REPORT OF THE DEPARTMENT OF GENERAL SERVICES ON

# VALUE ENGINEERING OF STATE AGENCY CAPITAL OUTLAY PROJECTS FOR CALENDAR YEAR 1997

TO THE GOVERNOR AND THE GENERAL ASSEMBLY OF VIRGINIA



# **HOUSE DOCUMENT NO. 70**

COMMONWEALTH OF VIRGINIA RICHMOND 1998

### Table of Contents

0	Executive Summary	1		
0	Introduction	2		
0	Background	2		
0	Projects Studied and Savings Identified	3		
0	Waivers Granted	3		
0	Appendices			
	A. Section 2.1-483.1:1. Code of Virginia			
	B. Section 814.0, Construction and Professional Services Manual for Agencies			
	C. Section 4-5.08.b. Chapter 912, 1997 Acts of Assembly			
	D. Waiver Request and Approval			

### EXECUTIVE SUMMARY

### I. Introduction

The Director of the Department of General Services is required by Section 2.1-483.1:1 of the Code of Virginia (Appendix A) to annually report to the Governor and the General Assembly on the (i) number and value of the capital projects where value engineering (VE) was employed and (ii) identity of the capital projects for which a waiver of the requirements of Section 2.1-483.1:1 was granted, including a statement of the compelling reasons for granting the waiver. This report provides the information for calendar year 1997 as required by the Code of Virginia.

### II. Projects

Of all capital outlay projects under some stage of design during calendar year 1997, ten (10) projects with an estimated construction value of \$147,781,400 qualified for Value Engineering as required by Section 2.1-483.1:1 of the Code of Virginia and Section 814.0 VALUE ENGINEERING of the Commonwealth of Virginia **Construction and Professional Services** Manual for Agencies, December 1996 (CPSM) (Appendix B).

### III. Savings

Nine projects were value engineered during calendar year 1997 with a total estimated construction value of \$135,981,400. Estimated savings recommended by the value engineering teams and accepted by state agencies totaled \$11,494,000, or 7.8% of the estimated construction value.

### IV. Waivers Granted

One project was granted a waiver of the requirement to be value engineered. This project was the site adaptation of a previous project that was value engineered in 1995. The estimated construction value of the project was \$11,800,000.

### 1. Introduction

The Director of the Department of General Services is required by Section 2.1-483.1:1 of the Code of Virginia to annually report to the Governor and the General Assembly on the (i) number and value of the capital projects where value engineering (VE) was employed and (ii) identity of the capital projects for which a waiver of the requirements of Section 2.1-483.1:1 was granted, including a statement of the compelling reasons for granting the waiver. This report provides the information for calendar year 1997 as required by the Code of Virginia.

### 2. Background

Section 2.1-483.1:1 of the Code of Virginia (Appendix A) establishes the requirement for use of value engineering on any capital project costing more than five million (\$5,000,000) dollars. This requirement became effective in 1994 and procedures for implementing a value engineering program were developed and issued to state agencies in July 1994. (Appendix B)

Value engineering is a systematic process of review and analysis of a project design performed by an independent team of persons not originally involved in the design of the project. The team members are themselves licensed design professionals and the team leader is specially trained in conducting the team study process.

The purpose of the review and analysis of the design is to offer suggestions to the project owner and project design firm that improve project quality and reduce total project cost by combining or eliminating inefficient or expensive parts or steps in the original design or recommending the total redesign of the project using different technologies, materials or methods. Value engineering is often used to deal with cost growth problems during project design. In some cases, a VE study may result in an increase in cost of portions of a project. This generally occurs when the team recommends a design change that may involve a higher initial investment during construction but is much more cost effective when measured on a life cycle basis (construction cost plus operating cost).

Not all projects are candidates for VE. Where an initial analysis of a project indicates that the cost of conducting the VE study may not produce sufficient recommendations of cost savings to cover study costs, there is no potential net benefit in conducting the study.

Current state procedures require any capital project with an estimated construction cost greater than \$5,000,000 to be value engineered, unless waived by the Director of the Department of General Services. The VE study is conducted at the preliminary design stage of the project. The project design is approximately 35% complete at the preliminary design stage.

