

## INTRODUCTION

Section 3-602(d) of the State Finance and Procurement Article of the Annotated Code of Maryland requires that before an appropriation may be authorized for a capital project, the unit of State government requesting the appropriation shall submit a facility program justifying the project and describing, in detail, the scope and purpose of the project.

The purpose of this Facility Program Manual is to:

- Define and describe the facility program.
- Provide instruction on the preparation of a facility program.
- Disseminate information regarding submission requirements.

This publication is produced jointly by the Maryland Department of Budget and Management and the Maryland Department of General Services. Recommended suggestions on the contents of this document should be forwarded to:

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## CHANGES SINCE THE LAST REVISION TO THIS MANUAL

### Part I

1. ***The instructions on presenting the project justification have been greatly expanded, and a specific format has been prescribed.*** In this manual, those instructions precede the instructions that apply to specific types of projects.
2. ***Specific definitions are given to specific terms.*** A "facilities problem," the "consequences" of a facilities problem, and the resulting "operational and service delivery deficiencies" have particular meanings as described in the instructions.
3. ***Part I of the program must detail not only the facilities problems to be addressed, but also the operational and service delivery deficiencies that result from the facilities problems.*** An agency must demonstrate that accomplishment of its mission and goals is being adversely affected by its facilities problems.
4. ***More emphasis is placed not only on justifying the need for a proposed project, but also on demonstrating why the proposal is the most effective alternative for improving the situation which the project purports to address.*** An alternatives analysis is a required feature of part I of any program.
5. ***The "General Requirements" section has been eliminated.*** The instructions for each type of project -- new building, renovation, utilities improvement, site improvement, and property acquisition -- are now self-contained. However, in the project-specific sections, the instructions for presenting the project justification are listed in summary form only, and users of the manual are encouraged to turn back to the Project Justification section for more detailed guidance.
6. ***The date by which part I of the program must be submitted in a given year has been changed from September 1<sup>st</sup> to June 30<sup>th</sup>.***
7. ***The definition of what constitutes a "significant cost" for the purposes of determining which changes in a program require DBM/DGS approval has been changed.*** The term is now interpreted as a change in cost amounting to 5% or more of the project cost.
8. A section has been added to include ***procedures for notifying the budget committees of the General Assembly*** when program changes cause the design of a project to exceed the programmed cost or square footage by certain parameters.

### Part II

1. ***References to codes and regulations have been updated,*** including requirements for adherence to Smart Growth practices, the Maryland Building Rehabilitation Code, and the Green Building program.
2. ***Instructions for projects involving new buildings or renovations of existing buildings*** have been clarified and enhanced.
3. ***Space standards for District Court buildings*** have been added to Appendix A.
4. ***Efficiency factors for patient health facilities, detention facilities, and District Court buildings*** have been modified in Appendix B.

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## **OVERVIEW**

**Definition and Purpose of the Facility Program**

**Preparation and Submission Requirements**

**Approval and Post-approval Requirements**

## DEFINITION AND PURPOSE OF THE FACILITY PROGRAM

### A. DEFINITION

- 1) A facility program is a document that provides the justification for a capital project; defines and explains the scope of work; and provides detailed specifications for the project design.
- 2) A facility program consists of two parts. **Part I** includes the justification for the project, and the description and explanation of the scope of work. **Part II** includes the additional details needed to procure architectural and engineering services and to provide detailed guidance in creating the project design.

### B. PURPOSE

- 1) The primary purpose of a facility program is as stated in its definition. However, the facility program has additional uses as detailed below.
- 2) Part I:
  - a. Provides a planning tool for use by the State agency in developing solutions to operational and service problems as well as facilities deficiencies.
  - b. Sets forth a framework for analyzing existing conditions and trends to assist in establishing the project justification and scope.
  - c. Identifies the project site.
  - d. Provides the parameters for developing a preliminary cost estimate and a request for funding in the State capital improvement program.
  - e. Serves as the focus of review of the project by the State agencies involved in the preparation of the State capital improvement program.
- 3) Part II:
  - a. Establishes the site boundaries for the project.
  - b. Delineates architectural, engineering, and planning objectives to be considered during design.
  - c. Identifies applicable construction codes, design standards, and permits, as well as methods and practices required by the user.
  - d. Provides the basis for a detailed cost estimate for use in the State capital budget and capital improvement program.
  - e. With respect to building projects, part II also:
    - (1) Details the required space allocations in the facility, based on functional requirements.
    - (2) Describes the functional use, requirements, and general performance standards for each space.
    - (3) Presents graphically the desired functional relationships between spaces.

## PREPARATION AND SUBMISSION REQUIREMENTS

- A. The facility program should be prepared in two parts, as defined previously. As a rule, the using agency should complete part I and submit it to the State review agencies before initiating work on part II. This two-step program preparation process is intended to expedite program reviews and reduce the time and effort required for developing the part II submission. If the State review agencies request changes to the project as a result of the part I review, those changes can be incorporated into the initial draft of part II. However, the using agency may prepare and submit part I and part II together if it finds doing so would be more convenient.
- B. Agency personnel should prepare the facility program whenever practical. For large and complicated projects, retention of a program consultant with expertise in the type of project being requested is advisable. Use of such consultants reduces the likelihood and cost of making significant changes to the project after design has begun. Regardless of whether a consultant is used, the costs associated with preparation of a facility program should not be funded from State capital funds.
- C. Part I of the program must be submitted by June 30<sup>th</sup> of the calendar year in which the using agency initially submits a request to include the project in the State's five-year capital improvement program. Part I must be accompanied by a completed copy of each of the following forms, unless a current copy was previously submitted:
- 1) Cost Estimate Worksheet, **and a statement of the assumptions on which the cost estimate is based.**
  - 2) Environmental Assessment Form
  - 3) Project Consistency Report
  - 4) Net Effect on Agency's Operating Budget
- D. Part II must be submitted by March 1<sup>st</sup> of the calendar year in which a request for design funds will be submitted for inclusion in the next Capital Budget.
- E. If a part I document was not submitted prior to the due date for the part II, then both part I and part II should be submitted together.
- F. The letter of transmittal for either or both documents should be addressed to the Department of Budget and Management (DBM), with a copy to the Department of General Services (DGS), and should include the following:
- 1) Title of project
  - 2) Project number if assigned by DGS
  - 3) List of attachments
  - 4) Name and telephone number of contact person
- Two copies** of the program and attachments should be sent **to DBM**. **Three copies** should be sent **to DGS**. Mail all documents to the individuals and addresses found in the preface of this manual (page 1).

## APPROVAL AND POST-APPROVAL REQUIREMENTS

- A. **Both part I and part II of the program must be approved by the Department of Budget and Management (DBM), and part II by the Department of General Services (DGS) if that agency is to procure a design consultant for the project, before the selection process for the design consultant can be initiated.**
- B. Part II is the document used in the design consultant selection process. It is therefore important that part II include a summary of the justification and goals for the project, as required by the instructions for part II, in order to help the design consultant understand what the project is intended to accomplish.
- C. Ten copies of the final part II document should be submitted to DGS if DGS is responsible for procuring the design consultant, and one copy to DBM if DBM's approval of the program was contingent on revisions being made to the document.
- D. **Section 3-602(e) of the State Finance and Procurement Article of the Annotated Code of Maryland specifies that except with the approval of the Secretary of Budget and Management and the Secretary of General Services, no change may be made in any proposed capital project after the program for that project has been completed and approved.** A program change is generally defined as a change which significantly alters the characteristics of the project and:
- 1) involves work not addressed in the program;
  - 2) is inconsistent with the original language of the program; or
  - 3) adds significant cost to the project in a manner not foreseen when the program was first approved.
- The addition or deletion of a room or space constitutes a program change as defined in items 1 and 2 above. The term "significant cost" in item 3 is defined as an increase or decrease in cost which equals or exceeds 5% of the construction cost.
- E. To secure approval of a change to a facility program, an agency may either request the change in a separate letter to the Departments at the addresses specified on page 1, or include a request for the change in the transmittal of design documents for review by the two Departments. The request should describe the change, state the reason it is being requested, and provide the estimated cost.
- F. **Notification of program changes must also be sent to the budget committees of the General Assembly if the changes cause an increase in project cost of 7.5% or more, or an increase in project gross square footage of 5% or more.** In such cases, after obtaining approval of the changes from the aforementioned Departments, the agency should seek the approval of the budget committees by writing a letter similar to that described in Paragraph E above to the Chairs of the House Appropriations and Senate Budget and Taxation Committees.

**FACILITY PROGRAM  
PART I  
Project Justification and Scope**

**Project Justification - All Projects**

**Program Content Requirements - New Building Projects**

**Program Content Requirements – Renovation/Alteration/Conversion  
Projects for Existing Buildings**

**Program Content Requirements - Utilities Projects**

**Program Content Requirements - Site Improvement Projects**

**Program Content Requirements - Property Acquisition Projects**

## PROJECT JUSTIFICATION - ALL PROJECTS

### A. INTRODUCTION

- 1) ***To assure that the capital projects it recommends are fully justified, the Department of Budget and Management (DBM) has created a standard process for developing the justification for a capital project. In preparing part I of the program, the program writer must follow this process.*** The program must not only contain all of the information requested in the following narrative, but must use that information to demonstrate convincingly that the proposed project represents the best solution to the problem(s) the agency has identified.
- 2) A facility is not an end in itself. It is a resource that an agency uses to conduct operations and deliver services. Improvements to facilities should be included in the State's capital budget only when they are justified on the basis of improving operations and services. One of the primary functions of a facility program is therefore to demonstrate how a capital project will help an agency resolve facilities problems which cause operational and service delivery deficiencies.
- 3) The State routinely receives more requests for funding capital projects than can be accommodated. Consequently, ***even though the need might be convincingly demonstrated and DBM has approved the program, there can be no guarantee that a project will be funded. Before writing a program for a capital project, the agency should thoroughly investigate alternative solutions to mitigating the operational and service delivery deficiencies.*** Alternatives should include actions that do not involve capital expenditures, such as changes in operational policies or goals. Alternatives should also include facilities options such as constructing a new facility, renovating an existing facility, leasing a privately-owned facility, or obtaining some type of private financing of a capital project. The facility program must include a discussion of the alternatives that were considered.
- 4) In order to assess the quality of any data or the validity of any projections used in a facility program, it is important to include a description of the way in which the data was generated. ***The program should cite the source of any historical data and describe how it was collected, and should explain the methodology and assumptions used in making any projections.***
- 5) In the following narrative, three fictitious situations are used to illustrate the requirements. The first is a juvenile justice rehabilitation center that does not have enough treatment slots to accept immediate referrals. The second is a university which is unable to provide enough biology lab credits within a standard four-year time frame to graduate many of its bachelor's degree candidates within that time frame. The third is a State employment agency that is unable to deliver benefits to all qualified applicants within an acceptable time frame.

- 6) *In the following narrative, specific terms have specific meanings.*
- a) A **facilities problem** is the impairment or absence of an essential feature or attribute of that facility, or the lack of a facility. A capital project may address a single facility problem or multiple facilities problems.
  - b) The **consequences** of a facilities problem are the undesired or negative effects of that problem on an agency's operations or services; they also include undesired or negative effects on the benefits that citizens expect to receive from the services.
  - c) These effects are defined as **operational deficiencies** and **service delivery deficiencies**.

## B. DEFINING AND MEASURING FACILITIES PROBLEMS AND THEIR CAUSES

- 1) *The program should first identify and describe the facilities problems that the capital project seeks to address.* A problem may be quantitative or qualitative in nature, or both. **Quantitative problems** concern the amount of space or other attribute available, as there may be too little to perform program functions at all or to perform them effectively. Some examples of well-defined quantitative problems are:
- a) A juvenile justice rehabilitation center has only 40 of the 100 beds it needs to house the average number of youth assigned at a given time to its substance abuse program.
  - b) A university has only 7 of the 11 biology labs it needs to offer all of the courses its biology students should pursue in a given semester.
  - c) An employment office has enough electrical capacity to power only 40 of the 70 computers that will be required in the next five years to process unemployment checks when needed.

*These statements must be supported by calculations which show how the need is determined as measured by State guidelines or other standard methodologies.*

Examples of statements of quantitative problems which are too vague include:

- a) The juvenile center doesn't have enough beds to meet the demand.
- b) The university doesn't have enough biology labs for its enrollment.
- c) The electrical capacity in the employment office is insufficient.

These statements are too vague because they lack quantitative data.

**Qualitative problems** involve the nature of the space or other facility attribute.

Some examples of well-defined qualitative problems are:

- a) The bedrooms in the juvenile center have sagging floors and exposed plumbing that is corroding.
- b) Existing biology labs have defective fume hoods and lack safety showers.
- c) Frayed wiring and unreliable circuit breakers are causing occasional power outages in the employment office.

Examples of statements of qualitative problems which are too vague include:

- a) The bedrooms in the juvenile center are in poor condition.
- b) Equipment in the biology labs doesn't meet current standards.
- c) The electrical distribution system in the employment office is inadequate.

These statements are too vague because they lack specific detail.

- 2) ***The program should next identify the factor(s) that influence the existence and/or magnitude of the facilities problems.*** The program should discuss why the problems arose. Usually they are factors in the external environment such as:
- a) Increases in demand for program services, e.g., growing enrollments in a university's biology programs.
  - b) Changes in the nature of the services expected by customers, e.g., more emphasis on substance abuse treatment for juveniles.
  - c) Development of new technologies to produce services, e.g., greater use of computer technology in providing employment services.

In addition, factors within the organization, such as the natural decay of facilities from aging or their deterioration from intensive use, may be involved. The specific factors must be examined, particularly as they contribute to an understanding of how much they can be controlled by changes in management policy or practice.

