SPECIAL MEETING OF THE
WEST VIRGINIA HIGHER EDUCATION POLICY COMMISSION

9th Floor Conference Room*
Boulevard Tower
1018 Kanawha Boulevard East
Charleston, West Virginia

January 19, 2018
3:00 p.m.

AGENDA

I. **Call to Order**

II. **Approval of the Bachelor of Science in Construction Management (Page 2)**

III. **Approval of Series 12, Legislative Rule, Capital Project Management (Page 27)**

IV. **Additional Board Action and Comment**

V. **Adjournment**

**To join by conference call, dial 1-866-453-5550 and enter participant code: 5245480#.*

West Virginia Higher Education Policy Commission
Program Approval Request

ITEM:	Approval of the Bachelor of Science in Construction Management
INSTITUTION:	West Virginia University Institute of Technology
RECOMMENDED RESOLUTION:	*Resolved,* That the West Virginia Higher Education Policy Commission approves the Bachelor of Science in Construction Management program at West Virginia University Institute of Technology for implementation in fall 2018. This approval expires two years from the date of Commission approval if the program is not fully implemented at that time.
STAFF MEMBER:	Corley Dennison

BACKGROUND:

The Bachelor of Science in Construction Management is a 121 credit hour program with a curriculum designed around project based learning through an integrated lab, teaching core construction competencies such as planning, scheduling, estimating, means and methods. Students complete 34 credits in general education and then take courses in such subject areas as field office operations, construction law, construction safety and building systems.

There are currently no accredited or non-accredited construction management programs in West Virginia. The program will seek accreditation through ABET (Accrediting Board for Engineering and Technology), the nationally recognized accrediting body for engineering programs.

According to the U.S. Bureau of Labor Statistic's Occupational Handbook, employment for construction managers is expected to grow 5 percent between now and 2024. The West Virginia Economic Index Outlook 2016 reports that construction employment is expected to grow at a rate of 1.8 percent, leading all other industry sectors in the state between the period of 2015 and 2020.

The construction management program requires one additional, full-time tenure track or term-appointment professor be hired each year for years 1 through 4 for a total of four new hires. The rank distribution should initially be one full professor, one associate professor and two assistant professors. All the faculty members shall have appropriate academic credentials and significant industry experience.

It is anticipated the tuition and fee revenue will exceed direct expenses in the second year of the program. The program seeks to enroll 20 students in the first year and grow to 100 students by year five. See budget and net income projections below:

BUDGET							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
A: Faculty Salaries (Base)							
Program Director (Associate/Full Profes	$90,000	$91,800	$93,636	$95,509	$97,419	$99,367	$101,355
Assistant Professor		$70,000	$71,400	$72,828	$74,285	$75,770	$77,286
Assistant Professor			$70,000	$71,400	$72,828	$74,285	$75,770
Assistant Professor				$70,000	$71,400	$72,828	$74,285
Program Assistant (1/3)	$12,000	$12,240	$12,485	$12,734	$12,989	$13,249	$13,514
Total Salaries	$102,000	$174,040	$247,521	$322,471	$328,921	$335,499	$342,209
Adjuncts		$5,000	$10,000	$10,000	$10,000	$10,000	$10,000
Fringe Benefits (28%)	$28,560	$48,731	$69,306	$90,292	$92,098	$93,940	$95,819
B: Start-Up Computer/Software Cos	$50,000	$50,000					
C: Operating Budget:	$20,000	$20,600	$21,218	$21,855	$22,510	$23,185	$23,881
TOTAL:	**$200,560**	**$298,371**	**$348,045**	**$444,618**	**$453,529**	**$462,624**	**$471,909**

NET							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Gross Tuition and Fee Revenue	197,395	418,745	666,513	943,368	1,189,596	1,330,134	1,413,306
T&F Discounting(20%)	(39,479)	(83,749)	(133,303)	(188,674)	(237,919)	(266,027)	(282,661)
Total Revenue	**157,916**	**334,996**	**533,210**	**754,695**	**951,676**	**1,064,107**	**1,130,645**
Expenses:							
Salaries/Wages	102,000	174,040	247,521	322,471	328,921	335,499	342,209
Fringe Benefits	28,560	48,731	69,306	90,292	92,098	93,940	95,819
Supplies and Other Services:							
Adjuncts	-	5,000	10,000	10,000	10,000	10,000	10,000
Start-Up/Computer Software	50,000	50,000	-	-	-	-	-
Operating Budget	20,000	20,600	21,218	21,855	22,510	23,185	23,881
Total Expenses	**200,560**	**298,371**	**348,045**	**444,618**	**453,529**	**462,624**	**471,909**
NET INCOME	**(42,644)**	**36,625**	**185,166**	**310,077**	**498,148**	**601,483**	**658,736**

The program is consistent with institutional mission. There is no program duplication as this is the first construction management program in West Virginia and the institution has demonstrated that the program can be self-sustaining. Therefore, it is recommended the program be approved with the following provisions:

- The Bachelor of Science Construction Management program be approved for implementation in the fall of 2018.
- If the program is not fully implemented by January 2020, the program will no longer be considered approved by the Commission and must be resubmitted for review and approval.
- In the 2021-2022 academic year, the Commission will conduct a post-audit review of the program to assess progress toward successful implementation.

Note, the U.S. Department of Education has placed the State of West Virginia on

Heightened Cash Monitoring and on Program Participation Agreement (Provisional Approval) or PPA. West Virginia University Institute of Technology may not add any new degree programs without specific approval from the U.S. Department of Education.

Cover Letter

Name of Institution: West Virginia University Institute of Technology (WVU Tech)

Date: Dec 19, 2017

Category of Action Required: Approval of a New Program Proposal

Title of Degree or Certificate: Bachelor of Science (BS) in Construction Management

Location: Beckley, West Virginia

Effective Date of Proposed Action: First Cohort planned for Fall 2018

Brief Summary Statement:

West Virginia University Institute of Technology (Beckley, WV) is proposing a new Bachelor of Science major in Construction Management to be delivered in the Leonard C. Nelson College of Engineering and Sciences. The proposed Construction Management major is a multi-disciplinary, STEM-based program that aligns with and supports the stated WVU Institute of Technology vision "To be a nationally-recognized and preeminent regional undergraduate STEM (Science, Technology, Engineering and Mathematics) teaching institution with well-balanced curricula across diverse academic disciplines." The proposed program also aligns with the mission of the West Virginia University to provide high-quality education and promote new opportunities to the citizens of West Virginia.

According to the West Virginia Economic Outlook for 2016, construction employment is expected to grow at a rate of 1.8 percent per year, leading all other industry sectors for the period between 2015-2020. Despite the fact that demand is increasing and firms are focusing on hiring construction managers with a bachelor's degree in construction management, currently there are no 4-year Construction Management (CM) programs available in West Virginia.

The major includes 121 credit hours and is designed to be completed in four years. The proposed Construction Management curriculum will provide an interdisciplinary education including core courses in mathematics, physics, business administration, finance and accounting, and communications. Core construction management courses will cover construction methods and materials, soils and structural systems, estimating, scheduling, field operations, contracts and specifications, construction safety, and techniques of project control.

The major was approved by the West Virginia University Board of Governors on December 15, 2017.

Institute of Technology
West Virginia University

Proposed New Major: Bachelor of Science in Construction Management

Leonard C Nelson
College of Engineering & Sciences

Proposal to Establish a New Major in Construction Management

Introduction

The following is a proposal to develop a Bachelor of Science in Construction Management (B.S.C.M) as a new major within the Leonard C. Nelson College of Engineering & Sciences. This proposal provides an overview of the construction industry and post-secondary construction education, justification, program content and curriculum, the required catalog information.

Overview

Construction Management is an exciting field and rewarding career choice. Professional construction managers earn excellent salaries and derive great satisfaction working in any one of the many sectors of the construction industry. Construction is the second largest industry in the United States with over $1 trillion in total volume, accounting for approximately 8% of the nation's GDP. It is the industry responsible for constructing the buildings and infrastructure that are so vital to the quality of life.

Construction is a technically driven, complex business that requires knowledgeable, highly-skilled managers to lead operations. There is and will be a continuing demand for professional construction managers. Construction management practitioners work in various construction organizations such as CM firms, general contractors, specialty contractors, design-builders, consulting engineers, architects, and real estate developers. Construction Management practitioners are also employed in various capacities representing project owners, suppliers, regulators, lenders, and other stakeholders involved with construction. Positions include project managers, coordinators, estimators, schedulers, safety specialists, business development managers, and many others. Some rise to senior level executive positions, while others own and operate their own firms.

Future construction industry leaders need to have broad technical knowledge as well as strong business acumen. These critical competencies can be developed through formal post-secondary construction education at the university level, but such curriculum is presently not available in the WVU system, nor in the State of West Virginia. This proposed new major in Construction Management is intended to fill this critical gap.

WVU Institute of Technology Construction Management graduates will:

- possess depth and breadth in the construction body of knowledge
- immediately add value to an organization
- be equipped to perform equally well in the field or office
- display growth potential that is not limited to front line or technician status, but are destined to become future industry leaders
- be safety-focused, environmentally and socially responsible, and ethical in professional practice.

The new major in Construction Management is proposed to educate tomorrow's leaders of the construction industry who are technically competent, safety-focused, quality-centered, socially

and environmentally responsible with strong ethical values. The objectives include educating men and women who will contribute to society by advancing the construction industry while enjoying happy, successful careers. These objectives are congruent with the University's mission.

Relationship to the University's Mission

The proposed Construction Management major is a multi-disciplinary, STEM-based program that aligns with and supports the stated vision *"To be a nationally-recognized and preeminent regional undergraduate STEM (Science, Technology, Engineering and Mathematics) teaching institution with well-balanced curricula across diverse academic disciplines."*

As an 1862 Land-Grant, the West Virginia University system is dedicated to teaching practical science to expand the associated educational and career opportunities for its citizens. Furthermore, the built environment is essential to human existence and impacts all residents on many levels. There is however, a gap in West Virginia between post-secondary education opportunities and those who construct and maintain the built environment. According to the West Virginia Economic Outlook 2016, construction employment is expected to lead all other industry sectors in growth for the period between 2015-2020. Currently, there is no a 4-year Construction Management (CM) program available in West Virginia, despite the fact that demand is increasing and firms are focusing on hiring construction managers with a bachelor's degree in construction management.

The proposed Construction Management major perfectly aligns with the mission of West Virginia University Institute of Technology to provide high-quality education and promote new opportunities to the citizens of West Virginia. The proposed program will allow the Leonard C. Nelson College of Engineering & Sciences to deliver a new high quality, practice-based, major at the undergraduate level to students who currently do not have the opportunity to pursue post-secondary education in Construction Management. This major will provide undergraduate students with the opportunity to learn and advance knowledge, technical skills and competencies pertaining to construction management through a high-quality set of courses and studio experiences in order to pursue entry-level opportunities across various construction industry divisions and sectors.

Employment Opportunities

According to the Bureau of Labor Statistic's Occupational Outlook Handbook, Employment of construction managers is projected to grow 5 percent from 2014 to 2024, about as fast as the average for all occupations. Construction managers will be needed as overall construction activity increases over the coming decade. Those with a bachelor's degree in construction science, construction management, or civil engineering, coupled with construction experience, will have the best job prospects.

The West Virginia Economic Outlook 2016 published by the Bureau of Business & Economic Research, West Virginia University College of Business and Economics states that construction employment is expected to grow at a rate of 1.8 percent per year, leading all other industry sectors for the period between 2015-2020 (Fig.1).

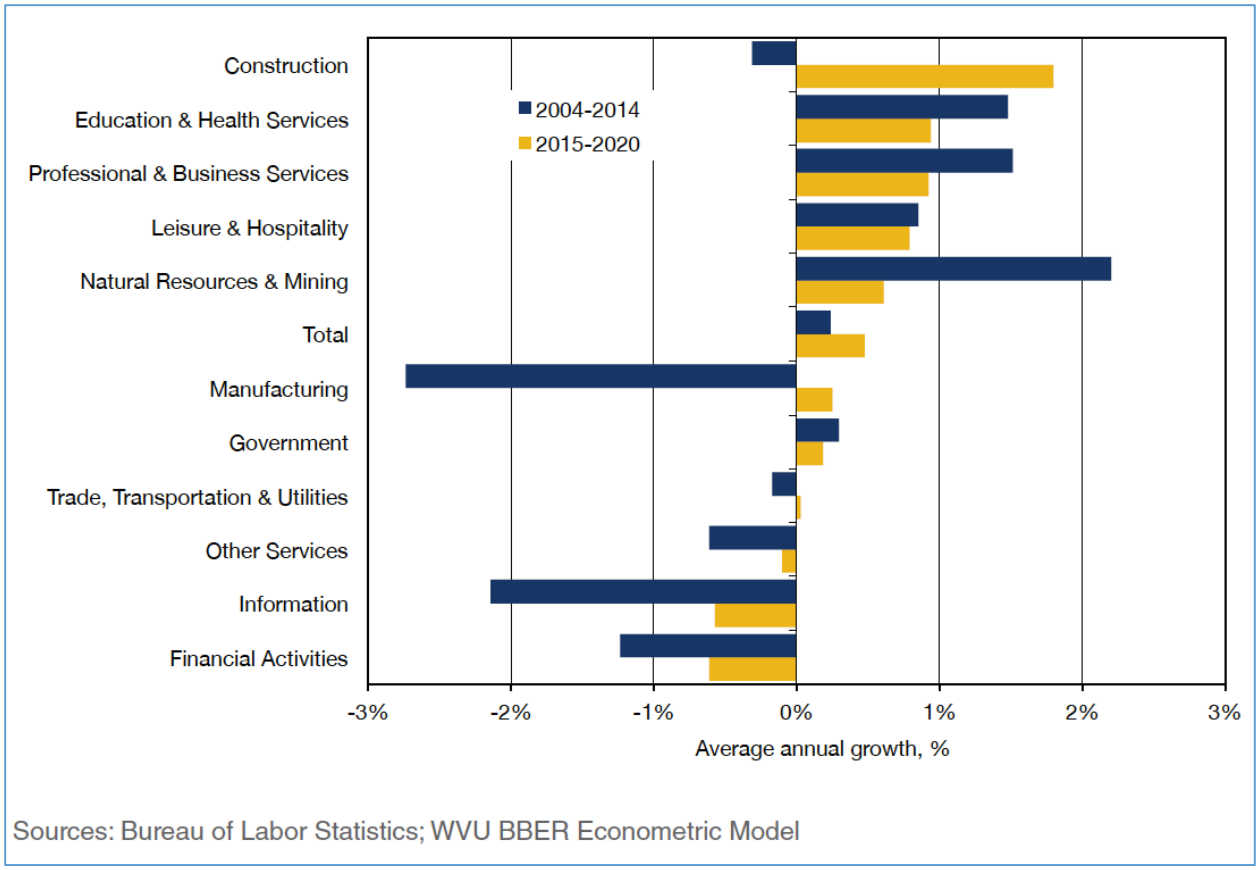

Figure 1: West Virginia Economic Outlook

Globally, the volume of construction output is expected to grow by 85% to $15.5 trillion worldwide by 2030, with three countries, China, US and India, leading the way and accounting for 57% of all international growth[1].

