



City of Iqaluit
IQALUIT WASTE WATER TREATMENT PLANT
NUNAVUT

ALARM DIALER UNIT



				DESIGN BY	DRAWN BY	PROJECT No.	DATE
				EVS	EVS	75360	OCT2004
				CHECKED BY	APPROVED BY	SHEET No.	REV.
				JH	MS	ISSDLLR	O
No.	DATE	REVISION		APPR			
	1	MANUFACTURER		Barnett Engineering Ltd.			
	2	MODEL NO.		B1290			
	3	TYPE		ProTalk Plus Voice Dialler			
	4	SERVICE		Alarm Dialler			
	5						
	6	TAG NO.					
	7						
	8	VOICE CAPABILITY		Digital			
	9	NUMBER OF MESSAGES		8			
	10						
	11	RADIO CAPABILITY		Yes			
	12						
	13	DATA LOGGER		N/A			
	14	MEMORY		N/A			
	15						
	16	NUMBERS PROGRAMMABLE		4 Directories of 16			
	17	ALARM INPUTS		8			
	18	INPUT TYPE		Optically Isolated, Ground To Trigger			
	19	CONTROL OUTPUTS		4			
	20	OUTPUT TYPE		Form C Controllable from DTMF or Trigger on Inputs			
	21						
	22	I/O EXPANDABLE		Yes, Not Required in This Scope			
	23						
	24	POWER SUPPLY		See Battery Backup			
	25	BACKUP BATTERY		Yes			
	26						
	27	PROGRAMMING SOFTWARE		Yes			
	28						
	29	ENCLOSURE		6.5" x 8.5" x 2" Metal			
	30	ENVIRONMENT		-40 to +60 Deg. C, 95% Relative Humidity			
	31	MOUNTING		Panel Backplane Mount			
	32	CABLE + COMMS		Programming Cable With Software			
	33						
	34	APPROVALS REQUIRED		CSA			
	35						
	36						
	37						
	38						
	39						
N O T E S	40						
	41	TAGGING					
	42	PROCUREMENT		Supplied, Programmed and Installed by Contractor			
	43						
	44	ALTERNATES					
	45	ACCESSORIES		Installation, Operation and Maintenance Manual			
	46						



City of Iqaluit
IQALUIT WASTE WATER TREATMENT PLANT
NUNAVUT

PLC CONTROLLER &
OPERATOR INTERFACE



				DESIGN BY	DRAWN BY	PROJECT No.	DATE
				EVS	EVS	75360	OCT 2004
				CHECKED BY	APPROVED BY	SHEET No.	REV.
				JH	MS	ISSPLC	O
No.	DATE	REVISION	APPR				
P L C	1	MANUFACTURER		Rockwell			
	2	MODEL No.		Allen Bradley SLC Series			
	3	TYPE		5 / 05			
	4	SERVICE		Plant Controller			
	5						
	6	TAG No.					
	7	CPU		tbc			
	8	I/O RACK		tbc			
	9						
	10	POWER SUPPLY CARD		tbc			
	11	MEMORY		tbc			
	12	BACKUP BATTERY		tbc			
	13	COMMUNICATION CARD		tbc			
	14			tbc			
	15	DIGITAL INPUT		tbc			
	16	DIGITAL OUTPUT		tbc			
	17			tbc			
	18	ANALOG INPUT		tbc			
	19	ANALOG OUTPUT		tbc			
	20	PROGRAMMING SOFTWARE		tbc			
	21	ENCLOSURE		tbc			
	22	MOUNTING		tbc			
	23	CABLE + COMMS		tbc			
	24						
	25	APPROVALS REQUIRED		CSA			
O P E R A T O R I F A C E	26	TAG NUMBER		tbc			
	27	MANUFACTURER		tbc			
	28	MODEL No.		tbc			
	29	TYPE		tbc			
	30	COMMS		Ethernet			
	31						
	32	APPROVALS REQUIRED		CSA			
	33						
	34						
	35						
	36						
	37						
	38						
	39						
N O T E S	40						
	41	TAGGING					
	42	PROCUREMENT		Supplied, Programmed and installed by Contractor			
	43			Above quantities include 1 spare of each item			
	44	ALTERNATES					
	45	ACCESSORIES		Installation, Operation and Maintenance Manual			
	46						

INSTRUMENT LOOP DRAWINGS

1. GENERAL

1.1 References - General

- .1 Refer To Section 17010.

