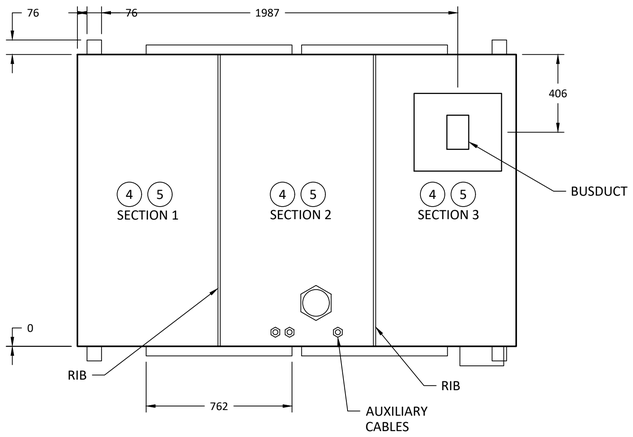
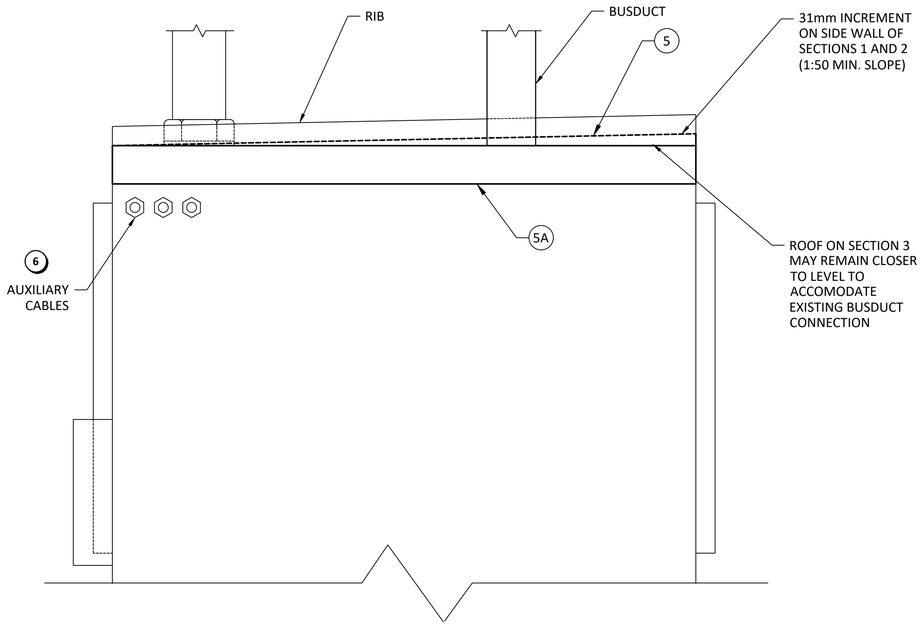
A1 SIZE - 594mm x 841mm



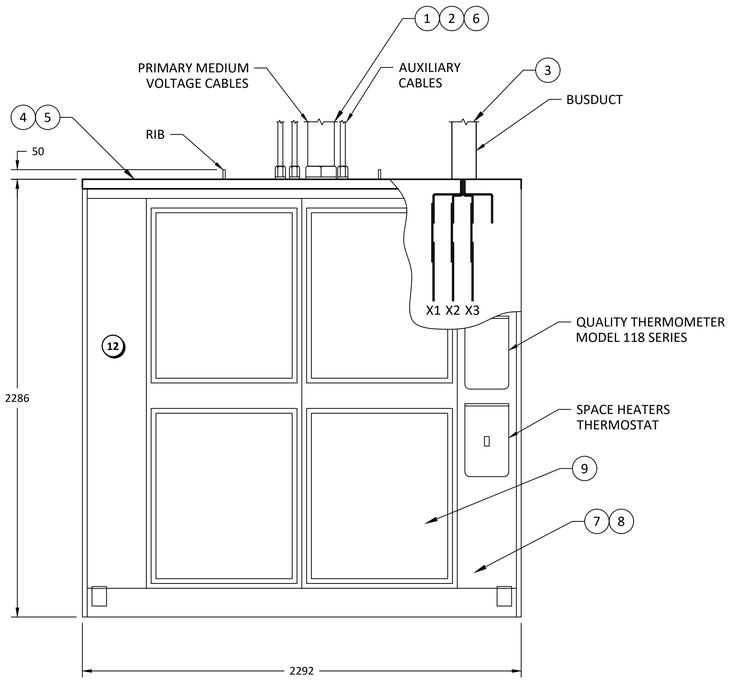
TOP VIEW - EXISTING

SCALE 1:16



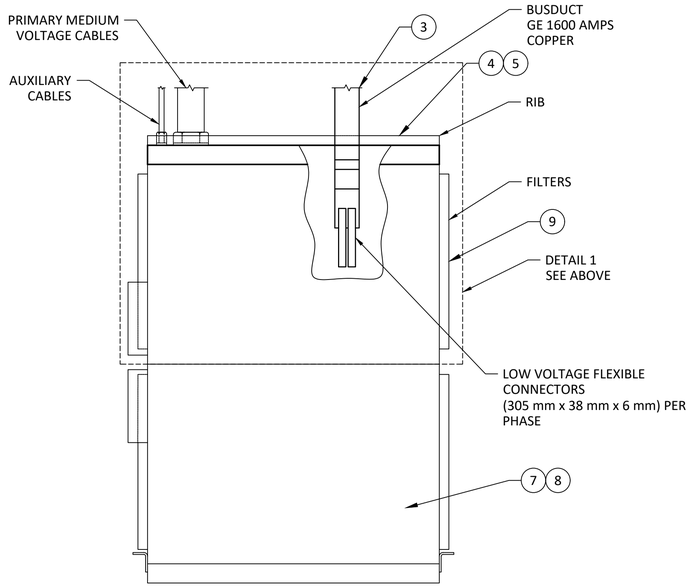
RIGHT SIDE VIEW - NEW

SCALE 1:8



FRONT VIEW - EXISTING

SCALE 1:16



RIGHT SIDE VIEW - EXISTING

SCALE 1:16

CONSTRUCTION NOTES:

1	TEST THE TRANSFORMER AND CABLES PRIOR TO REMOVING.
2	DISCONNECT AND CAREFULLY REMOVE THE 4160V PRIMARY POWER CABLES.
3	DISCONNECT THE BUSDUCT AND REMOVE THE TRANSITION SECTION AND OTHER SECTIONS AS REQUIRED TO REMOVE THE TRANSFORMER ROOF.
4	REMOVE THE TRANSFORMER ROOF AND COVER THE TRANSFORMER AS REQUIRED TO PREVENT MOISTURE INGRESS WHILE THE ROOF IS REMOVED.
5	REPLACE THE EXISTING STEEL WITH A STAINLESS STEEL ROOF THAT HAS A MINIMUM SLOPE OF 1:50 ON SECTION 1 AND SECTION 2. THE SECTION 3 ROOF SLOPE MAY BE MINIMIZED TO ALLOW FOR THE BUSDUCT CONNECTION. A POSSIBLE DESIGN CONCEPT IS SHOWN IN DETAIL 1. HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE MODIFIED ROOF AND MODIFICATION OF ALL THE CONNECTIONS, INCLUDING THE BUSWAY CONNECTION. PROVIDE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION.
5A	PROVIDE AND ATTACH INSULATION TO THE INTERIOR OF THE ENCLOSURE ROOF. IN ADDITION TO ATTACHING THE INSULATION REUTILIZE OR PROVIDE NEW FIBREBOARD TO PREVENT INSULATION FROM FALLING DOWN.
6	RE-INSTALL ALL CABLES AND BUSDUCT, REPLACE ALL THE CABLE GLANDS, AND PROVIDE THE ASSOCIATED STRUCTURE TO SUPPORT THE CABLES, TAKING CARE NOT TO DAMAGE. RE-ENTRY OF ALL AUXILIARY CABLES TO BE FROM THE RIGHT SIDE OF THE TRANSFORMER. REPAIR THE 4160V CABLES AS DESCRIBED IN THE SPECIFICATIONS.
7	CLEAN CORROSION ON THE ENCLOSURE EXTERIOR WALLS, DOORS, AND ALL OTHER PANELS. DO NOT UTILIZE SANDBLASTING OR OTHER TECHNIQUES WHICH COULD IMPACT THE TRANSFORMER.
8	PRIME AND PAINT THE ENTIRE ENCLOSURE EXTERIOR WITH AN EPOXY PAINT.
9	REMOVE AND CLEAN ALL FILTERS.
10	CLEAN THE TRANSFORMER INTERIOR.
11	TEST THE TRANSFORMER AND CABLES UPON COMPLETION OF THE REPAIR WORK.
12	INSTALL A NEW SIGN WITH A RED FACE CONTAINING THE WORDS: "DANGER: 4160 V".
13	COORDINATE, PAY FOR, AND RECEIVE AN INSPECTION AND APPROVAL OF THE TRANSFORMER MODIFICATIONS BY THE OFFICE OF THE FIRE COMMISSIONER OR APPROPRIATE AUTHORITY HAVING JURISDICTION.

DRAWING NUMBER	REFERENCE DRAWINGS
1-0101U-E0013	SINGLE LINE DIAGRAM, 4160V ELECTRICAL DISTRIBUTION
1-0101U-E0016	SINGLE LINE DIAGRAM, 600V AND 208/120V DISTRIBUTION
1-0101U-E0020	INSTALLATION DETAILS, CABLE TRAY, AND BUSDUCT SUPPORTS

NOTES:

1. ALL DIMENSIONS SHOWN ARE APPROXIMATE ONLY AND REQUIRE FIELD CONFIRMATION.
2. ALL BRACING AND FIELD INSTALLED CHANNELS ARE NOT SHOWN. SITE INVESTIGATION IS REQUIRED.

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
CENGYS Ltd.
No. 6983

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR CONSTRUCTION (896-2021)	2022-01-06	CJR	CJR

CENGYS
www.cengys.com

DESIGNED BY: C. REIMER	CHECKED BY: C. REIMER
DRAWN BY: S. FUNK / E. COELHO	APPROVED BY: C. REIMER
SCALE: AS SHOWN	ISSUED FOR CONSTRUCTION BY: K. SCHIMKE
DATE: 2021-08-15	DATE: 2022-01-06
CONSULTANT NO.: 100022-011	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
REIMER
Member
21968
REGISTERED PROFESSIONAL ENGINEER
2022-01-10

Winnipeg
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT
UV TRANSFORMER REPAIR
EQUIPMENT LAYOUT
LST-4 AND LST-5 TRANSFORMERS

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101U-E0019	001	00	A1