Industry Demand

The clientele to be served is a very broad and diverse construction industry that includes owners, users, and constructors of the built environment. This includes public and private interests, and ultimately society at-large. Construction is an inherently complex business replete with various levels and types of risk. It is one that will always be vital to society and one that is not easily outsourced. Constructors build things that make people's lives better. The proposed Construction Management major is intended to build people that will make the industry better. Construction projects continue to evolve in terms of complexity and face continually increasing internal and external demands. The new major will enable West Virginia University Institute of Technology to raise generations of constructors who will bring sophistication and heightened professionalism with a greater focus on safety and ethical practice to an industry and State in dire need of such improvements.

[1] Global Construction 2030: A global forecast for the construction industry to 2030 published by Global Construction Perspectives and Oxford Economics, London, UK, November 10, 2015

Industry Overview

The construction industry is classically categorized by one of four major divisions:

- Building – commercial and institutional
    - includes healthcare, education, office, retail, recreational, religious, government
- Residential – single and multifamily
    - includes single-family homes, multi-unit townhouses, apartments, condominiums
- Heavy/Infrastructure – transportation, utilities
    - bridges, tunnels, highways, airports, dams, water and waste water treatment facilities, railroad and transit systems, port and marine construction, pipelines, power and communication networks
- Industrial – manufacturing, processing
    - petroleum refineries/petrochemical plants, power plants, manufacturing facilities

The Construction Industry is further subdivided into sectors or segments by:

- Public vs. private ownership/funding
- Union labor vs. merit (open) shop
- Organization and method of project delivery, e.g.: traditional, design-build, etc.
- Type of work: new vs. renovation/rehabilitation/retrofit/restoration/
- Contract type

There are several industry organizations whose membership seeks well educated graduates from 4-year construction management programs. These include:

- Associated General Contractors of America (AGC)
- Contractors Association of West Virginia (CAWV)
- Associated Builders and Contractors (ABC)
- ABC West Virginia Chapter
- Construction Management Association of America (CMAA)
- American Subcontractors Association (ASA)
- Design-Build Institute of America (DBIA)

Government agencies who typically employ construction managers include:

- West Virginia Department of Transportation (WVDOT)
- General Services Administration (GSA)
- United States Army Corps of Engineers (USACOE)

Industry Engagement

The Leonard C. Nelson College of Engineering & Sciences will assemble an industry advisory board designated as the WVU Tech Construction Management Advisory Council (CMAC). The CMAC shall be a diverse cross section of the construction industry and will include members from the various industry divisions and sectors. The CMAC will be a partnership between industry and faculty to form a network of support for the Construction Management Program and our students. The CMAC is essential in:

1. establishing and maintaining the critical connections between the University and regional and national Industry
2. providing input, feedback, and validation of curricular content and program excellence
3. supporting marketing and recruiting efforts for the Program
4. student support through dedicated scholarships and endowments
5. employment and placement network for students, internships and permanent placement
6. information and technology exchange
7. external funding sources for research
8. funding for Program enhancements and resources
9. accreditation (an active industry advisory board is required to achieve and maintain accreditation)

Post-Secondary Construction Management Education

As stated on their website, the Associated Schools of Construction (ASC) is the professional association of construction educators and industry practitioners working together for the development and advancement of construction education. It promotes the sharing of ideas and knowledge and inspires, guides and promotes excellence in curricula, teaching, research and service. The ASC is made up of 8 regions; 7 regions from the United States and Canada and one European region.

There are 143 4-year Construction Management programs of member universities and 9 2-year member schools[2]. Graduates from these institutions fill entry-level positions as project engineers, estimators, safety managers, superintendents, BIM managers, pre-con, document control and communication positions, schedulers, etc.

There are currently no accredited, non-accredited, or candidate status post-secondary construction management programs in West Virginia. The closest institution to Beckley offering a Bachelor degree in Construction Management is Virginia Tech.

The Construction Management Program will seek accreditation through ABET under the Applied Science Accreditation Commission (ASAC) to remain consistent with engineering and

[2] Incudes International members beyond the United States

engineering technology programs within the Leonard C. Nelson College of Engineering and Sciences.

Program Content

The proposed Construction Management curriculum will provide an interdisciplinary education including courses in mathematics, physics, economics, and communications. Core construction management courses will cover construction methods and materials, soils and structural systems, surveying, estimating, scheduling, field and office operations, construction law, construction safety and production, and building systems. However, the curriculum is designed around project-based learning through the integrated lab approach in teaching core construction competencies (planning, scheduling, estimating, means & methods, etc.) rather than only individual silo courses. The project-based learning experiences will span the industry divisions of commercial and institutional building, residential, heavy civil, and industrial construction. This approach is intended to produce well-rounded construction professionals. The integrated approach fosters team-building, collaboration, and leadership. Practice-based deliverables serve to sharpen students' written and oral communication skills, promote critical thinking, and heighten creativity. The curriculum will also include technical coursework in BIM (Building information Modeling) and CIM (Civil Information Modeling) and related construction information technologies.

Expected Learning Outcomes

Applicants must meet the curriculum requirements required for general undergraduate admission to West Virginia University Institute of Technology. In addition to the general requirements for admission, applicants must also achieve an ACT math score of at least 19 or a SAT math score of 460 taken prior to March 2016 or a 500 SAT score taken March 2016 and after. Students that do not meet the admission standards can be considered for conditional admission. The admissions standards which currently apply to Leonard C. Nelson College of Engineering & Sciences are appropriate for incoming freshmen to the Construction Management Program. These admission standards are appropriate in terms of enrolling students who will be capable of exhibiting the listed program objectives upon graduation.

ABET ASAC Program Objectives include producing graduates who exhibit:

(a) an ability to apply knowledge of mathematics, science, and applied sciences

(b) an ability to design and conduct experiments, as well as to analyze and interpret data

(c) an ability to formulate or design a system, process, or program to meet desired needs

(d) an ability to function on multidisciplinary teams

(e) an ability to identify and solve applied science problems

(f) an understanding of professional and ethical responsibility

(g) an ability to communicate effectively

(h) the broad education necessary to understand the impact of solutions in a global and societal context

(i) a recognition of the need for and an ability to engage in life-long learning

(j) a knowledge of contemporary issues

(k) an ability to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.

Graduates of the Construction Management program will have the knowledge, as well as the technical, administrative and communication skills, necessary to succeed in the construction industry. Students will demonstrate the knowledge and skills to deliver construction projects with respect to scope, schedule, budget, quality, safety, and the environment. More specifically:

1. construction project management from pre-design through commissioning;
2. project life-cycle and sustainability;
3. health and safety, accident prevention, and regulatory compliance;
4. law, contract documents administration, and dispute prevention and resolution;
5. materials, labor and methods of construction;
6. finance and accounting principles;
7. planning and scheduling;
8. cost management including plan reading, quantity take offs and estimating;
9. project delivery methods;
10. leadership and managing people;
11. business and communication skills required for professional practice

Program Quality Assurance

The ongoing efficacy and continuous improvement of the proposed Construction Management Program will be measured and driven by a comprehensive Quality Improvement Plan (QIP). The QIP consists of program-specific Strategic Plan, Assessment Plan, and Implementation Plan, which are interdependent upon one another. The QIP shall be outcomes-based, constructed around a set of outcomes that represent behaviors, skills, and knowledge that construction management practitioners need to possess in order to thrive in their profession. The outcomes-based approach focuses on 1) learning, not teaching, 2) students, not faculty, and 3) outcomes, not inputs or capacity. The Strategic Plan establishes and guides the Assessment Plan. The Assessment Plan drives Implementation. The Assessment Plan components include tools and mechanisms for routinely collecting and analyzing direct and indirect evidence of learning. Student Learning Objectives (SLOs) will utilize the measureable Bloom's Taxonomy verbs of remembering, understanding, applying, analyzing, evaluating, and creating in line with the required core competencies identified by construction industry leaders. The curriculum shall be mapped to connect course deliverables to outcomes.

The SLOs for individual courses will be mapped to the learning outcomes promulgated by the ABET ASAC. Achievement of these ABET Learning Outcomes will enable Construction Management graduates to realize the stated Program Objectives. The ABET Leaning Outcomes are mapped to core courses for direct assessment measures based upon culminating deliverables.

The QIP shall include dynamic feedback loops intended to assure quality and ensure continuous improvement. Components of the QIP include direct assessment of learning, indirect assessment through surveys of students, graduating seniors and alumni, as well as survey feedback from employers. The QIP also includes regular evaluation and feedback from the CMAC.

Impact of Construction Management on Other Programs

The proposed Construction Management Program will contribute to the Leonard C. Nelson College of Engineering & Sciences by making elective courses available to interested students majoring in various engineering and engineering technology fields. There is an expectation that, over time, the Construction Management program will contribute towards the overall enrollment at the University and the College; therefore, the main impact on other programs is the potential increase in the enrollment of students in supporting courses. Moreover, Construction Management graduates are expected to have a profound, positive influence on the industry not merely within West Virginia, but national and globally. The influence of our graduates is certain to enhance the reach and stature of WVU Tech and the Leonard C. Nelson College of Engineering & Sciences, and contribute towards achieving the University's mission to develop active and contributing members of society.

Administrative Organization

The Construction Management program will reside in the WVU Tech Leonard C. Nelson College of Engineering & Sciences. The administrative body will include the Program Director, College Dean, and Campus Provost. Academic and curriculum issues will be addressed using the appropriate WVU policies and channels. Once formed, the WVU Tech Construction Management Advisory Council will advise the Program Director regarding academic and curriculum recommendations. There will be no changes in the institutional organization, other than to name a Program Director from among the Construction Management Faculty.

Planned Enrollment Growth

Enrollment is projected to reach 100 full-time students after five years (Fig.2). This is a conservative estimate based upon the number of students in similar programs at peer universities. Figure 3 shows the anticipated number of degrees awarded.

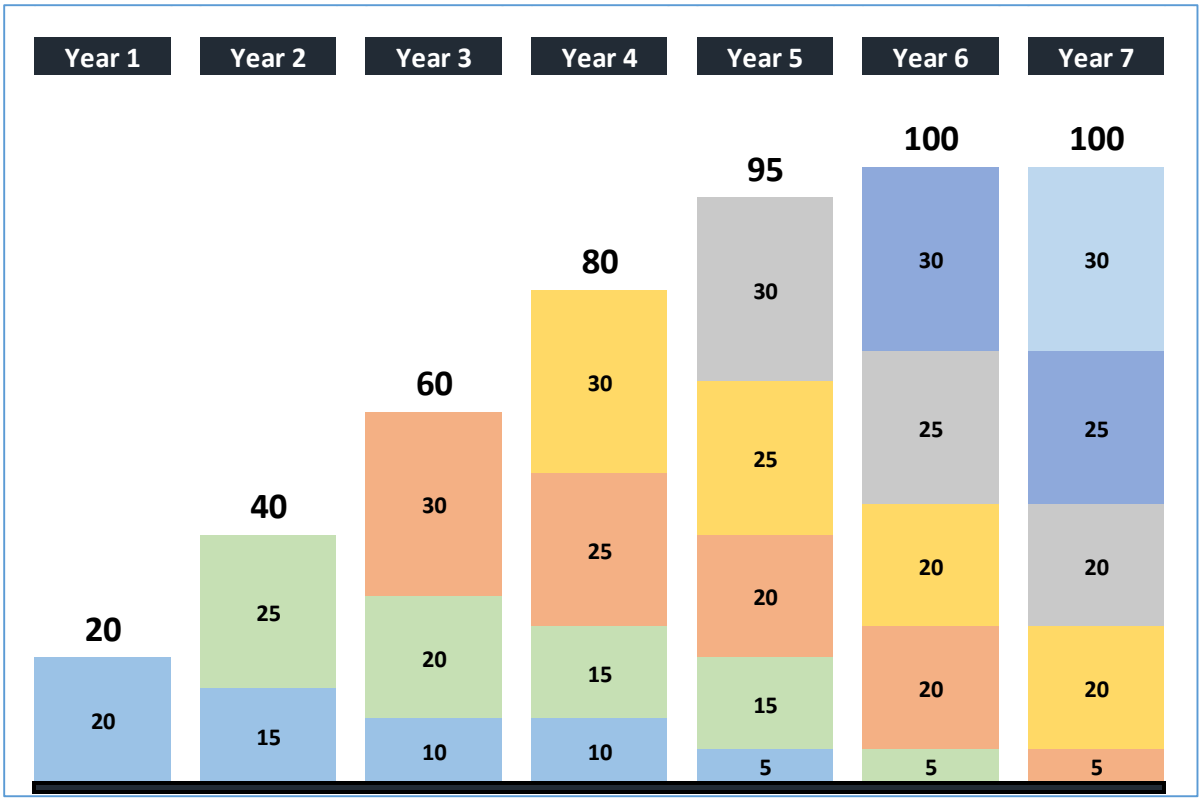

Figure 2: Projected Enrollment

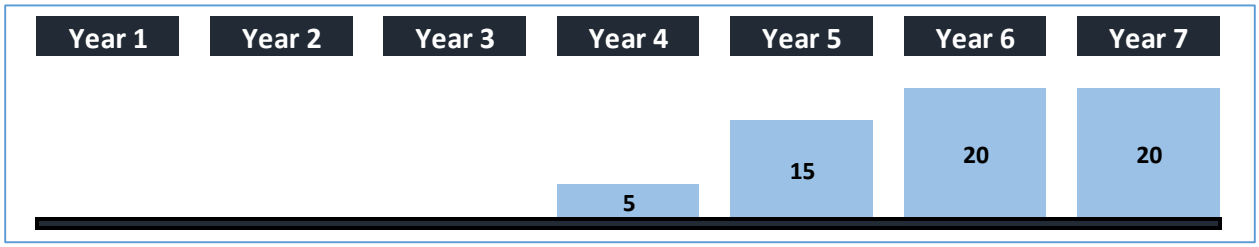

Figure 3: Projected Number of Degrees Awarded

Need for Additional Resources

The Construction Management Program will require one additional full-time, tenure track or a term appointment professor (TAP) position be hired each year for the Years 1 through 4, for a total of 4 (Fig. 4). The first new hire will be at the rank of associate/full professor and will concurrently serve as the Program Director. The rank distribution should initially be one full professor, one associate professor, and two assistant professors. All Construction Management faculty will have significant industry experience with a record of achievement as well as the requisite academic credentials.

