Reports
of the
Subcommittees
of
The Governor's Implementation Group
for

THE CENTER FOR INNOVATIVE TECHNOLOGY

Commonwealth of Virginia

November 28, 1983

Charles S. Robb, *Governor*

T. Justin Moore, *Chairman*

Donald P. Hearth, *Chairman, Operations and Organization*
Hays T. Watkins, *Chairman, Site Selection*
James C. Wheat, Jr., *Chairman, Finance*

Operations and Organization Subcommittee

FINAL REPORT

OPERATIONS AND ORGANIZATIONAL WORKING GROUP

FOR

THE CENTER FOR INNOVATIVE TECHNOLOGY

November 28, 1983

FOREWORD

The Working Group has identified two major issues in the discussions of the recommendations of the Governor's Task Force on Science and Technology.

The first issue is the Center for Innovative Technology (CIT), an entity which is primarily concerned with organizing on-campus research programs between Virginia's universities and industry. The CIT may also be involved as a site for "incubator" space for emerging high technology firms and industrially sponsored research. While the thrust of the CIT is research, it may also play a role in part-time graduate education statewide, in that the CIT can help to identify the needs of industry for part-time graduate education and to encourage delivery of graduate education to industry working through the appropriate state institutions and agencies. In addition, education programs might be established at the CIT site; i.e., graduate programs via Instructional Television (primarily at the MS level) and programs (primarily at the PhD level) offered by on-site research faculty, if and when faculty are on-site to perform cooperative research with industry.

The second issue is the development of on-site Information Technology and Engineering education programs in Northern Virginia. This involves strengthening and supporting the developing, approved programs at GMU. It also involves extending graduate education via Instructional Television to Northern Virginia from UVa, VCU, and VPI&SU at GMU or other locations approved by the Council of Higher Education.

These two issues must be separated. If they are not, both the purposes of the CIT and the possibility of meeting the graduate education needs of Northern Virginia industry are jeopardized. The Working Group has attempted to maintain a clear distinction between these two issues and to address both of them as noted below. Both of these two issues are important to Virginia's economic development. Both the CIT and the graduate education needs of Northern Virginia should be fully prosecuted.

CIT

The Working Group recommends that all CIT activities be conducted to ensure that no participating college or university is disadvantaged financially or in any other way.

The Working Group recommends that Phase One of the CIT, as detailed herein, be implemented. In addition, the Working Group recommends that the funds required for construction of the 30,000 sq. ft. facilities required for Phase Two be requested in the Governor's 1984-86 budget.

The precise nature of the Phase Two facilities and the activities at the CIT site should not be specified at this time. These activities will be defined during Phase One by the CIT President and the CIT Board of Directors consistent with industry interest and willingness to fund the on-site activities. If necessary, the Phase Two construction appropriation item can be adjusted during the 1985 Session of the General Assembly.

This statement was adopted unanimously by the CIT Operations and Organization Working Group. The statement is considered, by the Working Group, to be fundamental to its Conclusions and Recommendations.

CIT MISSION STATEMENT

The central thrust of the Center for Innovative Technology (CIT) is university research in support of industry needs. The CIT will enhance the research capabilities of many of Virginia's universities and colleges, stimulate these capabilities to be relevant and applied to the technical needs of private industry, and market these capabilities to stimulate increased industry participation in university research in Virginia. Initially, the CIT will focus on research in biotechnology, computer-aided engineering, information technology, and material sciences. The CIT will also insure that Virginia's universities and colleges meet the research needs of industry in other disciplines. Secondary roles of the CIT include assisting the development of emerging technically based concerns, assisting Virginia's universities and colleges in meeting the part-time graduate education needs of industry, and providing services to industry such as a Technical Resources Data Bank.

6 - The CIT be modular in order to provide for the involvement of other Virginia universities and colleges as the research opportunities and their capabilities evolve. For example, additional CIT Research Institutes (such as one in High Energy Physics in conjunction with the National Electron Accelerator Laboratory) will be established, as appropriate. In addition, it is expected that, during Phase One, research to meet industry needs that is outside of the Research Institutes will be established at various Virginia universities and colleges.

7 - As part of the CIT management structure, establish the "Research Advisory Council" to be comprised of the Directors of the CIT Research Institutes, representatives of other universities, and senior researchers from industry. The Research Advisory Council will review and approve potential research programs and insure the appropriate involvement of Virginia's universities and colleges. Primary emphasis will be given to research projects in support of industry needs.

8 - The CIT staff identify industry needs for part-time graduate education and provide liaison with the State Council of Higher Education for delivery of the graduate education to meet these needs. These CIT functions will be assigned to the CIT "Education Liaison Officer."

9 - The activities of the CIT be coordinated with the State's Division of Industrial Development to maximize the CIT's value to the State's economic development.

10 - The services of CIT be made available to industry in Virginia, industry elsewhere in the United States, and to foreign firms.

11 - Memoranda of Agreement (MOA) be formulated between the CIT and all Virginia universities or colleges which participate in CIT-sponsored research. These MOA will include the understanding on rights to intellectual property, freedom of publication, indirect cost considerations, equipment ownership, university/industry research awards outside of the CIT, and faculty conflicts of interest. They will also include the universities' understanding with each other for effective implementation of cooperative research programs to be conducted under the auspices of the CIT.

12 - All CIT activities be conducted to insure that no participating college or university is disadvantaged financially or in any other way. For example, all Virginia universities and colleges must be encouraged to continue to strengthen their individual relationships with industry.

13 - Modify the State policy on the distribution of indirect costs for CIT generated research. Specifically, seventy percent of indirect cost recoveries will continue to be provided to the university conducting the research but the remaining thirty percent will be provided to the CIT to fund its operating costs and to attract future research opportunities.

14 - In order to properly coordinate the budget formulation, legislative activities, to oversee the search for the CIT President, and other early implementation activities the Governor establish an interim CIT organization within the State government as soon as possible.

CIT ORGANIZATIONAL STRUCTURE

In order to achieve maximum flexibility, the Center for Innovative Technology will be organized by the Governor as a private nonstock corporation under the "Virginia Nonstock Corporation Act." The corporation will be named the "Center for Innovative Technology" ("CIT"). In conjunction with the organization of the CIT, the General Assembly will be asked to create a new State authority that will support the CIT. The authority will be named the "Innovative Technology Authority" (the "Authority").

Operations, Board of Directors and Officers

CIT operations will be conducted by the nonstock corporation. The Articles of Incorporation of the CIT, a draft copy of which is included in Appendix D, will prescribe a Board of Directors consisting of 15 persons. The draft Articles provide that the Presidents of the University of Virginia, Virginia Commonwealth University and Virginia Polytechnic Institute and State University shall serve as directors during their terms in those offices. The Governor, as the sole member of the CIT, will appoint the 12 other directors as follows: two representatives from other institutions of higher learning in the Commonwealth; five representatives from the business community; and five representatives from the general citizenry, two of whom will be members of the General Assembly. The 12 appointed directors will be divided into three classes and serve staggered three-year terms.

The CIT Board of Directors will elect the officers of the CIT, including the President who will be the chief executive officer of the CIT. The responsibilities of the officers and the committee structure will be specified in the by-laws of the CIT.

The precise operational relationship between the CIT and the three lead universities (UVA, VCU and VPI) will be established in a written memorandum of understanding between the universities and the CIT. This memorandum will be executed after the CIT is organized.

Funding

The CIT will be funded with appropriations from the General Assembly and contributions from other governmental entities, private corporations and individuals. The Virginia Constitution's prohibition on appropriations to charitable institutions is not applicable because it extends only to institutions which are not owned or controlled by the Commonwealth.

Contributions by private corporations and individuals to the CIT will be deductible under federal and Virginia income tax laws because the CIT should be classified as a § 501(c)(3) organization under the Internal Revenue Code. A memorandum discussing the CIT's status under the federal and Virginia income tax laws is attached as Exhibit B.

General Assembly appropriations should be sufficient to pay the basic costs of the CIT and private funds should be used for specific research projects.

Authority is included in Appendix D. The legislation provides that the Authority will be governed by a Board of Directors whose members will be identical to the members of the Board of Directors of the CIT. The draft legislation also specifies the purposes and powers of the Authority, the financing capability of the Authority and the degree to which the CIT and the Authority will be subject to state administrative law requirements.

Site Selection Subcommittee

FINAL REPORT

of the

SITE SELECTION SUBCOMMITTEE

CENTER FOR INNOVATIVE TECHNOLOGY

IMPLEMENTATION GROUP

NOVEMBER 28, 1983

Joseph E. Blackburn
Dr. Thomas A. Graves
T. Justin Moore, Jr.
G. L. Robertson
Anne P. Satterfield
Dr. Edgar A. Toppin
Dr. Thomas P. Wallace
Hays T. Watkins, Chairman

of on-site graduate education were two separate issues which deserved individual attention. It was the conclusion of the Working Group that unless these issues were addressed separately, both the purposes of the Center and the possibility of meeting graduate education needs for Northern Virginia industry would be jeopardized.

The Site Selection Subcommittee concurred with this assessment and proceeded upon its mission with the understanding that the Center was not intended to meet the graduate education needs and that the prospects for graduate education in Northern Virginia would not be jeopardized by the location of the Center.

PROCEDURE

On October 6, 1983, the Subcommittee received detailed presentations from Fairfax, Loudoun and Prince William Counties. Arlington County and the City of Alexandria notified the Sub-Committee that neither had potential sites to offer for consideration.

In addition to economic and community profile data and depictions of quality-of-life in each locality, nine specific sites were recommended in Loudoun, Fairfax and Prince William Counties.

It was the consensus of the Subcommittee that, in order to achieve a more valid assessment of the entire region, additional sites should be submitted. In response to this request, 12 additional sites were proposed.

On October 12, 1983, the original nine sites recommended by the three jurisdictions were visited by Subcommittee Staff. On October 24, 1983, the additional sites were visited by Subcommittee Staff. On October 28, 1983, Subcommittee Chairman Watkins and Staff visited and reviewed all 21 sites, both by helicopter and by automobile.

On November 10, 1983, the Subcommittee convened in Richmond to review and analyze all 21 sites and make final recommendations to be forwarded to the Implementation Group and, ultimately, the Governor.

Among the many factors used to assess each site were: (1) proximity to the concentration of present and anticipated high-tech industry; (2) access from existing highways; (3) visibility; (4) cost; (5) size; (6) existence of utilities; (7) potential for additional private-sector growth.

Following extensive, careful and candid consideration of all sites, the Subcommittee recommends four sites for the proposed Center.

Amplifying information is attached.

FAIRFAX COUNTY
Proposed CIT Sites

SITES #F1 & #F2
CHANTILLY EXECUTIVE PARK: 161.31 Acres
CHANTILLY LAND INVESTMENT GROUP: 115.34 Acres

Located on Route #50, approximately 15 minutes from Dulles entrance; priced generally in the $40,000/acre range; offer somewhat less visibility than those sites which parallel Dulles but appear to be situated in corridor ripe for technology-oriented development.

CHANTILLY EXECUTIVE PARK: located on the south side of Route #50 at the Loudoun/Fairfax County line; topography is slightly rolling with water and sewer lines under construction at the site; natural gas is approximately 1-1/4 miles east.

CHANTILLY LAND INVESTMENT GROUP: located on Route #50 at the intersection of State Route #607; topography is level and water line is on site; sewer line under construction along Cob Run, 2,000 feet west and natural gas is at intersection of State Route #661 approximately 1,000 feet east.

SITE #F3
CHILES TRACT: 500 Acres

Located on the west side of State Route #28 between Routes #620 & #661; priced at 50 cents/square foot - entire package priced at $4.5 million - very attractive price for market area; approximately 15 minutes from Dulles to the north and Interstate Route #66 to the south; topography is level to gently rolling; water, sewer and natural gas available at site.

SITES # F4 & F5
SULLY FIELD BUSINESS PARK: 138.15 Acres
DULLES AIRPORT INDUSTRIAL PARK: 200+ Acres

Located on the east side of State Route #28; abut one another; offer essentially identical access as Site #F3 but vary greatly in price with Site #F4 considerably more expensive ($3.00 -$3.25/sq. ft.) than Site #F5 ($1.50/sq. ft. or $60,000/acre).

SULLY FIELD BUSINESS PARK: just off State Route #50 between Routes #28 (Sully Road) and #657 (Walney Road); topography is level to slightly rolling; water and natural gas on site; sewer line approximately 3,000 feet to east; building(s) under construction on site at this time.

SITES #F11 & F12
LAKE FAIRFAX BUSINESS CENTER: 67+ Acres
THE BRANCHES: 30+ Acres

Located in the Reston area along either side of the Dulles Access Road; while they appear attractive on paper, access is subject to severe rush-hour traffic; in addition, price ranges up-to $4.00/sq. ft.; smaller than minimum requirements of 100 acres; difficult to recommend.

SITE #F13
GEORGE MASON UNIVERSITY CAMPUS SITE: 160 Acres

Located on State Route #123 (Chain Bridge Road) across from main campus; topography is rolling to hilly; water and sewer available at site; site is surrounded by residential and commercial activity which might preclude long-term development, and access is limited to Route #123 passing through Fairfax City on two-lane road with much noticeable conjestion.

LOUDOUN COUNTY
Proposed CIT Sites

SITE #L1
ROUSE SITE: 104 Acres

Located at the intersection of Route #28 and Dulles Access Road; topography is rolling; water and sewer lines at site; natural gas is 3,500 feet north; $60,000-$80,000/acre.

SITE #L2
DULLES INDUSTRIAL ASSOCIATES: 150 Acres

Located on Route #28 approximately 2.5 miles north of Dulles Airport; topography ranges from rolling to hilly along the two streams located on the site; water and sewer at site; natural gas approximately one mile south; $25,000/acre.

SITE #L3
DULLES INDUSTRIAL ESTATES: 200 Acres

Located at the intersection of State Routes #7 & #28 approximately 5 miles north of Dulles Airport; part of site located on bluff approximately 40 feet high; generally, topo is rolling; natural gas is 2.5 miles south; water and sewer at site; $30,000/acre.

Finance Subcommittee

INTERIM REPORT

FINANCE SUBCOMMITTEE

for

THE CENTER FOR INNOVATIVE TECHNOLOGY

IMPLEMENTATION GROUP

November 28, 1983

James C. Wheat, Jr., Chairman

John S. Autry
Stanley E. Harrison
Dr. George W. Johnson
Sydney Lewis
A. William Perigard
E. Donald Stack
John R. Turbyfill

REPORT OF THE FINANCE SUBCOMMITTEE

The Finance Subcommittee concludes that there are excellent prospects for substantial private sector support for the Center for Innovative Technology and recommends that the Subcommittee be continued in existence to make recommendations on the Center's financial structure and to support future fund-raising efforts.

At its initial meeting on August 29, the Finance Subcommittee agreed that definition of the structure and location of the CIT would have to precede considerations of financial structure and fund-raising. Pending completion of the work of the Operations and Organization Subcommittee and of the Site Selection Subcommittee, the Finance Subcommittee defined and reviewed the various financing options that are available and considered the types of contributions that might be made by the private sector including the relative merits of capital grants and endowments to meet certain operating expenses. The Subcommittee also assessed the tax effects for contributors under various circumstances.

The Subcommittee has reviewed and endorsed the recommendation of the Site Selection Committee that the CIT be located in Northern Virginia.

The Subcommittee believes the Center is widely and correctly perceived by business and industry in all parts of Virginia as an important asset for the entire state that will provide both direct and indirect benefits to the economy of the state. The location of the center in Northern Virginia is recognized as logical and necessary in view of the concentration of high technology industry in that area. It will not preclude the development of substantial private financial support for the Center in other parts of Virginia.

Appendices

APPENDIXES

Appendix A	Research during Phase One
Appendix B	Phase Two Description
Appendix C	Implementation Plan
Appendix D	CIT Legal Structure - Articles of Incorporation
Appendix E	CIT Resource Requirements
Appendix F	Duties and Qualifications of CIT President
Appendix G	Duties of CIT Education Liaison Officer
Appendix H	Considerations for the Memorandum of Agreement between Participating Universities and the CIT
Appendix I	Indirect Costs of CIT Projects
Appendix J	Research Parks

2. The ability to produce mono-specific (monoclonal) antibodies using newly developed hybridoma technology has just begun to be applied in biomedical research areas such as the detection and treatment of human and animal diseases, including cancer. An operational, state-of-the-art hybridoma facility is in place at VCU, and monoclonal antibodies currently are being produced for use in organ transplantation, cancer and arthritis research, and in research on herpes virus as an agent of venereal disease. A second hybridoma facility is under construction at UVa. Realization of industrial applications of monoclonal antibodies is just beginning with detection of toxins, diagnostic reagents, and purification of rare proteins serving as important examples.

3. Much of the most sophisticated instrumentation used in scientific research has been developed by biologists because of the extreme demands of basic biological research. These include X-ray crystalography techniques, electron microscopy, and nuclear magnetic resonance. These are techniques which are expensive to develop at the state-of-the-art level, but their availability in the Commonwealth will greatly enhance research of importance to both academic and industrial needs and goals.

