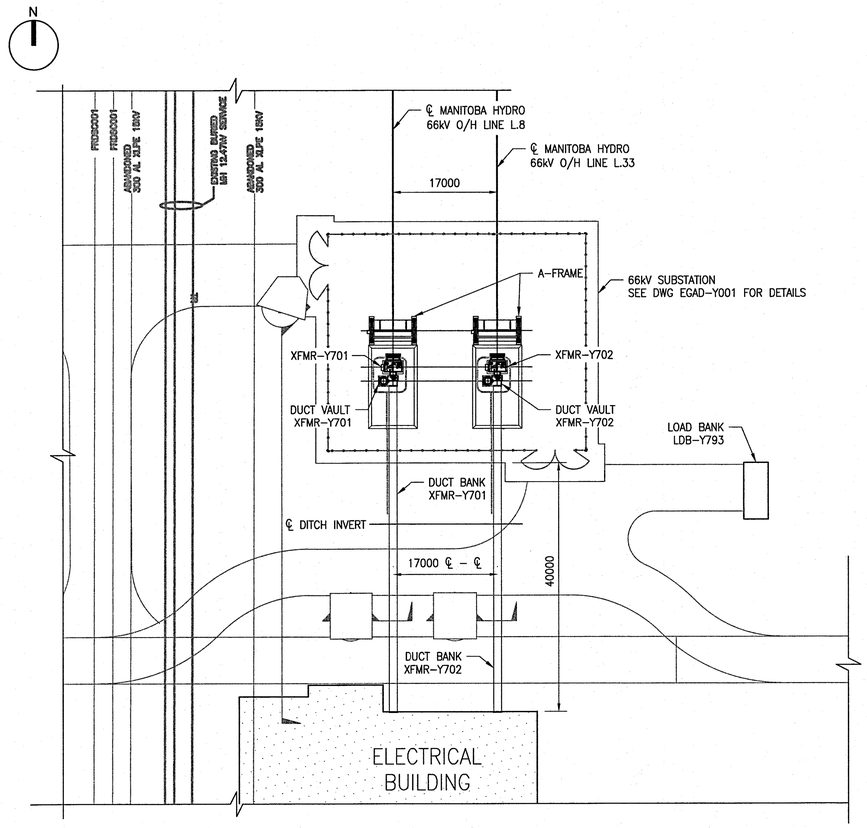
A1 SIZE – 594mm x 841mm

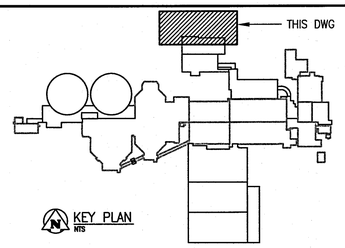


SUBSTATION SITE PLAN WITH CABLE DUCT BANKS

1 : 500

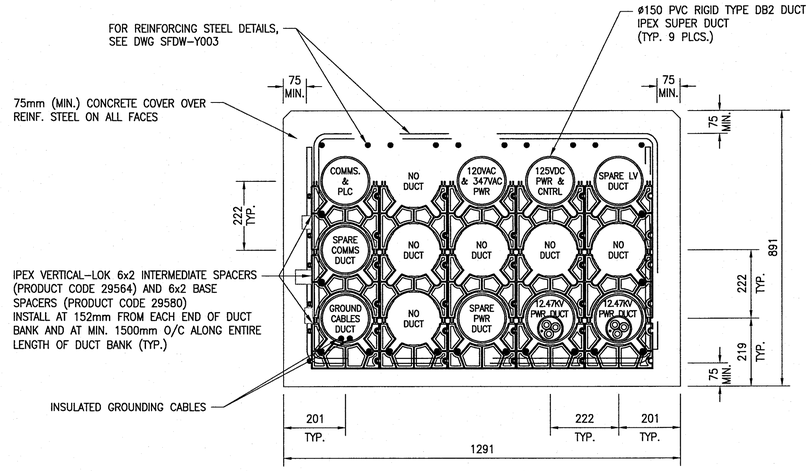
GENERAL NOTES:

1. THE EQUIPMENT LAYOUTS, DETAILS, WIRING, AND DIMENSIONS DEPICTED ON THESE DRAWINGS ARE BASED UPON SPECIFIC EQUIPMENT TYPES AND MANUFACTURERS THAT ARE DEFINED ON THE DRAWINGS AND IN THE SPECIFICATIONS. USE OF ALTERNATIVE EQUIPMENT OTHER THAN THE "STANDARD OF ACCEPTANCE" DEFINED IS PERMITTED. HOWEVER, USE OF ALTERNATIVE EQUIPMENT BY THE CONTRACTOR IS SUBJECT TO THE CONTRACTOR HAVING RECEIVED FORMAL "APPROVED EQUAL" STATUS FOR THE EQUIPMENT IN QUESTION FROM THE CONTRACT ADMINISTRATOR. THE PROCESS REQUIRED TO OBTAIN FORMAL "APPROVED EQUAL" STATUS IS DEFINED AND DETAILED IN THE SPECIFICATIONS.
2. ANY CHANGES TO LAYOUTS, DETAILS, WIRING AND DIMENSIONS INCLUDING ALL ASSOCIATED COSTS ARISING FROM THE USE OF "APPROVED EQUAL" MATERIALS AND EQUIPMENT WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. USE OF "APPROVED EQUAL" EQUIPMENT SHALL RESULT IN A FULLY FUNCTIONAL INSTALLATION IN ACCORDANCE WITH THE REQUIREMENTS AND INTENT OF THE DESIGN DOCUMENTS.
3. DESIGN CHANGES NECESSITATED BY THE USE OF "APPROVED EQUAL" MATERIALS OR EQUIPMENT SHALL BE DETAILED BY THE CONTRACTOR VIA THE SHOP DRAWING SUBMITTAL PROCESS AS DESCRIBED IN THE SPECIFICATIONS AND CONSTRUCTION DOCUMENTS. ALL SUCH DRAWINGS SHALL BE PREPARED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED OR LICENSED IN THE PROVINCE OF MANITOBA AND SHALL BE SEALED BY THE SAME ENGINEER.



