

**09-SC-73, Interdisciplinary Science Building, Phase I,  
Brookhaven National Laboratory (BNL), Upton, New York  
Project Data Sheet is for PED**

**1. Significant Changes**

The most recent DOE O 413.3A approved Critical Decision (CD) is CD-0, which was approved on September 18, 2007 with a preliminary Total Estimated Cost (TEC) range of \$61,300,000 to \$66,300,000.

A Federal Project Director with certification level II has been assigned to this project.

This Project Data Sheet is new for PED.

**2. Design, Construction, and D&D Schedule**

(fiscal quarter or date)

	CD-0	CD-1 (Design Start)	(Design/PED Complete)	CD-2	CD-3 (Construction Start)	CD-4 (Construction Complete)	D&D Start	D&D Complete
FY 2009	09/18/2007	2Q FY 2009	3Q FY 2010	TBD	TBD	TBD	TBD	TBD

CD-0 – Approve Mission Need

CD-1 – Approve Alternative Selection and Cost Range

CD-2 – Approve Performance Baseline

CD-3 – Approve Start of Construction

CD-4 – Approve Start of Operations or Project Closeout

D&D Start – Start of Demolition & Decontamination (D&D) work

D&D Complete – Completion of D&D work

**3. Baseline and Validation Status**

(dollars in thousands)

	TEC, PED	TEC, Construction	TEC, Total	OPC Except D&D	OPC, D&D	OPC, Total	TPC
FY 2009	8,240	TBD	TBD	500 <sup>a</sup>	TBD	TBD	TBD

**4. Project Description, Justification, and Scope**

A large number of scientists and researchers at BNL are conducting science in left-over Army barracks that were modified to serve as laboratories and offices. These buildings are over 50-years-old and have numerous functional and maintenance problems including wood rot, poor heat and ventilation, roof leaks, inadequate electrical services and cramped space. Major investment would be needed to continue usage of these buildings that would otherwise be better invested in a new modern facility. In addition, the decentralized distribution of staff in old, ineffective buildings is demoralizing and decreases effective exchange of ideas between staff members.

The proposed Interdisciplinary Science Building, Phase I Project will construct 87,000 to 93,000 square feet of high efficiency laboratories, offices, and support space in a new sustainable building. High

<sup>a</sup> Other Project Costs are funded through laboratory overhead.

efficiency HVAC systems will be installed to support cutting edge experimentation and the operation of sensitive instrumentation. This type of space is limited at BNL and forces collaborative efforts into ad-hoc, sub-standard facilities which often limits the research. The proposed building will consolidate staff; replace long overdue inefficient wooden structures; improve employee moral; help retain and attract scientific talent; and improve capability to meet the DOE mission.

This building will incorporate human factors into its design so as to encourage peer interactions and collaborative visits by staff around the Laboratory. In addition to offices and laboratories, it will house “interaction areas” for informal discussions and a seminar room and a lunch room. This design approach is commonly regarded as the state-of-the-art in research facility design.

The building will house capabilities that are used by scientists across disciplines including laser laboratories and microscopy laboratories—to encourage collaborations across the Laboratory. General purpose laboratories and prep labs will also be constructed, accommodating a wide array of research needs.

The new structure will consist of a structural steel frame with bays of metal decks with concrete fill, all supported on reinforced concrete footings and foundations. The ground floor will have a partial basement with the remainder being concrete slab on grade. The roof will be a standing seam metal roof. Exterior wall treatment will be a composite masonry and pre-insulated metal panel wall system with aluminum, double-glazed windows.

Utilities will include steam and condensate; electrical power; communication; fiber-optic data-link; fire protection and detection; sanitary system; potable water; and storm water drainage.

The structure will be designed to meet or exceed the latest DOE Standards for Energy Conservation. The fire protection system will be hydraulically designed, in accordance with National Fire Protection Association (NFPA) Standard 13, and DOE accessibility standards for the handicapped will be incorporated.

This project will also demolish 100,000–120,000 square feet of existing buildings once staff have been relocated after the new building construction is complete.

The project is being conducted in accordance with the project management requirements in DOE O 413.3A and DOE M 413.3-1, Program and Project Management for the Acquisition of Capital Assets, and all appropriate project management requirements have been met.

## 5. Financial Schedule

	(dollars in thousands)		
	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
PED <sup>a</sup>			
FY 2009	8,240	8,240	3,400
FY 2010	—	—	4,840
Total, TEC <sup>b</sup>	8,240	8,240	8,240

<sup>a</sup> All design will be completed in less than 18 months.

<sup>b</sup> The TEC displayed is for PED only.

(dollars in thousands)

	Appropriations	Obligations	Costs
Other Project Cost (OPC) <sup>a</sup>			
OPC except D&D			
FY 2008	500	500	500
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Total Project Cost (TPC)			
FY 2008	500	500	500
FY 2009	8,240	8,240	3,400
FY 2010	—	—	4,840
Total, TPC	8,740	8,740	8,740

## 6. Details of Project Cost Estimate

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design (PED)			
Design	7,485	N/A	N/A
Contingency	755	N/A	N/A
Total, TEC <sup>b</sup>	8,240	N/A	N/A
Contingency, TEC	755	N/A	N/A
Other Project Cost (OPC)			
OPC except D&D			
Conceptual Planning	50	N/A	N/A
Conceptual Design	383	N/A	N/A
Contingency	67	N/A	N/A
Total, OPC	500	N/A	N/A
Contingency, OPC	67	N/A	N/A
Total, TPC	8,740	N/A	N/A
Total, Contingency	822	N/A	N/A

## 7. Schedule of Project Costs

For schedule of project costs, see Section 5, “Financial Schedule.”

<sup>a</sup> Other Project Costs are funded through laboratory overhead.

<sup>b</sup> The TEC displayed is for PED only.

## **8. Related Operations and Maintenance Funding Requirements**

Not applicable for PED.

## **9. Required D&D Information**

Not applicable for PED.

## **10. Acquisition Approach**

Not applicable for PED.