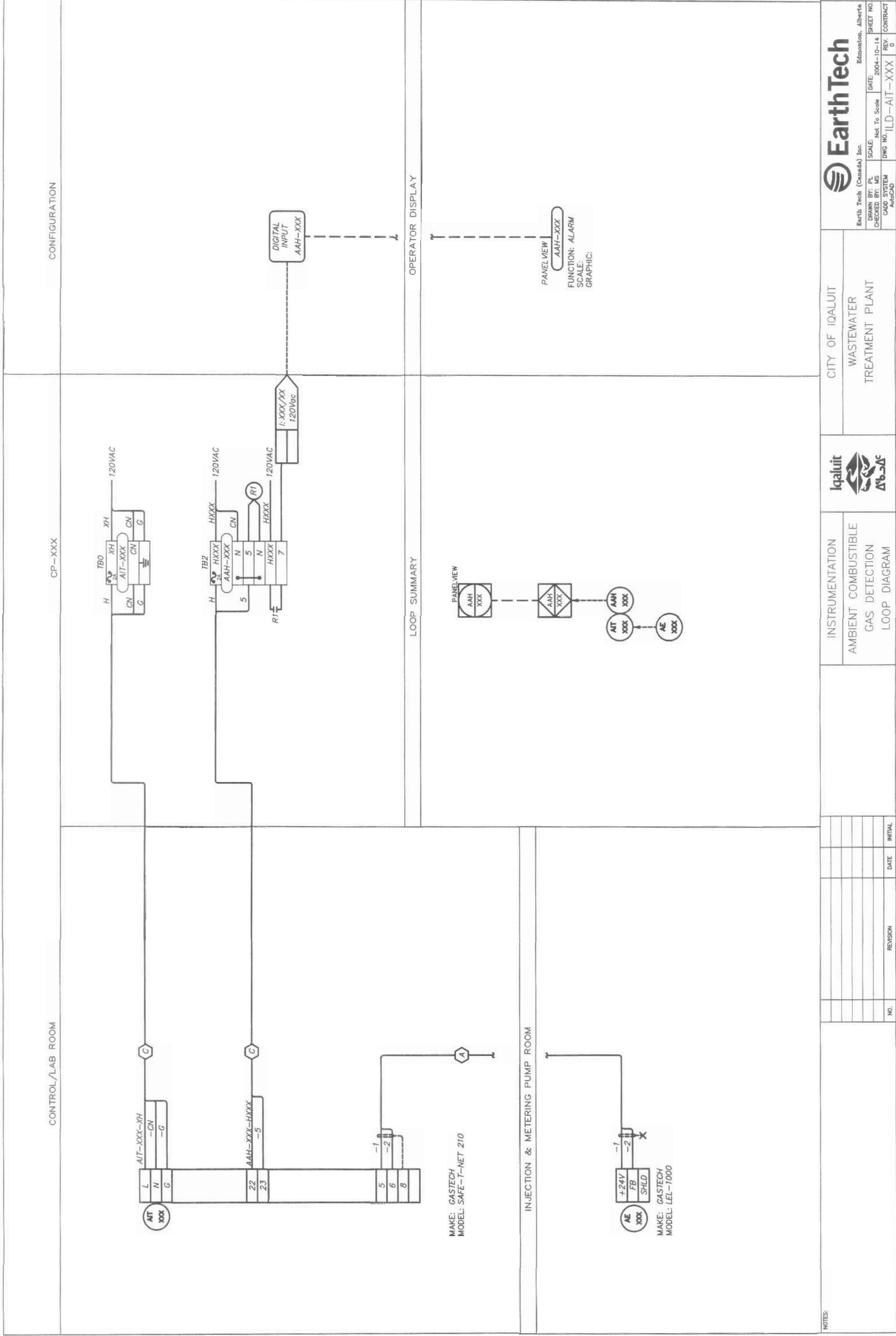
1.2 Instrument Loop Drawings

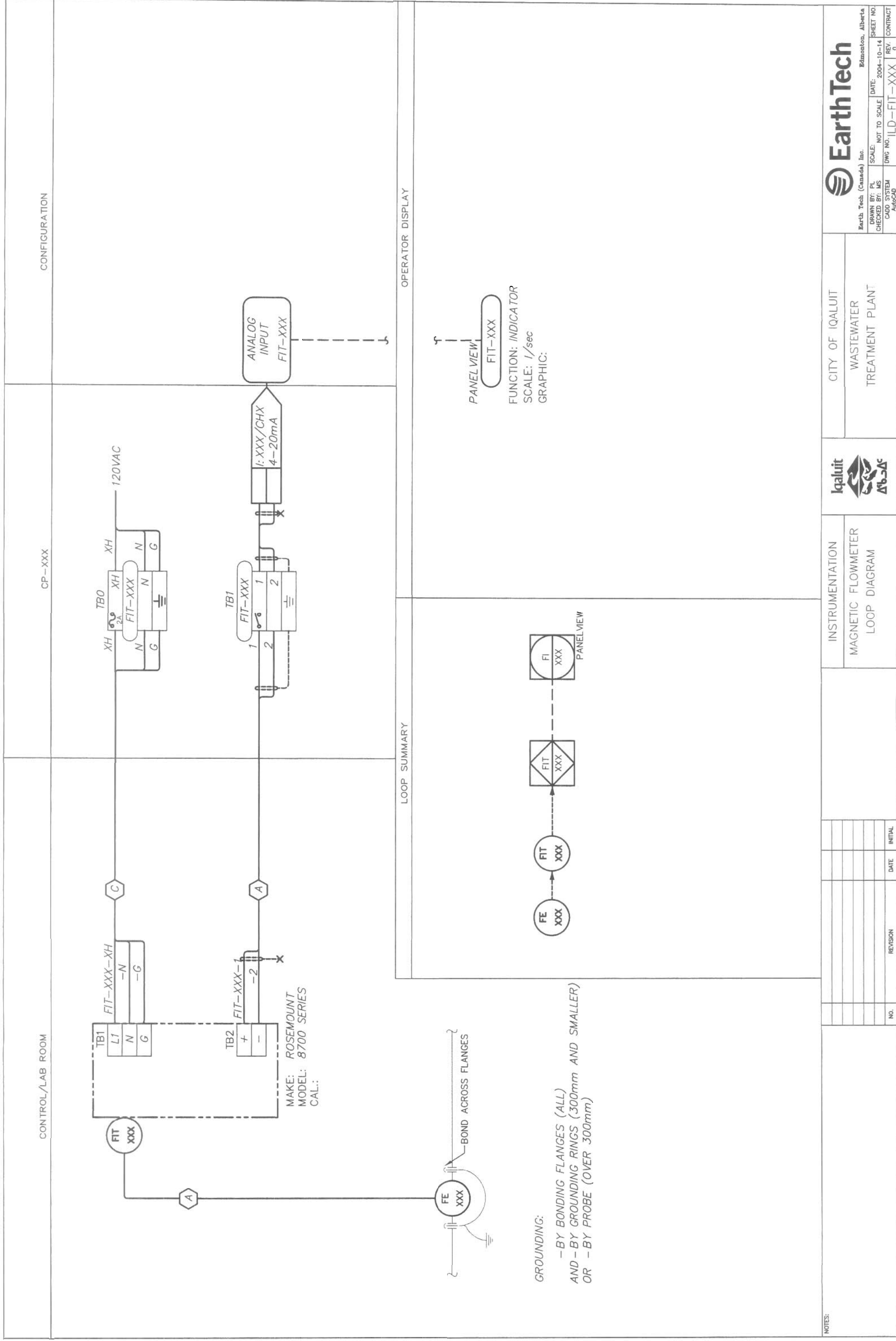
- .1 The following drawings show typical instrument loop wiring diagrams. One drawing per loop will be completed and submitted for approval after award of contract.