- 3) ***The program should use historical data to show how the factors affecting the facilities problems have changed in the recent past, and projections to show how they are expected to change in the future.*** The rationale for this requirement is to illustrate whether the factors influencing the problems seem to be changing or remaining static. The preferred format for showing the data is a chart that depicts the amount of change over time. In the case of the above-cited biology lab situation, in which space requirements are related to enrollments as measured by student contact hours, the rate of change would be illustrated by showing how the number of weekly student contact hours (WSCH) for each fall semester has changed over the five calendar years immediately preceding the current calendar year (CY) and is expected to change in the fifth and tenth year following the current calendar year (example below):

Actual	<u>CY-5</u>	<u>CY-4</u>	<u>CY-3</u>	<u>CY-2</u>	<u>CY-1</u>	Projected	<u>CY+5</u>	<u>CY+10</u>
WSCH	3,221	3,105	3,767	4,025	4,219		5,774	5,907

***The program should cite the source of the historical data and describe how it was collected, and should explain the methodology and assumptions used in making any projections.***

- 4) ***The program should also use historical data to show how the facility problem itself has changed in the recent past, and projections to show how it is projected to change in the future.*** This will be basically an application of the data reported in response to the instructions in the preceding paragraph to the actual facilities problems. As the factors influencing the problem increase or decrease, so will the magnitude of the problem itself. For instance, with respect to the biology lab example, the number of biology labs needed is proportional to the number of weekly student contact hours generated. Therefore, a chart showing the change over time in the number of biology labs needed would look something like this:

Actual	<u>CY-5</u>	<u>CY-4</u>	<u>CY-3</u>	<u>CY-2</u>	<u>CY-1</u>	Projected	<u>CY+5</u>	<u>CY+10</u>
# of Labs	3	3	4	4	4		5	6

***As noted in section 3 above, the program should cite the source of the data and explain the methodology used in collecting data and making projections.***

**NOTE:** Illustrating changes over time in a facilities problem that is qualitative in nature can be difficult. *Three of the most common ways of illustrating a qualitative deficiency are:*

- b) Providing data that shows the change in annual maintenance costs and/or work orders at the facility over time.
- c) If a log of complaints is kept, providing pertinent data from it to illustrate that the problem is substantial and/or intensifying.
- d) If the facility is regularly inspected and assigned a condition code or other rating, providing data that shows the change in that rating over time.

If none of those data elements is available, the change over time can be described in narrative detail. Any particular failure of a facility at a certain point in time should be identified, such as when a roof was damaged in a storm, or when a new technology became commonplace that rendered an existing technology obsolete.

### C. **DEFINING AND MEASURING THE CONSEQUENCES OF FACILITIES PROBLEMS (the operational and service delivery deficiencies)**

- 1) The intent of a capital project should be to solve one or more facilities problems that impair the agency's efforts to conduct operations and provide services efficiently and effectively. *A key change from previous editions of this manual is the requirement that the program describe in detail the consequences that the facilities problem(s) have for agency operations and service delivery (i.e., the operational and service delivery deficiencies), and that it describe how the proposed project will address those deficiencies.* The deficiencies may already exist, or they may be anticipated to develop in the near future. Examples of such deficiencies include:

- a) The juvenile justice center cannot house all of the youth assigned to it at any given time in compliance with legal standards;
- b) The university cannot provide biology lab instruction to all of the students who request it each year, thereby delaying their timely graduation;
- c) After next year, the State employment agency does not expect to be able to process the number of applications it will receive for unemployment compensation as quickly as required by law.

Expressions of such deficiencies which are unacceptable because they are too vague or do not clarify what functions or services are being impaired include statements such as:

- a) The juvenile justice center is overcrowded.
- b) The university doesn't have enough biology labs.
- c) The State employment office is too small to function efficiently.

If an agency has been assigned a new function or service and lacks the requisite facilities to undertake that assignment, the problem is the lack of facilities, and the consequence (deficiency) is the inability to perform the function or service.

- 2) *After identifying the consequences of a facilities problem, the program must clearly explain how the problem creates those consequences.* A thorough analysis must identify the specific linkages of the problem(s) to the operational and service delivery

deficiencies. With reference to the examples cited above, the program should describe how the lack of enough space or electrical power, and/or the lack of

functionality of existing space or utilities, has hampered agency operations and services and has contributed to diminishing the benefits of the services to program participants and, if relevant, the general public.

- 3) ***The program should discuss how seriously the operational and service delivery deficiencies affect the ability of the agency to attain its mission and goals.*** The word “mission” refers to a formally adopted statement that describes the core services produced by an agency, the users or beneficiaries of those services, and the value or benefit that users or beneficiaries are intended to gain from the services. The word “goal” describes a desired result that the agency seeks to achieve in fulfillment of its mission. The word “seriously” describes the extent to which the mission/goal cannot be effectively attained because of the problem. Using the problems cited as examples above, the level of seriousness might involve considerations such as:
- a) The juvenile center must detain, on average, 100 adjudicated youth a day for 30 days in holding facilities until they can be assigned to rehabilitation programs, which costs the State \$\_\_\_\_\_ a year in extra detention expenses and the clients a combined 36,000 days a year of lost time. The goal is to implement rehabilitation activities promptly after adjudication.
  - b) The university must enroll 150 of its 600 biology students a year for an extra semester because the students cannot fulfill all course requirements for a baccalaureate degree within four years, resulting in a combined \$\_\_\_\_\_ annually in extra tuition for the students and \$\_\_\_\_\_ a year in administrative expenses for the University. The goal is to graduate all baccalaureate degree candidates after eight semesters.
  - c) Of the 5,000 individuals who are expected to apply for unemployment benefits in a given month in 2004, 1,000 will be without compensation for over three months, causing them significant hardship. The goal is to initiate benefits within a month of receiving the application.

Examples of statements which do not clarify the seriousness of the problem are:

- a) Too many youth are put in holding facilities pending program placement.
- b) The university can't graduate all of its biology students on time.
- c) Many people will get their unemployment checks late.

***In addressing this requirement, the program should cite the agency's mission and relevant goals, and then relate the effect of the operational and service delivery deficiencies on accomplishment of the mission and/or particular goals.***

- 4) ***The program should use historical data to show how the operational and service delivery deficiencies have changed in the recent past, and projections to show how they are expected to change in the future.*** Quantitative data must be used in the presentation for any deficiency that is measurable. For historical data, use each of the five most recent years for which data is available. For projections, use the fifth and tenth years following the year in which the program is being submitted. In the first example cited above, the deficiencies could be illustrated by providing the average daily population (ADP) in holding facilities where youth are detained pending placement in rehabilitation programs, and their average length of stay (LOS) in such

facilities. Data is provided for the five calendar years (CY) preceding the current CY, and for the fifth and tenth future years, in chart form (example below):

Actual	<u>CY-5</u>	<u>CY-4</u>	<u>CY-3</u>	<u>CY-2</u>	<u>CY-1</u>	Projected	<u>CY+5</u>	<u>CY+10</u>
ADP	75	80	85	95	100		125	140
LOS	27	32	29	28	30		31	30

Again, the purpose of presenting such data across time is to illustrate the nature of the problem, its durability over time, and whether the problem seems to be getting worse, improving, or remaining static. ***Remember to cite the source of the historical data and describe how it was collected, and to explain the methodology and assumptions used in making projections.***

#### D. IDENTIFYING AND EVALUATING ALTERNATIVE SOLUTIONS

- 1) While all facility programs propose a specific capital project to help “solve” particular operational and service delivery deficiencies, principal alternatives to the proposal must be defined and evaluated in the facility program. The purpose of this requirement is to provide information to help policy-makers determine whether the proposed capital project is the best possible solution to the operational or service deficiencies previously identified.
  
- 2) ***The set of alternatives must include two that do not involve capital projects:***
  - a) Continuing to manage operations and services under current conditions. Since the deficiencies of this alternative should have been thoroughly described in previous sections, the inclusion of this alternative is required primarily for use in comparing it to other alternatives. However, if new problems could arise from choosing this alternative, they should be identified and evaluated in terms of cost and operating/service impacts.
  - b) Changing internal policies or practices so that the problem is solved or mitigated without undertaking a capital project. For example, juvenile rehabilitation programs could be offered by a private provider in a non-State facility, or biology instruction and simulated lab experiments could be provided electronically.

***The set of alternatives should also include at least one facilities option, such as:***

  - a) Construction of a new facility, if the proposed project is a renovation or upgrade.
  - b) Renovation or upgrade of an existing facility, if the proposed project is a new facility, unless there is no available existing facility. An addition can be included in a renovation project if the need can be demonstrated.
  - c) Leasing an existing facility.

***A facilities alternative should not be proposed unless it is feasible.*** If the agency believes that there are no feasible facilities alternatives, the program should explain the circumstances that support that belief.
  
- 3) ***Using cost effectiveness and operational/service delivery effectiveness as twin criteria, the facility program should include a systematic comparative analysis of the proposed project and the identified alternatives.***

- a) The data used in comparing costs should obviously be dollars. The costs of the alternatives should be compared in terms of their annual impact on the operating budget over the next fifteen years. To include in this analysis the

debt service costs for those alternatives involving a capital project, multiply the project cost by two (to capture the interest on the bonds), divide the product by fifteen, and add the result to the annual impact on the operating budget. If the facility will not be financed by bonds, the multiplication step can be eliminated.

- b) The data used in comparing the effectiveness of each alternative in reducing operational and service delivery deficiencies should be the same data elements used to measure the seriousness of those deficiencies, such as (referring to previous examples) the numbers of juveniles in holding facilities and the number of biology students whose graduation is delayed. The degree to which the deficiencies are reduced by each alternative -- e.g., the degree to which the number of juveniles in holding facilities is decreased, or the degree to which the number of biology students whose graduation is delayed is reduced -- is the measure of effectiveness of each alternative.
- c) As always, the methodological basis for all cost estimates and all operational and service delivery impact estimates should be provided.

## E. PRESENTING THE PREFERRED SOLUTION

- 1) ***Based on the evaluation of alternatives, the program should explain why the proposed project is the preferred choice.*** Almost invariably, the proposed project will not be the least expensive alternative because two of the alternatives should not have involved capital expenditures. Since resources are limited, cost considerations are important. However, an alternative costing more money than another may be a viable choice if it makes a greater contribution to solving the facilities problems and mitigating the consequent operational and service delivery deficiencies. ***The program should demonstrate why the agency believes that the anticipated benefits of the proposed project outweigh the estimated project costs.***
- 2) ***If a renovation alternative is no more costly than a new facility alternative, the renovation alternative should usually be chosen*** in accordance with the State's "smart growth" and environmental protection policies. Exceptions may be considered when unique circumstances preclude cost-effective renovation, such as facility usages which require unusually complex HVAC systems. Cost comparisons should be done with care; the extra costs of site improvements and utilities for an undeveloped site should be thoroughly investigated with respect to a new facility alternative, while an extra 5% contingency allowance should be factored into a renovation estimate to allow for unknown conditions likely to be discovered after construction has commenced. After these factors are considered, the renovation option should be selected unless the data show conclusively that the new facility option better fulfills the evaluation criteria. The Maryland Building Rehabilitation Code (MBRC) encourages and facilitates the rehabilitation of existing buildings by reducing the costs and constraints on rehabilitation.

**Facility Program - Part I**  
**Program Content Requirements**  
**New Building Projects**

**A. PROJECT OVERVIEW**

- 1) Provide the following information about the agency (and subagency, if relevant):
  - a) Name
  - b) Address
  - c) Mission
  - d) Historical summary, if relevant
  - e) A summary description of the organizational units included in the project
- 2) Provide the following information about the project:
  - a) The proposed size of the building (GSF and NASF)
  - b) The major purpose(s) of the project
  - c) The major function(s) to be housed in the building
  - d) The location of the project in relation to other agency buildings on site (if there are no other agency buildings nearby, provide the community name and a street address or major intersection)
  - e) A site plan which shows the general project site and its relationship to nearby buildings and roads
  - f) A statement as to whether the project is included in the current facilities master plan for the relevant agency or location

**B. PROJECT JUSTIFICATION**

*Note: If more than one organizational unit will occupy the building, a separate justification must be developed for the inclusion of each unit in the project.*

The following is an outline of the required components of the project justification. **For a more complete discussion of each requirement, the user must refer back in this Manual to the section on Project Justification.**

- 1) Identify and describe the facilities problems that the proposed capital project is intended to solve.
- 2) Identify the factors that influence the existence and/or magnitude of the facilities problems (such as increases in service demands requiring more space, or deterioration of existing space due to usage beyond design capacity).
- 3) Use historical data to show how those factors have changed in the recent past, and projections to show how they are expected to change in the future.

- 4) Use historical data to show how the facilities problems themselves have changed in the recent past, and projections to show how they are expected to change in the future.
- 5) Explain the consequences of the facilities problems for the agency's conduct of operations and delivery of services.
- 6) Explain exactly *how* the facilities problems contribute to the operational and service delivery deficiencies.
- 7) Discuss how seriously the operational and service delivery deficiencies affect the ability of the agency to attain its mission.
- 8) Use historical data to show how the magnitude of the operational and service delivery deficiencies has changed in the recent past, and projections to show how it is expected to change in the future.
- 9) Identify alternatives to the proposed project, both capital and non-capital, and perform a comparative analysis of each, describing their budgetary impact and the degree to which they address the previously identified operational and service deficiencies. Include the proposed project in the analysis.
- 10) Summarize why the agency believes the proposed project is the best alternative.

### C. **PROJECT SCOPE**

The project scope is a statement of the **solution** to the facilities problems and the operational and service delivery deficiencies discussed under the Project Justification. Some aspects of the project scope need to be justified separately, such as the amounts of each type of space and the sizes of certain spaces.

- 1) Describe the project site. State its acreage and dimensions. Identify the current owner (if not the agency itself). Note any topographic features of the site that may present difficulties, such as rock outcroppings, significant elevation changes, forests or wooded areas, or a high water table. Describe the physical relationship of the project to other capital projects, either ongoing or proposed.
- 2) Describe each major function or service that will be housed in the building.
- 3) For each of those functions, indicate how many users and staff are to be housed. If not already provided under the Project Justification, include a five-year history of the number of users and staff, and five-year and ten-year projections of those data elements as they relate to the requested space. *Cite the source of the data, whether historical or future projections, and its methodological basis.*
- 4) Indicate how much NASF is proposed for each type of space (e.g., offices, classrooms, prison cells, patient rooms, and ancillary and support spaces). Indicate

how many units of **each type and size** of space are required, and the number of occupants in each space. Institutions of higher education should list all spaces by HEGIS room use code.

