

DESCRIPTION OF PERMANENT IMPROVEMENT PROJECT FOR CONSIDERATION

February 2, 2023

PIEDMONT TECHNICAL COLLEGE

PROJECT NAME: New Construction for Health Sciences Replacement
REQUESTED ACTION: Increase Budget, Revise Scope, Change Project Name (Phase II)
REQUESTED ACTION AMOUNT: \$16,494,750
Internal Projected Cost: \$16,632,000
PRIOR CHE APPROVAL DATE(S): 2/3/2022 (Phase I)

<u>Project Budget</u>	<u>Previous</u>	<u>Change</u>	<u>Revised</u>
Professional Service Fees	\$ 137,250	\$ 672,750	\$ 810,000
Equipment and/or Materials	--	2,160,000	2,160,000
New Construction	--	11,880,000	11,880,000
Other: Testing & Inspections	--	162,000	162,000
Contingency	--	1,620,000	1,620,000
Total	<i>\$137,250</i>	<i>\$16,494,750</i>	<i>\$16,632,000</i>

<u>Source of Funds</u>	<u>Previous</u>	<u>Change</u>	<u>Revised</u>
College Funds	\$137,250	\$ 5,230,623	\$ 5,367,873
Capital Reserve Fund	--	696,875	696,875
Non-Recurring State General Funds	--	10,567,252	10,567,252
Total	<i>\$137,250</i>	<i>\$16,494,750</i>	<i>\$16,632,000</i>

DESCRIPTION:

Piedmont Technical College is seeking recommendation from the Commission on Higher Education to begin construction of a 27,000-square foot building to replace space for some of its nursing and health science program offerings. During Phase I, the College determined constructing the new 27,000-square foot facility would better suit its needs compared to the original project plan, that included remodeling two existing facilities and constructing a 12,100-square foot “connector” facility between them. The college still plans on using its existing buildings to serve certain aspects of the health sciences programs that will not move into the new space in the near term. However, college officials stated that due to the existing buildings’ conditions, their plan is to demolish the facilities soon after the new building comes online.

This project was included in the college’s draft CIP submittal as a year one priority.

SOURCE OF FUNDS:

The following outlines the funding sources for the project:

- \$10,567,252 from non-recurring state appropriations for this project;
- \$696,875 from the capital reserve fund for this project; and
- \$5,367,873 from college funds.

Both the non-recurring state appropriations and the capital reserve fund are direct appropriations that are allocations to the college from the State Board of Technical and Comprehensive Education for maintenance, renovation, or replacement.

College funds are net revenue from difference sources, including local support and tuition and fees. As of December 31, 2022, the account had a balance of \$10,448,000.

MAINTENANCE NEEDS:

Piedmont Technical College funds its maintenance using its college plant fund account.

ANNUAL OPERATING COSTS/SAVINGS:

This new facility will increase the college's operating costs by approximately \$81,000, due to increased utilizes, landscaping, and other maintenance costs.

FOR DEPARTMENT USE ONLY

CHE _____
 JBRC _____
 SFAA _____
 JBRC Staff _____
 ADMIN Staff _____
 A-1 Form Mailed _____
 SPIRS Date _____
 Summary _____

(For Department Use Only)**SUMMARY NUMBER****FORM NUMBER****PERMANENT IMPROVEMENT PROJECT REQUEST**

1. AGENCY H59 Name Piedmont Technical College
 Code _____ Contact Person Paige Childs, VP of Business, Finance, and Facilities Phone (864) 941-8688

2. PROJECT 6193 Name New Construction for Health Sciences Replacement
 Project # _____ Facility # _____ Facility Name Health Sciences and Nursing Buildings

County Code	24 - Greenwood
New/Revised Budget	\$16,632,000.00

Project Type	2 - Construct Additional Facilities
Facility Type	2 - Program/Academic

3. CIP PROJECT APPROVAL FOR CURRENT FISCAL YEAR
 CIP priority number 1 of 3 for FY 2023.

4. PROJECT ACTION PROPOSED (Indicate all requested actions by checking the appropriate boxes.)

Establish Project	☐	Decrease Budget	☐	Close Project	☐
Establish Project - CIP	☐	Change Source of Funds	☐	Change Project Name	☒
Increase Budget	☒	Revise Scope	☒	Cancel Project	☐

5. PROJECT DESCRIPTION AND JUSTIFICATION

(Explain and justify the project or revision, including what it is, why it is needed, and any alternatives considered. Attach supporting documentation/maps to fully convey the need for the request.)

The project's scope is to construct a new 27,000 square foot replacement facility with a project budget of \$16,632,000 for the existing Nursing simulation labs, Nursing skills labs, Cardiovascular Labs and classrooms. Buildings H & S, which are currently housing these programs, will remain in use as swing space until the completion of the replacement facility. Piedmont Technical College will divest the H & S buildings from the inventory once the replacement facility is completed. The new facility will provide modern lab spaces which are needed to ensure the students are practice-ready when completing the programs.

6. OPERATING COSTS IMPLICATIONS

Attach Form A-49 if any additional operating costs or savings will result from this request. This includes costs to be absorbed with current funding.

7. ESTIMATED PROJECT SCHEDULE AND EXPENDITURES

Estimated Start Date: 04/2022 Estimated Completion Date: 09/2025
 Estimated Expenditures: Thru Current FY: \$600,000.00 After Current FY: \$16,032,000.00

8. ESTIMATES OF NEW/REVISED PROJECT COSTS

PROJECT #

6193

1.	_____	Land Purchase ---->	Land:	_____	Acres
2.	_____	Building Purchase ---->	Floor Space:	_____	Gross Square Feet
3.	810,000.00	Professional Services Fees	Information Technology	_____	
4.	2,160,000.00	Equipment and/or Materials ---->			
5.	_____	Site Development			
6.	11,880,000.00	New Construction ---->	Floor Space:	27,000	Gross Square Feet
7.	_____	Renovations - Building Interior ---->	Floor Space:	_____	Gross Square Feet
8.	_____	Renovations - Utilities			
9.	_____	Roofing - _____ Roof Age			
10.	_____	Renovations - Building Exterior			
11.	_____	Other Permanent Improvements			
12.	_____	Landscaping			
13.	_____	Builders Risk Insurance			
14.	_____	Other Capital Outlay			
15.	_____	Labor Costs			
16.	_____	Bond Issue Costs			
17.	162,000.00	Other: Testing & Inspections			
18.	1,620,000.00	Contingency			
	<u>\$16,632,000.00</u>	TOTAL PROJECT BUDGET			

ENVIRONMENTAL HAZARDS

Identify all types of significant environmental hazards (including asbestos, PCB's, etc.,) present in the project and the financial impact they will have on the project.

Type: _____

Cost Breakdown

Design Services	\$ _____
Monitoring	\$ _____
Abate/Remed	\$ _____
Total Costs	\$ _____ 0.00

9. PROPOSED SOURCE OF FUNDING

Source	Previously Approved Amount	Increase/Decrease	Original/Revised Budget	Transfer to/from Proj. #	Rev Object Code	Treasurer's ID Number	Rev Sub Fund	Exp Sub Fund
(0) CIB, Group			0.00 0.00		8115		3043	3043
(1) Dept. CIB, Group			0.00 0.00		8115		3143	3143
(2) Institution Bonds			0.00 0.00					3235
(3) Revenue Bonds			0.00 0.00					3393
(4) Excess Debt Service			0.00 0.00					3497
(5) Capital Reserve Fund Section 1 (24) FY21-22		696,875.00	696,875.00		8895		3603	3603
(6) Appropriated State Proviso 118.18 FY21-22 Proviso 118.19 FY22-23		6,893,159.00 3,674,093.00	6,893,159.00 3,674,093.00		8895 8895	68800100 68800100	1001 1001	3600 3600
(7) Federal			0.00 0.00			78800100		5787
(8) Athletic			0.00 0.00			88800100		3807
(9) Other (Specify) College Funds	\$137,250.00	5,230,623.00	5,367,873.00 0.00 0.00		7901	98800100	39079	3907
TOTAL BUDGET	\$137,250.00	\$16,494,750.00	\$16,632,000.00					

10. SUBMITTED BY: K. Paige Child VP of Business, Finance, and Facilities
Signature of Authorized Official and Title

November 10, 2022
Date

11. APPROVED BY: _____
(For Department Use Only) Authorized Signature and Title

Date

ADDITIONAL ANNUAL OPERATING COSTS / SAVINGS
RESULTING FROM PERMANENT IMPROVEMENT PROJECT

1. AGENCY Code H-59 Name Piedmont Technical College

2. PROJECT Project # 6193 Name Addition for Health Science Expansion

3. ADDITIONAL ANNUAL OPERATING COSTS / SAVINGS. (Check whether reporting costs or savings.)



COSTS



SAVINGS



NO CHANGE

4.