The Research Director for this activity will be in residence at Virginia Commonwealth University.

Research Institute for Computer Aided Engineering (CAE)

The rationale and need for this Institute stem from related research and educational activities in CAE which have been underway at UVa and VPI&SU for many years. These activities have heretofore taken place nearly independently within the various engineering departments. The level of sophistication in these efforts now requires substantial investments in and organization of supporting equipment, space and personnel. To encourage increased interdisciplinary research as well as sharing of expensive resources, these diverse activities will be integrated into the CAE Research Institute. By creating a focal point for faculty teaching and research in this area, the growing momentum may be capitalized upon in order that research projects of greater magnitude and scope may be undertaken.

It is expected that the CAE Institute will establish a few selected areas within which noted expertise will be present, determined largely by ongoing research conducted by associated faculty. As affiliations with other Commonwealth universities and sponsored programs grow, a natural evolutionary process will define the total scope of activities.

Advanced automation (including artificial intelligence and computer vision), integrated manufacturing systems (robotics and integrated manufacturing processing), and structural dynamics will comprise the initial components of this research thrust area.

The Research Director for this activity will be in residence at the University of Virginia.

can make available." It is timely to explore the opportunities for interaction in the materials area, especially when funding patterns point to a larger role played by industry.

The Research Director for this activity will be in residence at Virginia Polytechnic Institute and State University.

Research Institute for Information Technology

The growing post-industrial economy is based largely on services, with a minority of workers now engaged in the production of goods. The majority of service workers are actually engaged in the creation, processing, and distribution of information. Whereas the traditional service sector has provided a steady one-tenth of the jobs for the U.S. workforce, the real surprise has been in the information occupations. In 1950 only about 17% were employed in information jobs, but now more than 60% of the workforce works primarily with information (Megatrends, John Naisbitt, Warner Books, 1982).

Virginia has done well in furthering its economic development by attracting new manufacturing industries and by encouraging industrial expansion. The challenge now is in attracting firms whose business is based largely on information. The focus must be on more than just providing manual employment for the 75,000 Virginians who enter the workforce each year; Virginia can provide the knowledge, workers and information technologies so essential to the coming information society. Expanding corporations have frequently looked to Virginia as a place where a dedicated workforce and plentiful supporting services can be found. Often, however, the information technologies and knowledge which underlie commercial ventures have come to the Commonwealth from elsewhere. Information processes and information processors (computers) are the magnets to attract information oriented business.

Information has utility. From negative electronic charges, through bits and bytes, to intelligence-bearing signals, information is created by "engineering" the physical. This engineering embodies and draws upon the relatively new disciplines of computer hardware/software engineering, operations research/decision sciences, systems engineering/analysis, and the all important human/computer interface. Each of these may be briefly described as follows:

1. Computer hardware/software engineering - the theory and design of digital and/or analog machines together with the integrated design and development of software (and firmware). Topics include hardware description languages, data representation, instruction and addressing, switching and signal processing, memory hierarchies, hybrid computation, computer intercommunications, pattern recognition, digital structures, language and interpreters, operating systems, machine decomposition, fault analysis, and reliability/security.

2. Operations research/decision sciences - the theory, modeling, and design of management information, decision, and control systems. Topics include indirect experimentation and simulation, decision and utility theory, model formulation, optimization, and implementations, mathematical programming, queueing theory, inventory and replacement theory, forecasting models, stochastic processes, deterministic and stochastic control, feedback and feedforward analysis, systems optimization, and sensitivity analysis.

Other Research

In addition to the established research strengths at VPI&SU, UVa, and VCU, each of which already receive total research funding well in excess of $10,000,000 per year, important studies are proceeding in other Virginia universities at a considerably lower funding level. These include Virginia State University, Old Dominion University, and The College of William and Mary, each of whose research funding exceeds $1,000,000 per year.

The CIT must be prepared to identify Virginia university research expertise relevant to industry needs both inside and outside the four initial Research Institutes; to market that expertise so that industry can tap into it effectively and efficiently for research assistance and the participating universities can benefit from an increased flow of industry sponsored funding. Consistent with the modular design of the CIT, research programs can begin, evolve, or end at any Virginia university (within or without the four initial Research Institutes) where a match can be found of industry needs and university capability and interest. If the interest and expertise of the personnel at the sponsored university evolve into a major state focus of research, a new Research Institute could be created.

An example of such a potential Institute evolving in high energy physics is related to the proposed Newport News siting of the $400 million National Electron Accelerator Laboratory. If funding is approved by the federal government, this most sophisticated high-energy facility in the world will attract the expertise, research resources, and industrial clients that could lead to the development of another Research Institute in High Energy Physics at the College of William and Mary. This Institute would attain full partnership in the CIT with the initial four Institutes.

Appendix B - Phase Two Description

The following activities are planned for CIT Phase Two:

1. Prototype construction and production design for entrepreneurial ventures. "Incubator" space would be provided for small new companies to set up shop inexpensively, to design and construct prototype products, and to design and test production techniques. Research and business development assistance would be provided as needed. In turn, selected industries could make available facilities to allow graduate students to do agreed-upon and appropriate research/technology.

2. Research in the four areas of emphasis which have been identified for the CIT, with special attention given to the needs of developing high technology companies.

3. Implementation planning, including management organization, product market surveys and financial planning. The faculties of business in Virginia's major institutions can help industry, particularly new companies, in a variety of ways.

4. Special projects undertaken by universities which are not located in Virginia, either independently or jointly with Virginia institutions. The CIT could become an important site of research activity undertaken by major universities across the nation which desire to conduct the research close to sponsoring federal agency's headquarters. Space could be leased to these universities, and special efforts made to enter into joint projects with them. International research partnerships also are possible.

5. Instruction, including graduate engineering and computer science programs offered by instructional television from University of Virginia and Virginia Polytechnic Institute and State University, and on-site courses offered by faculty resident in northern Virginia on leave to work at CIT, employed as adjunct faculty from local industry, or commuting from institutions outside the area. It should be noted that the CIT is not designed to be another institution of higher education.

   The Working Group believes that addition of on-site graduate education capabilities at the CIT in Phase Two that utilize interactive instructional television could assist those smaller companies in the Northern Virginia area that desire to provide local engineering/science graduate education options for their employees but cannot afford their own on-site ITV facilities. Ultimately, as viable cooperative research/technology activities develop at the CIT site between industry and the university community, participating companies will almost certainly desire the opportunity for advanced degrees for selected personnel.

6. Assessing the feasibility and character of one or more industrial educational parks in Virginia, perhaps having a distinctive emphasis on national and international industry.

Appendix C - Implementation Plan

Action	Date Recommended
1. Governor form Selection Committee to search for CIT President Candidates.	January 1, 1984
2. Governor form an Interim Operating and Communications Committee and appoint an Interim President to progress CIT, handle personnel activities and staff insurance, and assist with legislative relations as requested until appointment of the permanent board and president.	January 1, 1984
3. Legislation presented to General Assembly for creation of the CIT Authority.	January 10, 1984
4. Hiring of permanent CIT President.	July 1, 1984
5. Governor names Board of Directors of permanent CIT Foundation (no legislative action required).	February 1, 1984
6. Governor names members of Governing Board of CIT Authority (may be same individuals named in Action 5).	March 15, 1984
7. Phase One operations commence; Location is in temporary quarters loaned or leased until the 10,000 sq. ft. office complex is constructed.	July 1, 1984
8. Completion and concurrence among participating CIT institutions of the formal agreements delineating their relationships to the CIT and their cooperative relationships with each other under the auspices of the CIT.	As soon as permanent CIT President approves MOA wording

Appendix D - CIT Legal Structure - Articles of Incorporation

ARTICLES OF INCORPORATION

OF

THE CENTER FOR INNOVATIVE TECHNOLOGY

A Virginia Nonstock Corporation

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1. The name of the Corporation is THE CENTER FOR INNOVATIVE TECHNOLOGY.

2. The purposes of the Corporation are to:

(a) Enhance and expand the scientific and technological research and development capabilities of the institutions of higher learning in the Commonwealth of Virginia and coordinate such capabilities with the scientific and technological research and development activities and requirements of the public and private sectors;

(b) Expand knowledge pertaining to scientific and technological research and development among public and private entities, including but not limited to knowledge in the areas of information technology, biotechnology, computer-assisted engineering and materials science and engineering;

(c) Encourage and provide for specialized graduate education programs in science and technology;

(d) Promote the economic and industrial development of the Commonwealth of Virginia; and

(e) Conduct any other lawful affairs, not required to be specifically stated in these Articles, for which corporations may be incorporated under the Virginia Nonstock Corporation Act.

3. (a) The Corporation is organized and shall be operated exclusively for scientific, educational and charitable purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code of 1954, as amended (the "Code"). It may engage only in activities that may be carried on by a corporation exempt from federal income taxation under Section 501(c)(3) of the Code or the corresponding provision of any future

as directors during their terms in those offices. The sole member of the Corporation shall appoint 12 other directors as follows: two representing other institutions of higher learning in the Commonwealth, five representing the business community, and five representing the general citizenry, at least two of whom shall be members of the General Assembly of Virginia.

(c) Commencing in 1984, the directors to be appointed by the sole member of the Corporation shall be divided into three classes as nearly equal in number as possible. Directors of one class shall be appointed to hold office for terms of one year; directors of the second class, for two years; and directors of the third class, for three years. In each succeeding year, the successors to the class of directors whose term expires then shall be appointed to hold office for a term expiring three years after their appointment. When the number of directors to be appointed by the sole member of the Corporation is changed, the increase or decrease shall be apportioned among the classes by the Board of Directors so as to make all classes as nearly equal in number as possible.

(d) The following 15 persons constitute the initial Board of Directors of the Corporation:

Name	Address

7. In the event that the Corporation is dissolved, any assets remaining after payment (or provision for payment) of all claims against it shall be distributed among the institutions of higher learning in the Commonwealth for scientific, educational and charitable purposes.

8. (a) The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (including an action or suit by or in the right of the Corporation to procure a judgment in its favor), by reason of the fact that he

reliance on the advice of independent counsel shall be permitted as to all questions of law.

(e) Expenses incurred in defending an action, suit or proceeding, whether civil, criminal, administrative or investigative, may be paid by the Corporation in advance of the final disposition of such action, suit or proceeding as authorized in the manner provided in subsection (d) above, upon receipt of an undertaking by or on behalf of the director, officer, employee or agent to repay such amount unless it shall ultimately be determined that he is entitled to be indemnified by the Corporation as authorized in this section.

(f) Every reference herein to a director, officer, employee or agent shall include former directors, officers, employees and agents, and their respective heirs, executors and administrators. The right of indemnification hereby provided shall not be exclusive of any other rights to which any director, officer, employee or agent may be entitled, including any right under policies of insurance that may be purchased and maintained by the Corporation or others, with respect to claims, issues or matters in relation to which the Corporation should not have power to indemnify such director, officer, employee or agent under the provisions of this section.

Dated: November __, 1983

_____
Incorporator

EXHIBIT B

HUNTON & WILLIAMS
707 EAST MAIN STREET P. O. BOX 1535
RICHMOND, VIRGINIA 23212
TELEPHONE 804 - 788 - 8200

B & T BUILDING
P. O. BOX 109
RALEIGH, NORTH CAROLINA 27602
919-828-9371

FIRST VIRGINIA BANK TOWER
P. O. BOX 3889
NORFOLK, VIRGINIA 23514
804-625-5501

1919 PENNSYLVANIA AVENUE, N. W.
P. O. BOX 19230
WASHINGTON, D. C. 20036
202-223-6650

October 25, 1983

CENTER FOR INNOVATIVE TECHNOLOGY: OVERVIEW OF TAX CONSIDERATIONS

The Governor's Task Force on Science and Technology has endorsed the concept of a Center for Innovative Technology to conduct and sponsor research in high technology fields, coordinate the research efforts of Virginia's major research universities with the needs of private industry in these areas, and increase opportunities for graduate education. The CIT Organization and Operations Working Group has recommended the creation of an Innovative Technology Authority (the "Authority") to hold title to property and effect tax-exempt financing and a separate non-stock corporation (the "CIT") to operate the Center for Innovative Technology. This memorandum discusses the status of the CIT as a separate tax-exempt entity.

Conclusions

1. The CIT should seek tax exemption under Section 501(c)(3) of the Internal Revenue Code to ensure that its income will not be subject to tax and that donors will be able to claim income tax deductions for their contributions.

2. (a) The Articles of Incorporation should satisfy the requirements of Section 501(c)(3). That section will impose certain restrictions on the research activities of the CIT, its ability to enter into joint research ventures with private entities, and

the CIT in accordance with Section 170 of the Code. Individuals may claim estate and gift tax deductions in accordance with Sections 2055 and 2522.

General Considerations

The CIT is to be a Virginia nonstock not-for-profit corporation. The Governor, as the sole member of the corporation, will appoint a board of directors that will be responsible for the actual operations of the CIT. Operating funds will come initially from appropriations by the General Assembly but may be supplemented in later years by contributions from private industry and the general public and by research revenues.

The CIT must obtain exemption from income taxes in order to ensure that all of its income will be available for use in continuing and expanding its activities. Section 115 of the Internal Revenue Code of 1954, as amended ("IRC"), exempts from federal income tax all income derived by a political subdivision of a state from the exercise of any essential governmental function. Despite its close ties to the Commonwealth through gubernatorial control of the board of directors and state funding, the CIT is not a political subdivision of the Commonwealth. Consequently the CIT must qualify for federal tax exemption under IRC Sections 501(a) and (c), the general exemption provisions of the Code.

IRC Section 501(c)(3) provides the most desirable tax-exempt status. This classification not only will exempt CIT income from federal tax but also will allow private donors to claim tax deductions for their contributions. See IRC § 170(a). Moreover, a separate exempt entity may attract contributions for specific research projects from private donors who would be reluctant to contribute to the Commonwealth or the Authority for general purposes. As a Section 501(c)(3) organization, the CIT also may be exempt from some state law requirements, (e.g., personnel, procurement, and investment restrictions) that apply to political subdivisions of the Commonwealth and may qualify for other benefits such as special non-profit postal rates.

activities. These purposes appear to be "educational" or "scientific" as those terms are normally used. Nevertheless, Treasury Regulation 1.501(c)(3)-1(d)(5) imposes some restrictions on the types of research that a Section 501(c)(3) organization can conduct or support.

In general, the efforts of an exempt organization must benefit the public. Regulations provide that research will further the public interest if its purpose is:

> (1) . . . aiding in the scientific education of college or university students;
>
> (2) . . . obtaining scientific information, which is published in a treatise, thesis, trade publication or in any other form that is available to the interested public;
>
> (3) . . . discovering a cure for a disease; or
>
> (4) . . . aiding a community or geographical area by attracting new industry to the community or area or by encouraging the development of, or retention of, an industry in the community or area.

Treas. Reg. § 1.501(c)(3)-1(d)(5)(iii)(c).

The Regulations specifically allow a scientific organization to conduct and support research under a contract in which a private sponsor has the right to control any resulting patents, copyrights, processes or formulae. Treas. Reg. § 1.501(c)(3)-1(d)(5)(iii)(c)(4). If the private sponsor withholds publication of the research findings longer than is reasonably necessary to obtain a patent or other protection, however, the research will lose its public character and will be treated as if conducted primarily for the benefit of the sponsor. Rev. Rul. 76-296, 1976-2 C.B. 142.

If the exempt organization itself retains the right to such by-products of research, it must make

may occur if a director or employee or a third party with whom the CIT contracts is permitted to acquire its assets, except as reasonable compensation for goods provided or services rendered. Treasury Regulations do allow the CIT to agree that a private sponsor will be entitled to all patents and other by-products of research that the sponsor has funded. Treas. Reg. § 1.501(c)(3)-1(d)(5)(iii)(c)(4).

When the CIT and private sources each contribute funds toward a research project, the potential for inurement may increase. At one point, the Internal Revenue Service took the position that any joint venture between an exempt organization and a for-profit entity resulted in prohibited inurement and constituted grounds for revoking the tax exemption. The Service now has abandoned that position and has approved several joint ventures between exempt and non-exempt entities, most notably in the construction of medical office buildings. See, e.g., Priv. Ltr. Rul. 8013041 (1/4/80). The Tax Court has agreed. See Plumstead Theatre Society, Inc. v. Commissioner, 74 T.C. 1324 (1980), aff'd. 675 F.2d 244 (9th Cir. 1982). Although the Service has not formulated a position on all types of joint ventures with taxable entities, it appears that the CIT should be able to enter into such arrangements without affecting its exemption so long as the contribution made by each party and the risks borne by it are roughly proportional to the benefits it derives.

Operational Requirements: Restrictions on Political Activity. A Section 501(c)(3) organization is absolutely prohibited from intervening in political campaigns on behalf of particular candidates. It is not prohibited from engaging in other lobbying that does not constitute a "substantial part" of its total activities. The authorities offer no particular guidance on the amount or percentage of activity that will be deemed substantial; instead they look at the facts and circumstances of each individual instance.