The Commonwealth process involves a 40-hour study of the project by the VE team. The team is composed of registered design professionals that practice architecture and the engineering disciplines (civil, electrical, mechanical, etc.) involved in the project design and a certified value specialist who is the VE team leader.

The A/E firm that designed the project is a part-time participant in the VE study. Building shape, floor plan layout and building systems components are sufficiently developed at the preliminary stage of design for all VE team disciplines to evaluate the essential elements of the design and suggest alternatives where appropriate.

The recommendations produced by the VE team are reviewed by the project owner and the design A/E firm. Recommendations are selected or rejected by the project owner in consultation with the design A/E based on program requirements, cost, technical feasibility, etc. Recommendations dealing with technical design issues must ultimately be accepted or rejected by the design A/E firm since the design A/E is the party with ultimate liability for the design and required by law to professionally seal the design documents.

Accepted recommendations must be incorporated into the project design and most often this will require additional work on the part of the design A/E. Since the nature and scope of this additional work is not known when the A/E design contract and price is negotiated, the A/E is entitled to an addition to the design contract amount.

Two of the ten projects this calendar year were designed using abbreviated procedures for capital outlay projects authorized by Section 4-5.08.b. of the 1997 Acts of Assembly, Chapter 924 (Appendix C) wherein five colleges and universities were authorized to enter into a two-year pilot project by which each named agency was delegated all post-appropriation review, approval, administrative and policy and procedure functions performed by the Department of Planning and Budget, Department of General Services and the Division of Engineering and Buildings.

### 3. Projects Studied and Savings Identified

The nine projects that were value engineered are listed in the table shown on the next page. The estimated construction value of the nine projects was \$147,781,000. The value engineering teams identified \$11,494,000 in design changes to the projects that were acceptable to the agency that produced an aggregate estimated savings in construction cost of \$11,494,000. The **largest** single project estimated savings identified and accepted by an agency was \$5,200,000. The **smallest** single project estimated savings identified and accepted by an agency was \$171,000 and the **mean** estimated savings identified and accepted by an agency was \$171,000 and the **mean** estimated savings identified and accepted by an agency was \$1,299,000.

### 4. Waivers Granted

A waiver of the requirement to conduct a value engineering study of a project was granted for a James Madison University project, Project Number 215-15804, CISAT Residence Hall, Phase II (Appendix D). This project is for construction of the **second** student residence facility of the new College of Integrated Science and Technology(CISAT) on the campus of James Madison University. The first residence facility for the CISAT campus is under construction and the design for the first facility was value engineered in 1995.

### 1997 Value Engineering Studies Summary Report

<b>A</b>	Des 1 + + 4 7 4 1 -	Construction	Estimated	
Agency		Budget	VE Savings	Remarks
cience Museum of Virginia	Phase III, B & C Renovations	\$6,800,000	\$992,000	
ollege of William & Mary	Swem Library - Renovation & Exp'n.	\$21,200,000	\$1,408,000	
niversity of Virginia	600 Space Parking Deck	\$11,181,000	\$192,000	
irginia Tech	Advanced Comm. & Info. Technology	\$18,800,000	\$2,499,000	
irginia Tech	Third Residence Hall	\$7,700,000	\$171,000	
ames Madison University	CISAT Residence Hall II	\$11,800,000		See note 1.
ld Dominion University	Virginia Beach Higher Education Center	\$13,500,000	\$364,000	
irginia Commonwealth University	Fine Arts	\$11,200,000	\$430,000	
irginia Community College System	Loudoun Campus - Phase II	\$7,100,000	\$238,000	
epartment of Corrections	Medium-Celled Institution	\$38,500,000	\$5,200,000	
	TOTALs	\$147,781,000	\$11,494,000	
io In in in in in in	ollege of William & Mary niversity of Virginia rginia Tech rginia Tech mes Madison University d Dominion University rginia Commonwealth University rginia Community College System	Science Museum of VirginiaPhase III, B & C Renovationsoblege of William & MarySwem Library - Renovation & Exp'n.niversity of Virginia600 Space Parking Deckrginia TechAdvanced Comm. & Info. Technologyrginia TechThird Residence Hallmes Madison UniversityCISAT Residence Hall IId Dominion UniversityVirginia Beach Higher Education Centerrginia Commonwealth UniversityFine Artsrginia Community College SystemLoudoun Campus - Phase IIepartment of CorrectionsMedium-Celled Institution	Sience Museum of VirginiaPhase III, B & C Renovations\$6,800,000ollege of William & MarySwem Library - Renovation & Exp'n.\$21,200,000niversity of Virginia600 Space Parking Deck\$11,181,000rginia TechAdvanced Comm. & Info. Technology\$18,800,000rginia TechThird Residence Hall\$7,700,000mes Madison UniversityCISAT Residence Hall II\$11,800,000d Dominion UniversityVirginia Beach Higher Education Center\$13,500,000rginia Commonwealth UniversityFine Arts\$11,200,000rginia Community College SystemLoudoun Campus - Phase II\$7,100,000epartment of CorrectionsMedium-Celled Institution\$38,500,000	Lience Museum of VirginiaPhase III, B & C Renovations\$6,800,000\$992,000Swem Library - Renovation & Exp'n.\$21,200,000\$1,408,000niversity of Virginia600 Space Parking Deck\$11,181,000\$192,000rginia TechAdvanced Comm. & Info. Technology\$18,800,000\$2,499,000rginia TechThird Residence Hall\$7,700,000\$171,000mes Madison UniversityCISAT Residence Hall II\$11,800,000d Dominion UniversityVirginia Beach Higher Education Center\$13,500,000\$364,000rginia Commonwealth UniversityFine Arts\$11,200,000\$430,000rginia Community College SystemLoudoun Campus - Phase II\$7,100,000\$238,000epartment of CorrectionsMedium-Celled Institution\$38,500,000\$5,200,000