FACULTY & STAFF	FTE
1. Full Time Faculty	4*
2. Part Time Faculty	0.5
3. Lab Technician:	0.33
4. Administrative Assistant:	0.33

* One new F-T CM faculty member will be hired through Year 0 - Year 3.

LABORATORIES	$	$	$
1. Material/Construction Methods Lab:	**Minimum**	**Good**	**State-of-the-Art**
Start-up Cost:	$300,000.00	$600,000.00	over $1 Million
2. Designated CM Computer Lab: 30 computer stations + Accessories + Software	$200,000.00		

Figure 4: Faculty, Staff, and Lab Requirements

Aspirational construction management and/or science programs located in the Southeastern United States, ASC Region 2, include:

- M. E. Rinker, Sr., School of Construction Management at the University of Florida
- McWhorter School of Building Science, Auburn University
- Myers-Lawson School of Construction, Virginia Tech

These programs provide dedicated lab space to enhance the student learning experience. This includes multi-station computer labs with state-of-the-art construction and modeling software including packages for computer-aided design, cost control, estimating, and scheduling. They also provide material and physical construction lab space.

The Charles R. Perry Construction Yard at the Rinker School, University of Florida is a 2,800-square foot demonstration area for crafts with an outdoor teaching amphitheater. Construction management students at the Rinker School receive hands on experience through in-class labs in the Charles R. Perry Construction Yard. The "Yard" includes a two-ton gantry crane and houses a 100-seat amphitheater and real-world tools and testing machines. The Yard also boasts the first green roof on the University of Florida campus. The green roof reduces the building's heating and cooling costs and reduces storm water run-off.

In addition to a fabrication shop, students in the Auburn University McWhorter School of Building Science have access to a three-acre Field Lab, which offers a unique opportunity to incorporate hands-on experiential learning to complement and enhance students' classroom lectures. The field lab is designed to provide a learning environment where lessons can be reinforced by doing instead

of just hearing. Auburn's dedicated construction education spaces include Thesis Room, Peripheral Lab, and Building Information Modeling Lab (BIM) Lab.

The Thesis Room has forty-five individual work stations, of which thirty-five are configured with dual twenty-two inch monitors with a late model Dell i7 machines. The other ten workstations are used as laptop stations where students can "check out" a laptop from the IT office for use. The Peripheral lab contains twelve Core 2 duo machines with one twenty-two-inch monitor for each computer. The BIM Lab has twenty-four late model HP Elite i7 machines with dual twenty-two inch monitors. The computers are set up into four PODS of six, and each POD faces a sixty-five-inch-wide screen TV, which is used in place of a projector in the class and enables students to see what is being projected up close. In the front of the classroom is a fifth large screen TV with a touch screen overlay so the instructor can stand at the TV and touch the screen to display different things. All three rooms are equipped color printers and plotters.

The Myers-Lawson School at Virginia Tech Virginia Tech provides students with substantial studio and collaboration space. In addition, construction students at Virginia Tech have access to three distinct lab spaces including, the BEST Lab, BuildLAB, and Virtual Facilities Lab. The Building Enclosure and Systems Technologies, or BEST Lab enables students to engage with faculty and industry partners to investigate and analyze building systems performance. This includes mechanical, electrical, and lighting systems and a specific focus on building enclosure systems and their interrelated thermal, hygrothermal, and acoustic performance.

The BuildLAB provides students with access to physical assets such as tools, materials, and equipment; as well as the not-so-physical in the form of an experimental environment whose purpose is to foster and support innovation of all kinds. Virtual Facilities Lab provides the opportunity for research in the applied use of Building Information Modeling across the facility lifecycle.

It is expected that the WVU Tech Construction Management Program will provide designated computer lab space with the appropriate hardware and software and support peripherals. The Program should also house dedicated physical lab space to provide hand-on learning opportunities related to materials, means and methods, fabrication, process improvement, and most importantly, safety.

Budget and Net Income Projections

Budget and Net Income projections are shown below (Fig.5). It is anticipated that the tuition and fee revenue will exceed the direct expenses in the second year of the program.

BUDGET							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
A: Faculty Salaries (Base)							
Program Director (Associate/Full Profes	$90,000	$91,800	$93,636	$95,509	$97,419	$99,367	$101,355
Assistant Professor		$70,000	$71,400	$72,828	$74,285	$75,770	$77,286
Assistant Professor			$70,000	$71,400	$72,828	$74,285	$75,770
Assistant Professor				$70,000	$71,400	$72,828	$74,285
Program Assistant (1/3)	$12,000	$12,240	$12,485	$12,734	$12,989	$13,249	$13,514
Total Salaries	$102,000	$174,040	$247,521	$322,471	$328,921	$335,499	$342,209
Adjuncts		$5,000	$10,000	$10,000	$10,000	$10,000	$10,000
Fringe Benefits (28%)	$28,560	$48,731	$69,306	$90,292	$92,098	$93,940	$95,819
B: Start-Up Computer/Software Cos	$50,000	$50,000					
C: Operating Budget:	$20,000	$20,600	$21,218	$21,855	$22,510	$23,185	$23,881
TOTAL:	**$200,560**	**$298,371**	**$348,045**	**$444,618**	**$453,529**	**$462,624**	**$471,909**

NET INCOME							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Gross Tuition and Fee Revenue	197,395	418,745	666,513	943,368	1,189,596	1,330,134	1,413,306
T&F Discounting(20%)	(39,479)	(83,749)	(133,303)	(188,674)	(237,919)	(266,027)	(282,661)
Total Revenue	**157,916**	**334,996**	**533,210**	**754,695**	**951,676**	**1,064,107**	**1,130,645**
Expenses:							
Salaries/Wages	102,000	174,040	247,521	322,471	328,921	335,499	342,209
Fringe Benefits	28,560	48,731	69,306	90,292	92,098	93,940	95,819
Supplies and Other Services:							
Adjuncts	-	5,000	10,000	10,000	10,000	10,000	10,000
Start-Up/Computer Software	50,000	50,000	-	-	-	-	-
Operating Budget	20,000	20,600	21,218	21,855	22,510	23,185	23,881
Total Expenses	**200,560**	**298,371**	**348,045**	**444,618**	**453,529**	**462,624**	**471,909**
NET INCOME	**(42,644)**	**36,625**	**185,166**	**310,077**	**498,148**	**601,483**	**658,736**

Figure 5: Budget and Net Income Projections for Years 1-7

Catalog Description
Bachelor of Science in Construction Management

Construction Management is an exciting field and rewarding career choice. Professional construction managers earn excellent salaries and derive great satisfaction working in any one of the many sectors of the construction industry. Construction is the second largest industry in the United States with over $1 trillion in total volume, accounting for approximately 8% of the nation's GDP. It is the industry responsible for constructing the buildings and infrastructure that are so vital to the quality of life.

Construction is a technically driven, complex business that requires knowledgeable, highly-skilled managers to lead operations. There is and will be a continuing demand for professional construction managers. Construction management practitioners work in various construction organizations such as CM firms, general contractors, specialty contractors, design-builders, consulting engineers, architects, and real estate developers. Construction Management practitioners are also employed in various capacities representing project owners, suppliers, regulators, lenders, and other stakeholders involved with construction. Positions include project managers, coordinators, estimators, schedulers, safety specialists, business development managers, and many others. Some rise to senior level executive positions, while others own and operate their own firms.

Curriculum (Total of 121 credit hours)

General Education Foundations

Commencing Fall 2016, students enrolled at WVU Institute of Technology are required to fulfill General Education Foundations (GEF) curriculum requirements. Construction Management majors will complete 34 credits in the following courses to satisfy the GEF curriculum requirements:

GEF 1 English (6 credits)

- ENGL 101 Composition & Rhetoric (3/6)
- ENGL 102 Composition & Rhetoric (6/6)

GEF 2 Science & Technology (4 credits)

- PHYS 101 Introductory Physics I (4/4)

GEF 3 Mathematics & Quantitative Skills (3 Credits)

- MATH 126 College Algebra (3/3)

GEF 4 Society & Connections (3 credits)

- ECON 225 Elementary Business & Economics Statistics (3/3)

GEF 5 Human Inquiry & the Past (3 credits)

- PHIL 170 Introduction to Critical Reasoning (3/3)

GEF 6 The Arts & Creativity (3 credits)

- The Arts & Creativity Elective (3/3)

GEF 7 Global Studies & Diversity (3 credits)

- Global Studies & Diversity Elective (3/3)

GEF 8 Focus (9 credits)

- MATH 128 Plane Trigonometry (3/9)
- ECON 201 Principles of Microeconomics (6/9)
- PHYS 102 Introductory Physics II (4)(9/9)

Construction Management Core Courses (64 credits)

- CMGT 101 Introduction to Construction Management (3)
- CMGT 110 Computer Applications for Construction (4)
- CMGT 120 Analytical Techniques for Construction (3)
- CMGT 150 Construction Graphics (3)
- CMGT 210 Statics & Strength of Materials (3)
- CMGT 220 Construction Methods & Materials I (3)
- CMGT 225 Construction Methods & Materials II (3)
- CMGT 230 Construction Survey & Layout (3)
- CMGT 240 Soils & Foundations (3)
- CMGT 320 Mechanical Building Systems (3)
- CMGT 330 Electrical Building Systems (3)
- CMGT 340 Construction Planning & Scheduling (3)
- CMGT 350 Construction Estimating (3)
- CMGT 360 Construction Law & Contract Administration (3)
- CMGT 370 Construction Safety & Production Systems (3)
- CMGT 380 Residential Construction Practice (3)
- CMGT 410 Construction Finance & Cost Control (3)
- CMGT 420 Management of Construction Operations (3)
- CMGT 430 Commercial Construction Practice (Studio) (3)
- CMGT 440 Heavy Construction Practice (Studio) (3)
- CMGT 460 Management of the Construction Firm (3)

Construction Management Electives (9 credits)

- CMGT 450 Industrial Practice Studio (3)
- CMGT 465 BIM in Construction Management (3)
- CMGT 466 Marketing Construction Services (3)
- CMGT 467 Facilities Management (3)
- CMGT 468 Temporary Structures (3)

Construction Management Program of Study

COURSE	DESCRIPTION	CH
ENGL 101	Composition & Rhetoric	3
WVUE-191	First Year Seminar	1
MATH 126	College Algebra	3
CMGT 101	Introduction to Construction Management	3
CMGT 110	Computer Applications for Construction	4
		14

COURSE	DESCRIPTION	CH
ENGL 102	Composition & Rhetoric	3
MATH 128	Plane Trigonometry	3
PHYS 101	Introductory Physics I	4
CMGT 120	Analytical Techniques for Construction	3
CMGT 150	Construction Graphics	3
		16

COURSE	DESCRIPTION	CH
CMGT 210	Statics & Strength of Materials	3
ECON 201	Principles of Microeconomics	3
CMGT 220	Construction Methods & Materials I	3
CMGT 230	Construction Survey & Layout	3
PHIL 170	Introduction to Critical Reasoning	3
		15

COURSE	DESCRIPTION	CH
CMGT 250	Structural Systems	3
ECON 225	Elem. Business and Economics Statistics	3
PHYS 102	Introductory Physics II	4
CMGT 225	Construction Methods & Materials II	3
CMGT 240	Soils & Foundations	3
		16

CMGT 320	Mechanical Building Systems	3
CMGT 330	Electrical Building Systems	3
CMGT 340	Construction Planning & Scheduling	3
ENGL 305	Technical Writing	3
	Global Studies & Diversities	3
		15

CMGT 350	Construction Estimating	3
CMGT 360	Construction Law & Contract Administrati	3
CMGT 370	Construction Safety & Production Systems	3
CMGT 380	Residential Construction Practice	3
	The Arts & Creativity	3
		15

CMGT 410	Construction Finance & Cost Control	3
CMGT 420	Management of Construction Operations	3
CMGT 430	Commercial Construction Practice	3
	CMGT Elective #1	3
	Business Elective #1	3
		15

CMGT 440	Heavy Construction Practice	3
CMGT 460	Management of the Construction Firm	3
	CMGT Elective #2	3
	CMGT Elective #3	3
	Business Elective #2	3
		15

Course Descriptions

CMGT 101 Introduction to Construction Management (3-0)3
Introduction to construction management including industry divisions and sectors, stakeholders, organization structures, project delivery methods, and contracting. Overview of the roles of management and the trades, resources, safety, environmental issues, ethics, and codes, standards, and regulations.

CMGT 110 Computer Applications for Construction (3-3)4
Utilization of spreadsheets, charts and tables for problem-solving and creating reports and presentations required for construction management. Overview of information technology in construction including software and hardware.

CMGT 120 Analytical Techniques for Construction (3-0)3
Qualitative and quantitative methods for problem solving and decision making for construction professionals. Quantitative techniques include time value of money concepts, benefit-cost analysis, break-even analysis, discounted payback, and the application of decision trees applied to problems typically encountered in construction management. Qualitative analysis tools include ranking, root cause analysis techniques such as the 5 Whys and A3 problem solving.

CMGT 150 Construction Graphics (2-3)3
Basics of reading and interpreting construction drawings. Includes graphics and symbols for site work, foundations, framing, interior and exterior finishes, and electrical and mechanical systems. Manual sketching and use of CAD to prepare details of building and site details, and introduction to 3D modeling and BIM.

CMGT 210 Statics & Strength of Materials (3-0)3
(PHYS 101)
Introduction to statics and mechanics of materials for constructors. Topics include forces, static equilibrium, the concepts of stress and strain, elastic deformation, and mechanical properties of materials. Graphical techniques include free body diagrams along with moment and shear diagrams.