If the CIT does not wish to depend on a facts-and-circumstances analysis of its lobbying activities in any year, it may elect to be covered by IRC Section 501(h), which provides a formula for determining the amount an organization can spend on lobbying activities without jeopardizing its exemption. The amount is determined as a proportion of the amount

available to fulfill its exempt purposes. IRC § 4940. Second, it is subject to additional investment restrictions and income payout requirements, all enforceable by substantial penalty taxes both on the organization and, in some instance, on its officers and directors. IRC §§ 4941-45. Third, it is subject to more burdensome return filing and reporting requirements. IRS § 6033(c). Fourth, individuals' contributions to a private foundation are subject to stricter limits on income tax deductibility, see, e.g., IRC § 170(b)(1)(B); and contributions by other foundations will subject the contributor to burdensome annual reporting requirements. IRC §§ 4945(d)(4), (h). In short, there are substantial disadvantages--but no advantages--to private foundation status.

The CIT can avoid private foundation status by showing that it (1) receives at least 10% (and preferably one third or more) of its total support from the United States, the Commonwealth or a political subdivision or from direct or indirect contributions from the general public, IRC § 509(a)(1); (2) receives at least one third of its support from a combination of gifts, grants, contributions, membership fees and certain receipts from performance of its exempt function and not more than one third from gross investment income and net income from unrelated trades and businesses, IRC § 509(a)(2); or (3) is operated, supervised or controlled by the Commonwealth or the Authority and performs functions that the Commonwealth or the Authority would perform if it did not exist. IRC § 509(a)(3).

The first two tests focus on the sources of the CIT's financial support, while the third looks at the CIT's relationship to the Commonwealth or one of its political subdivisions. It appears that the CIT initially could escape private foundation status under any of these tests. If its research activities eventually generate enough profit to sustain it without state support or if it accumulates a substantial endowment, however, it may not continue to meet either of the support tests. The Governor's status as sole member of the CIT therefore is particularly important in ensuring that the CIT always can avoid private foundation status and the associated taxes and operating restrictions.

excluded from the definition of unrelated business taxable income in IRC Section 512.

As noted above, all of the CIT's purposes generally qualify as educational, scientific or charitable within the meaning of IRC Section 501(c)(3). Treasury Regulation 1.513-1(d) provides, however, that the income may be subject to tax if (1) income-producing activities are conducted on a larger scale than is reasonably necessary for performance of the CIT's exempt function, (2) the facilities of the CIT are employed in commercial endeavors, or (3) the CIT exploits the goodwill or other intangibles generated by performance of its exempt function in commercial endeavors.

Even if any of the CIT's activities constitute an unrelated trade or business, certain types of income (and related deduction) resulting from those activities will be tax-exempt. IRC Section 512(b) excludes the following from the definition of "unrelated business taxable income": dividends, interest, royalties, most rents from real property, gains from the sale of property other than inventory or other assets held primarily for sale to customers in the ordinary course of business, and income from research for governments, political subdivisions, and federal agencies or instrumentalities.*

The situation is further complicated by the "unrelated debt-financed income" rule, which renders taxable certain income derived from investment property

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*The statute also contains an exception for income from all research performed by "an organization operated primarily for purposes of carrying on fundamental research the results of which are freely available to the general public." IRC § 512(b)(9). That exception would not apply to the CIT, however, unless its articles of incorporation prevented it from devoting more than an insubstantial amount of its activities to applied research and to educational activities not directly connected with fundamental research. Published authorities give no ratio or other quantitative rule for determining the amount of incidental activity that will be deemed not to affect an exempt organization's "primary" purpose.

formulae. Fees designed to reimburse the CIT for direct and indirect expenses associated with the matching of sponsors and research institutions also should be nontaxable. In contrast, percentage fees and other compensation that exceeds the CIT's costs may be taxable income. Coordinating research activities arguably fulfills one of the CIT's exempt purposes, but the receipt of income in excess of direct and indirect expenses may indicate that the scale is larger than reasonably necessary for its exempt purposes or that its primary objective is income production.

3. Performance of Research for Private Sponsors. After a permanent CIT facility has been constructed, the CIT may conduct privately-sponsored research there. Royalties received from the products of such research will be exempt. Direct compensation likewise should be exempt if designed to cover the CIT's direct and indirect costs.

4. Joint Venture with Private Sponsor. If the CIT and a private sponsor each contribute toward the funding of research at a participating university, the Internal Revenue Service will examine the transaction carefully to ensure that CIT assets are not subject to inordinate risks and that there are no other indicia of private inurement. If no inurement is found, the rules outlined for other types of transactions would be applicable.

5. Incidental Use of Assets and Facilities. The regular use of, for example, the CIT's word processing equipment or meeting facilities by third parties who are not performing scientific or educational activities may generate unrelated business income. Proper planning can shelter some of this income from tax, as in the case of facility rents, which often can qualify for the real estate rental exception under IRC Section 512(b)(3).

6. Endorsements and Advertising. If the CIT endorses products or processes based upon its research or accepts paid advertisements in any publications it may use to disseminate the results of its research, the revenue derived is likely to be taxable as income from the exploitation of goodwill generated through the CIT's exempt activities.

ordinary and necessary business expenses, without any percentage limitation based on taxable income.

Individuals generally may claim income tax deductions for contributions to the CIT to the extent that their total charitable contributions for the year do not exceed 50% of adjusted gross income. See IRC § 170(b)(1)(A). Excess contributions can be carried over for up to five years. Lower deduction limitations apply to tangible personal property that is put to an unrelated use, inventory and certain capital gain property. Other restrictions apply to contributions of property placed in trust and contributions of certain partial interests in property. Much stricter limitations on deductibility would apply if the CIT were a private foundation.

Unlimited gift and estate tax contribution deductions are available for outright gifts to qualified scientific, educational and charitable organizations. See IRC §§ 2055, 2522. Gifts and bequests of remainders and other partial interests must be made in specific forms in order to qualify for the deduction.

A detailed explanation of the tax rules applicable to contributions to the CIT is beyond the scope of this memorandum. Prospective donors to the CIT should consult their counsel before making gifts.

HUNTON & WILLIAMS

James A. Jones, III
J. W. Gray, Jr.

EXHIBIT C

HUNTON & WILLIAMS
707 EAST MAIN STREET P. O. BOX 1535
RICHMOND, VIRGINIA 23212
TELEPHONE 804-788-8200

B B & T BUILDING
P. O. BOX 109
RALEIGH, NORTH CAROLINA 27602
919-828-9371

FIRST VIRGINIA BANK TOWER
P. O. BOX 3889
NORFOLK, VIRGINIA 23514
804-625-5501

1919 PENNSYLVANIA AVENUE, N. W.
P. O. BOX 19230
WASHINGTON, D. C. 20036
202-223-8650

October 24, 1983

MEMORANDUM

STATE LAW REQUIREMENTS APPLICABLE TO PROPOSED CENTER FOR INNOVATIVE TECHNOLOGY

This memorandum discusses whether an authority created by the General Assembly (the "Authority") and a private nonstock corporation formed by the Governor (the "CIT") to finance and operate the Center for Innovative Technology would be exempt from the requirements of State law governing State agencies or institutions. In addition, the memorandum analyzes the application of the Virginia constitutional provision prohibiting the General Assembly from making appropriations to charities.

Conclusions

(1) The Authority will be subject to administrative requirements of State law involving personnel, procurement, freedom of information, conflicts of interest and privacy protection and may be subject to State requirements involving investments, unless exemption from these requirements is provided by statute. The Authority will not be subject to the State retirement program.

(2) The CIT will be subject to administrative requirements of State law involving freedom of information, conflicts of interest and privacy protection and may be subject to State requirements involving personnel, procurement and investments, unless

operations and are subject to State control. See Citizens' Foundation of the Richmond Professional Institute v. City of Richmond, 207 Va. 174 (1966); 1976-77 Op. Att'y Gen. 319 (June 23, 1977); 1978-79 Op. Att'y Gen. 306 (July 13, 1978); 1979-80 Op. Att'y Gen. 5 (January 30, 1980); 1981-82 Op. Att'y Gen. 337 (May 19, 1982). However, the mere funding of a private corporation, absent State ownership or control or the performance of a public duty, will not make the corporation a governmental agency. See Khoury v. Community Memorial Hospital, Inc., 203 Va. 236 (1962). Instrumentalities, on the other hand, while subordinate to the Commonwealth, are not supported by general funds of the Commonwealth but by special assessments or other specially raised funds. See 1979-80 Op. Att'y Gen. 5 (January 30, 1980).

These distinctions are relevant in several respects. First, the powers of the Authority's Board (e.g., selection of the Executive Director) must be expressly stated in the Authority's enabling act, otherwise, such powers may be limited by general provisions of State law governing State agencies. Second, the CIT, while not a political subdivision of the Commonwealth, may nevertheless be an agency or instrumentality thereof by virtue of its dependence on State funding, its control by the Governor, and its performance of some governmental functions. As such, it would be subject to State administrative controls and regulations. If it is desirable to free the CIT from these controls and regulations, the enabling act for the Authority should explicitly exempt the CIT from these requirements.

Requirements of State Law Governing State Agencies and Institutions

The principal administrative requirements generally applicable to State agencies and institutions include the following operational categories: personnel, procurement, freedom of information, conflicts of interest, investments, privacy protection, retirement and miscellaneous matters. Each of these categories is discussed in more detail below.

> ...any legislative, executive or judicial body, agency, office, department, authority, post, commission, committee, institution, board or political subdivision created by law to exercise some sovereign power or to perform some governmental duty, and empowered by law to undertake the activities described in this chapter. (Section 11-37).

All public contracts with nongovernmental contractors for the purchase or lease of goods, services or insurance or for construction are required to be awarded only after "competitive bidding and negotiation" (Section 11-41). Contracts for professional services are required to be procured by "competitive negotiation" (Id). Section 11-41.1 provides that no contract to construct or improve a building by any "local government" (not defined) or subdivision thereof for which state funds of $10,000 or more (by appropriation, grant-in-aid or loan) are used shall be let except after "competitive bidding or negotiation." Section 11-41.2 permits the Commonwealth to enter into certain "design-build" or "construction management contracts," provided certain procedures are followed, including approval by the House Appropriations and Senate Finance Committees. Section 11-45 exempts specific activities from the statute, but none of these apply to the present situation.

The Authority is obviously a public body for purposes of procurement. Is the CIT a public body for such purposes? Arguably, the CIT would not be "created by law" or "empowered by law" to undertake procurement activities. However, there is at least one Attorney General's opinion that indicates that "created by law" would include the incorporation of a corporation. 1972-73 Op. Att'y Gen. 463 (April 18, 1972). As presently envisioned, the CIT is expected to perform some governmental duties in coordinating the research activities of State institutions of higher education and providing graduate educational opportunities. Most of its basic funding will come from the Commonwealth and it is controlled by the Governor. The CIT may, therefore, be deemed to be an "agency" of the State and the Procurement Act may apply to its operations.

3. Freedom of Information. The Virginia Freedom of Information Act (Sections 2.1-340 through 2.1-346.1 of the Virginia Code) ("FOIA") is applicable to public bodies including:

(4) Confidential letters and recommendations in connection with applications for employment (Section 2.1-342(6));

(5) Library records (Section 2.1-342(7));

(6) Employment or aptitude tests (Section 2.1-342(7));

(7) Vendor proprietary information held for processing data for state agencies (Section 2.1-342(15)); and

(8) Data, records or information of a proprietary nature, other than financial or administrative, produced or collected by or for faculty or staff of state institutions of higher learning in the conduct or as a result of study or research on medical, scientific, technical or scholarly issues, whether sponsored by the institution above or in conjunction with a governmental body or a private concern where such data, records or information have not been publicly released, published, copyrighted or patented (Section 2.1-342(16)).

Thus, there are limits to the extent to which records of the CIT would be open to public inspection and item (8) above provides important protection for proprietary information. However, all meetings of the CIT board, advisory groups or committees would be required to be open to the public unless exempted under other general exemptions described in FOIA.

4. Conflict of Interest. The General Assembly enacted the new Comprehensive Conflict of Interest Act (Section 2.1-634 of the Virginia Code) (the "COIA") in 1983. The COIA governs conflicts of interest of employees and officers of "governmental agencies." Governmental agencies are defined as:

> ... each component part of the legislative, executive or judicial branches of state and local government, including each office,

prevented from contracting with the CIT (except on a competitive basis) if Board members from the institution are directly involved in the research or services that are the subject of the contract.

5. Retirement. The Virginia Supplemental Retirement Act (Sections 51-111.9 through 51-111.67:21 of the Virginia Code) (the "Retirement Act") provides for pension and retirement payments by and for "state employees." The latter are defined to include:

> ... any person who is regularly employed full time on a salary basis, whose tenure is not restricted as to temporary or provisional appointment, in the service of, and whose compensation as payable, not oftener than biweekly, in whole or in part, by the Commonwealth or any department, institution or agency thereof.... (Section 51-111.10 and 51-111.10:01).

Section 51.111.28 provides that institutions of higher education may arrange for its employees to elect to participate in other retirement plans. Section 51-111.31 permits the governing body of any "public authority or body corporate" created by or under an act of the General Assembly to elect to have their officers and employees covered by the State retirement system. The distinction drawn by Section 51-111.31 would suggest that neither the Authority nor the CIT would automatically be covered by the State retirement system.

6. Investments. Section 2.1-180 of the Virginia Code requires that "public funds" received by State agencies be deposited to the credit of the State Treasury. This includes funds held by every State board, commission, institution or other agency owned or controlled by the State. Endowment funds or gifts to institutions owned or controlled by the State and income derived therefrom are exempt from this requirement. It would appear that the public moneys held by the Authority may be required to be deposited in the State Treasury. This would also mean that moneys held by the Authority would be limited to the investments permitted by Sections 2.1-327 through 2.1-329.1 of the Virginia Code and could be deposited only in public

Section 2.1-296 of the Virginia Code requires that two copies of each publication of a State agency (published in full or in part at State expense) be filed with the State Library and one copy with the Department of Purchase and Supply. Each agency is also required to keep records as to the expense of publications.

In summary, unless the Authority and the CIT are exempted, in whole or in part, from State administrative requirements, it is likely that they will be encumbered with many, if not all, such requirements.

Constitutional Restrictions on Appropriations to Charities

Article IV, Section 16 of the Constitution of Virginia of 1971 provides, in part, that the General Assembly shall not make any appropriation of public funds, personal property, or real estate to any charitable institution which is not owned or controlled by the Commonwealth. This section is largely unchanged from a similar provision which appeared in the Constitution of 1902. The Report of the 1969 Commission on Constitutional Revision explains the purpose of the provision:

> As to the section's ban on appropriations to private charities, it is arguable that at least some such appropriations would be in the public interest. Private charitable organizations often perform functions which, were they not the subject of private initiative, would surely have to be performed by public bodies at public expense. Therefore a reasonable argument can be made that it is a legitimate use of state money to aid private groups which in effect are carrying out a program having a public purpose. The problem, however, lies in fashioning a constitutional provision which would allow selective and limited appropriations in legitimate cases without opening the floodgates to demands by, and appropriations to, the vast number of private groups who would consider themselves equally entitled to share in the public largess. The Commission suspects that

(HOUSE)(SENATE) BILL NO. ____

Offered _____

A BILL to create the Innovative Technology Authority to facilitate the marketing, organization and development of scientific research and technology by institutions of higher education and private industry in the Commonwealth of Virginia and to increase opportunities for graduate education in the Commonwealth.

_____

Patron--_____

_____

(Committee)

Referred to _____

_____

Be it enacted by the General Assembly of Virginia:

1. § 1. Title of article - This article may be cited as the Innovative Technology Authority Act of nineteen hundred eighty four.

§ 2. Definitions - The following terms, whenever used or referred to in this article, shall have the following meanings, except in those instances where the context clearly indicates otherwise:

provide for specialized graduate education programs in science and technology and (4) to promote the industrial and economic development of the Commonwealth. In order to facilitate and coordinate the marketing, organization, utilization and development of scientific and technological research and development in the Commonwealth, the advancement of knowledge therein and the growth of scientific and technological research and graduate education in science and technology in the Commonwealth and to meet the needs and demands of public institutions and private industry therefor, and to promote the industrial and economic development of the Commonwealth, which purposes are hereby declared and determined to be public purposes, there is hereby created and constituted a political subdivision of the Commonwealth to be known as "The Innovative Technology Authority." The exercise by the Authority of the powers conferred by this article shall be deemed and held to be the performance of an essential governmental function.

