:

EXAMINE THE SITE OF WORK AND BECOME FAMILIAR WITH ALL STRUCTURES AFFECTING THIS WORK. REPORT TO THE ENGINEER ANY UNSATISFACTORY CONDITIONS WHICH MAY AFFECT PROPER COMPLETION OF THIS WORK. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR EXTRA WORK DUE TO EXISTING CONDITIONS, WHICH SUCH EXAMINATION WOULD REVEAL.

WIRING METHODS:

ALL WIRING SHALL BE COPPER UNLESS INDICATED OTHERWISE.

MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG.

TYPE AC-90 SHALL BE USED FOR RUN-OUTS TO FIXTURES AND CONCEALED IN WALLS. WHERE USED IN WALLS THE MAXIMUM HORIZONTAL LENGTH SHALL BE 6M. TYPE TECK-90 FLEXIBLE ARMOURED ABLE TO CSA NO. 131.

TYPE R90 SINGLE CONDUCTOR TO CSA 22.2 NO.38. PROVIDE SEPARATE CODE SIZED INSULATED GROUND CONDUCTOR FOR CIRCUITS RUN IN CONDUIT BRANCH CIRCUIT WIRE SIZES INDICATED ON ANY EQUIPMENT SCHEDULES ARE RATED ON 90°C. WHERE EQUIPMENT IS MARKED WITH A MAXIMUM CONDUCTOR TERMINATION TEMPERATURE, REVISE WIRE SIZE AS PER 4-006 OF OESC. WIRING PENETRATING ANY HORIZONTAL OR VERTICAL ASSEMBLY REQUIRED TO HAVE A FIRE-RESISTANCE RATING SHALL BE IN ACCORDANCE WITH THE LOCAL BUILDING CODE. CONDUITS OR CABLES SHALL BE TIGHTLY FITTED AND FIRE STOPPED WHERE NECESSARY TO MAINTAIN FIRE RATING.

WIRING DEVICES:

RECEPTACLES SHALL BE COMMERCIAL GRADE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE RECEPTACLE HEIGHT WITH ALL MILLWORK. REFER TO ARCHITECTURAL DRAWINGS FOR MILLWORK LOCATIONS AND DETAILS. SWITCHES AND THERMOSTATS SHALL BE MOUNTED 1200MM ABOVE FINISHED FLOOR IN ACCORDANCE WITH THE OBC 3.8.1.5

COMMERCIAL GRADE COMPLETE WITH LED INDICATOR LIGHT.

<u>GROUNDING/BONDING:</u>

PROVIDE GROUNDING AND BONDING IN ACCORDANCE WITH SECTION 10 OF THE ONTARIO ELECTRICAL SAFETY CODE - CURRENT REVISION. BONDING CONDUCTORS SHALL BE SIZED AS PER TABLE 16 OF THE ONTARIO ELECTRICAL SAFETY CODE. WHERE NECESSARY, COORDINATE GROUNDING REQUIREMENTS WITH LOCAL

EQUIPMENT LOCATIONS:

CONSULT WITH THE OWNER AND ALL OTHER SUBTRADES INVOLVED TO CONFIRM THE LOCATIONS OF THE VARIOUS OUTLETS AND EQUIPMENT AND COOPERATE FULLY TO ENSURE THAT NO CONFLICT ARISES DURING THE INSTALLATION.

PULL BOXES AND JUNCTION BOXES:

GALVANIZED OR PRIME PAINTED SHEET STEEL TO CSA C22.2 NO.40. SIZE AND ACCESSORIES TO SUIT APPLICATION.

JOINTS FOR APPLICATION IN AND BELOW SLAB.

ALL COVER PLATES SHALL BE NYLON IN FINISHED AREAS, WITH COLOUR TO MATCH DEVICES. PROVIDE WEATHERPROOF 'WHILE IN-USE' COVERS FOR EXTERIOR RECEPTACLES.

GROUND FAULT CIRCUIT INTERRUPTING (GFCI) DUPLEX RECEPTACLES SHALL BE

AUTHORITIES.

ELECTRIC METALLIC TUBING TO CSA C22.2 NO.83 WITH SET SCREW CONNECTORS. MINIMUM CONDUIT SIZE IS 21MM.