TOTAL ADDITIONAL OPERATING COSTS / SAVINGS				
Projected Financing Sources				
(1)	(2)	(3)	(4)	(5)
Fiscal Year	General Funds	Federal	Other	Total
1) 2026	\$ 81,235.00	\$	\$	\$ 81,235.00
2) 2027	\$ 119,144.00	\$	\$	\$ 119,144.00
3) 2028	\$ 131,059.00	\$	\$	\$ 131,059.00

5. If "Other" sources are reported in Column 4 above, itemize and specify what the other sources are (revenues, fees, etc.).

6. Will the additional costs be absorbed into your existing budget?
If no, how will additional funds be provided?



YES



NO

7. Itemize below the cost factors that contribute to the total costs or savings reported above in Column 5 for the first fiscal year.

<u>COST FACTORS</u>	<u>AMOUNT</u>
1. <u>Utilities (Electricity, Water, Sewer & Gas)</u>	<u>\$35,393.00</u>
2. <u>Environmental</u>	<u>30,561.00</u>
3. <u>Insurance</u>	<u>4,719.00</u>
4. <u>General Maintenance</u>	<u>10,562.00</u>
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
TOTAL	<u>\$81,235.00</u>

8. If personal services costs or savings are reported in 7 above, please indicate the number of additional positions required or positions saved. Existing

9. Submitted By: K Paige Child VP of Business, Finance, & Facilities
Signature of Authorized Official and Title

11.14.22

Date

1. Provide the total projected cost of the project. Attach a summary of the costs prepared during the A&E pre-design phase to support the total cost.

\$16,632,000

2. Identify the source(s) of funds for construction. If any private or federal funds are included, attach a letter guaranteeing the availability of the funds.

Capital Reserve Fund FY21-22 Section 1 (24)
Appropriated State Proviso 118.18 FY21-22, Proviso 118.19 FY22-23
College Funds

3. Describe and define each fund source to be used for construction. Cite any statutory authority, including the code section other provision of law for use of the funds for permanent improvement projects. If the source includes any fee, provide the name of the fee, the fee amount, the frequency of collection and when the fee was first implemented.

Capital Reserve Fund
Appropriated State
College Funds

4. Provide the current uncommitted balance of funds for each source described above.

Capital Reserve Fund FY21-22 Section 1 (24) \$696,875
Appropriated State Proviso 118.18 FY21-22: \$6,893,159.00 Proviso 118.19 FY22-23: \$9,949,243.00
College Funds \$10,447,789 (as of 12/31/2022)

5. If institution or revenue bonds are included as a source, provide when the bonds were issued. If not issued yet, provide when the bond resolution is expected to be brought for State Fiscal Accountability Authority approval.

N/A

6. If a student fee is used to fund debt service, provide the current amount of the fee collected annually or by semester. Specify which.

N/A

7. Indicate whether or not the use of any funds for construction will require an increase in any student fee or tuition. Describe any increase in student fees effected in prior years that has contributed to the availability of these funds.

Increase to tuition or student fees will not be required.

8. If the project qualifies for the JBRC policy requirement to meet the LEED certification/Green Globes certification as the conservation measure, please attach the findings of a cost-benefit analysis showing the anticipated energy savings over the life of the project. Additionally, attach the checklist of items to be included to achieve LEED points or a description of the energy measures to achieve LEED.

Green Globe findings - See Attachment

9. If the project does not qualify for the JBRC policy requirement to meet the LEED certification/Green Globes certification as the construction measure, provide what savings/conservation measures will be implemented within the project. Explain the energy savings measures to be implemented as part of this project. If there are no energy savings measures included, state that and explain why.

N/A

10. Provide the projected date (month and year) for execution of the construction contract.

April 2024

11. Provide the projected date (month and year) for completion of construction.

September 2025

12. Describe the programs that will use the constructed or renovated space.

Since the early nineties, Piedmont Technical College's healthcare programs have expanded dramatically, both in headcount, graduates, and in the number of programs offered. In recent years, Piedmont has added Veterinary Technology, Cardiovascular Technology, Occupational Therapy Assistant and Paramedic programs to its offerings. All of the college's healthcare programs will make use of this expansion in some way-both for students entering the healthcare program pipeline and for those in the clinical stages of their programs.

In recent years, after expansions to the numbers of students it can accommodate in these critically important programs the college have conferred more than 700 degrees and diploma to graduates in healthcare-related professions, making it the largest provider of healthcare education at the postsecondary level in the region.

13. Provide the total square footage of the building to be renovated or constructed.

27,000 sf - new construction

14. If a portion of the building is to be renovated, provide the square footage of the portion that will be included in the renovation.

N/A

15. Provide the current age of the building and building systems to be renovated or replaced.

N/A

16. If any new space is being added to the facility, provide demand and usage data to support the need. Demand and usage needs have been defined on the attached documentation.

17. Provide an estimate of the numbers of students, faculty, staff and clients that are expected to utilize the space associated with the project or building.

In the most recent full academic year, PTC enrolled 694 students in its Nursing and Healthcare programs. The pipeline of students continues to grow - from 1181 student enrolled in a pre0health program to in the 2017-2018 academic year, to 1674 in the most recent full year. This represents more than a 40 percent increase over a five-year period.

PTC has working relationships with all major healthcare providers in our seven-county service region and beyond, including large regional hospitals, community hospitals, doctor's offices, long-term care facilities and many other partners. The college's reach in these fields and engagement with partners is comprehensive.

Currently, PTC employs 33 full-time faculty in its Nursing and Healthcare Division.

18. If the construction cost increased significantly from the internal estimate and/or from the total estimated cost provided on the CIP (30% or more), provide what factors caused the cost to increase.

Space programming during the pre-design phase showed that the existing facilities do not have sufficient space and cannot be reconfigured to meet the requirement of a program that provides a high quality environment that aligns with industry standards and prepares students for real-world application of the required skills.

19. If the contingency is more than 10%, explain why.

N/A

20. If funds are being transferred from another project, provide the current status of the project from which funds are being transferred.

N/A

21. Indicate whether or not the project has been included in a previous year's CIP. If so, provide the last year the project was included and year for which it was proposed.

Yes, Plan Year 2022, Priority 1 of 1 during Plan Year
Plan Year 2023, Priority 1 of 3 during Plan Year

22. Provide the economic impact of the project or project request, including job creation and retention. If there is no economic impact, provide an explanation.

According to a 2017 study by the U.S. Department of Health and Human Services, South Carolina is projected to have a severe shortage of 10,000+ Registered Nurses by 2030 if the current level of healthcare is maintained. South Carolina is projected to have the fourth highest need for personnel in the country in the coming years - and the second highest need next to Alaska for the percentage of need projected to be met. With an aging population, this shortage will only become more critical in years to come.

We are already experiencing the effects of this shortage. In fact, hospitals and healthcare facilities in the Upper Savannah region have already reported large numbers of unfilled healthcare positions. It is common in recent years for 100+ nursing positions to go unfilled at any given time throughout PTC's service region.

We are at a critical juncture now, and we cannot wait to renovate/expand our facilities. Each year Piedmont Technical College turns away hundreds of students who are interested in a Career in Nursing

and Healthcare because of limited facilities and space. A renovation and expansion of our facilities in these areas is a critical component of expanding the pipeline of qualified personnel.