§ 4. Board of directors - The Authority shall be governed by a board of directors consisting of fifteen members, three of whom shall be the Presidents of the University of Virginia, Virginia Commonwealth University and Virginia Polytechnic Institution and State University who shall serve as directors during their terms in those offices. The Governor shall appoint the 12 other directors as follows: two representatives from other institutions of higher learning in the Commonwealth of Virginia; five representatives from the business community; and five representatives from the general citizenry, two of whom shall be members of the General Assembly of Virginia. Four members of the 12 directors appointed by the Governor shall be appointed for terms of one year, three for terms of two years, four for terms of four years, from the effective date of his or her appointment; and thereafter the members of the board shall be appointed for terms of three years. Vacancies in the membership of the board shall be filled by appointment of the Governor for the unexpired portion of the term. Members of the board shall be subject to removal from office in like manner as are State, county, town and district officers under the provisions of §§ 24.1-79.1 through 24.1-79.10 of the Code of Virginia; provided that the Circuit Court of the City of Richmond, Division I, shall have exclusive

1. To sue and be sued, implead and be impleaded, complain and defend in all courts.

2. To adopt, use, and alter at will a corporate seal.

3. To acquire, purchase, hold, use, lease or otherwise dispose of any project and property, real, personal or mixed, tangible or intangible, or any interest therein necessary or desirable for carrying out the purposes of the Authority, and (without limitation of the foregoing), to lease as lessee, any project and any property, real, personal or mixed, or any interest therein, at such annual rental and on such terms and conditions as may be determined by the board of the Authority (or the Executive Director, if the board of the Authority has delegated such authority) and to lease as lessor to any person, any project and any property, real, personal or mixed, tangible or intangible, or any interest therein, at any time acquired by the Authority, whether wholly or partially completed, at such annual rental and on such terms and conditions as may be determined by the board of the Authority (or the Executive Director if the board of the Authority has delegated such authority), and to sell, transfer or convey or any property, real, personal or mixed, tangible or intangible or any interest therein, at any time acquired or held by the Authority on such terms and conditions as may be determined by the board of the Authority (or the Executive Director if the board of the Authority has delegated such authority).

4. To plan, develop, undertake, carry-out, construct, improve, rehabilitate, repair, furnish, maintain, and operate projects.

5. To make bylaws for the management and regulation of its affairs.

6. To establish and maintain satellite offices within the Commonwealth.

7. To fix, alter, charge, and collect rates, rentals, and other charges for the use of projects of, or for the sale of products of or for the services rendered by, the Authority, at rates, to be determined by it for the purpose of providing for the payment of the

used and applied only for the purposes for which such grants and contributions may be made.

12. To render advice and assistance, and to provide services, to institutions of higher education and to other persons providing services or facilities for scientific and technological research or graduate education.

13. To develop, undertake and provide programs, alone or in conjunction with any person or federal agency, for scientific and technological research, technology management, continuing education and in-service training; to foster the utilization of scientific and technological research information, discoveries and data and to obtain patents, copyrights and trademarks thereon; to coordinate the scientific and technological research efforts of public institutions and private industry and to collect and maintain data on the development and utilization of scientific and technological research capabilities.

14. To have the power of eminent domain.

15. To pledge or otherwise encumber all or any of the revenues or receipts of the Authority as security for all or any of the obligations of the Authority.

16. To do all acts and things necessary or convenient to carry out the powers granted to it by this act or any other acts.

§ 6. Form, terms, execution and sale of bonds; use of proceeds; interim receipts or temporary bonds; lost or destroyed bonds; faith and credit of State and political subdivisions not pledged; expenses - The bonds of each issue shall be dated, shall bear interest at such rate or rates as shall be fixed by the Authority, shall mature at such time or times not exceeding forty years from their date or dates, as may be determined by the Authority, and may be made redeemable before maturity, at the option of the Authority, at such price or prices and under such terms and conditions as may be fixed by the Authority prior to the issuance of the bonds. The Authority shall determine the form of bonds and manner of execution of the bonds and shall fix the denomination or denominations of the bonds and

receipts or temporary bonds as provided in § 15.1-204 of the Code of Virginia and to execute and deliver new bonds in place of bonds mutilated, lost or destroyed, as provided in § 15.1-209 of the Code of Virginia.

No obligation of the Authority shall be deemed to constitute a debt, or pledge of the faith and credit, of the Commonwealth or of any political subdivision thereof, but shall be payable solely from the revenue and other funds of the Authority pledged thereto. All such obligations shall contain on the face thereof a statement to the effect that the Commonwealth, political subdivisions thereof and the Authority shall not be obligated to pay the same or the interest thereon except from revenues and other funds of the Authority pledged thereto, and that neither the faith and credit nor the taxing power of the Commonwealth or of any political subdivision thereof is pledged to the payment of the principal of or the interest on such obligations.

All expenses incurred in carrying out the provisions of this article shall be payable solely from funds provided under the provisions of this article and no liability shall be incurred by the Authority hereunder beyond the extent to which moneys shall have been provided under the provisions of this article.

§ 7. Trust agreement securing bonds - In the discretion of the Authority any bonds issued under the provisions of this article may be secured by a trust agreement by and between the Authority and a corporate trustee, which may be any trust company or bank having the powers of a trust company within or without the Commonwealth. Such trust agreement or the resolution providing for the issuance of such bonds may pledge or assign the revenues to be received and provide for the mortgage of any project or property or any part thereof. Such trust agreement or resolution providing for the issuance of such bonds may contain such provisions for protecting and enforcing the rights and remedies of the bondholders as may be reasonable and proper and not in violation of law, including covenants setting forth the duties of the Authority in relation to the acquisition of property and the planning, development, acquisition, construction, rehabilitation, establishment, improvemement, extension, enlargement, maintenance,

resolution to be performed by the Authority or by any officer thereof, including the fixing, charging, and collecting of rates, rentals, and other charges.

§ 10. Bonds made securities for investment and deposit - Bonds issued by the Authority under the provisions of this article are hereby made securities in which all public officers and public bodies of the Commonwealth and its political subdivisions, all insurance companies, trust companies, banking associations, investment companies, executors, administrators, trustees, and other fiduciaries may properly and legally invest funds, including capital in their control or belonging to them. Such bonds are hereby made securities which may properly and legally be deposited with and received by any State or municipal officer or any agency or political subdivision of the Commonwealth for any purpose for which the deposit of bonds or obligations of the Commonwealth is now or may hereafter be authorized by law.

§ 11. Revenue refunding Bonds; Bonds for refunding and for cost of additional projects - The Authority is hereby authorized to provide for the issuance of revenue refunding bonds of the Authority for the purpose of refunding any bonds then outstanding which shall have been issued under the provisions of this article, including the payment of any redemption premium thereon and any interest accrued or to accrue to the date of redemption of such bonds, and, if deemed advisable by the Authority, for the additional purpose of constructing improvements, extensions, or enlargements of the project or projects in connection with which the bonds to be refunded shall have been issued. The Authority is further authorized to provide by resolution for the issuance of its revenue bonds for the combined purpose of (i) refunding any bonds then outstanding which shall have been issued under the provisons of this article, including the payment of any redemption premium thereon and any interest accrued or to accrue to the date of redemption of such bonds, and (ii) paying all or any part of the cost of any additional project or projects or any portion or portions thereof. The issuance of such bonds, the maturities and other details thereof, the rights of the holders thereof, and the rights, duties and obligations of the Authority in respect of the same shall be governed by the provisions of this article insofar as the same may be applicable.

provisions of Chapters 10, 13, 14, 16, 18, 21, 23, 25, 26 and 40 of Title 2.1, Chapter 7 of Title 11 and Chapter 3.2 of Title 51 of the Code of Virginia, in connection with any activity, project or operation of any such nonstock corporation or entity. Any employee of an institution of higher education, or other person or federal agency, involved in an activity, project or operation in which any such nonstock corporation or other entity is involved shall not be subject to the provisions of Chapter 40 of Title 2.1 of the Code of Virginia. Any activity, project or operation of an institution of higher education in which any such nonstock corporation or other entity is a party shall be exempt from the requirements of Chapter 21 of Title 2.1 of the Code of Virginia. Any such nonstock corporation or entity shall be deemed to be an institution of higher education within the meaning of §§ 15.1-22 and 23-9.2 of the Code of Virginia, but only for the limited purposes therein stated.

§ 15. Exemption of Authority from personnel and procurement procedures. The provisions of Chapter 10 of Title 2.1 and Chapter 7 of Title 11 of the Code of Virginia shall not apply to the Authority in the exercise of any power conferred under this article.

§ 16. Moneys of Authority - All moneys of the Authority, from whatever source derived, shall be paid to the treasurer of the Authority. Such moneys shall be deposited in the first instance by the treasurer in one or more banks or trust companies, in one or more special accounts. All banks and trust companies are authorized to give such security for such deposits, if required by the Authority. The moneys in such accounts shall be paid out on the warrant or other order of the treasurer of the Authority, or of other person or persons as the Authority may authorize to execute such warrants or orders. Notwithstanding §§ 2.1-155 and 2.1-164 of the Code of Virginia, the Auditor of Public Accounts of the Commonwealth, and his legally authorized representatives shall, but only upon request of the Governor, examine the accounts and books of the Authority including its receipts, disbursements, contracts, leases, sinking funds, investments, and any other matters relating to its finances, operation and affairs.

Appendix E - CIT Resource Requirements

Preliminary Center for Innovative Technology Request for General Funds

Summary of Operating and Capital Requests

		1984-85	1985-86	Total
I.	Operating Budget			
	Personal Services	$ 1,049,670	$ 1,154,637	$ 2,204,307
	Fringe Benefits	283,411	311,752	595,163
	Non-Personal Services	8,804,200	9,364,330	18,168,530
	Subtotal	$10,137,281	$10,830,719	$20,968,000
II.	Capital Budget	$ 1,750,000	$ 7,500,000	$ 9,250,000
	Total	$11,887,281	$18,330,719	$30,218,000

Narrative

The request will provide for the basic support of the C.I.T. and its activities during its first biennium of operation. In addition to central operations, the operating budget will fund the necessary coordination and support at the proposed C.I.T. Institutes. It will, for example, provide support for necessary scientific equipment, doctoral funding, necessary laboratory renovations, and basic research projects. The proposed operating budget is subject to modification within the total amount approved pursuant to legal authority of the C.I.T. Board of Directors.

The capital fund request will result in the establishment of a central administrative facility and the development of the C.I.T. research and education missions.

Non-general fund amounts will be developed based on other pending actions and decisions.

I. Operating Budget Request (continued)	1984-85	1985-86	Total $
B. Non-Personal Services			
Travel	$ 60,000	$ 73,260	$ 133,260
Communications	9,600	11,914	21,514
Computing Services	14,500	17,705	32,205
General and Administrative	28,100	30,376	58,476
Heat, Utilities, and Rent	100,000	50,000	150,000
Equipment	117,000	- 0 -	117,000
Contractual Services[a]	75,000	81,075	156,075
Research Equipment[b]	2,000,000	2,300,000	4,300,000
Research Projects[c]	4,000,000	4,400,000	8,400,000
Laboratory Renovations[d]	2,400,000	2,400,000	4,800,000
Subtotal	$8,804,200	$9,364,330	$18,168,530

[a]Contractual, travel, and general support for C.I.T. campus institutes.

[b]To be distributed to C.I.T. campus institutes.

[c]To be distributed to approved projects.

[d]To be distributed to C.I.T. campus institutes.

II. Capital Budget Request (General Fund)	1984-85	1985-86	Total $
C.I.T. Administration Center	$1,750,000	- 0 -	$1,750,000
Research/Education Facility[a]	- 0 -	7,500,000	7,500,000
Subtotal	$1,750,000	$7,500,000	$9,250,000

[a]To be developed during first year of operation.

a strong belief in the idea that the strengths of public universities can be combined with those of the business communities to engage in basic and applied research to develop innovative technologies and stimulate economic development;

a firm commitment to the continued development of the Commonwealth of Virginia.

Appendix H - Considerations for the Memorandum of Agreement between Participating Universities and the CIT

The Working Group recognizes the need for a general Memorandum of Agreement to be developed and concurred in by the Center for Innovative Technology and each Virginia university or college which participates as an active partner in CIT sponsored research. This general Memorandum of Agreement should include, but not be limited to the following points:

1. Rights To Intellectual Property. This clause in the the memorandum should include language concerning patents, copyrights, and licensing agreements, and should not be in serious conflict with individual institutional patent policies.

2. Freedom Of Publication. This clause should guarantee freedom of publlcation for the faculty who do CIT sponsored research, and it should provide also for an industrial sponsor to review research manuscripts within a reasonable time. It is suggested that the limit for sponsor review be ninety days from submission of the manuscript.

3. Ownership Of Equipment. The memorandum of agreement should provide that all equipment purchased by universities in the conduct of CIT sponsored research be titled and owned by the university.

4. Institutional Approval Of CIT Sponsored Research. All research conducted by universities and colleges for the CIT should be subject to full institutional approval. This clause also should contain language which provides for the right of refusal of an educational institution to participate in an individual CIT sponsored research project(s).

5. University Industry Research Awards. The memorandum of agreement should guarantee the right of the universities and colleges, and their faculties, to negotiate and receive sponsored research agreements from industry outside of the CIT.

6. Faculty Conflict of Interest. The memorandum of agreement should include language which precludes conflict of interest by faculty investigators through ownership in total or in part of the sponsoring industrial organization. This clause in the memorandum must be in accord with state statutes regarding faculty conflict of interest.

7. Indirect Costs. The memorandum should include a discussion of indirect cost recovery (see Appendix I).

In addition to a general memorandum of agreement, particularly for those universities which will lead research thrust groups for the CIT, there may be a need for research agreements between the CIT and the universities which are specific to an individual research project. These "secondary" agreements should be subservient, and not in conflict with the general memorandum of agreement.

Appendix J - Research Parks

The CIT Organization and Operations Working Group were unable to define the requirements for a Research Park(s) within the time constraints of its Charter. Certainly, there is a potential need and justification for this activity in a state with aggressive ideas on the future benefits of technology as it relates to the productive growth of the state and its universities. As a consequence, the Working Group recommends that this issue be addressed after the CIT is established.

The CIT President should be responsible to assess the Commonwealth's need for a Research Park(s), and should consider the following information (from Technology and Growth: State Initiatives in Technological Innovation, July 1983, pp. 47-52).

Research parks in close proximity to universities have, in several states, contributed substantially to the development of closer university/industry research linkages. These parks, in their setting and environment, are not unlike university campuses. Moreover, they encompass a broad array of private research firms and, on occasion, even light-manufacturing industries.

More than eighteen states already have or are in the process of planning and developing research parks across the United States today. The motivations behind these efforts are manifold. Research parks, first of all, are designed to attract private industry from outside as well as inside the state. They serve to stimulate the growth of new industry/university linkages, provide opportunities for cooperative and sometimes collaborative research, facilitate the closer interaction between industry and university researchers, and thus can encourage and promote serendipity in technological innovation and development. Research parks also provide a means for fulfilling long-range state R&D and technology policy goals and strategies; their planning, development and industrial composition can be targeted to state needs, perceived innovation opportunities, and economic development plans.

The early experiences of North Carolina in undertaking nearly 30 years ago the development of what is now known nationally as the Research Triangle Park are illustrative of not only some of these motivations, but also of some of the difficulties that will doubtless be encountered by other states as they seek to develop similar research parks.

The reasons North Carolina embarked on their Research Triangle Park are not much different from the situation facing many states today. Back in the mid 1950's, North Carolina's geographical make-up was that of rural, small town atmosphere with a concentration on such traditional industries as tourism, textiles, tobacco, furniture, and bricks. The state was experiencing an outmigration of its young, educated persons, keeping the state in relative poverty. However, it wanted to counteract that situation using as one of its major resources or assets its large number of colleges and universities including major research universities which were located near each other.

- The Research Triangle Park (RTP) today is the largest planned research park in the United States, comprising 5,500 acres and containing more than 35 separate research facilities, located roughly equidistant from three major universities (North Carolina State University, Duke University, and the University of North Carolina). The RTP has the highest concentration of Ph.D's in relation to total population of any comparable area in the nation. The Park's companies, centers, institutes and laboratories employ 17,500

considerable support services and technical and management assistance are often required to stimulate such spin-offs. The RTP experience also suggests that research parks can have positive benefits on other parts of a state. For example, Data General, the Massachusetts-based computer company, moved to the park in 1977. Recently, this firm has built two new manufacturing plants within 40 miles of the RTP.

Finally, research parks on the ambitious scale of North Carolina require for their success deep and long-term economic, social and political commitment. Part of the success of the park is laid to the long-term spirit of generosity and a view of the effort as a "labor of love." This, combined with a happy geographic coincidence and economic necessity, brought all factors together - during the terms of six governors and numerous state legislative sessions.

There are very few research parks in the nation as large or as ambitious as the Research Triangle Park. Delaware's Marine Research Park, New Jersey's Forrestal Center at Princeton, and the industrial research park surrounding the Stanford Research Institute in California are quite modest in comparison. Most of the research parks currently being planned in other states are one-tenth the size. Most are also closely associated with one or two existing centers of academic research. Thirteen states are currently involved in the planning and/or development of research parks, high technology zones and corridors. These include Arizona, Connecticut, Florida, Illinois, Maryland, Massachusetts, Mississippi, Montana, Oregon, Tennessee, Texas, Washington, and Utah.

- The University of Utah Research Park is one of the earliest in the nation, begun in 1969, and located on 320 acres adjacent to the main university campus in Salt Lake City. Park occupants include several private companies that are a direct spin-off from the university and other larger companies. While there is a small amount of light manufacturing in the Park, the major emphasis is upon research. Current occupancy is at just over 40 percent of total park capacity, the preference being for slow, planned and well-managed park development.

