PART 5:   REQUIRED DOCUMENTATION

5.1   Purpose. The required documentation identified in this Standard is necessary to assist NARA in providing its certification to Congress that the building meets these standards. In order to properly maintain the building, the Foundation and its contractors and engineers must provide NARA with information concerning critical systems.

5.2   Required items. Prior to building acceptance, NARA must receive from the Foundation the following documents, items, and information to allow NARA to properly and effectively manage, maintain, and operate the building. Likewise, this information must be received from the relevant designers or contractors for renovation and addition projects before final payment is made.

5.2.1   As-built drawings.

5.2.2   Operation and maintenance manuals.

5.2.3   Shop drawings.

5.2.4   Keys and key cabinet, along with a keying chart.

5.2.5   Spare parts (attic stock) supplied by the contractor.

5.2.6   Submittals.

5.2.7   Warranty information.

5.2.8   All mechanical, electrical, and systems tests. Test results and certifications are to be provided by the CQM.

5.2.9   Final inspection report indicating that all punch list items have been corrected.

5.2.10 User training manuals.

5.2.11 Framed instructions, mounted on the wall in the appropriate maintenance area.

5.2.12 User training on all systems and components and a training video.

5.2.13 Personnel training requirements.

5.2.14 Final completion photographs.

5.2.15 Operating instructions for equipment.

5.2.16 Preventive maintenance requirements on all major equipment.

5.2.17 Parts identification.

5.2.18 Special testing equipment and any special tools required for maintenance.

5.2.19 Occupancy permits from the local jurisdiction.

5.2.20 Exhibition documentation such as floor plans, drawings of case construction, lighting plan, graphics information, and spare parts.

5.2.21 Elevator certification.

5.2.22 Certification of the fire alarm and fire sprinkler systems.

5.2.23 LEED certification.

5.3   <u>As-built drawing requirements</u>.

5.3.1   As-built drawings provide an accurate representation of the completed project and show where actual systems have been installed. These drawing are critical in later maintenance and repairs to the building. The Foundation must require that the designers create all construction documentation on an electronic drafting system, such as AutoCAD (latest revision). This will make the creating of accurate as-built drawings easier.

5.3.2   The Foundation, through its general contractor, must provide 3 hard copies (1 reproducible original and 2 prints) of the as-built drawings and 1 electronic copy to NARA before NARA accepts the facility. A Professional Engineer or Registered Architect must sign and stamp all hard copies of specifications and drawings. All copies become the property of NARA.

5.3.3   The Foundation must also provide NARA all specifications (2 sets of a hard copy and 1 electronic copy in word processing format) for the project along with all design calculations.

5.3.4   The exhibit designer must provide drawings of the exhibit layout and case construction as built, showing access points and locations of all original collections.

5.4   <u>Operation and maintenance manuals</u>. NARA must be provided with 4 copies of the manufacturer's operation and maintenance (O&M) manuals for each major system or item of equipment. The O&M manuals must present information in sufficient detail to clearly explain O&M requirements at the system, equipment, component, and subassembly level. Types of information required in the O&M submittal must include the following:

5.4.1   Operating instructions.

5.4.1.1   Safety precautions.

5.4.1.2   Operator pre-start.

5.4.1.3   Startup, shutdown, and post shutdown procedures.

       5.4.1.4   Normal operations.

       5.4.1.5   Emergency operations.

       5.4.1.6   Operator service requirements.

       5.4.1.7   Environmental conditions.

5.4.2   Preventive maintenance.

       5.4.2.1   Lubrication data.

       5.4.2.2   Preventive maintenance plan and schedule.

5.4.3   Corrective maintenance (Repair).

       5.4.3.1   Troubleshooting guides and diagnostic techniques.

       5.4.3.2   Wiring diagrams and control diagrams.

       5.4.3.3   Maintenance and repair procedures.

       5.4.3.4   Removal and replacement instructions.

       5.4.3.5   Spare parts and supply lists.

       5.4.3.6   Corrective maintenance work-hours.

5.4.4   Appendixes.

       5.4.4.1   Parts identification.

       5.4.4.2   Warranty information.

       5.4.4.3   Personnel training requirements.

       5.4.4.4   Testing equipment and special tools information.

       5.4.4.5   Contractor information.

5.4.5   Materials Safety Data Sheets (MSDS): The Foundation must provide MSDS sheets on all installed equipment, materials, finishes, and on any fluid or product installed with or as part of an installation in the building. The MSDS sheets should be bound in a three ring binder and provided to NARA staff.