CMGT 220 Construction Methods & Materials I (2-3)3
Introduction to building materials including wood and timber, earth products, concrete, and masonry. Topics include lumber and engineered wood products, fasteners, aggregates, concrete production, cast-in-place and precast concrete, concrete block, brick, and stone masonry. Mechanical and non-mechanical properties, production, and installation of these materials are discussed with consideration of safety, sustainability, and quality.

CMGT 225 Construction Methods & Materials II (2-3)3
(CMGT 220)
Content covers steel and nonferrous metals, glass, polymers and roofing and waterproofing materials. Topics include steel framing, cladding, curtain wall construction, roofing systems, and architectural finishes. Mechanical and non-mechanical properties, production, and installation of these materials are discussed with consideration of safety, sustainability, and quality.

CMGT 230 Construction Survey & Layout (2-3)3
(MATH 128)
Basics of land surveying and layout for building and infrastructure construction. Topics include distance and angular measurement, leveling, total station, lasers, GPS field procedures, and robotics. The traverse, layout techniques, and construction control are addressed including an

introduction to horizontal and vertical curves. The course opens with a brief review of basic trigonometry and coordinate geometry.

CMGT 240 Soils & Foundations for Constructors (2-3)3
(CMGT 210)
Overview for construction practitioners that begins with basic soil classifications and behavior, through soil mechanics, and ultimately foundations. Topics include soil exploration, compaction and consolidation, stabilization, water flow, subsurface stresses and shear strength of soil, and shallow and deep foundations. Lateral earth pressure and retaining structures will also be discussed.

CMGT 250 Structural Systems (3-0)3
(CMGT 210)
Overview of structural systems for constructors. Topics include determining load paths in structural systems and the analysis and design of wood, steel, and concrete components. These includes beams, columns, and trusses.

CMGT 320 Mechanical Building Systems (3-0)3
(PHYS 101)
Fundamentals of mechanical systems design and installation for buildings. Topics include heating, ventilating, and air conditioning (HVAC); drain, waste, vent (DWV) systems; water supply, fire protection, and strormwater management. The course opens with a brief review of heat transfer and fluid flow. Life-cycle costs, energy efficiency, and sustainability are reoccurring themes throughout the course.

CMGT 330 Electrical Building Systems (3-0)3
(PHYS 102)
Fundamentals of electrical and lighting system design and installation for buildings. Topics include generation, transmission, and distribution of electricity; building power requirements, electrical circuits and wiring, conduit, appliances and devices, direct and indirect lighting, and controls. The course begins with a brief review of the basics of electricity and light and concludes with a discussion of commissioning of building systems.

CMGT 340 Construction Planning & Scheduling (2-3)3
(CMGT 101, CMGT 150, CMGT 225)
Content covers construction planning, scheduling, network systems, and communications required for project execution and control. It includes designing construction activities, logic diagramming, computing durations, and identifying resource requirements. Scheduling techniques presented are Critical Path Method (CPM), Location-Based Management System (LBMS), and Last Planner System (LPS). Brief introduction of commercially available scheduling software.

CMGT 350 Construction Estimating (2-3)3
(CMGT 101, CMGT 150, CMGT 225)
Intended to develop knowledge and skill in the estimating process from takeoff through preparation of the final bid. Introduction to conceptual estimating, developing unit prices; markups for overhead, contingency, and profit; and ethical practice. Includes a brief introduction to commercially available estimating software.

CMGT 360 Construction Law & Contract Administration (3-0)3
(Junior or senior status)
Construction law topics covering contracts, torts, and statutory law. Topics include contract documents and specifications, liability, claims, and liens. Ethical practice and risk management are underlying and reoccurring themes.

CMGT 370 Construction Safety & Production Systems (3-0)3
(CMGT 150 and CMGT 225)
Concurrent design of safety and production systems. Topics include design of safe, effective, and reliable construction processes; integration of prefabricated and precast elements, safe ingress, egress, and access to the workface, and stable workflow. Reoccurring themes include continuous improvement, respect for people, elimination of waste, reducing variability and increasing plan reliability.

CMGT 380 Residential Construction Practice (Studio) (2-4)3
(CMGT 225)
Studio course applying construction management knowledge and tools to developing and constructing single and multifamily projects. Project life cycle includes conceptualization and feasibility, preconstruction service, construction, and closeout. Introduction and application of the Value Management framework. The course culminates with a report and presentation.

CMGT 410 Construction Finance & Cost Control (3-0)3
(CMGT 120 and CMGT 350)
Overview of financial and accounting practices applied to construction projects and company management. Topics include financing construction projects, cash flow, budgeting, capturing and analyzing cost data, and time value of money in decision making. Ethical practice is an underlying and reoccurring theme.

CMGT 420 Management of Construction Operations (3-0)3
(Senior status)
Addresses the execution and control of construction operations in the field and office. Topics include procurement, production control, site logistics, communication and stakeholder management, change management, tracking progress, and project closeout. Safety, quality, reliability, and ethical practice are reoccurring themes.

CMGT 430 Commercial Construction Practice (Studio) (2-4)3
(CMGT 350, CMGT 360, CMGT 370, CMGT 380)
Studio course applying construction management knowledge and tools to developing and constructing commercial or institutional building projects. Project life cycle includes conceptualization and feasibility, preconstruction service, construction, and closeout. Application of the Value Management framework. The course culminates with a report and presentation.

CMGT 440 Heavy Construction Practice (Studio) (2-4)3
(CMGT 350, CMGT 360, CMGT 370, CMGT 380)
Studio course applying construction management knowledge and tools for constructing heavy infrastructure projects. Project life cycle includes preconstruction, construction, and closeout. The course introduces bridges, pavements, utilities, and heavy equipment applications. The course culminates with a report and presentation.

CMGT 450 Industrial Construction Practice (Studio) (2-4)3 (Electives)
(CMGT 350, CMGT 360, CMGT 370, CMGT 380)
Studio course applying construction management knowledge and tools for constructing industrial projects. Such projects include power plants, manufacturing facilities, and petrochemical plants. Project life cycle includes preconstruction, construction, and startup. The course introduces heavy vessel and equipment installation, process piping, and controls for electromechanical systems. The course culminates with a report and presentation.

CMGT 460 Management of the Construction Firm (3-0)3
(CMGT 360)
Application of management principles to construction firm operations. Topics include strategic planning and management techniques for long-term planning and management of the firm. Ethical practice and risk management are underlying and reoccurring themes.

CMGT 465 BIM in Construction Management (2-3)3 (Elective)
(Senior status)
Application of building information modeling software to model building and infrastructure systems and construction processes. Computerized BIM applications include integration of prevailing commercially available software.

CMGT 466 Marketing Construction Services (3-0)3 (Elective)
(CMGT 350)
Application of marketing principles to the construction industry. Topics include market research, developing marketing strategy, and business development techniques.

CMGT 467 Facilities Management (3-0)3 (Elective)
(CMGT 320 and CMGT 330)
Integration of business administration principles with building systems operations. Topics include facilities planning, budgeting, real estate transactions, construction, emergency preparedness, security, operations, and maintenance.

CMGT 468 Temporary Structures (3-0)3 (Electives)
(CMGT 240 and CMGT 250)
Analysis, design and installation of temporary structures required to facilitate construction flow. These include scaffolding, concrete formwork, falsework, and support of excavation.

West Virginia Higher Education Policy Commission
Meeting of January 19, 2018

ITEM:	Approval of Series 12, Legislative Rule, Capital Project Management
INSTITUTIONS:	All
RECOMMENDED RESOLUTION:	*Resolved*, That the West Virginia Higher Education Policy Commission approves the revisions to Series 12, Legislative Rule, Capital Project Management.
STAFF MEMBER:	Ed Magee

BACKGROUND:

Series 12, Capital Project Management, is the legislative rule that establishes policy for the development of a state-level facilities plan and funding mechanism for all public institutions, except for those institutions defined by the West Virginia Code as "exempted schools". The exempted schools are West Virginia University, including Potomac State College of West Virginia University and West Virginia University Institute of Technology; Marshall University; and the West Virginia School of Osteopathic Medicine.

At its November 17, 2017 meeting, the Commission approved proposed revisions to Series 12 for filing with the West Virginia Secretary of State for a thirty-day public comment period. One individual provided comments during the comment period which ended December 20, 2017 and are outlined below. Series 12 is being updated in response to suggestions received during the comment period. The revisions align the rule with requirements enacted by House Bill 2815, adopted during the 2017 Legislative Session.

Comment:

House Bill 2815 provides a statutory exemption for institutions that meet the following conditions and are not subject to the project management requirements of the Commission if they:

1. Employ at least one Leadership in Energy and Environmental Design (LEED) certified administrator; and
2. Employ at least one Certified Facilities Manager (CFM), as credentialed by the International Facility Management Association or employs at least one Project Management (PMP), as certified by the Project Management Institute. The exempted schools are not subject to the provisions of this rule.

Response:

Revisions to Series 12 are proposed in Section 8.3 clarify this exemption.

Comment:

The commenter stated that it was not possible to identify a single proposed amendment to Series 12, which in any manner reflects the Legislative directive to operate the Higher Education Facilities Information System (HEFIS) "…without burdening or interfering unnecessarily with the governance responsibilities which are placed upon the governing boards".

Response:

The design of the HEFIS is described in the System Facilities Capital Development Plan. As the system was developed, opportunities were identified to reduce the burden and any unnecessary interference related to institutional reporting requirements for the system's data. For HEFIS, the following features were incorporated into the system:

1. The system uses property information extracted from the West Virginia Board of Risk and Insurance Management's data system rather than requiring the institutions to submit the information. Most of the HEFIS data is included in this extract.

2. The system uses data already residing in institution's Banner student systems. The Commission created a program for the institutions to extract the data.

3. The code requirement to provide a vehicle for institutions to submit capital appropriation requests to the Commission and Council was satisfied by utilizing the OASIS appropriation request module.

4. The following data elements required by Code are not required by the Rule:

A. Room numbers not available from Banner
B. Room square feet
C. Major capital project information

Major capital project information may be found in the institutions' annual audited financial statement footnotes.

These specific features demonstrate that the Commission and Council made a good-faith effort to design the HEFIS to minimize the institutions' reporting burden and not interfere unnecessarily with the governance responsibilities which are placed upon the governing boards. In addition, West Virginia Code §18B-3-3 already requires governing boards to provide the Commission and Council all

information requested about any subject.

Staff recommends approval of the additional revisions to Series 12, for filing with the Secretary of State.

TITLE 133
LEGISLATIVE RULE
WEST VIRGINIA HIGHER EDUCATION POLICY COMMISSION

SERIES 12
CAPITAL PROJECT MANAGEMENT

§133-12-1. General.

1.1. Scope. This rule establishes the policy for the strategic planning, financing, development, and maintenance of public higher education capital assets.

1.2. Authority. West Virginia Code §18B-1-6 and §18B-19-17.

1.3. Filing Date. ~~March 31, 2015.~~

1.4. Effective Date. ~~April 30, 2015.~~

1.5. ~~Repeal of Former Rule. Repeals and replaces Title 133 Series 12, Capital Project Management, filed November 20, 2001 and effective December 25, 2001.~~Sunset Date. – This rule shall terminate and have no further force or effect upon the expiration of five years from its effective date.

§133-12-2. Purpose.

2.1. The purpose of this rule is to provide the West Virginia Higher Education Policy Commission (Commission) and the West Virginia Council for Community and Technical College Education (Council) authority to establish policies and procedures to meet the legislative objective stated in West Virginia Code §18B-1D-3 for the development of a state-level facilities plan and funding mechanism except for the exempt institutions that are not subject to this rule. The plan and funding mechanism must reduce the obligation of students and parents to bear the cost of higher education capital projects and facilities maintenance. The implementation of the plan must result in the following outcomes:

2.1.a. Development by the Commission and Council of a compact with elected state officials to fund a significant portion of higher education capital project needs from dedicated state revenues;

2.1.b. Development by the Commission and Council of a system to establish priorities for institution capital projects in a manner that is consistent with state public policy goals for higher education;

2.1.c. Implementation of facilities maintenance plans by institutions to ensure that maintenance needs are not deferred inappropriately;

2.1.d. Efficient use of existing classroom and other space by institutions;

2.1.e. New capital funding is applied effectively to projects that have a demonstrated need for new facilities or major renovations;

2.1.f. The cost of operating and maintaining the facilities and physical plants of institutions are appropriate for the size and mission of the institution; and

2.1.g. Capital and facilities maintenance planning that gives careful consideration to the recommendations arising from the committee established by the Joint Committee on Government and Finance for the purpose of making a specific and detailed analysis of higher education capital project and facilities maintenance needs.

§133-12-3. Definitions.

3.1. ADA. Americans with Disabilities Act of 1990, 42 U.S.C. §12101, *et seq*.

3.2. Alteration. Projects addressing changing use of space.

3.3. Asset preservation. Projects that preserve or enhance the integrity of building systems or building structure, or campus infrastructure.

3.4. Auxiliary enterprise. An entity that exists to furnish goods or services to students, faculty, staff or others; charges a fee directly related to, although not necessarily equal to, the cost of the goods or services; and is managed as essentially self-supporting.

3.5. Auxiliary facility. A building or structure that is used for an auxiliary enterprise including, but not limited to, residence halls, food services, parking, intercollegiate athletics, faculty and staff housing, student unions, bookstores and other service centers.

3.6. Auxiliary fees. Funds derived from, but not limited to, the following sources:

3.6.a. Parking fees received from any source;

3.6.b. Revenues received from athletic events, including ticket sales, television revenues and skybox fees;

3.6.c. Bookstore revenues except revenues from bookstore commissions from a private entity, which must be set aside for non-athletic scholarship funds;

3.6.d. Student union vendor and user fees;

3.6.e. Donations or grants from any external source;

3.6.f. Facility rental fees; and

3.6.g. Fees assessed to students to support auxiliary enterprises.

3.7. Board of Governors. The board of governors of public higher education institutions not defined as "exempt schools" as defined in this rule.

3.~~7~~8. Building envelope. Any work done to the exterior of an individual building, including windows, brick repointing, exterior doors and other exterior components.

3.~~8~~9. Building systems. Any work done on the mechanical, HVAC, electrical, plumbing, and other building systems within individual buildings.

3.~~9~~10~~.~~ Capital planning. A purposeful activity that focuses attention on long term physical plant objectives which should be accomplished in a logical sequence over time as opportunities arise and resources become available.