Notes:

1 - Project was waived from VE requirements as the design is a duplication of the first CISAT dormitory.

( The first dormitory was value-engineered in May 1995. )

File: V:\COST\VE\VE\_RPT97.WK4

The second residence facility is to be constructed using the same design as was used for the first facility and incorporates the accepted recommendations of the value engineering study done of the first facility.

This practice of reuse of a design is referred to as **site adaptation** and where practical from a functional perspective is very cost effective. The second facility design can be purchased at a reduced design cost and does not need to be value engineered again since the only design change necessary is that to incorporate site or foundation changes resulting from the differing conditions between the first and second sites. In the case of Residence Hall Phase II the second building site is located within 100 feet of the first residence facility. Given the circumstances of this project, it was deemed there is little likelihood that sufficient and acceptable recommendations for savings would have been identified to offset the cost of the VE study itself.

## APPENDICIES

•--

·\_\_\_

•

APPENDIX A

.

### § 2.1-483.1:1

Use of value engineering

The Department of General Services, through its Division of Engineering and Buildings, shall ensure that value engineering is employed for any capital project costing more than five million dollars. Value engineering may also be used for any project costing five million dollars or less. For purposes of this section, "value engineering" means a systematic process of review and analysis of a capital project by a team of persons not originally involved in the project. Such team, which shall include appropriate professionals licensed in accordance with Chapter 4 (§54.1-400 et seq.) of Title 54.1, may offer suggestions that would improve project quality and reduce total project cost by combining or eliminating inefficient or expensive parts or steps in the original proposal or by totally redesigning the project using different technologies, materials, or methods.

The Director of the Department of General Services may waive the requirements of this section for any proposed capital project for compelling reasons. Any such waiver shall be in writing, state the reasons for the waiver, and apply only to a single capital project. The Director of the Department of General Services shall report annually to the Governor and the General Assembly on the (i) number and value of the capital projects where value engineering was employed and (ii) identity of the capital projects for which a waiver of the requirements of this section was granted, including a statement of the compelling reasons for granting the waiver.

# APPENDIX B

.

### SECTION 814.0 VALUE ENGINEERING (VE)

**814.1 General: Capital Projects** with an estimated construction cost greater than \$5,000,000 shall have a 40-hour Value Engineering (VE) Study conducted on the design. (See §2.1-483.1:1, *Code of Virginia.*) The study shall be conducted by a qualified VE Team concurrent with the preliminary (40%) design review utilizing the five-step job plan as recognized by the Society of American Value Engineers (SAVE). A presentation of the study results shall be made to the Agency.

