United States Department of Health & Human Services

3

Planning and Design Considerations

Office for Facilities Management and Policy

Office of the Assistant Secretary for Administration and Management

SECTION 3-1: FACILITY MASTER PLANNING

3-1-00 Policy
10 Procedures
20 Guidance and Information
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3-1-00 POLICY

The purpose of this section is to assist HHS and its Operating Divisions in the utilization and long-range planning of HHS sites and facilities. Master planning helps HHS define the physical resources needed to maintain or advance OPDIV missions and goals and support the execution of HHS-wide programs. The master planning process assists Operating Divisions in determining and coordinating site improvements to achieve a functional, attractive, and comprehensive design for HHS sites and facilities. The plan aids Operating Divisions in day-to-day facility decision-making while accommodating changing circumstances and new OPDIV priorities, some of which may not be identifiable when the plan is initially formulated. Master Plans, to remain useful, are required to be updated approximately every five years but may be amended sooner as unanticipated circumstances are dictated.

Master plans are required on all sites, installations and/or campuses owned and/or occupied by HHS employees that contain at least two independent buildings, or two different activities with the exception of direct leased facilities.

3-1-10 PROCEDURES

A. Applicability of Master Planning - Master planning procedures are normally appropriate for all HHS direct Federal or lease/purchase construction projects or site acquisitions that will eventually lead to more than one principal building, structure or activity on a site. This includes sites shared with other government agencies or with private firms. This typically does not apply to direct leased facilities.

B. Existing Sites - Master Plans should be developed for existing HHS sites that contain more than one building. The plan should reflect both the special needs of the site and the impact of HHS activities (current and planned) on the surrounding community and the environment.

3-1-20 GUIDANCE AND INFORMATION

Some of the laws and regulations applicable to the master planning process as it applies to the HHS facilities planning program are listed below. Note: The Clean Air Act and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, impose additional facilities-specific requirements.

A. Laws And Regulations

1. National Environmental Policy Act of 1969 (42 USC 4321 et seq) - This law prescribes the consideration Operating Divisions must give to the impact of the Master Plan on the human environment.

2. Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR parts 1500-1508) - The CEQ regulations outline certain practices and procedures Federal agencies must follow in implementing NEPA during their master planning processes.

3. National Historic Preservation Act of 1966 (16 USC 470 et. seq.) and Implementation Procedures Contained in Federal Register Vo. 35, No. 23, February 3, 1970, Department of the Interior, National Park Service "National Register of Historic Places" - This document requires evaluation of the effect the Master Plan may have on historic properties listed or eligible for listing in the National Register of Historic Places, and requires that the Advisory Council on Historic Preservation be notified and given reasonable opportunity to comment with regard to the undertaking.

4. Executive Order 12372, "Intergovernmental Review of Federal Programs," Amended April 8, 1983 - This Executive Order requires Federal agencies to undertake coordinated planning on an intergovernmental basis with local, regional, and State agencies for Federal actions involving construction and acquisition use and disposal of Federal real property.

5. Uniform Relocation Assistance and Land Acquisition Policies Act of 1970 (42 USC 4601 et seq.) - This law sets forth the policy for fair and equitable treatment of persons displaced as a result of Federal and Federally-assisted programs.

6. National Capital Planning Commission (NCPC) - "Master Plan Submission Requirements" - All HHS sites in the National Capital Region (which includes the District of Columbia; Montgomery and Prince George's Counties in Maryland; Arlington, Fairfax, Loudoun, and Prince William Counties in Virginia; and all cities now or hereafter existing in Maryland or Virginia within the geographic area bounded by the outer boundaries of the National Capital Region) are subject to the NCPC Master Plan Submission Requirements.

B. Organizational Responsibilities

1. Operating Division

   a. Responsible for development and updates of Master Plans.

   b. Designates operating OPDIV representatives as members of the Master Plan review and evaluation team.

   c. Develops long-range goals, objectives, and program plans used as a Master Plan guide.

   d. Integrates environmental considerations in the responsible Operating Division official's decision-making process, including environmental documents as part of the Master Plan document.

2. HHS Capital Investment Review Board

   a. Provides policy oversight to the HHS Operating Divisions in the preparation of facility Master Plans.

   b. Authorizes the release of Draft Master Plans for review and comment.

   c. Approves Final Master Plans.

C. Contents Of Master Plans

The Master Plan is an integrated series of documents that present in graphic and narrative form the present composition and planned physical development of an HHS site containing more than one building, structure, or activity. Master Plans analyze and document the form and function of HHS sites, individual site and building requirements and interrelationships among activities.

1. General – The Master Plan should
   - Reflect thorough planning,
   - Establish a comprehensive and coordinated approach to physical development of the site,

- Ensure regulated growth and land use,
- Permit flexibility of use, and
- Provide for future expansion to meet long-range program goals without disrupting the efficiency of the plan or adversely impacting the environment.

2. Master Plan Requirements - Master Plans should address each of the following areas and provide viable solutions for any deficiencies or conflicts, which may be identified:
   a. Program Requirements - Establish planning premises and the Master Plan goals and objectives. Define the specific concepts and standards for future development.

   b. Region and Location - Describe the regional setting in terms of existing and future land use patterns, transportation systems, utility services, population on and off site, economy, and cultural assets. Also indicate current land use and zoning of adjacent areas.

   c. Boundary and Topographic Data - Include boundaries and acreage for existing and proposed surveys as appropriate.

   d. Site Utilization - Show general land use by type and the areas allocated to each function for both existing and proposed conditions. Address requirements for open space.

   e. Improvements - Show existing to-remain (i.e. not demolished) and proposed buildings, structures, and other improvements such as roads, parking areas, heliports, refuse handling areas, etc.

   f. Circulation - Indicate the internal road network, access points, parking facilities, pedestrian and bicycle movement systems, public transportation, and service access flow. Evaluate traffic impacts of proposed development and propose transportation management strategies to minimize impacts. Material flow should also be delineated (e.g. deliveries and trash disposition), as appropriate.

   g. Landscaping - Indicate general concepts for open space and green areas, and the location and extent of existing and proposed landscaping.

   h. Security, Fire, Life Safety, and Accessibility - Proposed building site location and planning should consider security, safety, and fire protection. Factors to be considered include, but are not limited to, combustibility, occupancy and attendant hazards, proximity of fire fighting resources, ease of access, climate and topography. Special consideration should be given to the security criteria, such as setbacks, explosive safety quantity distances, safety, and accessibility of facilities for occupants as well as visitors.

   i. Utilities - Show all utilities including solid and hazardous waste handling and disposal plans. Indicate proposed utility upgrades and new utilities necessary to support proposed development. It is preferable that utilities be located underground where practicable. In addition, where possible, utility distribution systems should be located to facilitate ease of access and future land use. Utility capacity in excess of five years should be evaluated on a life cycle cost basis.

   j. Environmental Impacts - Analyze the potential impacts of all of the above on the environment, including natural resources, historic properties, waste management, etc.

   k. Existing Resources - Determine the major natural and man-made elements that affect potential development, such as the physical features of the site, climate, environmental features, utilities, historic/archaeological features, natural amenities and visual quality, constraints, and opportunities. This includes environmental conditions (e.g., slopes, drainage patterns, wetlands, floodplains, wildlife, water quality, noise, etc.).

l. Development Plan - Illustrate the proposed development of the site over the next 20 years, including the disposition of existing buildings, the infrastructure, new construction, and other improvements.

m. Energy Conservation - Establish energy conservation strategies and policies as they relate to siting and design of buildings, transportation practices, and renewable energy resources.

n. Site Development Standards - Establish campus development guidelines and design standards. Include specific site element recommendations such as building density, setback, and height restrictions or buffer requirements. The plan should address the order of magnitude of building scale and orientation.

o. Implementation - Illustrate phasing strategies for the implementation of the Master Plan over the next 20 years. Operating Divisions are also encouraged to develop a Capital Improvements Plan (CIP) element for each Master Plan that addresses sequencing and phasing of construction requirements. The CIP should forecast and schedule future capital facility needs to ensure that capital improvements are available when required based on needs identified in the Master Plan. The six-year CIP should be reassessed on an annual basis.

p. Interrelationship - Describe the relationship of the Master Plan to applicable local, regional, state, and federal development plans and policies. Address off-site improvements to support on-site development.

3-1-30 REPORTING REQUIREMENTS

A. Master Plan Submittals

Master Plans are developed by Operating Divisions, generally with the assistance of an outside contractor. The plans typically are developed in two phases, as described below.

1. Draft Master Plan - The Draft Master Plan is a complete planning document containing all of the information required of a Master Plan, including draft environmental documentation. The document is reviewed internally by OPDIV staff and the HHS Capital Investment Review Board (CIRB) prior to its distribution to outside agencies and the general public for review.

2. Final Master Plan - A Final Master Plan report shall be prepared upon completion of all internal HHS reviews and public reviews, if required. The OPDIV's environmental determination, consisting of either a determination of categorical exclusion, a Finding of No Significant Impact resulting from an Environmental Assessment, or an Environmental Impact Statement and Record of Decision should accompany the final plan. Master Plans normally require, at a minimum, the preparation of an Environmental Assessment.

B. MASTER PLAN APPROVAL

Because of the future programmatic and funding implications, the OPDIV head and the HHS Capital Investment Review Board (CIRB) shall approve Master Plans.

SECTION 3-2: ENVIRONMENTAL IMPACT ANALYSIS PROCEDURES

3-2-00 Policy
10 Procedures
20 Guidance and Information
30 (Reserved)
X3-2-A Sample Environmental Assessment Criteria Check List (NIH)
X3-2-B Sample Categorical Exclusion Criteria Checklist (NIH)
X3-2-C Sample NEPA Flow Chart (NIH)

3-2-00 POLICY

The National Environmental Policy Act (NEPA) of 1969 (42 USC 4321 et. seq.), as amended, establishes policy and requirements governing all Federal Departments and agencies with respect to protecting the environment. In addition, HHS General Administration Manual, GAM, Part 30 - Environmental Protection - February 2000 supplements specific requirements established by NEPA and by the associated implementing regulations promulgated by the Council on Environmental Quality (CEQ) (40 CFR 1500-1508). NEPA requires all Federal Departments and agencies to take into account all potential environmental consequences of their activities prior to initiation of these activities. Specifically, Section 102(2)(c) of NEPA requires all agencies of the Federal Government to include an environmental impact statement "in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment."

3-2-10 PROCEDURES

All projects must have an Environmental Review when pursuing a major Federal action, unless they qualify for a categorical exclusion from this requirement. ‘Categorical exclusion’ refers to a category of actions, which do not individually or cumulatively have a significant effect on the human environment and therefore, are excluded from the requirement for an environmental assessment or an environmental impact statement. See HHS GAM 30-20-40. Note, each OPDIV is responsible for developing its own procedures to meet the NEPA requirements in accordance with GAM 30-20-50. All construction is included in the environmental review process. CEQ regulations require each Department to establish criteria for determining categorical exclusions from such reviews. Each HHS OPDIV must determine those actions that qualify as categorical exclusions. The OPDIV categorical exclusion should be followed for the environmental review of construction actions. Generally, the agencies should prepare an Environmental Assessment (EA), in accordance with the sample checklist provided as Exhibit X3-2-A, for each proposed action not categorically excluded. As a result of the EA, prepare either a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS). An example Categorical Exclusion Criteria Checklist (developed for NIH) is provided as X3-2-B.

A. ENVIRONMENTAL REVIEW PROCEDURES

An OPDIV/STAFFDIV must conduct environmental reviews with respect to all proposed actions that are subject to an environmental statute or Executive Order, which do not fall under categorical exclusion type 1, 2, or 3. See HHS GAM 30-20-50.

3-2-20 GUIDANCE AND INFORMATION

A. ENVIRONMENTAL LAWS AND EXECUTIVE ORDERS

Listed below are some of the major environmental laws that deal with potential environmental effects from the HHS facilities construction program. A more complete list of applicable laws and executive orders is contained in HHS, GAM Chapter 30-00-20.

1. The National Environmental Policy Act of 1969 (NEPA) (42 USC 4321 et. seq.). A sample NEPA flowchart is provided as Exhibit X3-2-C.
   a. establishes a comprehensive policy for protection and enhancement of the environment by the Federal government,
   b. creates the CEQ, and
   c. directs Federal agencies to carry out the policies and procedures of the Act.
2. The Safe Drinking Water Act (42 USC 300f et seq.) authorizes Environmental Protection Agency (EPA) to determine if an action which will have an environmental effect on a sole or principal drinking water source would also constitute a significant hazard to a human population and, if so, to prohibit such an action.
3. The Clean Air Act (42 U.S.C. 7401 et seq) requires EPA to review and comment on a Federal agency action which would create a significant environmental impact.
4. The Endangered Species Act (16 USC 1536) directs Federal agencies to conserve endangered and threatened species and their critical habitats.
5. The National Historic Preservation Act of 1966 as amended (16 USC 470 et seq.) directs heads of Federal agencies to preserve cultural heritage, particularly with respect to sites on/or eligible for listing on the National Register of Historic Places.
6. The Archeological and Historic Preservation Act (16 USC 469 a-1 et seq.) directs Federal agencies to preserve significant scientific, prehistorical, historical and archeological data.
7. The Coastal Zone Management Act (16 USC 1456 et seq.), directs Federal agencies to conduct activities consistent with an approved State coastal zone management program.
8. The Wild and Scenic Rivers Act (16 USC 1278) directs Federal agencies to consider and preserve the values of wild and scenic areas in the use and development of water and land resources.
9. Toxic Substance Control Act (15 USC 2601, et. seq.) requires agencies to develop plans to insure ultimate safe disposal of toxic substances.
10. Solid Waste Disposal Act (42 USC 6901, et seq.) sets responsibilities with the originator for proper handling and disposal of solid wastes.
11. Executive Order 11990 May 24, 1977, directs heads of Federal agencies to avoid
    a. The long- and short-term adverse impacts associated with the destruction or modification of wetlands and
    b. Direct or indirect support of new construction in wetlands whenever there is a practical alternative.