- 5) Describe how quantitative data was used to determine the **amount** of each type of space in the facility. Indicate how the requested number of individual stations (e.g., offices, beds, classroom seats) was determined, such as the number of people needing office space, the number of people housed in a detention module, or the number of hours a laboratory is to be used and the planned percentage of student station utilization. If the State has space guidelines that apply to these calculations, reference them and explain any deviations from them in the project.
- 6) Indicate how the **size** of each space or each group of similar spaces was determined. If the spaces are based on State or other space planning standards, cite the appropriate source and explain any deviations from them in the project. If no space standard applies, the size of the space should be based on:
  - a. The number of occupants
  - b. The type and amount of equipment
  - c. The activities to be accommodated
- 7) Describe any features of the project that involve unusual expense, such as unique items of built-in equipment or non-standard information technology equipment.
- 8) Describe needed site improvements such as grading, roads, parking, sidewalks, exterior lighting, and landscaping. Quantify to the extent possible. If parking is involved, state the number of spaces and the justification for that number.
- 9) Describe the presence and condition of utilities on the site. Note whether any utilities will have to be removed, relocated, or extended to the site. If extension of any utility is needed, estimate the length involved.
- 10) If intended occupants of the new building are currently housed in space in another building or buildings, provide the location and a description of that space, and describe its future intended use.

#### **D. MISCELLANEOUS REQUIREMENTS**

- 1) Indicate whether the project:
  - is within a 100-year flood plain
  - is in a wetlands area
  - involves the clearing of forested areas
  - is within the Chesapeake Bay Critical Area
  - will have an effect on the State's historical and/or cultural resources
  - is consistent with the State's "smart growth" policies.
 If any of the above applies, the program should present evidence that the appropriate agencies have reviewed the proposal.
- 2) If the project is not included in the current facilities master plan for the relevant agency or location, explain why it is not included and how implementing the project will affect other components of the plan.

**Facility Program - Part I**  
**Program Content Requirements**  
**Renovation Projects**  
**(with or without building additions)**

**A. PROJECT OVERVIEW**

- 1) Provide the following information about the agency (and subagency, if relevant):
  - a) Name
  - b) Address
  - c) Mission
  - d) Historical summary, if relevant
  - e) A summary description of the organizational units included in the project
  
- 2) Provide the following information about the project:
  - a) The size of the existing building (GSF and NASF) and the size of any proposed addition (GSF and NASF)
  - b) The location of the building (provide either its adjacency to nearby agency buildings or a community name and street address)
  - c) The date of original construction, the original building usage, the dates of any renovations and/or additions, and any subsequent changes in use
  - d) The major purpose(s) of the project
  - e) The major function(s) to be housed in the building after renovation, and any change this represents from the existing situation
  - f) A site plan which illustrates the building location in relation to other nearby buildings and to roadways
  - g) A statement as to whether the project is included in the current facilities master plan for the relevant agency or location

**B. PROJECT JUSTIFICATION**

*Note: If the building after renovation will house more than one organizational unit that does not currently occupy the building, a separate justification must be developed for inclusion of each of those additional units in the project.*

The following is an outline of the required components of the project justification. **For a more complete discussion of each requirement, the user must refer back in this Manual to the section on Project Justification.**

- 1) Identify and describe the facilities problems that the proposed capital project is intended to solve.
  
- 2) Identify the factors that influence the existence and/or magnitude of the facilities problems (such as increases in service demands requiring more space, or deterioration of existing space due to usage beyond design capacity).

- 3) Use historical data to show how those factors have changed in the recent past, and projections to show how they are expected to change in the future.
- 4) Use historical data to show how the facilities problems themselves have changed in the recent past, and projections to show how they are expected to change in the future.
- 5) Explain the consequences of the facilities problems for the agency's conduct of operations and delivery of services.
- 6) Explain exactly *how* the facilities problems contribute to the operational and service delivery deficiencies.
- 7) Discuss how seriously the operational and service delivery deficiencies affect the ability of the agency to attain its mission.
- 8) Use historical data to show how the magnitude of the operational and service delivery deficiencies has changed in the recent past, and projections to show how it is expected to change in the future.
- 9) Identify alternatives to the proposed project, both capital and non-capital, and perform a comparative analysis of each, describing their budgetary impact and the degree to which they address the previously identified operational and service deficiencies. Include the proposed project in the analysis.
- 10) Summarize why the agency believes the proposed project is the best alternative.

### C. **PROJECT SCOPE**

The project scope is a statement of the **solution** to the facilities problems and the operational and service delivery deficiencies discussed under the Project Justification. Some aspects of the project scope may need to be justified separately. If spatial arrangements in the building are to be altered and/or if new spaces are to be added, the amounts of new space and the sizes of both new and altered spaces must be justified.

- 1) Provide floor plans for the building (8.5 x 11").
- 2) Describe each major function or service currently housed in the building. Indicate whether any of these entities will cease to function or will be permanently moved to another building as a byproduct of the renovation. Describe any new function or service that will move into the building, either to replace an existing entity or to occupy an addition to the building if one is proposed. If no new function or service is to move into the building, so note.
- 3) Identify the non-spatial changes to be made to the existing building. Describe the condition of the building's architectural, structural, mechanical, electrical, and

telecommunication systems. Indicate how each of those systems are to be upgraded. Evaluate the HVAC system and discuss how it should be made more energy-efficient. If an addition to the building is proposed, discuss how the building systems of the old and new structures might be integrated.

**4) If the project involves spatial changes in the existing building and/or construction of an addition, the following instructions apply:**

- a) For each existing function or service to be expanded and each new function or service to be added, indicate how many users and staff are to be accommodated. If not already provided under the Project Justification, include a five-year history of the number of users and staff, and five-year and ten-year projections of those data elements as they relate to the requested space. *Cite the source of the data, whether historical or future projections, and its methodological basis.*
- b) Where space is to be altered or added, indicate how much NASF is proposed for each type of space (e.g., offices, classrooms, patient rooms). Indicate how many units of **each type and** size of space are required, and the number of occupants in each space. Institutions of higher education should list all spaces by HEGIS room use code.
- c) Describe how quantitative data was used to determine the **amount** of each type of space. Indicate how the requested number of individual stations (e.g., offices, beds, classroom seats) was determined, such as the number of people needing office space, the number of people housed in a detention module, or the number of hours a laboratory is to be used and the planned percentage of student station utilization. If the State has space guidelines that apply to these calculations, reference them and explain any deviations from them in the project.
- d) Indicate how the **size** of each space or each group of similar spaces was determined. If the spaces are based on State or other space planning standards, cite the appropriate source and explain any deviations from them in the project. If no space standard applies, the size of the space should be based on:
  1. The number of occupants
  2. The type and amount of equipment
  3. The activities accommodated
- e) If any part of the building is to be excluded from spatial changes, define the portion to be excluded precisely and indicate its location on the floor plan.
- f) If the project includes a building addition, specify on what side the addition will be placed and whether the addition will abut the existing building or be connected by one or more walkways.

- 5) Describe any features of the project that might make it more expensive than comparable projects, such as unique items of built-in equipment or non-standard information technology equipment.
- 6) Describe any site improvements included in the project, such as grading, roads, parking, sidewalks, exterior lighting, and landscaping. Quantify to the extent possible. If parking is involved, state the number of spaces and the justification for that number.
- 7) Describe the presence and condition of utilities on the site. Note whether any utilities will have to be removed, relocated, or extended to the site. If extension of any utility is needed, estimate the length involved.
- 8) If intended occupants of the new building are currently housed in space in another building or buildings, provide the location and description of that space. If the space is rented, state whether or not the agency will continue to lease it for other uses, and if so, describe those uses. If the space is State-owned, describe in detail its intended future use. If the space is to be demolished, so note.
- 9) Indicate whether current occupants of the building will remain during renovation or will be relocated. If the latter, provide details, including their temporary location during the project and whether any capital improvements will be needed at that location. If the project is to be phased, provide details of the phasing plan.

**D. MISCELLANEOUS REQUIREMENTS**

- 1) Indicate whether the project:
  - is within a 100-year flood plain
  - is in a wetlands area
  - involves the clearing of forested areas
  - is within the Chesapeake Bay Critical Area
  - will have an effect on the State’s historical and/or cultural resources
  - is consistent with the State’s “smart growth” policies.If any of the above applies, the program should present evidence that the appropriate agencies have reviewed the proposal.
- 2) If the project is not included in the current facilities master plan for the relevant agency or location, explain why it is not included and how implementing the project will affect other components of the plan.

## **Facility Program - Part I Program Content Requirements Utilities Projects**

Note: For projects within buildings, use the instructions for Building Renovation projects.

### **A. PROJECT OVERVIEW**

- 1) Provide the following information about the agency (and subagency, if relevant):
  - a) Name
  - b) Address
  - c) Mission
  - d) Historical summary, if relevant
  
- 2) Provide the following information about the project:
  - a) The specific location of the project (provide its adjacency to nearby agency buildings and/or a community name and street address)
  - b) The type(s) of utilities affected
  - c) A brief description of the work to be done
  - d) The major purpose(s) of the project
  - e) A site plan which shows the location of the proposed improvements and the location of nearby buildings and roadways
  - f) A statement as to whether the project is included in the current facilities master plan for the relevant agency or location

### **B. PROJECT JUSTIFICATION**

The following is an outline of the required components of the project justification. **For a more complete discussion of each requirement, the user must refer back in this Manual to the section on Project Justification.**

- 1) Identify and describe the facilities problems that the proposed capital project is intended to solve.
  
- 2) Identify the factors that influence the existence and/or magnitude of the facilities problems (such as increases in service demands requiring more capacity, or deterioration of existing infrastructure due to usage beyond design capacity).
  
- 3) Use historical data to show how those factors have changed in the recent past, and projections to show how they are expected to change in the future.
  
- 4) Use historical data to show how the facilities problems themselves have changed in the recent past, and projections to show how they are expected to change in the future.

- 5) Explain the consequences of the facilities problems for the agency's conduct of operations and delivery of services.
- 6) Explain exactly *how* the facilities problems contribute to the operational and service delivery deficiencies.
- 7) Discuss how seriously the operational and service delivery deficiencies affect the ability of the agency to attain its mission.
- 8) Use historical data to show how the magnitude of the operational and service delivery deficiencies has changed in the recent past, and projections to show how it is expected to change in the future.
- 9) Identify alternatives to the proposed project, both capital and non-capital, and perform a comparative analysis of each, describing their budgetary impact and the degree to which they address the previously identified operational and service deficiencies. Include the proposed project in the analysis.
- 10) Summarize why the agency believes the proposed project is the best alternative.

**C. PROJECT SCOPE**

- 1) Describe the specific nature of the work to be done. If distribution systems are involved, estimate the length of the system to be installed, upgraded or replaced, and the desired size or capacity of the lines. If production, storage, or treatment facilities are involved, indicate the desired size or capacity of the equipment. Describe the characteristics of the equipment to be installed in sufficient detail to enable the preparation of a reasonably accurate cost estimate.
- 2) Describe and justify how the capacities or characteristics of the equipment were determined. For example, explain why a boiler or chiller should be of a certain size, a water pipe should be of a certain width, or an electrical distribution system should be of a certain voltage.
- 3) If distribution systems are involved, note whether there are any natural or man-made obstacles along the preferred route that could increase the difficulty or cost of the project.
- 4) Indicate the extent to which operations and services will be affected during and after work on the project. If phasing is required, explain the phasing plan and how it will affect the project cost.
- 5) Detail any site work to be accomplished after the utilities work is completed.

**D. MISCELLANEOUS REQUIREMENTS**

- 1) Indicate whether the project:
  - is within a 100-year flood plain
  - is in a wetlands area
  - involves the clearing of forested areas
  - is within the Chesapeake Bay Critical Area
  - will have an effect on the State’s historical and/or cultural resources
  - is consistent with the State’s “smart growth” policies.

If any of the above applies, the program should present evidence that the appropriate agencies have reviewed the proposal.
  
- 2) If the project is not included in the current facilities master plan for the relevant agency or location, explain why it is not included and how implementing the project will affect other components of the plan.

**Facility Program - Part I**  
**Program Content Requirements**  
**Site Improvement Projects**

**A. PROJECT OVERVIEW**

- 1) Provide the following information about the agency (and subagency, if relevant):
  - a) Name
  - b) Address
  - c) Mission
  - d) Historical summary, if relevant
  
- 2) Provide the following information about the project:
  - a) The specific location of the project (provide its adjacency to nearby agency buildings and/or a community name and street address)
  - b) The type(s) of site improvements proposed
  - c) A brief description of the work to be done
  - d) The major purpose(s) of the project
  - e) A site plan which shows the proposed improvements and the relationship of the site to adjacent buildings and roadways
  - f) A statement as to whether the project is included in the current facilities master plan for the relevant agency or location

**B. PROJECT JUSTIFICATION**

The following is an outline of the required components of the project justification. **For a more complete discussion of each requirement, the user must refer back in this Manual to the section on Project Justification.**

- 1) Identify and describe the facilities problems that the proposed capital project is intended to solve.
  
- 2) Identify the factors that influence the existence and/or magnitude of the facilities problems (such as increases in service demands requiring more capacity, or deterioration of existing infrastructure due to usage beyond design capacity).
  
- 3) Use historical data to show how those factors have changed in the recent past, and projections to show how they are expected to change in the future.
  
- 4) Use historical data to show how the facilities problems themselves have changed in the recent past, and projections to show how they are expected to change in the future.
  
- 5) Explain the consequences of the facilities problems for the agency's conduct of operations and delivery of services.

- 6) Explain exactly *how* the facilities problems contribute to the operational and service delivery deficiencies
- 7) Discuss how seriously the operational and service delivery deficiencies affect the ability of the agency to attain its mission.
- 8) Use historical data to show how the magnitude of the operational and service delivery deficiencies has changed in the recent past, and projections to show how it is expected to change in the future.
- 9) Identify alternatives to the proposed project, both capital and non-capital, and perform a comparative analysis of each, describing their budgetary impact and the degree to which they address the previously identified operational and service deficiencies. Include the proposed project in the analysis.
- 10) Summarize why the agency believes the proposed project is the best alternative.