- Plans for two urban center research parks are being developed in Connecticut and Illinois. A science Park is being planned for downtown New Haven in an old factory building. Plans to convert this building are under discussion between representatives from the state and city government, Yale University and the Olin Corporation. Illinois Governor Thompson announced plans last year to establish a biomedical research park near Chicago's West Medical Center. The city and state plan to assume the costs for refurbishing a building adjacent to the University of Illinois, which formerly housed the Chicago Medical School. Centaur Genetics Corporation, a medical diagnostic and genetic research firm, will be the first company to occupy the building.

- Universities in Arizona, Florida, Maryland, Montana, and Washington state are also considering plans for the establishment of research parks. Arizona State University's plans include facilities for research and light manufacturing on a 300-acre parcel of land not far from ASU's Tempe campus on the outskirts of Phoenix. Plans for an incubator facility at a research and development park in Florida are under discussion at the University of Florida in Gainesville. The idea for a Maryland Science and Technology Research Park, patterned along the lines of North Carolina's RTP, are being discussed at the University of Maryland, and in Montana, the state university is planning to develop a research park on an initial 125-acre parcel of land adja-

cent to the University campus in Bozeman. Two areas of research that will be emphasized in the selection of this park's first occupants will be biotechnology and microelectronics. Finally, Washington State University is developing 126 acres of land adjacent to its main campus for a research and technology park, which will be the first if its kind in the Pacific Northwest. Parcels of land ranging in scale from 3.8 to 13.8 acres will be leased or sold to R&D laboratories and prototype manufacturers.

- The Houston Area Research Center (HARC) is the first research partnership established by major universities in Texas. Patterned after California's SRI and North Carolina's RTI, HARC will provide grant and contract research for private industry, government, and other institutions. It is part of an ambitious project called The Woodlands under development by the Mitchell Energy Company near Houston. This is a wholly-integrated 25,000-acre residential, research and light manufacturing community. In addition to the 100 acres that HARC will occupy, 400 acres have been set aside for the new University of Houston campus and 150 acres will be made available for high technology businesses and their suppliers.

- Mississippi, Oregon and Tennessee have devised plans to develop technology zones and corridors in their states to stimulate research and the growth of technology-intensive businesses. Mississippi has passed legislation specifying state high technology zones and providing special incentives to firms locating in these areas. Oregon's Southern Willamette Research Corridor has been set up by an association of five cities and four universities and community colleges to promote economic development and stimulate the growth of new research and technology-related businesses. While in Tennessee, as mentioned above, a new research corridor is being planned to encourage the growth and spin-off of new R&D enterprises in the area south of Oak Ridge along the Pellissippi Parkway near Knoxville.

people, occupying facilities valued at $500 million and representing a 1981 combined payroll of $375 million.

The development of the Park has gone through several phases beginning with its initial formation in 1956 under the aegis of the Research Triangle Foundation. This Foundation, originally financed from corporate and citizen contributions, is now self-sustaining. In 1959, the Research Triangle Institute was formed and became one of the Park's earliest occupants with a $500,000 grant and 137-acre campus provided by the Foundation. RTI was to become the focal point of the Park philosophy in its early years, giving visible evidence of growth and activity by its addition of new staff, buildings and programs. George Herbert was brought from the Stanford Research Institute to be president of RTI, a position he still holds. The institute with its close contacts with the three area universities focuses upon contract research; research volume has grown from $220,000 in 1959, to $47 million in 1980.

One of the first industrial laboratories to be constructed at the Park were those of Monsanto. The Park grew slowly during the early 1960's, and by 1965 there were only 9 laboratories comprising less than 1000 people. A major turning point and beginning of a second developmental phase was IBM's purchase of a 400-acre site, followed by the decision of the National Institute of Environmental Health Services to accept the Park's donation of a 509-acre facility site. The U.S. EPA has also now located a major research facility at RTP. The existence of these two Federal laboratories has apparently had a spin-off effect: for example, Northrup Services recently located a facility in the Park to provide environmental support services to Federal research laboratories located there.

The most recent addition to the Park - marking a new phase in development - is the General Electric Microelectronics Center. GE's decision, which was made after an examination of 25 other sites, is said to have been based on the state's business climate, its emphasis on attracting technological industries, and on the quality of life. In addition, the state legislature recently approved Governor Hunt's proposal to establish a new Microelectronics Center in the Park, which, in conjunction with the GE Center will expand the research and educational capabilities there and, it is hoped, attract additional firms to the Park.

North Carolina's 25-year experience with the founding and development of a major research park provides a number of lessons. There is a need for perseverance and long-term perspective. As RTI president Herbert has noted, the original park founders "knew that they were working for returns that would not truly be significant for 15, 20 or 25 years." Planned development pays off in the long-run. The Foundation has sought to develop a balanced mix of different types of facilities and research capabilities rather than "fill" the Park to capacity without regard to overall long-term plans. Moreover, while five firms have left the park in the first 27 years, these departures have not had a detrimental impact on overall park development.

However, achieving commercial spin-offs can take considerable time. In fact, the RTP has stimulated very few spin-offs of new, small, young firms in its 27-year history. This is somewhat surprising in view of the concentration of research capability both within the park in surrounding universities. But the important lesson is that such spin-offs are not a "natural" occurrence; a spirit of entrepreneurism and

Appendix I - Indirect Costs of CIT Projects

Projects conducted at or through the CIT should be subject to a new state policy on funded research and the use of indirect costs associated with funded research. The intent is to provide operating resources and "seed-money" for future research to the CIT without placing the university conducting the research at a serious disadvantage.

The Commonwealth's current policy on funded research is described in Section 4-2.01 of Chapter 622, the Appropriations Act for 1982-84. The act requires that all state agencies which accept a grant or contract should recover full indirect costs unless exempted from the requirement by the Governor or prohibited by the grantor. As a means of providing "seed-money" all indirect cost recoveries are returned to the institutions. Seventy percent of the indirect cost recoveries are returned to the institution as discretionary funds for research related activities. The remaining thirty percent is transferred to the educational and general revenues of the institution in support of grant and contract indirect costs within the university.

The committee recommends a modification of this policy for only the research projects conducted at or arranged through the CIT. The seventy percent of the indirect cost recoveries should continue to be received by the university conducting the research. The thirty percent share of the recoveries should not be transferred to the university but should become part of the current revenues of the CIT. The funds transferred to the CIT should be used for the operating costs of the CIT but not more than one-third of the amounts transferred should be used for this purpose. The remaining two-thirds should be transferred to the CIT as a restricted fund to be used to attract future research. The expenditure of the "seed-money" should be determined by the Governing Board of CIT.

To implement this change the following amendment should be made to Section 4-2.01C of the Appropriations Act:

Insert as item C,3,c. Thirty percent of indirect cost received by the institutions related to projects conducted at or arranged through the Center for Innovative Technology shall be transferred to the Center for Innovative Technology for operations of the Center. A maximum of one-third of the amounts transferred are to support the administrative costs of the Center. The remaining amount shall be transferred to the Center for the conduct and enhancement of research and related requirements in accordance to policies and priorities established by the Board of Directors of the Center for Innovative Technology.

This proposal may need to be modified depending upon the organization of the CIT, the grant administration services to be provided by the CIT, the revised indirect cost rates for projects conducted through the CIT, and actual indirect costs incurred by the institutions.

Appendix G - Duties of CIT Education Liaison Officer

When CIT contacts industry, its representatives will find unmet needs for advanced education in technical disciplines. The Education Liaison Officer of CIT will bring these needs to the attention of appropriate universities and colleges through the State Council of Higher Education for Virginia, which will attempt to match the capabilities of Virginia institutions (both public and independent) with them. This will most likely mean finding ways to deliver a program already offered by an institution at a location away from its campus. It may also mean starting new programs or modifying existing ones.

Providing advanced technical education is a key ingredient in Virginia's economic development effort. The Council of Higher Education should have access to funds from The Division of Industrial Development to enable institutions to respond quickly to the needs identified by the CIT.

The Education Liaison Officer of the CIT also will work with industry and with participating universities to develop funded graduate research assistantships at the universities and possibly at the CIT itself or at industrial sites. These positions would be supported either wholly or in part by the funding for research projects undertaken under the auspices of the CIT or by grants from industry. If the CIT becomes a location for formal graduate instruction, the Education Liaison Officer would provide administrative support for faculty offering courses or for the instructional television courses offered from remote locations.

The Liaison Officer will concentrate attention on identifying needs for engineering and scientific education within industry and not assume responsibility for promoting general, business, or other non-technical programs. The Liaison Officer will, however, identify needs for technician training and report these to the State Council of Higher Education for Virginia. Through this Officer, the CIT will establish a formal liaison with the Council of Higher Education to ensure efficient exchange of information and prompt response to industry needs.

Appendix F - Duties and Qualifications of CIT President

Primary responsibilities of the CIT President include but are not limited to:

the identification of markets and needs that will foster economic development by research projects involving higher education and industry.

the development and execution of programs that will bring industrial research projects to Virginia's universities. These projects should include those over and above those directly negotiated by the universities.

studies of the feasibility and planning for research and/or teaching to be conducted through the CIT.

studies of the feasibility and planning for CIT research park(s).

initiating and managing CIT funding programs.

working closely and effectively with key concerned entities within the Commonwealth e.g. Governing Board, universities, economic development agencies, industry, State and local governments.

working closely and effectively with key entities outside the Commonwealth e.g. industry, non U.S. industry, government agencies.

acting as primary spokesperson for the CIT in behalf of the Governing Board.

acting as a catalyst for entrepreneurial technological development.

The qualifications of the President of the CIT shall include:

an understanding of scientific and technical research processes and principles;

a recognized ability in developing and leading complex organizations with diverse constituencies, primarily scientific and technical organizations;

demonstrable management experience with the public or private sectors at increasing levels of responsibility;

proven ability to effectively communicate with a wide range of audiences in the public and private sectors;

established ability to initiate and administer projects involving both public and private organizations;

an exposure to and appreciation for the academic, governmental and non-governmental environments;

a demonstrable understanding of complex planning and financial strategies;

I. Operating Budget Request (General Fund)*	FTE	1984-85	1985-86	Total $
A. Personal Services				
President	1.0	$ 100,000	$ 110,000	$ 210,000
Research Director[a]	4.0	120,000	132,000	252,000
Education Liaison Officer	1.0	50,000	55,000	105,000
Vice President	1.0	60,000	66,000	126,000
Technology Analyst	1.0	26,000	28,600	54,600
Resource Data Bank Analyst	1.0	26,000	28,600	54,600
Marketing Manager	1.0	50,000	55,000	105,000
Marketing Representatives	3.0	105,000	115,500	220,500
Planning and Financial Analysts[b]	2.0	70,000	77,000	147,000
Clerical	8.0	186,670	205,337	392,007
Doctoral Fellows[c]	16.0	256,000	281,600	537,600
Subtotal	39.0	$1,049,670	$1,154,637	$2,204,307
Fringe Benefits (27%)		283,411	311,752	595,163
Subtotal		$1,333,081	$1,466,389	$2,799,470

*DPB inflation factors used where possible, and/or as the basis for inflating second year figures.

[a]To be assigned to C.I.T. campus institutes.

[b]4.0 FTE to be assigned to C.I.T. campus institutes.

[c]To be assigned.

COMMONWEALTH of VIRGINIA

Office of the Governor

Richmond 23219

John T. Casteen, III
Secretary of Education

October 24, 1983

The Honorable Charles S. Robb
Capitol Building
Richmond, Virginia 23219

Dear Governor Robb:

In response to your letter of September 30, 1983, Dr. Don Hearth has asked me to provide you with a copy of the proposed preliminary budget for the Center for Innovative Technology. This budget reflects decisions reached by Dr. Hearth's committee in its meeting of October 18, 1983 and has been adjusted by me to be consistent with state practices.

If there are any questions, please feel free to contact Dr. Hearth or myself.

Respectfully,

Richard E. Zody

REZ/wbe
Attachments

cc: The Honorable John T. Casteen, III
The Honorable Stuart W. Connock
Dr. Donald P. Hearth

§ 17. Eminent domain; right of entry - The Authority is hereby vested with the power of eminent domain and may exercise the same for the purposes set forth in this article. If the owner, lessee, or occupier of any property to be condemned or otherwise acquired shall refuse to remove his property therefrom or give up possession thereof, the Authority may proceed to obtain possession in any manner provided by law.

§ 12. Grants or loans of public or private funds - The Authority is authorized to accept, receive, receipt for, disburse, and expend federal and State moneys and other moneys, public or private, made available by grant or loan or both or otherwise, to accomplish, in whole or in part, any of the purposes of this article. All federal moneys accepted under this section shall be accepted and expended by the Authority upon such terms and conditions as are prescribed by the United States and as are consistent with State law; and all State moneys accepted under this section shall be accepted and expended by the Authority upon such terms and conditions as are prescribed by the State.

§ 13. Exemption from taxes or assessments - The exercise of the powers granted by this article will be in all respects for the benefit of the people of the State, for the increase of their commerce and prosperity, and for the improvement of their health and living conditions, and as the operation and maintenance of projects by the Authority and the undertaking of activities in furtherance of the purpose of the Authority will constitute the performance of essential governmental functions, the Authority shall not be required to pay any taxes or assessments upon any project or any property acquired or used by the Authority under the provisions of this article or upon the income therefrom, including sales and use taxes on tangible personal property used in the operations of the Authority, and any bonds issued under the provisions of this article, their transfer and the income therefrom (including any profit made on the sale thereof) shall at all times be free from taxation within the State; provided that the exemption hereby granted shall not be construed to extend to persons conducting on the premises of a facility businesses for which local or State taxes would otherwise be required.

§ 14. Auxilliaries - The Governor is hereby authorized to provide for the formation of a private nonstock corporation and such other privately organized entities, corporate or otherwise, as may be necessary to carry out the purpose of this article. Any such nonstock corporation or entity shall not be deemed to be an agency or instrumentality of the Commonwealth, nor shall such nonstock corporation or entity or any officer or employee thereof be subject to the

repair, operation and insurance of the project or projects in connection with which such bonds shall have been authorized, the rates and fees to be charged, the custody, safeguarding and application of all moneys, and conditions or limitations with respect to the issuance of additional bonds. It shall be lawful for any bank or trust company incorporated under the laws of the Commonwealth which may act as depository of the proceeds of bonds or of revenue to furnish such indemnifying bonds or to pledge such securities as may be required by the Authority. Any such trust agreement may set forth the rights of action by bondholders. In addition to the foregoing, any such trust agreement or resolution may contain such other provisions as the Authority may deem reasonable and proper for the security of the bondholders. All expenses incurred in carrying out the provisions of such trust agreement or resolution may be treated as a part of the cost of the operation of the project or projects.

§ 8. Moneys received deemed trust funds - All moneys received pursuant to the authority of this article, whether as proceeds from the sale of bonds or as revenues, shall be deemed to be trust funds to be held and applied solely as provided in this article. The resolution authorizing the bonds of any issue or the trust agreement securing such bonds shall provide that any officer with whom, or any bank or trust company with which, such moneys shall be deposited shall act as a trustee of such moneys and shall hold and apply the same for the purposes hereof, subject to such regulations as this article and such resolution or trust agreement may provide.

§ 9. Proceedings by bondholder or trustee to enforce rights - Any holder of bonds issued under the provisions of this article or any of the coupons appertaining thereto, and the trustee under any trust agreement, except to the extent the rights herein given may be restricted by such trust agreement or the resolution authorizing the issuance of such bonds, may, either at law or in equity, by suit, action, mandamus or other proceeding, protect and enforce any and all rights under the laws of the Commonwealth or granted hereunder or under such trust agreement or resolution, and may enforce and compel the performance of all duties required by this article or by such trust agreement or

the place or places of payment of principal and interest, which may be at any bank or trust company within or without the Commonwealth. The bonds shall be signed by the chairman or vice-chairman of the Authority, or if so authorized by the Authority, shall bear his facsimile signature, and the official seal of the Authority, or, if so authorized by the Authority, a facsimile signature thereof shall be impressed or imprinted thereon and attested by the secretary or any assistant secretary of the Authority, or, if so authorized by the Authority, with the facsimile signature of such secretary or assistant secretary. Any coupons attached to bonds issued by the Authority shall bear the signature of the chairman, or vice-chairman of the Authority or a facsimile thereof. In case any officer whose signature or a facsimile of whose signature shall appear on any bonds or coupons shall cease to be such officer before the delivery of such bonds, such signature or such facsimile shall nevertheless be valid and sufficient for all purposes the same as if he had remained in office until such delivery and any bonds may bear the facsimile signature of, or may be signed by, such persons as at the actual time of the execution of such bonds shall be the proper officers to sign such bonds although at the date of such bonds such persons may not have been such officers. The bonds may be issued in coupon or in registered form, or both, as the Authority may determine, and provision may be made for the registration of any coupon bonds as to principal alone and also as to both principal and interest, for the reconversion into coupon bonds of any bonds registered as to both principal and interest, and for the interchange of registered and coupon bonds. The Authority may sell such bonds in such manner, either at public or private sale, and for such price, as it may determine will best effect the purposes of this article.