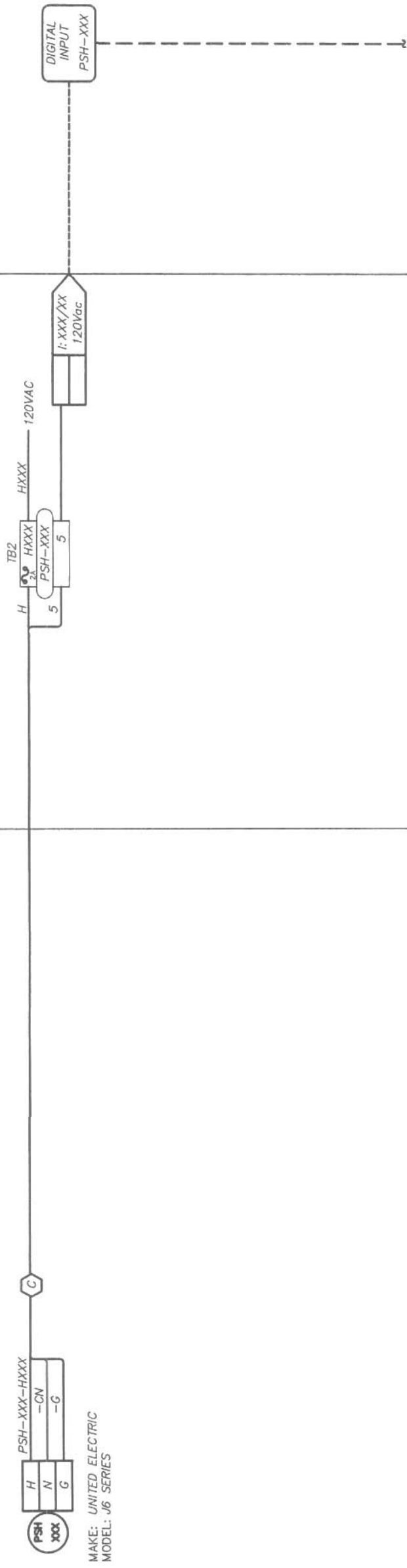
2. PRODUCTS (NOT USED)

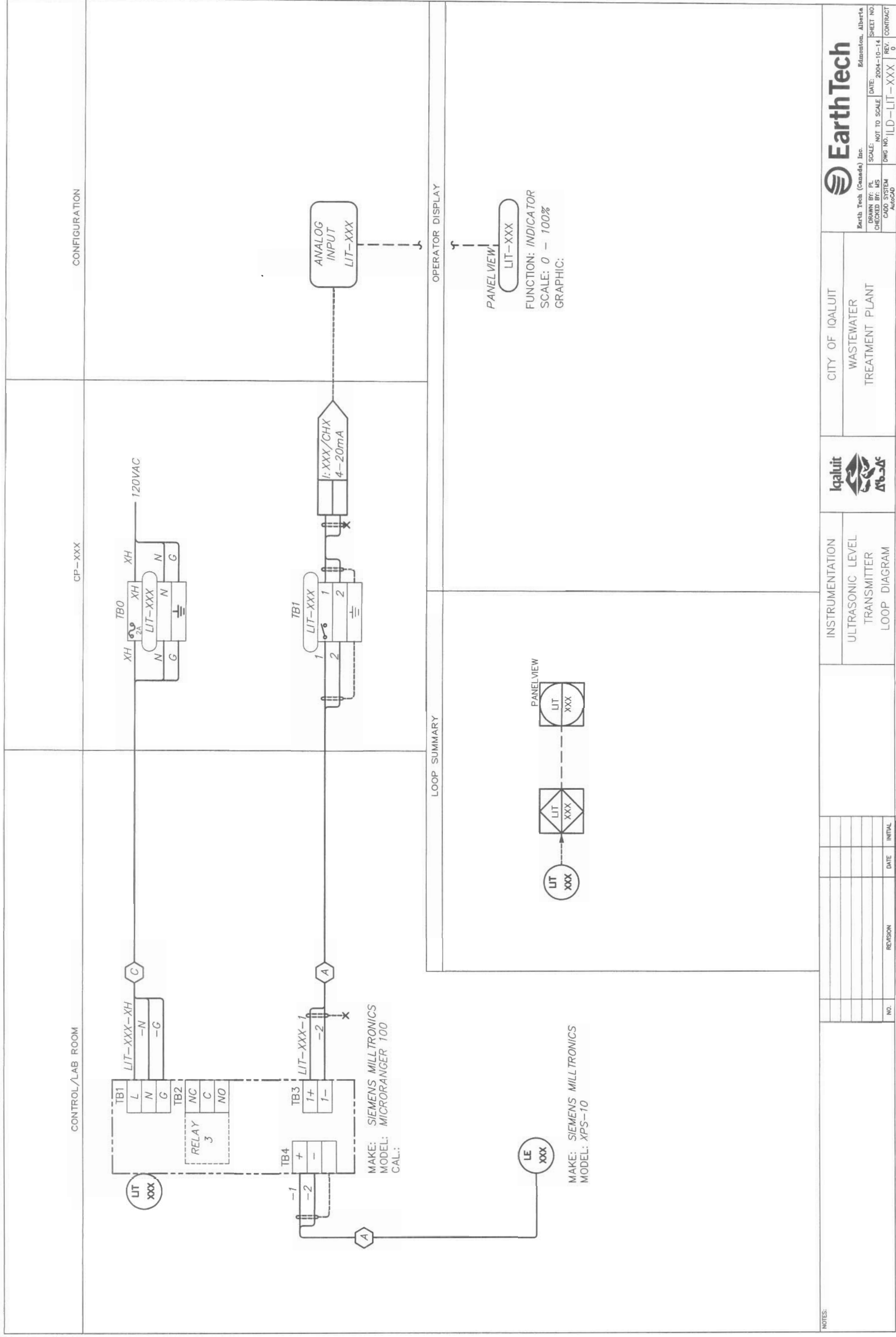
3. EXECUTION (NOT USED)