3.1~~0~~1. Capital project management. Planning, designing, bidding and providing construction administration and oversight of architectural, engineering and construction contracts and projects.

3.1~~1~~2. Capital projects. The construction or renovation of a fixed asset, including buildings, fixed equipment and infrastructure.

3.13. Confirmation. when used in reference to action by the Commission, means action in which substantial deference is allocated to the governing authority of a governing board under its jurisdiction and the action of the Commission is to review whether the proposed institutional action is consistent with law and established policy.

3.1~~2~~4. Cost. The total dollar amount of a capital improvement including real property acquisition, legal fees, construction and labor, whether consisting of state dollars or alternative third party financing.

3.1~~3~~5. Debt structure. The mix of an institution's long term debt. Debt includes bond issues, notes payable and capital leases payable.

3.1~~4~~6. Deferred maintenance. Repair, maintenance and renewal of capital facilities which should be part of normal maintenance management, but which have been postponed to a future budget cycle or until funds become available.

3.1~~5~~7. Economic operations. Projects that result in a reduction of annual operating costs or capital savings.

3.1~~6~~8. Educational and general capital fees. The fees collected from students to pay debt service for capital improvement bonds issued by the Commission and governing boards for educational and general facilities, for the maintenance of those facilities and to fund capital improvements in those facilities on a cash basis.

3.1~~7~~9. Educational and general facility. A building or structure used for instruction and instructional support purposes, and includes classroom, laboratory, library, computer laboratory, faculty and administrative office and other academic support spaces.

3.20. Exempted Schools. West Virginia University, including West Virginia University Potomac State College and West Virginia University Institute of Technology; Marshall University; and the West Virginia School of Osteopathic Medicine.

3.~~18~~21. Extraordinary circumstance. A situation involving life-safety issues, issues that would result in extensive damage to a facility if not addressed immediately, any unforeseen opportunity to use external funds, or any other situation the Commission or Council determines should warrant special consideration.

3.~~19~~22. Facilities maintenance expenditures. The expenditures for activities related to routine repair and maintenance of buildings and other structures, including normally recurring repairs and preventive maintenance.

3.2~~0~~3. Facilities maintenance to capital expenditure ratios. The annual facilities maintenance expenditures divided by the capital expenditures reported in the institution's annual financial statements capital assets footnote.

3.2~~1~~4. Grounds infrastructure. Any work done to the hardscape and softscape on campus. Examples include signage, sidewalks, roads and flower beds.

3.2~~2~~5. Governing board, state institution of higher education, and institution under the jurisdiction of the Commission or Council. All state institutions of higher education including Marshall University and West Virginia University and their respective governing boards.

3.2~~3~~6. Life-safety. A condition existing on a campus that, if not corrected immediately, would jeopardize the safety and property of students, faculty, staff and the visiting public.

3.2~~4~~7. Life/Safety/Code. Code compliance issues and institutional safety priorities or items that are not in conformance with current codes, even though the system is "grandfathered" and exempt from current code.

3.2~~5~~8. Maintenance. The work necessary within a budget cycle to realize the originally anticipated life of a fixed asset, including buildings, fixed equipment and infrastructure.

3.2~~6~~9. Modernization. The replacement of components before the end of their life expectancy.

3.~~27~~30. New construction. The creation of new stand-alone facilities or the creation of an addition to an existing facility.

3.28~~31~~. Physical plant age ratio. The annual financial statement's accumulated depreciation divided by depreciation expense. The ratio estimates institutional deferred maintenance as well as the operating efficiency of the existing plant facilities.

3.~~29~~32. Physical plant package. The type of renovation or improvement.

3.3~~0~~3. Program improvement. Projects that improve the functionality of space, primarily driven by academic, student life and athletic programs or departments. These projects are also issues of campus image and impact.

3.3~~1~~4. Project backlog. The list of capital projects that have not been funded.

3.3~~2~~5. Reliability. Issues of imminent failure or compromise to the system that may result in interruption to program or use of space.

3.3~~3~~6. Repair/Maintenance. The replacement of components that have failed or are failing, or planned replacement at the end of a component's life expectancy.

3.3~~4~~7. Replacement value. The cost to replace an item on the present market.

3.3~~5~~8. Renovation. Enhancements made to restore or renew a building or building component.

3.3~~6~~9. Space renewal. Any work done on interior spaces that does not impact any of the building's core systems. This would include painting, carpet replacement, fixture replacement and furniture renewal.

3.~~37~~40. Staffing ratios. The facilities management staffing ratios defined by the American Association of Physical Plant Administrators to calculate facilities performance indicator.

3.~~38~~41. State capital funding. Financial resources provided from state government revenues or debt financing exclusive of funds from higher education sources.

3.~~39~~42. Synthetic financial products. Financial products that are primarily used to manage interest rate risk or asset/liability balance.

3.~~40~~3. Transitional. Physical facilities that require a full renovation, adaptive reuse or demolition.

3.~~41~~4. Utility infrastructure. Projects completed on components of the energy distribution systems outside of the building. This would include steam lines, central plant, water lines and electrical lines and other utility components.

§133-12-4. System Capital Development Planning.

4.1. By December 31, 201~~4~~7, the Commission and Council shall, jointly or separately, develop a system capital development ~~plan~~ oversight policy for approval by the Legislative Oversight Commission on Education Accountability. This ~~plan~~ oversight policy must include the following constraints:

4.1.a. State capital funding will focus on educational and general capital improvements, not capital projects.

4.1.b. Renovations of existing buildings will generally receive greater consideration for state funding than new construction.

4.1.c. Institutions will fund maintenance and deferred maintenance needs as the Legislature increases funding for new education and general capital improvements and major renovations and supplants existing educational and general debt.

4.1.d. The effect of additional debt loads on students and the financial health of institutions will be considered.

4.1.e. State capital funding and institutional capital fees will be used primarily for maintenance and deferred maintenance needs.

4.1.f. Institutions will not be rewarded with state capital funding if they neglect to address facilities maintenance needs or do not prudently manage their capital resources.

4.2. At a minimum, the system capital development ~~plan~~ oversight policy will include the following:

4.2.a. System goals for capital development.

4.2.b. An explanation of how system capital development goals align with established state goals, objectives and priorities and with system master plans.

4.2.c. A ~~process~~ description of how the Commission and Council will prioritize their recommendations for prioritizing capital projects for state funding based on their ability to further state goals, objectives and priorities and system capital development goals. The following data elements will be used for this process:

4.2.c.1. Physical plant needs segregated by the following asset groups:

4.2.c.1.A. Education and general.

4.2.c.1.B. Auxiliary.

4.2.c.1.C. Transitional.

4.2.c.2. Physical plant needs by project category:

4.2.c.2.A. Repair/ Maintenance.

4.2.c.2.B. Modernization.

4.2.c.2.C. Alteration.

4.2.c.2.D. New Construction.

4.2.c.3. Physical plant investment needs segregated by the following categories:

4.2.c.3.A. Reliability.

4.2.c.3.B. Asset Preservation.

4.2.c.3.C. Program Improvement.

4.2.c.3.D. Economic Operations.

4.2.c.3.E. Life/Safety/Code.

4.2.c.3.F. New Construction.

4.2.c.4. Physical plant package needs segregated by the following categories:

4.2.c.4.A. Building Envelope.

4.2.c.4.B. Building Systems.

4.2.c.4.C. Life/Safety/Code.

4.2.c.4.D. Space Renewal.

4.2.c.4.E. Utility Infrastructure.

4.2.c.4.F. Existing Grounds Infrastructure.

4.2.c.4.G. New Construction.

4.2.d. A building renewal formula to calculate a dollar benchmark that shall be collected annually and invested in facilities to minimize deferred maintenance and to provide the Commission and Council

objective information to determine if the investments in maintenance are occurring. The following components will be included in the formula:

4.2.d.1. A net asset value for each building determined by using the following formula:

$$NAV = \frac{ReplacementValue - ProjectBacklog}{ReplacementValue}$$

4.2.d.2. Space utilization percentage.

4.2.d.3. Square feet.

4.2.d.4. Needs segregated by:

4.2.d 4.A. Asset Group.

4.2.d.4.B. Project Category.

4.2.d.4.C. Investment Needs.

4.2.d.4.D. Physical Plant Package.

4.2.d.5. Funding will be prioritized for each institution in accordance with approved institutional plans.

4.2.d.6. Facility utilization rates will be used to prioritize capital projects across the systems.

4.2.d.7. Institutions with overall net asset values and capacity utilization rates that exceed or equal thresholds set annually by the Commission and Council may request funds for new facilities. If these projects do not replace an existing facility, they would be included in the Program Improvement category.

4.2.d.8. Capital project funds will be distributed to institutions for capital projects in the following investment category order:

4.2.d.8.A. Reliability.

4.2.d.8.B. Life/Safety/Code.

4.2.d.8 C. Asset Preservation.

4.2.d.8.D. Program Improvement.

4.2.d.8.E. Economic Operations.

4.2.d.8.F. New Construction.

4.2.d.9. Institutions may request funding for new facilities that replace aged and obsolete structures. The investment categories will be used to analyze the cost of the improvements resulting from the new construction.

4.2.d.10. An aggregate net asset value percentage change resulting from the proposed funding will be calculated for each institution.

4.2.e. A process for governing boards to follow in developing and submitting campus development plans to the ~~Commission and~~ Council for approval and confirmation by the Commission; and

4.2.f. A process for governing boards to follow to ensure that sufficient revenue is generated for and applied toward facilities maintenance. This process will incorporate the following benchmark comparisons:

4.2.f.1. Facilities maintenance expenditures.

4.2.f.2. Facilities maintenance to capital expenditure ratios.

4.2.f.3. Net Asset Value.

4.2.f.4. Facility staffing ratios.

4.2.f.5. Physical plant age ratios.

4.3. The system capital development plan shall be created in consultation with governing boards and appropriate institution staff. Before approving the system capital development plan, the Commission and Council shall afford interested parties an opportunity to comment on the plan through a notice-and-comment period of at least thirty days. ~~The Commission will approve capital development plans for Council institutions only after the Council has approved these plans.~~

4.4. The Commission and Council shall update its system capital development plan at least once in each ten-year period.

§133-12-5. Campus Development Plan.

5.1. Each governing board shall update its current campus development plan and submit the updated plan to the ~~Commission or~~ Council for approval or the Commission for confirmation ~~by June 30, 2015~~. A campus development plan shall be developed for a ten-year period and shall align with criteria specified in the following sources:

5.1.a. The system capital development ~~plan~~ oversight policy;

5.1.b. The institution's approved master plan and compact; and

5.1.c. The current campus development plan objectives.

5.2. Campus development plans are intended to be aspirational; however, an institution's plan shall be appropriate to its size, mission, and enrollment and to the fiscal constraints within which the institution operates. At a minimum the campus development plan shall include the following:

5.2.a. The governing board's development strategy;

5.2.b. An assessment of the general condition and suitability of buildings and facilities using the following data elements:

5.2.b.1. Physical plant needs segregated by the following asset groups:

5.2.b.1.A. Educational and general.

5.2.b.1.B. Auxiliary.

5.2.b.1.C. Transitional.

5.2.b.2. Physical plant package needs segregated by the following by project categories:

5.2.b.2.A. Repair/Maintenance.

5.2.b.2.B. Modernization.

5.2.b.2.C. Alteration.

5.2.b.2.D. New Construction.

5.2.b.3. Physical plant package investment needs segregated by the following categories:

5.2.b.3.A. Reliability.

5.2.b.3.B. Asset Preservation.

5.2.b.3.C. Program Improvement.

5.2.b.3.D. Economic Operations.

5.2.b.3.E. Life Safety/Code.

5.2.b.3.F. New Construction.

5.2.c.3. Physical plant package needs segregated by the following categories:

5.2.b.4.A. Building Envelope.

5.2.b.4.B. Building Systems.

5.2.b.4.C. Life/Safety/Code.

5.2.b.4.D. Space Renewal.

5.2.b.4.E. Utility Infrastructure.

5.2.b.4.F. Grounds Infrastructure.

5.2.c. An assessment of the impact of projected enrollment and demographic changes on building and facility needs;

5.2.d. A comprehensive list of deferred maintenance projects individually exceeding $75,000 that need to be addressed for each campus by building or facility including an estimated cost for each;

5.2.e. An ~~list~~ analysis as to all ~~of existing~~ buildings and facilities ~~in~~ as to the need ~~of~~ for renovations, additions, demolition or any combination thereof;

5.2.f. A list of major site improvements that are needed, including vehicular and pedestrian circulation, parking and landscaping;

5.2.g. An ~~list~~ analysis of telecommunications, utilities and other infrastructure improvements that are needed;

5.2.h. A delineation of clear property acquisition boundaries that are reasonably appropriate for campus expansion;

5.2.i. A list of proposed new facilities and building sites;

5.2.j. A list of capital projects in priority order;

5.2.k. Estimates of the timing, phasing and projected costs associated with individual projects;

5.2.l. If an institution has multiple campuses within 50 miles of each other, a delineation of how the campuses should interact and support each other to minimize duplication of facilities, improve efficiency and be aesthetically compatible;

5.2.m. A statement of the impact of the plan upon the local community and the input afforded local and regional government entities and the public with respect to its implementation;

5.2.n. An estimate of the plans' impact on the institution's capacity utilization, operating costs including depreciation, and projected financial status; and

5.2.o. Any other requirement established by the Commission and Council in these rules.

5.3. Campus development plans shall incorporate all current and proposed facilities, including educational and general and auxiliary facilities.

5.4. ~~At~~ Not later than the next regularly scheduled meeting of the Commission or Council following the fifth anniversary date after the Commission confirms ~~and~~ or the Council approves, as appropriate, the development plan of a governing board, the governing board shall report on the progress made in the first five years to implement the campus development plan for each campus under its jurisdiction. In addition, the governing board shall report on its plans to implement the remaining five-year period of its campus development plan.

5.5. Each governing board shall update its campus development plan at least once during each ten-year period and any update is subject to the ~~approval~~ confirmation of the Commission ~~and~~ or approval by the Council.

5.6. A governing board may not implement a campus development plan or plan update that has not been approved by the Commission or Council, as appropriate. The purchase or acquisition of any property for the construction of a facility that is not included in the campus development plan creates an update to

the campus development plan that must be approved by the Commission or Council prior to its purchase or acquisition.

~~5.7. Campus development plans that are in progress as of the effective date of this rule are subject to the provisions of the previous capital rule.~~

§133-12-6. Capital Appropriation Requests.