23. Discuss how maintenance of this facility construction/renovation will be addressed and funded.

With the project being new construction, the maintenance requirements will be minimized by having new, efficient, and modern equipment and finishes. The new space also allows the existing program space to be better utilized and be more efficient therefore having less strain on the equipment and finishes.

Expenses will be built into the PTC Maintenance Department's Operational Budget - General Funds would address routine maintenance. If a deferred maintenance requirement occurred, PTC deferred maintenance funds would be used to address the concern.

24. Provide the name of any account from which costs of deferred maintenance are addressed and its current uncommitted balance. Indicate the sources used to fund the account.

PTC implemented a Facility Fee to our students in Fall of 2009. This facility fee is specifically for the deferred maintenance and upkeep of our facilities and the surrounding infrastructure. This fee is \$50 per full time student and \$25 per part time student and will not need to be raised for this project. The deferred maintenance account, Facility Fee, is reviewed and funds earmarked on an annual basis according to needs. All funds are committed each year. Upkeep and maintenance of this project once established will be included in the annual review and funds allocated accordingly.

25. If funding for maintenance of this facility construction/renovation has not yet been determined, discuss the steps that have been taken to address and fund maintenance of this and other facilities owned or managed by the agency or institution.

PTC has identified and programmed appropriate maintenance funding for the project.

TO BE PROVIDED FOR HIGHER EDUCATION PROPOSALS

1. Indicate whether or not the use of any funds for construction will require an increase in any student fee or tuition. Describe any increase in student fees effected in prior years that has contributed to the availability of these funds.

Increase to tuition or student fees will not be required.

2. If the use of any funds for construction includes any student fee, provide the name of the fee, the fee amount, the frequency of collection and when the fee was first implemented.

N/A

3. Provide a nine-year history of each component within the institution's tuition and fee structure designated or utilized for permanent improvements. Identify the tuition or fee component per student, per semester; the total revenue collected during the academic year; and the fund balance at fiscal year end, all delineated by academic year. Include a projection for the ensuing academic year, and any future academic years in which the fee is projected to increase. Use the following format in responding to this question and provide as many tables as are necessary to promote a clear understanding of the relationship of tuition and fee revenue designated by the institution for permanent improvements, maintenance and other facility-related expense, including debt service.

Academic Year	Amount per student per semester	Total Revenue Collected During Academic Year	Amount Expended for Permanent Improvements	Fund Balance at Year End
2014-15	150.00	967,120	1,973,286	10,404,886
2015-16	150.00	1,103,631	2,697,922	10,643,092
2016-17	150.00	1,037,875	2,777,371	9,174,918
2017-18	150.00	988,494	1,501,610	9,036,885
2018-19	150.00	1,001,477	3,139,566	8,812,610
2019-20	150.00	1,079,817	12,064,478	12,201,725
2020-21	150.00	1,014,067	1,549,260	11,952,194
2021-22	150.00	1,026,449	1,128,420	12,167,221
2022-23*	150.00	1,105,000	1,700,000	12,500,000

*Projection

Note: \$150 per FTE student is an internal calculation embedded within our tuition charge and set aside for capital projects. This is not a separate fee to students.

4. Identify any other funds not specifically designated that may be utilized or redirected for permanent improvements, maintenance and other facility-related expense, including debt service. Provide a nine-year history of total collections, by fund; amounts applied to or for permanent improvements, maintenance and other facility-related expense, including debt service; and the fund balance at fiscal year end, delineated by academic year. Include a projection for the ensuing academic year, and any future academic years in which the revenue is projected to increase. Describe any portion of the source that originates from any tuition or fee component. Include all permanent improvements without regard to Joint Bond Review Committee or State Fiscal Accountability approval requirements. Use the following format in responding to this question and provide as many tables as are necessary to provide a complete and comprehensive response for each fund.

Fund Source or Name: N/A
Description:

Academic Year	Total Revenue Collected During Academic Year	Portion Collected From Tuition or Fee Revenues	Amount Expended for Permanent Improvements	Fund Balance at Year End
2014-15				
2015-16				
2016-17				
2017-18				
2018-19				
2019-20				
2020-21				
2021-22				
2022-23				

*Projection

5. Describe the fund sources reflected above that will be utilized to support the project that is the subject of this Phase I proposal.

N/A



November 4, 2022

Capital Budgeting Manager, Executive Budget Office
1205 Pendleton Street – Suite 529
Columbia, SC 29201

RE: Piedmont Technical College, Health Sciences Building
OSE# H59-6193-CL

To whom it may concern,

Please accept the following in response to the JBRC Roof Project Questionnaire:

1. Identify the type of new roof proposed and how and why the roofing material was selected. Agencies are expected to provide a letter on the A/E firm's letterhead with the Phase Two construction budget request detailing the roofing choices considered, why the chosen roof system was selected, and why the other options are not recommended. The letter should ensure the A/E has considered and provided recommendation regarding all major roofing types, including but not limited to:
 - a. Built-Up Roofing (BUR) Membrane
 - b. Metal Roofing
 - c. Modified Bitumen Roofing
 - d. Thermoset (EPDM) Roof Membrane
 - e. Thermoplastic Roofing Membrane (PVC & TPO)
 - f. Garden "Green" Roofing System
 - g. Spray Polyurethane Foam (SPF)
 - h. Shingle Roofing

A/E Response: The architect proposes a single-ply PVC membrane roofing for all roof area. We anticipate the roof area to be a low-slope insulated roof with internal roof draining. The roof will likely have typical utility penetrations and rooftop mechanical equipment that will be located on fixed curbs. PVC membranes are commonly used roofing assemblies in this region. Based on the design team's experience, this type of roofing is a cost effective and high-performance solution that is well suited for this application.

2. If the current roof system failed prior to warranty expiration and the planned roof replacement is of the same type, explain what factors will ensure the roof system will not prematurely fail again.

A/E Response: Not Applicable – New Construction

3. Specify the lengths and types of warranties to be provided on the new roofing system. Agencies are expected to require that roofs be warrantied for no less than 20 years, both for materials and workmanship. Generally, workmanship warranties of this length can be obtained through authorized contractors meeting the manufacturer's standard of installation.

A/E Response: A minimum 20-year NDL (No Dollar Limit) full system material and labor warranty will be specified.

4. Explain how roof inspections and preventive maintenance are performed to ensure compliance with warranty terms. Include the frequency and scope of inspections and preventive maintenance.

A/E Response: Piedmont Technical College's preventative maintenance program will follow the requirements of the roof manufacturer. Periodic inspections will require a detailed visual observation of the roof's overall condition, roof copings, roof drains, roof pathways on membrane roofs, ensuring condensation lines of HVAC remain mounted on foot pads, no tree limbs extend beyond roof line, and the operability of roof hatches. Semi-annually, cleaning of the roof's surface will be conducted by mechanical blower. Trash and other miscellaneous items will be hand collected and placed in appropriate trash receptacles. Special inspections of roofs are conducted after high windstorms, where tree limbs, leaves and other debris could be atop roofs after the storms.

5. Agency confirms that it will adhere to the Licensing Laws of Title of 40 of the South Carolina Code of Laws as Amended, the standards of Responsibility set forth in the Consolidated Procurement Code and Regulations, and the procedures and requirements for determining contractor responsibility set forth in the Manual for Planning and Execution of State Permanent Improvements when awarding a contract with the goal of selecting a contractor whose professional credentials, financial capability, experience, and reputation provide reasonable assurance that the contractor will be able to perform its warranty obligations for the duration of the warranty.

A/E Response: Piedmont Technical College will proceed in accordance with the guidelines and under the direction and supervision of the Office of State Engineer.

6. Roofing consultant has specified approved manufacturers for the roofing assembly whose history, experience, and reputation indicate that those manufacturers or any successors in interest are likely to maintain their existence and abilities to perform under the warranty for its duration.

A/E Response: Roofing specifications are not yet developed, and thus the design team has not yet selected specific manufacturers or roofing systems; however, PVC membrane roofing is relatively common and has multiple well-respected national manufacturers. The design team intends to specify three options for all roofing systems, selecting manufacturers and components that have a proven track record of performance in similar applications.

Please advise if you have any further questions.

