# Jefferson Lab Alignment Group Data Transmittal 

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Checked:
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DETAILS:
data : align\calcs\inj
The data shown below is the proposed location for the 45 MeV spectrometer dipole, magnet MBF4D01. The magnet has a long chord length of 0.2000 meters which does not change. The bending angle changes from $20.0^{\circ}$ to $25.0^{\circ}$. The 6 Gev information is shown for reference.

Entrance refers to the beam entrance, Mag. Cent. is the center of the arc that the beam forms through the magnet, exit is the beam exit, and point intersect refers to the point that the tangents create at their intersection. Units are meters except for the reference angle which are expressed as decimal degrees.

| 12 Gev Location |  |  |  | 6 Gev Location |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{Z}$ |  | $\mathbf{X}$ | $\mathbf{Y}$ | $\mathbf{Z}$ |
| Entrance | 80.6000 | 100.0000 | -214.5530 |  | 80.6000 | 100.0000 | -209.6815 |
| Mag. Cent | 80.5890 | 100.0000 | -214.4530 |  | 80.5913 | 100.0000 | -209.5815 |
| Exit | 80.5567 | 100.0000 | -214.3577 |  | 80.5653 | 100.0000 | -209.4846 |
| Point Intersect | 80.6000 | 100.0000 | -214.4506 |  | 80.6000 | 100.0000 | -209.5800 |
|  |  |  |  |  |  |  |  |
| Rad | 0.46206 |  |  | Rad | 0.57592 |  |  |
| Angle | $25.000^{\circ}$ |  |  | Angle | $20.000^{\circ}$ |  |  |

