# CapSix Database

## H1 Table: Capital Projects

Quick search Apply 54 projects displayed

Show ☑ Active projects proposed for six year plan and/or ☐ Withdrawn projects not being considered

| Prty | Start Year | Project Title | Total Cost |
|---|---|---|---|
| **George Mason University (247)** | | | |
| 2 | 2011 | Renovate Thompson, West and Pohick (equipment) | $1,500,000 |
| 3 | 2011 | Construct Krasnow Addition, Phase II (equipment) | $614,000 |
| 4 | 2011 | Construct Campus Library Addition, Phase I | $57,369,000 |
| 5 | 2011 | Renovate Fine Arts Building | $9,801,000 |
| 6 | 2011 | Construct Academic VII/Research III, Phase I | $63,144,000 |
| 7 | 2011 | Construct Satellite Cooling/Heating Plant and Distribution Piping | $22,357,000 |
| 8 | 2011 | Construct Campus Entrances, Prince William Campus | $1,211,000 |
| 9 | 2011 | Repair Aquatic and Fitness Center HVAC | $2,526,000 |
| 10 | 2011 | Construct Addition to Student Union I | $2,400,000 |
| 11 | 2011 | Renovate Prince William Science Labs | $3,112,000 |
| 12 | 2011 | Improvements to Telecommications Infrastructure | $4,803,000 |
| 13 | 2011 | Construct Physical Plant Addition, Fairfax Campus | $15,285,000 |
| 14 | 2011 | Construct Bull Run Hall IIIB Addition | $63,771,000 |
| 15 | 2011 | Renovate Research I | $2,698,000 |
| 16 | 2011 | Construct Campus Entrances, Fairfax Campus | $8,547,000 |
| 17 | 2012 | Renovate Student Apartments | $3,098,000 |
| 18 | 2011 | Renovate Commons | $16,002,000 |
| 19 | 2011 | Renovate Field House | $9,186,000 |
| 20 | 2011 | Renovate Robinson Hall and Harris Theater (Phased) | $55,902,000 |
| 21 | 2011 | Renovate Science & Tech I | $35,441,000 |
| 22 | 2011 | Renovate King Hall & Construct New Addition | $59,591,000 |
| 23 | 2011 | Renovate Finley Building | $3,370,000 |
| 24 | 2011 | Construct New Global Center | $5,015,000 |
| 25 | 2011 | Contruction Shirley Gate Sports Complex (PPEA) | $0 |
| 26 | 2011 | Construct Lab Building, Prince William Campus (PPEA) | $0 |
| 27 | 2011 | Construct Prince William Student Housing (PPEA) | $0 |
| 28 | 2011 | Construct Belmont Bay Science Center | $46,533,000 |
| 29 | 2011 | Develop Loudoun Campus Site | $1,100,000 |
| 30 | 2012 | Renovate Concert Hall | $41,064,000 |
| 31 | 2011 | Renovate Truland Building | $2,709,000 |
| 32 | 2011 | Improvements to Arlington Infrastructure | $1,775,000 |
| 33 | 2012 | Authorize Capital Lease Renewal for Truland Building | $0 |
| 34 | 2011 | Renovate Mason Hall | $5,075,000 |
| 35 | 2012 | Renovate Performing Arts Building | $29,560,000 |

| | | | |
|---|---|---|---|
| 36 | 2012 | Renovate Krug Hall | $6,803,000 |
| 37 | 2012 | Renovate Campus Library, Phase II | $31,321,000 |
| 38 | 2013 | Construct Loudoun I/Infrastructure | $45,072,000 |
| 39 | 2013 | Renovate Baseball Stadium | $4,452,000 |
| 40 | 2013 | Construct Child Development Center, Phase II | $2,287,000 |
| 41 | 2013 | Construct Parking Deck V | $35,261,000 |
| 42 | 2014 | Construct Prince William Union | $26,322,000 |
| 43 | 2013 | Renovate Johnson Center, Phase I | $9,858,000 |
| 44 | 2013 | Construct Academic VII/Research III, Phase II | $47,357,000 |
| 45 | 2013 | Construct East Campus Fields and Courts, Phase II | $6,596,000 |
| 46 | 2013 | Construct Addition and Renovate Enterprise Hall | $39,230,000 |
| 47 | 2015 | Construct Housing IX | $124,877,000 |
| 48 | 2015 | Construct Physical Plant Building, Prince William Campus | $10,979,000 |
| 49 | 2015 | Construct Arlington III | $225,669,000 |
| 50 | 2015 | Construct Fairfax Central Warehouse Addition | $8,988,000 |
| 51 | 2016 | Renovate Soccer and Lacrosse Stadium | $6,897,000 |
| 52 | 2016 | Construct Patriot Center Addition, Phase III | $6,919,000 |
| 53 | 2016 | Construct Field House Addition, Phase III | $25,436,000 |
| 54 | 2016 | Construct Indoor Practice Facility | $14,813,000 |
| 55 | 2008 | Construct Student Housing VII | $750,000 |

Agency projects are open for making changes
Only DPB can make changes
Currently locked from making changes

CapSix Database

## Renovate Thompson, West and Pohick (equipment)

project 1 of 54

**George Mason University (247)**

### General Information

Project Type: Acquisition Project Code: 16607 Start Year: 2011

Agy Priority: 2 Location: Northern Virginia Facility:

Building #: 247-0029 Building Name: Thompson Hall

Building Function: Academic and Instructional Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: months

Projected time to occupy facility or complete project: months

Projected time to award construction contract: months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

Provides the furnishing and equipment needs for the Thompson West Pohick Renovation originally funded in Chapter 859, the 2002 General Obligation Act.

**Justification**

The university anticipates that this Thompson Hall will be ready for occupancy by June 30, 2011.

DPB Comment: GMU has already received $1,000,000 in equipment funding for this project which is the amount originally removed. No funding should be recommended.

**Options Considered**

-

**Costing Methodology**

-

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5935

## Construct Krasnow Addition, Phase II (equipment)

project 2 of 54

**George Mason University (247)**

### General Information

Project Type: Acquisition | Project Code: 17696 | Start Year: 2011

Agy Priority: 3 | Location: Northern Virginia | Facility:

Building #: 247-0160 | Building Name: Krasnow

Building Function: Research Offices and Labs

Is this an Umbrella Project? No | OR a higher education blanket project? No

Projected time to submit working drawings: months

Projected time to occupy facility or complete project: months

Projected time to award construction contract: months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

This request supports the previously approved but unfunded furnishing and equipment needs of the Krasnow Addition Phase II capital project #247-17696. This renovation project was funded in Chapter 879 without any FF & E funding.

**Justification**

The University anticipates that the construction of the addition to Krasnow Phase II will commence during 2009 and be should be completed by Fall 2010. It is important that FF & E funding is available for this additional space so that reseearch can be conducted in support of the University's mission.

**Options Considered**

-

**Costing Methodology**

-

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6756

## Construct Campus Library Addition, Phase I

project 3 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: 17695 Start Year: 2011

Agy Priority: 4 Location: Northern Virginia Facility:

Building #: 247-0005 Building Name: Fenwick Library

Building Function: Campus Library, Stacks, Study Spaces and Services

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 9 months

Projected time to occupy facility or complete project: 35 months

Projected time to award construction contract: 9 months

Included in the existing Six Year Capital Plan Yes

**Agency Narrative**

**Description**

This project consists of a 150,000 GSF addition to the existing Fenwick Library. The construction of this addition will reposition George Mason University's largest library as the main research library for the University and as the "network hub" for the Johnson Center, Law School, Arlington and Prince William campus libraries and other satellite locations of the institution (e.g., Loudoun and Mason-Smithsonian at Front Royal) . Fenwick Library must be repurposed to meet the demands of a growing, increasingly residential undergraduate student population; a strong focus on graduate education and research; and a higher caliber of undergraduate and graduate student, as evidenced by competitive selectivity in University admissions.

Shepley Bulfinch Richardson & Abbott's (SBRA) library facilities feasibility study (completed in 2007) envisions an expanded Fenwick Library complex of 231,510 GSF as the central hub of the University's library system, providing a continuum of programs, resources and services that meets the teaching and learning, research and public service mission of the University. The goals of this hub are to provide high quality scholarly research and study environments, improve navigability of collection areas, expand holdings of unique special collections and archives with greater accessibility, enhance access to the distinctive collections and knowledge specialists, and provide technology-enhanced collaborative teaching and study spaces, and celebrate the library's presence on campus as the center of intellectual life for the University.

With the new addition, space for library services will increase by 22%, instruction related to library services and technology 427%, general collections 50%, and special collections 66%. Nearly 1,300 user seats will be added. Compact shelving will be extensively utilized to minimize the footprint of library print collections.

The project will be designed and constructed to a LEED Silver standard incorporating environmentally sustainable construction standards providing a commonwealth building which creates a healthier work and study environment, contributing to higher productivity and improved student, faculty and staff health and comfort.

**Justification**

The existing 146,000 GSF Fenwick Library houses approximately 735,000 volumes, inclusive of special collections and archives; seats 745 users; and is home to 87 full-time university staff, 9 graduate research assistants, and 21 FTE student assistants. Approximately 29,000 volumes are added annually to Fenwick's collections. The campus master plan calls for demolition of both the existing library's Wing A and the connector space between this wing (35,000 GSF) and the two towers (Wings B & C).

The current Fenwick Library facility houses the following centralized functions of the University's library system: collection development and preservation; technical services (acquisitions, serials and cataloging); digital programs

and systems; as well as senior administration. In addition to general collections such as scholarly monographs and scientific/scholarly journals, Fenwick Library also houses Special Collections & Archives, Government Documents & Maps, and Microform Collections. Services provided include: Circulation and document delivery, instruction, reference and research consultation, statistical research services (quantitative and qualitative), geospatial research support (Geographic Information Systems), and theses/dissertation support services. These functions, collections and services will continue to be based/offered in the expanded Fenwick Library complex.

In addition, the building expansion will enable the main research library to accommodate research materials growth to 2030, significantly increase space for student and faculty by at least 1,200 seats, afford a technology rich environment, increase significantly instructional spaces, as well spaces for collaborative teaching/learning activities and research, and enable the creation of a “Research Commons” that will focus on the needs on upper level undergraduates, graduate students and faculty researchers. The Research Commons will be characterized by new programs such as Data Services, as well as by professional-level staffing patterns which will combine academic research librarian expertise with instructional design (Learning Support Services), faculty development (Center for Teaching Excellence), and writing instruction/coaching for students (Writing Across the Curriculum and Writing Center).

While Gorge Mason University has become a major institution and is rapidly emerging as a research-level university of note, its library facilities still lag behind. The main University library needs to be expanded in order to support the University that has grown so much, both along quantitative and qualitative dimensions. Within two years all remaining space for research materials will have been exhausted, so more space for collections is desperately needed. In addition, without additional space library programming needs for the education of students in the 21st century will not be possible. The library, as the core academic function that it is, must grow and develop in order to support the University’s mission and aspirations for academic excellence.

In addition the Fenwick Library building expansion is required for the following reasons:

(a) we are running out of space in the existing building for library collections, accommodating increased number of students, and having workspaces for modest increases in library staff;

(b) a paramount example of “increased workload” is represented by the tremendous growth of library instruction, which focuses on information fluency and, more broadly, in teaching students to become “research” proficient. While librarian and instructional faculty teaching collaborations in this regard continue to grow, we have severe space limitations to hold such instructional sessions in the library where students can learn in the “laboratory” mode that is required.

(c) Service improvements such as “Research Commons” described above will not be possible without the requested additional space.

The following needs were identified in the SBRA Feasibility Study: additional quiet study spaces, a greater variety of enclosed and open group study areas are needed, clusters or zones for different activities are desirable with clusters of computers and printers on multiple floors that are easy to locate, more areas where students can interact with faculty, additional space for exhibition and celebration of special collections, librarian/patron consultation spaces are required, public engagement and orientation spaces are needed on the first floor, greater differentiation of services and collections between Fenwick and Johnson Center Library is needed, a symbolic place such as a more formal reading room is needed to convey commitment to scholarship and academic excellence of the university as a whole.

The existing Fenwick Library Wing A building was constructed in 1967. The towers and connector spaces were added in 1978 and 1982. The facility has had a number of small scale primarily cosmetic renovations over the last eight years. In addition a number of study spaces have been converted to either staff or book stack spaces which has left the library with a lack of much needed student study spaces.

The reality is Mason is fast running out of space for collections, has no more space to create work areas for modest increases in library staffing and, most notably, cannot effect service improvements or undertake needed program enhancements.

The library master plan completed by SBRA calls for renovation of the towers to effectively and efficiently accommodate a large portion of the library’s collections, in part through the use of compact shelving. The 1967 building will serve as swing space during segmented renovation work in Johnson Center Library and Fenwick Library in order to maintain ongoing library services to the University Community. Once all renovations are complete the 1967 building and connector space will be removed.

The campus master plan calls for demolition of both the existing library's Wing A and the connector space between this wing (35,000 GSF) and the two towers (Wings B & C). The space created will extend the existing quad creating outdoor space for a growing residential student population.

**Options Considered**

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

Due to the magnitude and type of space shortfall, there are no other viable options to new construction.

**Costing Methodology**

As a part of the on-going detailed design phase of work on this project we are contining to develop a detailed cost estimate. As we refine the scope of work we are able to better estimate actual costs.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 150,000 | Sq. Ft. | Cost per Sq. Ft. | $290 |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5942

## Renovate Fine Arts Building

project 4 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: 17697 Start Year: 2011

Agy Priority: 5 Location: Northern Virginia Facility:

Building #: 247-0072 Building Name: Fine Arts Building

Building Function: Academic and Instructional Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 15 months

Projected time to occupy facility or complete project: 15 months

Projected time to award construction contract: 7 months

Included in the existing Six Year Capital Plan Yes

**Agency Narrative**

**Description**

This project is defined as the complete renovation of the Fine Arts Building and partial renovation of College Hall. The Fine Arts Building, approximately 33,200 GSF was originally constructed in 1989, will be vacated in total when the Academic V project is completed in Summer of 2009. This project also includes renovation of the 6,200 GSF on the second floor of College Hall. Art and Visual Technology programs will vacate space in the Fine Arts Building and College Hall moving to Academic V. This project will repurpose this vacant space for use by Music, Theater and Performing Arts support programs.

Master Plan programming for the College of Visual and Performing Arts allocates space primarily to the departments of Music, Theater, and the Arts Support Umbrella for teaching, rehearsal, and shop space in the Fine Arts Building. As the Master Plan clearly articulates and quantifies, this space meets an important percentage, though by no means the totality, of the current space requirements of these departments, and allows for modest growth in certain specific areas, primarily by providing more practice rooms, rehearsal space, and faculty studios. The sequencing of this project with the PAB addition and the opening of Academic V is crucial.

The types of renovation required to convert this space from visual arts type studio space to performing arts space will require the addition of acoustical treatments and separations, addition of special floor and wall treatments to support performance space requirements as well as typical interior partition modifications.

Due to the age of this structure, it is anticipated that in addition to the work described above and finish updates, this project will include mechanical and infrastructure upgrades to support sustainability and energy efficiency standards and goals of the University. This project will also include complete roof replacement, an enclosed connection to the Performing Arts Building (adding approximately 2,000 GSF) and an allowance for exterior modifications on the east side of the existing facility – currently this façade is composed of a combination of loading dock and convenience doors for the art studios.

This project will also correct deficiences identified in the Preliminary FM Global Risk Report issued to George Mason University in March of 2009.