Sincerely,



Jeffrey K. Tiddy, AIA
McMillan Pazdan Smith Architecture



Detailed Cost Estimate

PTC – Main Campus – Health Science Building Expansion

Internal Detailed Cost Estimate:

Professional Services Fees	\$ 810,000
Equipment and/or Materials	2,160,000
New Construction	11,880,000
Other: Testing & Inspections	162,000
Contingency	<u>1,620,000</u>
Total Estimated Costs	\$16,632,000

6193 Piedmont Technical College
Addition for Health Science Expansion
Additional Information

- This project addresses critical needs and shortfalls of the existing Health Science facilities which can only be adequately addressed through new construction
- Existing facilities do not have adequate space (square footage)
- Existing facilities cannot support the types of spaces and configurations that are needed to bring the program up to current standards
- New addition doubles the available square footage for the program thus allowing PTC to maximize the available funds to provide the greatest impact to improving the program.
- Existing buildings will continue to serve the program and can be better utilized when the functions that will be housed in the new addition are moved out
- A deep dive study was conducted to develop the overall program needs of the Health Science programs
- Identification of the highest priority needs has been addressed first through this initial process
- The focus of the project is to provide students the opportunity to become more work ready through industry standard facilities, technology, and equipment
- The new construction provides the needed space that cannot be set up in the existing spaces and is the best use of the current available funds
- The PTC vision is to have a second project in the future to complete the process of bringing the Nursing and Health Sciences programs up to standards
- Real-world Standards for all aspects of the program are the goal
- This addition will allow the Health Science programs to align with other programs in the State
- There will be continued use of existing facilities, but PTC has a vision to replace them
- Existing buildings are adequate for continued use to support the programs
- Existing buildings have challenges that limit the long-term viability for use to support a program which aligns with current standards and with other programs in the State

November 8, 2022

Capital Budgeting Manager, Executive Budget Office
1205 Pendleton Street – Suite 529
Columbia, SC 29201

RE: Piedmont Technical College, Health Sciences Building
OSE# H59-6193-CL

To whom it may concern,

Please accept the following in response to the SC Required Information for Phase II Construction Budget (Item 16):

16 . If any new space is being added to the facility, provide demand and usage data to support the need.

A/E Response: During the summer of 2022, McMillan Pazdan Smith Architecture has assisted Piedmont Technical College with the preparation of a space utilization, capacity, functionality, and space quality assessment for the Health Science Building Program. The major findings of this study are described below:

The majority of health science learning spaces are combination classroom/laboratories where the classrooms are embedded within the program lab and simulation spaces. While the utilization of the spaces varied widely from 13% to upwards of 71% on average during Monday-Thursday as most classes do not occur on Friday the variance within a given day can range from 0% (minimally) to upwards of 83%.

Additionally, the seat fill rates range on average of 59% (classrooms only) to 87% (class/labs). Independently these ranges are between 44%-99%. With the class/labs having a range between 72%-99%, with a target of 60%. Additionally, there is limited functionality of the individual learning areas and the overall program and facility based on:

- the simulation and lab space does not represent real-life healthcare environments
- There is not adequate space for the various lab stations to support the function of the lab and accommodate the students
- The spaces are not sized to accommodate the seat fill rate and programmed for future growth
- The space allocation does not support current collaborative learning environments and pedagogies.
- Simulation areas are not designed to meet best practice simulation requirements
- By having combined classroom/laboratories there is less opportunity for the sharing of common elements such as classroom space, which means duplication of those spaces.
- Lack of computers or nearby computer labs prevents students from maximizing their time and learning opportunities during lab rotations.
- Some program elements are located in multiple buildings, including the Cardiovascular program which is off campus.
- With combination classroom/laboratories there is little to no opportunity for Inter Professional Education (IPE).
- There is a complete lack of student study and collaborative space outside of the classrooms.
- There is minimal support for faculty and staff areas such as meeting spaces, adequate break areas, and offices sized to meet with students.
- There is minimal security and privacy of the faculty and staff areas.

It is recommended that the College separate the classroom and laboratory/simulation functions. This will allow the college to level load the scheduling of classrooms (lowers the classroom need from the existing count), design laboratory and simulation spaces which meet program, space, capacity, and functional requirements, size classrooms to the target seat fill rate, create collaborative learning classroom environments, and allow for IPE opportunities in the laboratory and simulation space. While a large computer lab is still necessary for testing, open student use, and class scheduling, it is recommended that 4 smaller computer labs be added and distributed among the laboratory and simulation areas to facilitate rotation in lab classes.

Debriefing spaces should be added and distributed among laboratory and simulation spaces to alleviate the use of classrooms for small laboratory groups. However, it is recommended that the College create a collaborative learning



environment as par to the skills lab to enable larger groups and support their functionality of movement between a classroom setting and skills lab during their scheduled time. By adding student collaborative areas and study areas, students will have a place to be within the health science program while not in a class and without having to leave the area or campus. Consolidation of the Cardiovascular program (currently off campus) into the new facility is recommended.

In summary, the design team is not recommending the addition of significant amounts of new classrooms; but rather appropriately separating and sizing the rooms to facilitate better space utilization, shared opportunities between labs and support future class enrollments.

Please advise if you have any further questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Tiddy".

Jeffrey K. Tiddy, AIA
McMillan Pazdan Smith Architecture

The follow pages are graphic representations of the analytical tools that were used to determine space utilization, capacity and functionality as part of our assessment.

ALL CLASSROOMS BUILDINGS H & S

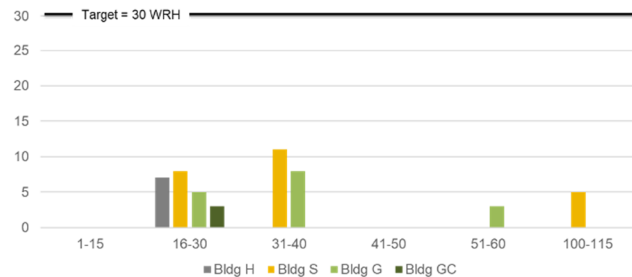
	Mon	Tue	Wed	Thu	Fri	Avg (M-Th)	Avg (M-F)
8:00 AM	0%	33%	0%	33%	0%	17%	13%
8:30 AM	50%	33%	33%	50%	0%	42%	33%
9:00 AM	67%	50%	67%	67%	0%	63%	50%
9:30 AM	67%	50%	67%	67%	0%	63%	50%
10:00 AM	67%	67%	67%	83%	17%	71%	60%
10:30 AM	67%	67%	67%	83%	17%	71%	60%
11:00 AM	50%	67%	50%	67%	17%	58%	50%
11:30 AM	50%	33%	67%	67%	33%	54%	50%
12:00 PM	33%	33%	67%	50%	17%	46%	40%
12:30 PM	33%	33%	67%	50%	0%	46%	37%
1:00 PM	33%	33%	33%	67%	0%	42%	33%
1:30 PM	33%	67%	33%	83%	0%	54%	43%
2:00 PM	33%	67%	17%	67%	0%	46%	37%
2:30 PM	33%	83%	33%	83%	0%	58%	47%
3:00 PM	33%	67%	33%	83%	0%	54%	43%
3:30 PM	17%	50%	33%	33%	0%	33%	27%
4:00 PM	0%	17%	17%	17%	0%	13%	10%
4:30 PM	0%	17%	17%	17%	0%	13%	10%
5:00 PM	0%	0%	0%	0%	0%	0%	0%
5:30 PM	0%	0%	0%	0%	0%	0%	0%
6:00 PM	0%	17%	0%	0%	0%	4%	3%
6:30 PM	0%	17%	0%	0%	0%	4%	3%
7:00 PM	0%	17%	0%	0%	0%	4%	3%
7:30 PM	0%	17%	0%	0%	0%	4%	3%
8:00 PM	0%	17%	0%	0%	0%	4%	3%
8:30 PM	0%	17%	0%	0%	0%	4%	3%
9:00 PM	0%	0%	0%	0%	0%	0%	0%

