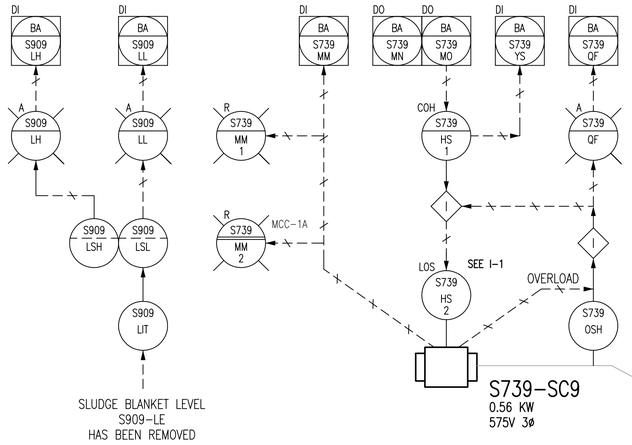
SHEET: COW-A1 (05/2005)

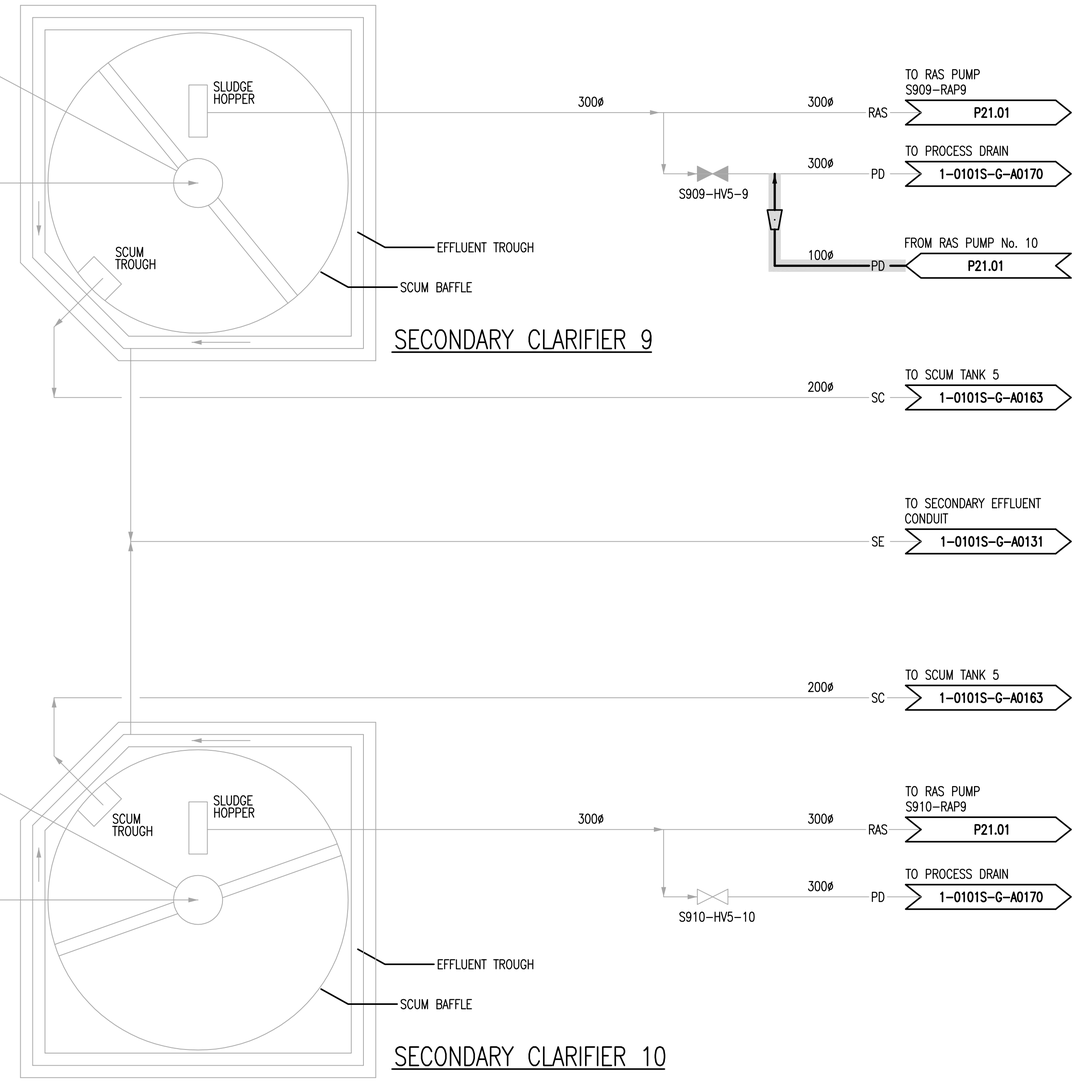
DESIGN DATA

OXYGEN REACTOR FLOW SPLIT	EQUALLY		PROPORTION TO SECONDARY CLARIFIER AREA	
CLARIFIERS 9 & 10, EACH	AVG.	PEAK	AVG.	PEAK
OVERFLOW RATE (L/m2/d)	22,000	39,600	24,000	43,200
RETENTION TIME (h)	4.0	2.2	3.7	2.1
WEIR RATE (L/d/m)	68,500	123,300	76,000	136,800
SOLIDS LOADING (kg/d/m2)	148	249	160	269
MIXED LIQUOR FLOW (ML/d)	18.5	36.6	20	39.5
RAS	67%	83%	67%	83%

INCONSISTENCIES:

I-1 S739-HS2 AND S740-HS2 ARE CURRENTLY DESIGNATED AS S739-HK AND S740-HK RESPECTIVELY.



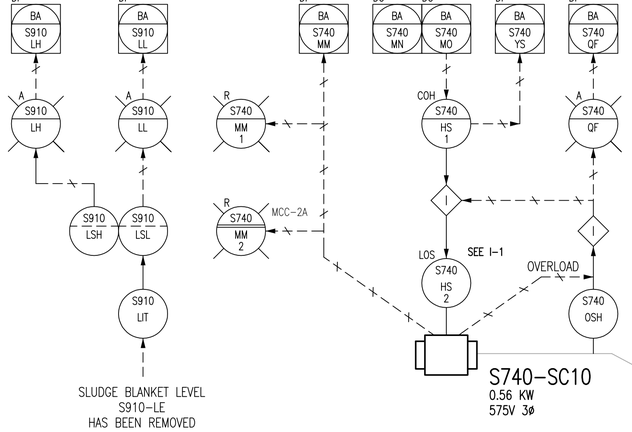


686x686

300ø
S909-HV5-9
300ø RAS TO RAS PUMP S909-RAP9 P21.01
300ø PD TO PROCESS DRAIN 1-0101S-G-A0170
100ø PD FROM RAS PUMP No. 10 P21.01

200ø SC TO SCUM TANK 5 1-0101S-G-A0163
SE TO SECONDARY EFFLUENT CONDUIT 1-0101S-G-A0131

FROM MIXED LIQUOR CONDUIT 1-0101S-G-A0121 ML



686x686

300ø
S910-HV5-10
300ø RAS TO RAS PUMP S910-RAP9 P21.01
300ø PD TO PROCESS DRAIN 1-0101S-G-A0170

