

# Western Nevada College

## Facilities Management and Planning Program Review

April 2011

### 1. Program Description

The Western Nevada College (WNC) Facilities Management and Planning Department plays an essential role in the mission of the college. Interacting with faculty, staff, students and other customers on a daily basis, the department lends its support both through personal interaction as well as work done behind the scenes. The department is responsible for providing a safe, comfortable and aesthetically pleasing environment for all of its customers throughout its 18,000 square mile service area. Adequate lighting, comfortable indoor temperatures, cleanliness, campus safety and landscaped areas for all to enjoy are proactively maintained on a daily basis often out of sight of its customers. In addition to the Facilities Management and Planning (FM&P) department's daily routine, FM&P is involved in area remodeling, energy efficiency projects and new construction projects.

WNC's FM&P department led all NSHE institutions with Americans with Disabilities Act compliance utilizing state Capital Improvement Project funding. The project looked at the Carson campus, revising grades, restrooms, parking and exterior doors making the campus more accessible for its customers requiring accommodations; the project is ongoing and we are currently in phase two of four.

In 2004, FM&P implemented an energy savings retrofit project for our Carson, Douglas and Fallon campuses; one of three pilot Energy Services Conservation (ESCO) projects for the state of Nevada. This project was guaranteed to save the college a minimum of 7% in utility costs; however, with WNC administrators mandating the State Administrative Manual, (SAM), 1028.0 energy conservation guidelines, the savings nearly doubled. By holding the heating set-points to 68 degrees, and the cooling set-points to 78 degrees as outlined in SAM 1028.0, savings was increased to 13%; a reduction of \$163,224.00 on annual utilities. Again, WNC leads the way among NSHE institutions in following these guidelines. Energy savings measures included: New energy efficient lighting fixtures with occupancy sensors replacing older, wasteful fixtures resulting in improved lighting as well as a reduction in overall electrical consumption. A twenty-five year old inefficient boiler was replaced with a new high efficiency boiler to provide heating to the majority of the Bristlecone building and allow

for future expansion. In 2009, a high efficiency water-cooled chiller was installed to provide cooling to the entire Bristlecone building and allow for future expansion. Another goal of this project was to tie the Bristlecone building's North and South boilers together as well as the chillers. The building now runs on one chiller or boiler at a time reducing energy consumption and eliminating disruptions when maintenance is performed. This project is conservatively estimated to save the college \$45,000.00 on utility costs annually. Currently the department is working on a green energy project; the addition of a 200-Kilowatt solar array on the west side of the campus projected to save the college \$45,000.00 annually. FM&P is currently working on design for another ESCO project. Planning for the future and a proactive approach to maintenance was not always the status quo however; the department was at one time far less efficient and effective.

The Western Nevada College Facilities Management and Planning department was at one time a reactive department with limited resources. The director, prior to the early 2000s, did not have a background in construction and WNC did not have a project manager on board to oversee new construction projects. As a result, building expansion at WNC was poorly planned and executed; the majority of the decisions rested with the State Public Works Board with little or no input from the college itself. There was minimal preventative maintenance being performed on the equipment and the facilities as a whole complicating the efficient operation of the department. During this period, little emphasis was placed on training and properly equipping employees. The department served the needs of the faculty, staff, and students with limited equipment and few skilled workers who often brought in tools and materials from home to get the job done. By the early 2000s, WNC hired a new facilities director and shortly afterward a new facilities supervisor. The department's focus had begun to shift toward a more proactive approach to maintenance; creating specialized positions and properly training and equipping employees for their jobs.

With the addition of the new facilities director and facilities supervisor, the shift from reactive to proactive was well under way. Future goals were evaluated and many changes were implemented to increase the department's efficiency and effectiveness in carrying out its mission. The department has undergone a considerable evolution over the past decade; FM&P submitted its first program review in 2004.