12. Executive Order 11988 May 24, 1977, directs Federal agencies to take action to avoid the occupancy or modification of floodplains and to avoid direct or indirect support of development in floodplain areas whenever there is a practical alternative.

13. Executive Order 12088 October 13, 1978, directs Federal agencies to comply with local state and Federal pollution control standards for facilities operation. This means that HHS facilities and sites may potentially be subject to numerous State and other environmental laws.

B. ENVIRONMENTAL DOCUMENTATION

General - In order to identify the extent of required documentation, an Environmental Review must be conducted. For environmental issues that are not categorically excluded, then an Environmental Assessment (EA) shall be done to determine the need for either a FONSI or EIS. In preparing the assessment, it is necessary to identify clearly the environmental effects and the changes that would occur if the action were taken. Construction actions on occasion may require different approaches for developing environmental information. It is not unusual to have a construction action underway, e.g., in the early budgeting and planning stages, and not have site selection finalized. Therefore, on construction projects the EA may be prepared at different stages by sources such as a Planning Consultant, Architect/Engineer or non-government agency. (See sample Environmental Assessment Criteria Checklist, Exhibit X3-2-A).

1. Finding of No Significant Impact (FONSI) - For the purposes of NEPA, a FONSI documents an agency judgment that a proposed construction action not categorically excluded from NEPA requirements will not significantly affect the quality of the human environment. A FONSI must meet the criteria described in HHS GAM Section 30-50-45 and, in addition:

   a. Include a list of agencies and persons to whom distributed;

   b. Briefly present why the proposed action will not significantly affect the human environment, including the EA or a summary thereof; and

   c. Be made available to the public and other interested parties including, when appropriate, publication in the Federal Register of a notice announcing its availability, consistent with 40 CFR 1506.6(b) and 1501.4 (3) (2).

2. Environmental Impact Statement (EIS)

   a. General - The agency head or his/her designee responsible for carrying out a specific action is responsible for preparation of the EIS associated with the construction action.

   b. Public Interface Requirements - The HHS OPDIV should be aware of the extensive Public Notice and other requirements associated with EIS preparation under 40 C.F.R. 6.400. See HHS GAM Section 30-50-70 for detailed procedures and requirements.

   c. EIS Format/Contents - The format and content of the EIS shall conform with 40 C.F.R. 6.200 and the requirements of 40 CFR 1502. If a proposed action will also affect a cultural or natural asset (as defined in the related acts), the statement shall incorporate the material required by the applicable related acts. Specific details and related information for the prescribed format and contents of an EIS is contained in HHS GAM Section 30-50-65, and applicable HHS/OPDIV Environmental Regulations.

3. Record of Decision - When an OPDIV/STAFFDIV reaches a decision on a proposed action after preparing an EIS, the responsible official shall prepare a concise public record of decision which includes:

   a. The decision;

b. All alternatives considered, specifying the alternative or alternatives, which were considered to be environmentally preferable;

c. A discussion of factors, which were involved in the decision, including any essential considerations of national policy, which were balanced by the organization in making its decision and a statement of how those considerations entered into its decision;

d. A statement of whether all practicable means to avoid or minimize potential environmental harm from the alternative selected have been adopted, and if not, why they were not;

e. A description of mitigation measures that will be undertaken to make the selected alternative environmentally acceptable;

f. A discussion of the extent to which pollution prevention is included in the decision and how pollution prevention measures will be implemented; and

g. A summary of any monitoring and enforcement program adopted for any mitigation measures.

Proposal to ... (brief description of the proposed action)
ENVIRONMENTAL ASSESSMENT CRITERIA (Updated January 18, 2001)

I.	USE OF NATURAL RESOURCES This set of criteria is concerned with the accessibility of nonrenewable natural resources such as land, mineral, and fuels, which are constantly renewed but in which short-term or local shortages might occur.			
	CRITERIA	IMPACT		
	Does the project:	YES	NO	DESCRIPTION OF ENVIRONMENTAL IMPACT
(1)	change traditional use of the land parcel (by rezoning, etc.)?			
(2)	alter use of other land by related development of stores, roads, or site changes?			
(a)	generate new stores?			
(b)	cause new roads?			
(c)	cause new parking?			
(3)	use land for purposes unsuitable to its physical characteristics?			
(4)	include the use of wetlands (swamps, marshes, etc.)?			
(5)	include construction in a floodplain?			
(6)	include the use of significant agricultural lands?			
(7)	block access to known mineral deposits?			
(8)	increase fuel and mineral consumption in state by more than 1% annually?			
(9)	decrease the volume of water in a lake, river, water table, reservoir, etc.?			
(10)	change traditional use of a body of water?			
(11)	divert from local and state land use planning?			

II.	POLLUTION This set of criteria is concerned with the processes which generate pollution. These include the introduction of pollutants into the environment, changes in the flow of energy through the environment, and changes in the composition of environments through the augmentation or deletion of substances which are naturally present. The criteria are also directly concerned with the production and one-time use of materials and the proper disposal of wastes.			
	CRITERIA	IMPACT		
	Does the project:	YES	NO	DESCRIPTION OF ENVIRONMENTAL IMPACT
(1)	increase identifiable air pollution levels from a new emission source or from existing sources?			
(2)	increase identifiable ambient air pollution levels through a major increase in the number of or use of automobiles, trucks, etc.?			
(3)	exceed city or state health standards for exhausts from fume hoods?			
(4)	involve:			
(a)	dredging or swamp drainage?			
(b)	construction of a waste treatment plant?			
(c)	discharge of untreated human waste directly into a lake, river, etc.?			
(5)	overload existing waste treatment plants due to new loads (volume, chemicals, toxicity, etc.)?			
(6)	cause soil erosion (after completion of construction phase) or leaching of foreign substances (such as salt) into the soil?			
(7)	allow seepage of contaminants into the water table?			
(8)	increase the stress placed upon an identified earthquake fault?			

II.	POLLUTION - (Continued)			
	CRITERIA Does the project:	IMPACT YES	NO	DESCRIPTION OF ENVIRONMENTAL IMPACT
(9)	create an identifiable change in aquatic life by discharge of hot water?			
(10)	decrease the percolation on over one acre of land?			NIH will adhere to the Erosion and Sediment Control Guidelines and Stormwater Management Guidelines issued by the Maryland Department of the Environment.
(11)	cause storm water runoff onto the land owned by others?			
(12)	produce noises considered offensive to a human population, i.e., over 55 decibels (dB) A-weighted L_{dn} - day/night average sound levels with a 10-dB penalty applied to nighttime (10 p.m. to 7 a.m.) activities at the property boundary? produce cumulative adverse noise effects in conjunction with existing noise sources?			
(13)	create sounds which result in changes in behavior patterns of animals and/or humans (high/low noise frequencies)?			
(14)	introduce new sources of hazardous/toxic wastes			
(15)	introduce new sources of radiation?			
(16)	cause shock waves and/or vibration (after construction phase)?			
(17)	change the direction and wind velocity as to affect the local population (i.e., high-rise building)?			
(18)	cause a new, large volume of production of non-recycled items?			

II.	POLLUTION - (Continued)			
	CRITERIA	IMPACT		
	Does the project:	YES	NO	DESCRIPTION OF ENVIRONMENTAL IMPACT
(19)	result in the non-recycling of recyclable items such as laboratory glassware, animal cages and office paper?			
(20)	generate solid wastes which cannot be properly disposed of by existing facilities?			
(21)	dispose of solid wastes in polluting landfills, wells, caves, etc.?			
(22)	require storage of wastes pending technology for safe disposal?			
(23)	fail to comply with Federal, State and local requirements for waste handling, transportation or disposal methods?			

III.	POPULATIONS This section of the criteria addresses changes in human, animal, and plant populations.			NOTE: In this part of the criteria, the affected area is defined as being greater than 160 acres in size.
	CRITERIA	IMPACT		
	Will the action cause:	YES	NO	DESCRIPTION OF ENVIRONMENTAL IMPACT
(1)	a 5% change in the density of the local population?			
(2)	health, education and/or welfare services to be altered?			
(3)	social service needs to change by altering populations's age pattern (new schools, etc.)?			
(4)	a change in the transient population by 5%?			
(5)	a scientific alteration (genetic engineering) of the structure of genetic material in a living organism directed at human or other populations?			
(6)	local, state or federal standards pertaining to population densities or conservation of plants and animals to be violated?			

IV.	HUMAN SERVICES As society has evolved, traditional self-sufficient human communities have given way to dense populations which are dependent upon the development and application of technology. Man's highly complex, technological environments are maintained by a variety of services, ranging from the provision of the basic necessities of food and water to a complex system of economic exchange. These services are largely interdependent and their complexities must be considered.			NOTE: In this part of the criteria, the affected area is defined as being less than 160 acres in size.
	CRITERIA	IMPACT		
	Could the action disrupt:	YES	NO	DESCRIPTION OF ENVIRONMENTAL IMPACT
(1)	food supplies for 48 hours?			
(2)	water supplies for over 48 hours?			
(3)	electrical power for 48 hours?			
(4)	heating supplies (natural gas, heating oil) for over 48 hours?			
(5)	or deprive population of housing for over 48 hours?			
(6)	removal of sewage for more than 12 hours?			
(7)	removal of solid waste (trash) for more than seven (7) days?			
(8)	existing health service response in case of a disaster?			
(9)	mail, radio, telegraph, telephone, or television service for over two (2) weeks?			
(10)	transit service for more than two (2) weeks?			

IV.	HUMAN SERVICES - (Continued)			
	CRITERIA	IMPACT		
	Does the action use more than 5% of:	YES	NO	DESCRIPTION OF ENVIRONMENTAL IMPACT
(1)	remaining electrical capacity?			
(2)	remaining water?			
(3)	available capacity of the sewage treatment system (branch lines, mains, plants)?			
(4)	available capacity of trash disposal system (collection, incinerator plant, landfill)?			
(5)	available heating fuel (gas, coal, or heating oil)?			
	Does action decrease:			
(1)	food delivery system by removal of retail food stores, etc., by 5%?			
(2)	area's domestic housing by demolition, closing, etc., by 5%?			
(3)	use of existing transit systems (bus, train, etc.) by more than 5%?			
(4)	accessibility to routine health services by altering point of service delivery?			
	Will action:			
(1)	increase the patient load of the area's routine health care services by more than 5%?			
(2)	change the availability of social services by opening or closing facilities?			

IV.	HUMAN SERVICES - (Continued)			
	CRITERIA	IMPACT		
	Will the action:	YES	NO	DESCRIPTION OF ENVIRONMENTAL IMPACT
(3)	increase or decrease the number of social services recipients by more than 5% (by unemployment)?			
(4)	increase the annual volume of telephone, telegraph, or mail by more than 5%?			
(5)	eliminate employment sources for 10% of the population?			
(6)	change school enrollment by more than 5%?			

V.	HUMAN VALUES The fifth set of criteria is directed toward human values concerning the quality of the environment which are generally agreed upon to the extent that they are stated in statutes or regulations.			
	CRITERIA	IMPACT		
	Will the action:	YES	NO	DESCRIPTION OF ENVIRONMENTAL IMPACT
(1)	encroach upon any historical, architectural, or archaeological cultural property?			
(2)	affect any endangered species?			
(3)	violate local, state, or federal standards on aesthetics, odor, or noise?			

V.	HUMAN VALUES - (Continued)			
	CRITERIA	IMPACT		
	Will the action:	YES	NO	DESCRIPTION OF ENVIRONMENTAL IMPACT
(4)	use criteria, methods, or practices that would discriminate on the basis of race, color, religion, gender, national origin, age, disability, or sexual orientation?			
(5)	effect the environmental, human health, economic and/or social status of minority and/or low-income communities?			
(6)	exclude the opportunity for the public, including minority communities and low-income communities, to have adequate access to public information relating to human health or environmental planning, regulations, and enforcement pursuant to the Freedom of Information Act, the Sunshine Act, and the Emergency Planning and Community Right-to-Know Act?			
(7)	preclude the affected communities access to meetings, crucial documents and notices and opportunities for input during the planning process to identify potential effects and mitigation measures?			

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Proposal to ... (brief description of the proposed action)

CATEGORICAL EXCLUSION CRITERIA CHECKLIST

I.	CATEGORY #1 -- General Exclusions Subject to a review for extraordinary circumstances, NIH will not perform an environmental review of actions excluded by regulation from NEPA review. NIH will also not perform an environmental review of actions categorically excluded from NEPA review in DHHS GAM Chapter 30.	NOTE: If the answer to any of the questions in Category #1 is "YES", the action may be categorically excluded from further NEPA review.		
	CRITERIA	YES	NO	EXPLANATION
(1)	Does a law or statute grant an exception, unless precluded by an OPDIV/STAFFDIV regulation?			
(2)	Have the courts found that the action does not require environmental review?			
(3)	Does the action implement actions outside the territorial jurisdiction of the United States and are such actions excluded from review by Executive Order 12114?			

II.	CATEGORY #2 -- Functional Exclusions The following actions are normally excluded from NEPA review, subject to a review for extraordinary circumstances.	NOTE: If the answer to any of the questions in Category #2 is "YES", the action may be categorically excluded from further NEPA review.		
	CRITERIA Does the proposed action fall under any of the following categories:	YES	NO	EXPLANATION
(1)	Routine administrative and management support, including legal counsel, public affairs, program evaluation, monitoring, and individual personnel actions?			
(2)	Information technology management			
(3)	Education and training grants and contracts except projects involving construction, renovation and/or changes in land use?			
(4)	Grants for administrative overhead support?			
(5)	Grants for social services except projects involving construction, renovation, and changes in land use?			
(6)	Liaison functions?			
(7)	Maintenance, except for properties on or eligible for listing on the National Register of Historic Places?			
(8)	Statistics and information collection and dissemination?			

