WHOLE BUILDING COMMISSIONING

I. Description of Services Offered

ONIX is a *Building Commissioning Association (BCA) provider firm* with *Certified Commissioning Professionals (CCP)* on staff. Our commissioning processes comply with the guidelines and procedures as outlined by the BCA as well as by such national industry leaders as ASHRAE, PECI and the National Environmental Balancing Bureau (NEBB).

ONIX's commitment to commissioning and energy services led us to develop one of the premier technical teams in the country. Our team comprises virtually all the skill sets and professional backgrounds required to optimize performance and to maximize energy savings. Our staff is highly credentialed, with our proposed project team featuring *Professional Engineers (PE), Certified Energy Auditors (CEA), Certified Energy Managers (CEM), Certified Commissioning Professionals (CCP), and LEED Accredited Professionals.*

II. Typical Project Approach

ONIX provides a customized approach to respond to each client's needs be it energy auditing, retrocommissioning, commissioning, and other related services. In addition, ONIX brings added value to its energy audit and retro-commissioning engagements via a data driven approach to persistent commissioning and building optimization. Utilizing a systematic investigative and corrective process to address building issues, ONIX provides baseline and energy analysis by monitoring energy consumption; conducting electronic measurement and verification; providing customized user dashboards; and targeting opportunities for energy savings and cost savings. ONIX's automated fault detection and predictive maintenance processes allow for instant visibility via daily fault reporting, streamlined operations, and the opportunity for risk mitigation and reduction of capital expenditures.

III. Select Project Experiences

COMMISSIONING – CLIENT CONFIDENTIAL

ONIX was engaged by the project Construction Manager to provide commissioning services (including LEED EA Credit 3 Enhanced Commissioning) during the multi-phased construction of 1.2Million+ gsf LEED-Gold-registered federal department headquarters facility. Systems commissioned included high-pressure boilers, air handling, distribution, and ventilation systems; heating systems; cooling systems; lighting systems; hydronic systems; piping; controls; building automation systems; plumbing systems; on-site equipment storage; indoor air quality methods and procedures; and, select electrical systems.

ONIX

COMMISSIONING – CLIENT CONFIDENTIAL

ONIX was engaged by the project Construction Manager to provide commissioning services during the LEED registered renovation and upgrade of all major mechanical, electrical and plumbing systems in this 500,000 gsf federal office facility.

COMMISSIONING – CLIENT CONFIDENTIAL

ONIX was engaged by the project Construction Manager to provide enhanced commissioning services for multiple projects as part of this Client Confidential's new campus compound. Projects included the construction of a new LEED Platinum multi-story office building, a 172,000 gsf laboratory facility as well as the construction of a 136,600 gsf facility and the commissioning of a ChW plant.

COMMISSIONING – CLIENT CONFIDENTIAL

ONIX was engaged by the project Construction Manager to provide commissioning services during the LEED registered renovation to convert this 547,000 gsf facility from laboratory spaces into a modern federal office building. Project utilizes state of the art technology to ensure energy efficiency and low operating costs.

RETRO-COMMISSIONING: FEDERAL BUILDING – CLIENT CONFIDENTIAL

ONIX was engaged by Contractor to provide retro-commissioning services for this five-story federal building originally constructed in 1937. ONIX' retro-commissioning scope focused upon the following goals: development of documentation of the O&M requirements for equipment and systems; documentation of baseline operating conditions via trending of performance measurements; optimization of system operations through calibration, repair or relocation of critical sensors, review of metered data and trend logs, and functional equipment testing; identification and provision of recommendations for resolving building system operations, control and maintenance problems; identification of operational and maintenance enhancements resulting in improvement in energy efficiency, occupant comfort, and indoor air quality; documentation of system operational findings; identification of O&M personnel training needs; and, identification of minor repairs that compromise the operation of building systems.