6.1. The Commission and Council each shall submit a prioritized capital appropriation request annually to the state budget office in accordance with state law consisting of major capital projects and maintenance projects. The dollar value threshold distinguishing major projects from other projects will be set annually by the Commission and Council for their respective institutions.

6.2. The Commission, Council, and governing boards shall use the following process in reviewing and submitting a list of major educational and general capital projects so that a prioritized major capital project list, ~~approved~~ prepared by the Commission in conjunction with the Council may be submitted to the state budget office by the applicable deadline:

6.2.a. The governing board's major capital project list shall be submitted in accordance with timelines established by the Commission and Council and include the following items:

6.2.a.1. Projects identified in the governing board's approved campus development plan or plans. A project may not be included which is not contained in the approved plan, except when extraordinary circumstances otherwise warrant;

6.2.a.2. A current estimate of each project's estimated cost accounting for inflation since completion of the campus development plan and the estimated cost of operation and maintenance and if an existing facility, the estimated cost of repair and renovation, if applicable, of the facility. The size and scope of the project may not change unless the campus development plan has been updated and confirmed or approved as provided in accordance with West Virginia Code §18B-19-4 and section four of this rule; and

6.2.a.3. Any additional information required to be provided by the Commission, Council, or state budget office.

6.2.b. The Commission and Council each shall rank the major capital projects submitted by the governing boards according to priority consistent with the criteria outlined in the system capital development plan. Such criteria shall include but not be limited to the cost of the project, its conformity to the mission of the institution, the future maintenance and operational costs, the cost of any renovation or repair if an existing facility, and other criteria as determined by the Commission and Council.

6.3. The Commission, Council, and governing boards shall adhere to the following process in submitting a list of major maintenance projects so that a prioritized maintenance project list, approved by the Commission and Council may be submitted to the state budget office by the applicable deadline.

6.3.a. The Commission and Council shall provide each governing board annually a recommended building renewal calculation that identifies the funds that should be collected and invested in its buildings and facilities during the next fiscal year to maintain them and minimize deferred maintenance.

6.3.b. As soon as the governing board receives the building renewal calculation, each governing board shall make realistic revenue estimates of the funds available for maintenance projects from educational and general capital fees, from auxiliary and auxiliary capital fees and from any other revenue

that may be used for maintenance projects, as well as any anticipated reserves. The governing boards then shall identify and submit to the Commission or Council proposed major maintenance projects, consistent with its campus development plan or plans, to be funded from these revenues for projects more than $~~1~~3 million~~, or $15 million for Marshall University and West Virginia University~~ for institutions subject to oversight by the Commission and $500,000 for those subject to oversight by the Council.

6.3.c. The Commission and Council each shall report to the Legislative Oversight Commission on Education Accountability on the revenue available to governing boards for educational and general and auxiliary maintenance projects, as well as any shortfalls based on building renewal formula calculation, and major maintenance projects that institutions propose to undertake during the upcoming fiscal year.

6.3.d. The Commission and Council shall work with institutions under their respective jurisdiction to ensure that adequate funds are generated to fund maintenance and build adequate reserves from educational and general and auxiliary capital fees and other revenue consistent with the building renewal formula.

§133-12-7. Capital Project Financing.

7.1. The Commission and governing boards, jointly or singly, may issue revenue bonds for capital project financing in accordance with West Virginia Code §18B-10-8.

7.2. A governing board may seek funding for and initiate construction or renovation work ~~in excess of $1 million~~ only for projects contained in a~~n~~ confirmed or approved campus development plan.

7.3. A governing board may fund capital improvements on a cash basis, through bonding or through another financing method that is approved by the Commission or Council.

7.3.a. If the cost of an improvement project for ~~any institution, except Marshall University or West Virginia University, exceeds~~ an institution subject to oversight by the Council exceeds $1 million, the governing board first shall obtain the approval of the ~~Commission or~~ Council, as appropriate. If the cost of an improvement project for ~~Marshall University or West Virginia University exceeds $15~~ an institution subject to the oversight of the Commission and the provisions of this rule exceeds $3 million, the governing board ~~first~~ shall first obtain the approval of the Commission. In determining cost, all dollars associated with the project, whether state or private funds, will be calculated. Subject to the provisions of this section, the governing board will submit a completed Financial Feasibility Study in the format required by the Commission or Council sixty days in advance of the deadline for submitting agenda items to the Commission or Council (Appendix A).

7.3.b. Each institution will establish a Debt Policy to ensure that debt is prudently used to meet the goals of institutional strategic and capital plans. The policy will include the following components:

7.3.b.1. Debt Structure.

7.2.b.2. Debt Ratios.

7.2.b.3. Synthetic Financial Products.

7.3.c. Prior to approving bonding or any alternative financing method, the Commission or Council, as appropriate, shall evaluate the following issues:

7.3.c.1. The institution's debt capacity and ability to meet the debt service payments for the full term of the financing;

7.3.c.2. Compliance with the institution's debt policy;

7.3.c.3. The institution's capacity to generate revenue sufficient to complete the project;

7.3.c.4. The institution's ability to fund ongoing operations and maintenance;

7.3.c.5. The impact of the financing arrangement on students; and

7.3.c.6. Any other factor considered appropriate.

7.4. A governing board shall notify the Joint Committee on Government and Finance at least thirty days before beginning construction or renovation work on any capital project in excess of $1 million.

7.5. The Commission and Council may pledge all or part of the fees of any or all state institutions of higher education as part of a system bond issue.

7.6. Any fee or revenue source pledged prior to the effective date of this section for payment of any outstanding debt remains in effect until the debt is fully repaid or refunded.

§133-12-8. Capital Project Management.

8.1. The Commission, Council, and governing boards shall ensure that capital funds are spent appropriately and that capital projects are managed effectively. Project management shall be conducted in all respects according to sound business practices and applicable laws, and rules.

8.2. The Commission shall employ a sufficient number of competent facilities staff experienced in capital project development and management that is suitable for the number, size and complexity of the capital projects being managed. By December 31, 2013, and continuing thereafter, at least one employee shall be Leadership in Energy and Environmental Design (LEED) certified.

8.3 A governing board under the jurisdiction of the Commission is exempt from the provisions of subsections 8.5 and 8.6 of this rule, and its capital projects management shall be governed by the provisions of subsection 8.4 of this section regardless of the rolling five-year construction expenditures, if it meets each of the following criteria:

8.3.a Employs at least one Leadership in Energy and Environmental Design (LEED) certified administrator; and

8.3.b Employs at least one Certified Facilities Manager (CFM) as credentialed by the International Facility Management Association or employs at least one Project Management Professional (PMP) as certified by the Project Management Institute.

8.~~3~~.4 An institution that has entered into construction contracts averaging more than $50 million over the most recent rolling five-year period is responsible for capital project management at that institution if it meets the following additional conditions:

8.~~3~~.4.a. The governing board shall employ a facilities staff experienced in capital project development and management that is suitable for the number, size and complexity of the capital projects

being managed and, by December 31, 2013, and continuing thereafter, at least one of these employees shall be Leadership in Energy and Environmental Design (LEED) ~~certified~~;

8.~~3~~4.b. The governing board shall promulgate and adopt a capital project management rule in accordance with West Virginia Code §18B-1-6 ~~which is consistent with the capital management rules of the Commission and Council~~. The capital project management rule shall include at least the following items:

8.~~3~~4.b.1. Delineation of the governing board's responsibilities with respect to capital project management and the responsibilities delegated to the institution's president;

8.~~3~~4.b.2. A requirement for the use of the state's standard contract documents for architectural, engineering, construction, construction management and design-build services as appropriate to a particular project;

8.~~3~~4.b.3. The governing board's requirements for the following procedures:

8.~~3~~4.b.3.A. Monitoring and approving project designs to ensure conformance with the state and system goals, objectives and priorities and the governing board's master plan, compact and campus development plan;

8.~~3~~4.b.3.B. Approving project budgets, including a reasonable contingency reserve for unknown or unexpected expenses and for bidding;

8.~~3~~4.b.3.C. Approving architectural, engineering and construction contracts exceeding an amount to be determined by the governing board;

8.3~~4~~.b.3.D. Approving contract modifications and construction change orders; and

8.~~3~~4.b.3.E. Providing a method for project closeout and final acceptance of the project by the governing board.

8.~~3~~4.c. The institutional capital project management rule shall be filed with the Commission no later than one hundred eighty days following the effective date of this rule required of the Commission and Council in West Virginia Code §18B-19-17.

8.~~3~~4.d. The Commission may review or audit projects greater than $5 million periodically to ascertain that appropriate capital project management practices are being employed.

8.~~4~~5. For institutions that have entered into construction contracts averaging at least $20 million, but not more than $50 million, over the most recent rolling five-year period:

8.~~4~~5.a. The governing board, with assistance as requested from the Commission, shall manage all capital projects if the governing board meets the following conditions:

8.~~4~~5.a.1. Employs at least one individual experienced in capital project development and management; and

8.~~4~~5.a.2. Promulgates and adopts a capital project management rule in accordance with West Virginia Code §18B-1-6 that is approved by the Commission. The capital project management rule

may be amended at the discretion of the governing board, but amendments shall be submitted to the Commission for review and approval before becoming effective.

8.~~4~~5.b. The capital project management rule of the governing board shall include at least the following items:

8.~~4~~5.b.1. Delineation of the governing board's responsibilities with respect to capital project management and the responsibilities delegated to the institution's president;

8.~~4~~5.b.2. A requirement for the use of the state's standard contract documents for architectural, engineering, construction, construction management and design-build services as appropriate to a particular project; and

8.~~4~~5.b.3. The governing board's requirements for the following procedures:

8.~~4~~5.b.3.A. Monitoring and approving project designs to ensure conformance with the state and system goals, objectives and priorities and the governing board's master plan, compact and campus development plan;

8.~~4~~5.b.3.B. Approving project budgets, including a reasonable contingency reserve for unknown or unexpected expenses and for bidding;

8.~~4~~5.b.3.C. Approving architectural, engineering, construction and other capital contracts exceeding an amount to be determined by the governing board;

8.~~45~~.b.3.D. Approving contract modifications and construction change orders; and

8.~~45~~.b.3.E. Providing a method for project closeout and final acceptance of the project by the governing board.

8.~~4~~5.c. If an institution does not meet the provisions of this subsection, the Commission shall manage all capital projects exceeding $1 million.

8.~~4~~5.d. The Commission staff shall review and audit periodically all projects greater than $1 million to ascertain that appropriate project management practices are being employed. If serious deficiencies are identified and not addressed sufficiently within ninety days, Commission staff may assume management of all projects. Institutions must inform the Commission of any decisions to undertake a capital project in excess of $1 million.

8.~~5~~6. For institutions that have entered into construction contracts averaging less than $20 million over the most recent rolling five-year period and for all community and technical colleges, the Commission and Council shall manage capital projects exceeding $1 million. The following procedures shall be utilized in the planning, development and execution of capital projects:

8.~~5~~6.a. After review and recommendation by the governing board, the Commission and Council shall monitor and if acceptable, approve project designs to ensure conformance with the state and system goals, objectives and priorities and the governing board's master plan, compact and campus development plan;

8.~~5~~6.b. After review and recommendation by the governing board, the Commission and Council shall, if acceptable, approve project budgets, including a reasonable contingency reserve for unknown or unexpected expenses and for bidding;

8.~~5~~6.c. After review and recommendation by the governing board, the Commission and Council shall, if acceptable, approve architectural, engineering, construction and other capital contracts;

8.~~5~~6.d. After review and recommendation by the governing board, the Commission and Council shall, if acceptable, approve contract modifications and construction change orders; and

8.~~5~~6.e. After review and recommendation by the governing board, the Commission and Council shall, if acceptable, provide a method for project closeout and final acceptance of the project by the governing board.

§133-12-9. Maintenance.

9.1. Each governing board shall ensure that facilities under its jurisdiction are maintained and that a listing of any major deferred maintenance projects is provided annually to the Commission and Council.

9.2. Each governing board shall strive to invest annually an amount for maintenance that is consistent with the building renewal formula developed and approved by the Commission and Council and to generate a reserve sufficient to address unexpected maintenance needs.

9.3. The Commission and Council shall determine whether a governing board is devoting sufficient resources for maintenance based on the following criteria:

9.3.a. The amount of maintenance expenditures compared to building renewal formula estimates of appropriate expenditures; and

9.3.b. Periodic evaluations of the conditions of facilities at the institution and its performance and effectiveness in maintaining its facilities.

§133-12-10. Higher Education Facilities Information System.

10.1. The Commission and Council shall develop and maintain a higher education facilities information system. The higher education facilities information system shall serve as a vehicle for carrying out the following functions:

10.1.a. Acquisition of statewide data;

10.1.b. Statewide ~~standardization~~ analysis of space use and classification based on nationally recognized standards and measurements to facilitate comparisons among postsecondary education institutions within the state and in the region and nation; and

10.1.c. Other purposes as determined by the Commission and Council without burdening or interfering unnecessarily with the governance responsibilities which are placed upon the governing boards.

10.2. At a minimum, the higher education facilities information system shall serve the following purposes:

10.2.a. Develop and maintain a statewide inventory of higher education facilities, including those acquired by long-term lease, lease-purchase or other arrangement whereby the institution has long-term beneficial use. The inventory shall include, but is not limited to, the institution and campus location of the facility, the construction date, the original cost, square footage, floor plans, type of construction, ownership status, the purposes for which it is used, the current replacement cost and any other data the Commission and Council considers appropriate;

10.2.b. Develop and maintain an inventory of all rooms within each facility, which includes, but is not limited to, the room number, the square footage, room usage, number of student stations and any other data the Commission and Council considers appropriate;

10.2.c. Provide a vehicle for institutions to submit capital appropriation requests to the Commission and Council;

10.2.d. Provide a vehicle to track the status and cost of institution capital projects from inception to completion, including major maintenance and deferred maintenance projects; and

10.2.e. Provide information on facilities needed to calculate the building renewal formula.

10.3. The Commission or Council, as appropriate, shall establish benchmarks for space use including an analysis of utilization for the fall of each academic year. The benchmarks will calculate density by measuring the number of occupants per 100,000 gross square feet. This calculation will include faculty, staff, students and visitors. Separate calculations will be made for education and general and auxiliary facilities.

10.4. Each governing board and any institution under its jurisdiction shall participate and cooperate with the Commission and Council in all respects in the development and maintenance of the higher education facilities information system.