II.	CATEGORY #2 (continued) Functional Exclusions	NOTE: If the answer to any of the questions in Category #2 is "YES", the action may be categorically excluded from further NEPA review.		
	CRITERIA Does the proposed action fall under any of the following categories:	YES	NO	EXPLANATION
(9)	Adoptions of regulations and guidelines pertaining to the above activities?			
(10)	Routine administrative and management support, including budget and finance, planning, procurement of supplies and services, management and oversight of grants and other funding instruments, legal counsel, public affairs, program evaluation, travel, and human resources management.			
(11)	Maintenance, including repairs necessary to ensure the operation of existing facilities, grounds maintenance, and the decontamination of laboratory or other space and equipment.			
(12)	Acquisition of space by lease and modifications of leases, when the use of the space will comply with all applicable Federal, State, and local laws, including all environmental protection and zoning laws, and lease extensions and terminations.			
(13)	Relocation of employees into existing Government-owned or Government-leased space.			
(14)	Facility planning and design.			

II.	CATEGORY #2 (continued) Functional Exclusions	NOTE: If the answer to any of the questions in Category #2 is "YES", the action may be categorically excluded from further NEPA review.		
	CRITERIA Does the proposed action fall under any of the following categories:	YES	NO	EXPLANATION
(15)	Construction, or construction pursuant to a lease, of 12,000 square feet or less of occupiable space.			
(16)	Interior construction and renovation of NIH facilities.			
(17)	The acquisition, sale, release, disposal, abandonment, closure, or transfer of real or personal property, provided that the action does not violate applicable Federal, State, or local laws, including historical preservation laws.			
(18)	Acquisition of equipment and the repair or replacement of NIH-owned equipment.			
(19)	Acquisition, installation, maintenance, and operation of utility and communications systems, data processing cables, and similar electronic equipment.			
(20)	Packaging, storage, and disposal of hazardous substances, including low-level radioactive, medical, and chemical waste materials generated by intramural research activities, provided that the waste is packed, stored, and disposed of in compliance with all applicable Federal, State, and local laws.			

II.	CATEGORY #2 (continued) Functional Exclusions	NOTE: If the answer to any of the questions in Category #2 is "YES", the action may be categorically excluded from further NEPA review.		
	CRITERIA Does the proposed action fall under any of the following categories:	YES	NO	EXPLANATION
(21)	The identification, collection, testing, and distribution of chemicals, drugs, biologicals, plants or plant derivatives, microorganisms, and/or cell cultures for use in the research, diagnosis, and/or treatment of human diseases.			
(22)	Research and training activities that are conducted in NIH facilities: By or under the supervision of NIH employees; under the Stevenson-Wydler Technology Innovation Act of 1980, as amended, 15 U.S.C. 3701 et seq.; or in accordance with 45 CFR part 9.			
(23)	The issuance of revocable licenses, use permits, and easements allowing outside parties to use NIH facilities.			
(24)	Filing for, obtaining, licensing, enforcing, and protecting intellectual property rights arising from NIH-conducted or NIH-supported research or other activities.			
(25)	Actions taken to comply with requirements of applicable legislation or regulations (e.g., meet emissions requirements established pursuant to Clean Air Act).			

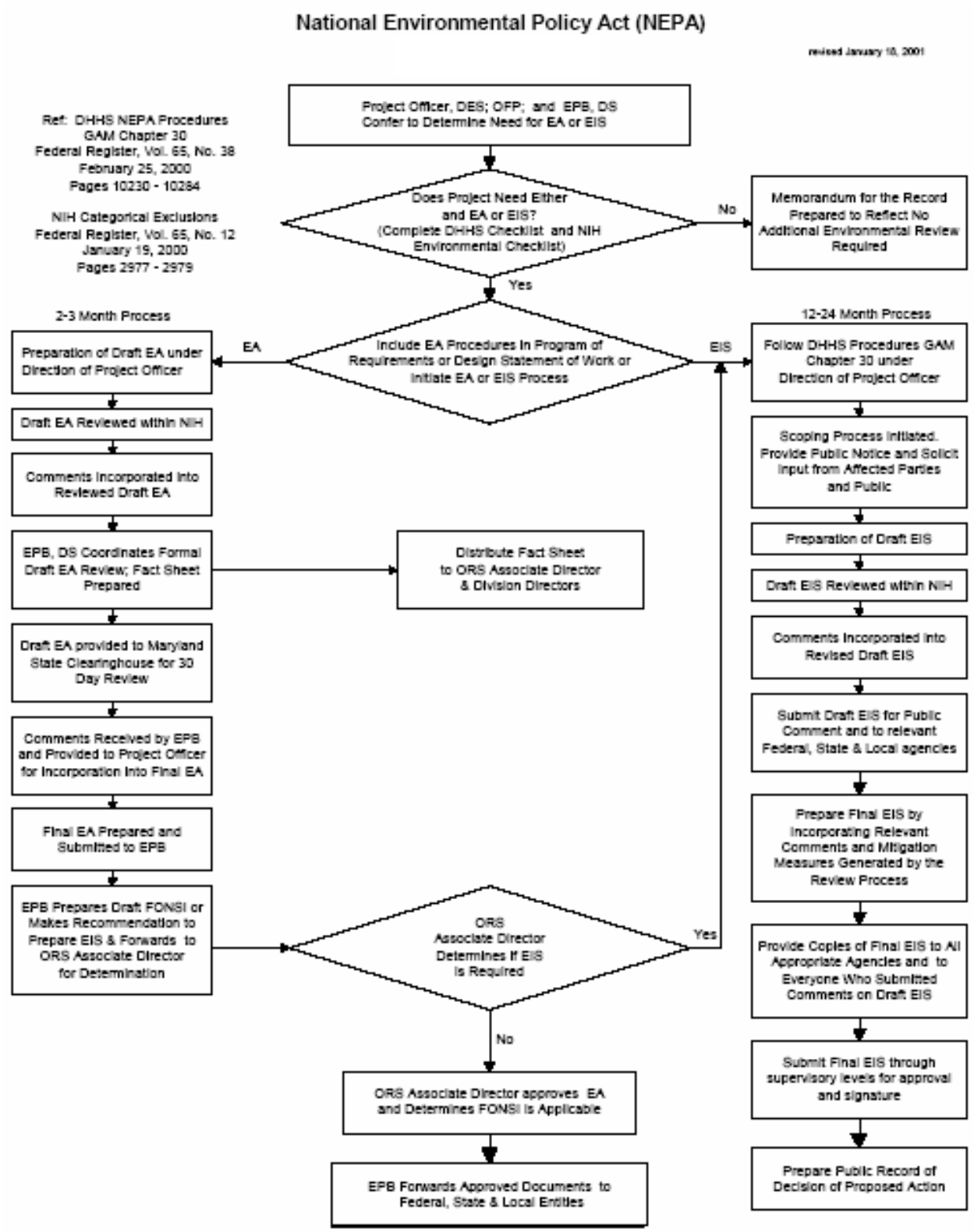
II.	CATEGORY #2 (continued) Functional Exclusions	NOTE: If the answer to any of the questions in Category #2 is "YES", the action may be categorically excluded from further NEPA review.		
	CRITERIA	YES	NO	EXPLANATION
(26)	The preparation and submission of proposals for legislation, or major recommendations or reports to Congress on proposals for legislation, that, based on reasonable judgment, will not establish or modify programs that will have a significant effect on the quality of the human environment.			
(27)	The awarding, renewal, suspension, termination, or discontinuance of: Collaborative research agreements, including Cooperative Research and Development Agreements (CRADA) established under the Stevenson-Wydler Technology Innovation Act of 1980, as amended, 15 U.S.C. 3701 et seq.; contracts; cooperative agreements; grants; and interagency agreements entered into by the NIH pursuant to the Economy Act, 31 U.S.C. 1535. For those contracts, cooperative agreements, grants, and interagency agreements that involve construction of more than 12,000 square feet of occupiable space, recipients of NIH funds must certify that they are in compliance with all Federal, State, and local environmental laws and must, as prescribed by NIH, perform all environmental reviews required by NEPA, including preparing environmental assessments and, if necessary, environmental impact statements, and submit these documents to the NIH for review, approval and adoption.			

II.	CATEGORY #2 (continued) Functional Exclusions	NOTE: If the answer to any of the questions in Category #2 is "YES", the action may be categorically excluded from further NEPA review.		
	CRITERIA	YES	NO	EXPLANATION
(28)	All actions undertaken in preparing for and conducting litigation.			
(29)	The collection, processing, retention, evaluation and dissemination, including publication, of data and other information, including the acquisition and management of resources necessary to carry out those functions.			
(30)	Proposing and adopting guidelines.			
(31)	Traffic management measures, including the installation and operation of traffic control and safety devices and actions designed to control or reduce the number of motor vehicles coming onto the NIH Bethesda campus.			
(32)	Actions taken to respond to public health emergencies.			

III.	CATEGORY #3 -- Program Exclusions The DHHS procedures on environmental review of agency actions authorize the establishment of a categorical exclusion for programs within an agency that will not have a significant effect on the human environment. Actions taken by the following NIH organizations and their components normally are excluded from NEPA review, subject to a review for extraordinary circumstances. Actions taken by any successor organizations to those listed will also be categorically excluded. Actions taken by organizations of NIH not listed in this category may be included in other categories of excluded actions.			NOTE: If the answer to any of the questions in Category #3 is "YES", the action may be categorically excluded from further NEPA review.
	CRITERIA	YES	NO	EXPLANATION
(1)	Center for Information Technology			
(2)	Center for Scientific Review			
(3)	Fogarty International Center			
(4)	Office of Administration			
(5)	Office of Communications			
(6)	Office of Equal Opportunity			
(7)	Office of Education			
(8)	Office of Community Liaison			
(9)	Office of Loan Repayment and Scholarship			
(10)	Office of Human Resources Management			
(11)	Office of Financial Management			
(12)	Office of Technology Transfer			
(13)	Office of Program Coordination			
(14)	National Library of Medicine			

IV.	CATEGORY #4 -- Extraordinary Circumstances Consistent with CEQ's regulations, environmental review is required for all NIH actions involving extraordinary circumstances. Following are examples of extraordinary circumstances that may apply to specific NIH actions.	NOTE: If the answer to any of the questions in Category #4 is "NO", the action may be partially excluded from further NEPA review.		
	CRITERIA	YES	NO	EXPLANATION
(1)	Greater scope or size than other actions included within a category.			
(2)	A threatened violation of a Federal, State, or local law established for protection of the environment or for public health and safety.			
(3)	Potential effects of the action are unique or highly uncertain.			
(4)	Potential effect on a protected or ecologically sensitive area of land, like a wetland or floodplain.			
(5)	Possible impact on property that is listed or eligible for listing on the National Register of Historic Places or that is otherwise of scientific, cultural, or historic importance or interest.			
(6)	Possible impact on endangered or threatened species.			
(7)	Use of especially hazardous substances or processes for which adequate and accepted controls and safeguards are unknown or not available.			
(8)	Substantial and reasonable controversy exists about the environmental effects of the action.			

V.	Summary	NOTE: If the answer to any of the questions the Summary is "YES", the action may be partially excluded from further NEPA review.		
	CRITERIA	YES	NO	EXPLANATION
(1)	Does the proposed action produce environmental effects with respect to only a few, but not all, of the environmental acts?			
(2)	Is a previously conducted environmental assessment (EA) or environmental impact statement (EIS) broad enough to satisfy the NEPA requirements for the current proposed action?			
(3)	Is the proposed action a response that must be implemented within thirty (30) days to an emergency health situation?			
(4)	Does the law require the proposed action to be taken within thirty (30) days?			
	After substantive review (by first completing the attached NIH Environmental Assessment Criteria checklist) can it be determined that the program or proposed action normally:			
(5)	Will **NOT** significantly affect the human environment (as defined by NEPA)?			
(6)	Will **NOT** affect an asset (as defined in the applicable environmental statute or Executive Order) regardless of location or magnitude of the action?			