END OF SECTION









PLC SCHEMATIC DIAGRAMS

1. GENERAL

1.1 References - General

- .1 Refer To Section 17010.

1.2 PLC Schematic Diagrams

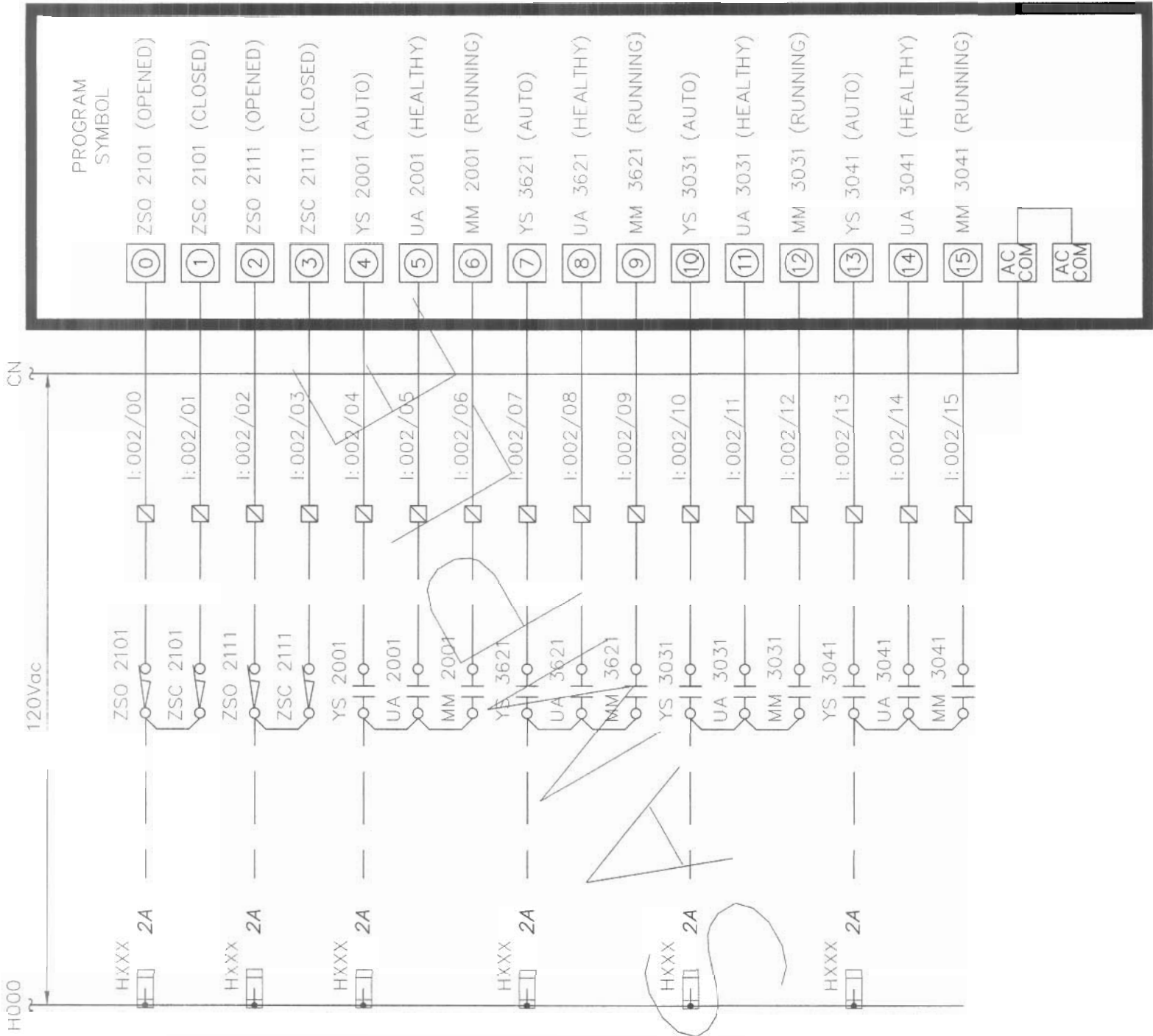
- .1 The following drawings show a sample of the type and quality of as-built PLC schematic diagrams that the contractor will produce. One drawing per I/O module will be completed and submitted for approval prior to substantial completion of the contract.