**Justification**

The spaces as currently constructed for visual arts spaces will not support the function of the new programmed performing arts uses. This will serve to drive up the cost of this project in the future when swing space will need to be obtained in order to vacate and renovate this building to support its planned uses.

The university received detailed planning funds in Chapter 1 (2008) and is now ready to move to construction.

**Options Considered**

Since the space will be vacant by the end of summer 2009, and must be renovated for new programmed uses there is no option to renovation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 41,400 | Sq. Ft. | Cost per Sq. Ft. | $168 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5937

## Construct Academic VII/Research III, Phase I

project 5 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2011

Agy Priority: 6 Location: Northern Virginia Facility:

Building #: Building Name: Academic VII/Research III - Health and Human Services

Building Function: Academic, Instructional, Research and Clinical Practice Space for the College of Health and Human Services

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 17 months

Projected time to occupy facility or complete project: 44 months

Projected time to award construction contract: 20 months

Included in the existing Six Year Capital Plan Yes

**Agency Narrative**

**Description**

This new 250,000 GSF academic building is planned in two phases and as a new home with expansion space for the College of Health and Human Services (CHHS) as well as space for additional general university classrooms.

This phase I request is for a 150,000 GSF new building. This new building will be located in the North Sector of the Fairfax Campus in a location that is currently surface parking – development of the site will provide the opportunity to remove the impervious surface parking and daylight an existing stream bed.

This work also includes site work related to entrance/campus road improvements and short term parking for clinical spaces in the building.

Long term growth for this College can only be supported by the addition of academic support/instructional, research and clinical space located within a new facility. The building will also provide new generally scheduled classrooms to replace rooms taken off line by ongoing renovations and upgrades.

This building will provide space in support of the University's academic plan by reducing space deficiencies in Academic Instructional and Research space categories as defined by SCHEV. Overall the University is deficient in academic/instructional and research space based on current and projected enrollment and funded research.

The 150K GSF building breaks down as follows:
100K GSF = 66K ASF = Academic and Instructional Space (17K University Classroom)
10K GSF = 6K ASF = Clinical Practice Space
40K GSF = 27K ASF = Research Space
150K GSF = 99K ASF = Total Building

Program needs were established in a programming study completed by Paulien and Associates in which enrollment projections, research expenditure projections and faculty practice models were studied.

The project will be designed and constructed to a LEED Silver standard incorporating environmentally sustainable construction standards providing a commonwealth building which creates a healthier academic and research environment, contributing to higher productivity and improved student, faculty and staff health and comfort.

**Justification**

The College is currently located in portions of Robinson A and B (originally constructed in 1975 with no significant renovations since original construction), in leased space adjacent to campus (space unavailable to support growth) and in a temporary modular facility.

This project is fully space justified in accordance with the SCHEV fixed asset guidelines.

The expanded multidisciplinary CHHS will field program expansion and support new program development, including research in critical areas of expanded graduate nursing education, public health, rehabilitation science, nutrition and doctoral education for social work. Cutting-edge interdisciplinary programs of research are anticipated in chronic illness, and disability/long term care, e-health, health information systems, health policy and health services research.

CHHS reorganization and expansion plans include:

• Establishing a Masters in Public Health (MPH) in the Fall, 2009 and a School of Public Health by 2015;
• Creating four new departments: Nutrition in 2012, Rehabilitation Science in 2012, Epidemiology in 2013, and Environmental Health and Occupational Safety in 2014
• Implementing a Ph.D. degree in Rehabilitation Science by 2010;
• Offering a Ph.D. in Social Work by fall 2011, with the Social Work program transitioning to a School of Social Work by fall 2014; and
• Creating provisions at Mason for faculty in the expanded college and others on campus to engage in broadly defined faculty clinical practice opportunities by fall 2009

The expansion of programs in the College of Health and Human Services meet pressing workforce needs in the region and the Commonwealth and address critical research questions in health care and public health. This expansion requires a significant space addition over what is provided for the College today.

The addition of a new phase I building of approximately 150,000 GSF is required to support this aggressive and critically needed growth plan.

Impact if Not Funded:

Health and human service workforce shortages in the region will worsen and those students who are enrolled will have to operate in suboptimal learning environments. The Mason College of Health and Human Services and the professional programs in the college are housed in the worst conditions of any other college of health professions in the Commonwealth and at the same time out produce new health and human professionals over other programs throughout the state.

CHHS will have limited growth opportunity without further decentralizing space. Not having this additional space will also hold up completion of Robinson Renovations.

Information on adequacy of present facilities:

Currently space in Robinson is dated in terms of state of the art instructional facilities. Nutrition lab space is needed, existing simulation lab space in the nursing program is outdated, and essential research space for faculty and students is either: inadequate, tight, or missing. Classrooms are shabby, outdated, and uncomfortable. Student demand is such that many classes have to be capped because the classrooms will simply not accommodate demand.

The current and future demands for graduates of this college outpace the present capacity for high quality educational experiences; the community members are often shocked to see the conditions in which a college of health professions operates; even the local community college has better academic space than CHHS at Mason; the northern Virginia region demands well educated, competent practitioners and expects our graduates to be among their best educated employees; housing departments in double-wide trailers and in leased space off campus is the only way we can keep up with the current demand for these programs- future demand is almost beyond comprehension

At the present time faculty members are sharing offices, using former closets to house graduate students, and working in outdated and inappropriate conditions. Students often sit in hallways because there is no space for them to wait or gather; leave with a sense of devaluing their academic programs.

**Options Considered**

The College of Health and Human Services is currently leasing space off campus to accommodate its existing enrollment. In addition a temporary modular facility is providing temporary space for this unit - within 5 to 7 years the

modular will have reached its useful life.

The University could continue to lease additional space to meet exploding enrollment growth, however thiw would be more expensive and from a quality standpoint will fail to meet the needs of students, faculty and staff.

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 150,000 | Sq. Ft. | Cost per Sq. Ft. | $297 |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5950

## Construct Satellite Cooling / Heating Plant and Distribution Piping

project 6 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2011

Agy Priority: 7 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function: Satellite Heating and Cooling Plant

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 15 months

Projected time to occupy facility or complete project: 30 months

Projected time to award construction contract: 18 months

Included in the existing Six Year Capital Plan Yes

**Agency Narrative**

**Description**

This project constructs an addition to the University-wide central heating/cooling system. Under this project, the University will add heating and cooling capacity to the central distribution system through addition of boilers, chillers and distribution piping in the southwest sector of the Fairfax campus. This addition is consistent with the University's utilities master plan which highlights insufficient heating and cooling capacity to meet projected enrollment envisioned in the 2014 Academic Plan. By placing this new capacity in the southwest sector, the University will locate the generation near current and future demand sources to reduce distribution losses, yet still retain the ability to feed the campus-wide system.

This project also includes North Loop distribution piping which is required to continue development on the northwest end of campus.

**Justification**

Hot and cold water is distributed throughout campus today is from a generation plant located in the Facilities compound on the eastern edge of the Fairfax campus. In 2009, the university expanded the chilled water capacity of the system through expansion of the central heating and cooling plant and addition of a new chiller.

The 2002, 2006 and 2009 Utility Master Plan Updates recommend a chilled water and high temperature hot water satellite plant adjacent to the PE Building on the western side of the Fairfax Campus, as part of the solution to meet the heating and cooling needs of the Fairfax campus. Without implementation, other more costly and less energy efficient strategies are necessary to meet the heating and cooling needs of campus expansion.

The central utility system is the most energy efficient method of providing individual building heating and cooling requirements. With a central system only 40% of a buildings heating and cooling loads need be provided verses 100% if stand alone systems are built into each building.

Addition of this satellite heating and cooling plant will also build redundancy into the campus utilities system. While the satellite plant will not be sized to handle the entire campus at peak loads, it could be used as the primary system during off-peak times, thus allowing for maintenance shutdown of the primary plant or principal utility tunnels. The satellite system could also serve for short periods of time as the primary system should there be an emergency short-term need.

**Options Considered**

The impact of deferring this work to the next biennium would be increase construction costs due to escalation.

The university has considered and rejected stand alone chillers and boilers at each new building as cost inefficient.

**Costing Methodology**

A 2009 update to the Utility Master Plan for Mason has provided current cost information for this project. In addition Mason has a utility expansion project underway currently so that historical cost information is also available for use.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 12,600 | Sq. Ft. | Cost per Sq. Ft. | $1,493 |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5944

## Construct Campus Entrances, Prince William Campus

project 7 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2011

Agy Priority: 8 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 9 months

Projected time to occupy facility or complete project: 16 months

Projected time to award construction contract: 10 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project constructs a new campus entrance and improves the existing entrance at the Prince William Campus.

Currently Edwin King Lane provides the primary entrance into the Prince William campus. The construction of a second major entrance at Innovation Drive and University Drive will provide a connection to the new Hylton Performing Arts Center (construction complete 2010), and west campus.

The two lane drive will extend from the existing curb cut at University Boulevard to George Mason Circle near Discovery Hall. The entrances at both Innovation Drive and Edwin King Lane will include feature planting, accent walls and/ or gates, and appropriate lighting and signage.

**Justification**

An entrance at Innovation Drive will provide a connection to the Hylton Performing Arts Center, west campus, and to the future Town Center, and alleviate traffic congestion caused by limited access into and from campus.

**Options Considered**

The impact of deferring this work to the next bienium would be increase construction costs due to escalation, increase traffic congestion on campus and increase safety risks to pedestrians.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5994

## Repair Aquatic and Fitness Center HVAC

project 8 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Infrastructure Repairs Project Code: Start Year: 2011

Agy Priority: 9 Location: Northern Virginia Facility:

Building #: 247-0031 Building Name: Aquatics and Fitness Center

Building Function: Nanatorium for the University and Student Recreation Center

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 9 months

Projected time to occupy facility or complete project: 12 months

Projected time to award construction contract: 18 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

1. Replace the existing recreation pool unit (Dectron, PRU-3) with the new properly sized unit.
2. Replace the existing competition pool units (Dectron, PRU-1 & 2) with the new properly sized unit.
3. Replace the existing spectator unit (Xetex, ERU-1) with the new properly sized unit.
4. Remove the existing transfer grille between the recreation pool and the filter room and install the new system for the filter pool.
5. Correct the issue with the supply air diffusers that serve the spectator area in the competition pool.
6. Install a new automatic timer for the spa bubbles.

**Justification**

At present, the Aquatic and Fitness Center is experiencing several concerning conditions as a result of the poor performance and poorly designed HVAC systems that, if not corrected will lead to systematic failures in several key aspects. In the next 5 to 10 years the facility will continue to see extensive moisture penetration through the exterior envelope of the building.

This will result in:

• Failure of the masonry façade as moisture (at high temperature and with caustic chemistry) will cause a breakdown in the mortor joints between the exterior brick. The consequence will be that bricks will become loose and the integrity of the façade may deteriorate to the point of failure in sections, not just isolated spots. Particularly concerning is the South Eastern façade, where extensive effervescence and calcite deposits are visible and becoming more and more common. Also, during winter periods, as the moisture expands and contracts as it passes through the façade, cracks, already demonstrated and somewhat prevalent in these areas, will grow to the point where failure can occur. As can been seen today, at periods of sub-freezing, enough moisture collects through the façade to create an ice shield on the south-eastern side of the building adjoining the recreation pool.

• The building will continue to have extensive stress on the exterior envelop from the inside out, because of the positive air pressure. While the exterior façade is one point of concern, there is also a concern about the wall system itself. Specifically, any insulation that is in place in these systems, is now under a

continuous state of decay. The center is likely to be losing heat and cooling loads to the exterior at higher rates per year, as a result. Likewise, as this is a steel frame structure, it is inevitable (and has been shown that) the structural members are now undergoing decay. Rust evidence has been seen and will become more common if the underlying air control issues are not resolved. While it is unlikely that structural members will fail, it is highly concerning that connections points, specifically welded and bolted shear connections, will undergo such decay as to slip, with will cause further damage to the building envelop.

• Molding in the exterior façade and interior partitions in conjunction with the natatorium is highly likely in isolated locations at this juncture, and may grow to the point of an observable health threat if left unchecked.

• The roof area of the competition area, which is already undergoing stress as a result of the positive air pressure will continue to have decay in its insulation and other portions of the membrane over time. As is evidenced today, significant moisture is passing above the eves at the ends of this roof causing icicles to form during winter periods. With the plaza immediately below this area, these icicles pose a safety hazard in this area. If the air pressure was negative in the competition area this would greatly reduce the formation of these icicles (if not eliminate them). This was noted in a report by Simpson Gumpertz & Heger Inc. in June 2006, long term the partition at the end of the competition pool and the roofing system will require redesign and replacement.

• Continued yellowing and deterioration of the translucent fiberglass partition at either end of the competition pool. These panels, because of the HVAC system, are currently crumbling and will eventually become non-functional as a barrier to the elements. This will require a significant replacement activity which will require the competition pool are to be vacated during that period of time.

• Required replacement of the equipment that is beyond its expected life span. Life expectancy of the AHUs in Aquatic Center environments in generally is lower than normally expected. While typical HVAC equipment designed and installed on most structures has a life span of 15 to 20 years, similar equipment installed in natatoriums tends to have a much more abbreviated life span. According to the Baistar report, typical HVAC air handlers for pool areas have a life span of circa 10 years. This is a result of several factors, not the least of which is the excessive moisture being handled by these systems and the caustic nature of the air passing through them. The poor design of the equipment installed in the original Aquatics Center project only exacerbates this issue and has made any extension of life beyond this shorter time frame untenable. Thus, the equipment currently installed to support the natatorium spaces is at or beyond its useful life at present and requires replacement from a life cycle perspective.

• Imminent failure of the air handling equipment itself. The existing equipment, especially the energy recovery equipment has seen and continues to see excessive stresses that are causing motors, mounts, and the actual enclosure to fail. As indicated in the report from Baistar, the near term prospect is that the roof top units can fail at any time without notice (or nearly so). Such a failure may cause damage and or injury based upon the poor condition of the units themselves. Based upon best estimates, from the point to which a decision to replace the units is made (or their actual failure) the earliest that a replacement could be provided is approximately 12 months. As a result of the fact that the units for natatoriums are custom made, there is a substantial up front engineering lead time for the units themselves, followed by the actual manufacture of the handling units, thus accounting for this extensive lead time.

**Options Considered**

The impact of deferring this work to the next biennium would be increase construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 90,700 | Sq. Ft. | Cost per Sq. Ft. | $25 |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6812

## Construct Addition to Student Union I

project 9 of 54

**George Mason University (247)**

### General Information

Project Type: Improvements-Other Project Code: 17485 Start Year: 2011

Agy Priority: 10 Location: Northern Virginia Facility:

Building #: 247-0033 Building Name: Student Union 1

Building Function: Student and Enrollment Services

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 1 months

Projected time to occupy facility or complete project: 12 months

Projected time to award construction contract: 2 months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

This requests seeks an additional $2.4M in 9d revenue bond authority to supplement this previously approved project (247-17485) to construct an addition to and renovate Student Union Building 1. This supplemental funding will provide for the replacement and upgrading of the main HVAC units in the facility to the existing with new and provide higher efficiency units with a lower operating cost.

**Justification**

The HVAC air handlers and distribtuion equipment have reached the end of their useful life. Due to the nature of the renovations already planned it was determined to provide for the complete replacement of all air handlers at the same time as the major renovation was taking place to minimize the disruption to building occupants. The distrbution system will be converted to a VAV system where possible and the new air handlers will be more energy efficient and have a lower operating cost.

**Options Considered**

The option to not replace the units until later was considered, however the distruption to occupants would be great and it makes most sense to complete this work at the same time as the current renovation.