National Environmental Policy Act (NEPA)
revised January 10, 2001
Ref: DHHS NEPA Procedures
GAM Chapter 30
Federal Register, Vol. 65, No. 38
February 25, 2000
Pages 10230 - 10284
NIH Categorical Exclusions
Federal Register, Vol. 65, No. 12
January 19, 2000
Pages 2977 - 2979
Project Officer, DES; OFP; and EPB, DS
Confer to Determine Need for EA or EIS
Does Project Need Either
and EA or EIS?
(Complete DHHS Checklist and NIH
Environmental Checklist)
No
Memorandum for the Record
Prepared to Reflect No
Additional Environmental Review
Required
Yes
2-3 Month Process
Include EA Procedures In Program of
Requirements or Design Statement of Work or
Initiate EA or EIS Process
EA
EIS
12-24 Month Process
Preparation of Draft EA under
Direction of Project Officer
Draft EA Reviewed within NIH
Comments Incorporated into
Reviewed Draft EA
EPB, DS Coordinates Formal
Draft EA Review; Fact Sheet
Prepared
Distribute Fact Sheet
to ORS Associate Director
& Division Directors
Draft EA provided to Maryland
State Clearinghouse for 30
Day Review
Comments Received by EPB
and Provided to Project Officer
for Incorporation Into Final EA
Final EA Prepared and
Submitted to EPB
EPB Prepares Draft FONSI or
Makes Recommendation to
Prepare EIS & Forwards to
ORS Associate Director
for Determination
ORS
Associate Director
Determines If EIS
Is Required
Yes
No
ORS Associate Director approves EA
and Determines FONSI Is Applicable
EPB Forwards Approved Documents to
Federal, State & Local Entities
Follow DHHS Procedures GAM
Chapter 30 under
Direction of Project Officer
Scoping Process Initiated.
Provide Public Notice and Solicit
Input from Affected Parties
and Public
Preparation of Draft EIS
Draft EIS Reviewed within NIH
Comments Incorporated into
Revised Draft EIS
Submit Draft EIS for Public
Comment and to relevant
Federal, State & Local agencies
Prepare Final EIS by
Incorporating Relevant
Comments and Mitigation
Measures Generated by the
Review Process
Provide Copies of Final EIS to All
Appropriate Agencies and to
Everyone Who Submitted
Comments on Draft EIS
Submit Final EIS through
supervisory levels for approval
and signature
Prepare Public Record of
Decision of Proposed Action

SECTION 3-3: HISTORIC AND ARCHEOLOGICAL PRESERVATION

3-3-00 Policy
10 Procedures
20 Guidance and Information
30 (Reserved)
X3-3-A Sample 106 Report, NIH George Freeland Peter Estate
X3-3-B Sample Memorandum of Agreement, NIH Building 6

3-3-00 POLICY

HHS facility projects shall comply with Section 106 and Section 110 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR 800. Each Federal agency is required to identify potential National Register of Historic Places (NRHP) eligible properties in accordance with Section 110, which it owns, or otherwise controls and must nominate such potentially eligible properties to the NRHP. Prior to the approval of the expenditure of any Federal funds, the HHS OPDIV shall take into the account the effect of an undertaking on any district, site, building, structure object that is included or eligible for inclusion into the NRHP. The State Historic Preservation Officer or Tribal Historic Preservation Officer and Advisory Council on Historic Preservation shall be provided an opportunity to comment with regard to such undertaking.

3-3-10 PROCEDURES

A. NATIONAL REGISTER CRITERIA FOR ELIGIBLE PROPERTIES

The criteria for evaluating a property's eligibility for listing in the National Register are as follows. The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and

1. that are associated with events that have made a significant contribution to broad patterns of our history; or
2. that are associated with the lives of persons significant in our past; or
3. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. that have yielded, or may be likely to yield, information important in prehistory or history. [36 CFR 60.4]

B. ELIGIBILITY DETERMINATIONS

HHS agencies, in consultation with the State Historic Preservation Officer [SHPO] (or, in the event the Secretary of the Interior has determined that a specific Indian Tribe(s) may assume the functions of the State Historic Preservation Officer with respect to tribal lands on which the property is located, the Tribal Historic Preservation Officer [THPO]), shall apply the National Register Criteria for Eligibility to each property to determine if the property(ies) is (are) eligible for the NRHP. Where a federally recognized Indian tribe has not assumed the responsibilities of the SHPO on tribal lands, consultation with the Indian tribe regarding actions occurring on such tribe's lands or effects on such tribal lands shall be in addition to and on the same basis as consultation with the SHPO.

If the SHPO/THPO fails to respond within 30 days of receipt of a request for review of a determination of eligibility, the agency official may either proceed to the next step in the process based on the finding or determination or consult with the ACHP in lieu of the SHPO/THPO. If the designated HHS agency official determines any of the National Register criteria are met and the SHPO/THPO agrees, the property shall be considered eligible for the National Register. If the OPDIV Federal Preservation Coordinator determines the criteria are not met and the SHPO/THPO agrees, the property shall be considered not eligible.

If the OPDIV Federal Preservation Coordinator and the SHPO/THPO do not agree, or if the ACHP or the Secretary of the Interior (Secretary) so request, the OPDIV Federal Preservation Coordinator shall submit a Nomination Form to the Department of the Interior requesting the Keeper of the National Register (Keeper) to make a decision concerning eligibility. If an Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to a property off tribal lands does not agree with the OPDIV Federal Preservation Coordinator's determination of eligibility, it may ask the ACHP to request the agency official to obtain a determination of eligibility. In the event a request for NRHP eligibility determination is submitted to the Keeper, no action may be taken until the Keeper responds or until 45 days have passed, whichever occurs first. Consultation with the ACHP can be conducted simultaneously. If the Keeper finds the property ineligible for the NRHP, the cultural identification process is complete.

C. DETERMINATION OF EFFECT ON HISTORIC PROPERTIES

The OPDIV Federal Preservation Coordinator will make a determination of potential effect on the historic property. The affects on historic properties are *no effect, no adverse effect, and adverse effect.* A finding of no adverse or adverse effect requires consultation with the SHPO and the ACHP. An example of a section 106 report is provided as exhibit X3-3-A. In some cases, a simple memorandum may be sufficient. A finding of an adverse effect will require a memorandum of agreement (MOA) with the SHPO. The MOA usually will have stipulations that the agency agrees to accomplish in order to mitigate the adverse effect(s) on historic property. An example of such an MOA is provided as exhibit X3-3-B. The OPDIV Federal Preservation Coordinator will coordinate the Section 106 process between the SHPO, the Advisory Council and the HHS. The OPDIV Federal Preservation Coordinator will negotiate and execute (within his or her authority) memorandums of agreements with the SHPO and the Advisory Council.

Any project that adversely affects HHS historic property must be designed in accordance with the Secretary of the Interior's Rehabilitation Guidelines. A registered architect must prepare the plans and specifications of the projects.

Note that all projects in the National Capital Region that are required to be reviewed by the National Capital Planning Commission must have a "determination of effect on historic property and the SHPO must have concurred with the determination before the Commission will act on the project.

D. HISTORIC REVIEWS

A historic review is an examination and analysis of potential effects on the property which might occur as a result of the proposed HHS construction action. A historic property may be affected whenever one or more of the following changes occur:

1. Physical characteristics are altered such as by re-grading of site, provision of handicapped access, changing any significant features of the property, remodeling, renovating, restoring, rehabilitating, repairing or any maintenance of the property that is not consistent with the Secretary's stan-

dards for the treatment of historic properties and applicable guidelines, and/or demolition of any buildings or any other portion of the property(ies).

2. The physical setting is altered such as extensive changes to nearby districts, sites or buildings.
3. The property is moved.
4. The use of the property is changed.
5. The level of activity occurring at the property changes.
6. The property becomes neglected which causes its deterioration.
7. The transfer, lease, or sale of property out of Federal ownership.

E. ARCHEOLOGICAL DATA

1. Construction Contract Specifications - HHS construction contracts involving excavation should include appropriate specifications to avoid excess claims in the event notification and recovery procedures associated with archeological data are required.
2. Notification - If continuing with the planned construction will bring about the irretrievable loss of significant scientific, archeological, historic or prehistoric data, the HHS OPDIV shall inform the Secretary of the Interior. If the Secretary does not respond within 60 days, the review is complete. If the Secretary offers to pay for the recovery of the data, he/she shall have at least six months to affect recovery.
3. Recovery - If a proposed action involves a Federal construction project or a federally licensed project, and the action will result in the irretrievable loss of scientific, archeological, or historic data, up to one percent of the project construction costs may be used to recover the data.

   See 43 CFR 10.4 for requirements concerning inadvertent discovery of Native American remains or objects on Federal and tribal land under the Native American Graves Protection and Repatriation Act.

3-3-20 GUIDANCE AND INFORMATION

A. APPLICABILITY

1. Historic Preservation - Each proposed HHS construction action must be reviewed in order to determine whether it will affect a property that is on or may be eligible for the NRHP. This determination must be made by the HHS OPDIV Head or OPDIV Federal Preservation Coordinator. It is recommended that such determinations be made as early as possible in the planning and budgeting process.
2. Archeological Data Recovery - Since heavy construction equipment used for site excavation, etc., could destroy the construction site's soil stratigraphy, (which archeologists need in order to date and understand the context of any significant objects or artifacts that might be present), as well as affect the significant objects or artifacts themselves, an archeological survey of the site and reasonable portion of the surrounding Area of Potential Affect (typically 15-30 meters beyond the site's boundaries) should be undertaken as early as possible in the planning process. In any event, it is the responsibility of the HHS OPDIV involved to include proper construction specifications for identification and contextual analysis recovery of artifacts. Potential for time delays and extra costs associated with artifact recovery should also be recognized in the process.

3. Native American Graves Protection and Repatriation Act: These regulations develop a systematic process for determining the rights of lineal descendants and Indian tribes and Native Hawaiian organizations to certain Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony with which they are affiliated. These regulations also pertain to the identification and appropriate disposition of human remains, funerary objects, sacred objects, or objects of cultural patrimony that are: (i) In Federal possession or control; or (ii) In the possession or control of any institution or State or local government receiving Federal funds; or (iii) Excavated intentionally or discovered inadvertently on Federal or tribal lands. See 43 CFR 10.4 for guidance.

B. ROLES AND RESPONSIBILITIES

1. Federal Preservation Officer: Section 110 of NHPA requires that each Federal agency designate a qualified official to coordinate the agency's preservation activities under NHPA.

2. State Historic Preservation Officer: State Historic Preservation Officers (SHPOs) administer the national historic preservation program at the State level, review National Register of Historic Places nominations, maintain data on historic properties that have been identified but not yet nominated, and consult with the OPDIV during the Section 106 review. SHPOs are designated by the Governor of their respective State or territory. The OPDIV seeks the views of the SHPO when identifying historic properties. The OPDIV also consults with SHPOs when developing Memorandums of Agreements (MOA).

3. The Advisory Council on Historic Preservation: The Advisory Council on Historic Preservation (Council) is responsible for commenting to the Agency Official on an undertaking that affects historic properties. The Council is an independent federal agency, established under NHPA.

4. Department of the Interior/National Park Service: The National Park Service (NPS) has no specifically stipulated role in the Section 106 process, but it performs a variety of pertinent functions, including the following: functions as a major land-managing agency; acts as a steward for historic areas in the National Park System; administers the Historic Preservation Fund grants-in-aid program, National Historic Landmarks program, Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER), and the Certified Local Governments program; maintains the National Register of Historic Places; provides technical information and guidance; specifies standards for preservation-related activities that are often referenced in Section 106 agreement documents; and reviews State historic programs.

5. Keeper of the Register: The Keeper of the Register (Keeper) is an employee of the NPS and makes the final determination of eligibility for inclusion into the Register.

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SAMPLE 106 REPORT

BUILDING 16 (George Freeland Peter Estate)

Nature of the Undertaking

Building 16 is currently used as residence for international scientists and offices for the Fogarty International Center. The Peter House was built as the residence of George Freeland Peter in 1930 and is typical of the estates that were constructed along Rockville Pike. The building's historic features are intact; however, the windows have deteriorated and the building's mechanical and electrical systems are totally inadequate to support the administrative functions now housed in the facility. NIH proposes to replace exterior windows, mechanical and electrical systems.

Historic Significance

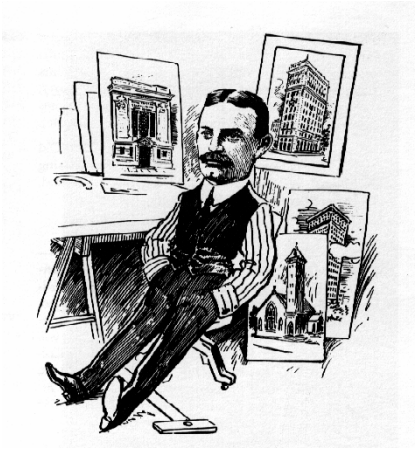
Synopsized History

The George Freeland Peter Estate is an example of the estates that were constructed along Rockville Pike in the early 20th century and is noteworthy for the role it now plays in the medical research community that now surrounds it. The land on which the estate is located was the site of Dr. Armistead Peter's summer home, "Winona", which stood at least until 1919. After Dr. Peter's death, his heirs divided the property into four parts. George Freeland Peter received parts of the tracts called "Huntington" and "Clagett's Purchase", known as lot #2, which contained 47+ acres of land.

George Freeland Peter

George Freeland Peter was noted in Episcopal Church hierarchy as the rector of St. James, assistant rector at St. Mark's and the associate rector at the Epiphany Episcopal Churches in Richmond, VA, and latter as the Chancellor of the Washington Cathedral. He was educated at a number of institutions, including Oxford University (United Kingdom), Columbian College (now George Washington University), the General Seminary (New York City), and Hampden-Sidney College. Upon graduation, he entered the Episcopal Church hierarchy in Washington, DC, and quickly rose in its ranks.

The Architect



The architect for the Peter Estate was Walter G. Peter, FAIA. He was the older brother of George Freeland Peter. He was born in 1868 into a prominent family in the Washington, DC area, and he was raised in the Peter family house, Tudor Place in Georgetown. Tudor Place is considered one of the most important monuments of domestic architecture in the Washington metropolitan area. Walter received his architectural education at the Massachusetts Institute of Technology. Upon graduation in 1890, he joined the noted Washington architectural firm of Hornblower and Marshall, where he worked for a number of years as a draftsman.

In 1888, Walter G. Peter formed a partnership with William J. Marsh. During the 28 years of its existence, the firm of Marsh and Peter was responsible for such important commissions as the First Church of Christ Scientist, the Evening Star Building, the Walter Reed Hospital, the D.A.R. Administration Building, and the Convent of the Visitation. He was also the architect for several large residences in the Washington metropolitan area. In addition, they designed the Charles Corby estate now part of Georgetown Preparatory School. Following Marsh's death in 1926, Peter continued to practice alone. It was during this latter period of his career that he designed the Stone House for his brother.

Walter G. Peter was a Fellow of the American Institute of Architects, served on the boards of several local charitable organizations, and was a member of many prestigious clubs. He died in 1945.

Architectural Description

The Peter House is a fine example of the Colonial Revival Style, a style suited for domestic architecture, which swept the entire country at the beginning of the 20th century. The architecture is eclectic. Looking to history to establish their roots, Americans often borrowed the house types and ornaments that characterized the colonial buildings. The Peter House was built in 1930 and is typical of the estates that were constructed along Rockville Pike.