## 2004 Program Review Summary

The 2004 program review was conducted under the new leadership of the department allowing for a fresh perspective as to where the department would need to be in the future to continue to support the goals of the institution. The status quo was no longer acceptable; goals were set to ensure the success of the college, energy savings, cost savings and the long-term viability of the department itself. Critical goals set forth in the initial program review have been accomplished and improved upon. These goals include the following:

- PC-based work order system accessible to all faculty and staff
- Adequate equipment, tools and spare parts inventories
- Improved access to all buildings and labs at all campuses
- Improved phone system compatibility
- Improved access to blueprints, as-built prints, and pdf drawings for campus buildings

From the mid-2000s, many changes were implemented to increase the department's efficiency and effectiveness in carrying out its mission. All HVAC systems were moved to a web based energy management system, old fluorescent and HID lighting was replaced with new energy efficient lighting and electronic ballasts. A PC-based work order system was installed allowing faculty and staff to submit requests for work; receive feedback; and track the progress of the work they requested. The system was also set up to generate automatically work orders for preventative maintenance on a regular basis. Many major systems and components began receiving preventative maintenance at regular intervals resulting in less down time and longer equipment life. The Facilities Management and Planning department placed an emphasis on accountability and training as well as properly equipping its employees. This allowed the department to take on greater responsibilities increasing the scope of work performed and services offered to all campuses.

### A. College and Program Mission

#### College Mission:

Western Nevada College inspires success in our community through opportunities that cultivate creativity, intellectual growth and technological excellence, in an environment that nurtures individual potential and respects differences.

#### Program Mission:

The Facilities Management and Planning Department is committed to providing a safe, comfortable, and aesthetically pleasing environment for the faculty, staff, students, and all other customers; ensuring their success, and

ultimately the success of the institution.

**Details:** A safe, comfortable and aesthetically pleasing environment is essential to the mission of the college. The Facilities Management and Planning department is responsible for the condition of the facilities and the majority of WNC's code compliance. The department strives to anticipate future needs as well as respond to our customers needs on a daily basis.

**B. College and Program Goals**

College Goals:

Improve student success in program completion and graduation rates.

Ensure institutional excellence in teaching, programs, and services.

Embrace our college's many communities and respond to their diverse needs.

Program Goals:

Strive to provide the best possible environment while maintaining code compliance.

Respond in a timely manner to changing institutional requirements and fluid priorities.

Support the needs of all the college communities in our 18,000 sq. mi. coverage area.

The services of the Facilities Management and Planning department support the goals of the college as a whole. FM&P supports all communities and their diverse needs.

**C. Short Description:**

1. Unique characteristics

Unlike many departments at Western Nevada College, FM&P interacts with the faculty, staff and students on a daily basis as we provide services. We maintain a high level of visibility at a myriad of locations throughout the college community.

2. Concerns of trends affecting the program

As this program undergoes this review in the spring of 2011, our state is facing a serious budget deficit. Funding to the institution will be cut, which in turn will reduce the funds available to this department. We will continue to strive to provide the best possible environment, doing more with less, but the goals of this program are contingent upon adequate funding.

3. Changes or needs over the next five years:

a. Continued maintenance of buildings exteriors and roofs.

- b. Generator backup power and security for the main server room.
- c. Continue to improve scheduled maintenance on all equipment as well as improving response times on work requests.
- d. Incorporation of all building blueprints, CAD drawings and pdf files on the J drive.
- e. Working in conjunction with the Computing Services department to bring all of our hardware and software up to date.

## **2. Quality of the Program**

### **A. Professional and Classified Staff Information:**

#### **Dave Rollings, Director, Facilities Management and Planning**

Mr. Rollings has over 32 years in facilities management, eleven of those years he was licensed with the state of Nevada as a contractor and a business owner in the electrical field. He has certifications in: facility management, ADA facilities compliance, post-earthquake safety evaluations of buildings, sustainable facilities practices and 30-hour OSHA training.