**Costing Methodology**

Cost estimate from contractor to provide this work. Validated with independent cost estimates for similar work.

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 84,500 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6809

## Renovate Prince William Science Labs

project 10 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2011

Agy Priority: 11 Location: Northern Virginia Facility:

Building #: 247-501 and 502 Building Name: Occoquan and Discovery

Building Function: Academic, Instructional and Research Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 18 months

Projected time to occupy facility or complete project: 24 months

Projected time to award construction contract: 3 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project includes the renovation of a variety of vacated lab and office spaces in Discovery Hall and Occoquan Building - these labs will be available when the new Bio-containment Lab is completed in 2010. The spaces which will be renovated include:

Discovery
1st Floor - 1,500 ASF office and classroom space.
2nd Floor - 1,500 ASF Lab Renovation
3rd floor - 1,000 ASF Lab Renovation

Occoquan
3rd Floor - 1,500 ASF Lab Renovation - convert dry lab to wet lab space
4th Floor - 600 ASF Wet Lab Renovation

Total renovated area is approximately 9,060 GSF - this renovation will include major improvements to exisitng spaces including the addition of infrastructure to create teaching spaces.

**Justification**

All of the spaces indicated as a part of this project will be vacant or are under utilized at this time due to the condition of the space. An increased number of wet lab spaces are required to the support the University's mission on the Prince William Campus.

The renovated wet lab spaces will support a Forensic Masters program, an emerging medical education program and a Governor's School which provides science education to high school juniors and seniors.

Science Education is a core part of the Prince William Campus therefore it is important to support infrastructure improvements to provide state of the art wet labs for science education. If this work is not undertaken the space will remain under utilized due to the condition of the existing space.

**Options Considered**

In addition to increased construction escalation costs associated with delaying this project to a future biennium - increased costs to make temporary moves and accommodations for interim space use will result since the spaces will be vacated when the new research building opens in Summer of 2010.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 9,060 | Sq. Ft. | Cost per Sq. Ft. | $232 |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 7013

## Improvements to Telecommications Infrastructure

project 11 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Infrastructure Repairs
Project Code:
Start Year: 2011

Agy Priority: 12
Location: Northern Virginia
Facility:

Building #:
Building Name:

Building Function:

Is this an Umbrella Project? No
OR a higher education blanket project? No

Projected time to submit working drawings: 14 months

Projected time to occupy facility or complete project: 23 months

Projected time to award construction contract: 17 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

The University's 2010-2012 Telecommunications Infrastructure request is designed to accomplish three key goals:

Goal 1: Survivability

The main telephone (PBX) system located on Fairfax Campus provides the vast majority of the phone service for the Fairfax, Prince William, and Arlington campuses and several remote office sites. Nearly all incoming calls and most outgoing calls are currently supported by a set of communications lines from Verizon that connect to Mason's Fairfax Campus PBX over a single physical path. This design leaves the University vulnerable to a catastrophic loss of phone service should a construction accident or other disturbance disrupt that pathway.

Similarly, although the intercampus optical network that connects the Prince William, Arlington, and Fairfax campuses is designed for redundancy in the metro area, a single point of failure exists at the entry to Fairfax Campus. An outage at that point can disable the University's network and Internet services to both Arlington and Prince William campuses.

The proposed capital project would fund the additional infrastructure pathways (ductbank, conduit, fiber and copper lines) necessary to ensure that critical voice and data services remain available in the event that a key pathway is severed.

Goal 2: Support West Campus Expansion

Voice and data services to buildings on the west side of Ox Road ("West Campus") are supported via an existing infrastructure path which includes a node in Patriot Village building number 24 ("PV24".) The PV24 building cannot be removed until the communications node housed there can be relocated. Physical distances, as well as current and expected future land use, make a West Campus building the preferred location for this node. As existing buildings in that sector are not well suited to this use, the proposed project would fund planning, design, and construction for a small dedicated telecommunications hut with suitable emergency power and cooling capacity to be located on the West Campus property. Communications ductbanks and the associated fiber and copper cables would be extended to the hut. The active communications equipment required to support the West Campus node would be relocated from other buildings on campus so are not included in the scope of this project.

Goal 3: Correct Telecommunications Infrastructure Problems

In 2007 George Mason University commissioned a consulting team to perform a strategic assessment of the university's telecommunications infrastructure. The resulting study identified a significant number of issues impacting the security, safety, and environmental conditions of Mason's telecommunications rooms and pathways. These problems endanger the reliability and security of the university's voice and data communications systems. The major problems identified in the assessment study would be addressed by this proposed capital project.

**Justification**

The most critical portion of the project, i.e. new physical pathways into key Fairfax Campus communications cores, should be scheduled as soon as possible. Planning for the West Campus telecom pathway and building should occur at the same time. The correction of issues identified in the 2007 infrastructure assessment should also begin at this time, with completion targeted for no later than 2014.

**Options Considered**

If no further development of West Campus or Patriots Village areas are expected to occur in the 2010-2012 biennium, then construction of the West Campus ductbank and telecommunications hut could reasonably be delayed until the following (2012-2014) biennium. However, planning and design funds should still be allocated in the 2010-2012 biennium to minimize delays on future development projects.

Voice and data communications services support life safety lines and fire alarms, and provide transport for critical administrative and academic business processes. A relatively modest investment in infrastructure will provide long lasting benefits to all of the University's departments and services.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5979

## Construct Physical Plant Addition, Fairfax Campus

project 12 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2011

Agy Priority: 13 Location: Northern Virginia Facility:

Building #: 247-0036 Building Name: Maintenance Building

Building Function: Physical Plant Offices and Shops

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 15 months

Projected time to occupy facility or complete project: 30 months

Projected time to award construction contract: 18 months

Included in the existing Six Year Capital Plan Yes

**Agency Narrative**

**Description**

George Mason University proposes to construct a 30,000 GSF physical plant facility, and will renovate 10,000 square feet of the existing physical plant building to correct code and safety issues and realign the existing building to the needs of the Physical Plant between now and 2015. Constructed in 1974, the current physical plant building was designed to support a significantly smaller and less active campus than the University is today. The current Physical Plant Building does not meet building/environmental/energy codes, Occupational Safety and Health Administration (OSHA) codes, and Americans with disabilities Act (ADA) regulations. This project will also correct deficiences in the existing Physical Plant building identified in the Preliminary FM Global Risk Report issued to George Mason University in March of 2009.

This project will construct an additional 30,000 square feet of appropriate space to enable the complex to meet minimal needs and requirements to service all campuses. Some specialized functions will be provided to the distributed campuses also from the central Fairfax complex. This project will construct new space to accommodate special functions, including a drawing vault and consolidation of service offices currently scattered around the campus (locksmith, housekeeping, general services, recycling). It will also consolidate auto, carpenter, plumbing, paint (w/booth), sign, HVAC, EMS, PM, electric, utilities, and grounds shop spaces, emergency response and administrative offices for engineering, work control and project management.

The project includes Physical Plant training room for instructional purposes and to support safety/risk management training programs. The proposed project includes necessary utility tunnels and systems modifications to connect to the University central utility distribution system.

A sound barrier will also be included in this project providing sound attenuation between the physical plant area and the faculty staff housing area.

**Justification**

Based on SHEV guidelines, without the construction of the proposed facility at the Fairfax campus, GMU is today experiencing a deficit of 36,000 ASF in the Physical Plant space guideline category.

Facilities Management staff exists in fragmented and cramped spaces in three separate buildings in the Facilities compound. There is insufficient space for shop tools and supplies. The maintenance shops share warehouse space with the Purchasing Department. Studies document the shortage of available space in this warehouse. Construction of new facilities management space with incorporated maintenance supplies will free space in the warehouse for other university storage needs.

Reflecting workload changes, Physical Plant work order requests have increased over 600% in the last 12 years reflecting the growth of the Fairfax campus. Total GSF at Fairfax campus increased from 415,000 in 1974 to 4,700,000 GSF, a 1000% increase, yet the size of the physical plant maintenance area has remained approximately the same until the 2009 addition of a carpenter shop area. The size of the Physical Plant and the Facilities professional and administrative staffs has dramatically increased by 18 people in addition to increases in the size of the maintenance staff, to account for the associated growth in workload.

The current Physical Plant Building built in 1974 has been altered numerous times in an attempt to accommodate growth. However, these alterations, while partially alleviating emergency situations, have caused cramped environments and inefficient shop layouts. Shops and shop storage areas are now fragmented into several different geographical locations in previous closets and mechanical rooms.

Without additional physical plant, Facilities Management will be unable to support the rapidly growing campus. There will not be space to accommodate the staff and operations needed to maintain George Mason as a top tier university.

**Options Considered**

The impact of deferring this work to the next biennium would be increased construction costs due to escalation. Due to the severe shortfall of space there is really no alternative to this new construction.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 30,000 | Sq. Ft. | Cost per Sq. Ft. | $305 |
| 4. Improvements | 10,000 | Sq. Ft. | Cost per Sq. Ft. | $222 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5943

## Construct Bull Run Hall IIIB Addition

project 13 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2011

Agy Priority: 14 Location: Northern Virginia Facility:

Building #: 247-0507 Building Name: Bull Run Hall

Building Function: Academic, Instructional and Research Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 17 months

Projected time to occupy facility or complete project: 38 months

Projected time to award construction contract: 20 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project includes the construction of the second phase of Bull Run Hall in Prince William. This project is proposed as a 100,000 GSF (70K GSF academic and instructional space and 30K GSF library space) addition to the existing Prince William IIIA building. In addition there is 200 space surface parking lot included in this project. Finally there is also a backfill renovation portion of this project that includes 25,000 ASF of renovation in existing campus buildings.

Included in the total project will be construction of 70,000 GSF of academic support and instructional spaces. The plan for this building includes expansion of the Nursing Program in Prince William County, Medical Education program, instructional and support spaces for the Governor's School, Office of Continuing and Professional Education (OCPE) offices and teaching spaces, and expansion spaces for the following academic programs Applied Information Technology, Administration of Justice, and Recreation Health and Tourism, as well as the addition of 4-6 College of Science teaching/research lab spaces. The facility will also include a shared NVCC safety training facility.

The project also includes approximately 25,000 ASF of backfill renovation in Occoquan Building and Bull Run Hall. This space will require moderate partition and finish type renovation to support new space assignments once groups have moved into the expanded Bull Run Hall.

The facility also will include space for an expanded library as follows:

The construction of a 30,000 GSF Prince William Campus Library will enable George Mason University to meet the information demands of a growing student population and a strong research program in the life sciences at the Prince William Campus. Shepley Bulfinch Richardson & Abbott’s library facilities feasibility study envisions a new Prince William Campus Library as part of a new academic building. The primary goals for this new library facility on the Prince William Campus are to provide sufficient research materials and services to support the specific undergraduate and graduate programs on the campus, provide an intellectual center/sense of community, and provide focused individual and collaborative study environments to accommodate students residing in Prince William County and the surrounding areas, as well as those commuting from the Fairfax campus.

The existing Prince William Campus Library (“Mercer Library”) of 13,000 GSF houses approximately 35,000 volumes; seats 110 users; and is home to 8 full-time library staff, 1 graduate research assistant, and 2 FTE student assistants. Approximately 2,500 volumes are added annually to this library’s collections. In terms of collections, it is anticipated that this library will be functionally full by 2010.

The project will be designed and constructed to a LEED Silver standard incorporating environmentally sustainable construction standards providing a commonwealth building which creates a healthier work environment, contributing

to higher productivity and improved employee health and comfort.

Paulien Associates recently completed a space needs assessment for the Prince William campus which identified space needs related to enrollment and research growth.

**Justification**

Virtually all space is currently occupied on the Prince William Campus and there is no space for expansion of programs and services. As the enrollment on this campus continues to grow there is no growth space available. Failure to provide funds to construct this project will mean the University will be unable to provide education to the growing enrollment at the Prince William campus.

There is a lack of space for laboratories with appropriate infrastructure and for specialized equipment. The newly developed program in Forensic Science and Medical Education programs cannot be accommodated since there is no space for classroom laboratory instruction. Future research and development in life sciences will be constrained. The Prince William Campus is host to several summer institutes in the sciences that cannot be accommodated due to the lack of teaching labs.

**Options Considered**

The impact of deferring this work to the next biennium would be increase construction costs due to escalation. Leasing of space adjacent to the Prince William Campus is not a viable option in this locaiton due to the lack of available adjacent space therefore new construction is the only viable option.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 100,000 | Sq. Ft. | Cost per Sq. Ft. | $394 |
| 4. Improvements | 22,926 | Sq. Ft. | Cost per Sq. Ft. | $369 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5952

## Renovate Research I

project 14 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2011

Agy Priority: 15 Location: Northern Virginia Facility:

Building #: 247-0102 Building Name: Research I

Building Function: Research and Instructional Spaces

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 16 months

Projected time to occupy facility or complete project: 30 months

Projected time to award construction contract: 20 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project will provide approximately 13K reprogramming for floors vacated by current admin support space that was placed in Research 1 - this space will be vacated when the new Administration Building is completed in Spring of 2011. This project will entail the movement of partitions and movement of programs around the building.

Work will be executed to correct mechanical system deficiencies and to support new occupant uses. The mechanical systems in the building require modifications to create an appropriate work environment.

The following are programs to be placed into the facility (the spaces will be research labs for these programs):

Geography & Geoinformation Science = 930NSF
Chemistry & Bio-Chemistry = 1,240NSF
Physics and Astronomy = 800NSF
Computational and Data Sciences = 6,788NSF

These space needs were identified in a Masterplan Study completed by the College of Science - the study was done by Perkins and Will and completed in Spring of 2009.

**Justification**

The existing facility is programmed as open office area for administrative needs which is not consistant with the requirements for scientific research therefore modifications are required to re-occupy the space as research space.

The following are relevant Goals and Objectives for the research spaces to be included in this project and as outlined in the COS Master Plan:

Community:

• Create synergies between research units using seamless conferencing technologies building energy around successful core teams and compatible research efforts. Meet human needs (food, refreshments, areas to meet and work) in way that brings people together in conversation, collaboration and discovery.
• Be prepared to participate in partnerships; public and private; academic and industry; leveraging the University's multiple sites and productive relationships in a focused way.
• Express the energy of science to the largest possible audience.
• Provide environments that enable more effective collaboration for research and teaching. Cross disciplinary learning

events, transdisciplinary research teams, and healthy collisions of students and faculty at all levels should be fueled by the spaces and technologies.
• Provide spaces for a “mobile” population. Provide “touchdown” spaces and/ or conferencing technologies for faculty members who teach at Fairfax and have their research at Prince William.
• Provide space for visiting faculty to serve rapidly developing research programs.
• Better serve the needs of commuting students, those with jobs outside their academic pursuits and those that are elevating their credentials while holding down a full time job.

Learning:

• Provide layers of space with 24/7 access to science learning so that individual students and student teams feel that they belong in the College of Science and are supported as they pursue their passion for science.
• Build the base of students who seek careers in the sciences, build the academic reputation of the COS to recruit more sophisticated students, creating a committed population of graduate research assistants and graduate teaching assistants.
• Promote interdisciplinary learning by providing grants, spaces and technologies that connect the best teachers, researchers and students in ways that accelerate growth and learning. Build a community that seeks to share space across disciplines in ways that benefit all parties.
• Provide flexible learning spaces that can accommodate a variety of teaching methods and impromptu learning events. Flexible labs, classrooms, technologies and brainstorming spaces must enable the widest possible range of pedagogies and beneficial learning relationships.
• Encourage greater interaction between faculty and students by providing safe and attractive places for students to connect with faculty for learning. A “front porch” approach to space planning is one method of strengthening such interaction that may be considered. Provide Food, refreshments, and spaces for special events to enrich the community at multiple levels and strengthen student engagement.
• Provide flexible lab designs. Many undergraduate labs will serve more than one discipline of sub discipline, not just for ease of scheduling, but to cross pollinate the minds of the students.