**C. PROJECT SCOPE**

- 1) Describe the specific nature of the work to be done.
  - a) If parking spaces are involved, specify the number of spaces and why that amount is needed, the size of each space, the number of spaces to be sized and reserved for the disabled, and describe associated landscaping.
  - b) If roads and sidewalks are involved, specify the approximate length and width, paving material, and any associated landscaping.
  - c) If athletic fields are involved, specify the sports to be played, the field dimensions, surfaces, and special equipment needed.
  - d) If the project has extensive landscaping, specify the acreage involved, the general nature of the landscaping, and any special features proposed.
- 2) Describe and justify how the amount of work was determined. Specify any standards that were used, such as those that apply to the size of athletic fields or the number of parking spaces at a given location.
- 3) Specify any desired functional relationships, such as the proximity of parking spaces to a certain building or how athletic fields should be arranged with respect to one another.
- 4) Describe any topographic features of the site that may present difficulties, such as rock outcroppings, significant slopes, wooded areas, or a high water table.
- 5) Identify any demolition needed.
- 6) Describe any utility lines or equipment that will be impacted by the project and how that impact will be managed.

- 7) Indicate the extent, if any, to which unit operations will be affected during and after work on the project. If phasing is required, explain the phasing plan and how it will affect the project cost.

**D. MISCELLANEOUS REQUIREMENTS**

- 1) Indicate whether the project:
- is within a 100-year flood plain
  - is in a wetlands area
  - involves the clearing of forested areas
  - is within the Chesapeake Bay Critical Area
  - will have an effect on the State's historical and/or cultural resources
  - is consistent with the State's "smart growth" policies.
- If any of the above applies, the program should present evidence that the appropriate agencies have reviewed the proposal.
- 2) If the project is not included in the current facilities master plan for the relevant agency or location, explain why it is not included and how implementing the project will affect other components of the plan.

**Facility Program - Part I**  
**Program Content Requirements**  
**Property Acquisition Projects**

**A. PROJECT OVERVIEW**

- 1) Provide the following information about the agency (and subagency, if relevant):
  - a) Name
  - b) Address
  - c) Mission
  - d) Historical summary, if relevant
  
- 2) Provide the following information about the project:
  - a) The specific location of the project (provide its adjacency to nearby agency buildings and/or a community name and street address)
  - b) A brief description of the improvements, if any
  - c) The major purpose(s) of the project
  - d) A site plan which shows the proposed acquisition and its relationship to adjacent properties and roadways
  - e) A statement as to whether the project is included in the current facilities master plan for the relevant agency or location

**B. PROJECT JUSTIFICATION**

The following is an outline of the required components of the project justification. **For a more complete discussion of each requirement, the user must refer back in this Manual to the section on Project Justification.**

- 1) Identify and describe the facilities problems that the proposed capital project is intended to solve.
  
- 2) Identify the factors that influence the existence and/or magnitude of the facilities problems (such as increases in service demands requiring more capacity, or deterioration of existing infrastructure due to usage beyond design capacity).
  
- 3) Use historical data to show how those factors have changed in the recent past, and projections to show how they are expected to change in the future.
  
- 4) Use historical data to show how the facilities problems themselves have changed in the recent past, and projections to show how they are expected to change in the future.
  
- 5) Explain the consequences of the facilities problems for the agency's conduct of operations and delivery of services.

- 6) Explain exactly *how* the facilities problems contribute to the operational and service deficiencies.
- 7) Discuss how seriously the operational and service delivery deficiencies affect the ability of the agency to attain its mission.
- 8) Use historical data to show how the magnitude of the operational and service delivery deficiencies has changed in the recent past, and projections to show how it is expected to change in the future.
- 9) If the proposed acquisition is to purchase land for future development, analyze existing land use and space utilization, and discuss why current land use cannot accommodate future facilities and/or programs.
- 10) Identify alternatives to the proposed acquisition, both capital and non-capital, and perform a comparative analysis of each, describing their budgetary impact and the degree to which they address the previously identified operational and service deficiencies. One alternative should be more intensive use of existing sites and facilities. Include the proposed acquisition in the analysis.
- 11) Summarize why the agency believes the proposed acquisition is the best alternative.

**C. PROJECT SCOPE**

- 1) Describe the specific nature of the property to be acquired. Indicate the acreage and the adjacency of the property to other property used by the agency as well as to major transportation routes and public utilities.
- 2) Provide a detailed description of property improvements. Indicate their condition, the actual or potential presence of hazardous materials, and the estimated cost of remedying any property defects.
- 3) Describe the site topography and indicate any features that might present difficulties for development, such as rock outcroppings, significant slopes, wooded areas, or a high water table.
- 4) Describe the objectives for developing the site, and analyze the degree to which the characteristics of the site advance or impede the realization of those objectives.
- 5) Discuss the uses of adjacent properties, and the extent to which the proposed uses of the subject property are compatible or incompatible with those other uses.
- 6) Identify any factors which could affect the timing of the acquisition or of the subsequent development of the property.

**D. MISCELLANEOUS REQUIREMENTS**

- 1) Indicate whether the project:
  - is within a 100-year flood plain
  - is in a wetlands area
  - involves the clearing of forested areas
  - is within the Chesapeake Bay Critical Area
  - will have an effect on the State’s historical and/or cultural resources
  - is consistent with the State’s “smart growth” policies.

If any of the above applies, the program should present evidence that the appropriate agencies have reviewed the proposal.
  
- 2) If the project is not included in the current facilities master plan for the relevant agency or location, explain why it is not included and how implementing the project will affect other components of the plan.

**FACILITY PROGRAM  
PART II  
Detailed Project Description**

**General Requirements**

**Program Content Requirements - New Building Projects**

**Program Content Requirements - Renovation Projects**

**Program Content Requirements - Utility Projects**

**Program Content Requirements - Site Development Projects**

**Project Checklists - New Building Projects**

**Project Checklists - Renovation Projects**

**Project Checklists - Utility Projects**

**Project Checklists - Site Development**

**Project Checklists - Site Development Supplement**

**Appendix A – Office Space Standards**

**Appendix B – Building Efficiency Factors**

**Appendix C – Abbreviations used in this Document**

**Appendix D – Blank Forms  
Cost Estimate Worksheet  
Net Effect on Operating Budget  
Environmental Assessment Form  
Project Consistency Report**

## **PART II - PROJECT DETAILED DESCRIPTION**

### **A. GENERAL REQUIREMENTS**

1. This part identifies the information which should be presented in “Part II” of the program. Part II should describe the specific features of the project. This section should include concise statements concerning the environmental, spatial, and physical characteristics of the proposed undertaking. The Department of General Services has developed the following guidelines and instructions which should be followed by the program-writer when preparing Part II. The Department uses the information contained in Part II to determine the technical soundness and the cost feasibility of the proposed project.
2. The detail in Part II should be consistent with the detail in Part I. Any inconsistencies should be fully explained and justified in the letter that accompanies the submission of Part II to the Department of General Services and the Department of Budget and Management.
3. All capital improvements for the State of Maryland must conform to the most current editions of the building, health and safety codes and standards. Before submitting a program, the requesting agency should evaluate the practical and economic feasibility of the proposal in terms of incorporating these requirements into the requested improvement.

### **CODES AND REGULATIONS**

**SMART GROWTH AND NEIGHBORHOOD CONSERVATION – SMART GROWTH AREAS:** All facility programs shall comply with the principles and practices outlined in Smart Growth legislation identified as Acts of 1997, Chapter 759, Article – State Finance and Procurement, Section 5 – 7B – 01 through Section 5 – 7B – 10, subtitled Priority Funding Areas.

**MARYLAND BUILDING REHABILITATION CODE:** All facility programs shall comply with Title 05, Subtitle 16, Maryland Building Rehabilitation Code, under COMAR Regulations 05.16.01 through 05.16.08.

**GREEN BUILDING PROGRAM:** All facility programs shall comply with Executive Order 01.01.2001.02 – Sustaining Maryland’s Future with Clean Power, Green Buildings and Energy Efficiency, and all of the regulations and guidelines identified in the Maryland Green Building Council Report entitled Maryland’s High Performance Green Building Program.

**BUILDING CODE:** The Building Code of the State of Maryland is the latest adopted edition of the International Building Code (IBC), National Plumbing Code (NPC), International Mechanical Code (IMC), NFPA 101 Life Safety Code, International Energy Conservation Code (IECC), National Electrical Code and current ASHRAE standards, with all appendices, references and additions incorporated. Building plumbing systems also must comply with the requirements of COMAR Title 09, Department of Licensing and Regulation, Subtitle 20, Board of Commissioners of Practical Plumbing (the State Plumbing Code). Building heating systems utilizing boiler supplied hot water must comply with the requirements of COMAR Title 09, Subtitle 12 Division of Labor and Industry,

Chapter 01 Board of Boiler Rules (the State Boiler Code). Boiler & Pressure Vessel Safety Act & Regulations (Article 48, Section 167-180A, Annotated Code of MD.) Compliance with all

regulations and requirements of local and service district utility companies (electric, water, sewerage) where work is to be located is required. (See Note 1 and Note 2)

**ELEVATOR CODE:** Regulations Governing Elevators, Dumbwaiters, Escalators and Moving Walks ANSI A17.1 or the latest edition, and other requirements of the State Department of Licensing and Regulation, Division of Labor and Industry. (COMAR 09.12.81 through 09.12.83) (See Note 2)

**FIRE CODE:** The State Fire Prevention Code (COMAR 29.06.01 and 29.06.02) which references the NFPA National Fire Codes, latest edition, including Standards, Recommended Practices Manuals, etc. (See Note 3)

**FLOOD PLAIN:** Management Regulations & Permits, Department of Natural Resources (COMAR 26.17.04)

**FOOD PREPARATION:** Maryland State Department of Health Regulations for Eating and Drinking Establishments (COMAR 10.15). This applies whenever food preparation or serving areas are included in the project. These regulations are interpreted by the Maryland Department of Health & Mental Hygiene. (See Note 4)

**FOREST CONSERVATION:** Maryland Department of Natural Resources regulations for development of Forest Stand Delineation and Forest Conservation Plan in accordance with Forest Conservation Act (COMAR 08.19.04).

**HANDICAPPED ACCESSIBILITY:** Regulations Governing Construction of Facilities for the Handicapped by the State of Maryland (COMAR 05.02.02), the Fair Housing Amendments Act (1988) and the Americans with Disabilities Act (1990) or other Federal regulations, where applicable, will supersede COMAR requirements. (See Note 1)

**HAZARDOUS WASTE:** Maryland Department of the Environment for disposal of controlled hazardous substances. These regulations establish standards for generators of hazardous waste. (COMAR 26.13.03) (See Note 5)

**HIGHWAYS:** Regulations of the Maryland Department of Transportation, State Highway Administration, for any construction affecting a State highway route or right-of-way.

**HOSPITALS:** Maryland State Department of Health & Mental Hygiene regulations for hospitals, care and treatment facilities as appropriate (COMAR 10.07). These regulations will be obtained from the State Department of Health & Mental Hygiene.

**LEAD EXPOSURE:** Maryland Occupational Safety and Health Standards for occupational exposure to lead in construction work. These regulations apply to occupational exposure to lead in every employee in construction work. (COMAR 09.12.32)

**MECHANICAL & GAS, ELECTRICAL, AND ENERGY:** (See Building Code). (See Note 1)

PLUMBING CODE: (See Building Code). (See Note 2)

SEDIMENT AND EROSION CONTROL AND STORM WATER MANAGEMENT: Regulations of the Maryland Department of the Environment (MDE), Sediment & Storm Water Administration, 1800 Washington Boulevard, Baltimore, Maryland 21230 (MDE Article Sections 4-101 through 4-116 Annotated Code of MD. and COMAR 26.17.01 and 26.17.02): (See Note 5)

- a. Chesapeake Bay Critical Area Criteria (COMAR 27)
- b. Nontidal Wetlands (COMAR 26.23)
- c. Wetlands (COMAR 26.24)

SAFETY GLAZING: applies to fixed glass panels immediately adjacent to exit/entrance doors and specific hazardous locations. (COMAR 05.02.06)

SWIMMING POOLS: Where the project requires a design or a repeat design for a swimming pool, all requirements of COMAR 10.17.01 shall be followed.

WATER AND WASTEWATER TREATMENT PLANTS: Maryland Department of the Environment Regulations for Construction of all Water and Wastewater Treatment Plants and for all connections exceeding four hundred feet. (COMAR 26)

WATER APPROPRIATION: When the project requires the withdrawal of either ground water or surface water, the A/E shall be responsible for complying with all permitting requirements and shall comply with COMAR 26.17.06, "Water Appropriation or Use".

WATER DISTRIBUTION, WASTE COLLECTION, ON-SITE WATER SUPPLY, AND ON-SITE WASTEWATER, DISPOSAL: Health Department of Local Jurisdiction

WATER RESOURCES: Other water resources, rules and regulations of procedure as issued by the Department of the Environment (COMAR 26.08)

HISTORIC LANDS AND STRUCTURES: In accordance with Article 83B paragraphs 5-617 and 5-618 of the Annotated Code of Maryland, the Maryland Historical Trust must review capital projects affecting historic properties. These regulations can be obtained from the Maryland Department of Housing and Community Development. (See Note 1)

**ENFORCING AGENCIES (STATE REGULATORY AGENCIES)**

- Note 1) **DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT**  
Director, Maryland Codes Administration  
100 Community Place, Crownsville, MD 21032-2023 -- (410) 514-7220  
Maryland Accessibility Code, Building Energy Code and Safety Glazing Law  
Chief, Codes and Standards -- (410) 514-7220  
State of Maryland Model Performance Building Code  
Director, Maryland Codes Administration -- (410) 514-7220  
Maryland Historical Trust  
Director, Management, Planning & Educational Outreach Administration --  
(410) 514-7601

**Note 2) DEPARTMENT OF LABOR, LICENSING AND REGULATION**

Assistant Secretary  
Division of Labor and Industry  
1100 N. Eutaw St., Baltimore, MD 21201 -- (410) 767-2990  
Elevator Inspections  
Chief Elevator Inspector -- (410) 767-2350  
Elevator Inspection Supervisor -- (410) 767-2335  
Boiler Inspections  
Administrator -- (410) 767-2333  
Maryland State Plumbing Regulations  
Board of Commissioners of Practical Plumbing -- (410) 333-6322  
Occupational Safety & Health (MOSHA)  
Assistant Commissioner -- (410) 767-2215

**Note 3) DEPARTMENT OF MARYLAND STATE POLICE**

State Fire Marshal  
300 E. Joppa Road, Suite 1002, Towson, MD 21286-3134 -- (800) 525-3124

**Note 4) DEPARTMENT OF HEALTH AND MENTAL HYGIENE**

Office of Food Protection and Consumer Health Services -- (410) 767-8440

**Note 5) DEPARTMENT OF THE ENVIRONMENT**

Director, Water Management Administration -- (410) 537-3567  
Program Manager, Asbestos and Industrial Hygiene Program -- (410)537-3200

All designs shall comply with accepted engineering practices in compliance with the above codes unless specific approval is obtained for variance. When a specific project warrants variance the request is to be included in the Part II submission.

