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**PPD / EED / Infrastructure and Support Group**

Group Note: IG\_ 20170003

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**Infrastructure and Support Group**

**Mission Statement:**

The 15 members of the Infrastructure and Support Group collaborate to provide concise and timely support to projects from conceptual design through final implementation. As the name suggests, this support centers on the infrastructure that projects need to start and continue operating. Experience indicates that our services are best utilized at project conceptualization.

**Capabilities Statement:**

Listed alphabetically, the capabilities of the Infrastructure and Support Group can be broadly summarized:

* Administer / Maintain Networked Design Tools.
* Administer / Maintain Wilson Hall Ground Floor PPD Tech. Shop.
* Assembly / Design / Repair of AC Power Distribution Systems.
* Assembly / Design of Cable Harnesses.
* Assembly / Design / Repair of DC Power Distribution Systems.
* Assembly / Design / Repair of Equipment Chassis.
* Assembly / Design / Repair of Equipment Racks.
* Assembly / Design / Repair of Rack Protection Systems.
* Assembly / Design / Repair of High Power Distribution Systems.
* Assembly / Design / Repair of Printed Circuit Boards including high performance rigid and flexible.
* Computer Aided Drafting and Engineering.
* Computer Application Development.
* Computer System Analysis.
* Coordination of Contract Fabrication and Assembly.
* Electrical Safety Reviews, including Operational Readiness Clearance.
* Engineering Design Reviews.
* Fabrication of 3D Printed Structures for prototype and production.
* Fine Surface Mount Component Soldering.
* Installation / Maintenance of Cable TV Systems.
* Installation / Maintenance of Internet Protocol Camera Systems.
* Modification of Existing Premise Wiring, including System Design, Cost Estimation, Procurement of Required Supplies / Equipment and Electrician Supervision.
* Printed Circuit Board Layout - simple to complex.
* Provide Guidelines for Cable Selection.
* Provide Guidelines on Electrical Design Standards.
* Provide Project Life Span Guidance for all Group Capabilities.

**Projects**:

Projects that the Group is or has been involved in and / or provided assistance to include; AD, ANNIE, ATLAS, CDF, CMS Phase I Upgrade, COUPP, D0, Dark Energy, Dark Matter, DDOD, FTBF, g-2, LArIAT, LCLS-II, LH-LHC, MICE, MicroBooNE, MINERvA, MINoS, Mu2e, ND, NovA, ProtoDUNE, SBN, SeaQuest, SNOLAB,QuarkNet and SuperCDMS.