**Options Considered**

The impact of deferring this work to the next biennium would be increase construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 13,500 | Sq. Ft. | Cost per Sq. Ft. | $122 |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6691

## Construct Campus Entrances, Fairfax Campus

project 15 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2011

Agy Priority: 16 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 9 months

Projected time to occupy facility or complete project: 16 months

Projected time to award construction contract: 10 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project includes 2 areas of campus access improvements:

1. Southwest Sector Improvements: This Project reconfigures and improves the approach and transition traffic patterns from off campus to campus at the Roanoke River Road entrance to the Fairfax Campus. Recommended improvements include a traffic roundabout near the Patriot Center and an added inbound lane and the extention of Po River Lane from the roundabout to the Mason Inn Conference Center and Hotel.

The project will include a comprehensive traffic study for all entrances and interaction with VDOT to determine the actual reconfiguration of the on and off campus changes to be implemented. There is a possible need for increased signalization and because of additional turn lanes, there will be a reconfiguration and upgrade of campus infrastructure in the areas proximate to the improvements.

2 North Sector improvements: This project realigns Patriot Circle and Occoquan River Lane, in anticipation of new buildings in the North Sector of Campus – the project will help to improve traffic flow and separation of pedestrian and vehicular traffic flow. The project will include additional turn lanes on University drive. This portion of the project also includes lane improvements and bike lane additions on the west side of Patriot Circle which will improve pedestrian and vehicular safety on the circle.

**Justification**

The existing entrances at University Drive and Roanoke River Road are antiquated in thier layout and is not responsive to the recent external traffic plan improvements nor is it conducive to increasing internal traffic counts experienced at the Fairfax location.

The 123 (Ox Road)/Braddock Road intersection has been identified as one of the most congested intersection in Northern Virginia and George Mason contributes to this congestion. This project will dramatically improve traffic congestion and safety. In addition, by expanding que space the project will reduce regional traffic back-ups at peak periods.

**Options Considered**

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5981

## Renovate Student Apartments

project 16 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2012

Agy Priority: 17 Location: Northern Virginia Facility:

Building #: 247-0041-0049 Building Name: Student Apartments

Building Function: Student Residences

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 13 months

Projected time to occupy facility or complete project: 19 months

Projected time to award construction contract: 16 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

The Student apartments, consisting of nine buildings and approximately 109,000 gross square feet, were originally constructed in 1977. This complex houses primarily upperclassmen and although it has had several intermediate renovations it now requires the design and installation of a fire suppression system and corresponding upgrades to the fire alarm system. Life safety upgrades include fire department control panels, manual pull stations, replacement of smoke detectors and wiring and system monitoring. Layouts of sprinkler piping will be designed to minimize bulkheads, patchwork or other build outs.

**Justification**

Installation of a fire suppression system and life safety devices reflect the University's commitment to upgrade this facility to current code standards.

Without authorization, life safety upgrades will not be able to be accomplished and the HVAC and electrical systems will continue to operate below current standards and require additional maintenance.

**Options Considered**

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 109,200 | Sq. Ft. | Cost per Sq. Ft. | $16 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5971

## Renovate Commons

project 17 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2011

Agy Priority: 18 Location: Northern Virginia Facility:

Building #: 247-0060-0067 Building Name: Commons

Building Function: Student Residences

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 8 months

Projected time to occupy facility or complete project: 26 months

Projected time to award construction contract: 11 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

University Commons, a housing complex consisting of seven housing buildings and one community building, was originally constructed in 1986 and is over 100,000 total square feet.

This complex requires the design and installation of a fire suppression system, corresponding upgrades to the fire alarm system, upgraded mechanical and electrical systems, restroom renovations and architectural support associated with the above mentioned work. Compliance with ADAAG requirements shall be addressed. In addition, the roofs require replacement, along with repair/replacement of gutters, downspouts and other miscellaneous exterior work. While not included in the FM Global report this project will correct sprinkler deficiences in the existing buildings.

The work is anticipated to be completed in two phases, with two to four buildings in each phase. Each phase will be completed during the summer break so as not to lose housing during the fall and spring semesters.

**Justification**

The scope of work is consistent with typical maintenance and replacement of building systems and components for campus housing. Other improvements such as installation of a fire suppression system and life safety devices reflect the University's commitment to upgrade this facility to current code standards.

Without authorization, life safety upgrades will not be able to be accomplished and the HVAC and electrical systems will continue to operate below current standards and require additional maintenance.

**Options Considered**

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 101,380 | Sq. Ft. | Cost per Sq. Ft. | $115 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5966

## Renovate Field House

project 18 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Life Safety Code Project Code: Start Year: 2011

Agy Priority: 19 Location: Northern Virginia Facility:

Building #: 247-0054 Building Name: Field House

Building Function: Recreational and Intercollegiate Athletics

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 12 months

Projected time to occupy facility or complete project: 25 months

Projected time to award construction contract: 15 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project is a high priority life safety oriented project which includes deferred Maintenance/Renovation/Refurbishment of the existing Field House. This project will consist of:

a. Replace the existing roof which is currently in an unsafe and code deficient condition.
b. ADA impovements
c. HVAC system improvements
d. Electrical system improvements
e. Fire Alarm Panel improvements
f. Hardscape improvements

As a result of revamping the mechanical systems of the building, the goal is that the university will realize reductions in the energy costs associated with this building.

This is exclusively a renovation/replacement project specifically geared toward improved life safety and code related improvements.

**Justification**

This building originally built in 1982 has undergone numerous minor renovations and upgrades over time. HVAC system needs significant re-alignment to accommodate current/planned laboratory loads. The roof is currently failing and leaks are noticeable in numerous locations to the point that significant water flows into the building envelope during athletic recreational activities.

This building is the home of the Mason Intercollegiate Athletics Program. With the exception of Basketball, Tennis, Volleyball, and (for competition only) Wrestling, all other ICA sports and the Athletic Department itself is housed in this facility. This building has not undergone a major renovation since its original construction and is currently encountering debilitating conditions that threaten the life safety of the occupants as well as the long term viability of the building. There exists no other location, planned or in existence, to accommodate these programmatic needs.

Of keen note is that this building reflects an image of the University since it is located at the corner of State Route 123 (Ox Road) and University Drive. Simply put the continuing decline of this structure continues to present a very negative image of the maintenance and physical upkeep of the University.

**Options Considered**

The impact of deferring this work to the next biennium would be increased construction costs due to escalation. Since

this project is specifically geared toward life safety improvements there is no viable option to delay.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6774

## Renovate Robinson Hall and Harris Theater (Phased)

project 19 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2011

Agy Priority: 20 Location: Northern Virginia Facility:

Building #: 247-0034, 0028 Building Name: Robinson Hall and Harris Theater

Building Function: Academic and Instructional Spaces

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 11 months

Projected time to occupy facility or complete project: 32 months

Projected time to award construction contract: 14 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project is a renovation of approximately 90K GSF of Robinson Hall and is considered Phase I. Robinson Hall is composed of three buildings, A wing, B wing and Harris Theather - in total the complex is approximately 207,000 GSF which was originally constructed in 1975. Robinson will be partially vacated as a result of several other planned construction/renovation projects which are currently fully funded (Thompson Hall Renovation and S&T II Renovation and Addition. Current occupants of this building will be relocating to the newly renovated spaces in Thompson Hall and Science and Tech II building. Phase I of this project will provide the opportunity to completely renovate spaces within approximately 90,000 GSF of Robinson Hall. Phase II of the project will renovate the balance of approximately 110,000 GSF of Robinson including Harris Theater.

It is the intention of the University to occupy this space in the heart of the Fairfax Campus by the College of Humanities and Social Sciences (CHSS). The types of spaces required by this College include primarily departmental offices, faculty spaces and instructional spaces. It is anticipated that minor to moderate partition modifications as well as updated finishes will be required throughout. Harris Theater will continue to be used as performance space.

Due to the age and condition of the facility work on this building will also include major infrastructure work such as HVAC, Fire/Safety, window and roof improvements/replacements. There will also be technology and A/V system upgrades throughout the facility. Energy efficiency and sustainability issues will also be addressed during this renovation. This project will also correct deficiences identified in the Preliminary FM Global Risk Report issued to George Mason University in March of 2009.

**Justification**

This building has not had a major renovation since opening in 1975, the space types are not well matched with the programmatic uses in the building. The existing building has several wet instructional and research labs which are being replaced in a new building which is currently underway (Science and Tech II Addition). Once those spaces are vacated a complete renovation will be required to ready the building for new uses.

As the College of Humanities and Social Sciences and the university have grown, the amount of space occupied by the CHSS departments and programs in Robinson has not kept pace. These units are currently extremely cramped, with full time faculty sharing offices and staff members sharing cubicles and no space for our growing number of graduate students. As the faculty has expanded, the college has reduced or eliminated reception areas, meeting rooms, and any remaining social spaces in order to provide office and research space. (The space needs analysis for CHSS done by Paulien & Associates shows the college with a deficit of 75,000 ASF.)

In addition, the departments and programs of CHSS are spread over many buildings on Mason's 3 campuses. A major goal of the college is to co-locate departments and programs with similar missions. The purpose is to us enable to dramatically improve efficiency in terms of shared staff, equipment, and spaces and in terms of faculty time. More important, the co-location of similar programs will increase the synergy among these programs, their faculty, and their students, and help forge a stronger intellectual community. Besides the obvious efficiencies, this will result in greater productivity through increased collaboration, shared courses, shared promotion of curricular offerings and events, joint research projects, and so on. While interdisciplinarity is a hallmark of CHSS, it has been very difficult to realize in practice when programs that could be collaborating are in multiple locations.

Two examples of proposed co-location:

Globally-focused programs. The college now has many offerings in the global area with growing student enrollments, but they are in multiple locations. Moving these programs to adjacent spaces would not only achieve the efficiency and synergy described above, it would also enable us to present this array of offerings to prospective students in a much more coherent, cohesive fashion through shared reception, information, and social spaces. CHSS Globally-focused programs: Global Affairs, Latin American Studies, Russian and Eurasian Studies, Islamic Studies, Asia Pacific Studies, International/Comparative Studies, Middle East Studies, Japanese Studies, Immigration Studies.

Social Science programs. Our social sciences departments share common areas of interest. Bringing them together will foster greater interdisciplinary collaboration in these areas that is currently possible. Some of these areas include criminology, public policy, immigration, as well as the global topics represented by the programs above.

The departments and programs represented in this project serve thousands of graduate students, undergraduate majors and minors, and students taking their general education courses in the college. We need to provide appropriate front office space for welcoming students and giving them a positive customer service experience, and we need adequate office space for advising this large number of students. Because of the current space shortage, we are unable to provide any social spaces for graduates or undergraduates (gathering, meeting, working on projects). This impedes our ability to establish a strong departmental culture and improve the climate for student success. As we look toward increased enrollment in our globally-focused academic programs, we need to provide a better presentation of these offerings to students, a one-stop-shop, if you will, where they can learn about the different academic programs and get centralized advising about which program will best suit their goals. Co-locating the global programs is a crucial step in meeting this student need and supporting the growth of global programs.

The faculty in the departments and programs represented in this project has expanded over the years to such a point where we do not have adequate office space for them. Our expanding programs cannot find space for their new faculty, and faculty who are engaged in sponsored and non sponsored research do not have the necessary facilities to conduct this work. Our space constraints impede faculty cooperation and community building and affect our ability to retain our most valuable teacher-researchers.

**Options Considered**

Delay in completing this project will cause increased annual maintenance costs on deteriorated infrastructure. There have already been serious safety problems which have required major maintenance projects to keep the spaces operating.

The College of Humanities and Social Sciences is currently leasing space off campus to accommodate its existing enrollment.

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 100,000 | Sq. Ft. | Cost per Sq. Ft. | $373 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5958

## Renovate Science & Tech I

project 20 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2011

Agy Priority: 21 Location: Southwest Facility:

Building #: 247-0070 Building Name: Science and Tech I

Building Function: Academic and Instructional Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 15 months

Projected time to occupy facility or complete project: 36 months

Projected time to award construction contract: 7 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project is a 100K GSF renovation of S&T I. S&T I was constructed in 1987 and is in need of renovations to bring the building up to health and safety codes, in particular it is outdated and hosts inadequate laboratory space for GMU students. The building does not meet technology and infrastructure standards for today's STEM education. Renovations to the facility will greatly improve instructional and research environments for students and faculty.

The work in this building will also update spaces and infrastructure which has had incremental renovations which included little or no infrastructure improvements. This work will include moderate partition modifications and finish upgrades as well. This building will be partially vacated when S&T II renovation and addition is completed and will primarily be occupied by the College of Science, departments of Chemistry and Physics when completed. This project will also require that the space allocated for University Classrooms presently be maintained through reconfiguration and collection to one floor of the building.

In order to execute this project, it will need to be conducted in numerous phases similar to hospital renovation work. It should be planned that at least 5 construction phases should be considered (roughly one per floor) in the construction and development of the project. Because of the phasing of this project, numerous temporary facilities will be required to house elements that will still remain operational in and out of the building. The potential exists (and should be planned for) that up to 15,000 GSF of temporary trailer/swing space may need to be provided. Temporary space will include scientific laboratory space (for Chemistry and Physics primarily) and classroom space.

The potential location for temporary modules or trailers is also situated at middle of the service drive behind the S&T II, S&T I, and David King Hall Buildings at the end of Rivanna River Lane. Through this loading dock and service area stem a water main, a main IT ductbank/fiber optic line feeding the entire Eastern side of the campus, a propane service line, a direct buried power line, and a sanitary main that ties-in south and east from this location. This project will also correct deficiences identified in the Preliminary FM Global Risk Report issued to George Mason University in March of 2009.

As Mason desires to practice sustainability, it is especially important that the science facilities at George Mason demonstrate in action and design, its commitment to environmental and sustainable research and teaching initiatives. Renovating the 22 year old space is an opportune time to meet the needs of the community and GMU students and faculty.

**Justification**

The physical sciences (Physics, Astronomy, Biochemistry and Chemistry) will be the main occupants of this building. Teaching labs and classrooms are needed to be renovated to allow for a more modern approach to education. The

research laboratories need to be enhanced and new labs need to be created to allow for hiring new experimental scientists and to develop new directions in the physical sciences.

Building has undergone numerous minor renovations and upgrades over time. HVAC system needs significant re-alignment to accommodate current/planned laboratory loads.

The challenges prevent Mason students from receiving enhanced learning opportunities. The space constraints are negative factors for recruiting students who come from high school laboratories with better facilities and equipment. To be competitive in today's market, experience with equipment and procedures is a must for a student to be "marketable." Working in state of the art space with top tier faculty will enhance the students work, research and life-experience. We cannot meet the vision of Mason with inefficient facilities, especially in the growing field of STEM education.

Inability to recruit top tier faculty who are coming from state of the art laboratories at research institutes, government entities or other universities.

Also impacted are the K-12 students who come to Mason for scientific fairs and events. With the emphasis on improving STEM education, it is important that the community know that Mason is competitive with institutes around the country and the world.

**Options Considered**

Delay in completing this project will cause increased annual maintenance costs on deteriorated infrastructure. There have already been serious safety problems which have required major maintenance projects to keep the spaces operating.