#### **Kevin Gaffney, Project Manager**

Mr. Gaffney has over 30 years in project management for construction; 20 years as a licensed contractor for the state of Nebraska and co-owner of a construction business. During the last 10 years, he has served as a project manager in the state of Nevada. He has certifications in: construction start to finish, Nevada Focus for commercial and public buildings – 96 hours, standards for the building trades, oral and written communication of the building trades, FEMA post disaster triage of building collapse, Deputy Director for Emergency Management – Phelps county Nebraska, FF1 post collapse of buildings, FF1 life and safety triage for disasters, OSHA 10- and 30-hour training, EMT – AD, First Aid, and CPR.

In addition to the department's professional staff, the classified staff is composed of a diverse group of individuals with areas of expertise across all of the major trades. The classified staff has become highly specialized with each employee having an emphasis on one or two particular areas within the trades to better serve the needs of the college. FM&P has placed a strong emphasis on training and has developed a training program to allow both professional and classified employees to refine their skills. This will continue to strengthen the department and enhance the ability to maintain the key staff that has been hired during the current construction down turn.

## **B. Evidence of Effectiveness**

### **Report on 2004 FM&P Program Review Findings**

All major goals identified below and as in the initial program review have been acted upon:

- A PC-based work order system accessible to all faculty and staff
- Adequate equipment, tools and spare parts inventories
- Improved access to all buildings and labs at all campuses
- Improved phone system compatibility
- Improved access to all blueprints and as-built prints for all buildings

In 2003, the Facilities Management and Planning department installed a software program to allow staff to submit work requests. The software did not however address several key issues including scheduled maintenance needs. The department spent well over a year evaluating other maintenance software packages and purchased a system that addressed both requests for maintenance as well as scheduled maintenance tasks. The new system is user friendly and allows the customer to track the progress of the request. In addition, time and expenses are tracked for the department's benefit.

The department made numerous equipment purchases in addition to various tools and an adequate inventory of spare parts. This allowed the department to better maintain and repair the assets of the college in a timely manner.

Card access has been installed on all buildings and most labs at all campuses. This has created better access for all faculty and staff while increasing security for all. The use of card access creates a permanent record of who enters a building or lab and the time of that entry.

The college's telephone system is upgraded making all of the various campuses more compatible. This upgrade eliminated long distance charges between campuses.

A storage area and system was created for all blueprints and as-built prints. Previously blueprints had been stored in several areas around the campus making them prone to loss or damage; all reside in a secure area now.

In addition, the FM&P department completed several projects that reduced overall energy costs creating a more comfortable and accessible environment to promote student success. All campus lighting is retrofitted with new energy efficient lighting and electronic ballasts. This improved the lighting in all areas of

the campus as well as eliminating toxic PCB-filled ballasts and lowering operating costs. An annual savings of thirteen percent on electrical usage is realized from this upgrade.

All HVAC equipment was put on an Energy Management System, (EMS), allowing for remote, web-based monitoring and the ability to better control the indoor environment making adjustments immediately when required. The EMS created a more comfortable environment as well as lowered the cost of operation by allowing FM&P to follow the building set-point requirements outlined in the State Administrative Manual, section 10.28.0.

A new energy efficient chiller was installed to control temperature levels for the entire Bristlecone building. During this installation the north and south ends of the building were tied together creating a redundant system for both heating and cooling. Free cooling was also added to take advantage of the conditions unique to this geographic area and further lower energy costs.

Since 2005, the FM&P department has strived to upgrade and improve the building fire alarm systems. Several systems have been replaced with universal, non-proprietary systems reducing maintenance costs and eliminating the reliance on a single source for parts and maintenance. The result is the virtual elimination of nuisance alarms and non-routine system maintenance calls.

Work on all campuses is completed to ensure compliance with the Americans with Disabilities Act, (ADA). The changes promote the accessibility for all faculty, staff and students requiring accommodations. The ADA project is on going.

### **C. Evidence of customer satisfaction**

#### **2008 Program Review Survey**

The survey results regarding the Facilities Management and Planning department were generally favorable with an average of seventy-six percent of respondents stating they were “very satisfied” or “satisfied.”