The proceeds of the bonds of each issue shall be used solely for the purposes, and in furtherance of the powers, of the Authority as may be provided in the resolution authorizing the issuance of such bonds or in the trust agreement hereinfter mentioned securing the same.

In addition to the above powers, the Authority shall have the faith and the authority to issue interim

expenses of the Authority, the planning, development, construction, improvement, rehabilitation, repair, furnishing, maintenance, and operation of its projects and properties, the payment of the costs accomplishing its purposes set forth in Section 3 hereof, the payment of the principal of and interest on its obligations, and to fulfill the terms and provisions of any agreements made with the purchasers or holders of any such obligations.

8. To borrow money, make and issue bonds including bonds as the Authority may, from time to time, determine to issue for the purpose of accomplishing the purposes set forth in Section 3 hereof or of refunding bonds previously issued by the Authority, and to secure the payment of all bonds, or any part thereof, by pledge or deed of trust of all or any of its revenues, rentals, and receipts or of any project or property, real, personal or mixed, tangible or intangible, or any interest therein, and to make such agreements with the purchasers or holders of such bonds or with others in connection with any such bonds, whether issued or to be issued, as the Authority shall deem advisable, and in general to provide for the security for said bonds and the rights of holders thereof.

9. To make and enter into all contracts and agreements necessary or incidental to the performance of its duties, the furtherance of its purposes and the execution of its powers under this article, including agreements with any person or federal agency.

10. To employ, in its discretion, consultants, attorneys, architects, engineers, accountants, financial experts, investment bankers, superintendents, managers and such other employees and agents as may be necessary, and to fix their compensation to be payable from funds made available to the Authority.

11. To receive and accept from any federal or private agency, foundation, corporation, association or person grants to be expended in accomplishing the objectives of the Authority, and to receive and accept from the Commonwealth or any state, and any municipality, county or other political subdivision thereof and from any other source, aid or contributions of either money, property, or other things of value, to be held,

jurisdiction of all proceedings for such removal. Immediately after such appointment, the directors shall enter upon the performance of their duties. The Governor shall appoint one of the members of the board to be chairman who shall serve as chairman for such term of office as shall be designated by the Governor. The board shall annually elect one of its members as vice-chairman, and shall also elect annually a secretary, who may or may not be a member of the board, and may also elect such other subordinate officers who may or may not be members of the board, as it shall deem proper. The chairman, or in his absence, the vice-chairman, shall preside at all meetings of the board. In the absence of both the chairman and vice-chairman, the board shall appoint a chairman pro tempore, who shall preside at such meetings. Eight directors shall constitute a quorum for the transaction of the business of the Authority, and no vacancy in the membership of the board shall impair the right of a quorum to exercise all the rights and perform all the duties of the Authority. The members of the board shall be entitled to reimbursement for their expenses incurred in attending the meetings of the board or while otherwise engaged in the discharge of their duties. Each member of the board shall be paid such compensation as is agreed by the Governor and the board. Such expenses and compensation shall be paid out of the treasury of the Authority upon vouchers signed by the chairman of the board or by such other person or persons as may be designated by the board for this purpose. The board may employ an Executive Director of the Authority, who shall serve at the pleasure of the board, to direct the day to day operations and activities of the Authority and carry out such of the powers and duties conferred upon him as may be delegated to him by the board. The Executive Director and employees of the Authority shall be compensated in the manner provided by the board and shall not be subject to the provisions of Chapter 10 of Title 2.1 of the Code of Virginia.

§ 5. Powers - The Authority is hereby granted and shall have and may exercise all powers necessary or convenient for the carrying out of its statutory purposes, including, but without limiting the generality of the foregoing, the following rights and powers:

1. The term "Authority" shall mean the political subdivision of the Commonwealth created by this article.

2. The term "project" shall mean the construction, improvement, furnishing, maintenance, acquisition or operation of any facility or the provision for or funding of any activity that will further the purposes described in Section 3 of this article.

3. The term "board" shall mean the board of directors of the Authority.

4. The term "person" shall mean and include natural persons, firms, foundations, associations, corporations, business trusts, partnerships, joint ventures and public bodies, including, but not limited to, the Commonwealth of Virginia or any state and any agency, department, institution, political subdivision or instrumentality of the Commonwealth or any state.

5. The term "federal agency" shall mean and include the United States of America, the President of the United States of America, and any department of, or corporation, agency, or instrumentality heretofore or hereafter created, designated, or established by the United States of America.

6. The term "bonds" shall mean and include the notes, bonds, certificates and other evidences of indebtedness or obligations of the Authority.

§ 3. Declaration of public purpose; Authority created - It is hereby found and determined by the General Assembly that there exists in the Commonwealth of Virginia a need (1) to enhance and expand the scientific and technological research and development capabilities of the institutions of higher education in the Commonwealth and coordinate such capabilities with the scientific and technological research and development activities and requirements of the public and private sectors, (2) to expand knowledge pertaining to scientific and technological research and development among public and private entities, including but not limited to, knowledge in the areas of information technology, biotechnology, computer-assisted engineering and materials science and engineering, (3) to encourage and

relaxing the present prohibition might open a Pandora's Box and therefore has concluded to leave the prohibition as it now stands.

The Constitution of Virginia: Report of the Commissioner on Constitutional Revisions to his Excellency, Mills E. Godwin, Jr., Governor of Virginia, the General Assembly of Virginia and the People of Virginia, 155-156 (1969).

There is little Virginia commentary or case law to illuminate when or how a charity is deemed to be owned or controlled by the Commonwealth. While not explicitly deciding the constitutional question, the Attorney General has held that funds contributed to a charitable foundation unaffiliated with the University of Virginia would qualify for state matching funds if the donor restricted the gift so that interest income earned on the corpus would go to the University. 1974-75 Op. Att'y. Gen. 14 (January 2, 1975). The opinion appears to provide that State appropriated matching funds would be held by the unaffiliated foundation which apparently was not directly owned or controlled by the Commonwealth.

Under the proposed structure, the CIT would be clearly controlled by the Commonwealth since the Governor would be the sole member of the corporation. Any appropriation to the CIT would be in accordance with the constitutional mandate. Similarly if an appropriation were made to the Authority and funds disbursed therefrom to the CIT, the appropriation would comply with the Constitution.

HUNTON & WILLIAMS

James A. Jones, III
James J. Knicely

depositories designated under the Virginia Security for Public Deposits Act. See 1981-82 Op. Att'y Gen. 4 (March 15, 1982) (Chippokes Plantation Farm Foundation Investments); but see 1978-79 Op. Att'y Gen. 306 (July 13, 1978) (Virginia Education Loan Authority revenues not State funds). It is not clear that CIT moneys would be so restricted. Officials of the State Treasurer's office indicate that as a practical matter operational moneys could be held independently without being restricted in the manner described above. However, CIT moneys derived from the State for construction of facilities may be subject to restriction.

7. Privacy Protection Act of 1976. Sections 2.1-377 through 2.1-386 of the Virginia Code (the "Privacy Act") provide certain protection against the disclosure of personal information by governmental agencies, including any agency, authority, board, commission, institution or like governmental entity of the Commonwealth and "any entity public or private" which has a contractural relationship therewith to maintain a personal information system. These provisions would apply to the Authority and the CIT.

8. Audits. Section 2.1-155 of the Virginia Code provides that "the Auditor of Public Accounts shall audit all accounts of every state department, office, board, commission, institution or agency in any manner handling state funds ...." In addition, Section 2.1-164 requires authorities and other agencies to file annual reports of audit with the State Auditor. These provisions give the State Auditor the power to audit the books of the Authority and, possibly, the CIT.

9. Other Requirements. There may be other requirements to which the Authority or the CIT may be subject. For example, the Virginia Fair Employment Contracting Act (Sections 2.1-374 through 2.1-376 of the Virginia Code) provides that any agency or instrumentality of the State, "corporate or otherwise," may not discriminate on the basis of race, religion, color, sex or national origin and that all solicitations for employment must state that the contractor is an equal opportunity employer.

> department, authority, post, commission, committee and each institution or board created by law to exercise some regulatory or sovereign power or duty as distinguished from purely advisory powers or duties. (Section 2.1-600).

This definition is similar to the definition contained in the prior statute which included institutions or boards created "to perform some duty of state or local government" (Section 2.1-348). The COIA, like the prior Act, also applies to advisory agencies, defined as:

> ... any board, administration, committee or post which does not exercise any sovereign power or duty, but is appointed by a governmental agency or officer or is created by law for the purpose of making studies or recommendations or advising or consulting with any governmental agency (Section 2.1-600).

The COIA sets forth several types of conflicts, including those involving a "personal interest," a "personal interest in a contract," and a "personal interest in a transaction."

Under the prior conflict of interest statute, the Attorney General held that a terminal corporation created as an operating arm of the Virginia Ports Authority was a governmental agency covered by the statute because of the makeup and function of the corporation, i.e. to operate and develop public ports. 1971-72 Op. Att'y Gen. 463 (April 18, 1972); accord, 1978-79 Op. Att'y Gen. 209 (June 6, 1979). In the latter opinion, the Attorney General also held that dual membership on the boards of the Virginia Ports Authority and the terminal corporation would not create a conflict of interest under the statute because there was no personal pecuniary interest and all other interests were parallel.

Here, the various types of conflicts under the COIA will have to be analyzed against the ultimate structural arrangement for the Authority and the CIT. It is possible that private companies with employees on the Board of the CIT will be precluded from contracting with the CIT or that Board members selected from private industry will be required to abstain from voting on particular matters or to disclose actual or potential conflicts. In addition, state institutions may even be

> ...any legislative body, authority, board, bureau, commission, district or agency of the Commonwealth or of any political subdivision of the Commonwealth, including cities, towns, and counties; municipal councils, governing bodies of counties, school boards and planning commissions; boards of visitors of state institutions of higher education; and other organizations, corporations or agencies in the Commonwealth supported wholly or principally by public funds. (Section 2.1-341(a) and (e)) (emphasis supplied).

In clarification of this provision, the Attorney General has held that the General Professional Advisory Committee established by the State Council of Higher Education for advisory purposes is an organization or agency "supported wholly or principally by public funds" (1974-75 Op. Att'y Gen. 584 (April 21, 1975)), but that the "Council of Presidents," formed by the chief executives of higher educational institutions to discuss common problems, has "no official status as a creature of the State Council" and consequently is not covered by the FOIA. Id. It is not clear from the opinion whether the presence of state funding to the Council of Presidents would bring it within the purview of the FOIA.

The Authority is clearly covered by the FOIA. Since the CIT is wholly or principally supported by public funds, and is controlled by the Governor, it would also be covered by the FOIA. It should be noted, however, that certain records are excluded from disclosure under the FOIA, including:

(1) Scholastic and personnel records (Section 2.1-342(3));

(2) Memoranda, working papers and correspondence held or requested by the president or other chief executive officer of any state-supported institution of higher education (Section 2.1-342(4));

(3) Memoranda, working papers and records computed specifically for use in litigation (Section 2.1-342(5));

1. Personnel. The Virginia Personnel Act (Section 2.1-110 through 2.1-116 of the Code of Virginia of 1950, as amended, hereinafter referred to as the "Virginia Code") (the "Personnel Act") governs personnel administration for employees of state agencies. The Personnel Act does not specifically define who qualifies as an employee of a State agency, but rather uses the general language "employees in the service of state agencies." The regulations promulgated by the Governor under the Personnel Act do not provide any further clarification as to who qualifies as a State employee. Section 2.1-116 of the Personnel Act exempts from coverage fourteen categories of employees, including officers appointed by the Governor (whether or not confirmed by the General Assembly), members of boards and commissions however selected, the presidents and teaching and research staffs of state educational institutions, student employees in institutions of learning and (with the general or special authorization of the Governor) laborers, temporary employees and employees compensated on an hourly or daily basis.

Employees of the Authority, unless exempted under the categories described above, would be subject to the protection of the Personnel Act. This conclusion is supported by an opinion of the Attorney General that holds that the Executive Director of the Virginia Port Authority (chosen by the Board of the Authority) is subject to the Personnel Act. 1974-75 Op. Att'y Gen. 342 (June 2, 1975).

It is not clear what the status of CIT employees would be. Arguably, they are employed in the service of the Commonwealth because the Governor is the sole member of the CIT, its Board would be the same as the Authority's, its primary source of funding is the Commonwealth and it performs some governmental functions.

2. Procurement. The Virginia Public Procurement Act (Sections 11-35 through 11-80 of the Virginia Code) (the "Procurement Act") provides for competitive procurement procedures for public bodies. The latter are defined as:

exemption from these requirements is provided by statute. The CIT will not be subject to the State retirement program.

(3) For maximum flexibility in the operation of the CIT, the enabling act establishing the Authority should exempt the CIT from all State administrative requirements.

General Considerations

The various statutes providing for the administration of State government apply not only to State departments and institutions, but also, in greater or lesser degree, to authorities, commissions, districts, political subdivisions and other entitites performing governmental-like functions on behalf of the State. These statutes frequently apply as well to private organizations that are funded or controlled by the Commonwealth of Virginia or are exercising some sovereign power or governmental duty on behalf of the Commonwealth or an agency thereof.

Before discussing specific statutes and their applicability to the Authority and the CIT, it is helpful to identify in general terms the characteristics of governmental units that are subordinate to the Commonwealth. These units are categorized as political subdivisions, agencies or instrumentalities. Political subdivisions are created by an act of the legislature to perform some portion of the Commonwealth's sovereign powers and may act without the approval of the Commonwealth or an agency thereof. 1978-79 Op. Att'y Gen. 306 (July 13, 1978). Political subdivisions include not only counties and cities, but also various special purpose authorities that operate as independent units of government.

Agencies are considered as mere agents of the sovereign, that is, directly subordinate bodies providing a means to the fulfillment of a State purpose or function. 1977-78 Op. Att'y Gen. 455 (September 21, 1977); 1971-72 Op. Att'y Gen. 463 (April 18, 1972) and 1978-79 Op. Att'y Gen. 209 (June 6, 1979). Agencies are dependent upon State appropriations for their

7. Debt-Financed Property. The CIT should avoid acquiring any investment assets that are subject to debt or that it must borrow to maintain. Such items could generate unrelated debt-financed income, which will be fully taxable in the same proportion that the debt bears to the total value of the asset.

State and Local Tax Exemption

The CIT will be exempt from Virginia income tax to the extent it is exempt from federal income tax, since Virginia taxable income is determined by reference to federal taxable income. Its property will be exempt from state and local property taxes only upon passage of special legislation by the General Assembly of Virginia. Section 30-19.04 of the Code of Virginia provides that the General Assembly may not consider such legislation until the city or county in which the property is located has adopted a resolution stating its position on the proposed exemption. An exemption from state and local taxes cannot be obtained until after the receipt of federal tax exemption; therefore, such legislation probably could not be introduced until the 1985 session of the General Assembly.

Deductibility of Donors' Contributions

If the CIT is a Section 501(c)(3) organization, for-profit corporations generally will be able to claim an income tax deduction for contributions to it to the extent that their total charitable contributions for the taxable year do not exceed 10% of taxable income, computed with certain adjustments. See IRC § 170(b)(2). Additional restrictions may apply if the donor contributes tangible personal property that the CIT will not use for an exempt purpose or property that constitutes inventory or other assets the donor normally sells to its customers. Excess contributions generally may be carried forward for up to five taxable years.

A charitable contribution deduction may not be available for funds earmarked for specific research projects that benefit the corporate donor. See Rev. Rul. 79-81, 1979-1 C.B. 107. Those amounts nevertheless are likely to be deductible under IRC § 162 as

and other assets not used in carrying out exempt functions. See IRC § 514. The rule applies only if the property is subject to indebtedness incurred in connection with its acquisition or improvement by the exempt organization or indebtedness subsequently incurred but reasonably foreseeable at that time. Part of all of the income from property subject to such indebtedness will be taxable even if it is received as interest, rent, dividends, annuities, or royalties. IRC § 512(b)(4). Gain from the sale of such property also will be taxable. Id.

The complexity of the unrelated business income rules indicates that the CIT should seek the advice of legal counsel before entering into any contract or agreement with private individuals or for-profit organizations. Nevertheless a few general guidelines may be useful in planning the CIT's activities.

1. Origination of Research. The CIT may originate requests for research without the involvement of private industry. It is unlikely that the CIT would receive any compensation or reimbursement from the universities conducting the research except, perhaps, reserved rights to any patents or other results. Such by-products of research will not generate unrelated business income so long as they are made available to the public on a nondiscriminatory basis.

One person may be granted the exclusive right of use if that is the only practicable manner in which the research product can be utilized to benefit the public. Even if public access is impermissibly restricted, income from reserved patents and other by-products will not be taxable since all royalties are specifically excluded from the computation of unrelated business taxable income.