**814.2 Scope of VE Study:** The VE Study shall be made by a multi-discipline team of five VE qualified professionals meeting on five consecutive work days. The study group will follow the five step job plan as recognized by the Society of American Value Engineers (SAVE). The VE report (15 copies unless shown otherwise in the RFP) shall encompass the recommendations of the VE study group and include detailed cost estimates, life cycle analysis and sketches, as necessary.

The VE Team shall be assembled and isolated away from their normal work station in order to avoid the normal daily interruption. The Agency will provide a suitable room with tables and chairs. VE services shall be performed in a timely manner concurrently with the normal preliminary design review to minimize any delay in the schedule.

**814.3 Procurement of the VE Study:** The agency shall procure the services of a Value Engineering consultant using professional services RFP procurement procedures. The procurement process should begin at least 90 days prior to the anticipated date the preliminary drawings will be submitted. RFP evaluation factors shall include the experience, qualifications and expertise of each proposed team member.

The VE response to the RFP shall include the proposer's list of proposed and alternate team members and their respective resumes representing their various disciplines/areas of expertise, together with the certified (CVS) team leader's qualifications and discipline shall be submitted with the proposal and approved at the time of negotiations. Changes to or substitutions to the approved VE team configuration shall be submitted in writing to the Agency for approval.

The typical VE Team will be composed of

- a. VE Team Leader (CVS)\*\*
- b. Architect
- c. Structural Engineer
- d. Mechanical Engineer
- e. Electrical (or Civil) Engineer
- f. Typing, Clerical and Estimating support staff as necessary

\*\* The principle person responsible for prestudy work, assembling, editing and reproducing the recommendations generated by the Value Engineering Team Study. C.V.S. must edit and sign the final report.

814.4 Qualifications of VE Team: The VE proposer/consultant shall provide one team consisting of a Certified Value Specialist Team Leader and at least one licensed architect and one licensed professional engineer from each discipline which have significant work on the project, usually one each or structural, mechanical and electrical engineers. VE Team members shall be experienced designers who are separate and completely independent from the Project A/E & its consultant firms.

The VE Study shall be coordinated, supervised and led by a person having Certified Value Specialist (CVS) credentials that qualify him/her to perform such services. The CVS shall be certified by the Society of American Value Engineers and shall have had a minimum of eight years combined college education and practical on-the-job VE experience. Practical experience is considered to have been gained by being actively engaged as a consultant in VE activities.

Members of the team shall be registered architects and professional engineers licensed in the Commonwealth of Virginia. All shall have a good understanding of VE principles and methodology as evidenced by attending a certified forty hour workshop. Team members shall be knowledgeable of the design and operational requirements and characteristics of the systems applicable to their discipline and the type of facility being studied.

814.5 Information Supplied to the VE Team: Prior to commencing the VE study, the A/E will forward the following information to the VE Team:

- (a) Two sets of 35% drawings (full size)
- (b) Four sets half size drawings
- (c) Outline Specifications & Systems Checklists (2 copies)
- (d) Detailed Cost Estimate (6 copies)
- (e) Basis of design (6 copies)
- (f) Design Calculations (Structural, Mechanical, Electrical)
- (g) Boring logs and soil reports
- (h) Scope of Project/Program requirements (6 copies)

814.6 Certified Value Specialist (CVS) Responsibilities: The CVS shall have the following responsibilities for the VE Study:

- a. Pre-Study
  - (1) Review complete design package & identify high cost areas.
  - (2) Prepare cost model (actual vs. historical)
  - (3) Prepare bar graphs of all sub systems.
  - (4) Prepare preliminary cost worth ratios.
- b. 40 Hour Study
  - (1) Team Leader and coordinator.
  - (2) Team recorder.
  - (3) Presentation of recommendations.

•	A/E Review, Supplement, and Comment on VE Report to Agency	8	4	4	4	4	(4)	
•	Follow-up on Questions/ Decisions from Oral	0	+	4	4	4	(4)	
	Presentation	4	-	-	-	-	-	
	MANHOUR TOTALS	24	16	12	12	12	(12)	

The design A/E responsibilities include the following:

- Present an overview of the project criteria and development to the value engineering team.
- Provide comments on the VE study report to the Agency within 14 days of receipt of the report.
- Participate in joint 35% review/VE resolution meeting at the Agency and at BCOM if required.
- Submit a final report within 14 calendar days of the resolution meeting to the Agency and BCOM. Implement all finally accepted VE recommendations into the project design.