2. PRODUCTS (NOT USED)

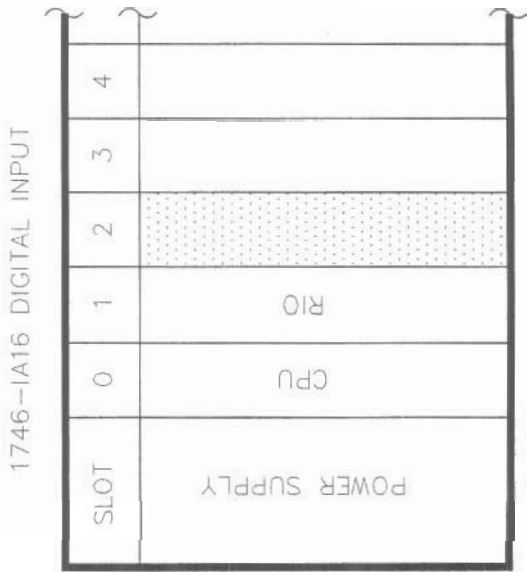
3. EXECUTION (NOT USED)

END OF SECTION

DESCRIPTION	REF. DWG
RGF No.1 INLET VALVE OPENED	FCV 2101
RGF No. 1 INLET VALVE CLOSED	FCV 2101
RGF No.2 INLET VALVE OPENED	FCV 2111
RGF No.2 INLET VALVE CLOSED	FCV 2111
AIR SCOUR BLOWER 1 AUTO	C 2001
AIR SCOUR BLOWER 1 HEALTHY	C 2001
AIR SCOUR BLOWER 1 RUNNING	C 2001
SODIUM HYPO CHLORITE PMP 1 AUTO	P 3621
SODIUM HYPO CHLORITE PMP 1 HEALTHY	P 3621
SODIUM HYPO CHLORITE PMP 1 RUNNING	P 3621
ZINC ORTHO DOSING PUMP 1 AUTO	P 3031
ZINC ORTHO DOSING PUMP 1 HEALTHY	P 3031
ZINC ORTHO DOSING PUMP 1 RUNNING	P 3031
HYDRO FLOURO DOSING PMP 1 AUTO	P 3041
HYDRO FLOURO DOSING PMP 1 HEALTHY	P 3041
HYDRO FLOURO DOSING PMP 1 RUNNING	P 3041