2. Matching Sponsors with Research Universities. The CIT may act as a broker, matching privately-funded research requests with universities capable of performing the research but investing none of its own funds. The tax consequences of any compensation that it receives from such activities will depend upon the form of the compensation.

As noted above, the royalty exception would protect income from reserved patents, processes and

Unrelated Trade or Business Rules:
Effect on Research and Other Activities

The federal income tax exemption allowed by IRC Section 501(c)(3) extends only to income derived from activities that are substantially related to the CIT's exempt functions. Income derived from an "unrelated trade or business," calculated with certain modifications noted below, will be subject to tax at normal corporate rates.

IRC Section 513(a) defines an unrelated trade or business as

> any trade or business the conduct of which is not substantially related (aside from the need of such organization for income or funds or the use it makes of the profits derived) to the exercise or performance by such organization of its charitable, educational, or other purpose or function constituting the basis for its exemption under [S]ection 501
> . . . .

IRC Section 512(a)(1) states that an unrelated trade or business will be taxable only if it is "regularly carried on."

The Internal Revenue Service appears to assume that any activity that generates income is a trade or business. Some courts have held that another primary consideration is whether the organization is using its tax-exempt status to compete unfairly with taxable firms. See, e.g., Hope School v. U.S., 612 F.2d 298, 303-04 (7th Cir. 1980). Income that the CIT derives from various aspects of its research activities may be income from a trade or business under either of these theories, however, because taxable firms engage in the same types of research, consulting and brokering activities.

Under any definition, the CIT's income-producing activities also would appear to be regularly carried on. Accordingly, income-producing research activities may be taxable unless they are substantially related to the CIT's exempt purpose or specifically

spent for exempt purposes during the year. See IRC §§ 501(h), 4911.

Under Section 501(h) and, presumably, under the facts-and-circumstances test, lobbying does not include publishing the results of nonpartisan research, providing technical advice or assistance to a governmental body or its subdivisions in response to a written request or communicating with a legislative body about its decisions that might affect the CIT's existence, its powers and duties, its tax-exempt status or its contributors' ability to claim income tax deductions. See IRC § 4911(d)(2).

Filing Requirements. To obtain tax-exempt status, the CIT must file an application with the District Director of the Internal Revenue Service in Baltimore, Maryland. So long as the application is mailed within 15 months after the State Corporation Commission issues the CIT's certificate of incorporation, exemption will be retroactive to the date the CIT was created.

The CIT should submit a certified copy of its articles of incorporation, IRS Form SS-4 (Application for Employer Identification Number), IRS Form 1023 (Application for Recognition of Exemption), and any supporting material that may help the IRS understand the nature of its operations. Form 1023 asks for detailed descriptions of the organization, sources of financial support, and proposed operations of the CIT, as well as budget projections for at least two fiscal years. The District Director normally will make a final determination of exempt status within 60 to 90 days after all of the required information has been submitted.

Private Foundation Status

Once the IRS has ruled on the CIT's exemption from income tax under IRC § 501(c)(3), it must determine whether the CIT is a "private foundation." Private foundation status imposes several additional burdens on an exempt organization.

First, although nominally tax-exempt, a private foundation is subject to a 2% excise tax on its net investment income, slightly diminishing the funds

them "available to the public on a nondiscriminatory basis." Treas. Reg. § 1.501(c)(3)-1(d)(5)(iv). This restriction will not prevent the organization from granting one person the exclusive right to use a patent or other research by-product if that is "the only practicable manner" in which it can be utilized to benefit the public. Id.

Although primarily scientific, the activities of the CIT also may qualify as educational and charitable. The publication of research findings and the training of researchers are educational functions. Activities aimed at supporting research and encouraging industrial development also may qualify as "advancement of education or science" and "lessening of the burdens of Government," both of which are charitable purposes under the Regulations. See Treas. Reg. § 1.501(c)(3)-1(d)(2).

An exempt organization may carry on incidental non-public interest research and other activities so long as its primary purposes are to benefit the public. See Treas. Reg. § 1.501(c)(3)-1(e)(1). Income from those activities may be subject to income tax as described later in this memorandum.

An exempt organization may achieve its purpose through the conduct of a trade or business. Nevertheless, commercial characteristics such as pricing its products or services at the going market rate, avoiding exempt activities that are not profitable and accumulating significant profits are evidence that the organization's primary purpose is income production rather than scientific, educational or charitable activity. See e.g., Presbyterian & Reformed Publishing Co. v. Commissioner, 79 T.C. 1070 (1983). Therefore the CIT should seek compensation for its services primarily in order to recover direct and indirect cost and should undertake to fund substantial projects for which it receives no reimbursement.

Operational Requirements: Prohibition Against Private Inurement. The prohibition against inurement of the CIT's net earnings to any private shareholder or individual is related to the public interest requirement discussed above but is generally oriented toward tangible economic benefits. Although the CIT will have no shareholders and its only member will be the Governor, private inurement nevertheless

Requirements for Section 501(c)(3) Status

Section 501(c)(3) exempts from federal income tax the following entities:

> Corporations, and any community chest, fund, or foundation, organized and operated exclusively for religious, charitable, scientific, testing for public safety, literary, or educational purposes, . . ., no part of the net earnings of which inures to the benefit of any private shareholder or individual, no substantial part of the activities of which is carrying on propaganda, or otherwise attempting, to influence legislation, . . ., and which does not participate in, or intervene in (including the publishing or distributing of statements), any political campaign on behalf of any candidate for public office.

Treasury Regulation 1.501(c)(3)-1(a) requires an organization seeking Section 501(c)(3) status to show that the documents that created it pass an "organizational test" and its actual activities pass an "operational test."

Organizational Requirements. Since the CIT will be a nonstock corporation, the organizational test will focus on its articles of incorporation. The articles must (1) restrict its operation to permissible charitable, scientific and educational functions, (2) contain prohibitions against private inurement and political campaign activities, (3) allow only insubstantial lobbying and (4) guarantee that the net assets will remain dedicated to exempt purposes if the corporation is dissolved.

Operational Requirements: Exempt Purposes. The primary purposes of the CIT are to coordinate state university research efforts in high technology fields, provide opportunities for graduate education, assist the Commonwealth in attracting new high technology businesses and, at some point, establish a facility at which it can conduct its own research and educational

its ability to engage in political activities.

(b) The CIT must file an application for tax-exempt status with the IRS District Director in Baltimore. The IRS is likely to respond within 60 to 90 days after all of the required information has been submitted.

3. The CIT should be able to avoid "private foundation" status, a less favorable category of tax exemption, because it will be controlled by the Governor, its sole member.

4. Income from the CIT's activities may be taxable if the activities are not substantially related to its exempt purpose or if the income-producing activities, although related, are conducted on a scale larger than is reasonably necessary for performance of its exempt function. The CIT should seek the advice of legal counsel before entering into any contracts or agreements with private individuals or for-profit organizations.

5. The CIT automatically will be exempt from Virginia income taxes to the extent it is exempt from federal tax. It can obtain exemption from state and local property taxes through special legislation enacted by the General Assembly, but only after it has received federal tax exemption and obtained a resolution from the jurisdiction(s) in which its property is located.

6. Individuals and corporations may claim income tax deductions for their contributions to

is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, partner, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against judgments, fines, and amounts paid in settlement in connection with such action, suit or proceeding, if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation. The termination of any action, suit or proceeding by judgment, order or settlement shall not of itself create a presumption that the person did not act in good faith and in the best interests of the Corporation.

(b) Notwithstanding the provisions of subsection (a) above, no indemnification shall be made in an action or suit by or in the right of the Corporation to procure a judgment in its favor in respect of any claim, issue or matter as to which such person shall have been finally adjudged to be liable for gross negligence or willful misconduct in the performance of his duty to the Corporation, unless and only to the extent that the court in which such action or suit was brought shall determine upon application that, despite the adjudication or liability, in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnification.

(c) To the extent that any such person has been successful on the merits or otherwise in defense of an action, suit or proceeding referred to in subsection (a) or (b) above, or in defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorney's fees) actually and reasonably incurred by him in connection therewith.

(d) Any indemnification under subsection (a) or (b) above (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case, upon a determination that indemnification of any such person is proper in the circumstances because he has met the applicable standard of conduct set forth in such subsection. Such determination shall be made either (1) by the Board of Directors, by a majority vote of a quorum of the members of the Board who were not parties to such action, suit or proceeding, or (ii) if such quorum is not obtainable, or even if obtainable, if a quorum of the Board of Directors consisting of disinterested members so directs, by independent legal counsel in a written opinion. If the determination is to be made by the Board of Directors,

United States internal revenue law and by a corporation to which contributions are deductible under Section 170(c)(2) of the Code or the corresponding provision of any future United States internal revenue law.

(b) No part of the net earnings of the Corporation shall inure to the benefit of any private person or entity, except that the Corporation may pay reasonable compensation for goods provided and services rendered and may make payments or distributions in furtherance of the purposes set forth in Article 2. No substantial part of the activities of the Corporation shall be the carrying on of propaganda, or otherwise attempting, to influence legislation; nor shall the Corporation participate or intervene (including by publishing or distributing statements) in any political campaign on behalf of any candidate for public office.

(c) The Corporation may receive and accept property, whether real, personal or mixed, by way of gift, bequest or devise, from any person or entity to be administered only in accordance with the purposes of the Corporation.

(d) In addition to any powers granted in these Articles, the Corporation shall have all powers conferred upon nonstock corporations by Section 13.1-204.1 of the Virginia Nonstock Corporation Act.

4. The sole member of the Corporation shall be the Governor of the Commonwealth of Virginia, who shall have the exclusive right to elect, appoint or remove directors. All other voting power, including without limitation the power to vote on amending these Articles, shall be vested in the Board of Directors.

5. The initial registered office of the Corporation is 707 East Main Street, Richmond, Virginia 23219, in the City of Richmond. Its initial registered agent at that address is James A. Jones, III, who is a resident of Virginia and a member of the Virginia State Bar.

6. (a) The management of the affairs and properties of the Corporation and the disbursements of its funds shall be vested in a Board of Directors. The number of persons constituting the Board of Directors shall be fifteen.

(b) The presidents of the University of Virginia, Virginia Commonwealth University and Virginia Polytechnic Institute and State University shall serve

3. Systems engineering/analysis - the design and analysis of information systems as physical entities with a focus on the system life-cycle. Topics include need and feasibility analysis, conceptual design, functional analysis, requirements allocation, design requirements, operational feasibility and the analysis topics of transmission and coding, measures of information, channel capacity, encoding and decoding, error detection/correction, flow optimization, information quality and integrity, and system effectiveness/efficiency.

4. Human/computer interface design - human factors engineering for the design, development, testing, and evaluation of the human/computer interface. Topics include data collection and analysis, experimental designs, behavioral considerations, human performance measurement, parametric analysis, uncertainty theory, signal detectability, training concepts, and the human as a component in the information system.

The single greatest impact on communications worldwide is being made by digital computers/microprocessors. As these information processors multiply throughout business, education, and government, telecommunications provides a strategic advantage. Modern forward looking firms must have communication systems for such tasks as sending large volumes of computer generated data at high speed, transmitting facsimiles of engineering designs, and holding video conferences. As manufacturing operations become more automated, information technology will provide the needed nerve system. Information technology is also the key to automating the routine aspects of marginal decisions, encompassing research in the acquisition, storage, manipulation, and presentation of information together with the evolution and application of information through information processing devices known as computers.

Rather than focus entirely on the information transformation device, the research concentration will deal with information in the same sense that the physicist and engineer deals with energy. The information transformation device, like the energy transformation device, must be a means to an end. The physical resources are extensive on the campuses of the participating universities. When coupled with the growing telecommunications capabilities in the Commonwealth, good progress can be made in a short period of time.

Virginia can benefit greatly by making visible and by coordinating its considerable personnel and hardware in information technology. There is ample evidence to show that educational and research programs conducted by talented people (with an applications orientation) serve as irresistable attractions for high technology ventures. To ignore the information revolution and the promise of the information technologies is to accept the less desirable and more mundane role of the industrial economy which would leave Virginia short of her full potential. Graduate studies and research undertakings of real significance are necessary to anchor and enhance the high technology development already in place. Challenges will come from many directions including neighboring Maryland and North Carolina, but Virginia is ideally positioned to maximize its advantages if action is taken now. VPI&SU, GMU and UVa will all play important complimentary roles in satisfying industry's need for information technology.

The Research Director initially will be in residence at VPI&SU.

Research Institute for Material Sciences

The scientific and technological advances in the area of materials represent a potential resource to be tapped for commercial exploitation. Numerous industries in Virginia are in high technology fields which could benefit from interactions with research activities, and vice versa. The two leading materials research groups within the Commonwealth reside at VPI and at UVa. Within these groups, three materials areas have been identified as ones which are particularly promising for university-industry interaction.

1. Composite Materials

   Over the past fifteen years, we have entered an exciting new age where materials are designed to meet requirements of high strength, high stiffness, low weight, ease and economy of manufacture, and a myriad of electrical, magnetic, and environmental qualities which cannot be met by conventional engineering materials. Presently, research in composite materials is aimed at meeting these requirements for aerospace vehicles, automobiles, ships, and sporting goods. These varied applications dramatically increase both the desired production volume of composite materials and the need for more research.

   A very large and vigorous program of activity involving over thirty five faculty with annual funding nearing one million dollars involves a variety of research areas including design analysis, characterization, and testing of such materials as polymer, metal and ceramic matrix composites, hybrids, metal whiskers and laminates.

2. High Performance Alloys

   As improved service performance is expected of many alloys, it is often possible to meet these increased demands by modifying the microstructure, microchemistry or processing parameters of existing alloys, or by designing new alloys from known structure-property relationships. Because of the high competitive nature of the transportation industry, research in this area involves the development and processing of aluminum, titanium, iron and copper-based alloys for high performance with regard to creep and fatigue, stiffness, specific strength, corrosion embrittlement, etc.

3. Semiconductor Metals

   The use of semiconductors and semiconducting devices has experienced a dramatic expansion into all areas of technology and currently represents a major world-wide investment. The pressure for more performance from smaller devices has pushed processing techniques to the limit. Efforts in the semiconductor materials area at universities in the Commonwealth include the fabrication of complete devices, thin and thick films, and special purpose crystals of semiconductors by techniques of chemical and physical vapor deposition, liquid phase growth and solidification from the melt.

   The synergistic interaction between universities and industries has been targeted by the Presidential science advisor, George Keyworth, as an objective to be accomplished in their new science policy. Keyworth specifically mentions Materials Science and Engineering as a field which is "ripe for rapid advances in knowledge that could have medium-term spinoffs to high technology" and "can very effectively use whatever additional funding we

Appendix A - Research During Phase One

The CIT facilities at its Headquarters will include administrative space for the CIT staff, and may ultimately include, in Phase Two, research laboratories and offices for research faculty, classrooms (some equipped for instructional television as well as a teleconferencing capability with and between UVa, VCU, VPI&SU, and GMU), entrepreneurial venture space, and the usual array of storage, plant maintenance, and service space. CIT also must have significant computing capacity, including both a stand-alone system and links to major Virginia university computing centers and to national networks. The staff of the CIT will perform the administrative functions. Research and instruction will be conducted by persons affiliated either with institutions of higher education or with industry. Faculty affiliated with Virginia institutions can be on leave, have reduced teaching loads, be on regular assignment to CIT, or have some arrangement which involves continued affiliation with an institution. There should be no CIT research or teaching staff other than these persons. For this reason, all research conducted at the CIT (except that conducted by universities from outside Virginia or by industry researchers without university involvement) will be done under the auspices of one or more Virginia universities. There will, for instance, be University of Virginia or George Mason University projects done at CIT. There will not be any "CIT projects."

It is recognized that in competition with out-of-state institutions of higher learning for industry and government research tasks, the initial research focuses should be limited in number; be precursors to marketable technologies; should be within the attainable research resources to accomplish; and should utilize and build on existing research strengths or opportunities in Virginia. With this in mind, four research areas are identified for Phase One implementation by the CIT.

Research Institute for Biotechnology

A nucleus of faculty with interest and expertise in biotechnology and modern genetic engineering exists at both VCU and UVa. This human resource is strongly supported by up-to-date equipment and facilities. The technical expertise at these universities can and should be made more accessible to the needs of the Commonwealth. These needs clearly are underscored by the rapid advances seen in the field of biotechnology since the late seventies. Examples of approaches in these areas that can be implemented within the CIT include:

1. The research qualifications needed to apply recombinant DNA techniques to the development and improvement of agricultural and biomedical products and processes is well established at VCU and UVa. For example, it should be possible to genetically engineer bacteria to perform biodegradative activities which would be invaluable in processing waste generated by the Commonwealth's pulp, paper, chemical and shellfish industries. Recombinant DNA methodology currently is being used at VCU in areas which can directly lead to the development of new, safe vaccines to prevent bacterial and viral diseases. Moreover, the use of bacteria to synthesize medically important products such as hormones, interferons, and to generate energy related products such as ethanol and methane is emerging as an exciting field. UVa currently has several similar research programs including one involving somatic cell genetics to improve plant quality. This program is well-funded from corporate sources. Thus, much of the expertise and facilities to move into and successfully compete in these and other similar areas is already in place within the Commonwealth.

