# Jefferson Lab Alignment Group Data Transmittal 

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Checked:
DETAILS:

Below are the results from the BigCal fiducialization survey performed on March 12, 2007. A right handed coordinate system was established using the four bushings on the side of the detector. $A+X$ is to the beam left, $a+Y$ is up, and a $+Z$ is downstream. An average of the four bushings defines the XY plane which is an ideal offset of 19.05 mm from the upstream face of the detector. An offset of 699.41 mm from the beam left bushings was used to set the roll and define the horizontal center, and a distance of 760.35 mm from the bottom bushings defines the vertical center. Note that an additional offset of 7.94 mm is applied to the X coordinates on the bushings below to account for the length of the survey target. In addition, the centerline was scribed at the upstream and downstream bottom edges of the support frame.

LOCATION
Bushing A
Bushing B
Bushing C
Bushing D

Fiducial TBA
Fiducial TBB
Fiducial TBC
Fiducial TBD
Fiducial TBE
Fiducial TBF
Fiducial TBG
Fiducial TBH
Fiducial TBJ
Fiducial TBK

Z
19.66
18.44
19.66
18.44
-30.88
-510.12

### 1849.14

### 1458.50

4442.91
4431.04
1830.08
1455.60 $-42.89$
$-515.43$

X
707.35
707.35
$-711.28 \quad 1017.55$
$-711.94 \quad-760.66$
$1502.62-1482.73$
$1156.01 \quad 1385.09$
$1709.54 \quad 1423.32$
1503.07 -1477.91
$1495.36-1465.44$
-1523.17 -1461.02
-1713.97 1382.50
$-1514.14 \quad-1476.16$
-1508.07
-1131.26

## Y

$$
-760.04
$$

-760.66
-1479.83
1377.85

