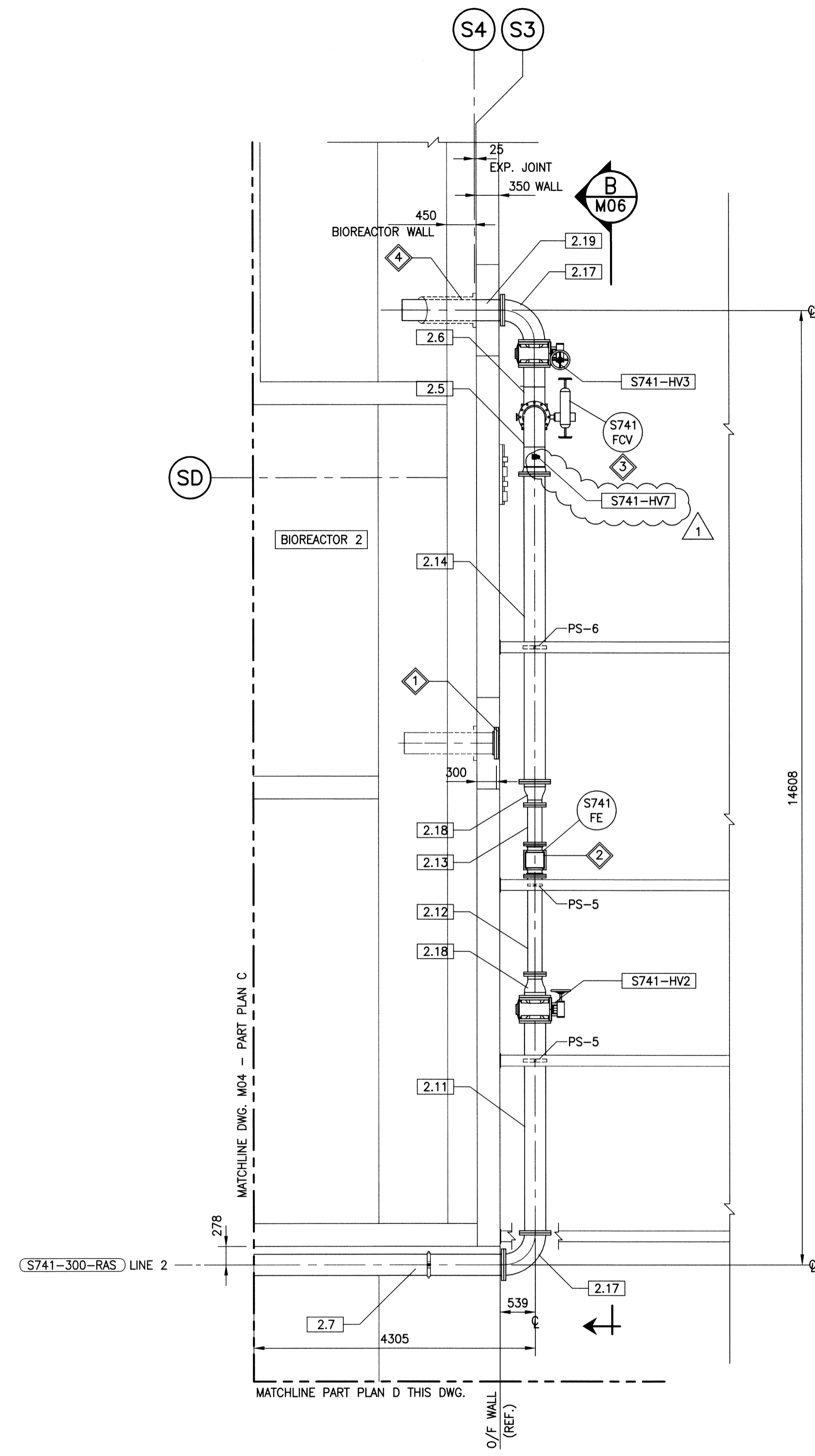


**D**  
M02  
SCALE: 1:50



**E**  
M02  
SCALE: 1:50

**GENERAL NOTES:**

- REFER TO GENERAL NOTES ON DWG. M02.

**KEYNOTES:**

- CUT EXISTING RAS PIPE AND INSTALL NEW SLIP-ON FLANGE AND BLIND FLANGE. EXISTING RAS PIPE THROUGH BIOREACTOR WALL TO REMAIN. PROVIDE NEW INTERIOR PIPE LINING IN ACCORDANCE WITH SPECIFICATIONS.
- RE-USE EXISTING FLOWMETER. PROVIDE NEW INSTRUMENTATION WIRING TO SUIT FLOWMETER RELOCATION.
- RE-USE EXISTING FLOW CONTROL VALVE ACTUATOR ON NEW VALVE BODY. PROVIDE NEW INSTRUMENTATION WIRING AND INSTRUMENT AIR TUBING TO SUIT RELOCATION OF FLOW CONTROL VALVE.
- NEW RAS PIPE THROUGH BIOREACTOR WALL. FOR DETAILS OF PIPE WALL PENETRATION, SEE DRAWING M08.

**PIPE SUPPORTS**

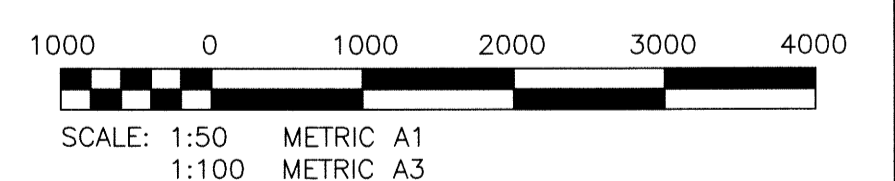
REFER TO DWG. M03 FOR PIPE SUPPORT DESCRIPTIONS.

**PIPE SPOOL LIST**

REFER TO DWG. M03.

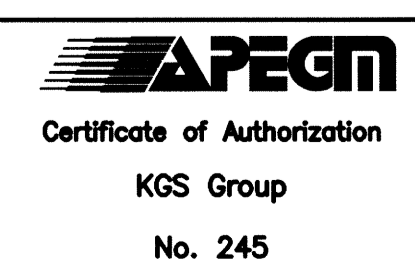
**VALVE LIST**

REFER TO DWG. M03.



**METRIC**

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES



POSTED TO L.BIS		FIELD BOOK #	
1	RE-ISSUED FOR CONSTRUCTION	15/09/25	J
0	ISSUED FOR CONSTRUCTION	15/09/17	JS
ND	REVISIONS	DATE	BY

<b>KGS GROUP</b> CONSULTING ENGINEERS	
DESIGNED BY JS	CHECKED BY RED
DRAWN BY RP	APPROVED BY JS
HOR. SCALE AS NOTED	RELEASED FOR CONSTRUCTION
VERTICAL AS NOTED	
DATE 2015 08 17	DATE 2015 09 17

ENGINEER'S SEAL

M05

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

WEWPCC RAS PIPE REPLACEMENT

**MECHANICAL**  
RAS PIPING - PART PLAN

SHEET 3 OF 3  
CITY DRAWING NUMBER  
1-0103S-M0032-003-01