

**Finding the Right Facilities Renovation and Rehabilitation Services:  
The Story of Job Order Contracting at Oklahoma State University**

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## ***Abstract***

*After experiencing great frustration with the inability of the in-house trades forces to process and handle an exponentially growing backlog of needed renovation and modernization projects, Oklahoma State University (OSU) turned to a total construction services solution known as Job Order Contracting. Based on the knowledge and experience of the military services and other universities using such a program, OSU developed a solicitation and selected, through a best value procurement method, an experienced Job Order Contractor to perform work at the university. With partnership and cooperation between OSU and contractor personnel, as well as the campus customers, immediate benefits were realized. Projects were started within a few weeks of receiving the work request rather than enduring the time consuming process of traditional design-bid-build construction methodologies or the heavily backlogged in-house trades forces. With projects completed both in a high quality and a timely manner, customer satisfaction increased and projects that had been long deferred or tabled began to flow to Physical Plant Services and the Job Order Contract in increasing numbers. Within a year of implementing the Job Order Contract, the OSU in-house trades forces were able to bring the prior 18-24 month backlog of project work under control and return to a position of scheduling projects with normal lead times. OSU has found tremendous benefits with using the Job Order Contracting program by enabling the university to complete a greater quantity of renovation projects than ever before, as well as to self-perform through the Job Order Contract increasingly complex projects, including select agent and bio-safety laboratory renovations, than was possible prior to the Job Order Contract. The Job Order Contracting program and the Job Order Contractor, Centennial Construction Enterprises, Inc. (Centennial), have been instrumental in helping OSU meet the construction and renovation needs of its faculty, researchers and scientists and in enabling Physical Plant Services to meet its mission to provide high quality, timely delivery of construction services.*

## **Introduction of the Organization**

Oklahoma State University (OSU) is a large, comprehensive, land-grant university located in Stillwater, Oklahoma. Founded on December 25, 1890, as the Oklahoma Agricultural and Mechanical College, OSU adopted its more familiar name on July 1, 1957. OSU is Oklahoma's only university with a statewide presence. The OSU system is comprised of five campuses: OSU-Stillwater, OSU-Okmulgee, OSU-Oklahoma City, OSU-Tulsa, and the OSU Center for Health Sciences in Tulsa, which includes the OSU College of Osteopathic Medicine. Enrollment at OSU-Stillwater averages about 20,000 students. OSU-Stillwater employs 1,302 faculty members and 3,275 staff. System-wide enrollment of all five campuses for the fall semester of 2006 is 32,402. The OSU system is the largest in the State of Oklahoma.

OSU provides students the opportunity to study a wide variety of disciplines offering bachelor's, master's and doctoral degrees in a large number of fields, as well as the professional Doctor of Osteopathic Medicine and Doctor of Veterinary Medicine degrees. Specialist in Education degrees are also offered in select fields. OSU has been recognized as one of America's Best College Buys in *U.S. News & World Report's* annual College and University Rankings. This is the second time that OSU has received this honor. The *Princeton Review* also named OSU as one of the best higher education institutions in the western United States. OSU is a state leader in research. The university research focus includes sensors and sensor technology, information technology, homeland security issues, biotechnology and nanotechnology.

OSU receives less than one-third of its operating budget from state appropriations.

However, the university leverages that amount into a \$2.5 billion impact on the

Oklahoma economy and the creation of more than 9,500 jobs.

### **Statement of the Problem/Initiative**

Historically, OSU's internal staff performed small to medium sized renovation and construction projects, but because of the construction boom in the 1990's this practice became overwhelming and inefficient. The university was struggling to properly allocate in-house trades resources to meet the burgeoning demand for facility renovation, upgrade and modernization services. The available professional resources and time involved in the traditional process of preparing a full set of bid documents, getting the approvals, advertising, bidding, and awarding a contract, was making it very difficult for OSU to be responsive to its users. With the above methodologies as the only existing options available to meet the needs of each individual project, the backlog of renovation and construction projects grew to an unmanageable volume. In fact, by 1997 the backlog of renovation projects for OSU had ballooned to 18-24 months. Campus customers were frustrated since their funded projects could not be started within a reasonable timeframe, and grants and research endeavors were being adversely impacted.

OSU faced the challenge of finding a way to procure and complete renovation and construction projects quickly, while still adhering to the high quality requirements of its customers. OSU needed a comprehensive solution that did not increase Physical Plant or Purchasing staff and that when implemented would achieve the following goals:

- 1) Increase OSU's responsiveness to academic and research demands.
- 2) Alleviate project backlog and expedite construction delivery.
- 3) Create resource allocation efficiencies, allowing OSU's in-house trades personnel to focus on higher priority construction demands.
- 3) Control OSU's total cost of construction.
- 4) Maintain or improve construction quality.
- 5) Increase opportunities for the utilization of local small business for University projects.
- 6) Meet the mandated competitive bidding requirements.
- 7) Standardize materials/products to simplify campus maintenance.