Although the above list contains major codes and standards which currently apply to construction for the State, it is not to be considered all inclusive.

Programs required to meet particular or unusual Local, State or Federal codes, regulations or standard must identify these special requirements by their appropriate title, identification number and date.

## **B. SPECIFIC PROGRAM CONTENT REQUIREMENTS**

### **1. New Building Projects**

New building projects may also require other construction, including renovations and utility work, and generally involve some site work. The program-writer should fully describe these supplemental work requirements in the following subsections, as appropriate.

- a. Summarize on one or two pages the project justification and scope as developed in Part I of the program. Identify the project's relevancy to any master development plan or strategies document. This information provides essential guidance on the project's background to the design consultant, who does not normally receive a copy of a separate Part I.
- b. Provide a site plan which shows the boundaries of the site, its topographic characteristics, and its relationship to nearby natural and man-made features.
- c. Describe the general characteristics of the proposed building and any special space requirements. For example, ".....the building will be used for general business purposes and will house approximately 260 – 275 employees. The building should contain a minimum of 20 office cubicles on each floor, as well as two 50-seat conference rooms and an auditorium for seating 300 persons."
- d. Identify important architectural and environmental considerations, including height limitations. For example, ".....the proposed building should be neo-Georgian in design and compatible in style with adjacent structures, and not more than three stories in height. The building design should minimize the uprooting of existing trees and shrubbery, while permitting a two-lane, semicircular driveway to the main entrance."
- e. Identify the net assignable space required and future expansion needs. Describe the rationale used to determine space needs. For clarification of assignable space, the following definitions should be utilized:

**Net Assignable Area** - This is the sum of all floor areas of a building allotted to an occupant, including types of space functionally useable by an occupant. Measurement is between inner faces of walls and partitions or imaginary dividing lines of open areas. Examples: offices, classrooms, mail rooms, conference rooms, libraries, file rooms, storage pertaining to an occupant or program (not custodial or general storage), seminar rooms, laboratories (including balance, supply and preparation rooms), lecture rooms, or auditoriums (including storage, dressing and preparation rooms), toilet and locker rooms (including shower rooms) only when they are private and directly supporting a room function (e.g., for a patient's room, examining

room, gymnasium, kitchen, actor's dressing areas, student bedrooms or houseparent's apartment), lounges (academic, dormitory, faculty, patient), kitchen

(including food storage areas, dining rooms), athletic courts, swimming pool, dance and wrestling rooms, rifle range, library reading and stack areas (including processing, study, audio, micro-film and typing rooms, but excluding “phantom” corridors). (“phantom” corridors meaning circulation space not specifically defined by fixed or movable walls.)

**Non-assignable (supporting) Area** - This is the total of all areas remaining after net assignable areas have been deducted from the gross area. Non-assignable areas include the following:

(1) **Custodial** - for building protection, care, maintenance and operation, e.g., custodial storage, janitor closet, maintenance storeroom, locker room, toilet and shower room, shop.

(2) **Circulation** - required for physical access to some subdivision of space, whether or not enclosed by partitions, e.g., corridors (access, public, service, including “phantom” corridors for large unpartitioned areas), elevator shaft, escalator, fire tower and stairs, stair hall, loading platform (except when required for a program function), lobby, public vestibule or entryway, tunnel, bridge, stair or elevator penthouse, elevator machine room, covered paved open areas.

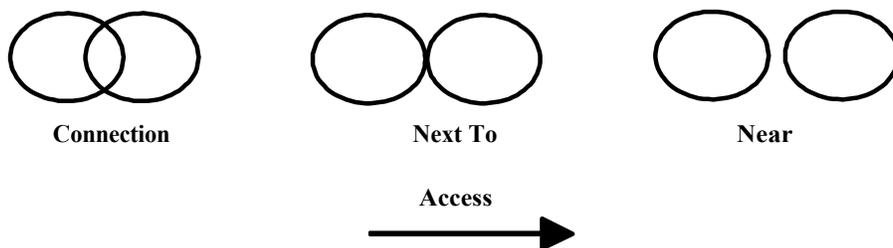
(3) **Mechanical** - to house mechanical equipment, utility services and non-private toilet facilities; e.g., duct and service shafts, meter and communication closets, boiler room, mechanical and electrical equipment rooms, telephone equipment rooms, fuel room, toilet rooms for public or general use.

(4) **Construction** - the areas actually occupied by the structural and other physical features of the building, e.g., exterior walls, fire walls, partitions.

- f. Describe separately each major function which will be performed within the building and the number of employees engaged in each function. For example,  
“...there should be sufficient space for a Staff Training Unit which will consist of five trainers, three clerical-paraprofessional employees and a supervisor. This unit will work in-house, in a training area consisting of five interviewing cubicles, a centrally located classroom (40-person seating capacity), a unit library, supervisor’s office and a central typing area. The unit’s major duties will be to conduct new employee orientation programs - six to 10 sessions each year - and directly provide or arrange for technical training seminars (25 to 30 courses each year). The total number of trainees will be approximately 750 annually.”
- g. Describe the proximity of different functions and building areas to each other (adjacent, near, opposite end of the building) and any special trafficking requirement. For example, “...the central reception area should be just inside the main entrance but well removed from the administrative offices.”

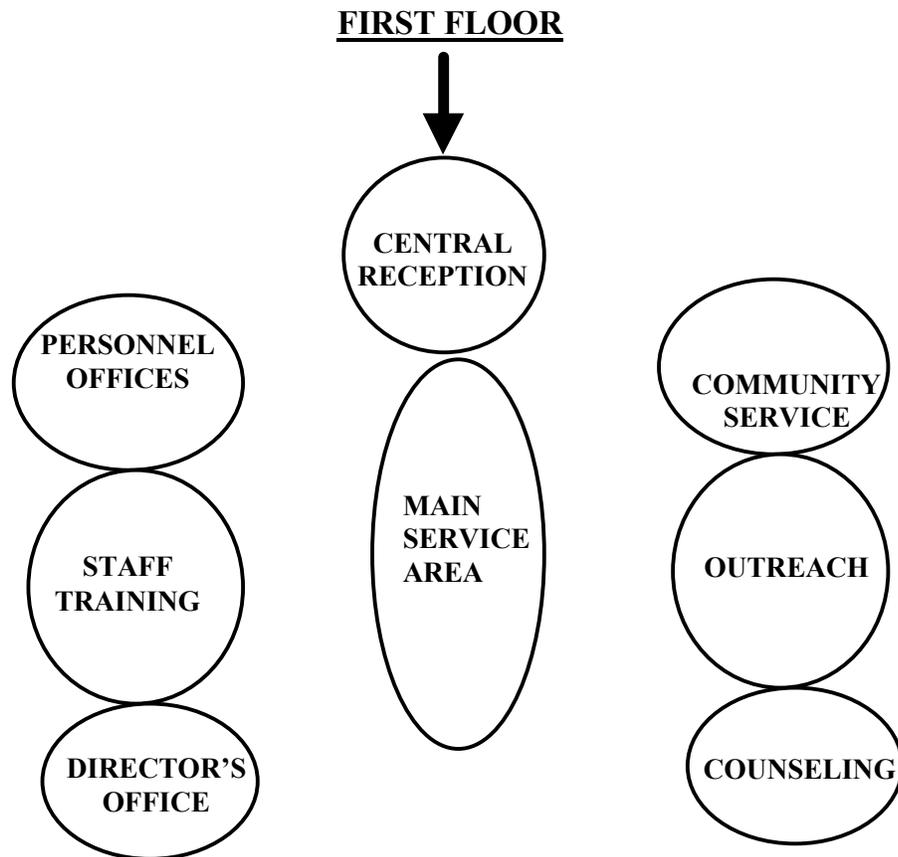
Use “bubble diagrams” to show functional and spatial layouts. “Bubble diagrams” visually communicate relationships.

Relationships:



Functional Layout Example:

A “functional layout” is a simple sketch which shows the recommended relationship of various duties or services to each other. Functional layouts should involve a major portion of a floor or even an entire floor itself. In the following example, the program writer depicts how the administrative functions (personnel, training, Director’s Office) are next to each other and next to the client-related services.



- i. Where applicable, describe the client-related services to be performed within the building. Estimate seating and circulation requirements. Indicate the number of staff engaged in each service.
- j. Use bubble diagrams to show the preferred location of each service area.

- k. Predict the amount of client traffic, if applicable. Use bubble diagrams to show recommended direction of client, staff and work flow.
- l. Identify any special convenience requirements, such as lounges, vending areas, food preparation and service areas, recreation rooms, and/or reception and visiting areas.
- m. For each separate room or space, provide a specifications sheet which lists the function of the space, the net assignable square feet, room capacity, special requirements for space layout and utilities that are unique to that space, and a list of the major items of furniture and equipment that must be accommodated in the space and that may affect the space dimensions. If several spaces are to be identical in size, capacity, function, and layout, they may be grouped on one space sheet.
- n. If an open office layout is envisioned, describe the reason for this requirement and its preferred location.
- o. Identify storage area needs, including any needs for storage of hazardous materials.
- p. Describe special accommodations for handicapped persons.
- q. Identify the need for stairwells, personal and freight elevators, escalators, vacuum tube network or special movement systems. For example, "...the building should have an escalator and an elevator near the main entrance for clients who have business on second floor. Clients going above the second floor should only use the elevators. Stairwells above the second floor will be for staff use only.
- r. Describe any factor which should be considered in the design of the building's architectural, mechanical, electrical or utility systems. For example. "...the HVAC system shall have the flexibility to allow for partition changes as required."
- s. Identify the level of comfort and the degree of environmental control desired within the building. Describe special heating, air conditioning and ventilation needs.
- t. Identify availability of central heating and cooling facility, including whether or not any added loads can be readily accommodated.
- u. If known, describe the building's electrical requirements, including:
  - (1) voltage criteria for special equipment
  - (2) overhead or underground distribution
  - (3) emergency power requirements
  - (4) standard and special electrical outlets
  - (5) preferred lighting type and switching method
  - (6) special equipment which may need lightning protection

- v. Identify the nature and proposed location of major data processing equipment. Describe any unique construction features needed to accommodate this equipment. For example, "... the Center will install a modified Beatrix CV 134 processor with auxiliary converters and disc feeds. The power cables for this equipment should be readily accessible for both normal and emergency maintenance procedures."
- w. Describe the detailed characteristics of the information technology system to be installed, including the type (s) of distribution systems involved and the types of equipment to be utilized by the user (even though the latter is an operating expense). Describe requirements for voice, video, data and wireless such as intercom, TV monitoring area, telecopier or telephone switchboard space. Describe space, special wiring, and environmental requirements for data services. Include details of any special handling or considerations for maintenance of communication during move. Typically, programs should specify that all appropriate spaces (i.e. offices, conference rooms, classrooms) be wired for voice and data even if equipment is not to be initially installed in all spaces.
- x. Identify special security requirements. For example, "...the building should contain a controlled-accessed area for storing confidential records, computer tapes, and travel expense money. This area should be within or adjacent to the Center's fiscal offices."
- y. Describe type and purpose of locking system required. For example, ... " any door which opens onto Corridor C, D, and G (see layout #3) should be fitted with a lock." All supervisor office doors should also be secured. Special locks should be fitted onto the main entrances to the Director's Office, the Personnel Office, the Accounting Office and the Data Processing Center."
- z. Describe service facility requirements. Estimate the frequency and kinds of deliveries, types of vehicles anticipated, method of trash disposal and special maintenance requirements.
- aa. Describe heat and sound insulation requirements.
- bb. Identify the level of performance of finishes (special or maintenance economies). For example, "...the floor of the dining area should be durable, easily cleaned, and resistant to organic acids and corrosive foodstuffs."
- cc. List any special material finish that is desired on floors, walls and ceilings.
- dd. Indicate whether graphics and signage systems areas are required and guidelines for their design.
- ee. Identify any special physical plant requirements.
- ff. Describe special plumbing needs other than standard toilet facilities.

- gg. Identify unique water supply, treatment and utility needs.
- hh. Describe fire protection needs.
- ii. Describe the preferred or likely method of sewage disposal.
- jj. Identify the probable location at which each building utility will be connected to a central distribution system, and estimate the distance from that location to the building site.
- kk. Indicate site improvements required for the immediate vicinity of the building, such as parking (number, type and size of spaces required), exterior lighting, sidewalks, landscaping, and vehicle access to the service entrance.
- ll. Indicate the proposed scheduling of the project relative to other projects in the same general location. Identify any phasing requirements pertinent to the design or construction. If phasing is required, the program-writer shall state that the phasing plan must be approved by the procuring agency before proceeding into contract documents.

2. **Renovation Projects**

a. Prerequisites

- (1) Renovation projects may also require changes to existing utility systems and site work. The program-writer shall fully describe these supplemental work requirements as detailed in following sections. Existing problem conditions should be identified with reference to paving or structural failures, drainage problems, water quality or corrosion problems.
- (2) The State may (if available) provide all existing construction documents relating to the project. The program-writer shall stipulate that the consultant A/E will be responsible for preparing all documents which are necessary for a complete and operable renovation.
- (3) The program-writer shall ascertain the availability of “as built” drawings and specifications pertaining to the renovation, including:
  - original construction documents
  - documents covering earlier renovation and additions
  - documents relating to changes in site utilities
  - documents relating to the upgrading of mechanical and electrical systems
- (4) The program-writer shall stipulate that the accuracy of any furnished documents is not guaranteed by the State and that the consulting A/E shall be responsible for verifying field dimensions and conditions.

b. Maintenance Survey Requirements

It shall be the Requesting Agency’s responsibility to have a professional on site study/inspection performed to determine the condition and work that needs to be addressed in the scope of work for any renovation project. This analysis and information will be used by the program writer to define the required work in lieu of having changes to the program surface during the design or construction phase of the project. The following are minimal requirements that need to be covered and so reported in the program.