5.5   <u>Maintenance management system</u>. A computer-based maintenance management system is recommended for the library to provide for asset management of all equipment installed and to provide a database of all of the operation and maintenance information listed above. If a computer-based maintenance system is installed, as recommended, then

the following must be provided to NARA:

5.5.1   A valid licensed copy of the software.

5.5.2   Computer, color monitor, and laser printer to operate the system and create work orders and reports.

5.5.3   Technical manuals on the operation of the system.

5.5.4   Fully installed software, including the loading of all equipment, part inventory, and preventive maintenance requirements for all equipment.

5.5.5   Bar coding of all major pieces of equipment with bar code data entered into the software database.

5.5.6   Training on the use and operation of the software and hardware.

5.6   Certificates of testing.

5.6.1   Testing of materials is critical to assure that products installed in a Presidential Library meet the requirements of these standards. Testing of materials and certified test results are the primary means that the Foundation can assure itself, and later assure NARA, that the project and all systems, materials, finishes, and equipment meet these Standards. Copies of certificates of testing must be provided to NARA before facility acceptance.

5.6.2   The Construction Quality Manager (CQM) maintains a copy of all test results. The test results on all materials, finishes, systems, and equipment must be made by an independent testing laboratory qualified to perform sampling and tests of building materials. The testing laboratory must be accredited. Acceptable accreditation programs are the National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP), the American Association of State Highway and Transportation officials (AASHTO) program and the American Association for Laboratory Accreditation (AALA) program.

5.7   Training videos. The Foundation must provide NARA with a training video showing contractor instructions for operation of all major mechanical equipment, including boilers, chillers, cooling towers, air-handling equipment, exhibit lighting, and any other specialized systems. NARA must also receive training and training videos on the operation of all access control systems, including such topics as programming card readers, operating the computer-based security database, and using the closed circuit television and intrusion detection systems. The Foundation must provide NARA training and training videos on the building management systems and computer based energy management systems, security systems, fire control systems and alarms, LAN and WAN telecommunications systems, and lighting control systems, including training on maintaining and replacing lighting control sensors.

5.8   Warranties.

    5.8.1   The Foundation's construction documents must require that the general contractor provide assignable warranties for the entire building and its construction. The general warranty must be not less than 1 year, and for all equipment and special installations, extended warranties are required as outlined in paragraph 3-29.

    5.8.2   At the time the project is turned over to NARA, the general building warranties must be assigned to NARA acting for the U.S. Government, and the following information on all the warranty must be provided:

        5.8.2.1   Equipment or systems covered by the warranty.

        5.8.2.2   Warranty period (dates).

        5.8.2.3   Warranty contacts with names, addresses, and telephone numbers.

        5.8.2.4   Bonding company name and address.

5.9   Extended equipment and product warranty list. While certain extended warranties are required by NARA, others may be provided by the general contractor or manufacturer. The Foundation must furnish to NARA a bound and indexed notebook containing written warranties for equipment/products that have extended warranties (warranty period exceeding the standard 1-year warranty), and with a complete listing of such equipment/products. The equipment/product list must state the specification section applicable to the equipment/product, duration of the warranty, start date of the warranty, ending date of the warranty, and the point of contact for fulfillment of the warranty. This listing must be fully executed and delivered to NARA before final acceptance of the facility, and acceptable listing must be a condition of final acceptance of the facility.

5.10   Equipment warranty guarantor's local representative. The general contractor must furnish the Foundation, and the Foundation in turn must furnish NARA, with each warranty the name, address, and telephone number of the guarantor's representative nearest to the location where the equipment and appliances are installed.