NLC - The Next Linear Collider Project

1.6

TECHNICAL SERVICES

M. Munro
TECHNICAL SERVICES

PROJECT SYSTEMS ENGINEERING

ENG SUPPORT SERVICES

MFG SUPPORT SERVICES

INSTALLATION SUPPORT SERVICES

PROJECT INFRASTRUCTURE FINISH-OUT (PIFO ?)
COST SUMMARY

$ 28M SYSTEMS ENG
$ 28M ENG SUPPORT SERVICES
$ 175M MFG SUPPORT SERVICES
$ ? INSTALLATION
$ 50M PROJ INFRASTRUCTURE
  FINISH-OUT

$ 281 M TOTAL
PRESENT SITUATION

WBS IS STRUCTURED

COMPLETED PRELIMINARY ESTIMATE

ESTIMATE BASIS

COSTS ARE TIME DEPENDANT
FUTURE EFFORTS

UPDATE WITH AREA INPUTS

DUPLICATIONS/OMISSIONS?

CONSISTENT ESTIMATING?

MAJOR CHANGES

PRELIMINARY ENG

PIFO
ENG SUPPORT SERVICES

DESIGN SERVICES

ENGINEERING TOOLS
ENG SUPPORT SERVICES

ENGINEERING TOOLS

PDM (PROJ DATA MGT):
- PDM SOFTWARE
- ENG/CAD SOFTWARE
- ENG WORKSTATIONS
- CAD SUPPORT/TRAINING
- ENG STANDARDS
- CHANGE ORDER CONTROL
- DOCUMENT DISTRIBUTION
MFG SUPPORT SERVICES

MFG SERVICES-MOSTLY GONE
CMM

ASSEMBLY/TESTING SERVICES
MAJOR ELEMENTS:
RACK ASSEMBLY
GIRDER ASSEMBLY/TEST
MFG SUPPORT SERVICES

MFG LOGISTICS SUPPORT

SUPERVISION & MAINTENANCE
WAREHOUSE
MATERIALS HANDLING EQUIP
TRANSPORTATION
MFG EQUIPMENT
WORKSTATIONS
COST ESTIMATE TOPICS FOR PRESENTERS

RESPONSE?
ESTIMATE BASIS

ENG: LEVEL OF EFFORT

MACHINE AREAS ASSUMPTIONS

TYPICAL TASKS/MACHINE AREA

PDM: PREVIOUS EXPERIENCE

WAREHOUSING: VENDOR CONTACT
COST REDUCTIONS

USE AREA DEFINITIONS VS LEVEL OF EFFORT

DUPLICATIONS (OMISSIONS ?)

FACILITY IMPROVEMENT REDUCTIONS

PRELIMINARY DESIGNS

SCHEDULE REDUCTIONS