The specific areas surveyed included:

- Staff members listen well
- Staff members are professional
- Staff member respond to my requests in a timely manner
- Accessibility

- Efficiency of service
- Usefulness of information or advice
- Accuracy of information or advice
- Departments hours of operation meet my needs
- Overall this department provides quality customer service

The written comments or suggestions were generally not favorable to the department with 71% of responses being negative. While the department recognizes that customers are far more likely to make an effort to share their negative experiences; we do not take these results lightly. The breakdown of the results is as follows:

- a) 57% related to difficulties working with the department, lack of response, communication, and poor management skills. Many of these negative responses are attributable to one individual in the FM&P department who is no longer employed by the college.
- b) 14% were related to issues with the work order system. The negative responses were due to difficulties creating work requests. The system was still in its infancy and only a few in FM&P understood it. Through proper training, the entire department is now able to utilize the system as well as assist our customers with its use.
  - a. 29% were extremely favorable comments.

General response: The Facilities Management and Planning department exists to serve the faculty, staff, and students of WNC. The department promotes strong customer service responses; offering solutions, not excuses. We will continue to strive to improve our response time, communication, and overall service to meet the needs of the college.

### **3. Findings and Recommendations**

#### **A. Action Plan:**

#### **Priority One Goal: 2012 Completion Envisioned**

##### **1) Generator back-up power and security for the Bristlecone main server room.**

###### **Details:**

The lack of security for the server room has been noted as an audit exception. The critical nature of the equipment in this area for both the college and other institutions it serves requires a secure, limited access area with a back-up generator

in case of power failure. The Facilities Management and Planning department is working with the Computing Services department to resolve this situation.

**Priority Two Goal: 2016 Completion Envisioned**

**2) Continued maintenance of building exteriors and roofs.**

**Details:**

Most of the buildings at all campuses have not been properly sealed against the elements. The integrity of the building envelope is essential to the mission of the college; the FM&P department has identified these issues and is working toward their resolution. We are currently training a staff member to identify and repair roof damage and are in the process of including roof inspections as a scheduled maintenance item.

**Priority Three Goal: 2016 Completion Envisioned**

**3) Develop and maintain funding for training.**

**Details:**

The Facilities Management and Planning department relies on a highly skilled staff to serve the needs of its customers. Technologies and codes are constantly evolving creating the necessity for ongoing training programs. We work toward the development of funding for the department to enhance critical technical, safety and communication skills for all employees. Proper training will ensure the department is effective and efficient in carrying out its mission as well as allow for the promotion of valuable employees.

**Priority Four Goal: 2013 Completion Envisioned**

**4) Improve scheduled maintenance on all equipment and improve response times on work requests.**

**Details:**

In light of the proposed budget cuts, it becomes crucial to maintain all of the equipment that we have to ensure it will last, since replacement will not be an option. Scheduled maintenance is a cost effective method to ensure the longest life cycle on every piece of equipment. We will evaluate each piece of equipment to determine what should be done at a set interval to properly maintain it. This approach is in place currently on some, but not all equipment.

We continue to strive to be as efficient as possible; as we become better equipped and trained, response times for work requests will improve.

**Priority Five Goal: 2015 Completion Envisioned**

**5) Incorporate all blueprints and as-built prints into CAD drawing and/or pdf format.**

**Details:**

Currently the FM&P department has all the blueprints and as-built prints in a secure, central location. It is our plan to have these available as CAD drawings or in pdf format on the J drive. This would allow access to the drawings from remote locations where we are working as they are needed. The availability of these drawings instantly will help us better respond to emergencies as well as routine maintenance tasks.

**Priority Six Goal: 2016 Completion Envisioned**

**6) With the Computing Services Department, update all hardware and software.**

**Details:**

The Facilities Management and Planning department has both hardware and software that is not current and/or is very unstable. As an example, the server for all of the HVAC equipment is overloaded and has catastrophically failed several times over the past five years. Equipment must be replaced and software upgraded as well as backed-up on a regular basis. Adequate funding is required to reach this goal.

**B. Conclusion**

The Facilities Management and Planning department mirrors the mission of the college. The department created, implemented, and vastly improved a comprehensive program while increasing the scope of its responsibilities since the last review was conducted.