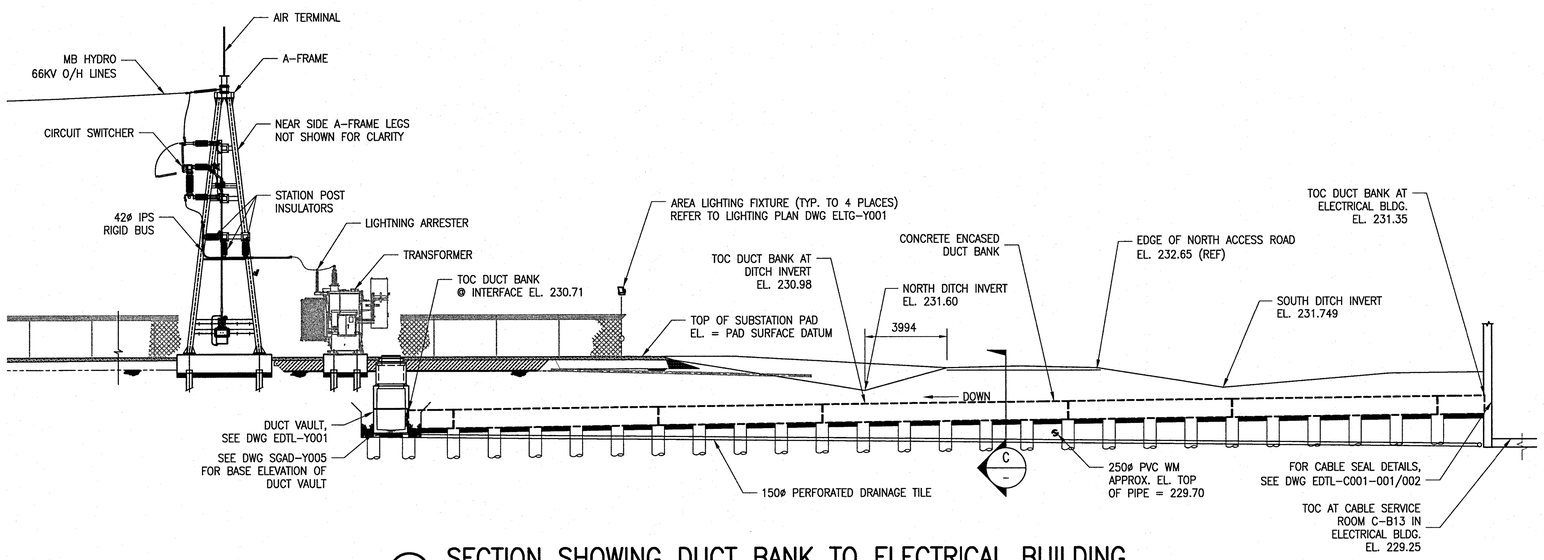
DUCT BANK CABLE ASSIGNMENTS

DUCT	DESCRIPTION	DUCT BANK XFMR–Y701 CABLES	DUCT BANK XFMR–Y702 CABLES
COMMS. & PLC	8PR, 16 AWG, ACIC	CA–Y701–7	CA–Y702–7
120VAC & 347VAC PWR	2C, 10 AWG, TECK90	CA–Y701–3	CA–Y702–3
	2C, 10 AWG, TECK90	CA–Y701–4	CA–Y702–4
	3C, 10 AWG, TECK90	CA–Y701–5	CA–Y702–5
	2C, 12 AWG, TECK90	CA–Y701–6	CA–Y702–6
	2C, 12 AWG, TECK90	CA–Y701–7	CA–Y702–7
	2C, 12 AWG, TECK90	C–723–7A	C–723–8A
125VDC PWR & CNTRL	2C, 10 AWG, TECK90	C–Y701–9	C–Y702–9
	2C, 6 AWG, TECK90	C–Y701–10	C–Y702–10
	2C, 10 AWG, TECK90	C–Y701–11	C–Y702–11
	20C, 14 AWG, TECK90	CA–Y701–5	CA–Y702–5
SPARE LV DUCT	EMPTY	EMPTY	EMPTY
SPARE COMMS. DUCT	EMPTY	EMPTY	EMPTY
GROUND CABLES DUCT	2–1C, 4/0 AWG, RW90	C–Y701–2	C–Y702–2
SPARE PWR DUCT	EMPTY	EMPTY	EMPTY
12.47kV PWR DUCT	3C, 350kcmil, 15kV TECK90	C–Y701–1	C–Y702–1
12.47kV PWR DUCT	3C, 350kcmil, 15kV TECK90	C–Y701–1	C–Y702–1



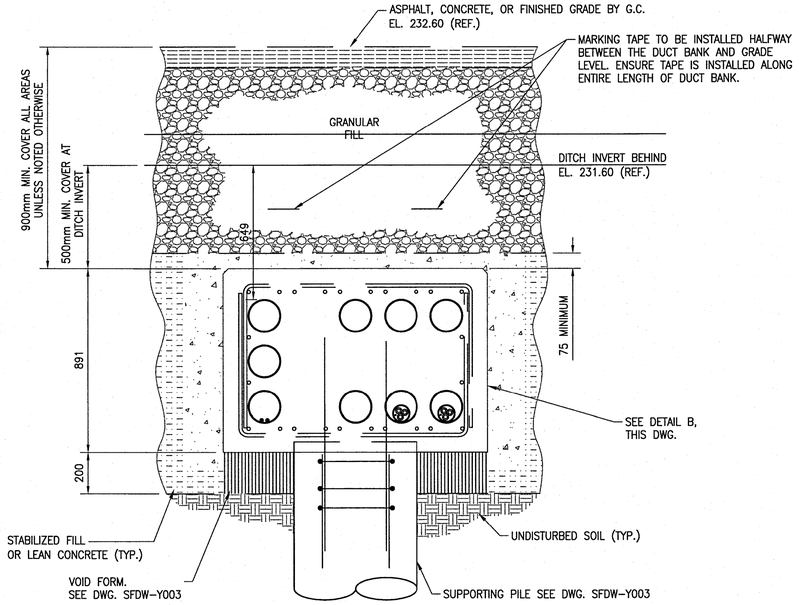
(B) DUCT BANK DETAILS (LOOKING NORTH)

1 : 10



(A) SECTION SHOWING DUCT BANK TO ELECTRICAL BUILDING

1 : 125



(C) DUCT BANK INSTALLATION DETAIL

NTS

REFERENCE DRAWINGS	DESCRIPTION
1–0102–SGAD–Y003	66kV SUBSTATION, SITE SECTION
1–0102–SGAD–Y005	66kV SUBSTATION, SITE SECTION AND DETAILS
1–0102–EGAD–Y001	66kV SUBSTATION, GENERAL ARRANGEMENT
1–0102–EGAD–Y005	66kV SUBSTATION, SECTION B
1–0102–EGAD–Y004	66kV SUBSTATION, SECTION A

1:10 100 0 200 400
1:125 1250 0 2500 5000
1:500 5000 0 10000 20000

APEGM Certificate of Authorization
SNC-Lavalin Inc.
No. 4489

NO.	REVISIONS	DATE	DESIGN	CHECK
00	ISSUED FOR CONSTRUCTION – 976–2016	2017/04/05	CWB	CWB

CH2MHILL. SNC·LAVALIN KGS GROUP CONSULTING ENGINEERS

DESIGNED BY: P. PANUFNIK	CHECKED BY: C. WEISS–BUNDY
DRAWN BY: MJ. PERSSON	APPROVED BY: E. RYCZKOWSKI
SCALE: AS SHOWN	ISSUED FOR CONSTRUCTION BY: J. SHUMKA
DATE: 2015/09/21	DATE: 2017/04/05
CONSULTANT NO.: 474248	

ENGINEER'S SEAL
PROVINCE OF MANITOBA
C. L. WEISS-BUNDY Member 5001
REGISTERED PROFESSIONAL ENGINEER
2017/04/05

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPCC UPGRADING/EXPANSION PROJECT
ELECTRICAL
66 kV SUBSTATION
CABLE DUCT BANK PLAN DETAILS AND SECTIONS

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1–0102–EGAD–Y002	001	00	A1

LAST SAVE: 2017/03/30 – 11:04am
PATH: C:\pw_workdir\ch2mhill_wbg\ve006717\d0356711\1–0102–EGAD–Y002.dwg

PLOT DATE: Mar 30, 2017 – 11:04am

FILE NAME: 1–0102–EGAD–Y002.dwg