- (1) **Roof and Related Elements**
  - (a) Type of structural system
  - (b) Decking system
  - (c) Type of insulation and condition
  - (d) Type of roofing material, age and condition

- (e) Slope of roof
- (f) Are drains, gutters and downspouts present, clear and operable and adequately spaced?
- (g) Provide record of maintenance performed
- (h) Will the parapet walls, flashing etc. need work?
- (i) Any roof equipment?
- (j) Describe access to the roof, edge detail and construction

(2) **Asbestos and other Hazardous Materials**

- (a) Has asbestos survey been completed?
- (b) Are any other hazardous materials such as lead present?
- (c) Provide date, name of survey company, and identify presence, location, type, amount and clarify if proposed work will occur in area where hazardous materials have been identified. Will the materials be removed or encapsulated?
- (d) If the building has one or more hazardous materials storage areas, is each area code compliant?

(3) **PCB Transformer**

- (a) Is a transformer filled with PCB located in the structure to be renovated or are there any on the site supporting this structure?
- (b) Provide inspection report describing size, type and condition.
- (c) Are there any signs of leakage? If it leaked, has problem been corrected and contamination properly disposed of, or is it still present?
- (d) Have plans been initiated for its removal by using agency or separate contract?

(4) **Electrical**

- (a) Is present service adequate or does it need load reading?
- (b) Is spare capacity available for renovation or addition if appropriate?
- (c) Describe present problems.
- (d) Identify type of existing service, include emergency electrical systems. Will work be required on these services?
- (e) Is service and space location in compliance with current code requirements?
- (f) Will the life safety features (alarms, exit lights, fire protection) need upgrading or replacement?
- (g) Describe the existing lighting systems.
- (h) Describe the existing power distribution system.

(5) **Heating, Ventilation, Air-Conditioning (HVAC)**

- (a) Describe in full detail, the type of existing system.

- (b) Provide condition, age of equipment, remaining life expectancy of boilers, chillers, compressors, pumps etc.
  - (c) Will maintenance upgrade be adequate or will replacement be a requirement?
  - (d) What refrigerant is used? Has it been converted?
- (6) **Plumbing, Water, Sewer and Stormwater Utilities**
- (a) Describe in full detail, the type of existing systems.
  - (b) Provide copy of maintenance reports.
  - (c) Describe types and conditions of fixtures.
  - (d) List sizes of lines, capacities and expansion needs.
  - (e) List any water appropriation or treatment requirements.
- (7) **Fire Protection System**
- (a) Describe the type of existing system.
  - (b) Identify if upgrade to existing system is required to meet code.
- (8) **Elevators**
- (a) Describe in full detail, the type of existing elevators, size and compliance to existing code; or will replacement be required?
- (9) **Termites**
- (a) Provide a copy of current Termite Inspection Report
- (10) **Site Conditions**
- (a) Walks, steps and paving – describe conditions and work required to meet handicapped code and acceptable use requirements.
  - (b) Exterior lighting – describe condition and acceptability in terms of location, spacing and degree of illumination.
  - (c) Is signage adequate and in good repair?
- (11) **Other Structural Elements**
- (a) Describe condition of windows, need for replacement or work required, such as painting, caulking and glass replacement.
  - (b) Describe composition and condition of flooring and ceilings.
  - (c) Are entrance doors in compliance with code, including glazing type, caulking, etc?

- (d) Are present partitions re-useable, and in compliance with current code requirements?
- (e) Describe required toilet room modifications for number of fixtures, handicapped code compliance of entrances as well as fixture compliance.
- (f) Will any existing masonry walls need re-pointing, replacement or waterproofing?
- (g) Describe exterior wall construction and insulation values.

c. General Guidelines

- (1) The program-writer shall address each of the 38 instructions of the previous section concerning a “New Building Project.” These items may be appropriate to the renovation in question.
- (2) The following instructions are supplemental to the instructions in the “New Building Project” section and are specifically directed at renovation improvements:
  - (a) Specify the history of the structure(s), including the date of original construction. Identify the structure’s original purpose.
  - (b) Identify special features of original and subsequent design, including those of historical significance.
  - (c) Identify the nature and dates of previous additions and renovations. Explain any changes in the use of the structure.
  - (d) Specify the scope and limits of the work requested. Provide a print or sketch designating the work area.
  - (e) If applicable, identify the age and type of the present utility, mechanical, electrical, telephone and data systems. Describe any previous upgrading of these systems.
  - (f) Describe the history and nature of the present structural system.
  - (g) The program shall stipulate and address any phasing requirements associated with the design and/or construction phases for the project, as well as any requirements for temporary communication service. The phasing will require both DBM and DGS approval. For a renovation project, the program should address whether or not the building will remain occupied during the course of the work and what impact this may have on phasing of work, protection of building occupants, required environmental conditions during the course of

work (noise protection, dust protection, planning of power outages, etc.) As well as any other special needs.

- (h) Describe significant site features: driveways, parking, recreational areas, site lighting, special planting, etc. Identify which features may be removed.
- (i) Identify the disposition of equipment. Clarify which equipment should remain and which equipment should be removed. Stipulate who (contractor or State) will be responsible for moving, storing, and disposing of equipment/fixtures.
- (j) Identify site excavation, demolition, removal and restoration considerations.
- (k) Identify the type, size, and number of parking spaces required. (Handicapped, compact cars, trucks etc.)
- (l) Identify methods of acceptable vertical access and transportation.
- (m) Identify required repairs or replacements to roofs, flashing, lighting protection, chimneys, gutters and downspouts, and pointing requirements.
- (n) Describe need for underpinning existing foundations, waterproofing basement floors and walls, reinforcing structural walls, floor leveling, or replacing structural elements to provide fire resistant features.
- (o) Describe proposed changes or additions to the existing utility, mechanical and electrical systems. State any special considerations which are appropriate to the design or re-design of these systems include any special system requirement, such as security system sign lighting or flag pole lighting.
- (p) Identify any special security considerations which are required during the course of the work.
- (q) Identify any other related projects that may be under design or construction during the same period as this project.
- (r) If applicable, identify the presence and location of any potential lead or other controlled substance hazards. This discussion should include any knowledge of previously performed lead abatement attempts. The State of Maryland, Department of Environment, Waste Disposal, Waste Management Administration, or an approved testing agency shall perform the necessary and acceptable tests to identify the

presence of lead or other hazardous, toxic, or controlled substances. The program shall state where the test results are available for review. If no lead has been found by acceptable testing methods, the program shall include such a statement.

3. **Utility Projects**

a. Prerequisites

- (1) The program-writer shall clarify the responsibilities of the consulting architect/engineer in the design or development of the proposed project.
- (2) Include a list of all design standards which are pertinent to the project. The program-writer shall provide a copy of any unique standards, specifications, codes, or guidelines which are to be incorporated into the work.

b. General Guidelines

- (1) The following instructions are applicable to all utility projects and should be utilized by the program-writer when preparing Part II.
  - (a) Describe the type or nature of the proposed utility improvement. For example, "...the Department proposes to repair or replace the present underground steam-lines which serve the male dormitories at Boy's Village."
  - (b) Identify the exact location of the proposed work. (General Vicinity Map and actual site identified by existing physical elements). Provide prints, technical drawings, or a sketch of the area in question.
  - (c) Using blueprints, drawings or a sketch, delineate the estimated scope and limits of the project. Identify and describe the approximate proposed linear feet of new/renovated utility lines.
  - (d) Identify the present problems of the faulty system. For example, "...during below-freezing weather, the heat in the dormitories is inadequate. There are also steam leaks visible in each of the six drain traps. These conditions first appeared in October of last year."
  - (e) Describe the performance history of the system in question.
  - (f) Identify the findings of previous surveys or studies which have been made of the system. Provide copies of these documents, if available.
  - (g) If known, describe the origins of the system. For example, "...the Area F Dormitories were constructed in 1955. The underground steam system which serves this portion of the facility was added at that time. The system is an extension of the central heating system which was installed at the time of the facility's inception in 1936."

- (h) Identify previous renovations or additions to the system.
- (i) Identify whether the utility system is State-owned, operated and maintained or if other sources, such as a private utility company, county or city agency, or federal authorities are involved.
- (j) Describe the system's relationship to other utilities and any impairment of service which may have occurred as a result of the principal problem(s).
- (k) Identify present and future service capacity of the system.
- (l) Identify the need for energy conservation benefits which may be realized from the project.
- (m) Describe any excavation, backfill, or restoration limitations/requirements of the project.
- (n) Identify any sedimentation control, wetlands, forestry, critical areas, or historical features which are pertinent to the project.
- (o) If outages are anticipated, describe plans for minimizing work and service disruption. Also list permissible time and dates of service shut-downs.
- (p) Describe plans for minimizing disruptions to vehicular or pedestrian traffic if roadways are to be disturbed.
- (q) Identify any material or workmanship guarantees applicable to the project.
- (r) Include any correspondence, reports, or recommendations by regulatory agencies which pertain to the project.
- (s) Verify need for archeological survey/study.

4. **Site Development Projects**

a. Prerequisites

- (1) In addition to Part I of the Facility Program and Part II the program submission shall also include a completed DGS Form “Checklist: Land Use and Acquisition Criteria” and the supplemental “Site Development Checklist” which are included in this manual.
- (2) The program writer must specify the present ownership of the subject property and the date when the site will be available for the commencement of the work.
- (3) For major site development projects, the program shall contain the following requirement:

“The consultant will be required to provide a manual describing the care and maintenance to be given to planting and other appropriate elements for a two-year period following the completion of construction. The manual shall include a schedule and recommendations for mowing, aerating, fertilizing, pruning, and other care as required, as well as the number of man-hours needed to fulfill the maintenance schedule.”

b. General Guidelines

- (1) The purpose of these instructions is to supplement the information provided by the form “Checklist: Land Use and Acquisition Criteria”. These guidelines pertain to all types of site development projects and should be addressed when preparing Part II of the program submission. Additional guidelines on specific types of site projects are found in the following subsection.
  - (a) Describe the nature and location of the project being requested. For example, “... the Department proposes to convert undeveloped land at the Rosewood State Hospital to an athletic field.” For example, “...the Department of Natural Resources wishes to construct a comfort station and a visitors’ parking lot at the State National Reserve in Ellicott City.”
  - (b) Indicate the scheduling of the project. Explain any time constraints which may impact on work progress, such as the need to accommodate other construction plans, funding priorities, seasonal site use, or obtaining right of way approvals.
  - (c) Estimate the amount of land required to accommodate the proposed project. Describe the rationale used in making estimate(s).

- (d) Describe any special topographical characteristics of the project.
- (e) Explain any special conditions relative to the development. These may include the need to address special security or safety provisions, unique access features, historically significant structures, etc.
- (f) Identify the nature and status of any design requirements of local, State, or federal regulatory agencies. For example, "...the Department is awaiting approval from the U.S. Army Corps of Engineers on its plans to reconstruct the Avalon Dam across the Patapsco River. This approval should be obtained within 60 days of the submission of this program."
- (g) Identify, as appropriate, the number of occupants, personnel, visitors, cars, etc. which will utilize the proposed development.
- (h) Describe the preferred proximity of the development to other facilities or structures. For example, "...the comfort station should be readily visible from the main entrance road of the park and located close to the Visitors' Information Center."
- (i) Describe the present means of access to the site. Describe the completed project's access and egress requirements.
- (j) Identify special parking requirements.
- (k) Identify any structure relocation, demolition, or clearing work required. For example, "... the trees and undergrowth will have to be cleared from the area prior to construction. There is also a 24 foot by 30 foot concrete floor, open-sided pavilion which will have to be removed."
- (l) Describe the environmental/architectural considerations relative to the project. For example, "...the retaining wall should be constructed of materials consistent with the character of the existing area. The facing should be made of fieldstone or antique brick."
- (m) Describe any special pavement (pedestrian or vehicular) requirements. For example, "...the sidewalks should be made of brick and be in the style of those used in adjoining streets."
- (n) Identify irrigation needs.
- (o) Identify electrical and lighting needs.

- (p) Describe any unique planting and vegetation features of the proposed project.

- (q) Identify furniture and seating preference.
- (r) Identify need for communication facilities such as public telephones, press facilities for voice and television. Identify future state requirements for telecommunications.

c. Special Guidelines

(1) Athletic Fields/Recreation Facility

Identify:

- (a) Activities or sporting events which will be conducted.
- (b) Number of basketball, tennis, handball courts, etc. required.
- (c) Preferred seating capacity and if the seats should be portable or permanent.
- (d) Lighting requirements, including the method of operation.
- (e) Fencing/screening needs.
- (f) Special structures required; i.e., concession stands, dugouts, press boxes, dressing rooms, public restrooms.
- (g) Special surface requirements. Such features as seeded grass, sod, artificial turf, track and court materials should be specified.
- (h) Drinking fountain needs.
- (i) Special storage space needs.
- (j) Dimensions of sporting areas requested. Specify whether running track is to be 400 meters or 440 yards. Specify whether Little League, softball, or regulation-sized baseball diamonds are required.
- (k) Special track and field equipment required. This might include goal posts, hurdles, high jump and vault standards, special landing pits, etc.
- (l) Identify NCAA sanctioned events for special requirements.

(2) Roads/Parking Lots

- (a) Proposed use (service road, access road, security patrol road).
- (b) Type of surface desired (gravel, bituminous paved, stabilized turf).
- (c) Special planting needs.
- (d) Unique lighting needs.
- (e) Number of parking spaces (regular and handicapped).
- (f) Motorcycle and bike racks.
- (g) Security booth/controlled access.
- (h) Fencing needs.

- (3) Pedestrian Plazas/Courtyards
  - (a) Describe and included a sketch and special layout requirements, including preferred vistas and routes.
  - (b) Indicate preferred pavement material.
  - (c) Identify furniture needs; e.g., benches, bollards, drinking fountains, kiosks, graphics, bike racks, trash/ash receptacles, fire hydrants.
  - (d) Special lighting requirements.
  - (e) Specify whether planting should be used for screens, windbreaks, barriers to direct movement, etc.