814.10 Criteria Challenge: In the package of documentation which the design A/E prepares for the Value Engineering Consultant, the design A/E may include a "Criteria Challenge Package" to question specific project design criteria, instructions and/or user requirements and to identify alternate items or procedures that might satisfy the required functions at a lower life cycle cost.

Examples of "criteria" which might be challenged are the exterior appearance or materials which may have resulted from a visit to the AARB, the Energy Budget required by the Manual, a user requirement for every office to have a window, or a user criteria for square footage in spaces which exceed that necessary for the space function.

Each challenge must include Code references, a life cycle analysis supported by recent research and testing, and any calculations that are necessary to support the challenge. A brief narrative describing the advantages, disadvantages and magnitude of potential savings shall be included as well.

The Criteria Challenge Package with the documentation provided to the Value Engineering Consultant shall be marked <u>VALUE ENGINEERING</u> and submitted with the Preliminary Submittal to BCOM. However, project development will be based on current standards until such time as a formal approval is received for any waiver or deviation from codes, standards or Manual requirements.

814.11 A/E Action on VE Study: The following clarifies the specific submittals and approval procedures required for the VE Study responses and proposed action:

# APPENDIX C

g. SMALL PURCHASE CHARGE CARD: The State Comptroller is hereby authorized to charge state agencies a per check fee of \$1 when, in his judgment, agencies have failed to comply with the provisions of the Commonwealth's Small Purchase Charge Card program, thereby incurring unnecessary administrative costs for the printing and mailing of checks for small dollar amounts. The fee shall be collected by the Department of Accounts through accounting entries.

#### § 4-5.07 NONSTATE AGENCIES, AND INTERSTATE COMPACTS AND ORGANIZATIONAL MEMBERSHIPS

a.1. The accounts of any agency, however titled, which receives funds from this or any other appropriating act, and is not owned or controlled by the Commonwealth of Virginia, shall be subject to audit or shall present an audit acceptable to the Auditor of Public Accounts when so directed by the Governor or the Joint Legislative Audit and Review Commission. The agency shall provide for the segregation and accounting of state funds under such rules and regulations as the State Comptroller may prescribe.

#### 2. For purposes of this subsection, the definition of "nonstate agency" is that contained in § 2.1-394.1, Code of Virginia.

b.1. No allotment of appropriations shall be made to a nonstate agency until such agency has certified to the Secretary of Finance that cash is on hand and available to match equally all or any part of an appropriation which may be provided by the General Assembly, unless the agency is specifically exempted from this requirement by language in this act. Such matching funds shall not have been previously used to meet the match requirement in any prior appropriation act. In-kind or other forms of noncash assistance shall not be deemed to satisfy the match requirement unless specifically allowed by language in this act.

2. The provisions of § 11-35 (I), Code of Virginia shall apply to any expenditure of state appropriations by a nonstate agency.

c. Each interstate compact commission and each organization in which the Commonwealth of Virginia or a state agency thereof holds membership, and the dues for which are provided in this act or any other appropriating act, shall submit its biennial budget request to the state agency under which such commission or organization is listed in this act. The state agency shall include the request of such commission or organization within its own request, but identified separately. Each agency shall submit by September 1, 1997 a report to the Director, Department of Planning and Budget, listing the name and purpose for organizational memberships with annual dues of \$5,000 or more. Requests by the commission or organization for disbursements from appropriations shall be submitted to the designated state agency.

d. Unless specifically exempted by language in this act, operating appropriations in excess of \$100,000 shall be disbursed to non state nonstate agencies, with the exception of interstate compacts, commissions, and organizations in which the Commonwealth holds membership and the dues for which are designated by language in this act, in twelve or fewer equal monthly installments depending on when the first payment is made within the fiscal year.

