



# WBS 121.5 – Conventional Facilities

## Conventional Facilities Procurements

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PIP-II DOE Independent Project Review

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In partnership with:

India/DAE

Italy/INFN

UK/STFC

France/CEA/Irfu, CNRS/IN2P3

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# Agenda

- Architect/Engineer Subcontracts
- Construction Subcontracts

# Architect/Engineer (A/E) Subcontract

- A/E team selected in February 2017;
- Utilized standard Finance/Procurement procedures;
- Selection Panel included PIP-II, Procurement, FESS/Engineering and ESH&Q representatives;
- Selected for Preliminary Design, Final Design and Construction Phase support;

<b>Architect/Engineer</b>	Gensler	architect
	Jensen Hughes	life safety
	Crawford Murphy & Tilly	civil
	Hoerr Schaudt	landscaping
	TGRWA	structural
	IMEG	mechanical
	Skyska Hennessy	commissioning
	IMEG	electrical
	Turner Construction	construction support

# Architect/Engineer (A/E) Subcontract

		Design		Construction Phase Support	Total
		Detailed Design	Final Design		
121.5.2	Site Preparation	\$1,342,000	\$149,000	\$1,704,000	\$3,195,000
121.5.3	Cryo Plant Building	\$813,000	\$90,000	\$1,033,000	\$1,936,000
121.5.4	Utility Plant	\$527,000	\$59,000	\$669,000	\$1,255,000
121.5.5	High Bay Building	\$874,000	\$97,000	\$1,110,000	\$2,081,000
121.5.6	Linac Tunnel	\$608,000	\$68,000	\$773,000	\$1,449,000
121.5.7	Linac Gallery	\$1,240,000	\$138,000	\$1,574,000	\$2,952,000
121.5.8	Beam Transfer Line	\$553,000	\$61,000	\$702,000	\$1,316,000
121.5.9	Booster Connection	\$536,000	\$60,000	\$680,000	\$1,276,000
<b>Total</b>		<b>\$6,493,000</b>	<b>\$722,000</b>	<b>\$8,245,000</b>	<b>\$15,460,000</b>
<b>Design Total</b>			<b>\$7,215,000</b>		

- Base costs only (no escalation or contingency)
- Support costs from Basis of Estimate forms;
- In FY16 dollars;

# Construction Package Subcontracts

121.5.2	Site Preparation	\$18,317,344
121.5.3	Cryo Plant Building	\$12,906,401
121.5.4	Utility Plant	\$6,018,404
121.5.5	High Bay Building	\$12,882,335
121.5.6	Linac Tunnel	\$8,918,482
121.5.7	Linac Gallery	\$13,548,955
121.5.8	Beam Transfer Line	\$8,771,395
121.5.9	Booster Connection	\$4,147,399
		<b>\$85,510,716</b>

- Base costs only (no escalation or contingency)
- In FY16 dollars



# Construction Package Subcontracts

## REQUIREMENTS

- Over \$10,000
  - Competition Required
- Over \$150K **Booster Connection**
  - Advanced Notification to DOE/FSO is required, for sole source actions, and procurements that include a patent rights clause.
- Over \$5M **Utility Plant, Linac Tunnel, Beam Transfer Line**
  - Advanced Procurement Plan (APP) and proposed Solicitation (RFP) must be approved by FSO prior to distributing the solicitation to potential subcontractors
- Over \$10M **Site Prep, Cryo Plant, High Bay Building, Linac Gallery**
  - Acquisition Plan (AP) must receive FSO approval. FSO has the authority to approve, an AP estimated up to \$25M.
- Over \$25M
  - AP and Solicitation must be reviewed by the Science Deputy Director for Field Operations/Head of the Contracting Activity (HCA)
- Over \$50M
  - The review chain also includes the DOE Director, Office of Procurement and Assistance Management, and the DOE Acquisition Planning and Liaison Division (ALPD-Business Clearance Unit). Note: This step may take six weeks to complete.

From “Fermilab Projects Procurement Support” presentation, dated 15JUL2015

# Construction Package Subcontracts

## PROCUREMENT CYCLE TIME NON-COMMERCIAL

Non-Commercial (Construction, T&M, University A&E, Labor Hour Subcontracts, Unique Equipment and Fabrications, Sole Source Foreign Procurements)

- 30-160 calendar days depending on complexity
- University subcontracts are closer to 60 days while A&E, labor hour, major construction, security, and cafeteria services may take 160 days
- Sole source foreign procurements may take up to 160 days; especially those priced in excess of \$500,000.

Construction subcontract procurement duration incorporate this requirement (see PIP-II-doc-321)

From "Fermilab Projects Procurement Support" presentation, dated 15JUL2015



# Construction Package Approach

- “Design-bid-build” for construction packages;
  - Standard Fermilab procurement methods and requirements;
- *“Conventional Facilities construction will primarily be accomplished through a number of competitively solicited, fixed price construction packages in order to achieve best value procurements.” [1]*

[1] – from Section 6 of PIP-II Assumptions Document in PIP-II-doc-144

# Next Steps

- Construction Packages:
  - Prepare Advanced Procurement Plans (APP);
  - Prepare Acquisition Plans (AP)

# Summary

- The major subcontracts have been identified;
- The A/E subcontract is in place;
- The subcontracts are aligned with the resource loaded schedule;
- Following standard Fermilab procedures and guidelines;

# Questions