### **PROGRAM CHECKLISTS**

This part of the manual contains the checklists which should be submitted as separate, “pull-off” attachments to the program. The purpose of a checklist is two-fold: (1) to allow the program-writer to organize/verify the information presented in the narrative description of the project and (2) to allow DGS to quickly ascertain the scope and completeness of the program submission. Depending on the type of projects being requested (new building, renovation, utility, site development), the program-writer should complete the appropriate checklist(s) and submit it with Part II.

**1. NEW BUILDING PROJECT CHECKLIST**

The following checklist shall be completed for projects involving construction of a new structure and includes an addition, extension or replacement of an existing structure. Because a new building project may also require renovation and utility extension work and generally involves site improvements, the program-writer should also complete either or both of these checklists if they are appropriate to the project under consideration.

		<b><u>Yes NO N/A</u></b>		
a.	Architectural style preferences (If yes, explain on separate sheet.)			
b.	Work schedules or phases			
c.	Coordination with master development plan			
d.	Funding constraints (If yes, what are they?)			
e.	Site selected			
f.	Preferred vistas (If yes, describe.)			
g.	Excavation, clearing, razing constraints (If yes, explain.)			
h.	Other construction in area			
i.	Utilities on site			
j.	Special design features (Describe on separate sheet.)			
k.	Space needs: present and future			
	Entire facility			
	Functional areas			
	Rooms			
l.	Space needs: net sq. footage			
	Entire facility			
	Functional areas			
	Rooms			
m.	Special dimension and space requirements			
n.	Nature of work and services described			
o.	Functional and spatial layouts			
p.	Workload projections			
q.	Special working hours or shifts			
r.	Work flow described			
s.	Clerical-professional ratio			
t.	Client - staff ratio			
u.	Client - staff traffic preferences			
v.	Office layout preferences			
w.	Special room/area features			
x.	Climate control considerations			

**NEW BUILDING PROJECT CHECKLIST** (continued)

		<b><u>Yes</u></b>	<b><u>NO</u></b>	<b><u>N/A</u></b>
y.	Furniture and equipment needs			
z.	Special lighting needs			
aa.	Information technology needs (voice, video, data, & wireless)			
bb.	Special access/egress requirements			
cc.	Preferred floor, wall or ceiling material			
dd.	Security considerations			
	Electrically controlled doors			
	TV-monitoring system			
	Secured utilities			
	Secured windows			
	Motion Detectors			
	Door and window alarm			
	Alarm links to offsite locations			
ee.	Considerations to be given to:			
	Equipment storage and maintenance			
	Heat and sound insulation			
	Linen and janitor closets			
	Utility area			
	Physical plant needs			
	Trash removal			
	Delivery dock			
	Escalator, elevator, stairways			
	Fire protection and sprinklers			
	Food preparation and delivery			
	Dining facilities			
	Client and staff transportation systems			
	Signage and entranceway needs			
	Accommodations for youth, aged, and handicapped			
	Restroom and shower facilities			
	Special water supply or utility needs			
	Recreation/play areas			

**NOTE:** For each item checked yes, ensure an explanatory narrative is included in the body of the program.

## **2. RENOVATION PROJECT CHECKLIST**

Renovation projects are diversified in nature and in scope. For this reason, the program-writer should complete and submit the new building project, utility project, or site development checklists(s) as appropriate to the project under consideration.

### 3. UTILITY PROJECT CHECKLIST

The following checklist shall be completed for programs which exclusively involve a utility improvement or as a supplement to a new building or renovation project if appropriate.

		<u>Yes</u>	<u>NO</u>	<u>N/A</u>
a.	Zoning consideration			
b.	Energy management and conservation consideration			
c.	Temperature control system described (preferably DDC)			
d.	Condition and capacity of underground items lines			
e.	Central or individual steam service			
f.	Condition and capacity of existing sewage system			
g.	Fuel oil storage (tank capacity in gallons)			
h.	Service road for fuel deliveries			
i.	Facility for bulk fuel deliveries			
j.	Present water lines adequate			
k.	Special size and location of water lines			
l.	Special water supply and treatment			
m.	140 F water to dishwashers, janitor slop sinks			
n.	110? F water to patient rooms, rest rooms, other areas			
o.	Visual/audible alarm and automatic shut off for hot water			
p.	Sinks provided in special areas			
q.	System for handling trash and garbage explained			
r.	Incinerator requirements			
s.	Life-cycle costs analysis required for HVAC system			
t.	Compliance with ASHRAE 90.1-1989			
u.	HVAC designed to allow repairs to one component without affecting entire system (distribution zone isolation valves)			
v.	Need to convert boilers to gas or dual fuel (ASHRAE 62-1989)			
w.	Special ventilation requirements			
x.	Attic ventilation required			
y.	EDP area considerations			
z.	Storm window installation			
aa.	Thermopane and tinted glass installation			
bb.	Security grilles for duct work			
cc.	Kitchen and lab hoods supplied with independent sources of makeup air			
dd.	Fuseable links in dampers resettable and accessible			
ee.	Voltage capacity identified			
ff.	Amperage services identified			

**UTILITY PROJECT CHECKLIST** (continued)

		<u>Yes</u>	<u>NO</u>	<u>N/A</u>
gg.	Adequate transformer capacity			
hh.	Capacity of emergency generators identified			
ii.	Overhead or underground distribution system			
jj.	Looped (reverse return) or non-looped distribution system			
kk.	Electrical code service performance			
ll.	Service power factor specified			
mm.	Lighting system described (high efficiency lamps & ballasts)			
nn.	Intercom system required			
oo.	Smoke detectors installed			
pp.	Fire alarm system adequate:			
	Tied into local Fire Department			
	Coded alarm system			
	Testable			
	Trouble alarm			
qq.	Describe type and condition of communication distribution system (Fiber optic, data, voice)			

**NOTE:** For each item checked yes, ensure an explanatory narrative is included in the body of the program.

#### **4. SITE DEVELOPMENT CHECKLIST**

**(a) Land Use and Acquisition Criteria Checklist**

Project: \_\_\_\_\_ DGS Project No: \_\_\_\_\_

Requesting Agency: \_\_\_\_\_ Date: \_\_\_\_\_

This check list shall be used by the Department of General Services (DGS) to determine the feasibility and suitability of land for construction sites for proposed State of Maryland facilities.

This form shall be completed for programs which exclusively involve a site improvement or as a supplement to projects involving the construction of a new building. This form will generally not be required for programs involving the alteration, conversion, renovation or restoration of an existing structure or for utility projects.

This list shall be completed in its entirety by the Requesting Agency and submitted with the recommendation of the Requesting Agency for acceptance or rejection of the site, to the Secretary of DGS prior to consideration of the site for acquisition.

Should technical assistance be required to complete this checklist, the Requesting Agency should contact DGS, for staff assistance.

**I. SITE LOCATION:**

1. County \_\_\_\_\_, City/Town \_\_\_\_\_, Street  
Address \_\_\_\_\_

2. Boundaries (streets, streams, etc.)  
\_\_\_\_\_

3. SHA County Map (Scale: 1" = miles): Attach copy showing property and surrounding area to a five mile radius. Indicate property in red.

**II. SITE DESCRIPTION:**

1. Size of property: \_\_\_\_\_ Acres

2. Existing Easements and Rights-of-Way (check and indicate on property plat):

gas transmission	_____	mineral rights	_____
electrical	_____	storm drainage	_____
sanitary sewers	_____	other	
water	_____	(specify)	
telecom cable	_____		

**SITE DEVELOPMENT CHECKLIST** (continued)

3. Existing Improvements (check):
- A. Building(s)\_\_\_\_; Paved Roads\_\_\_\_; Paved Parking Lots\_\_\_\_; Wells\_\_\_\_;  
Walks\_\_\_\_; Retaining Walls\_\_\_\_; Fences\_\_\_\_; Septic System(s)\_\_\_\_;  
Existing Building: Owner Occupied\_\_\_\_,  
Tenant Occupied\_\_\_\_, Length of Lease\_\_\_\_,  
Other\_\_\_\_.  
(Specify)
- B. Building: No. Of Stories\_\_\_\_; Gross Area\_\_\_\_; sq. ft; Length\_\_\_\_ ft;  
Width\_\_\_\_ ft.
- C. Paved Areas: Length\_\_\_\_ ft; Width\_\_\_\_ ft; Area\_\_\_\_ sq. ft.
4. Present Zoning and Land Use:
- A. Existing Zoning (specify): \_\_\_\_\_
- B. Existing land Use (check): Farmland\_\_\_\_; Commercial\_\_\_\_;  
Industrial\_\_\_\_; Residential\_\_\_\_; Other\_\_\_\_\_.
5. Surface Characteristics:
- |                                  |       |
|----------------------------------|-------|
| Wetlands                         | _____ |
| Wooded                           | _____ |
| Lakes, Streams or Ponds          | _____ |
| Swamps                           | _____ |
| Agricultural                     | _____ |
| Improved Land<br>with Structures | _____ |
| Other                            | _____ |
6. Surface Soil Characteristics: Residual\_\_\_\_%; Alluvial\_\_\_\_%; Artificial Fill\_\_\_\_%;  
Marine Clays\_\_\_\_% Hydric\_\_\_\_%;
7. Underlying Geologic Strata (check): Alluvial Deposit\_\_\_\_%; Artificial Fill\_\_\_\_%;  
Crystalline Rocks\_\_\_\_%; Sedimentary Rocks\_\_\_\_%; Limestone\_\_\_\_%;
8. Depth and Type of Rock Below Surface: Depth\_\_\_\_ ft; Type\_\_\_\_\_  
Depth and Type of Water Table Surface: Depth\_\_\_\_ ft; Type\_\_\_\_\_
9. Topography:
- A. Variance in Grades: precipitous\_\_\_\_% steep\_\_\_\_% rolling\_\_\_\_%
- B. Supplemental Information (check):

**SITE DEVELOPMENT CHECKLIST** (continued)

- |          |  |               |
|----------|--|---------------|
| Attached |  | Not Available |
| _____    | Photogrammetry (obtain from Dept/Agriculture; DGS)   | _____         |
| _____    | USDA Photos (obtain from Dept/Agriculture)   | _____         |
| _____    | USCGS (National Geodetic Survey) Maps  | _____         |
| _____    | Field Survey - Topographical   | _____         |
| _____    | Flood Plain/Wetlands (FEMA)  | _____         |
| 10.      | Existing Drainage Characteristics (check): Inlets/storm drains _____; nearby streams ____; on-site streams _____; lakes ____; roadway ditches ____; adjacent properties drain to subject site _____; other (specify) _____.                                    |               |
| 11.      | Wildlife Habitat (check): Flyway _____; Wetland ____; Woodland _____.  |               |
| 12.      | Accessibility to Site (check): Direct access from improved road _____; direct access from unimproved road _____; direct access from improved right-of-way _____; direct access from unimproved right-of-way _____; single access _____' multiple access _____. |               |

**III. PROPERTY PLAT AND DEED**

1. Plat (copy attached) \_\_\_\_\_ (check)
2. Deed (copy attached) \_\_\_\_\_ (check)
3. Liber & Folio (copy attached) if plat & deed are not available (check)
4. Ownership (check)
 

Federal	_____	(Agency: _____)
State	_____	(Agency: _____)
County	_____	(Agency: _____)
City/Town	_____	(Agency: _____)
Private	_____	(Single ____; Joint ____; Estate ____):
Corporate	_____	
Other	_____	(Specify: _____)

**IV. UTILITIES & SERVICES:**

1. Indicate on property plat and location map the availability of the following:
 

Type	Capacity/Size	Distance from Site
		(If on-site, designate "o.s.")
Electric	_____	_____
Storm System	_____	_____
Sanitary Sewer	_____	_____
Water (public)	_____	_____

Gas \_\_\_\_\_  
Telephone \_\_\_\_\_

**SITE DEVELOPMENT CHECKLIST** (continued)

2. Nearest Fire Department: Location \_\_\_\_\_  
Distance to Site: \_\_\_\_\_ Miles
3. Public Parking available (check) Yes \_\_\_\_\_; No \_\_\_\_\_;  
Distance from Site \_\_\_\_\_ Ft; No. spaces available \_\_\_\_\_  
Describe \_\_\_\_\_
4. Well Water (check): Available \_\_\_\_\_; Not Available \_\_\_\_\_; Potable \_\_\_\_\_.
5. Percolation Tests: Indicate areas on property plat where they have been performed and circumstances whereby testing was accomplished.  
Furnish available supporting data or information:  
Test performed \_\_\_\_\_. Satisfactory \_\_\_\_\_; Unsatisfactory \_\_\_\_\_.
6. Drainage Outfall: Indicate on property plat and location to the nearest location for the disposal of storm water from the subject site.

V. **PROPOSED LAND USE COMPATIBILITY:**

1. Proposed Zoning (specify) \_\_\_\_\_.
2. Proposed parking requirements (number): Autos \_\_\_\_\_; Other \_\_\_\_\_.
3. Floodplain Management (check):  
5-year Floodplain \_\_\_\_\_  
10-year Floodplain \_\_\_\_\_  
25-year Floodplain \_\_\_\_\_  
50-year Floodplain \_\_\_\_\_  
100-year Floodplain \_\_\_\_\_
4. Project Coordination (check):

	<u>Yes</u>	<u>No</u>	<u>Not Applicable</u>
Local Government Acceptance	_____	_____	_____
County Government Acceptance	_____	_____	_____
Community Acceptance	_____	_____	_____
Compatible with State Highway Administration Plans	_____	_____	_____
Approved Dept. Budget and Management	_____	_____	_____
Other _____			
5. Aircraft-Landing Flight Path (check):  
On site \_\_\_\_\_; adjacent to site \_\_\_\_\_ ( \_\_\_\_\_ ); N/A \_\_\_\_\_



**SITE DEVELOPMENT CHECKLIST** (continued)

6. Indicate on property plat:
- A. Present ownership and development of each surrounding property.
  - B. Proposed development of surrounding undeveloped property.
7. Historical, Archaeological or Unusual Features (check):
- |                    |       |  |       |
|--------------------|-------|--|-------|
| landmarks          | _____ | unusual geologic formations            | _____ |
| historic site      | _____ | unusual large trees that might be      | _____ |
| historic buildings | _____ | recorded in State or National registry | _____ |

\_\_\_\_\_  
(Prepared by)

\_\_\_\_\_  
(Phone)

\_\_\_\_\_  
(Title)

Attachments (check):

- 1. \_\_\_\_\_ SHA County Map (with information indicated thereon)
- 2. \_\_\_\_\_ Property Plat (with information indicated thereon)
- 3. \_\_\_\_\_ Property Deed
- 4. \_\_\_\_\_ Topographical
- 5. \_\_\_\_\_ Other \_\_\_\_\_

**(b) Site Development Checklist Supplement**

This form is a supplement to the “Checklist: Land Use and Acquisition Criteria” form and shall likewise be submitted for programs which exclusively involve a site improvement or as an attachment to projects which pertain to the construction of a new building.