#### § 4-5.08 DELEGATION OF AUTHORITY

a. The designation in this act of an officer or agency head to perform a specified duty shall not be deemed to supersede the authority of the Governor to delegate powers under the provisions of § 2.1-39.1, Code of Virginia.

b. Notwithstanding the provisions of Item 266 B. of this act, to evaluate the potential for reduction in the time and cost of developing and managing nongeneral fund capital outlay projects, the University of Virginia, Virginia Polytechnic Institute and State University, the College of William and Mary, Christopher Newport University and Radford University are authorized to enter into a two-year pilot project by which each named institution shall be delegated all post-appropriation review, approval, administrative and policy and procedure functions performed by the Department of Planning and Budget, Department of General Services and the Division of Engineering and Buildings. Delegation of authority under this pilot project is subject to the following stipulations and conditions:

1. This delegation is limited to nongeneral fund projects;

2. The Board of Visitors of each institution shall develop policies, procedures and guidelines for their nongeneral fund capital projects which shall be approved by the Secretaries of Finance and Administration;

3. The system developed for nongeneral fund projects shall ensure that the cost of any such capital project does not exceed the sum appropriated therefor and that the project otherwise complies with all requirements of the Code of Virginia regarding capital projects, excluding only the post-appropriation review, approval, administrative, and policy and procedure functions of the Department of Planning and Budget. Department of General Services and the Division of Engineering and Buildings, except as excluded in paragraph b.5. below:

4. The institution shall report to the Department of General Services on the status of any capital project prior to the commencement of construction and at the time of acceptance of any such capital project; and

5. The Department of General Services, acting through the Division of Engineering and Buildings, shall continue to function as State Building Official pursuant to § 36-98.1 of the Code of Virginia for all capital outlay projects. Nothing in this section shall be deemed to relieve the institution of any reporting requirements pursuant to § 2.1-403 and § 2.1-404 of the Code of Virginia. By September 1, 1996, the Secretaries of Finance and Administration shall approve the policies, procedures and guidelines developed by the Board of Visitors of each named institution. These policies, procedures, and guidelines shall remain in effect for a period of two years thereafter. During this period, the House Appropriations and Senate Finance Committee and the Secretaries of Finance and Administration shall evaluate the institutions' management of their capital outlay programs and the Secretaries shall report their findings and recommendations to the Governor and General Assembly prior to the Session next convened following completion of the two-year pilot program.

c. To evaluate the potential for reduction in the time and cost of processing real property leases, the University of Virginia, Virginia Polytechnic Institute and State University, the College of William and Mary, Christopher Newport University and Radford University are authorized to enter into a pilot project by which each named institution shall be delegated the authorities of the Department of General Services and the Governor provided in § 2.1-504.2 of the Code of Virginia. Delegation of authority under this pilot project is subject to the following stipulations and conditions:

1. This delegation is limited to operating leases and excludes capital leases as defined in Generally Accepted Accounting Principles (GAAP);

2. The Board of Visitors of each institution shall develop policies, procedures, and guidelines which shall be approved by the Secretaries of Finance and Administration; and

3. The form of the lease shall be approved by the Attorney General or his designee; and the lease otherwise meets all requirements of law and the leased property is certified for occupancy by the building official of the county or municipality in which the leased property is located. By September 1, 1996, the Secretaries of Finance and Administration shall approve the policies, procedures and guidelines developed by the Board of Visitors of each named institution. These policies, procedures, and guidelines shall remain in effect for a period of two years thereafter. During this period, the House Appropriations and Senate Finance Committees and the Secretaries of Finance and Administration shall evaluate the institutions' management of their leasing programs and the Secretaries shall report their findings and recommendations to the Governor and General Assembly prior to the Session next convened following completion of the two-year project.

d. Any nongeneral fund project developed by the University of Virginia, Virginia Polytechnic Institute and State University, or the College of William and Mary, with an estimated cost of \$500,000 or less, shall be exempt from the capital outlay review and approval process.

e. Notwithstanding any contrary provision of law or this act, delegations of authority in this act to the Governor shall apply only to agencies and personnel within the Executive Department, unless specifically stated otherwise.

§ 4-5.09 Not Set Out.