TOTAL CLASSROOMS = 6

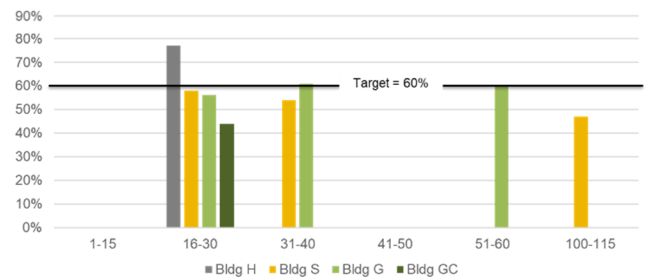
SCHEDULED CLASSROOM UTILIZATION BY CAPACITY ON CAMPUS ONLY

Classroom Capacity	Building	Total Rooms	# Rooms Scheduled	Weekly Room Hours	% of Seats Filled
1-15	--	--	--	--	--
16-30	H	3	3	7	77%
	S	1	1	8	58%
	G	5	3	5	56%
	GC	3	2	3	44%
31-40	S	1	1	11	54%
	G	8	5	8	61%
41-50	--	--	--	--	--
51-60	G	1	1	3	60%
100-115	S	1	1	5	47%
Totals/Averages		23	17	6	57%
Totals/Averages (H&S)		6	6	8	59%

WEEKLY ROOM HOURS



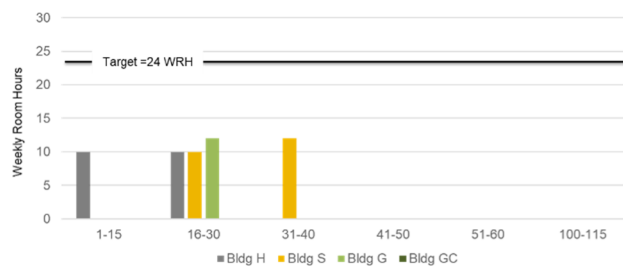
SEAT FILL RATE



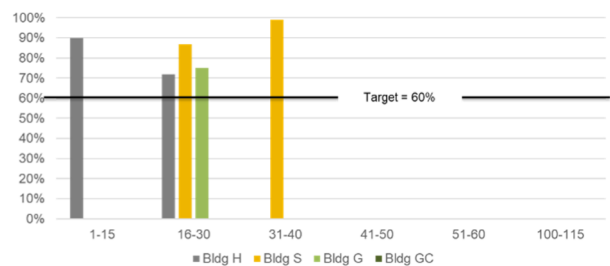
SCHEDULED LAB UTILIZATION BY CAPACITY ON CAMPUS ONLY

Lab Capacity	Building	Total Rooms	# Rooms Scheduled	Weekly Room Hours	% of Seats Filled
1-15	H	3	1	10	90%
	G	1	0	--	--
16-30	H	2	2	10	72%
	S	1	1	10	87%
	G	1	1	12	75%
	GC	1	0	--	--
31-40	S	1	1	12	99%
41-50	--	--	--	--	--
51-60	--	--	--	--	--
100-115	--	--	--	--	--
Totals/Averages		10	6	11	83%
Totals/Averages (H&S)		7	5	11	87%

WEEKLY ROOM HOURS



SEAT FILL RATE



RECOMMENDATIONS BASED ON UTILIZATION STUDY

● Scheduling & Capacity

LEVEL LOADED PROJECTION
(7-8 @ 50-60% UTILIZATION)

CURRENT CLASSROOM
QUANTITY (19)
G, GC, H, & S
(INCLUDES CLASSROOMS
& CLASS/LABS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

CLASSROOM NEED BY CAPACITY

	1-15	16-30	31-40	41-50	51-60	100-115	Total
Booked Minutes	0	140,765	84,520	0	13,310	19,055	257,650
Available Minutes (1 Classroom)		64,260	64,260		64,260	64,260	64,260
Rooms @ 50% Utilization		4.4 (5)	2.6 (3)		0.4	0.6 (1)	8.0 (9)
Rooms @ 60% Utilization		3.7	2.2		0.3	0.5	6.7
Rooms @ 70% Utilization		3.1	1.9		0.3	0.4	5.7
Rooms @ 80% Utilization		2.7	1.6		0.3	0.4	5.0
Rooms @ 100% Utilization		2.2	1.3		0.2	0.3	4.0
Current # of Rooms (Bldgs H&S)	0	4	1	0	0	1	6

16	Classrooms
3	Class/Labs
7	Labs
3	Arts/Science Labs
2	Computer Labs

Institution Name: Piedmont Tech College Respondent: William C. Mayo
 Building Number: H Name
 Building Name: Health Science Building Telephone: 864-941-8335
 Location: Greenwood E-Mail: mayo.w@ptc.edu
 Gross Square Feet: 16,728
 Year Const / Renov: 1982 2011
 Replacement Cost: \$3,433,200

Comments:

Owned Fee Simple (1)

Please do not enter data in the cells below this line. Begin data entry on Page 2.

	System Avg. Score	Multiplier		System % of Building		Current % Value Bldg.
Foundation	2.000	0.800	x	0.13	=	0.1040
Exterior Walls	2.125	0.763	x	0.13	=	0.0991
Floor	2.500	0.650	x	0.07	=	0.0455
Roof	1.667	0.867	x	0.07	=	0.0607
Interior Walls	2.500	0.650	x	0.03	=	0.0195
Windows	2.400	0.680	x	0.02	=	0.0136
Doors	1.600	0.880	x	0.01	=	0.0088
Ceiling	2.250	0.725	x	0.03	=	0.0218
Heating	2.375	0.688	x	0.10	=	0.0688
Cooling	2.375	0.688	x	0.10	=	0.0688
Plumbing	1.889	0.822	x	0.08	=	0.0658
Electrical	1.750	0.850	x	0.08	=	0.0680
Elevators	1.000	1.000	x	0.01	=	0.0100
Safety	1.333	0.933	x	0.05	=	0.0467
Design Standards	2.333	0.700	x	0.09	=	0.0630

Agency Rating: 1.00 0.764

Replacement Cost:	\$3,433,200
Building Condition:	76
Maintenance need	
Over 20 Years:	\$823,968

Bldg. Avg. Grade	Condition Code	Condition Multiplier	Difference
1	Satisfactory	1.00	
2	Remodel A	0.8	-0.2
3	Remodel B	0.5	-0.3
4	Remodel C	0.2	-0.3
5	Replace	0.00	-0.2

Building Name: Health Science BuildingBuilding Number: H

Foundation 1 - 2 - 3 - 4 - 5	Rating
Cracked Walls	2
Foundation Settlement	2
Foundation Deterioration	2
Design Load	2
Average	2

Exterior Wall System 1 - 2 - 3 - 4 - 5	Rating
Physical Condition	2
Waterproofing	2
Caulking	2
Pointing	2
Code Compliance	1
Insulation	2
Maintainability	3
Painting	3
Average	2.125

Floor System 1 - 2 - 3 - 4 - 5	Rating
Structural Condition	3
Maintainability	3
Floor Finish	3
Vibration	3
Fire Rating	1
Design Load	2
Average	2.5

Roof System 1 - 2 - 3 - 4 - 5	Rating
Physical Condition	2
Leaks	2
Drainage	2
Insulation	2
Fire Rating	1
Design Load	1
Average	1.667

Interior Wall System 1 - 2 - 3 - 4 - 5	Rating
Physical Condition	3
Strength & Stability	2
Acoustical Quality	2
Appearance	3
Adaptability	3
Maintainability	2
Average	2.5

Window System 1 - 2 - 3 - 4 - 5	Rating
Physical Condition	2
Appearance	2
Functional Ability	2
Infiltration	3
Maintainability	3
Average	2.4

Age of Roof Cover:	14
Type of Roof Cover:	TPO
Flat:	#
Pitched:	

Door System 1 - 2 - 3 - 4 - 5	Rating
Door Leaf	2
Frame	2
Hardware	2
Security	1
Fire Rating	1
Average	1.6

Ceiling System 1 - 2 - 3 - 4 - 5	Rating
Structural Condition	2
Accoustical	2
Accessibility	3
Appearance	2
Average	2.25