The College of Science is currently leasing space off campus to accommodate its existing enrollment.

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 100,000 | Sq. Ft. | Cost per Sq. Ft. | $239 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5967

## Renovate King Hall & Construct New Addition

project 21 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2011

Agy Priority: 22 Location: Northern Virginia Facility:

Building #: 247-0038 Building Name: David King Hall

Building Function: Academic and Instructional Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 15 months

Projected time to occupy facility or complete project: 40 months

Projected time to award construction contract: 7 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project is the phased addition (60K GSF) and renovation (86K GSF) of David King Hall. The Current 86,000GSF building is shared between College of Science (COS) and College of Humanities and Social Sciences (CHSS) was originally contructed in 1982. Based upon the growth of programs in both COS and CHSS the building does not support the required program necessitating an addition as was discussed in the 2002 Sasaki Campus Master Plan. To that end, this project is described in two phases first would be a 60K GSF addition of research and academic/instructional space. The second phase of the project would be the renovation of the existing 86K GSF building.

The existing facility is dated in appearance and prevents students and faculty from having a positive learning experience. The facility is out dated and lacks infrastructure to support 21st century STEM – all of which negatively impacts collaboration opportunities with industry and recruitment of faculty and students. This project seeks to rectify this condition and set a path forward for the future renovation of the existing building. This project will also correct deficiences identified in the Preliminary FM Global Risk Report issued to George Mason University in March of 2009.

This new building will be occupied primariliy by the Psychology department within the College of Humanities and Social Sciences. This project will include a connection to the existing King Hall building, temporary and permanent relocation of program elements, and expanded university classroom requirements.

The potential site location of this building is such that it is bordered to the north by the existing main High Temp Hot Water Tunnel and the east by the newly constructed Southside Dining/Skyline Fitness Center. The location is also situated at the northern end of the service drive behind the S&T 2, S&T1, and David King Hall Buildings at the end of Rivanna River Lane.
Through this loading dock and service area stem a water main, a main IT ductbank/fiber optic line feeding the North Eastern portion of the campus, a direct buried power line, and a sanitary main that ties-in south and east from this location.

The phase II renovation of the existing building will be accomplished after the new addition is completed and Psychology Department is moved out of existing space and into the addition. In addition COS has spaces on an upper floor which will be able to move to renovated space in S&T II which will open up space to renovate on the upper floor. The existing building will continue to support academic and instructional spaces for COS and CHSS.

As Mason desires to practice sustainability, it is especially important that all facilities, but especially those hosting science programs, demonstrate in action and design, Mason's commitment to environmental and sustainable research and teaching initiatives.

**Justification**

The Psychology Department is one of the strongest departments in the college, with large enrollments at all levels as well as the largest amount of sponsored research activity within the college (FY09 new awards exceeded $5.2 million and NSF-reported expenditures exceeded $4 million). Their clearly demonstrated potential for growth in enrollment as well as sponsored research is being held back by current space constraints.

Research space: The existing psychology research space is very cramped, and psychology faculty members are now reluctant to apply for additional sponsored program funding because they are concerned they will not have the space necessary to conduct additional research. This constraint affects their productivity, our sponsored program funding, and our ability to support additional graduate students with external funding. As a consequence, it also affects our ability to be nationally competitive for the best graduate students.

Moreover, as retiring faculty, who are less research-active, are replaced by new hires, the department has an increasing need for research space. With each hire, it is a struggle to identify appropriate space, which consumes a great deal of time and sometimes results in the loss of a candidate since we can't always respond sufficiently quickly to meet space requests as part of the hiring package. This constraint affects our ability to be nationally competitive for the best hires in psychology.

Psychology Department research space is now scattered over many buildings on and off campus. This capital project would enable the department to more effectively configure its current research space and to bring its researchers together. This has many advantages, among them, a more efficient use of space since researchers can better share facilities (as well as equipment and staff) and a better research community as faculty and graduate students are co-located and can collaborate more easily.

The Psychology Department has 1533 students (995 undergraduate and 228 graduate), the largest enrollment in the college. We need to provide appropriate front office space for welcoming students and giving them a positive customer service experience, and we need adequate office space for advising this large number of students. In addition, we need space to support our student research activities. Psychology has been a leader in providing undergraduate research experiences through the Provost Sponsored Research Apprenticeship Program as well as the highly successful honors program in the major and other research courses. These programs enable us to recruit and retain our highest profile undergraduates and also provide them with experiences that directly translate into increased marketability. Because of the current space shortage, we are unable to provide any social spaces for graduates or undergraduates (gathering, meeting, working on projects). This impedes our ability to establish a strong departmental culture and improve the climate for student success. A renovation and addition of King Hall, will enable us to plan for a better configuration of existing space, so that we can better serve psychology students, so that we can provide more adequate space for undergraduate and graduate research activity, and so that we can design a better environment for building student community.

The Psychology Department has 44 full time faculty members. Many have the potential for doing more sponsored program research, but are hesitant to go after more grants because of the uncertainty that they will be able to secure additional space they would need for this additional work. In addition to the lost revenue, this affects the success of their research agendas and, hence our national profile. The lack of research space comes up with every new hire and affects our ability to hire the strongest international applicants.

**Options Considered**

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

The Psychology Department currently rents off campus space for the psychology department this will continue to be the case until such time space can be provided on campus through this phase I addition project.

In addition there is lost opportunity for increased research activity as a result of space constraints to conduct research projects.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 60,000 | Sq. Ft. | Cost per Sq. Ft. | $323 |
| 4. Improvements | 85,000 | Sq. Ft. | Cost per Sq. Ft. | $271 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5968

## Renovate Finley Building

project 22 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2011

Agy Priority: 23 Location: Northern Virginia Facility:

Building #: 247-0001 Building Name: Finley

Building Function: Academic and Instructional Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 12 months

Projected time to occupy facility or complete project: 24 months

Projected time to award construction contract: 14 months

Included in the existing Six Year Capital Plan Yes

**Agency Narrative**

**Description**

This project is the 20K GSF renovation of Finely Building. Finley Building was originally constructed in 1964 and will be vacant when Arlington II is completed. The current occupants of Finley Building are School of Public Policy (SPP). SPP is principally located on the Arlington Campus. However, space is not currently available on the Arlington Campus to support the overall need for faculty, staff and research space. The completion of Arlington II in summer of 2009 will provide the opportunity for SPP to move in total to the Arlington Campus.

At the time this building becomes vacant it is the intention of the University to renovate this building for the use of a new tenant identified as the College of Education and Human Development (CEHD). The renovation will include moderate modifications to interior partitions and finishes to support programmatic needs for academic support and teaching spaces. There will also be a physical connection made between Finley and Thompson Hall as a part of this project. This connection will provide a visual link and more protected outdoor program space between Thompson and Finley.

This project is the third phase (Phase I – West Renovation, Phase II – Thompson Renovation) for the College of Education and Human Development space co-location plan – this plan is intended to provide cohesive space assignments for academic programs and research centers within the college.

**Justification**

Infrastructure improvements made over the last 4 years including window and AHU replacement, VAVs installed, East and West Entrance Doors replaced and new carpet. Maintenance projects in the 2010 time frame include roof replacement and flooring upgrades.

The renovation of Finley Building would continue the development of an “education campus” within the Fairfax campus that would lead to the creative synergy that comes with seeing one’s colleagues regularly. In addition, this particular renovation will help CEHD vacate its many rental spaces in Fairfax City.

When one thinks about the Finley, Thompson, West, Krug collection of buildings as the “education complex,” anyone who enters campus from the University Drive side, the original “front door” of the University, will also see our most innovative programs such as LIFE. With proper signage, the general public will see “Education” upon entry to the University and see children being dropped off who come for programs, services, assessment, and consultation.

If this project is not approved the building will be utilized in an “as is” condition. The result of this will be sub-standard spaces that are occupied inefficiently for the intended programmatic uses. Due to the fact that a significant portion of this College’s space is located in rental space, if this building renovation is not completed the University will incur

ongoing space rental expenses while sub-standard space is sitting poorly utilized on campus.

**Options Considered**

In addition to increased construction costs due to escalation if not funded in this bienium - the College of Education and Human Development is currently occupying space in several leases adjacent to the Fairfax Campus.

Impact if not funded:

• Inability to vacate Commerce I and II (financial impact). If the CEHD Special Education program (the university's largest Master's program, offering more degrees annually than the entire School of Law) and the research projects it operates cannot move into Finley, that program will need to be housed in Thompson in the spaces penciled in for the units programmed to move out of Commerce into Thompson (Instructional Technology, Education Leadership, and Mathematics Education Leadership programs.

• Inability to vacate the townhouses on Chain Bridge Road (financial impact). The Center for the Advancement of Public Health, currently housed on Chain Bridge Road, is programmed to move to Krug into space that otherwise would have to be allocated to the Kellar Institute for Human disAbilities for the outreach and personnel preparation programs it operates in collaboration with the Special Education program.

• Impact on ability of CEHD to accomplish its research and teaching mission (academic and research impact). CEHD is a highly interdisciplinary unit that depends on faculty interaction across programs, centers, and disciplines to fuel its research and teaching initiatives (see "programmatic justification") below. Failure to complete the Finley renovation project would mean that CEHD would continue to have key academic and research components scattered around campus (and possibly off campus).

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 3,000 | Sq. Ft. | Cost per Sq. Ft. | $44 |
| 4. Improvements | 19,270 | Sq. Ft. | Cost per Sq. Ft. | $92 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5939

## Construct New Global Center

project 23 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2011

Agy Priority: 24 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function: International Education and Community Outreach Center

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 14 months

Projected time to occupy facility or complete project: 24 months

Projected time to award construction contract: 3 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project will contruct an approximately 15K GSF Global Center. This space would serve to to house the many constituent parts of CHSS's global programs.

Currently these programs inhabit a virtual cluster which coordinates their activities. Substantial funding is provided for joint programming, and a director serves with the support of all the member components. Included in this group is a BA and MA in Global Affairs. Extant only a short time, the bachelor's degree has over 500 majors, and connected to these two major programs is a large series of other programs that encompass well over one hundred faculty members in CHSS and beyond.

These include Middle East Studies, Islamic Studies, Asian-Pacific Studies, Latin American Studies, Judaic Studies, African & African-American Studies, Russian and Eurasian Studies and more. In addition to these geographically defined groups, one would definitely include Women and Gender Studies which alone includes several dozen faculty members.

Although all these programs share interests and curriculum they exist in no particular physical place. To compensate, Mason has an adviser in Global Affairs who assists students to steer them to the area that actually serves their interest. Nonetheless, this dispersal of all these programs really undermines the effort to make clear Mason's commitment to Global Studies.

**Justification**

Being located contiguously would allow for much better coordination and programming than the global programs currently have. In addition, both Global Programs have geographical tracks. In other words, students in these programs are also likely to specialize in one area or another. And it is very important that when students do specialize in one area, that the class work benefits from the participation and counsel of the specialists regarding that region of the world. This way, not only do the regional programs benefit, but the global ones do as well.

**Options Considered**

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or

recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 15,000 | Sq. Ft. | Cost per Sq. Ft. | $239 |
| 4. Improvements | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6777

## Contruction Shirley Gate Sports Complex (PPEA)

project 24 of 54

**George Mason University (247)**

### General Information

Project Type: New Construction | Project Code: | Start Year: 2011

Agy Priority: 25 | Location: Northern Virginia | Facility:

Building #: | Building Name:

Building Function:

Is this an Umbrella Project? No | OR a higher education blanket project? No

Projected time to submit working drawings: months

Projected time to occupy facility or complete project: months

Projected time to award construction contract: months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

This PPEA will evaluate the market potential of a regional recreation and sports complex to be located on the Shirley Gate property. If determined feasible, funding for the development and construction of this project would come entirely from outside private sources. The actual size and scope of the project would be based on an economic analysis of the market that this complex could support.

The University will evaluate proposals from interested firms in order to obtain a project that supports new and enhanced business opportunities. The cost of the project will include any infrastructure required to develop the Shirley Gate property.

**Justification**

There is a documented shortage of outdoor recreation and intramural fields on/near the Fairfax Campus. The Shirley Gate property provides land to meet this requirement. Due to a similar shortfall that exists in the local region maket potential exists to fund this constuction and PPEA provides the opportunity to accomplish the project.

**Options Considered**

-

**Costing Methodology**

-

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6776

## Construct Lab Building, Prince William Campus (PPEA)

project 25 of 54

**George Mason University (247)**

### General Information

Project Type: New Construction | Project Code: | Start Year: 2011

Agy Priority: 26 | Location: Northern Virginia | Facility:

Building #: | Building Name:

Building Function: Research Lab Building

Is this an Umbrella Project? No | OR a higher education blanket project? No

Projected time to submit working drawings: 0 months

Projected time to occupy facility or complete project: 0 months

Projected time to award construction contract: months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

This PPEA would construct a new research lab building on or near the Prince William Campus. Currently Mason has capital lease authority from a previous request. This item was previoulsy approved in Chapter 879, item C36.60 "for the capital lease for research laboratory space adjacent to the Prince William campus".

Mason anticipates the need for an additional 10 to 12 wet labs and supporting shared equipment spaces for this space which would equal approximately 60,000 GSF.

The University will analyse innovative financing strategies and consider incentiving collaborative research partnerships with private companies.

**Justification**

Currently there is little or no research space available on or near the Prince William Campus. As Mason positions itself as a leader in the area of bio medical and life sciences research, additional space for research and research partnerships is a necessity.

**Options Considered**

-

**Costing Methodology**

-

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 5949

## Construct Prince William Student Housing (PPEA)

project 26 of 54

**George Mason University (247)**

### General Information

Project Type: New Construction | Project Code: | Start Year: 2011

Agy Priority: 27 | Location: Northern Virginia | Facility:

Building #: | Building Name:

Building Function:

Is this an Umbrella Project? No | OR a higher education blanket project? No

Projected time to submit working drawings: months

Projected time to occupy facility or complete project: months

Projected time to award construction contract: months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

This PPEA would construct student residences on or near the Prince William campus. Currently many programs located on the Prince William Campus have expressed the critical need to house students near or on campus.

The project would consist of approximately 200 units with a variety of types to include upper level and graduate student housing.

**Justification**

Enrollment and research dollar projections support the need for this housing type located on or near the Prince William Campus. In addition an emerging medical education program would also require student housing.

**Options Considered**

-

**Costing Methodology**

-

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 7021

## Construct Belmont Bay Science Center

project 27 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: 17634 Start Year: 2011

Agy Priority: 28 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 15 months

Projected time to occupy facility or complete project: 38 months

Projected time to award construction contract: 7 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project consists of the new construction of an 84,000 GSF facility broken down as follows: 49K GSF for the Potomac Environmental Research and Education Center, 15K GSF for the GEOspatial Program and 20K for a public science education center. In addition approximately 106K GSF of structured parking is also included within the scope of this project.

The Belmont Bay facility (recently named the Potomac Science Center) will be composed of three major programmatic elements: Potomac Environmental Research and Education Center (PEREC), Geospatial Research Center, and a public science center supporting K-12 education.

PEREC is a full-scale ecological field station with faculty research labs, teaching labs, lecture spaces, and office and support space housing eight full-time Mason professors, their graduate students, and research staff. PEREC will focus on tidal freshwater ecosystems with an interdisciplinary faculty including current members of Environmental Science and Policy (ESP) as well as several other College of Science departments and new hires. Classes centering on aquatic ecology will be taught on site and the facility will also support field trips by classes centered at other Mason campuses.

