PART 1: GENERAL

1.01 SCOPE OF WORK

A. UNM IT must approve the installation and location of all wireless hardware before placement. This includes approval of data and telecommunications equipment utilizing specified radio frequencies. Please refer to the "Standard on the Deployment and Use of Wireless Internet Technologies at the University of New Mexico" document for specific technological guidelines.

B. All Wireless Access Points (WAPs) connected to or making use of UNM network infrastructure shall be registered with the Information Technology Department. Such registrations shall indicate whether the device is a telecommunications device, wireless access point, or bridge.

C. All access points shall operate in 802.11(ac) and/or (ax) "infrastructure" mode.

D. As directed by UNM IT channel/frequency allocation on WAPs and devices shall be done to minimize interference with other wireless services on campus. In general, devices with the ability to automatically select the best channel shall be configured to use this feature. However, it may be necessary to consult with the Information Technology Department to determine what channels are available in a particular area.

E. As directed by UNM IT wireless devices shall be configured to make use of the minimum possible radio transmission power to achieve their objective and coverage area.

F. All WAPs used on campus shall conform to a set of minimum specifications as published from time to time by the Information Technology Department. These specifications are intended to maintain the security and interoperability of wireless devices on campus.

G. The Director of Information Technology Networks must approve any exceptions to the general provisions set out above.

1.02 RELATED SECTIONS

A. Division 26 Electrical Division
B. Division 27 Communicants Systems.
C. Division 28 Electronic Safety and Security

PART 2: PRODUCTS

2.01 WIRELESS ACCESS POINTS

A. General: The products specified herein reflect the minimum acceptable standards of fabrication and manufacture. All materials supplied by the Contractor and specified herein are to be new unused, of first quality, and in original packaging or shipping containers. The UNM IT must approve any exceptions.

B. New buildings and renovations will be treated differently than existing buildings. Special cases will be reviewed and approved by the respective UNM IT.

2.02 RECOMMENDED WAPS

A. General: The University of New Mexico has currently standardized products and/or solutions for providing wireless LAN access. This section outlines those products and/or solutions.

B. The WAP is a single-band lightweight access point (LWAP) with dual diversity antenna connectors for challenging RF environments. They offer the same versatility, high capacity, security, and enterprise-class features demanded by industrial wireless LAN customers.

C. The Cisco Aironet 1500 Series Outdoor Access Point/Bridge (hereafter called the *access point/bridge*) is a wireless device designed for building-to-building wireless connectivity. Operating in the 2.4-GHz band (2.400 to 2.497 GHz), using the IEEE 802.11g standard, the access point/bridge delivers 1 to 54 Mbps data rates without the need for a license. The access point/bridge is a self-contained unit designed for indoor or outdoor installations, providing differing antenna gains as well as coverage patterns. It supports point-to-point and multipoint bridging configurations.

PART 3: EXECUTION

3.01 GENERAL REQUIREMENTS

A. This wireless specification guideline intends to develop a set of standards for the deployment of wireless devices on campus. These standards will continue to evolve as the Wireless LAN products and standards evolve. This document will be updated periodically.

B. Installation of new wireless devices shall not interfere with existing services in such a way that services are interrupted, not available, or not in compliance with University policies and standards.

3.02 PORT WIRING FOR WIRELESS ACCESS POINTS

A. Port wiring for WAPs will follow the universal wiring plan adopted by UNM IT with the following exceptions.

1. Port shall be placed in the wall 3" to 6" inches above the drop ceiling. Exceptions shall be approved by UNM IT.
2. A minimum of two Cat 6 cables 23 AWG and approved network jacks is required for all WAPs.
3. UNMH a minimum of two Cat 6A cables 23 AWG and approved network jacks are required for all WAPs.
4. Where a drop ceiling does not exist consult the UNM IT for placement guidelines
5. The wireless port shall be no further than 3 feet away from any Wireless Device unless special provisions exist. In this case contact UNM IT.
6. If a wireless device cannot be powered off the Ethernet switch, power will need to be included in the scope of work. For power guidelines for wireless devices contact UNM IT.

END SECTION