Heating System 1 - 2 - 3 - 4 - 5	Rating
Heating Capacity	2
Temperature Control	2
Noise Level	2
Air Circulation & Vent	3
Reliability	2
Reasonable Energy Consumption	2
Filtration	3
Humidity	3
Average	2.375
Age of System:	15
Heating Capacity-BTUs:	CEP

Cooling System 1 - 2 - 3 - 4 - 5	Rating
Cooling Capacity	2
Reasonable Energy Consumption	2
Temperature	2
Noise Level	2
Air Circulation & Vent	3
Reliability	2
Filtration	3
Humidity	3
Average	2.375
Age of System:	15
Cooling Capacity-Tons:	CEP

Plumbing System 1 - 2 - 3 - 4 - 5	Rating
Water Pressure & Supply Quantities	2
Sanitation Hazards or Cross Functions	2
Drain & Waste Function	2
Fixture Quantities	2
Fixture Types & Cond.	2
Wheel Chair Fixtures	1
Restroom Facilities	2
Roof Drainage	2
Site Drainage	2
Average	1.889

Electrical System 1 - 2 - 3 - 4 - 5	Rating
Safety Conditions	2
Service Capacity	2
Panel Capacity	2
Convenience Outlets	2
Light Levels	2
Fixtures	2
Emergency Power	1
Exit Lighting	1
Average	1.75

Elevator System 1 - 2 - 3 - 4 - 5	Rating
Size & Number	1
Maintainability	1
Code Compliance	1
Average	1

Safety Standards 1 - 2 - 3 - 4 - 5	Rating
Means of Egress	1
Fire Ratings	1
Extinguishing Systems	1
Detection & Alarm Sys.	1
Lighting Systems	1
Handicap Access	3
Average	1.333

Design Standards 1 - 2 - 3 - 4 - 5	Rating
Flexible Design	3
Suitable for Present Use	2
Gross to Assignable Area	2
Average	2.3333

Institution Name:	<u>Piedmont Tech College</u>	Respondent:	<u>William C. Mayo</u>
Building Number:	<u>S</u>		<u>Name</u>
Building Name:	<u>Health Science Building</u>	Telephone:	<u>864-941-8335</u>
Location:	<u>Greenwood</u>	E-Mail:	<u>mayo.w@ptc.edu</u>
Gross Square Feet:	<u>15,920</u>		
Year Const / Renov:	<u>1991</u> <u>2017</u>		
Replacement Cost:	<u>\$2,100,300</u>		

Comments:

Owned Simple Fee (1)

Please do not enter data in the cells below this line. Begin data entry on Page 2.

	System Avg. Score	Multiplier		System % of Building		Current % Value Bldg.
Foundation	3.500	0.350	x	0.13	=	0.0455
Exterior Walls	2.875	0.538	x	0.13	=	0.0699
Floor	2.167	0.750	x	0.07	=	0.0525
Roof	1.333	0.933	x	0.07	=	0.0653
Interior Walls	2.000	0.800	x	0.03	=	0.0240
Windows	1.800	0.840	x	0.02	=	0.0168
Doors	2.200	0.740	x	0.01	=	0.0074
Ceiling	2.750	0.575	x	0.03	=	0.0173
Heating	2.875	0.538	x	0.10	=	0.0538
Cooling	2.875	0.538	x	0.10	=	0.0538
Plumbing	2.333	0.700	x	0.08	=	0.0560
Electrical	1.750	0.850	x	0.08	=	0.0680
Elevators	1.000	1.000	x	0.01	=	0.0100
Safety	1.667	0.867	x	0.05	=	0.0433
Design Standards	1.333	0.933	x	0.09	=	0.0840

Agency Rating:

1.00

0.667

Replacement Cost: \$2,100,300

Building Condition: 67

Maintenance Need

Over 20 Years: \$693,099

Bldg. Avg. Grade	Condition Code	Condition Multiplier	Difference
1	Satisfactory	1.00	
2	Remodel A	0.8	-0.2
3	Remodel B	0.5	-0.3
4	Remodel C	0.2	-0.3
5	Replace	0.00	-0.2

Building Name: Health Science BuildingBuilding Number: S

Foundation 1 - 2 - 3 - 4 - 5	Rating
Cracked Walls	4
Foundation Settlement	4
Foundation Deterioration	4
Design Load	2
Average	3.5

Exterior Wall System 1 - 2 - 3 - 4 - 5	Rating
Physical Condition	3
Waterproofing	4
Caulking	4
Pointing	3
Code Compliance	1
Insulation	2
Maintainability	3
Painting	3
Average	2.875

Floor System 1 - 2 - 3 - 4 - 5	Rating
Structural Condition	2
Maintainability	3
Floor Finish	2
Vibration	3
Fire Rating	1
Design Load	2
Average	2.1667

Roof System 1 - 2 - 3 - 4 - 5	Rating
Physical Condition	2
Leaks	1
Drainage	1
Insulation	2
Fire Rating	1
Design Load	1
Average	1.333

Interior Wall System 1 - 2 - 3 - 4 - 5	Rating
Physical Condition	2
Strength & Stability	2
Acoustical Quality	2
Appearance	2
Adaptability	2
Maintainability	2
Average	2

Window System 1 - 2 - 3 - 4 - 5	Rating
Physical Condition	2
Appearance	2
Functional Ability	1
Infiltration	2
Maintainability	2
Average	1.8

Age of Roof Cover:	11
Type of Roof Cover:	TPO
Flat:	#
Pitched:	

Door System 1 - 2 - 3 - 4 - 5	Rating
Door Leaf	3
Frame	3
Hardware	3
Security	1
Fire Rating	1
Average	2.2

Ceiling System 1 - 2 - 3 - 4 - 5	Rating
Structural Condition	3
Acoustical	3
Accessability	2
Appearance	3
Average	2.75

Heating System 1 - 2 - 3 - 4 - 5	Rating
Heating Capacity	3
Temperature Control	3
Noise Level	2
Air Circulation & Vent	3
Reliability	3
Reasonable Energy Consumption	3
Filtration	3
Humidity	3
Average	2.875
Age of System:	32
Heating Capacity-BTUs:	CEP

Cooling System 1 - 2 - 3 - 4 - 5	Rating
Cooling Capacity	3
Reasonable Energy Consumption	3
Temperature	3
Noise Level	2
Air Circulation & Vent	3
Reliability	3
Filtration	3
Humidity	3
Average	2.875
Age of System:	32
Cooling Capacity-Tons:	CEP

Plumbing System 1 - 2 - 3 - 4 - 5	Rating
Water Pressure & Supply Quantities	2
Sanitation Hazards or Cross Functions	2
Drain & Waste Function	2
Fixture Quantities	3
Fixture Types & Cond.	3
Wheel Chair Fixtures	3
Restroom Facilities	2
Roof Drainage	2
Site Drainage	2
Average	2.333

Electrical System 1 - 2 - 3 - 4 - 5	Rating
Safety Conditions	1
Service Capacity	2
Panel Capacity	2
Convenience Outlets	2
Light Levels	2
Fixtures	2
Emergency Power	1
Exit Lighting	2
Average	1.75

Elevator System 1 - 2 - 3 - 4 - 5	Rating
Size & Number	1
Maintainability	1
Code Compliance	1
Average	1

Safety Standards 1 - 2 - 3 - 4 - 5	Rating
Means of Egress	1
Fire Ratings	1
Extinguishing Systems	1
Detection & Alarm Sys.	2
Lighting Systems	2
Handicap Access	3
Average	1.667

Design Standards 1 - 2 - 3 - 4 - 5	Rating
Flexible Design	2
Suitable for Present Use	1
Gross to Assignable Area	1
Average	1.3333

November 8, 2022

Capital Budgeting Manager, Executive Budget Office
1205 Pendleton Street – Suite 529
Columbia, SC 29201

RE: Piedmont Technical College, Health Sciences Building
OSE# H59-6193-CL

To whom it may concern,

Please accept the following in response to the SC required information for Phase II Construction Budget (Item 8):

8. If the project qualifies for the JBRC policy requirement to meet the LEED certification/Green Globes certification as the conservation measure, please attach the findings of a cost-benefit analysis showing the anticipated energy savings over the life of the project. Additionally, attach the checklist of items to be included to achieve LEED points or a description of the energy measures to achieve LEED.