10.5. The higher education facilities information system may be used for other purposes set forth by the Commission and Council as specified by these rules.

§133-12-11. Authorization to Sell Property; Use of Proceeds.

11.1. The Commission, Council, and governing boards each may sell all or part of any real property that it owns, either by contract or at public auction, and retain the proceeds of the transaction provided the following steps are taken:

11.1.a. Providing for property appraisal by two independent licensed appraisers. The property may not be sold for less than the average of the two appraisals;

11.1.b. Providing notice to the public in the county in which the real property is located by a Class II legal advertisement pursuant to West Virginia Code §59-3-2;

11.1.c. Holding a public hearing on the issue in the county in which the real property is located; ~~and~~

11.1.d. For real property with a proposed sale price of $50,000 or greater, ten days prior to the placement of the Class II legal advertisement, providing written notice to the county commission and municipalities in the county in which the real estate property is located and all members of the legislature, and

11.1.e. In case of the Commission, notifying the Joint Committee on Government and Finance.

11.2. The Commission, Council or a governing board may not lease real property for an annual amount of greater than $50,000 without satisfying the obligations of 11.1.b through 11.1.d.

11.~~2~~3. The Commission, Council, or a governing board shall deposit the net proceeds from the sale, lease, conveyance or other disposal of real property into a special revenue account in the State Treasury to be appropriated by the Legislature in the annual budget bill for the purchase of additional real property, equipment or technology, or for capital improvements or maintenance at the institution that sold the surplus real property.

11.~~3~~4. For purposes that further the state goals, objectives and priorities for higher education set out in State code, the Commission, Council and each governing board may lease, as lessor, any real property that it owns, either by contract or at public auction, and retain the proceeds of the lease. The Commission, Council and each governing board may convey, transfer or exchange any real property it owns to any other public body.

§133-12-12. Authorization to Lease-Purchase.

12.1. The Commission and Council may enter into lease-purchase agreements for capital improvements, including equipment, on behalf of, or for the benefit of, a state institution of higher education or the Commission or Council.

12.2. After the Commission or Council has granted approval for a lease-purchase agreement, which is $1.5 million or higher for institutions subject to oversight by the Commission and $500,000 or higher for those subject to oversight by the Council, to a governing board, the board may enter into a lease-purchase agreement for capital improvements, including equipment.

12.3. ~~The governing boards of Marshall University and West Virginia University may enter into lease-purchase agreements without seeking the approval of the Commission.~~

12.~~4~~3. A lease-purchase agreement constitutes a special obligation of the State of West Virginia. The obligation may be met from any funds legally available to the Commission, Council, or the institution and shall be cancelable at the option of the Commission, Council, or governing board at the end of any fiscal year. The obligation, or any assignment or securitization of the obligation, never constitutes an indebtedness of the State of West Virginia or any department, agency or political subdivision of the state, within the meaning of any constitutional provision or statutory limitation, and may not be a charge against the general credit or taxing powers of the state or any political subdivision of the state. The facts shall be plainly stated in any lease- purchase agreement.

12.~~5~~4. A lease-purchase agreement shall prohibit assignment or securitization without consent of the lessee and the approval of the agreement as to form by the Attorney General. Proposals for any agreement shall be requested in accordance with the requirements of this section and rules of the Commission. In addition, any lease-purchase agreement that exceeds $100,000 total shall be approved as to form by the Attorney General.

12.~~6~~5. The interest component of any lease-purchase obligation is exempt from all taxation of the State of West Virginia, except inheritance, estate and transfer taxes. It is the intent of the Legislature that if the requirements set forth in the Internal Revenue Code of 1986, as amended, and any regulations promulgated pursuant thereto are met, the interest component of any lease- purchase obligation also is exempt from the

gross income of the recipient for purposes of federal income taxation and may be designated by the governing board or the president of the institution as a bank-qualified obligation.

§133-12-13. Authorization to Lease.

13.1. The Commission, Council, and governing boards may lease, or offer to lease, as lessee, any grounds, buildings, office or other space in the name of the state.

13.2. The Commission, Council, and governing boards have sole authority to select and to acquire by contract or lease all grounds, buildings, office space or other space, the rental of which is required necessarily by the Commission, Council, or institutions.

13.3. Before executing any rental contract or lease, the Commission, Council, or a governing board shall determine the fair market value for the rental of the requested grounds, buildings, office space or other space, in the condition in which they exist, and shall contract for or lease the premises at a price not to exceed the fair market value.

13.4. The Commission, Council, and each governing board may enter into long-term agreements for buildings land and space for periods longer than one fiscal year but not to exceed forty years.

13.5. Any lease shall contain, in substance, all the following provisions:

13.5.a. The Commission, Council, or governing board, as lessee, has the right to cancel the lease without further obligation on the part of the lessee upon giving thirty days' written notice to the lessor at least thirty days prior to the last day of the succeeding month;

13.5.b. The lease is considered canceled without further obligation on the part of the lessee if the Legislature or the federal government fails to appropriate sufficient funds for the lease or otherwise acts to impair the lease or cause it to be canceled; and

13.5.c. The lease is considered renewed for each ensuing fiscal year during the term of the lease unless it is canceled by the Commission, Council, or governing board before the end of the then current fiscal year.

13.6. The Commission, Council, or institution that is granted any grounds, buildings, office space or other space leased in accordance with this section may not order or make permanent changes of any type thereto, unless the Commission, Council, or governing board has first determined that the change is necessary for the proper, efficient and economically sound operation of the institution. For purposes of this section, a "permanent change" means any addition, alteration, improvement, remodeling, repair or other change involving the expenditure of state funds for the installation of any tangible thing that cannot be economically removed from the grounds, buildings, office space or other space when vacated by the institution.

13.7. Leases and other instruments for grounds, buildings, office or other space, once approved by the Commission, Council, or governing board, may be signed by the chief executive officer, or designee, of the Commission, Council, or institution.

13.8. Any lease or instrument exceeding $100,000 annually shall be approved as to form by the Attorney General. A lease or other instrument for grounds, buildings, office or other space that contains a term, including any options, of more than six months for its fulfillment shall be filed with the State Auditor.

§133-12-14. Real Property Contracts and Agreements.

14.1. Except as provided elsewhere in the capital projects law, any purchase of real estate, any lease-purchase agreement and any construction of new buildings or other acquisition of buildings, office space or grounds resulting from these transactions, shall be approved by the Commission or Council, and provided to the Joint Committee on Government and Finance for prior review, if the transaction exceeds $1 million.

14.2. Notwithstanding any provision of this rule to the contrary, any acquisition, bequest, donation or construction of new buildings, office space or grounds exceeding $1 million in appraised value or requiring $1 million in repairs and renovation or lease payments over the life of the lease, made or accepted by an institution's research corporation established by West Virginia Code §18B-12 or an affiliated foundation of an institution under the jurisdiction of the Council, shall receive prior approval by the Council.

14.~~2~~3. The Commission, Council, and each governing board shall provide the following to the Joint Committee on Government and Finance:

14.~~2~~3.a. A copy of any contract or agreement to which it is a party for real property if the contract or agreement exceeds $1 million; and

14.~~2~~3.b. A report setting forth a detailed summary of the terms of the contract or agreement, including the name of the property owner and the agent involved in the sale.

14.~~3~~4. The copy and report required by 14.2.b. of this section shall be provided at least thirty days before any sale, exchange, transfer, purchase, lease-purchase, lease or rental of real property, refundings of lease-purchases, leases or rental agreements, construction of new buildings, and any other acquisition or lease of buildings, office space or grounds.

14.~~4~~5. A contract or agreement that is for the lease purchase, lease or rental of real property, where the costs of real property acquisition and improvements are to be financed, in whole or in part, with bond proceeds, may contain a preliminary schedule of rents and leases for purposes of review by the committee.

14.~~5~~6. For renewals of contracts or agreements required by this section to be reported, the Commission, Council, or governing board shall provide a report to the Joint Committee on Government and Finance setting forth a detailed summary of the terms of the contract or agreement, including the name of the property owner.

14.~~6~~7. The Joint Committee on Government and Finance shall meet and review any contract, agreement or report within thirty days of receipt.

14.~~7~~8. Each governing board shall provide to the Commission or Council a copy of any contract or agreement submitted to the Joint Committee on Government and Finance pursuant to this section.

§133-12-15. Authorization for Sale Lease-Back.

15.1. A governing board may sell any building that is on unencumbered real property to which the board holds title and may lease back the same building if the governing board obtains approval of the ~~Commission or~~ Council or confirmation of the Commission before incurring any obligation. The board shall deposit the net proceeds of the transaction into a special revenue account in the State Treasury to be appropriated by the Legislature for the use of the institution at which the real property is located. Prior to such action, the board shall take the following steps:

15.1.a. Provide for the property to be appraised by two licensed appraisers. The board may not sell the property for less than the average of the two appraisals; and

15.1.b. Providing notice to the public in the county in which the real property is located by a Class II legal advertisement pursuant to section two, article three, chapter fifty-nine of this code;

15.1.c. Holding a public hearing on the issue in the county in which the real property is located;

15.1.d, For real property with a proposed sale price of $50,000 or greater, ten days prior to the placement of the Class II legal advertisement, providing written notice to the county commission and municipalities in the county in which the real estate property is located and all members of the legislature, and

15.1.e. Retain independent financial and legal services to examine fully all aspects of the transaction.

15.2. The sale may be made only to a special purpose entity that exists primarily for the purpose of supporting the institution at which the building is located.

§133-12-16. Construction and Operation of Auxiliary Facilities; Fees for Auxiliary Enterprises.

16.1. A governing board may provide, construct, erect, improve, equip, maintain and operate auxiliary facilities, as defined in section three of this rule for students, employees and visitors on land it owns or leases.

16.2. The cost of construction, erection, improvement or equipment may be paid with the proceeds of revenue bonds authorized by this code or by any other financing method provided in law and approved by the Commission or Council. The issuance of revenue bonds is subject to the approval of the Commission or Council.

16.3. A governing board may engage experts in engineering, architecture and construction and other experts as it considers necessary and may specify the payment and contract terms which are included in the cost of the project.

16.4. A governing board may promulgate and adopt rules and charge fees for use of its facilities. The fees and other amounts charged shall be structured so as to generate funds sufficient for the following purposes:

16.4.a. To maintain payment of the principal of and interest on any revenue bonds, and for reserves for the revenue bonds;

16.4.b. To operate the auxiliary enterprise;

16.4.c. To satisfy annual building renewal formula requirements; and

16.4.d. To build a reserve for major renovation or replacement.

16.4.e. All moneys collected for the use of auxiliary facilities shall be paid to the credit of and expended by the governing board of that institution in accordance with West Virginia Code §18B-10-13.

§133-12-17. Condemnation Generally.

17.1. The Commission, Council, and governing boards each may acquire land or buildings by condemnation for the use and benefit of any state institution under its jurisdiction. A condemnation proceeding conducted pursuant to this section is governed by Chapter 54 of the West Virginia Code.

17.2. The Commission, Council, and governing boards each may condemn any interest, right or privilege, land or improvement, which in its opinion is necessary, in the manner provided by law for the acquisition by this state of property for public purposes. The state is under no obligation to accept and pay for any property condemned and may pay for the property only from the funds provided for that purpose.

17.3. In any proceeding to condemn, the order shall be made by the court having jurisdiction of the suit, action or proceedings. A bond or other security may be required by the court securing the property owner against any loss or damage to be sustained by reason of the state's failure to accept and pay for the property. The bond or security may not impose liability or debt on or of the state as contemplated by the Constitution of the State in relation to state debt.

§133-12-18. Reporting.

18.1. ~~By July 1, 2014 and annually thereafter, t~~The Commission and Council shall annually provide a general status report to the Legislative Oversight Commission on Education Accountability on the progress being made in implementing the state-wide capital development plan and on the progress of the governing boards in implementing the objectives of institutions' campus development plans. The report will include current and proposed projects.

18.2. ~~Beginning November 1, 2016 t~~The governing boards shall report to the Commission or Council on an annual basis their progress in implementing the objectives of institutions' campus development plans. Said reports shall include a copy of the campus development plan and their specific progress in meeting the objectives of the plan. For objectives not met, the institution shall provide a reasonable timeline to meet said objectives and a method to measure their progress in the future toward meeting the objectives.

Appendix A

West Virginia Higher Education Policy Commission
West Virginia Council for Community and Technical College Education

FINANCIAL FEASIBILITY STUDY

This Financial Feasibility Study is being submitted for the following project *(must be submitted 60 days in advance of the deadline for submitting agenda items to the Commission or Council)*:

Submission Date _____

Name of Institution _____

Project Name _____

Project Amount $ _____

Project Type *(check one)*:

- ☐ Education & General (E&G) Project
- ☐ Auxiliary Enterprise Project
- ☐ Property Acquisition
- ☐ Public/Private Development or Design/Build
- ☐ Other(specify):

Proposed Financing Arrangement *(check one)*:

- ☐ No Debt - Paid from Institution Cash On-Hand or from Reserves
- ☐ Revenue Bond by Institution
- ☐ Capital Lease
- ☐ Alternative Financing Method
- ☐ Other(specify)

Requested Type of Financing *(should not exceed 30 years)*:

- ☐ Educational & General (E&G) Capital Fee Financing — Amount: $ _____
- ☐ Auxiliary & Auxiliary Capital Fees Financing — Amount: $ _____
- ☐ Debt secured by revenue stream – identify source and provide Code citation that authorizes the pledge of this revenue stream for issuance of revenue bonds or to incur debt. — Amount: $ _____

Prepared by:

Name: _____
Title: _____
E-mail: _____
Telephone No.: _____
Fax No.: _____

The attached Financial Feasibility Study has been prepared using information and projections believed to be reliable and accurate for the purpose of estimating the demand and affordability of the proposed capital project.

_____

Signature (Chief Financial/Fiscal Officer)

Forward original to:

West Virginia Higher Education Policy Commission
1018 Kanawha Boulevard, East, Suite 700
Charleston, WV 25301
Attn: Richard Donovan
Email: Donovan@hepc.wvnet.edu

Section 1 - General Information – To be completed for all projects.

1. Describe the project in sufficient detail so that an uninformed reader has a clear understanding of the project. Indicate whether the project is new construction, renovation/addition to an existing facility or is property acquisition.

2. Describe how the project is essential to fulfilling the institution's mission. Address the alternatives available if the project is not undertaken.