200ø SC TO SCUM TANK 5 1-0101S-G-A0163

THIS DRAWING IS BASED ON CITY OF WINNIPEG DRAWING NUMBER 1-0101S-G-A0126-001-02D

= DENOTES NEW EQUIPMENT TO BE SUPPLIED AND INSTALLED BY CONTRACTOR.

APEGM Certificate of Authorization
Earth Tech Canada Inc.
No. 730 Expiry: April 30, 2007

B.M. ELEV.

NO.	REVISIONS	DATE	BY
00	ISSUED FOR TENDER	06/05/15	GLG

EarthTech
A Tyco International Ltd. Company

DESIGNED BY	LW	CHECKED BY	SB
DRAWN BY	GLG	APPROVED BY	JEH
SCALE:	NONE	RELEASED FOR CONSTRUCTION BY:	K. MARTENS
DATE	2006/03/08	DATE	2006/05/15

ENGINEER'S SEAL
ORIGINAL SIGNED BY
J.E. HUTCHISON
2006/05/15

CONSULTANT DRAWING NO.
P23.01

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

NEWPCC CENTRATE NUTRIENT TREATMENT NITROGEN REMOVAL FACILITY

CITY FILE NUMBER
SHEET OF
CITY DRAWING NUMBER

PROCESS
SECONDARY CLARIFIERS (CLARIFIERS 9 AND 10)
PROCESS & INSTRUMENTATION DIAGRAM

L:\WORK\66000\66303CEN\02A-CAD\WAT\CONTR\NITRATE REMOVAL DETAILED DESIGN\NEW PIDS\P23.01.DWG