A/E Response: The Piedmont Technical College Health Science Building project will pursue 2 Green Globes. A summary of the project's sustainable design goals and energy savings measures is shown below:

1. Overview
Piedmont Technical College plans to build a new approximately 27,000 square foot Health Sciences building in Greenwood, SC on their existing campus. The team will be pursuing Two Green Globes under Green Globes New Construction. Green Globes credits that are anticipated at this time are listed in the below sections. A scorecard insuring that this path will achieve 2 Green Globes will be created as part of the project's Schematic Design Phase.
2. Project Management
 - a. Meeting agendas and minutes will be kept by the Architect and Green Globes Consultant.
 - b. Environmental Management Plan developed by General Contractor showing environmental policies and checklists, including notes on protecting materials against mold.
 - c. Commissioning (Cx) – OPR (by Owner), BOD (by MEP design team), CxA hired for whole building systems review and inspections for mechanical, electrical, plumbing, lighting, BAS. CxA to use ASHRAE and shall also provide training for the operations team and development of an O&M manual.
3. Site
 - a. Erosion Control Plan developed by Civil Engineer.
 - b. Architect to spec a high SRI roof.
 - c. Stormwater Management Report with watershed targets, quantities, rainfall values, stormwater discharge and percolation test results.
 - d. Landscape Plan with native and drought tolerant plants.
 - e. Site lighting plan showing no lighting above 90 degrees, fixtures meeting glare and BUG limits.
4. Energy
 - a. An energy model will be created using ASHRAE 90.1 to show percent reduction in total energy usage versus a baseline. Once created, this document will provide a cost-benefit analysis showing the anticipated energy savings over the life of the project.
 - b. Insulation above roof deck R20, attic R38, walls R13, slab on grade R7.5 for 12".
 - c. Lighting power density calculations will be completed by Electrical Engineer.
 - d. Sensors or time devices on electrical plans for at least 10% of spaces.
 - e. Lighting controls to reduce lighting loads by at least 50%.
 - f. Exterior luminaires with efficacy of at least 60 lumens/watt, LED, low/no mercury, photo sensors.
 - g. BAS for energy, thermal comfort and lighting.
 - h. Heating equipment exceeds ASHRAE 90.1-2007/2010 by x% (3-4% minimum).
 - i. Hot water heaters meet ASHRAE 90.1 2007/2010, equipped with electrical igniters, low Nox burners.

- j. 75% or more of connected hydronic pumping power has variable speed control.
 - k. Air economizers with outdoor air for cooling, controls to shut system down during down times, low leakage.
 - l. Ducts with noise criteria of 35 or less, pressure drop no more than 0.1" of water column/100 lineal feet, flex duct restrictions.
 - m. Occupancy and/or CO2 sensors, maintain calibration within 2% for 1 year.
 - n. Elevator(s) will use regenerative drive systems.
5. Water
- a. Use of Watersense plumbing fixtures for toilets, urinals, lavatories.
 - b. Boilers with makeup meters, condensate return systems, and conductivity controllers.
 - c. For all lab and medical equipment, use of mechanical vacuum systems for sterilizers, water tempering devices, dry vacuum systems, imaging equip with digital tech, and wet scrubbers with water recirculation.
 - d. Irrigation system with a rain sensor, drip or low volume lines/heads, EPA Watersense technology, and flex piping for heads.
6. Materials and Resources
- a. 75% minimum of construction waste recycled.
 - b. Recycling program for operations phase of the building.
 - c. Third party inspections for roof membrane, flashing, roof and wall openings, foundation systems, exterior wall cladding and air barriers.
7. Emissions
- a. Refrigerants with low global warming potential GWP<=100 to 1500
 - b. Designated storage areas for janitorial supplies, full height walls, ventilation, doors and walls.
8. Indoor Environment
- a. IAQ calculations showing compliance with ASHRAE 62.1-2007 or 2010, ventilation schedule included on plans for occupied spaces.
 - b. Ez value >=0.9 in regularly occupied spaces for mechanical ventilation.
 - c. CO2 sensors in multi-occupant rooms.
 - d. MERV 13 filters specified on mechanical plans for units.
 - e. HVAC monitors dewpoint, materials resistant to mold in high humidity areas, floor drains in equipment areas.
 - f. Integrated pest management controls in place including outdoor air inlets with screens 18x14, screens/sealants at openings, location of the signs on the building will reduce bird habitation, and ledges are <1" to prevent bird roosting.
 - g. Separate ventilation for laundry, labs, printing areas with a negative pressure of 5.0 pascals on average.
 - h. Shading devices on south, east, and west facing walls and photosensors.
 - i. Mechanical Engineer does calculations showing compliance with ASHRAE 55-2010.

Please advise if you have any further questions.

Sincerely,



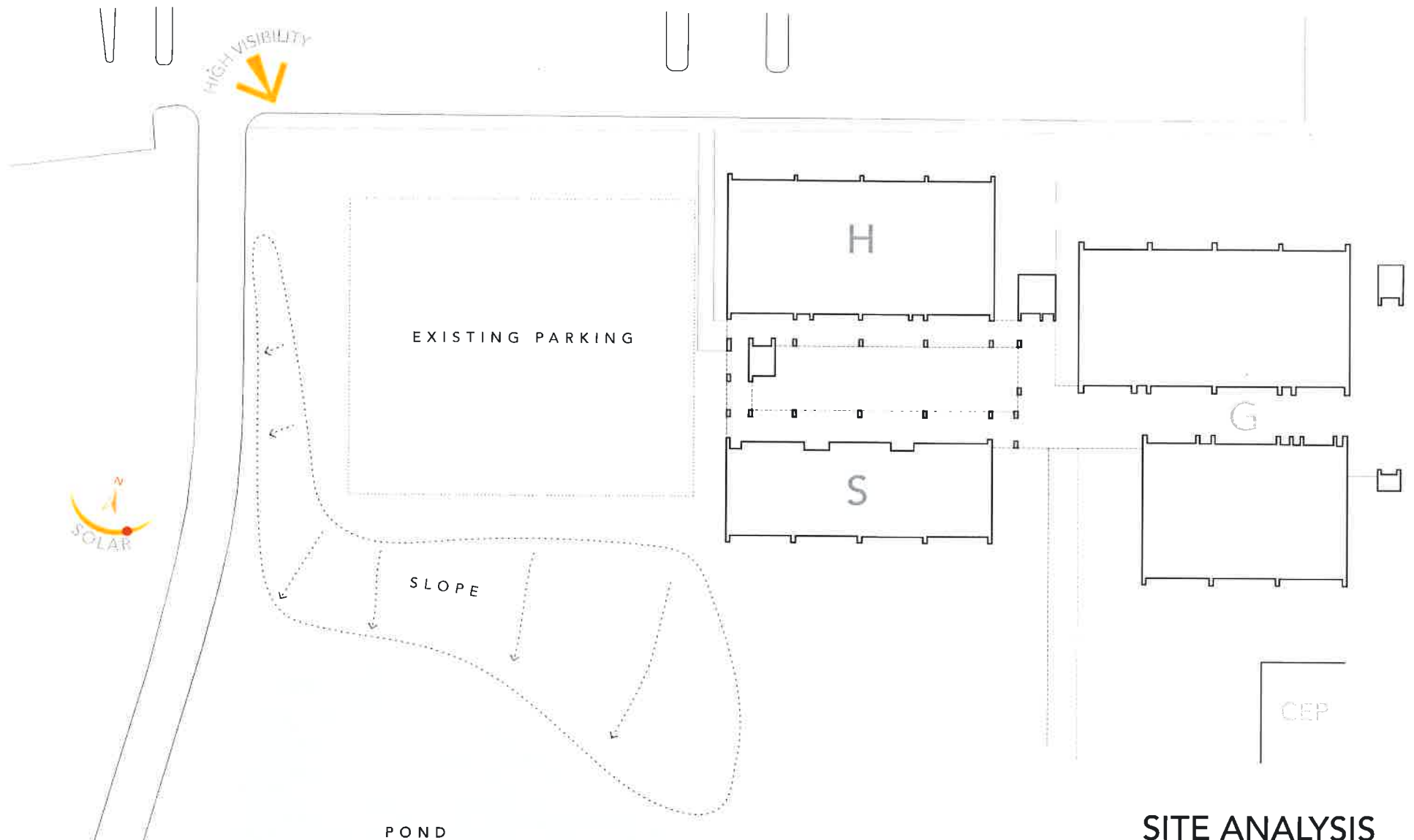
Jeffrey K. Tiddy, AIA
McMillan Pazdan Smith Architecture