The Finance Subcommittee has reviewed the recommendations of the Subcommittee on Operations and Organization and strongly supports the main elements of those recommendations.

The Finance Committee agrees that, once the Center is established, the private sector will support the on-going research projects, as contemplated by the Subcommittee on Operations and Organization. The Finance Committee believes that the private sector in conjunction with the State government will be prepared to play a significant financial role in the establishment of the Center.

We believe that further consideration should be given to the roles of the proposed non-profit corporation and the Innovative Technology Authority in the operation of the Center — bearing in mind that the status of the Authority as a state agency could facilitate transfers to and from the Center by State employees, including those of the universities participating in the Center.

The next steps in determining the financial arrangements for the establishment of the Center and the initiation of specific fund-raising efforts should follow the Governor's decisions on the recommendations of our two sister subcommittees. It is our desire to be responsive to his needs and therefore we offer to continue our efforts in the period following the Governor's decisions.

We believe we will be in a position to present a subsequent report with tangible evidence of the commitment of Virginia business and industry to the partnership of business, education and the state that will exist in the Center for Innovative Technology.

SITE #L4
GEORGETOWN UNIVERSITY SITE: 641 Acres

Located on Route #28 at intersection of Route #607; topography is gently rolling; no natural gas in area; water and sewer nearby; price not available.

SITE #L5
BLES-BON AIR SITE: 120 Acres

Located on Route 607 approximately one mile south of Route 7; topography is rolling; no natural gas in area; water lines approximately one mile north; sewer nearby; no price quoted.

SITE #L6
EAST LEESBURG HILLS: 108 Acres

Portion of 319 acre tract located approximately 1/2 mile off Route #7 and 13 miles north of Dulles Airport; topo at site is rolling; natural gas is 3,500 feet northwest; water and sewer nearly; donation suggested; price not quoted.

SITE #L7
LEEGATE: 382 Acres

Located on State Route #7 southeast of Town of Leesburg; topo is rolling. natural gas nearby as are water and sewer; $20,000 - $32,000/ acre.

PRINCE WILLIAM COUNTY
Proposed CIT Site

SITE #P1
MARRIOTT CORPORATION SITE: 500 acres

Located on I-66 between Routes #29 & #211 at Gainesville interchange; land is rolling with stream at eastern edge; incorporates 150 acres to be donated by Marriott Corporation; very attractive site with only real drawback being distance from Tysons Corner - approximately 30-40 minute drive.

DULLES AIRPORT INDUSTRIAL PARK: same topography as Sully; water and sewer at site; natural gas some 1,000 feet north.

SITE #F6
POPLAR TREE BUSINESS PARK: 119.5 Acres

Located at the intersection of Sully Road and Poplar Tree Road between I-66 and State Route #50; 25-30 minutes from Tysons Corner; has some residential development within view; topography mostly level; water and natural gas at site; sewer line approximately 3,500 feet north; price listed as negotiable with suggestion of $1.25/sq. ft. (approximately $50,000/acre).

SITE #F7
FAIR LAKES BUSINESS PARK: 850+ Acres

Enjoys excellent location at intersection of I-66 and State Route #50; however, location complicated by fact this is a "designated Fairfax County business area" and is apparently undergoing replanning which could complicate state use; topography is rolling to hilly; water, sewer and natural gas at site.

SITES #F8 & F9
PECK TRACT: 152.9 Acres
REREDEL PROPERTY: 117.96 Acres

Enjoy excellent access to Dulles Airport and would offer some visibility to airport users; no price listed though both termed negotiable and are offered by same contract owner; together, they provide about 270 acres which would, in turn, provide potential for further development; generally speaking, these sites are physically attractive and would meet needs for the Center; topography is level to slightly rolling; water and natural gas at site; sewer is from 800 feet to 4,000 feet away.

SITE #F10
WOODLAND PARK: 200+ Acres

Located on the Dulles Access Road approximately 6 minutes from Airport at Centerville Road; approximately 20 minutes from Tysons Corner; to be served by parallel lanes along access road; excellent visibility and room for development; price is said to be negotiable with indication owner wishes to retain ownership of planned industrial park; topography is level to gently rolling; water and sewer at site; natural gas nearby.

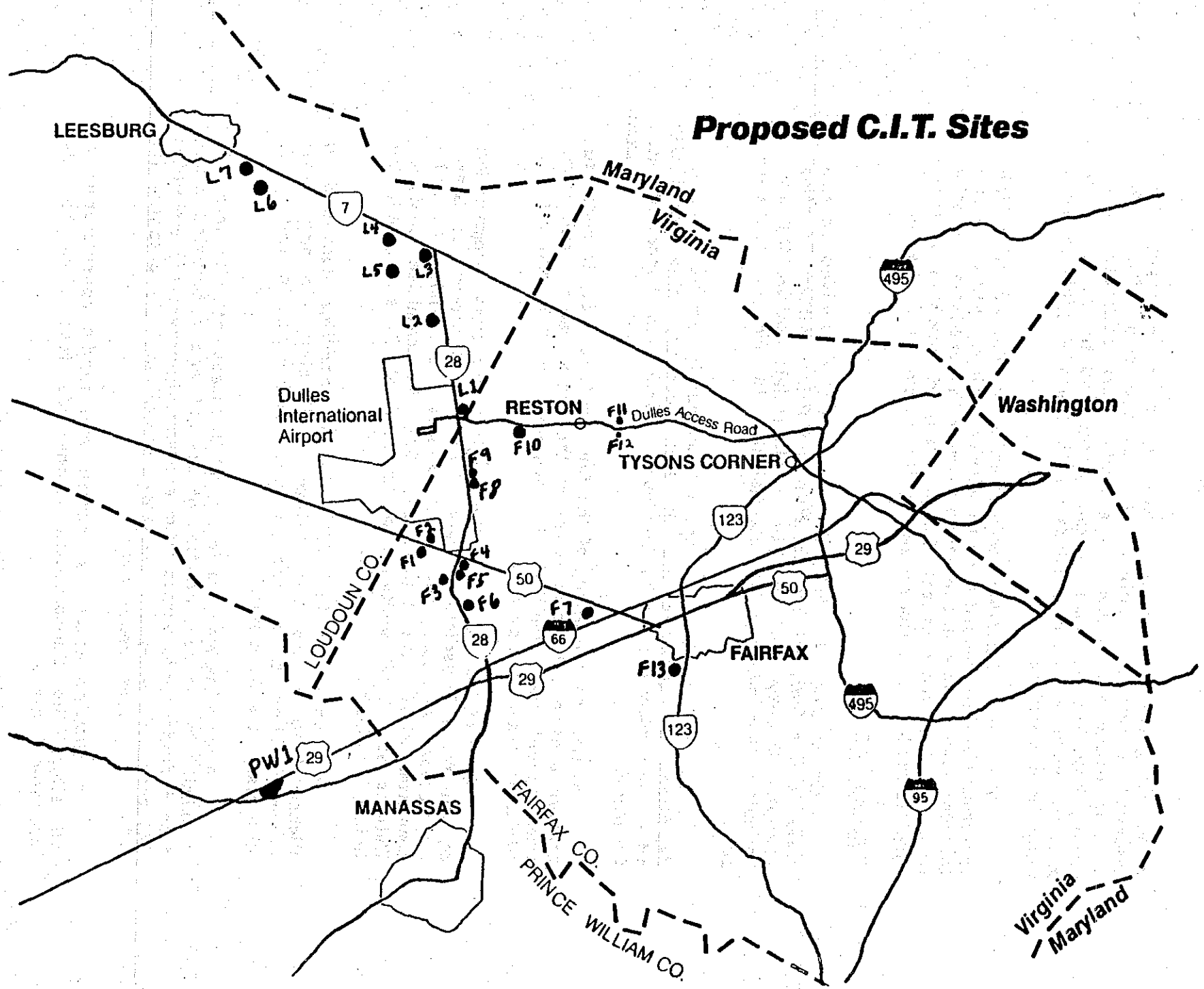

Proposed C.I.T. Sites
LEESBURG
L7
L6
7
L4
L5
L3
L2
28
L1
Dulles
International
Airport
RESTON
F11
Dulles Access Road
F10
F12
TYSONS CORNER
F9
F8
F2
F1
F4
F5
F3
F6
50
LOUDOUN CO.
28
66
F7
FAIRFAX
F13
29
123
29
50
495
Washington
495
123
PW1
29
MANASSAS
FAIRFAX CO.
PRINCE WILLIAM CO.
95
Virginia
Maryland
Maryland
Virginia

EXHIBIT I

BACKGROUND

In its final report, issued July 14, 1983, the Governor's Task Force on Science and Technology recommended creation of a Center for Innovative Technology (CIT) to promote existing, and foster development of new, high technology industry in the Commonwealth.

On August 29, 1983, the Task Force Implementation Group met to assign responsibilities for establishing a Center. Following this meeting, the CIT Site Selection Subcommittee convened to review and discuss its charge of recommending the most suitable and desirable site(s) for the proposed Center.

In its report, the Task Force took note of the 800+ high technology companies in the Northern Virginia region employing some 62,000 Virginians. Consequently, it expressed the sentiment that "...the central location be in Northern Virginia, because of the large concentration of high technology industry in that section of the State...." Accordingly, the first action of the Subcommittee was to define "Northern Virginia".

Inasmuch as the industry to be served by the Center was or would be concentrated in the geographic vicinity of the District of Columbia, and recognizing that convenient and timely access was essential to the overall success of the facility, the Subcommittee defined "Northern Virginia", for purposes of locating the Center, as the Counties of Arlington, Fairfax, Loudoun and Prince William and the City of Alexandria. It was the decision of the Subcommittee that if no satisfactory site(s) were identified within these jurisdictions, the search area would be expanded.

Each of these jurisdictions was requested to submit a list of potential sites, in the 100-200 acre range, which were felt to be appropriate. While the Task Force did not specify acreage, it was felt that the site should be of sufficient size to serve as a buffer from residential and commercial activity as well as to provide space for construction and development of new and emerging industry. Submission of sites was preliminary to formal presentations made by the localities to the Subcommittee on October 6, 1983, in Richmond.

Concurrent with the solicitation of potential sites by this Subcommittee, the CIT Operations and Organization Working Group became aware of divergent views on the scope and purpose of the Center as compared to the general issue of developing on-site Information Technology and Engineering education programs in Northern Virginia.

The Working Group expended considerable time and energy in examining the overall concept and concluded that the Center for Innovative Technology, as proposed, and the broader question

Prior fund-raising experience suggests that corporate and individual donors will provide stronger support for the CIT if it is organized as a private nonprofit corporation rather than as a governmental entity.

Financing

Interest on obligations issued by the CIT will be exempt from income taxation under federal and Virginia income tax laws because of the CIT's status as a § 501(c)(3) organization.

Tax-exempt financing of CIT activities may also be effected by the Authority. In addition, tax-exempt financing of CIT buildings could be effected by the Virginia Public Building Authority because title to CIT real estate will be held by the Authority.

Income Tax Status

Income earned from CIT operations will be exempt from federal and Virginia income taxes so long as the CIT observes the organizational and operational requirements of Internal Revenue Code § 501(c)(3). These requirements are described in Appendix D.

Legal Requirements Applicable to State Entities

In order to have the flexibility necessary to accomplish its objectives, the CIT should not be subject to the array of requirements applicable under State law to political subdivisions. These requirements, which relate to personnel, procurement, freedom of information, conflicts of interest, investments, privacy, protection and retirement, are discussed in detail in the memorandum included in Appendix D. While it is arguable that some or all of these requirements do not apply to the CIT if it is organized as a private nonstock corporation, all doubts in this regard should be eliminated by providing an exemption from the requirements in the enabling act establishing the Authority. A proposed draft of the enabling act for the Authority is included in Appendix D.

The draft enabling act also provides exemptions from the State law conflicts of interest and freedom of information requirements applicable to university employees and projects, respectively, involved in transactions to which the CIT is a party.

Revenue Ruling

A ruling should be sought from the Internal Revenue Service classifying the CIT as a § 501(c)(3) organization as soon as possible because the Service may take as long as six months to act on a ruling request.

The Authority

The Authority will hold title to all CIT property so that it is exempt from local property taxation. The Authority will also be able to issue tax-exempt bonds in support of CIT activities. This financing capability is in addition to the financing capability which the CIT itself will have and that which may be available through the Virginia Public Building Authority.

The Authority would be created by new legislation as an independent political subdivision of the Commonwealth. A draft of the enabling legislation for the

RECOMMENDATIONS

Relative to Northern Virginia Graduate Education

1 - The State meet a pressing need in Northern Virginia; i.e., provide the resources to offer, in Northern Virginia, information science and technology education programs including an engineering program serving the telecommunications industry. Specifically, the Information Technology programs at George Mason University (GMU), already approved by the Council of Higher Education, be funded and staff positions be provided for them through the Governor's budget recommendations for GMU as developed through the normal budgetary process but not from that portion of the Governor's Science and Technology Set Aside to be applied to the Center for Innovative Technology.

Relative to the Center for Innovative Technology (CIT)

1 - The CIT be organized by the Governor as a non-stock corporation under the "Virginia Non-stock Corporation Act." In conjunction with the organization of the CIT, the Governor request the General Assembly to create a new State authority that will support the CIT and hold title to all of its property.

2 - Implement the CIT in two phases. The first phase will concentrate on research conducted on university campuses in cooperation with industry. In addition, the CIT staff will, during this phase, conduct and sponsor services to industry such as a Technical Resources Data Bank and provide liaison with State agencies relative to industry's part-time graduate education needs. During Phase One, the CIT staff and the CIT Board of Directors will define in detail the Phase Two activities of the CIT; i.e., providing "incubator" space for emerging companies, industrially funded on-site research, and on-site part-time graduate education.

3 - Include approximately $30,000,000 for the CIT in the Governor's 1984-1986 budget request, including funds for the facilities required for both phases. The Phase Two construction appropriation item can be adjusted, if necessary, during the 1985 Session of the General Assembly depending on the final definition of the second phase of the CIT.

4 - The responsibilities of the chief executive officer for the CIT be assigned to the CIT "President." Because of the critical nature of this position, the salary should be in the order of $100,000 per year. In addition, the Governor is urged to initiate a search for the CIT President as soon as possible.

5 - Initially establish the following four Research Institutes under the auspices of the CIT:

- o Biotechnology at UVa and VCU (lead)
- o Computer Aided Engineering at UVa (lead) and VPI&SU
- o Information Technology at GMU, UVa, and VPI&SU (lead)
- o Material Sciences at UVa and VPI&SU (lead)

The Research Institutes will conduct cooperative research by the universities and industry. The CIT will sponsor equipment, laboratory renovation, and research at the participating universities with the intent of maximizing industrial support and participation.

The Working Group has prepared a general statement of the possible scope of work to be undertaken at the CIT site during Phase Two and an outline of a general Memorandum of Understanding which should be signed by the participating universities and the CIT, and which should govern all college and university involvement in CIT. The Memorandum of Understanding itself should be developed after the CIT is legally established and has employed a President. The CIT should use the research facilities, support services and faculty of participating institutions of higher education. It should not attempt to duplicate these, and should not have its own research faculty. Research should be undertaken under the auspices of a participating university, and the universities indirect cost reimbursements should not be diminished as a result of CIT involvement. The CIT should be funded as a separate entity, with no resources or positions drawn from higher education to support it. Funding for Phase Two operations of the CIT site must be in addition to all present and future funding of activities defined in Phase One.

Northern Virginia Graduate Education

The Working Group recognized that the economic development of the Commonwealth requires a response to the pressing need in Northern Virginia; i.e., providing funding and the positions necessary to offer on-site information science and technology programs including an engineering program serving the telecommunications industry in Virginia. While Instructional Television programs from UVa, VCU, and VPI&SU in Northern Virginia may help, the Working Group recommends that the Information Technology programs at GMU, already approved by the Council of Higher Education, be funded and that staff positions be provided for them through the Governor's budget recommendations for GMU as developed through the normal budgetary process but not from that portion of the Governor's Science and Technology Set Aside applied to the CIT.

It is extremely important that the overall goal of this effort, that is, to place Virginia in a favorable position to compete nationally for new industry, is dependent on focusing and enhancing the Commonwealth's higher education resources. This is the purpose of this proposal in all of its parts.

Working Group Members:

Dr. Donald P. Hearth (Chairman); Director, NASA/Langley Research Center

Dr. Edmund F. Ackell; President, Virginia Commonwealth University

Mr. John Campbell; Vice-President, Philip Morris

Mr. Stanley Freedman; Division President (Retired), Litton Industries

Dr. Frank L. Hereford, Jr.; President, University of Virginia

Mr. James A. Jones, III; Partner, Hunton & Williams

Dr. William E. Lavery; President, VPI&SU

Mr. John W. O'Malley; Vice-President, IBM

Mr. John D. Munford; Vice-President, Union Camp Corp.

Mr. Carrington Williams; Partner, Boothe, Prichard and Dudley