The Geospatial Research Center (the project's Geospatial or GEO component), Belmont Bay is strategically located between Fort Belvoir and Quantico Marine Base. As BRAC is being implemented, the region (also referred to as the I-95 corridor or Potomac Communities) is experiencing the consolidation of operations within the two military bases. As part of BRAC, by 2011, the National Geospatial Intelligence Agency [NGA] will move to Fort Belvoir, VA. The agency's move means that over 20,000 people currently distributed throughout the DC metro area (incl. Maryland and DC) will move to the area, establishing it as the global epicenter of geospatial intelligence. By establishing a satellite facility at Belmont Bay, George Mason University will have a unique strategic advantage in positioning itself as a pre-eminent academic center in the field of geospatial intelligence and geoinformatics.

The public science center will have a focus on supporting K-12 education and will seek to leverage its co-location with PEREC and the Geospatial Research Center.

The project will be designed and constructed to a LEED Silver standard incorporating environmentally sustainable construction standards providing a commonwealth building which creates a healthier academic and research environment, contributing to higher productivity and improved student, faculty and staff health and comfort.

**Justification**

Description of the Current Facility - Fairfax Campus: PEREC was established in July 2007 by the Provost of George

Mason University with Dr. R. Christian Jones as the first Director. Since no space was available, PEREC was housed in space assigned to faculty members located on the Fairfax Campus. The program will remain housed in temporary space until the permanent building is constructed. This is only appropriate for a limited time due to critical space deficiencies on the Fairfax Campus.

Geospatial Intelligence activities are primarily served by the Center for Geospatial Intelligence and the Department of Geography and Geoinformation Science. The primary lab space for these activities is Room 290 in Research I, which is rather limited to support our efforts.

Relevant Programmatic Activities:

PEREC Research Grants: Current PEREC faculty is actively engaged in research on tidal and flowing freshwater ecology funded by external grants. Sponsors included Fairfax County, National Oceanic and Atmospheric Administration, Virginia Environmental Endowment, and Interstate Commission on the Potomac River Basin. Additional proposals to National Science Foundation are in preparation. Grant activity currently stands at about $200,000/yr. This is anticipated to rise to $400,000 per year by fiscal year 2012 and $800,000/yr by fiscal year 2016 as the facility becomes fully staffed.

Graduate and Undergraduate Student Research: Current PEREC faculty are serving as research mentors for numerous graduate and undergraduate students. We anticipate that the number of students whose research is based at the Center will rise to 40-50 by fiscal year 2016.
Graduate and Undergraduate Field Courses

PEREC plans to offer selected undergraduate and graduate courses. During the academic year PEREC will offer at least one graduate and one undergraduate aquatic field course including lecture and lab entirely at PEREC. Each summer PEREC will offer at least one undergraduate and one graduate aquatic field course. In addition PEREC will host labs with Fairfax and/or Prince William campus lecture sections and will host individual lab exercises from a range of other courses offered by the College of Science.

Training classes: PEREC will offer 2-3 adult and/or professional training classes per year on topics such as water quality, fisheries biology, GIS for ecologists, statistics, wetland delineation, and organism identification.
K-12 educational activities

PEREC just received a large grant from the National Oceanic and Atmospheric Administration to help Prince William County Public Schools provide a “meaningful watershed experience” for all 9th grade students. PEREC intends to expand and amplify these efforts to reach out to other school districts and other grade levels. These experiences involve both field work and lab work in our facilities.

GEO: In terms of the GeoSpatial component, there are three different types of activities for which the Belmont Bay facility will provide critical support:

• Educational/training
• Research
• Outreach/partnership

More specifically:

Educational/Training Activities: GEO educational and training offerings address two different groups of students: standard graduate students taking courses at the Fairfax campus and contract offerings delivered to agency and/or company personnel.

For the first group, GEO uses primarily its “Center” lab in Research I, Room 290. This same space serves as GEO’s research facility, and at the same time serves as office space for its graduate research and teaching assistants. As the College of Science expands into Science & Tech II, GEO expects that some additional space will become available to support its activities in the Fairfax campus, and to alleviate some of the space constraints currently faced.

It is primarily for the second group of educational/training activities (contract offerings) where we see the Belmont Bay space providing a much needed solution. Its proximity to the future site of NGA and the new offices of high tech companies in this area makes it a natural choice for hosting such events.

Research Activities: The Belmont Bay facility will complement our Fairfax campus offerings by:

• Providing additional space for research labs and research faculty
• Expanding standard University offerings to include a SCIF (Sensitive Compartmented Information Facility) space to handle secure information that one often encounters in our application domain.

Outreach/Partnership Activities: As our research matures we are presented with attractive options:

• Developing spin-off companies that would commercialize some of our findings.
• Partnering with companies and/or foundations for joint operations.

The Belmont Bay facility will be a natural choice to support this type of activities.
Furthermore, we have the opportunity to pursue a variety of outreach activities at Belmont Bay (ranging from K-12 events to national workshops) which would be logistically impossible to pursue at Fairfax.

A site at Belmont Bay is a crucial aspect of the College of Science Master Plan. The vision of the College is to create a community of science which fosters collaboration, education and research. The Potomac Science Center is a means to achieve this vision.

PEREC: The Potomac Science Center and the space within it for PEREC will allow Mason to advance to the forefront of ecological research in the Chesapeake Bay region. Currently, no facility exists on the Potomac dedicated to the study of its ecology, living resources, and water quality. Mason has been a leader in Potomac ecological research, but has not had the onsite infrastructure to move to the next level. Within a 30 minute drive of the Fairfax campus, the new Potomac Science Center will allow us to expand our mission of environmental research, education and stewardship and still maintain close relationships with the rest of Mason. The Potomac Science Center is a key component of the College of Science master plan for raising the profile of the sciences at Mason.

GEO: The addition of the Belmont Bay facility to our existing Fairfax campus facilities will allow GMU to become a pre-eminent academic leader in the field of geospatial intelligence and geoinformatics. The unique opportunities provided by the BB facility, namely proximity to the future site of NGA, and the potential availability of a SCIF space, plus the obvious advantage of having much needed additional space available will allow us to better pursue our educational, research and outreach activities. Furthermore, the future proximity to PEREC will allow us to pursue additional collaborative opportunities at the intersection of our two fields.

**Options Considered**

The impact of deferring this work to the next biennium would be increase construction costs due to escalation.

In addition lost research opportunities will result in delays to the project development as well as the inability to build enrollment related to environmental education programs.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 200,000 | Sq. Ft. | Cost per Sq. Ft. | $170 |
| 4. Improvements | | Sq. Ft. | Cost per Sq. Ft. | n/a |

| | | | | | |
|---|---|---|---|---|---|
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a | PID: 6625 |

## Develop Loudoun Campus Site

project 28 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2011

Agy Priority: 29 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: months

Projected time to occupy facility or complete project: months

Projected time to award construction contract: months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

Starting in the summer of 2008, George Mason University, Northern Virginia Community College, Loudoun Country Government, and the Town of Leesburg Government worked together to identify and define the future and current higher education needs of the region. The results of their effort produced the “Planning for Enhanced Public Higher Education in Loudoun County” report. A new Higher Education campus to serve at a minimum of 8,000 students was a key conclusion of the report.

In May of 2009 the parties will undertake a public RFP process based on criteria established in the report, to engage the local business community in the acquisition of the land upon this new campus will be built. Many interested parties have expressed interest in this RFP, and we expect multiple sites will be proposed as part of this process.

This request will provide funding to design and master plan the selected campus site. Included in this master planning effort will be the environmental, utility infrastructure, transportation, and building programming and design requirements of this new campus.

**Justification**

George Mason University is seeking to deliver on its mission of providing access to higher education to the citizens of northern Virginia. Loudoun County, as one of the fastest growing counties in the country, provides both challenges and opportunities to meeting this mission. The university is looking to continue its distributed model of education delivery by expanding its existing presence in Loudoun County. Reasons for this expanded presence include:

• Loudoun County is a rapidly growing county whose development has attracted national acclaim. It’s graduation and educational attainment rates exceed the combination of other counties in the 14-county surrounding area. The population of prospective college students in Loudoun County is growing at an even faster rate than the population as a whole.

• The population and employment in Loudoun County and the 14-county area are predicted to continue to grow substantially in both the short term and through 2030.

• The major employers in Loudoun County that have educational needs that will be served by an enhanced public higher education presence. These businesses include those serving Dulles International Airport, Inova and HCA health systems, Loudoun County Public Schools, businesses associated with the Departments of Defense and Homeland Security, businesses serving health and human services needs, and the Howard Hughes Medical Institute and associated enterprises.

• The population and employment in Loudoun County is heavily concentrated in the Eastern part of the county. This trend will continue in the future as long as current zoning and planning parameters are followed. Even greater population and employment densities exist in adjacent parts of Fairfax and Prince William Counties.

• Loudoun County is currently served by a number of public and private colleges and universities, located along Route 7. This includes approximately 350 students at Mason's Ridgetop Campus and 9,800 students at NOVA's Loudoun Campus in Sterling. The recent departure of Marymount University and Old Dominion University has reduced the higher educational presence in the county. A more substantial public higher education presence (facilities, locations, programs) is needed to provide affordable access to a broader range of undergraduate, professional, and graduate programs in Loudoun County.

**Options Considered**

-

**Costing Methodology**

-

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5945

## Renovate Concert Hall

project 29 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2012

Agy Priority: 30 Location: Northern Virginia Facility:

Building #: 247-0076 Building Name: Concert Hall

Building Function: Performing Arts Center

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 21 months

Projected time to occupy facility or complete project: 43 months

Projected time to award construction contract: 25 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project includes the complete renovation (120K GSF) of the Center for the Arts originally constructed in 1990. The work will include upgrades to building mechanical and electrical systems as well as technology and life safety upgrades. There will also be acoustical and seating upgrades. In addition there will be lighting, rigging and control systems as well as minor work to back stage support areas. It is also anticipated that this work will include expansion of the lobby spaces and addition of a food service type facility. This project will support both instructional and public services uses by the University.

This project will also correct deficiences identified in the Preliminary FM Global Risk Report issued to George Mason University in March of 2009.

**Justification**

This project will:

1. Enhance the functionality of aesthetics of the building to meet 21st century needs
2. Mason showcase for arts instruction and performance-based technology
3. Leverage state and county funding with private support
4. Improved facility will allow greater flexibility and diversity in programming (both student and professional) and increased revenue

Increased diversity of programming will allow for greater student/professional interaction, as well as increased opportunities for student internships and student jobs.

Through weekday utilization, greater opportunity for faculty use of the facility for both student and faculty groups.

More diverse and flexible programming will attract new audiences, as well as greater use by community groups.

**Options Considered**

The impact of deferring this work to the next biennium would be increase construction costs due to escalation.

In addition lost enhanced event revenue opportunities will result in delays to the project development.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 120,000 | Sq. Ft. | Cost per Sq. Ft. | $246 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5992

## Renovate Truland Building

project 30 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2011

Agy Priority: 31 Location: Northern Virginia Facility:

Building #: 247-0R04 Building Name: Truland Building

Building Function: Academic and Instructional Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 16 months

Projected time to occupy facility or complete project: 36 months

Projected time to award construction contract: 7 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project includes renovating spaces (15K GSF) vacated when Arlington II opens. This scope of this project anticipates providing office space for Public and International Affairs, School of Management, Arts Management, Office of Continuing and Professional Education as well as expansion space for Institute for Conflict Resolution in Truland Building. In addition classroom spaces will be added to this space.

This scope of this project is dependent on the types of spaces added to this building. Offices will be most economical to add, classrooms will be more costly.

The scope of this work is essentially selective renovation.

**Justification**

The Truland Building is essentially an office building which is being occupied as an academic and instructional space. When Arlington II is complete many end users will be moving into the new building. Much of the space in Truland will be occupied as is however there are areas that will require improvements in order to re-occupy with new university end users.

The planned renovations are modest in nature but are necessary to provide appropriate academic and instructional spaces that support the mission of the university on the Arlington Campus.

**Options Considered**

The impact of deferring this work to the next biennium would be increase construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are

escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

| Project Scope | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 15,000 | Sq. Ft. | Cost per Sq. Ft. | $107 |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6782

## Improvements to Arlington Infrastructure

project 31 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2011

Agy Priority: 32 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 16 months

Projected time to occupy facility or complete project: 32 months

Projected time to award construction contract: 20 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project will improve pedestrian and vehicular access between the several buildings on the campus. The goal of the project is to improve internal accessibility, campus security and access control.

The project Includes:

1) Provide physical access modifications to improve internal campus circulation between the 5 buildings on campus – including a bridge, stairs and new entrances;
2) Add a campus emergency radio antenna repeater for the Arlington Campus; and
3) Provide new parking island/gate/access control between the Founder Hall and Hazel Hall connected parking garages

**Justification**

Funds campus-wide infrastructure improvements to improve inter-connectivity.

The campus currently consists of two state owned buildings, one state facility under construction and two leased facilities. The campus has been cobbled together without any coherent or coordinated plan for inter-connectivity or inter-communications.

**Options Considered**

The impact of deferring this work to the next biennium would be increase construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6784

# Authorize Capital Lease Renewal for Truland Building

project 32 of 54

**George Mason University (247)**

## General Information

Project Type: Capital Lease | Project Code: | Start Year: 2012

Agy Priority: 33 | Location: Southwest | Facility:

Building #: 247-0R04 | Building Name: Truland Building

Building Function: Academic and Instructional Space

Is this an Umbrella Project? No | OR a higher education blanket project? No

Projected time to submit working drawings: months

Projected time to occupy facility or complete project: months

Projected time to award construction contract: months

Included in the existing Six Year Capital Plan No

## Agency Narrative

**Description**

The project is a capital lease renewal request for the Truland Building located on the Arlington Campus.

**Justification**

This space is necessary to continue support the University's academic and research mission on the Arlington Campus. This space is required until the Arlington III project is constructed.

**Options Considered**

-

**Costing Methodology**

-

## Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6785

## Renovate Mason Hall

project 33 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2011

Agy Priority: 34 Location: Northern Virginia Facility:

Building #: 247-0075 Building Name: Mason Hall

Building Function: Institutional Support and Executive Administration

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 16 months

Projected time to occupy facility or complete project: 18 months

Projected time to award construction contract: 4 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project consists of backfill renovations in approximately 35K ASF (49K GSF) of Mason Hall. This space will become vacant when the new administration building is constructed and occupied in 2011.

The space in Mason will be used as institutional support space. Currently a range of administrative functions occupy Mason Hall. At the completion of this project executive administrative units will be co-located to create a efficient and effective work environment for all occupants.

This project will include minor to moderate partition and finish renovations, upgrades to electrical and tele com systems as well as other modifications required to supporting on-going administrative functions.

A flexible office drop-in suite will also be provided in this building - this will provide shared space for occassional workers and those visiting from distributed campus locations which will create a more efficient working environment for individuals that support multiple campuses and is also more space efficient than providing multiple private offices.

This project will also correct deficiences identified in the Preliminary FM Global Risk Report issued to George Mason University in March of 2009.

**Justification**

The building which was originally constructed in 1989 is approaching 20 years old. There have been minor cosmetic renovations such as paint and carpet completed over the last several years.

Currently the layout of offices and support spaces is very inefficient in this building - the vacancy of various spaces will afford the opportunity to renovate selective areas of the building to provide an increased efficiency and flexibility of office space. This will create a future space that can be occupied in multiple ways without expensive renovations.

Mason has been apply workspace standards to all new renovation projects which should serve to reduce the amount of on-going renovation required by individual end users as they occupy new spaces.