RIGID PVC CONDUIT TO CSA C22.2 NO.211.2, NO.211.0, NO.85 C/W SOLVENT WELD



BELLEVILL KINGSTO CATARAQUI WOODS DRIVE, UNIT 2

> PHONE: 613-536-542 FAX: 613-548-379

ENGINEERS & PLANNER

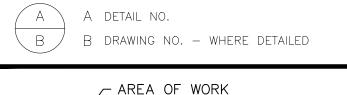
KINGSTON, ONTARIO, K7P 2

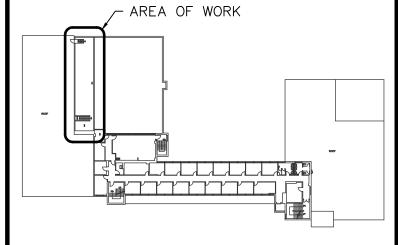


Public Works and
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- ALL WORK SHALL BE IN ACCORDANCE WITH RELEVANT CODES AND GUIDELINES INCLUDING THE ONTARIO
- ALL DRAWINGS AND ADDENDA ARE TO BE READ AS, AND IN CONJUNCTION WITH THE SPECIFICATIONS.
- ALL EQUIPMENT SHALL BE INSTALLED AS SPECIFIED OR APPROVED EQUIVALENT.
- CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH WORK AND BE
- RESPONSIBLE FOR SAME. CONTRACTOR MUST REPORT ANY DISCREPANCIES TO
- ENGINEER FOR RESOLUTION BEFORE COMMENCING THE ANY CHANGES MUST BE APPROVED BY THE ENGINEER.