The Stone House is a two-story structure with basement and attic laid out in an "I" shape plan. It is a masonry and steel structure with wood framed partitions. The exterior of the house is un-

coursed ashlar blocks of locally quarried blue stone, with corner quoins and wood trim. The house features steep slate roofs that are accented with pediment dormers.

The Stone House is both massive and elegant in its architectural character. The house appears to be symmetrical in massing with a center main mass flanked by two wings. The wings are connected to the main mass by a lower section where the roofline drops and second floor windows are dormers. The fenestration reflects the function of the house and is balanced by the symmetrical massing of the house.

The house is approached from the west off Center Drive. The west elevation is the front of the house. The house appears to be symmetrical except for the connectors. The north connector features a service door and two narrow 4 over 4 windows. The north wing is somewhat larger than the south wing and projects further out to the west. The south elevation of the north wing on the west side of the house features a bay window on the first floor. The west elevation features a robust Georgian portico with a richly carved entablature supporting a segmented arch, supported in turn by two fluted columns. The wood panel door is flanked by fluted pilasters and surmounted by a fanlight. Three attic pediment dormers punctuate the roof of the main block. The second floor features three 8 over 8 windows set in jack arches that are aligned with the attic dormers. In between the window at the center there are two narrow 4 over 4 windows. On the first floor the entry is flanked by two 8 over 8 windows set in jack arches that are also aligned with the attic dormers. The north and south wing west elevations are essentially the same featuring gable ends that terminate with a chimney in the center. Both the first and second floors have two 6 over 6 window symmetrically aligned with two quarter circle windows at the top of the gable end.

The east elevation features a two-story portico that is composed of four two story Corinthian columns that support a blank frieze and pediment with oculus. The entrance is Georgian in character, consisting of a broken segmental arch pediment and fluted pilasters. The wood panel door is flanked by traceried sidelites and capped by a rectangular transom with a modified fanlight motif. On either side of the entrance, there is a narrow 4 over 4 double hung wood window. To either side of the portico there are two windows, still in the main mass of the elevation; each set into a segmental arch. Tripartite in configuration, the windows are composed of a center section that is an 8 over 8 double hung sash, flanked by narrow 2 over 2 windows. Lacking segmental arches, the second-floor windows are otherwise identical to those on the first floor. The north and south wing east elevations are different; however, they both feature gable ends that terminate with a chimney in the center. Both wings on the second floors have two 6 over 6 windows with two quarter circle windows at the top of the gable ends. The south wing features a large bay window with a copper roof on the first floor and the connector on the south wing features a 6 over 6 double hung window surmounted by a circle top window set in a stone arch. This window is flanked on both sides by a narrow 4 over 4 double hung windows. The first floor of the north wing features three 6 over 6 double hung windows.

The south wing features a large verandah that opens onto a formal garden. The central axis of the garden is framed with boxwood and holly, and delineated at its focal point by a fountain and a curved stonewall. An ornamental iron rail, providing a terrace for the second floor sitting room surmounts the verandah's flat roof, supported by ten columns. The north wing originally housed

the kitchen and service areas for the house. Due to a one-story section that extends across the width of the wing, the north wing is slightly larger than the south wing.

The plan of the house reflects the colonial influence seen in the exterior design. The doors on the east and west elevations open into a central reception hall that extends the full width of the house, connecting to another wide hall that runs the length of the main mass along the west wall of the building. Pairs of fluted columns define the intersection of these two halls. A suspended stair with a curvilinear stair railing and finely turned balusters serves as the focal point of the north reception area. A parlor and dining room flank the central reception hall and are entered through double wood paneled doors with intricately carved surrounds. The fireplace mantels and ceiling moldings also display excellent craftsmanship executed in the colonial revival style.

The wings contain service stairs and several rooms each. The south wing is completely open and provides for assembly seating. The north wing holds the kitchen, butler's pantry, elevator, men's lounge, office and a library. The library, office, and butler's pantry all retain some of their original features, such as mantelpieces, moldings, and cabinets.

The second floor contains seven bedrooms most with private baths, sitting rooms, and servant's quarters which all open off a long narrow central hallway. These rooms are currently used as scholar's studies or administrative offices. Movable, temporary partitions have been added to provide privacy screens for the scholars sharing single spaces. One room to the north wing has been converted into a kitchen. The attic has been partitioned into offices.

The interior of the house was sympathetically rehabilitated in the early 1960s, following alterations made to the structure when NIH initially occupied it. All moldings and mantelpieces were repaired and rooms, which have been dramatically partitioned, were returned to their original configurations. In 1989, the first floor of the house was redecorated to accentuate its colonial revival character.

Statement of Eligibility for the National Register of Historic Places

The Peter Estate is eligible for listing on the national register of Historic Places under Criteria B and C at the local level of significance. The Peter Estate is significant in American history and architecture; possesses integrity of location, design, setting, materials, workmanship, and feeling; is associated with events associated with the lives of persons significant in our past; designed by

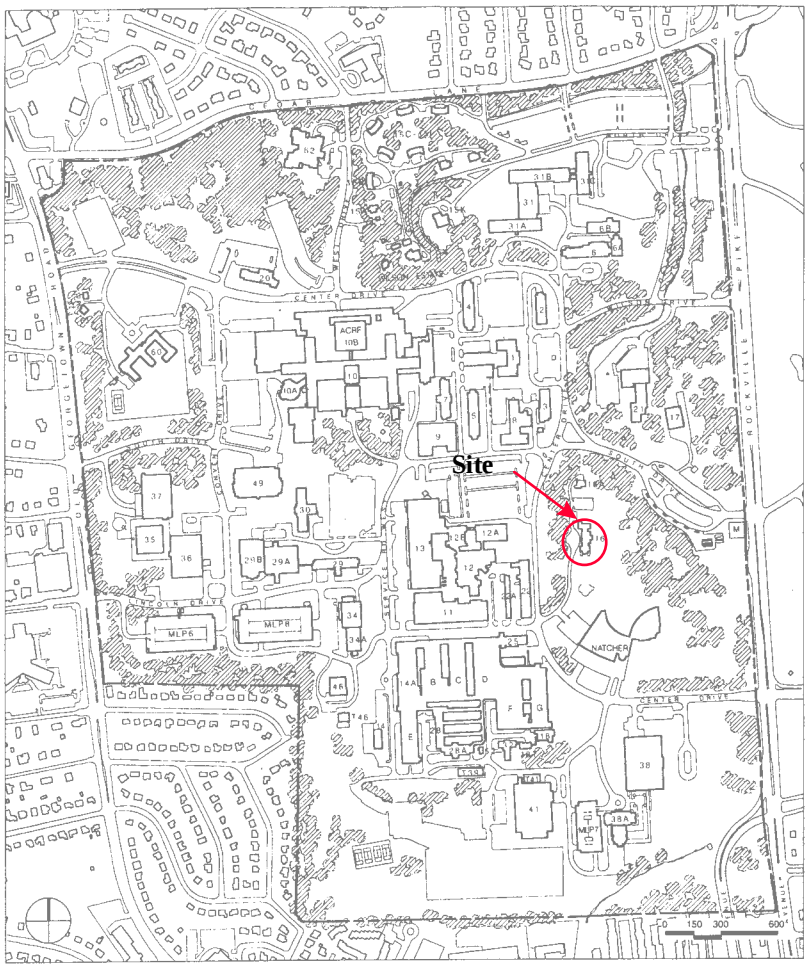
a master; and embodies the distinctive characteristics of a type of country estate found in the Washington Suburban Area.

Determination of Affect

I have reviewed the plans for the undertaking and I have determined that there is no adverse affect on historic property.

_____

NIH Federal Preservation Officer



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SAMPLE MEMORANDUM OF AGREEMENT

Submitted to the Advisory Council on Historic Preservation, Pursuant to 36 CFR 800.6(a)
February 1998

Whereas the National Institutes of Health (NIH) has determined that the existing mechanical systems in Building 6 (National Cancer Institute) are functionally obsolete and cannot be economically maintained or rehabilitated;

Whereas the NIH has determined that the existing laboratory configuration cannot support today's state-of-the-art biomedical research;

Whereas the NIH proposes to replace the functionally obsolete mechanical system with a new state-of-the-art mechanical system;

Whereas the NIH proposes to demolish the interior of Building 6 and construct new laboratories to support today's NIH biomedical research needs.

Whereas NIH has determined that the construction of the new mechanical system will have an effect on Building 6, a contributing resource of the NIH Historic Core District, properties eligible for the National Register for Historic Places, and has consulted with the Maryland State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 USC 470f); and

NOW, THEREFORE, NIH and the Maryland SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

Stipulations

NIH will ensure that the following measures are carried out:

1. DEMOLITION: NIH may proceed with demolition of the interior of Building 6.

2. RECORDATION: Prior to the demolition of the interior of Building 6, NIH will record Building 6 to the outline form of the Historic American Building Survey (HABS) standard. All documentation must be complete and accepted by the U.S. Department of the Interior, National Park Service, HABS/HAER Office prior to demolition. Copies of this documentation will be provided to the Maryland SHPO.

3. DESIGN REVIEW: NIH shall ensure that the design of the new mechanical system is compatible with the historic and architectural qualities of Building 6 and the NIH Historic Core District in terms of scale, massing, color, and materials, and is responsive to the recommended approaches to new construction set forth in the Secretary of the Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (U.S. Department of the Interior, Na-

tional Park Service, 1992), and that the design and specifications for the project are developed in consultation with the Maryland SHPO.

A. NIH will submit project plans to the Maryland SHPO for review and comment at the schematic, design development and contract document phases.

B. Major changes during construction that will affect the architectural character and features of the plans for the Building 6 rehabilitation approved under the terms of this MOA must be submitted to the Maryland SHPO for review and comment.

4. AMENDMENTS: Should NIH determine that the terms of the MOA cannot be met or believes that the MOA needs to be modified to change a stipulation or add or delete stipulation, NIH shall request an amendment in accordance with 36 CFR Section 800.5(e)(5). If the SHPO determines that the provisions of the MOA are not being satisfactorily met, the SHPO shall immediately notify NIH and request that they consult to consider terminating, amending, or preparing an amendment to the "Agreement".

5. DISPUTE RESOLUTION: Should the Maryland SHPO object within 30 days to any plans or actions proposed pursuant to this agreement, NIH shall consult with the Maryland SHPO to resolve the objection. If NIH determines that the objection cannot be resolved, NIH shall request the recommendation of the Advisory Council on Historic Preservation (Council). Any Council recommendation provided in response to such a request shall be taken into account by NIH in accordance with 36 CFR 800.6 (c) (2) with reference only to the subject of dispute; NIH's responsibility to carry out all actions under this agreement that are not the subject of the dispute remain unchanged.

Execution of this Memorandum of Agreement and implementation of its terms evidence that the NIH has afforded the Council an opportunity to comment on the undertaking and its effects on historic properties, and that NIH has taken into account the effect of the undertaking on historic properties.

By: _____ Date: _____
Federal Preservation Officer, NIH

Concurrence: _____ Date: _____
Associate Director for Research Facilities, NIH

By: _____ Date: _____
Maryland State Historic Preservation Officer

Accepted by: _____ Date: _____
Advisory Council on Historic Preservation

SECTION 3-4: DESIGN GUIDELINES

3-4-00 Policy
10 Procedures
20 Guidance and Information
30 (Reserved)

3-4-00 POLICY

HHS buildings shall be designed and constructed to best meet the functional, safety, security, and environmental needs of the programs they house. A safe and healthy work environment is the crucial objective in the design of HHS facilities. The requirements listed in this section are the minimum OPDIV requirements to meet this objective.

The purpose of this section is to provide general design guidance to the OPDIVS to assist them in developing design criteria for projects. Over the years several OPDIVS have developed design criteria to provide guidance to A/Es and to ensure the quality of design and construction of HHS facilities. Design Criteria generally represents a body of knowledge gathered from many sources within the OPDIV, Department, Federal / State / local entities and the private sector. The purpose of design criteria is to provide guidance to A/E and OPDIV staff in the preparation of HHS contract (construction) documents and to promote excellence in the process of planning, programming, design and construction of HHS facilities.

3-4-10 PROCEDURES

Design criteria reflect the collective corporate knowledge and wisdom of the OPDIV's design professionals based on history and experience that is benchmarked against best practices within the industry. OPDIVS are encouraged to use industry design criteria that are readily available for ordinary buildings that are common in the practice of architecture and engineering. Highly specialized buildings may, to an extent, require development of project unique design criteria. However, even in these specialized facilities there will be design features and elements that can be generic in nature. Using generic design criteria to avoid customizing individual spaces, functions, and operations will save taxpayer money.

3-4-20 GUIDANCE AND INFORMATION

The overarching design guidelines described below are intended to establish general performance objectives for HHS buildings and facilities. The OPDIV Project Officer should ensure that project specific objectives are identified when the design Statement of Work (SOW) is developed. The A/E should be responsible for determining how to achieve specified objectives.

A. ENVIRONMENTAL AND FUNCTIONAL NEEDS

HHS buildings shall provide an environment in which occupants can do their work with maximum efficiency at the optimum level of comfort, taking the following factors into consideration.

1. Arrangement of Space. Space relationships within buildings shall be planned to optimize the functions being performed by the occupant. Interaction areas should be provided within the building to promote informal discussion between scientists / occupants.
2. Access for Persons with Disabilities. Refer to the Section 3-6, entitled "Accessibility Requirements for Persons with Disabilities" in this Chapter.