**Options Considered**

Delay in completing this project will cause increased annual maintenance costs on deteriorated infrastructure. There have already been electrical problems which have required major maintenance projects to keep the spaces operating.

University Administrative offices are currently leasing space off campus to accommodate its existing staff levels.

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 49,000 | Sq. Ft. | Cost per Sq. Ft. | $65 |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6786

## Renovate Performing Arts Building

project 34 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2012

Agy Priority: 35 Location: Northern Virginia Facility:

Building #: 247-0074 Building Name: Performing Arts Building

Building Function: Academic and Instructional Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 19 months

Projected time to occupy facility or complete project: 47 months

Projected time to award construction contract: 23 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project requires funding for the 124,000 GSF renovation of the Performing Arts Building originally constructed in 1988. The CVPA Master Plan (2006) identifies major elements of the existing Performing Arts Building that require renovation to meet current CVPA enrollment demand, planned growth, and instructional quality issues.

This is “phase II” of work in PAB, to be undertaken after the expansion/renovation on the east side of the building which is currently in the planning phase. The Master Plan carefully articulates room-by-room deficiencies and proposes various possible reallocations of internal space.

The basic issues are building age, original design limitations, and significant growth in both size and quality of academic programs of Music, Dance, and Theater.

This project will also correct deficiences identified in the Preliminary FM Global Risk Report issued to George Mason University in March of 2009.

**Justification**

1. Increased FTE and faculty in Music require increased studio teaching spaces and practice rooms.

2. PAB expansion will make it possible to house community music school instruction through the Potomac Arts Academy – a revenue producing activity.

3. PAB expansion will allow international student activity in the arts to be showcased bringing new and diverse communities onto the campus.

**Options Considered**

The impact of deferring this work to the next biennium would be increase construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost

model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 124,000 | Sq. Ft. | Cost per Sq. Ft. | $147 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5969

## Renovate Krug Hall

project 35 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2012

Agy Priority: 36 Location: Northern Virginia Facility:

Building #: 247-0002 Building Name: Krug Hall

Building Function: Academic and Instructional Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 16 months

Projected time to occupy facility or complete project: 30 months

Projected time to award construction contract: 20 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project is the complete renovation Krug which is approximately 32,000 GSF and was originally constructed in 1964. Krug will be partially vacated when Finley Building renovation is re-occupied by College of Education and Human Development. The current occupants of Krug Building are the Kellar Institute for Human disAbilities in the College of Education and Human Development (CEHD), general university classrooms, the Office of Continuing and Professional Education and Mason's English Language Institute.

At the time this building becomes partially vacant it is the intention of the University to renovate this building for the use of a new tenant identified as the College of Education and Human Development. The renovation will include minor to moderate modifications to interior partitions and finishes to support programmatic needs for academic support and teaching spaces.

This building was previously renovated in the mid 1990's. Therefore, there are only minor infrastructure improvements. In addition current projects anticipate asbestos roof replacement and new interior flooring which will both be completed as separate maintenance projects.

This project is the fourth and final phase (Phase I – West Renovation, Phase II – Thompson Renovation, Phase III - Finely Renovation) for the College of Education and Human Development space co-location plan – this plan is intended to provide cohesive space assignments for academic programs and research centers within the college.

**Justification**

The existing Krug Building has had a variety of infrastructure improvements done over the last several years therefore improvements will be minor to moderate partition improvements with related, HVAC, electrical and telecom improvements required.

The renovation of Krug would continue the development of an "education campus" within the Fairfax campus that would lead to the creative synergy that comes with seeing one's colleagues regularly. In addition, this particular renovation will help CEHD vacate its many rental spaces in Fairfax City.

When one thinks about the Finley, Thompson, West, Krug collection of buildings as the "education complex," anyone who enters campus from the University Drive side, the original "front door" of the University, will also see our most innovative programs such as LIFE. With proper signage, the general public will see "Education" upon entry to the University and see children being dropped off who come for programs, services, assessment, and consultation.

If this project is not approved the building will be utilized in an "as is" condition. The result of this will be sub-standard

spaces that are occupied inefficiently for the intended programmatic uses. Due to the fact that a significant portion of this College's space is located in rental space, if this building renovation is not completed the University will incur ongoing space rental expenses while sub-standard space is sitting poorly utilized on campus.

**Options Considered**

In addition to increased construction costs due to escalation if not funded in this bienium - the College of Education and Human Development is currently occupying space in several leases adjacent to the Fairfax Campus.

Impact if not funded:

• Inability to vacate the townhouses on Chain Bridge Road (financial impact). The Center for the Advancement of Public Health, currently housed on Chain Bridge Road, is programmed to move to Krug into space that otherwise would have to be allocated to the Kellar Institute for Human disAbilities for the outreach and personnel preparation programs it operates in collaboration with the Special Education program.

• Impact on ability of CEHD to accomplish its research and teaching mission (academic and research impact). CEHD is a highly interdisciplinary unit that depends on faculty interaction across programs, centers, and disciplines to fuel its research and teaching initiatives (see "programmatic justification") below. Failure to complete the Krug renovation project would mean that CEHD would continue to have key academic and research components scattered around campus (and possibly off campus).

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 32,000 | Sq. Ft. | Cost per Sq. Ft. | $134 |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6788

## Renovate Campus Library, Phase II

project 36 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2012

Agy Priority: 37 Location: Northern Virginia Facility:

Building #: 247-0005 Building Name: Fenwick Library

Building Function: Campus Library - Study Spaces and Stacks

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 11 months

Projected time to occupy facility or complete project: 28 months

Projected time to award construction contract: 14 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project is the complete renovation of 75K GSF Fenwick Library towers. An integral component of George Mason University's Fenwick Library addition project, the five-story Fenwick Library Towers (Wings B and C of the existing building complex), which comprise approximately 75,000 GSF, require significant renovation to accommodate the vision described in Shepley Bulfinch Richardson & Abbott's library facilities feasibility study.

The primary goal of the renovated Fenwick Library Towers is to effectively and efficiently accommodate the bulk of the library's collections. Stack space in the renovated towers will be expanded, with the first floor of each tower retrofitted to support compact shelving.

In addition it is anticipated that the cellular spaces found at the perimeter of the stack towers will be retained and/or returned to group or individual study spaces. Due to space constraints in the existing library these spaces have been taken over as staff office spaces reducing the number of available study seats.

The renovation will also encompass the upgrading of mechanical, electrical and HVAC systems; installation of a fire suppression/sprinkler system; and an overhaul of public restrooms, including installation of floor drains.

**Justification**

Once the Fenwick Library addition project (17695) is completed this renovation project in the towers will need to follow since many spaces will be vacated into the new addition.

The towers which were originally constructed in 1978 and 1982 have not undergone a major renovation since they were constructed so infrastructure work will required in addition to the renovation to insert collection space.

This second phase of the library improvements on Fairfax Campus is integral to the Library's mission for providing high quality scholarly study and research environments, improving the navagability of collection areas, expand holdings of unique special collections and archives with greater accessiblity and to celebrate the library's prescence as the center of intellectual life for the University.

Planning money in this biennium is important for this project as the detailed planning phases are carried on for the addition project. Close coordination of the two projects is integral to the success of the phase I project.

**Options Considered**

The impact of deferring this work to the next biennium would be increased construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 87,000 | Sq. Ft. | Cost per Sq. Ft. | $250 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5974

## Construct Loudoun I / Infrastructure

project 37 of 54

**George Mason University (247)**

### General Information

Project Type: New Construction Project Code: Start Year: 2013

Agy Priority: 38 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 14 months

Projected time to occupy facility or complete project: 34 months

Projected time to award construction contract: 15 months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

This project establishes the newly evolving presence of George Mason University in Loudoun County on its own University land and in its own facility. This facility will be a freestanding, multi-use facility which will answer the total student population needs of the George Mason Distributed University concept as it develops in Loudoun County. Associated with the facility will be the original Campus entrance, vehicular and pedestrian access ways, and the first installments of the associated Campus infrastructure.

**Justification**

This project will support the regional needs for educational programs and services.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 100,000 | Sq. Ft. | Cost per Sq. Ft. | $324 |

| | | | | | |
|---|---|---|---|---|---|
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a | |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a | |

PID: 5975

## Renovate Baseball Stadium

project 38 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2013

Agy Priority: 39 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 13 months

Projected time to occupy facility or complete project: 28 months

Projected time to award construction contract: 16 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project continues the development of the university sports complex on the Fairfax West Campus in keeping with the University Athletics Master Plan developed in 2004. This project was originally entitled "Stadium Improvements" under the previous 6 year capital plan for the 2008/2010 biennium. This project has been altered to accommodate the multi-phase improvements to the University Field House in future bienniums.

The project includes the complete renovation and expansion of the GMU Baseball Stadium. This includes adding additional seating, improving the lights, adding restrooms, concessions, renovating the press box, adding support and storage.

**Justification**

The current Baseball Stadium is space constrained within its current site footprint. With the upgrade to the Softball Stadium in the 2008-2010 Biennium, and requirements of Athletics to host regional tournaments, this facility requires an upgrade specifically in the area of amenities.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 11,063 | Sq. Ft. | Cost per Sq. Ft. | $55 |
| 4. Improvements | 94,563 | Sq. Ft. | Cost per Sq. Ft. | $27 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5983

## Construct Child Development Center, Phase II

project 39 of 54

**George Mason University (247)**

### General Information

Project Type: New Construction | Project Code: | Start Year: 2013

Agy Priority: 40 | Location: Northern Virginia | Facility:

Building #: 247-0105 | Building Name: Child Development Center

Building Function: Early Childhood Education

Is this an Umbrella Project? No | OR a higher education blanket project? No

Projected time to submit working drawings: 11 months

Projected time to occupy facility or complete project: 22 months

Projected time to award construction contract: 14 months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

This project continues the development of the university Child Development Center. This project adds 5000 GSF of additional indoor classroom space and an additional 7000 GSF of outdoor playground and activity space to the newly constructed Child Development Center that was completed in 2007.

**Justification**

This project will enhance the capability of the center to increase the capacity of students enrolled from 120 to 180 students. This center provides a much needed service to university faculty and staff as well as the local community. Additionally this center provides hand-on education for students in the College of Health and Social Science.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 15,000 | Sq. Ft. | Cost per Sq. Ft. | $103 |

| | | | | | |
|---|---|---|---|---|---|
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a | |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a | |

PID: 5984

## Construct Parking Deck V

project 40 of 54

**George Mason University (247)**

### General Information

Project Type: New Construction Project Code: Start Year: 2013

Agy Priority: 41 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 6 months

Projected time to occupy facility or complete project: 24 months

Projected time to award construction contract: 9 months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

This project provides 1200 spaces in a new parking deck on the Fairfax Campus. It is anticipated that Parking Deck V will be located in the Southwest Sector to primarily support the planned development on the southern end of campus.

**Justification**

Increased parking infrastructure is required to support increased residental student population as well as events taking place on campus.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 360,000 | Sq. Ft. | Cost per Sq. Ft. | $86 |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |

| | | | | | |
|---|---|---|---|---|---|
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a | PID: 5989 |

## Construct Prince William Union

project 41 of 54

**George Mason University (247)**

### General Information

Project Type: New Construction Project Code: Start Year: 2014

Agy Priority: 42 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 16 months

Projected time to occupy facility or complete project: 36 months

Projected time to award construction contract: 20 months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

The proposed 100,000 square foot project would house multiple food service venues with common seating area, bookstore, bank/credit union, office, meeting and other program functions. This space will support increased student enrollment, research activities and community service on the Prince William Campus.

**Justification**

Currently only minimal spaces exist on the Prince William campus serving as union space. With the expected influx of programs to the Prince William campus additional service facilities will be required to support student activities.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 100,000 | Sq. Ft. | Cost per Sq. Ft. | $182 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a | | |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a | PID: 5990 | |

## Renovate Johnson Center, Phase I

project 42 of 54

**George Mason University (247)**

### General Information

Project Type: Improvements-Other Project Code: Start Year: 2013

Agy Priority: 43 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 11 months

Projected time to occupy facility or complete project: 26 months

Projected time to award construction contract: 14 months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

This project is phase I of a 2 phase project. This project will provide a general renovation to the Johnson Center auxiliary spaces and upgrade the existing infrastructure.

**Justification**

The Johnson Center will be approximately 20 years old in this time frame. There have been no major infrastructure improvements to the building so this project will serve to support primarily infrastructure improvements and schedule equipment replacements

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4. Improvements | 50,000 | Sq. Ft. | Cost per Sq. Ft. | $137 | | |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a | PID: 5991 | |

## Construct Academic VII/Research III, Phase II

project 43 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2013

Agy Priority: 44 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 14 months

Projected time to occupy facility or complete project: 32 months

Projected time to award construction contract: 17 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This new 250,000 GSF academic building is planned in two phases and as expansion space for the College of Health and Human Services. This phase II request is for a 100,000 GSF new building. The College is currently located in portions of Robinson A and B. Short term growth for this unit will be supported through moves out of Robinson by the College of Education and Human Development. It is anticipated that these moves will happen in the 2008/2009 time frame.

The addition of a new phase II building of approximately 100,000 GSF is required to support this aggressive growth plan.

**Justification**

Long term growth for this College can only be supported by the addition of academic support/instructional, research and clinical space located within a new facility. The building will also provide new generally scheduled classrooms to replace rooms taken off line by ongoing renovations and upgrades.

This building will provide space in support of the University's academic plan by reducing space deficiencies in Academic Instructional and Research space categories as defined by SCHEV. Overall the University is deficient in academic/instructional and research space based on current and projected enrollment and funded research.

CHHS reorganization and expansion plans include:

• Establishing a MPH in the Fall, 2009 and a School of Public Health by 2015;
• Creating four new departments: Nutrition in 2012, Rehabilitation Science in 2012, Epidemiology in 2013, and Environmental Health and Occupational Safety in 2014
• Implementing a Ph.D. degree in Rehabilitation Science by 2010;
• Offering a Ph.D. in Social Work by fall 2011, with the Social Work program transitioning to a School of Social Work by fall 2014; and
• Creating provisions at Mason for faculty in the expanded college and others on campus to engage in broadly defined faculty clinical practice opportunities by fall 2009

The expansion of programs in the College of Health and Human Services meet pressing workforce needs in the region and the Commonwealth and address critical research questions in health care and public health. This expansion requires a significant space addition over what is provided for the College today.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 100,000 | Sq. Ft. | Cost per Sq. Ft. | $336 |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5972

## Construct East Campus Fields and Courts, Phase II

project 44 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2013

Agy Priority: 45 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 12 months

Projected time to occupy facility or complete project: 25 months

Projected time to award construction contract: 15 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project continues the development of the university sports complex on the Fairfax East Campus in keeping with the University Athletics Master Plan developed in 2004. This project was originally entitled “PE Building Fields” under the previous 6 year capital plan for the 2008/2010 biennium. This project is now being executed in two phases, one during the 2008/2010 biennium (Phase 1) and the other during the 2010/2012 biennium (Phase 2, this project), as a result of the requirement to execute a non-capital project to remove existing temporary student housing from the project site during the 2008/2010 biennium.

Concurrently this project adopts some of the scope of the project entitled “NE Fields” that was planned for the 2008/2010 biennium in the previous 6 year capital plan. The land that had been reserved for this project has now been taken over by other priorities, and as a result some of the scope has been transferred to this project

This project will include the installation of an artificial turf field with lights, two outdoor basketball courts, the installation of the Outer Loop Running/Fitness Trail, and a new skills course on the Fairfax East Campus.