## **Design**

The senior administrative leadership at OSU realized that to achieve the above goals, and not increase personnel, a change in their business model was needed. The first step was to assess the effectiveness of the then in-place construction delivery methods. It became clear that the construction delivery methods used would not achieve OSU's goals. There was also concern about the availability of enough contractors in the local area to meet OSU's demands. OSU discovered that another unique delivery method, Job Order Contracting, was being successfully utilized by another Big XII University which had faced similar challenges.

Job Order Contracting is an alternative project delivery method for construction services that enables facility owners to accomplish a large number of repair, maintenance and

construction projects with a single, competitively bid contract. Under Job Order Contracting, a master contract is established with standard specifications and pricing based upon a competitively bid coefficient that is applied to a standardized Unit Price Book (UPB). When a specific project, or job order, is issued, the owner and the contractor agree on the scope of work, and the cost is determined by applying the coefficient to the appropriate unit-priced line items in the UPB that collectively represent the accomplishment of the agreed-upon scope of work required for the project. This contracting method eliminates the time and expense of completing the normal design-bid-build cycle for each project and allows the project to start and finish faster, while maintaining the requirements of a competitive bid process.

Physical Plant Services (PPS) along with administrative support and direction from OSU's Purchasing Department, Legal Department and Vice President for Administration and Finance designed a construction contract solicitation that, while addressing basic construction requirements, also specifically incorporated the compliance requirements of OSU policies and procedures and State of Oklahoma statutes. OSU used this solicitation to procure a contractor for their Job Order Contracting program. Contractors were evaluated on past performance with similar universities, similar contracts, safety record, ability to handle multiple jobs simultaneously, and financial status, as well as other elements. Also evaluated was each contractor's competitive bid coefficient that would be applied to the Unit Price Book for all future construction projects. The overall evaluation

process was a best value selection where the weighted bid coefficient confirmed the performance selection.

The contract in 1997 was initially titled Small Jobs Contracting System (SJCS). OSU researched, tested and refined this construction delivery method on their first contract over a three year period. The concept going into this program was that projects would average \$15,000 to \$20,000 in size and typically would not exceed \$100,000. From the very beginning, however, reality was that renovation needs for the university had changed and average project size for the first year (1998) proved to be \$45,000 and have steadily grown to an average project size of over \$200,000 in the programs ninth year (2006). Once the program was established, the benefit of a successful contract became apparent, and the numbers and sizes of projects directed to the Job Order Contracting program, as well as their complexity, have continued to grow. Projects exceeding \$1 million have been successfully performed by the Job Order Contracting program. In 2000, the five-year, performance-based Job Order Contract was again competitively bid and awarded to Centennial Contractors Enterprises, Inc. When procurement of the next five-year contract took place in 2005, a name change was made to remove the connotation that “all we do are small jobs”. The new program is now called simply, the OSU Job Order Contract. Centennial Contractors Enterprises was again selected as the best value contractor on the third five-year contract.

## **Implementation**

Once the Job Order Contractor was selected, training and education of the OSU staff in Job Order Contracting procedures became important. Personnel needed to adapt to this new business model in order for it to be successful for OSU. The Job Order Contract at OSU became a much more valuable tool after the following implementation processes were completed.

### 1. Partnering

Because Job Order Contracting is different than other forms of construction contracting in that it involves a long-term relationship as well as day-to-day interaction between the owner and the contractor, it is critical that both teams operate with the same set of objectives, values, and goals. OSU, recognizing the importance of building a strong relationship with the contractor to the success of their program, instituted an ongoing formal partnership covering:

- Communications between the organizations
- Priorities of the OSU organization and the Job Order Contracting program overall
- OSU's processes and how the Centennial team would align and assist in the requirements
- Typical projects, durations, and OSU's goals for renovation and construction work
- Organizational overview and authorities
- Joint agreement and mission statement for the Job Order Contracting program at OSU

The partnering sessions were important for creating alignment and building a strong relationship between OSU and Centennial. While OSU staff was initially skeptical about the worth of the partnering process, ultimately both teams came away with a fundamental change in how each perceived the other. The teams realized through the process that they were partners working toward the same goals and mission.

## 2. Building the Team

Another critical element of success was for Centennial to build an on-site team dedicated to meeting the specific needs of OSU. The contractor executed the staffing plan, putting the right type of team in place and providing training in the specific requirements of OSU's program. The Centennial team became integrated into the OSU culture and organization, while operating under its own established company procedures and processes. Centennial also made the corporate commitment that OSU is Centennial's only customer in Stillwater and they pursue no outside work.

