

Jefferson Lab Alignment Group

DATA TRANSMITTAL

TO: Tim Whitlach, Brian Carpenter

DATE: Jan 14, 2002

FROM: Jim Dahlberg

Checked: # : Z731

DETAILS:

Below are the results of the SNS cavity transport rail survey performed on Jan 11, 2002. Vertically, the offsets are relative to a horizontal plane centered on the rails above the support wheels, which are listed as zero Y values below. Horizontally, the beam left side rail is relative to a base line established from two centerline points on the rail located above the support wheels, which are listed as zero X values below. The beam right side rail is relative to a design offset of 381.00mm (15") from this line. A positive X value is to the beam left, and a positive Y value is high. The stations are measured at one-foot increments with 0 being at the upstream end. All offsets are listed in millimeters.

STATION	X (HORIZONTAL POS.)		Y (VERTICAL POS.)	
	Beam left	Beam right	Beam left	Beam right
0	-0.21	-0.25	+0.72	+0.78
1	-0.17	-0.13	+0.60	+0.60
2	-0.17	-0.08	+0.48	+0.48
3	-0.03	+0.02	+0.34	+0.34
4	-0.05	-0.02	+0.18	+0.20
5	0.00	-0.07	0.00	0.00
6	+0.23	+0.16	-0.12	-0.16
7	+0.34	-0.19	-0.30	-0.36
8	+0.57	+0.07	-0.42	-0.50
9	+0.77	+0.41	-0.54	-0.70
10	+0.89	+0.79	-0.68	-0.86
11	+0.49	+0.48	-0.94	-0.72
12	+0.07	+0.11	-1.00	-0.78
13	-0.23	-0.32	-1.00	-0.81
14	-0.47	-0.59	-1.06	-0.81
15	-0.65	-0.89	-1.06	-0.78
16	-0.93	-1.36	-0.98	-0.76
17	-1.01	-1.43	-0.81	-0.66
18	-0.91	-1.20	-0.56	-0.50
19	-0.71	-0.98	-0.40	-0.42
20	-0.30	-0.86	-0.17	-0.22
21	0.00	-0.66	0.00	0.00
22	+0.09	-0.41	+0.24	+0.02
23	+0.09	-0.23	+0.46	+0.16
24	+0.09	-0.03	+0.68	+0.36
25	-0.01	+0.04	+0.84	+0.44
26	+0.05	+0.25	+0.90	+0.58

DATA TRANSMITTAL (cont.)

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The cavity string supports were set vertically 580.90 mm (± 0.20 mm) above the rail centerline as per drawing #CRM9000010-2100. Horizontally, each support was moved along the rail assembly and measured at five stations (every 3' within a 12 foot range). This was the maximum range the supports could be traversed. These measurements were taken with the post braces loosened.

LOCATION	STATION	X
1 (Upstream support)	1	+0.2
	4	+0.5
	7	+0.7
	10	+1.1
	13	+0.5
2	5	-0.7
	8	-0.5
	11	-0.2
	14	-1.0
	17	-1.9
3	8.5	-0.2
	11.5	-0.2
	14.5	-1.1
	17.5	-1.6
	20.5	-1.3
4 (downstream support)	13	-0.6
	16	-1.4
	19	-2.4
	22	-1.0
	25	-1.1