This will complete the improvements and upgrades to the student recreation facilities in the vicinity of the Physical Education Building.

**Justification**

Currently the University does not have an Outdoor Recreation facility the centralizes and provides students the opportunity to explore and engage in the numerous opportunities the Commonwealth provides to explore, study, and recreate throughout Northern Virginia.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 306,500 | Sq. Ft. | Cost per Sq. Ft. | $15 |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5985

## Construct Addition and Renovate Enterprise Hall

project 45 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2013

Agy Priority: 46 Location: Northern Virginia Facility:

Building #: 247-0069 Building Name: Enterprise Hall

Building Function: Academic and Instructional Space

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 0 months

Projected time to occupy facility or complete project: 0 months

Projected time to award construction contract: months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project will include the addition of a 50,000 GSF instructional and executive education center associated with Mason's School of Management. Phase II of this project will renovate the existing Enterprise building of 100,000 GSF.

The Phase I project will support the University's academic plan for growth within the area of executive education.

**Justification**

The existing Enterprise building was originally constructured in 1995 and will be approximately 20 years old in this time frame. There have been no major infrastructure improvements to the building so this project will serve to support primarily infrastructure improvements and schedule equipment replacements.

Currently the main executive education offering is accommodated in leased space in an alternate location. The addition of this space will provide the opportunity to terminate that existing lease.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 50,000 | Sq. Ft. | Cost per Sq. Ft. | $350 |
| 4. Improvements | 100,000 | Sq. Ft. | Cost per Sq. Ft. | $100 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5978

## Construct Housing IX

project 46 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2015

Agy Priority: 47 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 17 months

Projected time to occupy facility or complete project: 44 months

Projected time to award construction contract: 20 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

Housing IX is the second phase of the Housing VIII project and will increase the number of beds in the southwest sector by 1200 to 2400 beds total. The project will consist of housing unit types to be determined by a future marketing study, program and retail space in support of the housing.

In addition to housing units, retail and program space to support the housing units will be provided. Utility and infrastructure work in support of the project will also be required.

**Justification**

Enrollment projections for the University continue to grow and affect requirements for on-campus housing. Many factors contribute to the increase demand for student housing including, but not limited to, additional non-local residents, increased number of out of state students and traffic congestion. The construction of these housing units will help meet the increased demand for additional on-campus housing.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

1. Acquisition - Property 0 Sq. Ft. / Acres Cost per Sq. Ft. or Acre n/a

| | | | | | |
|---|---|---|---|---|---|
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a | |
| 3. New Construction | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a | |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a | |
| 5. Capacity | 1,200 | Beds/Units | Cost per bed/unit | $104,064 | |

PID: 5973

## Construct Physical Plant Building, Prince William Campus

project 47 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2015

Agy Priority: 48 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 10 months

Projected time to occupy facility or complete project: 24 months

Projected time to award construction contract: 12 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project constructs shop and administrative space for physical plant functions at the University's Prince William campus. It also constructs the first phase of a central heating and cooling plant at the Prince William campus. The University analyzed the net present value of various utility options to support the expanded campus envisioned in the University Master Plan. With construction of facilities in the 2010-2012 biennium, it is in the University's best interest to convert to a centralized utilities system at the campus. The central plant proposed by this option will generate utility savings of over 10% when evaluated over the 25 year anticipated life cycle of the system.

**Justification**

With completion of the Hylton Performing Arts Center and the Regional Biomedical Research Lab, maintenance requirements at the campus have significantly increased. Construction of the next major facility, expected to be an addition to Bull Run Hall, will stretch the maintenance shops beyond an acceptable limit. Consolidation of utilities generation and distribution will allow for more efficient and cost effective provision of utilities to campus users through energy diversity.

Maintenance forces at the campus are housed within inadequate spaces in Bull Run Hall. This will be too small with addition of a new staff to support requirements at the new buildings.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 15,000 | Sq. Ft. | Cost per Sq. Ft. | $542 |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5976

## Construct Arlington III

project 48 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2015

Agy Priority: 49 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 18 months

Projected time to occupy facility or complete project: 45 months

Projected time to award construction contract: 21 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project request is for the construction of Arlington III, a 345,000 GSF facility at the GMU Arlington campus in support of the University's 2010 Academic Plan. The project will also include a 512 space, 179,000 GSF parking garage below the building. This project also includes the demolition of the existing Arlington Original Building (formerly Kahn's Department Store), a 131,000 GSF building built in the 1950's. Arlington III will connect to the Arlington II building and parking garage.

**Justification**

The Arlington Campus is located on a 5.2 Acre urban site in the Virginia Square area of Arlington County. The Campus currently consists of Arlington I (Hazel Hall) which houses the School of Law. Currently under construction is Arlington II (Founders Hall) which will house School of Public Policy, Generally scheduled University classrooms, meeting spaces, bookstore, library, other support services, parking and smaller academic departments. The future occupants of Arlington II are currently located in the existing Arlington Original Building (Khan's Department Store building).

Once Arlington II is complete the master plan for the Arlington Campus includes the demolition of the Arlington Original Building and its replacement with a new building to house units currently residing in the Truland Building (Capital Lease) Institute for Conflict Analysis and Resolution, School of Management, Office of Continuing and Professional Education, Public Administration, Administration of Justice and university classrooms. Phase II of the campus library and additional campus library will also be located in this new construction.

This project will support enrollment growth and represents the final phase of build out on the Arlington Campus. This project will provide the University the opportunity to vacate the Truland building which will terminate the capital lease.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 524,200 | Sq. Ft. | Cost per Sq. Ft. | $335 |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5977

## Construct Fairfax Central Warehouse Addition

project 49 of 54

**George Mason University (247)**

### General Information

Project Type: New Construction | Project Code: | Start Year: 2015

Agy Priority: 50 | Location: Southwest | Facility:

Building #: 247-0026 | Building Name: Central Warehouse

Building Function: University Central Receiving and Archives

Is this an Umbrella Project? No | OR a higher education blanket project? No

Projected time to submit working drawings: 10 months

Projected time to occupy facility or complete project: 22 months

Projected time to award construction contract: 12 months

Included in the existing Six Year Capital Plan No

### Agency Narrative

**Description**

This project will construct a centralized warehouse including receiving and distribution facility for on campus food service as well as increased area for archival needs. Included in the scope commissary scope is refrigerated and frozen food storage, as well as dry goods storage, 2 loading docks, staging areas and associated office space. The dramatic increase in traffic and congestion on and around the Fairfax campus drives the need for this facility as it is too dangerous for large food delivery trucks to enter the more congested sections of campus to deliver to each food service outlet.

**Justification**

-

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |

| | | | | | |
|---|---|---|---|---|---|
| 3. New Construction | 25,000 | Sq. Ft. | Cost per Sq. Ft. | $260 | |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a | |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a | |

PID: 5980

## Renovate Soccer and Lacrosse Stadium

project 50 of 54

**George Mason University (247)**

**General Information**

Project Type: Improvements-Other Project Code: Start Year: 2016

Agy Priority: 51 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 13 months

Projected time to occupy facility or complete project: 31 months

Projected time to award construction contract: 16 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project continues the development of the university sports complex on the Fairfax West Campus in keeping with the University Athletics Master Plan developed in 2004. This project was originally entitled "Stadium Improvements" under the previous 6 year capital plan for the 2008/2010 biennium. This project has been altered to accommodate the multi-phase improvements to the University Field House in future bienniums.

This project enables the conversion of the existing track and field stadium into a venue Soccer/Lacrosse Stadium. It will include new west stands, new locker rooms, a training room, storage, press box, and remove the existing track. As a result, the stadium footprint will be reduced to accommodate the Field House Addition Phase III that is planned for the 2012/2014 biennium.

**Justification**

At present an undesirable situation exists as Soccer and Lacrosse must execute practice and competition within the confines of the current Track and Field stadium. Creating a separate venue will enable the University to avoid current scheduling conflicts.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 33,400 | Sq. Ft. | Cost per Sq. Ft. | $36 |
| 4. Improvements | 188,000 | Sq. Ft. | Cost per Sq. Ft. | $19 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5982

## Construct Patriot Center Addition, Phase III

project 51 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2016

Agy Priority: 52 Location: Northern Virginia Facility:

Building #: 247-0058 Building Name: Patriot Center

Building Function: Major Events

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 16 months

Projected time to occupy facility or complete project: 28 months

Projected time to award construction contract: 20 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project executes required code compliance and needed structural upgrades to the roof.

In conjunction with the executed Phase 1 project, the Bureau of Capital Outlay Management (BCOM), acting as the State Building Official, ruled that the Patriot Center would have to attain restroom parity at a level corresponding with the 2003 VUSBC in a later phase project. To attain this level of compliance, 40 additional water closets (or equivalent) must be provided to the center (as well as 12 additional lavatories). This will require the addition of 3000 NSF (all of which being for these plumbing fixtures) to the facility to accommodate these fixtures as well as provide required additional circulation to the building to support its connection to the main concourse.

Additionally, the existing cantilevered roof truss system was not designed or built to accept modern hung load configuration, to include scoreboards for athletic events and rigging for concerts and other activities in the center. A substantial roof structure upgrade (at approximately 55 tons of steel) will be required in order to meet these needs.

Finally, the existing roof system is at its design life and will require re-roofing. In conjunction with the above work, the roof would need to be replaced to reduce existing loads to further enhance hanging load capacity of the structure. This project would replace the 60,000 sf roof of the center.

**Justification**

Current Roof Structure is insufficient to account for loads and requirements of modern events. The current roof is at life and requires replacement.

The scope of work is consistent with typical maintenance and replacement of building systems and components for this facility. Other improvements such as the construction of required restroom fixtures reflect the University's commitment to upgrade this facility to current code standards.

This project enhances student safety and comfort, with safety being the number 1 priority, Comfort and amenities allows us to compete with other venues for shows allowing them to occur here on campus.

This will allow for larger symposiums and events that would not otherwise occur in the facility. The addition of restrooms would allow the center to be more welcoming to staff and faculty to attend events at the center.

**Options Considered**

The impact of deferring this work to the next bienium would be increase construction costs due to escalation.

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | 9,000 | Sq. Ft. | Cost per Sq. Ft. | $200 |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 6791

## Construct Field House Addition, Phase III

project 52 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2016

Agy Priority: 53 Location: Northern Virginia Facility:

Building #: 247-0054 Building Name: Field House

Building Function: Recreational and Intercollegiate Athletics

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 13 months

Projected time to occupy facility or complete project: 34 months

Projected time to award construction contract: 16 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

Provides for the development of the university sports complex on the Fairfax West Campus in keeping with the University Athletics Master Plan developed in 2004. This project was originally entitled "Field House Addition Phase II" under the previous 6 year capital plan for the 2010/2012 biennium. This project has been altered to accommodate the restructuring of other projects in the 2008/2010 and 2010/2012 bienniums in order to accommodate the multi-phase improvements to the University Field House.

This project continues the revitalization of the University's Field House located on the west half of the Fairfax campus. The project adds to and renovates the existing field house, creating space for new offices for the Inter-Collegiate office, constructing new locker room facilities, adding spectator amenities, and equipment storage and issue areas. These improvements increase the capacity of the Field House and further enhance the University among college-bound student athletes.

**Justification**

The Current Field House complex has reached its maximum capacity and requires expansion to accommodate all of the Intercollegiate Activities that are intended for the facility. At present staff are housed in temporary facilities or double housed within the structure to enable sufficient space to execute indoor practice and competition.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 32,541 | Sq. Ft. | Cost per Sq. Ft. | $348 |
| 4. Improvements | 24,349 | Sq. Ft. | Cost per Sq. Ft. | $331 |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5995

## Construct Indoor Practice Facility

project 53 of 54

**George Mason University (247)**

**General Information**

Project Type: New Construction Project Code: Start Year: 2016

Agy Priority: 54 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function:

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: 13 months

Projected time to occupy facility or complete project: 28 months

Projected time to award construction contract: 16 months

Included in the existing Six Year Capital Plan No

**Agency Narrative**

**Description**

This project continues the development of the university sports complex on the Fairfax West Campus in keeping with the University Athletics Master Plan developed in 2004. This project was originally entitled “Indoor Practice Fields” under the previous 6 year capital plan for the 2010/2012 biennium. This project has been altered to accommodate the restructuring of other projects in the 2008/2010 and 2010/2012 bienniums in order to accommodate the multi-phase improvements to the University Field House.

This project completes enhancements to the athletic complex located in and around the Fairfax West Campus Field House. This project constructs a building to house three artificial turf fileds for use, complete with supporting amenities.

**Justification**

Currently the University does not have an indoor turf facility. During periods of inclement weather, which can be frequent in the Fall and Spring, those sporting activities that require a large turf surface cannot be accommodated for practice or exhibition.

**Options Considered**

-

**Costing Methodology**

In order to provide as accurate as possible estimates of cost for this Capital Budget submission, George Mason University employed the services of an independent cost consultant.

As a benchmark for construction costs, historical cost data from 23 projects with construction currently underway (or recently completed) at GMU were used, to the extent they characterized projects in the 2010-16 plan; otherwise, cost data from RS Means was used to characterize the cost for the projects requested. Where estimates were available from the prior budget request submission (2008-2014), they were evaluated, modified (based on this developed cost model), and escalated into the planned biennium with quantities adjusted to meet current scope data.

Beyond the specific construction costs, historic costs derived from over 40 GMU projects executed in the previous 4 years were utilized as a basis to determine all other cost portions of the submission. It is noted that all projects are escalated at the DEB anticipated level into the future based upon planned mid-points of construction.

**Project Scope**

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | 0 | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | 44,400 | Sq. Ft. | Cost per Sq. Ft. | $253 |
| 4. Improvements | 0 | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | 0 | Beds/Units | Cost per bed/unit | n/a |

PID: 5996

## Construct Student Housing VII

project 54 of 54

**George Mason University (247)**

### General Information

Project Type: New Construction Project Code: 17367 Start Year: 2008

Agy Priority: 55 Location: Northern Virginia Facility:

Building #: Building Name:

Building Function: student housing

Is this an Umbrella Project? No OR a higher education blanket project? No

Projected time to submit working drawings: months

Projected time to occupy facility or complete project: months

Projected time to award construction contract: months

Included in the existing Six Year Capital Plan

### Agency Narrative

**Description**

George Mason requests approval of a $750,000 increase in 0813 revenue bond funding to the currently approved revenue bond funded capital project for the Student Housing VII-C PC# 247-17367. This project, currently in construction, is funded in Chapter 3, Item C-48 at $48,486,000.

**Justification**

The university is in need of these additional funds to complete the fit out of the originally planned and approved late night dining facility in the latest University residence hall system on the Fairfax campus.. This approximate 5,000 SF facility will include seating for 120, a versatile kitchen to serve a variety of menu items, and a servery to accommodate both eat in, and take out orders. The university provided for an allowance in the construction contract, for basic fit out, of this space. The university intended for full fit-out of the space to be provided separately, but subsequently chose to include at this time. Additional funding is needed to provide sufficient food service equipment, mechanical upgrades, seating, lighting, finishes, casework and additional fire/safety protection systems.

**Options Considered**

-

**Costing Methodology**

-

### Project Scope

| | | | | |
|---|---|---|---|---|
| 1. Acquisition - Property | | Sq. Ft. / Acres | Cost per Sq. Ft. or Acre | n/a |
| 2. Acquisition - Plant | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 3. New Construction | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 4. Improvements | | Sq. Ft. | Cost per Sq. Ft. | n/a |
| 5. Capacity | | Beds/Units | Cost per bed/unit | n/a |

PID: 7291