3. Illumination. Natural and artificial illumination shall be sufficient to meet requirements of the tasks performed by the occupants.
4. Thermal Environment. The thermal environment shall be such as to provide healthy working conditions for the occupants and proper climatic conditions for the work being performed. Provision of flexibility and suitable control is necessary.
5. Acoustical Environment. New buildings and alterations shall be planned and designed to minimize noise that disturbs occupants unduly or interferes with their ability to do their work. An adequate level of privacy shall be provided so that occupants can perform their tasks effectively with minimum outside disturbance. The level of privacy required will vary depending on the tasks involved.
6. Maintenance and Operation. Designs shall be based on user needs and maintenance capabilities and shall satisfy the functional requirements for efficient operation of the facility. Materials and products shall be durable, easily maintained, and appropriate for the intended use.
7. Harmony with Environment. Special attention should be paid to the arrangement of streets and public space of which the building is a part. Within budgetary and site limitations, designs should include generous development of well-landscaped, inviting, people-oriented space.
8. Regional Character. Buildings should reflect the architectural character of the locale. Local building ordinances and zoning practices should generally be followed. Consistent with applicable Federal procurement requirements, the use of materials and products indigenous to the locale of the project should be given preference.

B. SAFETY, HEALTH AND SECURITY

HHS buildings shall provide an environment that is safe and healthful for occupants, and that offers them maximum protection during emergencies or disasters.

1. Structural Adequacy. Design of buildings shall be adequate for the functions to be performed and the loads imposed by building equipment, occupants, and their activities.
2. Protection against disaster. Design shall provide minimum exposure to fire, earthquake, or other natural disaster, and shall provide egress and refuge for all people, including the disabled, in an emergency.
3. Security. For information relating to facility security refer to the Section 3-7, entitled “Facility Security” in this Chapter.
4. Accident Prevention Design. Design shall be the result of safety analyses and shall address unsafe conditions that cause injury, illness, or property damage.
5. Health Hazards. Materials and products with known or suspected properties that are hazardous to the health of occupants and installers shall be avoided. Only materials that are lead and asbestos free shall be used in HHS buildings. This includes materials such as paint, adhesives, sealers, sealants, floor tiles, etc.
6. Repair, Renovation, and Alterations. Design shall be accomplished to reduce or eliminate hazardous exposure through astute selection and use of materials and methods. Prior to any renovation or demolition project, the design should identify any existing hazardous building constituents - asbestos or lead etc. If lead or asbestos containing materials is present, the contractor shall be required to submit relevant management and abatement plans as part of their proposal for HHS approval and send notification letters to the State regarding asbestos removal prior to initiating work.

C. ECONOMY

HHS buildings shall be designed at the most reasonable cost in terms of combined initial and long-term expenditures, without compromising other project requirements.

1. Site Adaptation. In many, if not most instances, a site has already been selected before design begins; however, OPDIV design professionals should, where possible, have a part in the selection. The design of the building shall be sited economically and efficiently.
2. Efficient Utilization. The ratio of net usable to gross area should be as high as possible (without wasted space) consistent with program objectives as stated in the POR. The design shall comply with the HHS Space Utilization Rate (U/R) Guidelines.
3. Economical Materials. Materials, products, and systems of proven dependability shall be used in the design or alteration of buildings. Materials shall be as economical as possible, in terms of combined initial and long-term cost and consistent with program objectives. To the extent possible, standard commercially available products shall be used.
4. Energy Efficiency. The National Energy Conservation Policy Act (PL 95-619), as amended by the Energy Policy Act of 1992 (PL 102-486), and including all applicable Executive Orders, set out and reinforces long-standing requirements for energy conservation in Federal facilities. It is HHS Policy in response to these mandates to foster cost effective energy management practices to ensure the efficient use of energy, while maximizing the ability of the OPDIV to accomplish its mission and maintaining the health and safety of HHS employees and visitors.
5. Life Cycle Cost (LCC) Analysis. LCC shall be performed on all projects as required by OMB Circular A-11 for capital assets. The analysis shall consider the overall estimated costs of each program alternative over the life of the program. In assessing LCC the assumed life of a new facility shall be 50 years. In addition, during design value engineering shall be done to determine the most cost effective, long-term solutions for the selected program alternative. See also Section 3-8.
6. Maintenance, Operation, Repair, and Replacement Costs. Buildings shall be designed, and materials selected, to minimize the cost of maintenance and repair.
7. Foster Maximum Competition. Buildings shall be designed and building materials, components, and systems incorporated into the design so as to foster maximum competition among suppliers and contractors.
8. Project Administration. Projects shall be planned and scheduled to ensure effective and efficient design.

D. COMPLIANCE WITH CODES AND STANDARDS

In accordance with 40 U.S.C. 3312 each HHS building shall be constructed or altered, to the maximum extent feasible, in compliance with one of the nationally recognized model building codes and with other nationally recognized codes including mechanical and electrical codes, fire and life safety codes, and plumbing codes. Due consideration shall be given to all State and local zoning laws as if the project were not being constructed or altered by a Federal agency. The Government and its contractors shall not be liable for the cost of issuing permits or performing inspections. The Contracting Officer shall insert a clause in every design and construction contract solicitation notifying prospective contractors of the statutory provisions of 40 U.S.C. 3112 (f) and (g).

SECTION 3-5: SUSTAINABLE DESIGN

3-5-00 Policy
10 Procedures
20 Guidance and Information
30 (Reserved)

3-5-00 POLICY

HHS and its OPDIVS shall consider sustainable design during planning, programming and budget formulation for all new federally-owned HHS facilities. Sustainable design is a desired integral characteristic of HHS facility project development. Through sustainable design and construction of HHS facilities, OPDIVs will model responsible environmental practices and help create the framework within which the building industry as a whole can shift towards practices that will promote "Green Buildings". HHS has signed the Memorandum of Understanding on Federal Leadership in High Performance and Sustainable Buildings. More detailed policy and guidance will be developed to implement the Guiding Principles of the MOU as appropriate and practical.

3-5-10 PROCEDURES

Several executive orders affecting facilities have been issued which promote and mandate the greening of the Federal Government. The design therefore shall provide for the protection of the environment through energy efficiency, recycling, pollution prevention, and affirmative procurement.

1. Energy conservation shall be given major consideration in the design of HHS buildings. Products, materials, and systems shall be selected with a view toward minimizing the use of nonrenewable resources.

2. Pursuant to Executive Order (E.O.) 13101, *Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition*, HHS is committed to recycling and buying recycled content and environmentally preferable products. OPDIVS are encouraged to reduce construction and demolition waste by reducing debris, reusing materials and recycling. The design shall maximize the use of environmentally preferable products and services to the extent feasible, consistent with price, performance, availability, and safety considerations.

3. Pursuant to E.O. 13123, *Greening the Government Through Efficient Energy Management (June 3, 1999)*, HHS shall select, where life-cycle cost effective, ENERGY STAR® and other energy efficient products when specifying energy - using products. The design should specify products that are in the upper 25 percent of energy efficiency as designated by the Federal Energy Management Program (FEMP). The design should meet ENERGY STAR® building criteria for energy performance and indoor environmental quality in eligible HHS facilities.

4. Pursuant to E.O. 13148, *Greening the Government Through Leadership in Environmental Management (April 21, 2000)*, the design shall maximize the use of cost-effective environmentally sound landscaping practices to reduce adverse impacts to the natural environment, prevent pollution and potential future liabilities at HHS facilities.

5. Explore life-cycle cost-effective system alternatives and make selections based on long-term durability, energy efficiency, flexibility, accessibility, ease of operation and maintenance, for Heating, Ventilation, and Air Conditioning (HVAC), Plumbing, Fire Protection systems, steam systems, boilers, air compressor systems, industrial processes, fuel switching systems, and cogeneration.

6. Incorporate the use of renewable energy and technologies in the design of HHS buildings and facilities when life cycle cost effective. Renewable energy includes photovoltaic, solar thermal, biomass (wood, wood waste, refuse and agricultural waste), wind, geothermal and low- impact hydropower technologies.

7. Incorporate Best Management Practices (BMP) for water conservation in the design of the project.

3-5-20 GUIDANCE AND INFORMATION

A. GOALS

HHS facilities, both new and existing, should serve as models for a healthy workplace with minimal environmental impacts. To achieve this goal, OPDIVS are encouraged to utilize both innovative, state-of-the-art technologies and a holistic approach to design, construction, renovation, and use. Important considerations in the design, construction, and use of HHS owned and leased facilities include the following:

1. Site planning that utilizes resources naturally occurring on the site such as solar and wind energy, natural shading, native plant materials, topography, and drainage.
2. Location and programs to optimize use of existing infrastructure and transportation options.
3. Use of recycled content and environmentally preferable construction materials and furnishings, consistent with HHS and Federal Acquisition Regulations.
4. Minimize energy and materials waste throughout the building's life cycle from design through remediation.
5. Design of the building envelope for energy efficiency.
6. Use of materials and design strategies to achieve optimal indoor environmental quality (such as lighting quality and air quality) to maximize health and productivity.
7. Operation systems and practices that support an integrated waste management system.
8. Recycling of building materials at demolition.
9. Management of water as a limited resource in site design, building construction and building operations.
10. Utilization of solar and other renewable technologies, where appropriate.

Evaluation of trade-offs will be an important component of the design of Green Buildings. Where the goals of a Green Building are contradictory (e.g., increased ventilation vs. increased energy efficiency), the trade-offs will have to be evaluated in a holistic framework to achieve long-term benefits for the environment.

OPDIVS are encouraged to design construct and operate high performance facilities by establishing performance goals at the programming phase. Whether building a new laboratory or renovating an existing structure, there are nine key elements to creating a high performance building:

1. Set high performance goals early and include them in the specifications.
2. Minimize the impact of the site.
3. Provide high performance design.
4. Communicate goals to designers.

5. Pursue integrated design.
6. Communicate goals to construction contractors.
7. Monitor construction.
8. Verify goals.
9. Train maintenance and administrative staff.

For a high performance facility, project team collaboration and integration of design choices should begin no later than the programming phase.

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SECTION 3-6 ACCESSIBILITY REQUIREMENTS FOR PERSONS WITH DISABILITIES

3-6-00 Policy
10 Procedures
20 Guidance and Information
30 (Reserved)

3-6-00 POLICY

This section sets forth policy and procedures for complying with the Architectural Barriers Act of 1968, 42 USC 4151-4156, also commonly referred to as Public Law 90-480, and as defined in the Federal Management Regulation (FMR) §102.76.60 through 102.76.95. The Architectural Barriers Act applies to any facility constructed, altered, leased, or financed with federal funds that is intended for use by the public or may result in employment of persons with disabilities.

If the construction or alteration commences, or the lease is entered into after May 8, 2006, the facility shall meet the Architectural Barriers Act Accessibility Standard, defined as Appendices C and D, 36 CFR 1191, ABA Chapters 1 and 2, and Chapters 3 through 10.

If the construction or alteration commences, or the lease is entered into before May 8, 2006, the facility must meet the Uniform Federal Accessibility Standards.

If plans and specifications for the construction or alteration of a facility were completed or substantially completed on or before May 8, 2006, the facility is permitted to meet the Uniform Federal Accessibility Standards provided the construction or alteration commences by May 8, 2008.

The Architectural Barriers Act Accessibility Standard and the Uniform Federal Accessibility Standards are available at the United States Access Board website (http://www.access-board.gov).

3-6-10 PROCEDURES

A. ASSESSING COMPLIANCE

1. All projects shall be reviewed for compliance with the applicable standard during the review of contract drawings and specifications (for all design phases), and again at the time of the final on-site inspection of the completed facility.
2. The review of contract drawings and specifications and/or inspection during construction at serves the following purposes:
   a. It provides assurance that project plans are being reviewed closely for adherence to prescribed requirements at appropriate design stages.
   b. It provides documentation in the project file that the facility meets mandatory requirements, or that the contract drawings reflect certain omissions or deviations from the standards.
   c. It serves as a guide to take corrective action by the project architect in instances where the contract drawings do not conform completely to the standards.
   d. Where historic properties may be adversely affected, early consultation with the State Historic Preservation Officer and the Advisory Council on Historic Preservation is advisable, to avoid delays in the design process.
3. To meet the record keeping responsibilities of FMR §102-76.95, it is recommended that the applicable portions of the standard be used as a checklist. A completed copy of the checklist should be placed in the project file when the design documents are completed and a second completed

checklist when construction is completed. A notation in the left margin of "Y" (yes), "N" (no) or "NA" (not applicable) opposite each item in the checklist is sufficient.

B. EXCEPTIONS:

1. Exceptions for specific facilities as defined in FMR §102-76.60 are:
   a. Privately owned residential facilities unless leased by the Government for subsidized housing programs, and
   b. Any facility on a military reservation designed and constructed primarily for use by able-bodied military personnel.
2. Exceptions when the costs of alterations to meet accessibility are disproportionate to the costs of the overall alterations are defined in FMR §102-76.70 through 102-76.85. Documentation shall be maintained in the project file demonstrating the basis of the disproportionate costs and the extent to which the standard is incorporated into the project.

C. WAIVERS

1. HHS and its OPDIVS cannot grant waivers to the requirements. The Administrator of General Services has the authority to waive or modify the standards in FMR § 102–76.65(a) on a case-by-case basis if the agency head submits a request for waiver or modification and the Administrator determines that the waiver or modification is clearly necessary.
2. All requests for waivers, supporting documentation, and notification of final action on requests shall be placed in the project file. Accessibility requirements cannot be waived in HHS facilities that are accredited by the Joint Commission on Accreditation of Healthcare Organizations.

3-6-20 GUIDANCE AND INFORMATION

A. The Architectural Barriers Act (ABA) of 1968, 42 USC 4151 – 4156, establishes accessibility requirements for facilities designed, built, altered or leased with Federal funds.

B The Americans with Disabilities Act (ADA) of 1990 (42 USC 12204), establishes accessibility requirements for employment, public services, public accommodations and telecommunications. The Act does not directly cover Federal or federally funded facilities, which remain under the Architectural Barriers Act (ABA).