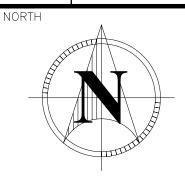


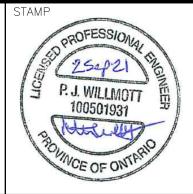




KEYPLAN

3	ISSUED FOR TENDER	02.09.2021
2	ISSUED FOR 99%	26.08.2021
1	ISSUED FOR 66%	20.07.2021
REVISION	DESCRIPTION	DD.MM.YYYY





| Correctional Services Of Canada 445 Union Street West Kingston, Ont., K7L 2R8

Correctional Services Canada Kingston, Ontario

And Schedule

Specifications

DESIGNED BY P. Willmott

M. Rowsell

S. Lane

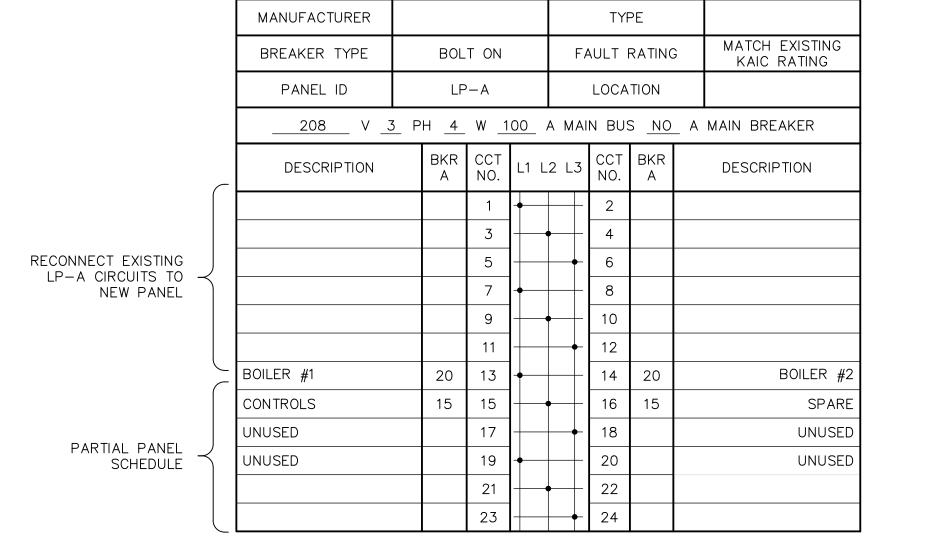
S. Lane

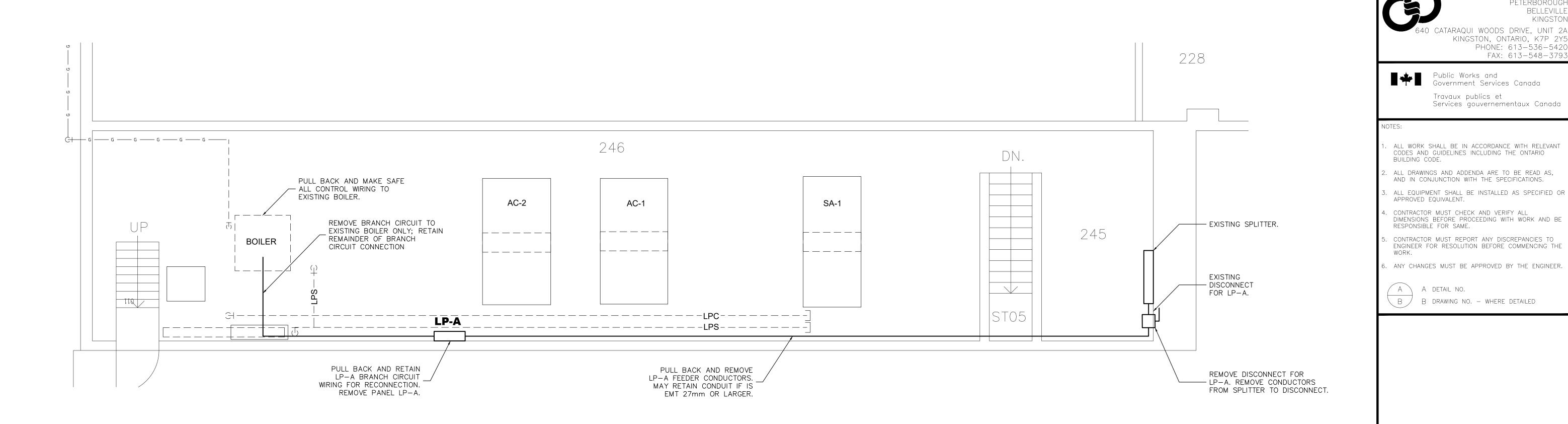
JUNE 2021 (DD/MM/YYY

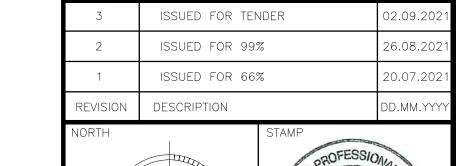
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As Shown







THE GREER GALLOWAY GROUP INC

40 CATARAQUI WOODS DRIVE, UNIT 2*A*

Services gouvernementaux Canada

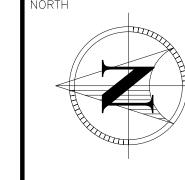
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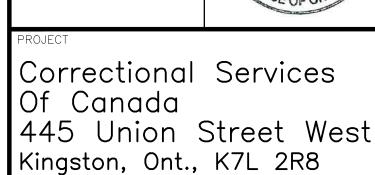
ENGINEERS & PLANNERS

KINGSTON, ONTARIO, K7P 2YS PHONE: 613-536-5420

FAX: 613-548-3793

PETERBOROUGH BELLEVILLE KINGSTON





P. J. WILLMOTT 100501931

Correctional Services Canada

Kingston, Ontario

Electrical Boiler Replacement Demo And New

DESIGNED BY P. Willmott

M. Rowsell

S. Lane

S. Lane

PROJECT DATE

JUNE 2021 (DD/MM/YYY

2152710 As Shown

501

228 NEW CONTROL PANEL. $\sqrt{3}$ -1/C AWG#12 RW90 CU + GND IN 21mm EMT 246 AC-2 AC-1 SA-1 **B-2** B-1 - EXISTING SPLITTER. 245 0 \oplus . — — — — — — - - - - - - -- — — — -⊕° Φ° PROVIDE NEW - DISCONNECT FOR LP-A. 110 LP-A PROVIDE LOCKABLE DISCONNECT FOR EACH BOILER, MIN. 30A, 2 HP MOTOR RATING. MOUNT WITHIN 9M AND WITHIN SIGHT OF BOILER. DO NOT MOUNT ON BOILER. 1. PROVIDE NEW PANELBOARD 120/208V 100A 3P/4W MAIN 60A, 208V, 3ø, 4W 50AF, 200K - 4-I/C AWG#6 RW90 CU+GND IN 27mm EMT. 2. MATCH EXISTING KAIC RATING C/W BREAKERS AND NEW WALL MOUNT/BACKING BOARD PER OESC.

3. CONNECT MAIN TO NEW LP-A FEEDER FROM NEW 2 I/C AWG#10 RW90 CU _ + GND IN 21mm EMT DISCONNECT. 4. MATCH EXISTING BREAKER # POLES, INTERRUPT RATING AND KAIC RATING FOR EXISTING LP-A CIRCUITS. 5. PROVIDE NEW BREAKERS PER PARTIAL PANEL SCHEDULE FOR NEW BOILERS, CONTROL PANEL AND SPARE CIRCUITS, MATCH EXISTING BREAKER KAIC RATING. PARTIAL FLOOR PLAN - MECHANICAL ROOM (NEW) SCALE: 1:40

PARTIAL FLOOR PLAN - MECHANICAL ROOM (DEMO)

SCALE: 1:40