SYMBOL SCHEDULE
☒ — UPPER PANEL
☐ — SEE LOOP DRAWING REFERENCE FOR TERMINAL BLOCK LAYOUT
☐ — FIELD WIRING
☐ — PANEL WIRING



NOTES:

NO.	REVISION	DATE	INITIAL

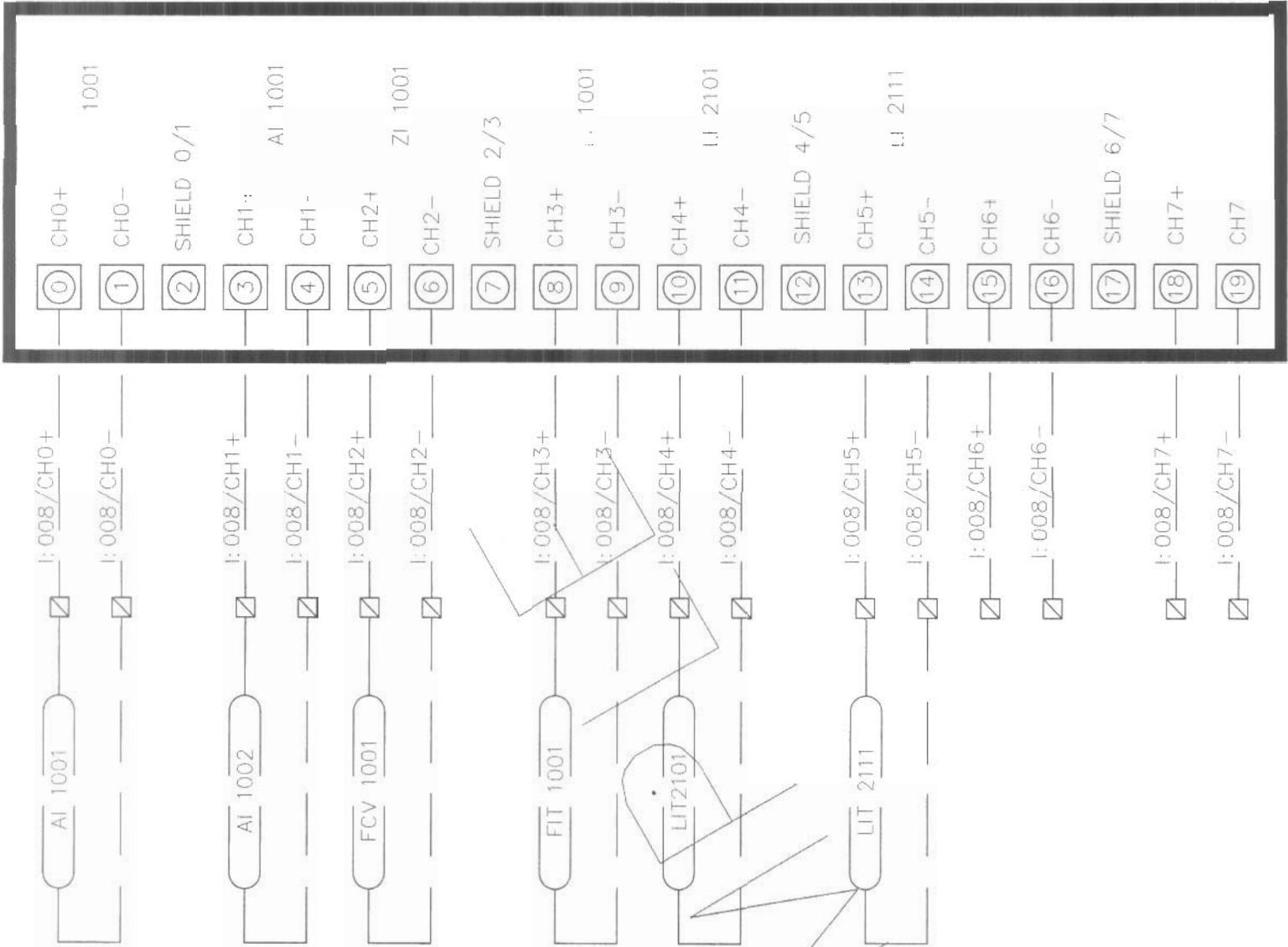
INSTRUMENTATION
PLC SCHEMATIC DIAGRAM I/O CARD 1746-1A16



CITY OF IQALUIT
WASTEWATER TREATMENT PLANT

EarthTech
Earth Tech (Canada) Inc. Edmonton, Alberta
DRAWN BY: XXX CHECKED BY: XXX SCALE: XXX DWG NO: 1746-PLC-XXX REV: XXX SHEET NO: XXX CONTRACT: XXX