C. 42 USC 4152 of the Architectural Barriers Act authorizes the Administrator of the General Services Administration (GSA), in consultation with the Secretary of the Department of Health and Human Services (HHS), to prescribe standards for the design, construction and alteration of buildings (other than residential structures, Department of Defense (DOD) and Postal facilities) to ensure accessibility by persons with disabilities.

D. The U.S. Access Board issued the guidelines for both the Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) requirements as the combined document, “The ADA and ABA Accessibility Guidelines for Buildings and Facilities” June 23, 2004. The guidelines issued by the U.S. Access Board are not legally enforceable but serve as baselines for meeting ADA and ABA accessibility requirements. Under the ABA, the “Uniform Federal Accessibility Standards” remained the applicable standard until GSA (along with DOD, HUD and USPS) issued new enforceable standards based on the U.S. Access Board’s guidelines. With respect to the ADA, the guidelines issued by DOJ in 1991 remain the applicable enforceable standard.

E. GSA issued the FMR §102-76 Design and Construction on November 8, 2005 containing the updated standard in Subpart C, Architectural Barriers Act effective May 8, 2006.

SECTION 3-7: FACILITY SECURITY

3-7-00 Policy
10 Procedures
20 Guidance and Information
30 (Reserved)

3-7-00 POLICY

The purpose of this section is to establish HHS policy for incorporating security features in the design of HHS facility projects (leased and federally-owned). HHS facility projects shall be planned, designed, and constructed in accordance with the most current issuance of the Interagency Security Committee (ISC) Security Design Criteria for New Federal Office Buildings and major Modernization Projects, except hospitals and clinics.

By Executive Order 12977, dated October 19, 1995, President William Clinton established the Interagency Security Committee (ISC) mandating that representatives from 17 Agencies and several Federal offices participate. The Department of Health and Human Services is one of the Agencies specified by the President for membership.

3-7-10 PROCEDURES

The intent of the ISC Security Design Criteria for New Federal Office Buildings and Major Modernization Projects is to apply the security design criteria on a building-by-building basis. The criteria should be applied using a decision-based approach tailored to each building. The building's specific security requirements should be based on a facility-specific risk assessment, done at the earliest stages of planning for a multi-disciplinary project team to use to plan the security measures.

3-7-20 GUIDANCE AND INFORMATION

On May 30, 2001, the ISC issued their first Security Design Criteria for New Federal Office Buildings and Major Modernization Projects. It contains physical security design and construction criteria and standards for Federal buildings and facilities. It was developed to ensure that security becomes an integral part of the planning, design and construction of new Federal office buildings and major modernization projects. The criteria apply to new construction of office buildings, including build-to-suit lease construction, to be occupied by Federal employees in the United States. When prudent and appropriate, the criteria also apply to major modernization projects and projects not meeting the foregoing definitions.

The ISC Security Design Criteria for New Federal Office Buildings and Major Modernization Projects is a living document. Criteria will change as a result of ongoing research and rapid technological development. An ISC working-group will review and update the Criteria at least once per year. HHS formally adopted the September 29, 2004 issuance as policy. It shall be the policy of the Department to utilize the latest issuance of this document where appropriate. Users should also visit the GSA websites for relevant new information. (Add link.)

A copy of the ISC Security Design Criteria can be obtained from OPDIV security representatives, from the Departmental Physical Security Program Manager, GSA sources or the GSA building technology security website at http://www.oca.gsa.gov/mainpage.php (site registration is required).

SECTION 3-8: VALUE ENGINEERING

3-8-00 Policy
10 Procedures
20 Guidance and Information
30 Reporting Requirements

3-8-00 POLICY

This section describes HHS policy and procedures for value engineering (VE) in Architectural/Engineering (A/E) and construction contracts for federally-owned HHS real property assets. VE is mandatory for projects where the construction cost is $1 million or greater. (See OMB circular A-131.) All projects developed using Design-Build that are procured using full and open competition and are awarded based on a best value selection process are exempt from further VE. HHS requires an independent VE analysis by a specialized consultant or Government personnel for projects with a total project cost of $ 10 million or more.

Each OPDIV facilities office that performs technical management of A/E and construction contracts shall designate a value engineering coordinator (VEC) to coordinate the OPDIV's VE activities. The VEC shall receive formal Society of American Value Engineering (SAVE) approved training in value engineering. The Contracting Officer, in consultation with the VEC, is responsible for determining which contracts are subject to VE and for accepting or rejecting VE proposals.

A. DEFINITIONS

Life Cycle Cost (LCC) - The sum of all costs over the useful life of a building, system or product including the costs of design, construction, acquisition, operation, maintenance, repairs, disposal and salvage (resale) value, if any, using present worth costs. For evaluating proposed capital investment projects the modes of analysis to be used include:

a. Total Life Cycle Costs

b. Net Savings

c. Saving-to-Investment Ratio

d. Payback Period

e. Internal Rate of Return

Value Engineering (VE) - The formal technique by which contractors may (1) voluntarily suggest methods for performing more economically and share in any resulting savings or (2) be required to establish a program to identify and submit to the Government methods for performing more economically. Value engineering attempts to eliminate anything that increases acquisition, operation, or support costs, without impairing essential functions or characteristics. VE involves an organized effort to analyze alternative approaches for provision of systems, equipment, facilities, services, and supplies for the purpose of achieving the essential functions at the lowest life cycle cost consistent with required performance, reliability, quality, and safety.

Value Engineering Change Proposal (VECP) - A proposal developed by a construction contractor under a value engineering clause in its construction contract that typically involves sharing in any resulting savings. The proposal normally involves changes in the drawings and specifications directed at reducing the construction costs or life cycle costs without impairing the project's essential functions or characteristics.

Value Engineering Proposal (VEP) - As used in this section, a VEP in connection with an A/E design contract, is a proposal for change developed by the A/E design firm, employees of the Federal Government, or a specialized VE consulting firm. The proposal is similar to the VECP described above and is generally performed on a partially completed facility design. However, it is noted that there is no cost sharing of projected savings during the design phase.

Base Year - The base year is the first year of the Value Engineering study period.

Funds Invested - Estimates should include salaries and overhead expenses of value engineering, training costs for contracting for value engineering services, value engineering proposal development and implementation costs, and any other costs directly associated with the VE program.

Present Worth (PW) - The time-equivalent value of past, present, or future cash flows as of the beginning of the base year.

Net Savings - The net savings is the time-adjusted savings less time-adjusted costs taken over the study period.

3-8-10 PROCEDURES

A. VALUE ENGINEERING IN DESIGN CONTRACTS

General - Federal Acquisition Regulations (FAR) Part 48 requires the Contracting Officer to include a VE clause in solicitations and contracts for A/E services whenever the Government requires and pays for a specific VE effort in A/E contracts.

Projects Requiring HHS Capital Investment Review Board Approval and a total project cost of $ 10 Million or More - OPDIVs shall obtain independent VE analysis from a specialized consultant or Government personnel. The specialized consultant must be an independent party from the project A/E.

Projects with a construction cost of $ 1 million or greater - OPDIVs may accomplish value engineering through the A/E contractor, a specialized independent consultant, or Government personnel at the discretion of the VEC and the Contracting Officer.

Regardless of who performs VE, the value engineering analysis shall be done at the end of schematic design phase or no later than the midpoint of the design development phase to be effective. In addition, the VE team shall include a certified value specialist team leader and A/E professionals with VE training and experience.

1. When projects meet the thresholds for VE, the VEC should proceed as follows:
   a. In conjunction with the Contracting Officer, determine the scope of VE analysis to be undertaken, considering the size and type of the project, and document to the contracting file.
   b. If being accomplished by Government personnel, appoint a VE team. The VE team shall consist of members with expertise in the areas or disciplines to be reviewed for the project.
   c. Upon completion of analysis, file a VE report.
   d. Maintain copies of VE proposals and supporting documentation in the contracting file.
2. The following information shall be included in each VEP whether done by the A/E, specialized consultant or Government personnel:
   a. Description and Comparison - A description of the difference between the existing and proposed design, the comparative advantages and disadvantages of each, a justification when an item's function is being altered, the effect of the change on system or facility performance, and any pertinent objective test data. This may include but is not limited to sketches, calculations, models, etc.

b. Specifications - A list and analysis of design criteria or specifications that must be changed if the VEP is accepted.

c. Project Cost Impact - A separate detailed estimate of the impact on project cost of each VEP, if accepted and implemented by the Government.

d. Implementation Costs - A description and estimate of costs the Government may incur in implementing the VEP, such as design change cost and test and evaluation cost.

e. Life Cycle Costs - A prediction of any effects the proposed changes may have on life cycle cost. Cost comparisons shall assume a 30-year building life.

f. Schedule Impact - The effect the VEP will have on design or construction schedules.

B. VALUE ENGINEERING IN CONSTRUCTION CONTRACTS

General - FAR Part 48 requires the contracting officer to include a VE clause in construction solicitations and contracts when the contract amount is estimated to be $100,000 or more, unless an incentive contract is contemplated or the agency has granted an exemption. The Contracting Officer may include a VE clause in construction contracts of lesser value, if the Contracting Officer sees the potential for significant savings.

1. As a minimum each VECP submission from the contractor shall include the documentation required under FAR Part 48.
2. The OPDIV will review and objectively evaluate each VECP, and document the contract file with the rationale for acceptance or rejection of the VECP. If a VECP is accepted, the Government and the contractor shall share the savings, as prescribed in FAR Part 48.
3. Each OPDIV is responsible for establishing guidelines for processing VECPs consistent with FAR Part 48 requirements.

3-8-20 GUIDANCE AND INFORMATION

The payment for VE services performed by non-governmental employees is an authorized expense of project design funds. These services must be separately priced in the A/E contract and are not included in the six percent fee limitation for the A/E design services. VE services will be quantified in terms of “level of effort” rather than as a deliverable.

Below is a list of the primary Federal regulations governing value engineering for HHS projects:

1. OMB Circular A-131, Value Engineering
2. FAR, Part 48
3. 10 CFR 436 subpart A - Life Cycle Cost methods and criteria contained in the Federal Energy Management Program (FEMP) rules.

3-8-30 REPORTING REQUIREMENTS

OMB Circular A-131, "Value Engineering," requires that HHS maintain data on the VE program. The VEC shall maintain records on the number of VECPs received from construction contractors, the number of VEPs prepared on design contracts and the amount of potential savings accepted by the Government within each of these categories. This information will be compiled and provided to the Division of Planning and Construction, OFMP, OS to fulfill the annual reporting requirements to the Office of Management and Budget.

SECTION 3-9: PARTNERING

3-9-00 Policy
10 Procedures
20 Guidance and Information
30 (Reserved)

3-9-00 POLICY

The purpose of this section is to encourage "Partnering" as a best practice on HHS construction projects for federally-owned real property assets. Each OPDIV shall consider developing and implementing a partnering procedure for all new and renovated facilities that meet or exceed the Capital Investment Review Board threshold.

Partnering is designed to create an agreement between the Government and Contractor to work cooperatively as a team, to identify and resolve problems and to achieve mutually beneficial performance and result goals. The expected benefits are achievement of contract goals, lower contract administrative costs, improved problem solving, and fewer conflicts. Participants in the Partnering process must include the Contracting Officer, project officer, designer (architect / engineer), and contractor; but may also include end user(s), upper management, consultants, and major subcontractors.

Partnering Agreement(s) must be consistent with all applicable FAR requirements and the controlling Government contract. Partnership agreement(s) do not waive the Government's or the Contractor's responsibilities under "contract disputes" provision and process required by FAR 33.2 and the HSAR, Subpart 333.2.

3-9-10 PROCEDURES

A. PARTNERING

The Partnering process shall be clearly defined in the solicitation for bids that advertise for the procurement of the Project. This process is based upon the expectation of a mutual commitment between Government and industry to work cooperatively as a team to identify and resolve problems and to facilitate successful contract performance. The process is designed to be mutually beneficial, providing the OPDIV with quality services, on time and at a reasonable price, while allowing the contractor to operate efficiently and earn a fair profit. Partnering requires the parties to look at and to formulate actions that promote their common goals and objectives. It is a relationship that is based upon open and continuous communication, mutual trust and respect, and the replacement of the "us versus them" mentality of the past with a "win-win" philosophy. Partnering also promotes synergy, creative thinking, pride in performance, and the creation of a shared vision for success. Partnering agreements are more than just signatures and handshakes. They represent a willingness and a commitment to resolve differences in a structured and constructive manner. Although formal Partnering is most effective for large construction procurements, the same philosophy and process can be applied successfully on a smaller scale by the OPDIVs.

B. THE FOUR PHASES OF PARTNERING

The four phases of partnering are:

1. Communicating with Industry. The solicitation will contain a clause informing offerors of the Government's requirement to use partnering on the contract.

2. Making the Commitment to Partner. This requires willingness and support of senior management to empower participants with the required responsibility and authority to make binding decisions. OPDIV Senior Managers should lead the partnering process by reinforcing the team approach to contract administration, breaking down barriers, actively participating in the resolution of issues escalated to their level, and championing the process. There is an initial investment of participant time to make the process work, as well as some cost in conducting the initial workshop.

3. Conducting the Workshop and Developing the Partnering Agreement. The purpose of the workshop is to build a Contractor/Government team and create momentum that will drive the partners toward successful accomplishment of mutual goals and objectives throughout the contract term. Recommended elements of the initial Partnering Workshop include:

   a. Introduce the partnering concept – share experiences, concerns, etc.

   b. Build relationships - Team building exercise.

   c. Set team Goals - What are we jointly trying to achieve through a partnering agreement?

   d. Establish accountability - How will we accomplish this?

   e. Establish an evaluation process - What are the issues involved in helping us to realize our goals? What metrics can we track to tell us if the contract is effective and our goals are being met?

   f. Establish the process to resolve conflicts - How will we resolve disputes to avoid hurting each other?

   g. What are the specific kinds of disputes that we can think of now?

   h. Develop a conflict escalation procedure.

   i. Put it in writing - Develop the Partnering Agreement, signed by all key contractors and contract administration personnel.