	<u>Yes</u>	<u>NO</u>	<u>N/A</u>
1. Site selected			
2. State-titled property			
3. Map, plat or sketch provided			
4. Land/space needs estimated			
5. Estimates on number of occupants, participants or visitors at site included			
6. Other construction in the area			
7. Special work scheduling requirements			
8. Excavation, demolition, clearing work required			
9. Unusual site considerations explained			
10. Hazards on/near site			
11. Curb or guttering required for drainage			
12. Special sediment control considerations			
13. Turn-around space for trucks considered			
14. Construction storage area available			
15. Sanitary sewer at site			
16. Potable water at site			
17. Electric power at site			
18. Irrigation needs			
19. Seeding or sodding requirements			
20. Parking considerations:			
No. of present spaces			
No. of new spaces			
Special vehicle space			
Handicapped parking			
22. Special construction material requirements			
23. Lighting considerations:			
Sidewalks			
Parking area			
Roads			
Play/activity area			
Sign			
Flag			
24. Accommodations for handicapped			
25. Communication needs			
26. Security requirements			



**APPENDIX A**

**OFFICE SPACE STANDARDS**

**OFFICE TYPE**

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---		
Cabinet Secretaries or Agency Executive Directors	300	
Judges (200 NSF for office, 75 NSF for toilet and closet)	275	
Deputy Secretaries or Agency Deputy Directors	250	250
Assistant Secretaries; Commissioners (full-time); Division Chiefs; Directors	200	
Branch Heads; Assistant Division Chiefs; Assistant Directors	175	
Attorneys; Doctors; Field Office Supervisors	150	
Professionals (Supervisory, Private Office)	126	
(Supervisory, Open Office)	120	
Professionals (Non-supervisory, Private Office)	108	
(Non-Supervisory, Open Office)	90	
Secretaries; Drafting Stations (CAD) (Conventional Office)	90	
(Open Office)	81	
Word Processor and Clerical Stations (Conventional Office)	60	
(Open Office)	56	
Conference Rooms (Per Person)	22	
Reception/Waiting Rooms (1-15 Persons, Per Person)	15	
(over 15 Persons, Per Person)	10	

## COURTS

---

Large Courtroom	2000
Typical Courtroom	1700
District Court Lobby (Per Person)	5
Detention Cells (Per Occupant)	15
Sallyport	500

### NOTES:

1. Space standards indicated above include normal furniture and equipment. Additional space may be allowed for unusual furniture and equipment requirements if justified.
2. Enclosed offices should be a minimum of 100 NASF regardless of classification of occupant.
3. The above standards do not apply to **academic** personnel in institutions of higher education. Refer to higher education space guidelines.
4. Allow an additional 7 NASF per file cabinet in open office areas.

**APPENDIX B**  
**Building Efficiency Factors**  
**Various Building Types**  
**Gross/Net Efficiency Rate & Net/Gross (%) Efficiency**

<u>Building Type</u>	<u>Efficiency Factor Range</u>	<u>Mid-Point</u>
Office - non-University	1.35 (75%) - 1.50 (67%)	1.42 (70%)
Administration/Office - University	1.67 (60%) - 1.82 (55%)	1.74 (57%)
Library	1.52 (66%) - 1.67 (60%)	1.60 (62%)
Classroom	1.65 (61%) - 1.85 (54%)	1.75 (57%)
Science (Undergraduate)	1.65 (61%) - 1.85 (54%)	1.75 (57%)
Science (Research)	1.72 (58%) - 1.92 (52%)	1.82 (55%)
Medical (Teaching)	1.75 (57%) - 1.95 (51%)	1.85 (54%)
Dormitory	1.33 (75%) - 1.54 (65%)	1.43 (70%)
Dining Hall, Kitchen	1.40 (71%) - 1.60 (62%)	1.50 (67%)
Student Union	1.60 (62%) - 1.75 (57%)	1.67 (60%)
Performing Arts, Fine Arts	1.75 (57%) - 1.95 (51%)	1.85 (54%)
Theater, Concert Hall, Auditorium	1.45 (69%) - 1.60 (62%)	1.52 (66%)
Gymnasium	1.40 (71%) - 1.50 (67%)	1.45 (69%)
Patient Health Facility	1.70 (59%) - 1.85 (54%)	1.75 (57%)
Armory	1.25 (80%) - 1.35 (75%)	1.30 (77%)
District Court, MSC	1.70 (59%) - 1.85 (54%)	1.75 (57%)
State Police Barrack	1.50 (67%) - 1.60 (62%)	1.55 (64%)
Detention Facility	1.70 (59%) - 1.85 (54%)	1.75 (57%)
Maintenance Shop	1.25 (80%) - 1.35 (75%)	1.30 (77%)
Garage (Vehicle Support)	1.15 (85%) - 1.25 (80%)	1.20 (83%)
Park Comfort Sta, Shower Bldg	1.30 (77%) - 1.40 (71%)	1.35 (75%)

Visitor Center, Concession

1.40 (71%) - 1.50 (67%)

1.45 (69%)

**APPENDIX C**

**Abbreviations Used In This Document**

A/E	-	Architect/Engineer
ASHRAE	-	American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc.
CAD	-	Computer Aided Design
COMAR	-	Code of Maryland Regulations
DBM	-	Department of Budget and Management
DGS	-	Department of General Services
EDP	-	Electronic Data Processing
FEMA	-	Federal Emergency Management Agency
GSF	-	Gross Square Feet
HEGIS	-	Higher Education General Information Survey
HVAC	-	Heating, Ventilation Air-Conditioning
IBC	-	International Building Code
MOSHA	-	Maryland Occupational Safety & Health Administration
MSC	-	Maryland State Courts
NASF	-	Net Assignable Square Feet
NSF	-	Net Square Feet
NCAA	-	National Collegiate Athletic Association
NFPA	-	National Fire Protection Association
PCB	-	Polychlorinated Biphenyl
SHA	-	State Highway Administration
USDA	-	United States Department of Agriculture
USGS	-	United States Geological Survey

**APPENDIX D**

**Cost Estimate Worksheet**

**Environmental Assessment Form**

**Project Consistency Report**

**Net Effect on Operating Budget**

**ENVIRONMENTAL ASSESSMENT FORM (EAF)**

This form is to assist the reviewers in determining whether a proposed action could cause significant natural and socio-economic environmental effects and thus require an Environmental Effects Report.

DEPARTMENT \_\_\_\_\_ DIVISION \_\_\_\_\_

OTHER \_\_\_\_\_ PROJECT TITLE \_\_\_\_\_

PREDICTED DATES: COMMENCEMENT \_\_\_\_\_ COMPLETION \_\_\_\_\_

PROJECTED COST \_\_\_\_\_

**I. BACKGROUND INFORMATION**

1. Give a brief description of the proposed action/project(s)
  
2. Describe the geographical area(s) which will be affected by the action/project(s). Specifically locate the project by using the Maryland Coordinate Grid System, include distinguishing natural and man-made features and a brief description of the present use of the area(s). Include a suitable location map (sketch map or copy of U.S. Geological Survey map, etc.).

**II. ASSESSMENT OF SIGNIFICANT ENVIRONMENTAL EFFECTS**

The following questions should be answered by placing a check in the appropriate column(s). If desirable, the "comments attached" column can be checked by itself or in combination with an answer of "yes" or "no" to provide additional information or to overcome an affirmative presumption.

In answering the questions, the significant beneficial and adverse, short and long term, effects of the proposed action, on-site and off-site, during construction and operation should be considered.

All questions should be answered as if the agency is subject to the same requirements as a private person requesting a license or permit from the State or Federal Government.

**A. LAND USE CONSIDERATIONS**

	Comments		
	Yes	No	Attached
1. Will the action be within the 100 year flood plain?	_____	_____	_____
2. Will the action require a permit for construction or alteration within the 50-year flood plain?	_____	_____	_____
3. Will the action require a permit for dredging, filling, draining or alteration of a wetland?	_____	_____	_____
4. Will the action require a permit for the facilities for solid waste disposal including dredge and excavation spoil?	_____	_____	_____
5. Will the action occur on slopes exceeding 15%?	_____	_____	_____
6. Will the action require a grading plan or a sediment control permit?	_____	_____	_____

**A. LAND USE CONSIDERATIONS (Continued)**

	Comments		
	Yes	No	Attached
7. Will the action require a mining permit for deep or surface mining?	___	___	___
8. Will the action require a permit for drilling a gas or oil well?	___	___	___
9. Will the action require a permit for airport construction?	___	___	___
10. Will the action require a permit for the crossing of the Potomac River by conduits, cables or other like devices?	___	___	___
11. Will the action affect the use of a public recreation area, park, forest, wildlife management area, scenic river or wild land?	___	___	___
12. Will the action affect the use of any natural or man-made features that are unique to the county, state or nation?	___	___	___
13. Will the action affect the use of an archaeological or historical site or structure?	___	___	___

**B. WATER USE CONSIDERATIONS**

14. Will the action require a permit for the change of the course, current, or cross-section of a stream or other body of water?	___	___	___
15. Will the action require the construction, alteration or removal of a dam, reservoir or waterway obstruction?	___	___	___
16. Will the action change the overland flow of storm water or reduce the absorption capacity of the ground?	___	___	___
17. Will the action require a permit for the drilling of a water well?	___	___	___
18. Will the action require a permit for water appropriation?	___	___	___
19. Will the action require a permit for the construction and operation of facilities for treatment or distribution of water?	___	___	___
20. Will the project require a permit for the construction and operation of facilities for sewage treatment and/or land disposal of liquid waste derivatives?	___	___	___
21. Will the action result in any discharge into surface or sub-surface water?	___	___	___
22. If so, will the discharge affect ambient water quality parameters and/or require a discharge permit?	___	___	___

**C. AIR USE CONSIDERATIONS**

23. Will the action result in any discharge into the air?	___	___	___
24. If so, will the discharge affect ambient air quality parameters or produce a disagreeable odor?	___	___	___
25. Will the action generate additional noise which differs in character or level from present conditions?	___	___	___
26. Will the action preclude future use of related air space?	___	___	___
27. Will the action generate any radiological, electrical, magnetic, or light influences?	___	___	___

**D. PLANTS AND ANIMALS**

28. Will the action cause the disturbance, reduction or loss of any rare, unique or valuable plant or animal?	___	___	___
29. Will the action result in the significant reduction or loss of any fish or wildlife habitats?	___	___	___
30. Will the action require a permit for the use of pesticides, herbicides or other biological, chemical or radiological control agents?	___	___	___

**E. SOCIO-ECONOMIC**

Comments  
Yes No Attached

- 31. Will the action result in a preemption or division of properties or impair their economic use? \_\_\_\_\_
- 32. Will the action cause relocation of activities, structures or result in a change in the population density or distribution? \_\_\_\_\_
- 33. Will the action alter land values? \_\_\_\_\_
- 34. Will the action affect traffic flow and volume? \_\_\_\_\_
- 35. Will the action affect the production, extraction, harvest or potential use of a scarce or economically important resource? \_\_\_\_\_
- 36. Will the action require a license to construct a sawmill or other plant for the manufacture of forest products? \_\_\_\_\_
- 37. Is the action in accord with federal, state, regional and local comprehensive or functional plans – including zoning? \_\_\_\_\_
- 38. Will the action affect the employment opportunities for persons in the area? \_\_\_\_\_
- 39. Will the action affect the ability of the area to attract new sources of tax revenue? \_\_\_\_\_
- 40. Will the action discourage present sources of tax revenue from remaining in the area, or affirmatively encourage them to relocate elsewhere? \_\_\_\_\_
- 41. Will the action affect the ability of the area to attract tourism? \_\_\_\_\_

**F. OTHER CONSIDERATIONS**

- 42. Could the action endanger the public health, safety or welfare? \_\_\_\_\_
- 43. Could the action be eliminated without deleterious effects to the public health, safety, welfare or the natural environment? \_\_\_\_\_
- 44. Will the action be of statewide significance? \_\_\_\_\_
- 45. Are there any other plans or actions (federal, state, county or private) that, in conjunction with the subject action, could result in a cumulative or synergistic impact on the public health, safety, welfare or environment? \_\_\_\_\_
- 46. Will the action require additional power generation or transmission capacity? \_\_\_\_\_

**G. CONCLUSION**

- 47. This agency will develop a complete environmental effects report on the proposed action. \_\_\_\_\_

**PROJECT CONSISTENCY REPORT**  
(File with Department of Planning)

This review is undertaken by the State of Maryland Pursuant to § 5-7A-02 of the State Finance and Procurement Article. Projects or actions are evaluated for consistency with the State's Economic Growth, Resource Protection, and Planning Policy in accord with Executive Order 01.01.1992.27.

Project Title \_\_\_\_\_

Project Location \_\_\_\_\_

Project Description \_\_\_\_\_

Approximate Funding Share

LOCAL	STATE	FEDERAL	TOTAL

Determination                    ?     Consistent

   ?     Inconsistent with extraordinary circumstances

Brief description of extraordinary circumstances:

\_\_\_\_\_

\_\_\_\_\_

Sponsor Agency: \_\_\_\_\_ Date: \_\_\_\_\_

Sponsor Agency Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

Return to:                    State Clearinghouse  
    Department of Planning  
    301 West Preston Street  
    Baltimore, Maryland 21201-2365  
    (410) 767-4490; Fax (410) 767-4480