DESCRIPTION	REFERENCE DRAWING
RAW WATER INLET PIPE TURBIDITY TRANSMITTER	XXXX
RAW WATER INLET PIPE PH TRANSMITTER	XXXX
RAW WATER INLET PIPE FLOW CONTROL VALVE POSITION	XXXX
RAW WATER INLET PIPE FLOW TRANSMITTER	XXXX
RGF No. 1 LEVEL TRANSMITTER	XXXX
RGF No. 2 LEVEL TRANSMITTER	XXXX



PROGRAM
SYMBOL

SYMBOL SCHEDULE
UPPER PANEL
SEE LOOP DRAWING REFERENCE FOR TERMINAL BLOCK LAYOUT
LOOP DRAWING
FIELD WIRING
PANEL WIRING

1746sc-0AP8I DISCRETE OUTPUT	6	7	8	9	10	11	12

NOTES:

NO.	REVISION	DATE	INITIAL

INSTRUMENTATION
PLC SCHEMATIC DIAGRAM I/O CARD 1748-NI8



CITY OF IQALUIT
WASTEWATER TREATMENT PLANT

LINE
No.

xxx

xxx

xxx

xxx

xxx

xxx

xxx

xxx

xxx

xxx

xxx

xxx

xxx

xxx

xxx

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xxx

xxx

xxx

PROGRAM
SYMBOL

MN 2001

MN 2051

MN 3031

MN 3051

NCT USED

NCT USED

MN 4101

MN 3621

SPARE

SPARE

0

0

1

1

2

2

3

3

○

○

4

4

5

5

6

6

7

7

O: 005/00A

O: 005/00B

O: 005/01A

O: 005/01B

O: 005/02A

O: 005/02B

O: 005/03A

O: 005/03B

O: 005/04A

O: 005/04B

O: 005/05A

O: 005/05B

O: 005/06A

O: 005/06B

O: 005/07A

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DESCRIPTION

AIR SCOUR BLOWER 1
C 2001
START

BACKWASH PUMP 1
P 2051
START

ZINC ORTHO DOSING PUMP 1
P 3031
START

HYDRO FLOURO DSNG PMP 1
P 3051
START

SERVICE PUMP 1
P 4101
START

SODIUM HYPO PUMP 1
P 3621
START

REFERENCE DRAWING

xxxx

xxxx

xxxx

xxxx

xxxx

xxxx

SYMBOL SCHEDULE

UPPER PANEL

MCC

□

■

LOOP DRAWING

SEE LOOP DRAWING
REFERENCE FOR
TERMINAL BLOCK
LAYOUT

FIELD WIRING

PANEL WIRING

1746-0X8 ISOLATED OUTPUT

5 6 7 8 9 10 11

LINE No.: XXX - XXX

NOTES:

NO.	REVISION	DATE	INITIAL

INSTRUMENTATION
PLC SCHEMATIC DIAGRAM
I/O CARD 1746-0X8



CITY OF IQALUIT
WASTEWATER
TREATMENT PLANT



Earth Tech (Canada) Inc. Edmonton, Alberta	DRAWN BY: XXX	CHECKED BY: XXX	SCALE: XXX	DATE: XXX	SHEET NO. XXX
CADD SYSTEM AutoCAD	DWG NO. ILD-PLC-XXX	REV. XXX	CONTRACT XXX		

INSTRUMENT STANDARD DETAILS

1. GENERAL

1.1 References - General

- .1 Refer To Section 17010.

1.2 Instrument Standard Details

- .1 The following drawings show the standard instrumentation installation detail drawings.

2. PRODUCTS (NOT USED)

3. EXECUTION (NOT USED)

END OF SECTION