## 3. Expectations and Adjustments

Inevitably, there will be misunderstandings of what can or should be accomplished by a Job Order Contracting program. To ensure support and agreement among university personnel and users, it was important that ongoing education, training and awareness of the Job Order Contracting program be undertaken to explain how it works and the benefits to the university that should be expected. Personnel that used, approved, or were involved with the program participated in training meetings.

As with any relationship, breakdowns will take place at some point in the launch of the program. With this understanding, it was essential to have an agreement between the OSU team and the contractor as to how to handle these breakdowns and appropriately respond to the situations. This was a key step in maintaining a successful relationship. As the program progressed, both Centennial and OSU realized the benefits from having established a cooperative relationship, means of communication, and a process for problem resolution. In time, Centennial learned what was most important and valuable to OSU and the OSU team appreciated the benefits of learning from the contractor's wide range of experience and knowledge to build-in efficiencies and process improvements.

### **Benefits**

A direct measure of the success of the program was that the contractor was immediately able to begin performing project work on a real time basis, taking on assignments of both new and backlogged projects, thus enabling the OSU in-house trades to begin the transition back to real time project scheduling. Within a year after the Job Order Contracting program was put into operation, in-house trades were able to bring the backlog of project work under control and were in position to schedule projects with normal lead times. Projects were awarded and started more quickly. Work could begin in only a matter of weeks after identification of a need, rather than being delayed several months (or more) as it had been prior to the implementation of the Job Order Contract. Proper resource allocation of in-house trades was accomplished, allowing OSU to focus its internal staff on higher priority demands of customers.

Customer satisfaction improved greatly and, in fact, campus departments began submitting and funding more renovation projects to Physical Plant Services because they no longer faced impossible lead times to get their renovation needs accomplished. Through the Job Order Contract, the contractor has been able to absorb the peaks and valleys of project work and permit stable in-house trades staffing and work scheduling, while maintaining a steady flow of projects and, as much as is possible with the fluid, constantly changing needs of a university, a consistent, predictable annual volume of work for the contractor.

The Job Order Contract has also been used to take on larger scale projects and complex projects that in-house trades could not efficiently perform without an adverse affect on their other scheduled project work, or which were beyond their available technical capability. In fact, Centennial and its subcontractor base have developed a real expertise in building bio-safety (BSL-2 & BSL-3) research laboratories for OSU such that they may now be the premier contractor in this field in the State of Oklahoma.

The Job Order Contract has been a WIN-WIN-WIN deal for OSU. We now have a defined process to get work done quickly. Because Physical Plant Services and Centennial jointly develop a detailed scope of work on which we require approving signatures from all three entities – Physical Plant Services, Centennial and the OSU customer, everyone is operating from the same information and understanding regarding the project's intent, as well as timelines and goals for the project. The customer WINS by

getting a completed project more quickly than he/she could by any other contracting methodology, Physical Plant Services WINS by turning a project from start to finish in minimal time with the least manpower impact and expense, and Centennial WINS by efficiently executing another project that (presumably) meets their contractual financial expectations.

A partnering relationship between Physical Plant Services and the contractor team is much more productive and beneficial for both parties than the adversarial relationships that can often be found between owner, architect-engineer and contractor. OSU views its contractor as an extension of its own in-house trade forces with the only difference being that the relationship is contractual as opposed to employee/employer. They are part of the OSU team in all respects and one of the tools in the OSU toolbox.

As further verification of the benefits OSU is receiving from utilization of the Job Order Contracting program, OSU's Internal Audit Office solicited an independent consultant to ensure that the Job Order Contracting program had delivered the value that was advertised. The consultant randomly selected a number of projects and developed competitive design-bid-build prices and found that the Job Order Contracting pricing was in line with those prices. Moreover, the Job Order Contracting projects were delivered faster and greatly reduced "soft costs" of procurement administration, bid package development, and even change order costs.

## **Retrospect**

As to be expected with any major change in business processes, there will be a substantial learning curve when implementing such a program. The tips below will assist other universities that may consider implementing their own Job Order Contract:

- Select a contractor with proven, successful Job Order Contracting experience, not just traditional construction experience. The Job Order Contracting delivery method is counter-intuitive at times and requires a contractor with a big picture perspective.
- Develop a customized process flow chart from project notification to close out on all projects. Also develop a responsibility matrix for all stakeholders of the Job Order Contracting program (including the contractor). Inform the contractor at the pre-proposal conference on all university procedures from campus accessibility to purchasing and close out processes.
- Since the Physical Plant staff works so closely with the Job Order Contractor on a daily basis, require mandatory, professionally run Partnering sessions early in the contract term with, perhaps, a follow-up session midway through the contract term. Include this as a requirement in the solicitation.
- Align the Job Order Contracting program with the in-house trades to mitigate future adversarial relationships and to eliminate the possible perception that the Job Order Contracting program will replace their jobs.