**MUSE Basis of Estimate**

**Element WBS #1**

I. General Information

Task Name: Support Table

Unique ID Number

Date of Estimate: 10/16/15 (last update)

Estimate Generator: Tom O’Connor

Cost Category:

 X M&S

 X SWF

Comments: Rutgers Physics shop has examined the designs and verified the cost estimate.

Vendor Quote Number if Applicable:

Drawing Reference Number or Attachment:

Costing Method: Engineer estimates, catalog prices, and quotes

Total Task Cost: $15,000 (w/o contingency)

Total Contingency: $3000

II. Cost Estimate Breakdown

Cost of each element, along with justification, estimated by Tom O’Connor (Argonne), transmitted by email 10/16/15

Table Frame - $2,000

Feet - $300 (3 feet @ $100 each)

Slewing Ring - $3,500 (catalog price from January 2014)

Rotating Steel Plate - $5,350 (quote from ANL shop, January 2014)

Slew Ring Support Plate - $2,000

Rails for sliding GEM table - $700 (2 @ $350 each)

Pillow Blocks for GEM table - $300 (4 @ $75 each)

Ship to PSI: $850 physicist estimate

TOTAL $15,000

Total: $15,000

III. Contingency and risk analysis

This WBS consists of non-complex mechanical and technical items that are sketched out. There is very little schedule or technical risk, except for design changes. The same 20% contingency is applied to all items. Contingency is $3,000.