#### § 4-5.10 Not Set Out.

#### § 4-5.11 SEMICONDUCTOR MANUFACTURING INCENTIVE PROGRAMS

a. The Comptroller shall not draw any warrants to issue checks for these semiconductor manufacturing incentive programs, pursuant to Title 59.1, Chapter 22.3, Code of Virginia, without a specific legislative appropriation. The appropriation shall be in accordance with the terms and conditions set forth in a memorandum of understanding between a qualified manufacturer and the Commonwealth. These terms and conditions shall supplement the provisions of the Semiconductor Manufacturing Performance Grant Program and the Semiconductor Memory or Logic Wafer Manufacturing Performance Grant Program, as applicable, and shall include but not be limited to the numbers and types of semiconductor wafers that are produced; the level of investment directly related to the building and equipment for manufacturing of wafers or activities ancillary to or supportive of such manufacturer within the eligible locality; and the direct employment related to these programs. To that end, the Secretary of Commerce and Trade shall certify in writing to the Governor and to the Chairmen of the House Appropriations and Senate Finance Committees the extent to which a qualified manufacturer met the terms and conditions. The appropriation shall be made in full or in proportion to a qualified manufacturer's fulfillment of the memorandum of understanding.

b. The Governor shall consult with the House Appropriations and Senate Finance Committees before entering into any memorandum of understanding. These Committees shall have the opportunity to review any memorandum of understanding prior to its execution by the Commonwealth. Execution of this memorandum of understanding shall occur no later than June 30, 1997.

c. For any semiconductor performance grant approved by the 1997 Session of the General Assembly, the House Appropriations and Senate Finance Committees shall have the opportunity to review the memorandum of understanding prior to its execution by the Commonwealth. Execution of the memorandum of understanding for performance grants approved by the 1997 Session shall occur no later than June 30, 1998.

## APPENDIX D

.

.

-

.

JAMES MADISON UNIVERSITY Office of Facilities Planning & Construction



May 19, 1997

Donald C. Williams, Director Department of General Services 202 North 9th Street, Suite 209 Richmond, VA 23219

RE: James Madison University CISAT Residence Hall Phase 2 PC 216-15804 Value Engineering Study MAY 1997 General Services 95 t 221

Dear Mr. Williams;

I am writing to ask for a waiver of the requirement for a Value Engineering Study on CISAT Residence Hall Phase 2 project. A project of this size (approximately \$11,000,000) would normally require a value engineering study; however, the Phase 2 residence hall will be a duplicate of the Phase 1 residence hall and a value engineering study was conducted on the Phase 1 residence hall. The difference between the two projects will be primarily in the treatment of the façade in order to provide each phase with it's own identity. The floor plans for the two projects will be essentially identical. There will be some slight difference in the sitework to account for the site differences. Conducting two value engineering studies on the (essentially) same project would not be beneficial.

If you have any questions, please contact me directly at 703 568 6732.

Sincerely, Cosgrove, AIA Donald M Director

c:\r2\dw0520bw.ltr.doc

c: Robert McGovern-Waite Nathan I. Broocke Henry G. Shirley



Harrisonburg, VA 22807 (540) 568 3004 FAX 568 3326



202 North Ninth Street

Richmond, Virginia 23219-3402

Voice/TDD (804) 786-6152 FAX (804) 371-8305

Suite 209

COMMONWEALTH of VIRGINIA

Department of General Services

Donald C. Williams Director

June 4, 1997

D. B. Smit Deputy Director

> Mr. Donald M. Cosgrove, Director Office of Facilities Planning James Madison University 405 Wilson Hall Harrisonburg, Virginia 22807

RE: James Madison University College of Integrated Science and Technology(CISAT) Residence Hall, Phase 2 P.C. 216-15804 Value Engineering Study Your May 19, 1997 letter

Dear Mr. Cosgrove:

This project provides for the construction of the second of several new residence halls to be constructed on the new CISAT campus. The design for the second residence hall will be a basic duplication of the first residence hall design with minor cosmetic changes to provide individuality between the two buildings.

The A/E that designed the first residence hall will design the second.

A value engineering study was conducted of the design of the first residence hall and the recommendations of the VE team were incorporated in the design where they did not interfer with the functional requirements of the University.

The estimated cost of a value engineering study for the second dormitory design is approximately \$30,000. The potential savings that may be identified which would be acceptable to the agency are minor and most likely would not cover the cost of the VE study.

Based on this information your request to waive the requirement for a VE study on the Residence Hall, Phase II project is approved.

And Aullin

Donald C. Williams

c: Mr. Henry G. Shirley