   All future working meetings are conducted and guided by the principles and procedures established during the workshop and incorporated in the drafting of the initial Partnering Agreement.

4. Making it Happen. After development of the Partnering Agreement, it is critical that all actions taken are consistent with the Partnering Agreement objectives. At the periodic progress meetings, checks can be made to gauge how everyone feels about the value of the partnering agreement. If necessary, a follow up workshop may be held to refocus the team on the process and educate new stakeholders.

3-9-20 GUIDANCE AND INFORMATION

OPDIVS are encouraged to consult the Construction Industry Institute best practice on partnering for developing their own partnering model: SP17-1 In Search of Partnering Excellence RS 102-1 Model for Partnering and IR102-2 Partnering Toolkit.

SECTION 3-10 COMMISSIONING

3-10-00 Policy
10 Procedures
20 Guidance and Information
30 (Reserved)

3-10-00 POLICY

This section describes the HHS policy and procedures for commissioning on all major renovation and construction projects for federally-owned real property assets. Each OPDIV will develop, implement and maintain a commissioning procedure for all new and renovated facilities that meet or exceed the Capital Investment Review Board threshold ($10M). The OPDIV may determine that other facilities should be commissioned based on the complexity and nature of the facility.

Commissioning is the process of making sure all building systems are working when occupants move in. It involves making sure all systems are: installed properly and perform according to design; cost effective; meet the users' needs; adequately documented and well understood by operators. Commissioning serves to accomplish the following goals:

- Reduced number of deficiencies at completion.
- Lower utility costs attributable to efficiently operating systems.
- Lower maintenance costs due to properly trained maintenance crew.
- Higher productivity of the building occupants because of properly balanced ventilation system.
- Design for Maintainability.
- Reduced outages and downtimes due to better diagnosis of failures.
- Well-documented and successful system tests.
- All building systems perform in accordance with the design requirements.

3-10-10 PROCEDURES

A. Each OPDIV will develop a commissioning process for its facilities utilizing industry wide standards such as ASHRAE Guideline 0-2005, "The Commissioning Process." The process will include the early programming phases of the project and extend through the end of the warranty phase for the facility.

B. Each OPDIV will develop a plan to implement the commissioning process. The implementation will include staff training to ensure clear understanding of the process. Commissioning requirements will apply to any applicable project with a design start date after the implementation of the OPDIV's Commissioning process.

C. The OPDIV will continue to maintain the process by:
   - Ensuring that appropriate funding is requested within each project budget.
   - Reviewing the projects and process to determine if the aforementioned goals are being met.
   - Updating the process appropriately to ensure continual improvement.

3-10-20 GUIDANCE AND INFORMATION

Commissioning functions as an advocacy service to the OPDIVS. Rigorous operational testing provides a high level of assurance that building systems are properly installed and will operate within performance guidelines set forth in the design documents.

A. Quality Assurance for Building Systems

Facility commissioning affords the owner an unbiased expert's perspective of a building's system installation, operation, and performance and provides for monitoring of specified building system service training events. The commissioning process does not alter the responsibilities of design professionals, installing contractors or their vendors, but rather augments the efforts of all parties toward the common goal of achieving a quality-building product. It promotes the delivery of a safe, healthy environment for building occupants by turning over functionally tested building systems with appropriate documentation and training for owners and operators. Commissioning, with its quality management focus, should be part of the project from its inception because an early start provides maximum benefits. Facility's commissioning bridges the gaps between the Government, the design team, the construction team and building system vendors using a methodical process employing:

- Identifying and documenting the needs and the requirements of the facility and ensuring that the designed systems are commensurate with and meet those needs.
- Thorough review of design and submittal documents.
- Ensuring that the systems installed are operable and maintainable.
- Functional performance testing of the systems to ensure that they are interacting and performing optimally.
- Progress and coordination meeting attendance.
- Resolution tracking forms.
- System verification checks.
- Start-up and operator involvement for HVAC equipment.
- Functional performance testing.
- O&M and as-built documentation corroboration.
- Specified factory service and off-season mode testing enforcement.
- O&M training facilitation and recording.
- Ensuring that the design intent, the installations and the O&M requirements are clearly and thoroughly documented.
- Training of the operators and the facility staff to ensure they operate and maintain the facility per the design intent.
- Integration of subsystems.

B. Functions and Responsibility of the Commissioning Agent

The methodology for carrying out a comprehensive commissioning process is organized by project phase: pre-design, design, construction, acceptance, and finally post-acceptance. The functions and responsibility of the Commissioning Agent during each phase shall include:

- Share Information - The primary responsibility is to inform the General contractor (Construction Manager), the Government and A/E on the status, integration, and performance of systems within the facility. The Commissioning Agent shall function as a catalyst and initiator to disseminate information and assist the design and construction teams in the completion of the construction process. This shall include system completeness, performance, and adequacy to meet the intended performance of each system. Services include construction observation, spot testing, verification and functional performance testing, and providing performance and operating information to the responsible parties.
- Quality assurance - Assist the responsible parties to maintain a high quality level of installation and system performance.
- Observation of test - The Commissioning Agent shall observe and coordinate testing as required to ensure system performance meets the design intent. The construction contractor does some testing. The commissioning agent doesn't coordinate the construction contractor's work but does verify that the contractor coordinates the work.
- Documentation of tests - The Commissioning Agent shall document the results of the performance testing directly or ensure that the appropriate technicians document all testing. The Commissioning Agent shall provide standard forms to be used by all parties for consistency of approach and type of information to be recorded.
- Technical Expertise - The Commissioning Agent shall provide technical expertise to review and edit operating and maintenance descriptions by systems.
- Deficiencies - The Commissioning Agent shall provide technical expertise to oversee and verify the correction of deficiencies found during the commissioning process.
- Acceptance - The Commissioning Agent shall work with and advise the Construction Manager, Government, and A/E concerning the date of acceptance for each system for start of the warranty period (if different than the overall Beneficial Occupancy Date).

C. COMMISSIONING PHASES

Objectives for each commissioning phase are outline below.

1. Program & Pre-design commissioning phase

   Document initial design intent

   Develop commissioning plan

   - Document requirements as specified in Owner’s program
   - Select commissioning Agent
2. Design Commissioning Phase
   - Ensure clear design intent documents are developed
   - Develop commissioning plan & specifications
   - Coordinate building systems with HVAC equipment & systems
3. Construction Commissioning Phase
   - Verify system/equipment start-up and operation
   - Verify building management controls

- Verify Testing Adjusting & Balancing report
- Document all tests, observations, and issues
- Verify system installation
- Verify installed equipment is maintained in accordance with O&M while project is under construction and prior to final acceptance
- Coordinate as-built drawings
- Coordinate O&M training

4. Acceptance Commissioning Phase
    - Enforcement of Warranty
    - Verify functional testing of all systems
    - Verify all system comply with contract documents
    - Verify accuracy of final TA&B report
    - Conduct O&M training
    - Complete systems manual
    - Complete training program
5. Post Acceptance Commissioning Phase

    Shall be done before warranties expires.
    - Continued adjustment, optimization of the building systems
    - Maintain performance of the systems throughout the useful life
    - Revision of as-built records
    - Testing, adjusting & balancing of affected systems

D. The Commissioning Report

The commissioning report will generally consist of the following:

- Detailed narrative of commissioning results.
- Verification checklist data sheets.
- Functional performance test data records.
- System operation description and final design intent.
- As built drawings/ shop drawings.
- Final updated operation & maintenance manuals.
- Training documents.

These records will be beneficial to the owner for as long as the building serves its occupants. The records are helpful to the maintenance personnel that operate and maintain the equipment. The records would also be helpful to the OPDIVS should there be any question regarding air quality and working environment.

SECTION 3-11: FEASIBILITY AND OTHER FACILITIES STUDIES

3-11-00 Policy
10 (Reserved)
20 Guidance and Information
30 (Reserved)

3-11-00 POLICY

The purpose of this section is to provide both general and specific information on requirements for facility studies to agency staff responsible for preparing or managing such studies.

This section includes guidance and requirements on all technical facility studies normally performed by OPDIVs. Generally, the studies described in this section are contracted for with private architectural/engineering (A/E) or other technical consulting firms. Alternatively, the OPDIV or other Federal personnel may perform them. When an OPDIV component does not conduct an in-house study and turns to another Federal component for the service, an interagency agreement is executed. The OPDIV remains responsible for the adequacy of all documents.

3-11-20 GUIDANCE AND INFORMATION

A. GENERAL GUIDANCE FOR FACILITY STUDIES

The following general study outline is provided as an option for studies where a format for preparing a work plan is not otherwise specified. At a minimum, facility studies address program, budget, and environmental requirements. This applies to all types of feasibility and special studies, and is oriented to studies conducted by consultants.

1. Content
   a. Statement of the Problem. What is/are the question(s) to be answered by this study?
   b. Background. The background and reasons for the study should be developed in sufficient detail to justify its need.
   c. Methodology and approach to the study
   d. Observations and Findings (including presentation of data)
   e. Conclusions and Recommendations

B. EXAMPLES OF FACILITY STUDIES

1. FEASIBILITY STUDIES

The feasibility study is the most fundamental of facilities studies and addresses program, engineering, architectural, environmental, and budget issues. It is most frequently undertaken as part of a decision process comparing different solutions to satisfying a facility requirement, such as modernizing and/or expanding an existing facility versus constructing a replacement facility, or to establish the appropriate size and scope of a planned new facility. Such feasibility studies are frequently made in conjunction with preparation of a Program of Requirements (POR) document.

a. The scope and parameters for a feasibility study must be stated in objective terms so that the A/E or consultant firm can produce an unbiased report.

b. If the issues are basically technical, requiring A/E disciplines, the A/E selection process described in Volume I, Section 4-2, "Architect/Engineer Selection Process and Approvals," must be followed after the scope is approved.

c. The recommendations of feasibility studies will be recorded in the Facility Survey Data Base. Each recommendation will be classified and prioritized in the Facility Survey Data Base.

2. PRE-DESIGN AND PRE-TRANSFER STUDIES

Pre-design and pre-transfer studies are undertaken when insufficient information is available to proceed.

a. Utility Studies - Adequate utility support is essential. Such needs are particularly complex for hospitals and research facilities. Such studies require detailed information on utility availability, capacity, reliability, projected life, etc. Studies may be devised to cover all relevant utilities or specified ones; e.g., steam or water supply only. Studies should address the special needs related to the management of medical and/or hazardous waste.

b. Physical Plant Audits or Existing Condition Survey - Physical Plant Audits or Existing Condition Survey is complete inventories of the physical plant with all deficiencies identified with a general plan of correction and estimated construction cost as well as disclose hazardous materials activities.

3. SUBSURFACE AND SOIL STUDIES

The studies listed below may be part of the site selection study. The complexity or individual nature of the site may require a special study or studies.

a. Soil Investigation and Structural Report - Certain sites may contain unusual soil materials or formations that require special consideration (e.g. expandable clays, water table problems or unstable organic fill). The report should be prepared by a soils testing laboratory and reviewed by a licensed geotechnical engineer registered in the state or territory of the site.

b. Seismic/Geologic Study - These studies are required for all sites in high risk seismic areas. Other sites may logically require special geologic studies; e.g. where rock or ledge is visible within or near the area to be developed.

4. BUILDING SYSTEMS STUDIES

Complexity in building systems often requires that individual systems be isolated and analyzed in order to develop the most effective and efficient application.

a. Energy Conservation - The high-energy usage in hospitals and laboratories has prompted these studies. Mechanical and electrical systems are the prime focus. For instance, lighting may be reduced at certain hours and electric motors may be interlocked to reduce demand.

b. Pollution Prevention - This includes both physical systems and management programs to prevent or minimize pollution, including recycling programs.

c. Other Building Systems - Many other building systems may benefit from special studies. Some common subjects are as follows:

(1) HVAC System and Controls

(2) Accessibility for Persons with Disabilities

(3) Vertical Transportation Elevators and Escalators

(4) Security

(5) Maintenance of Building Equipment

(6) Fire Safety System

5. OTHER STUDIES

HHS facilities may require specific studies as listed but not limited to those below.

a. Research Animal Holding Studies - Research animals require sophisticated environments that differ significantly from typical human environments. Use of hazardous chemicals in animal research requires careful monitoring, from delivery to final disposal of wastes. Facilities for animal studies must consider the animal species, population, research protocol, material handling, cage washing and disposal methods. A special study may be appropriate to answer facility questions in one or several of these animal research areas (e.g., Does the facility meet American Association for Accreditation of Laboratory Animal Care (AAALAC) standards?)

b. Hospital Department Studies - As a result of disease incidence or population changes, certain departments may require space adjustments after a hospital has been in operation for several years. Efficient use of space may be improved by departmental studies. Such studies should address environmental issues, such as the management of hazardous or medical wastes.

c. Technology Improvements - New equipment and technology may permit facilities to be operated more efficiently, or in a more environmentally benign manner (e.g., an improved medical waste incinerator). Specific studies are frequently necessary to plan such advancements.

d. Transportation Studies - Special studies may be necessary to integrate the HHS facility into a community transportation plan. In addition, on-site traffic patterns of vehicles and materials may be of a complex nature requiring in-depth analysis of alternatives.

e. Food Service - Food service functions of inpatient care complexes frequently warrant basic review when the cooking and serving equipment needs replacement. A study may identify more efficient methods of receiving, storing, preparing, and serving food.

f. Laundry - Hospital requirements for laundry are demanding, complex and expensive. Studies are performed to develop more efficient laundry facilities and to determine cost effectiveness of private contracting for hospital linens, etc.