

**NCSX June 2007 ETC  
TABLE I - DESIGN LABOR**

<b>WBS Number: 52</b>														
<b>WBS Title: Central I&amp;C Systems</b>														
<b>Job Number: 5201</b>														
<b>Job Title: Central I&amp;C Systems</b>														
<b>Job Manager: Paul Sichta</b>														
<b>Description:</b>														
<i>Title I and</i>														
<b>FY07\$K</b>														
<b>Activity ID</b>	<b>Activity Description</b>	<b>41MS</b>	<b>43MS/CC</b>	<b>48MS</b>	<b>37STK</b>	<b>35 Trvl</b>	<b>ECEM</b>	<b>ECTB</b>	<b>EMTB</b>	<b>EASB</b>	<b>EEEM</b>	<b>EETB</b>	<b>Basis of Estimate</b>	
													Originally manhours estimate based on NSTX experience. However, this estimate has been updated to reflect experience of experience on other similar networking installation projects.	
52-10	Preliminary Design						40							
52-20	Final Design						40							
52-30	Procurement	\$18K	\$17K		\$3K		20							
52-40	EPICS Programming - Base						80							
52-50	EPICS Programming - VDCT db editor						40							
52-60	IOC Programming - MDSplus data & events						120							
52-70	OPC - EPICS/PLC Interface		\$2K			\$2K	160							
52-80	Appl. Program						80							
52-90	Programming - misc.						100							
52-100	Installation						40	100	240	120				
52-110	Test						40							
<b>Subtotal Job 5201</b>		<b>\$18K</b>	<b>\$19K</b>	<b>\$0K</b>	<b>\$3K</b>	<b>\$2K</b>	<b>720</b>	<b>100</b>	<b>240</b>	<b>120</b>	<b>0</b>	<b>0</b>		
<b>M&amp;S Details:</b>		<b>K\$</b>	<b>Basis of M&amp;S Estimate</b>											
	Travel/training	\$2.0K	Based on recent NSTX experience and other lab infrastructure projects											
	NTC web cam (4)	\$3.0K	Based on recent purchased of parts for NSTX and other lab infrastructure projects											
	PC - appl. TBD (2)	\$6.0K	Based on recent purchased of parts for NSTX and other lab infrastructure projects											
	Linux soft IOC (2)	\$3.0K	Based on recent purchased of parts for NSTX and other lab infrastructure projects											
	OPC client & server HW/SW/TRNG (for T/C)	\$10.0K	Based on recent purchased of parts for NSTX and other lab infrastructure projects											
	EPICS server (use NSTX)		Based on recent purchased of parts for NSTX and other lab infrastructure projects											
	EPICS gateway	\$8.0K	Based on recent purchased of parts for NSTX and other lab infrastructure projects											
	misc	\$10.0K	Based on recent purchased of parts for NSTX and other lab infrastructure projects											
<b>Total M&amp;S</b>		<b>\$42.0K</b>												