3. Is the project identified in the institution's capital appropriation request for this fiscal year? If yes, what is its priority in relation to the other projects? If no, why was it not included and why is being proposed now?

4. Is the project included in the institution's approved Ten Year Campus Masterplan? If so, what is the priority in relation to other projects in Masterplan and what is the estimated project cost identified in the Masterplan? If it is not included in the Masterplan, why is it being proposed ahead of the projects in approved in the Masterplan?

5. Describe the effect the project will have on those students or users who will financially support the project.

6. Explain how the project will affect the institution's need for student financial aid.

7. Describe the probable effects of the project on the community and environment, including changes to the value of property as a result of the project.

8. Explain how the project and its impact have been conveyed to local officials and their reaction/response.

9. Describe any other positive or negative effects the project may have.

10. Briefly describe the financing proposal. Indicate if this proposal is for a revenue bond financing, a capital lease or lease purchase, or some other less traditional financing arrangement. Indicate anticipate closing date.

11. Are specific revenues planned to support debt service or lease payments? (If so, please complete Section 3.)

    ___ Yes ___ No

12. What impact does the construction of this project have on the institution's compliance with federal Title IX requirements?

Private Use

13. Will any person or entity other than the institution provide (directly or indirectly) any part of debt service on the portion of the bonds issued for the project? For example, will a private business entity, private foundation or federal agency be required (or expected) to make an annual contribution toward the payment of debt service.

    ___ Yes ___ No. If yes, please identify the person or entity and the percent of debt service to be provided.

14. Do you anticipate that any person or entity other than the institution will have a contractual right, different from the rights available to the general public or students, to use any part of the project or to use or buy goods or services produced at the project? For instance, have you contracted parking spaces in a parking deck to a nearby corporate office?

    ___ Yes ___ No. If yes, briefly summarize the planned contractual agreement.

15. Do you contemplate any part of the project being managed or operated by any person or entity other than the institution under a management or service contract, incentive payment or other "privatized" arrangement? Examples include contracts for food service, parking service, dormitory management, bookstore management, etc.

    ___ Yes __ No. If yes, summarize the anticipated contractual arrangement (i.e., contract term, renewal options, compensation arrangements, etc.).

Note: These arrangements may impact whether the project is eligible for tax-exempt financing. Once tax-exempt bonds have been issued, entering into this type of contract or arrangement may affect the bond's tax-exempt status and as a result, could have an adverse affect on the bondholders. **So long as the bonds are outstanding**, the terms of any such arrangement must be reviewed and approved by the Bond Counsel and the Policy Commission staff prior to the execution of any contract.

Property Acquisition by Purchase, Lease or Lease Purchase

Property acquired by purchase, lease or lease/purchase exceeding $1 million ($15 million for Marshall University and West Virginia University) must be approved in advance by the Commission or Council as applicable.

16. What is the purchase price of the property? What is the appraised value of the real property and improvements? The institution must engage a licensed appraiser experienced and certified for the property being appraised. Attach a copy of the appraisal.

17. Does the institution have a Phase 1 Environmental Study for the property? If so, please provide a copy. Does the Phase 1 Study identify the need for a Phase 2 Environmental Study? If so, please provide a copy to the Phase 2 Study.

    ___ Yes __ No. If yes, please provide a copy. If no, this study must be performed by a firm experienced and qualified to perform this study prior to purchase. Include contact person with WV DEP.

18. Has a title search been performed? If so, are there any issues preventing the institution obtaining a general warranty deed? Are there any easements, encroachments, or encumbrances affecting the property? A title search must be preformed prior to purchase.

    ___ Yes _ No. If yes, please provide a copy. If no, a title search must be performed prior to purchase.

19. Is the property within the property acquisition boundaries of the approved Ten Year Campus Masterplan?

    ___ Yes _ No. If no, the acquisition must be approved in advance by the Commission or Council as applicable no matter the dollar value.

20. Has there been an architectural/engineering firm retained for any portion of the project (feasibility study, site selection, schematic drawings)?

    ___ Yes ___ No.

21. If so, was the firm selected and retained following West Virginia Code §18B-19-7?

    ___ Yes ___ No.

22. If a firm has been selected, will this firm be retained as the project continues?

    ___ Yes ___ No.

23. If a selected firm will not be retained as the project continues, will there be a separate RFP distributed to select an Architectural /Engineering firm for the next phase?

    ___ Yes ___ No.

24. If a design firm has been selected for schematic design and/or feasibility study and/or site selection are they aware of their role, and that they will have their responsibility either fulfilled or will continue upon completion of this phase? Explain if necessary.

    ___ Yes ___ No.

25. If a firm has been retained, have the necessary drawings and specifications been submitted to the HEPC Central Office?

    ___ Yes ___ No.

26. Does this project fall under West Virginia Code §18B-19-8 and was it submitted as required?

    ___ Yes ___ No.

27. If this project is taking precedent over a deferred maintenance project submitted previously, explain here.

Section 2 – Cost Information (complete for all projects)

28. Do you anticipate the need for capitalized interest on any bond financing (i.e., to pay interest during construction)? If so, for how many months? When is construction to begin and completed? *(Interest cannot be capitalized more than six moths post construction)*

29. Itemize the capital costs of the project. Estimate the costs of issuance at 2% of the cost of the project if it is to be financed by a bond issue. Please subtotal project costs net of the 2% cost of issuance and then show a gross cost of project including the cost of issuance. Note that the total cost should be used as the AMOUNT BORROWED field of the worksheet. Attach the CO-2 estimate or further estimate of project cost, if available. ***(Note: The term of any financing plan or arrangement should be for 30 years or less.)***

A & E	$
Land Acquisition	
Sitework/Utilities	
Construction	
Equipment/Furnishings	
Other Costs	
Contingencies	
Subtotal	0
Costs of Issuance (2% of Subtotal above)	
Capitalized Interest (Estimate)	
Debt Service Reserve Fund	
Original Issue Discount	
Management Fee	
Other (specify)	
Subtotal	0
Less Planned Equity Contribution by Institution	

30. What is the anticipated useful life of the project?

31. Discuss the need for a **Reserve Fund** to support the proposed project, any anticipated uses of the reserve during the life of the bonds, and the plan for replenishment of the reserve. The Reserve Fund Limit in the spreadsheet should be approximately 10% of the project cost.

32. List and describe any initial **Non-Recurring Costs** related to the project and the source of funding for each of these items.

33. List and estimate the **Incremental Annual Operating Expenses**. Provide any supporting documentation and illustrate how your estimate was made. These expenses include personnel costs, utilities, contractual services, supplies and materials, indirect costs, equipment, etc.

Section 3 - Revenue Information. (Complete for all revenue-producing projects)

34. Describe the Revenue Sources that will be used for payment of debt service and the expenses associated with these revenues. Consider what other expenses are planned to be supported by the revenues, and how much revenue will actually be available for debt service. ***(Note: The term of any financing plan or arrangement should be for 30 years or less.)***

35. If revenues will be derived from a group of similar facilities (a system) and an increase in system revenues will be used to support the debt, provide justification for any system contribution and any marginal increase in system-wide fees.

36. If revenues will be derived from just one facility of several similar facilities in a campus system, show all fees for all similar facilities and justify any differential in pricing between the facilities.

37. Will project revenues or revenues pledged to the payment of debt service be available prior to completion of the project? Describe the timing of revenues and when they will be available and sufficient to begin servicing the debt.

38. What studies have been completed to demonstrate the demand for the facility and the reliability of the revenue stream? (Attach copies if available.)

39. If any portion of the revenues are already pledged or otherwise committed to other debt service payments, provide a schedule of debt service payments (by issue) and cumulatively. Clearly identify the portion of the revenue source that is committed or being used to pay debt service.

40. If any revenues are projected to increase, explain how the projections were calculated. Do not use an automatic growth rate.

41. If institutional reserves are to be used to service the debt, include the source of funds, balances for the last five years, and impact on future balances. Identify the authorization for using these funds to pay debt service and other costs.

42. If any amounts currently used for debt service are expected to be available and used for debt service on this project (i.e., the existing debt will be retired), provide the name(s) of the existing project(s), the bond series, and the annual amount to be available. Address the status of the existing facility's physical condition and plans for repair or maintenance. Conversely, explain why any such amounts scheduled to be available are not planned for use for debt service on this project.

43. Provide a copy of the institution's debt policy approved by the Board of Governors

Using the information described above, complete Spreadsheet #2 – Revenue Components

Section 4 - General Financial Condition - Complete this section for all projects.

Provide the following FTE enrollment and admissions information

	Last 5 years				
Enrollment	FY __	FY __	FY __	FY __	FY __
Undergraduate					
Graduate & 1st Prof.					
Total	0	0	0	0	0
On-Campus					
Off-Campus					
Admissions					
Applications Received					
Applications Accepted					
Students Enrolled					
Acceptance Rate	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Matriculation Rate	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

44. What is the estimated enrollment change resulting from this project?

45. Provide the following ratios and Composite Financial Index for the current year budget as adjusted for the project, the current year budget excluding the new project, and the two preceding fiscal years.

	Adjusted Budget FY 20__	Budgeted FY 20__	Actual FY 20__	Actual FY 20__
Ratios (Excluding OPEB liability):				
Primary Reserve Ratio	0.000	0.000	0.000	0.000
Net Operating Revenue Ratio	0.000	0.000	0.000	0.000
Return on Net Assets	0.000	0.000	0.000	0.000
Viability Ratio	0.000	0.000	0.000	0.000
Composite Financial Index	0.00	0.00	0.00	0.00

Section 5 - Capital Lease Projects – Complete only if the financing involves a capital lease.

46. Discuss the alternatives that were considered before deciding that the capital lease structure was the best option.

47. Who is the Lessor (full name and address)? Who is the Lessee (full name and address)?

48. Who will manage the facility during and after construction?

49. Who will be issuing bonds or otherwise financing the project? Will it be tax-exempt debt?

50. If debt is issued, what portion will not be tax-exempt?

Section 6 - Public/Private Partnership & Design Build – Complete this section only if the financing involves a public/private partnership or is a design build project.

51. Discuss the alternatives that were considered before deciding on a public/private partnership or design build as the best option.

52. Design build projects are subject to the "Design Build Procurement Act," West Virginia Code §5-22A. The provisions of this Act must be used to select design-builders for authorized projects that are constructed and owned, potentially owned, or ultimately owned by any agency/state institution of higher education. Please describe your plans for complying with the Design Build Procurement Act.

53. If this is a public/private partnership, please describe the nature of the arrangement and the parties involved.

54. What type of financing vehicle will be used to fund the project? (Please describe in detail)

Section 7 - Sustainability and Energy Efficiency

55. Do you have access to the most current version of the HEPC's standards for sustainability and energy efficiency?

___ Yes ___ No

56. Will this project be proposed as a LEED project?

___ Yes ___ No

57. If it is to be a LEED project, have you engaged with the necessary professionals to enter the process?

___ Yes ___ No

58. If you have not engaged the necessary professionals, do you need assistance?

___ Yes ___ No

59. If is not proposed as a LEED project are you aware of the minimal guidelines required to insure the project is completed using the most current guidelines and standards? (ASHRE 90.1, LEED – see USGBC.org website)

60. Have you explored any potential existing energy rebates available from your local utilities specific to this project?

61. Do you need further assistance in proceeding with any of the answers required in this application?

Definitions of Terms

Auxiliary and Auxiliary Capital Fees Bonds (W. Va. Code §18B-10): Revenue bonds issued to finance the planning, design, construction and equipping of an auxiliary facility i.e., Student Unions and Recreation Facilities, Residence Halls, Dining Halls, Athletic Facilities, Bookstores, Faculty and Staff Housing and other facilities not considered E&G Facilities. Auxiliary fees are pledged to pay debt service for these revenue bonds.

Capital Lease: In accordance with the Financial Accounting Standards Board (FASB), capital leases are defined as leases which meet any one (or more) of the following criteria:

1) Transfer of ownership of the property to the lessee at the end of the lease term;
2) Bargain purchase option at the end of the lease term;
3) Lease term equal to 75% or more of the estimated economic life of the leased property; and
4) Present value of the net minimum lease payments equal to or exceeding 90% of the fair market value of the property.

Capital leases are considered long-term obligations for accounting purposes.

Capitalized Interest: Interest to be paid on the bonds during the period of construction that is financed as part of the bond issue (i.e., paid with bond proceeds). Capitalizing interest increases the overall cost of borrowing, but may be necessary in cases where project revenues are to be used to pay debt service. Conversely, where revenues are already being collected (i.e., a fee or fee increase has already been implemented), the use of capitalized interest may not be appropriate.

Educational and General (E&G) Capital Fees Bonds (W. Va. Code §18B-10): Revenue bonds issued to finance the planning, design construction and equipping of E&G facilities Fees collected by the institutions to support existing and future system-wide debt and institutional debt, capital projects funded on a cash basis, campus and building renewal, and repairs and alterations of E&G Facilities.

Educational and General (E&G) Facility: A building or structure used for instruction and instructional support purposes, and includes classroom, laboratory, library, computer laboratory, faculty and administrative office and other academic support spaces.

Incremental Annual Operating Expenses: The increase in operating costs attributable to the project. For example, a new dormitory added to a dormitory system would presumably increase system operating costs (e.g., supplies & material, utilities, personnel (janitorial, maintenance), equipment, etc.)

Non-recurring costs: One-time project costs (e.g., land acquisition, special utility fees, etc.) required for project completion.

Other: Debt secured by another revenue stream than those identified above. Please identify source and provide Code citation that authorizes the pledge of this revenue stream for issuance of revenue bonds or to incur debt.

Private Use: Private use means any use (directly or indirectly) by a trade or business that is carried on by persons or entities other than state or local governmental entities. Such use could involve ownership, management, service or incentive payment contracts, research agreements, leases, subleases, loans, or any other arrangement that conveys special legal entitlements or economic benefit to the non-governmental entity from the beneficial use of the project.

Reserve Fund: An amount set aside, usually from project revenues or bond proceeds, to mitigate the impact of interruptions in the ability of the project to generate sufficient net revenues to pay debt service (e.g., debt service reserve, repair and replacement reserve). In certain circumstances, the presence of a reserve can enhance the credit. For the purposes of the feasibility study, reserve funds are generally for debt service and are funded from project or institutional revenues. 9(c) projects are expected to generate sufficient revenues to fund a reserve at an amount equal to approximately 10% of the amount financed.