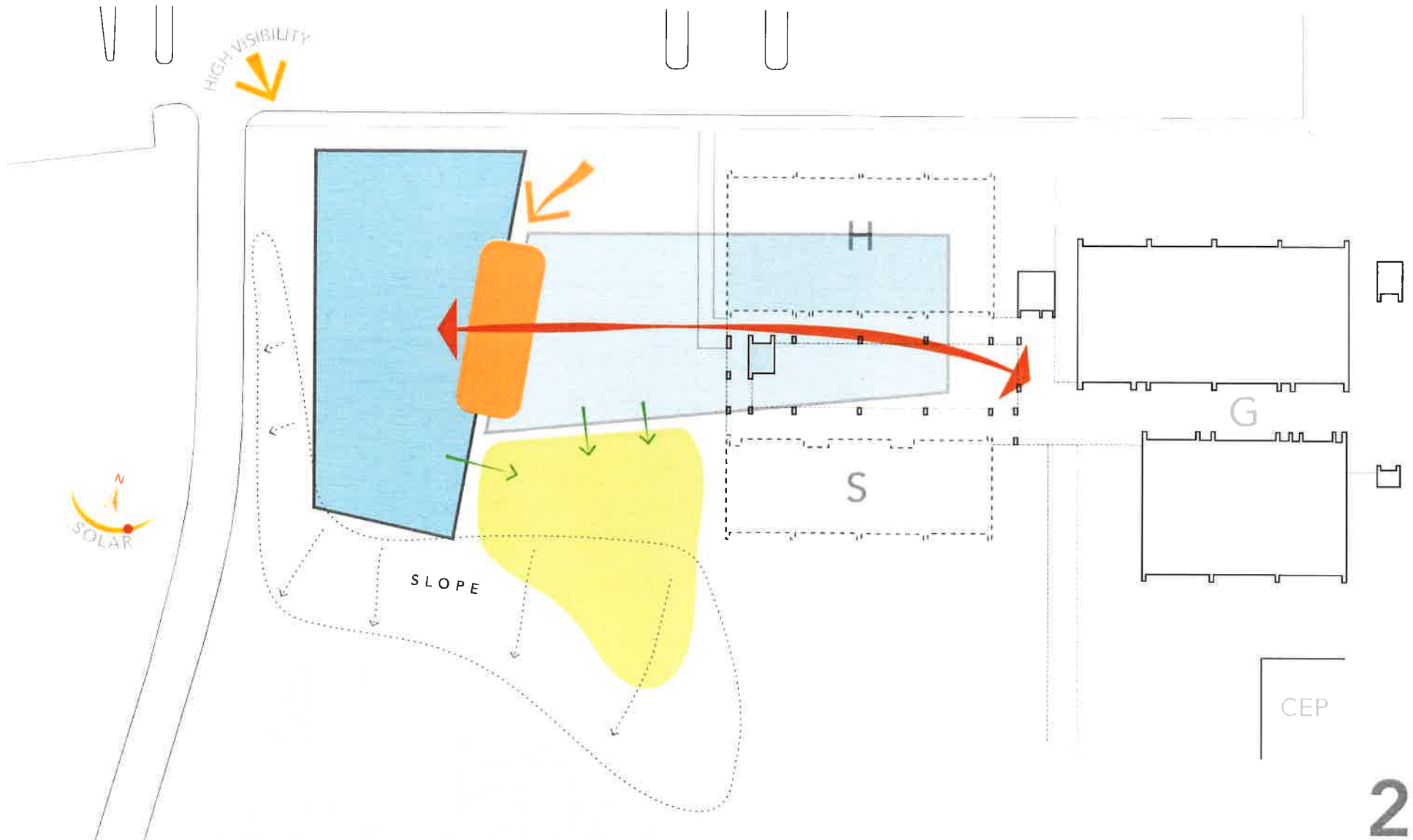
PHASE 1 PRIORITIES:

- Spaces currently remote and should be consolidated onto campus (Cardiovascular)
- Labs that are particularly challenged for growing programs (Nursing Skills/Nursing Simulation)
- Spaces that are currently most deficient of standards and best practice (Nursing Simulation)
- Some spaces that support IPE (Nursing Skills IPE and Simulation rooms)
- Competitive elements that significantly contribute to student life (Commons/Collaborative areas/Cafe)
- Associated Classroom and Computer Spaces to support lab and simulation to augment existing spaces in adjacent buildings
- Locate showcase skills space in highly accessible areas for "science on display"

PHASE 2

- Chemistry and Biology Labs and other Classrooms
- Radiology
- Respiratory Care
- Medical Assistant
- Surgical Tech
- Pharmacy
- Faculty + Administration
- Event Space + Student Support



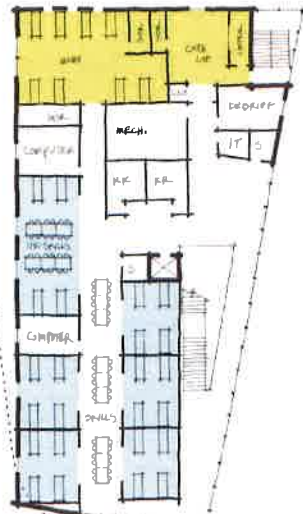


mcmillan | pazdan | smith
October 27, 2022 ARCHITECTURE

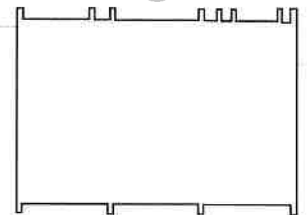
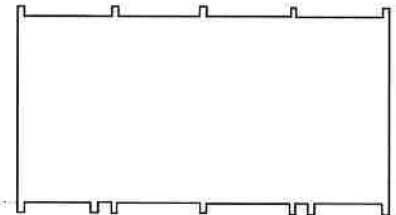
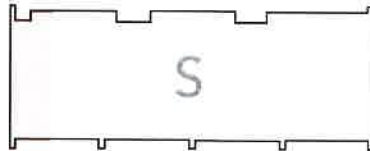
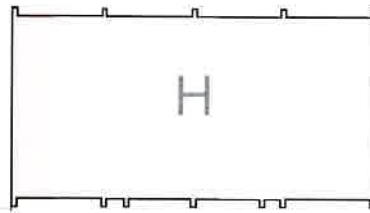
PIEDMONT TECHNICAL COLLEGE HEALTH SCIENCE



2



SLOPE



CEP

Option 2 Level 2

PIEDMONT TECHNICAL COLLEGE
HEALTH SCIENCE

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Option 2 Phase 2

PIEDMONT TECHNICAL COLLEGE
HEALTH SCIENCE

		Phase I	Phase 2
New Square Footage		27,000	53,000
Estimated New Construction Cost Per SF: \$400		10,800,000	21,200,000
Renovation Square Footage		-	-
Estimated Renovation Cost Per SF: \$250		-	-
Total Estimated Construction Cost		10,800,000	21,200,000
Architectural	40.0%	4,320,000	8,480,000
Civil	8.0%	864,000	1,696,000
Structural	20.0%	2,160,000	4,240,000
Fire Protection	2.0%	216,000	424,000
Plumbing	5.0%	540,000	1,060,000
Mechanical	15.0%	1,620,000	3,180,000
Electrical	10.0%	1,080,000	2,120,000
	100.0%		
Subtotal		10,800,000	21,200,000
Design Contingency	7.0%	756,000	1,484,000
Construction Contingency	8.0%	864,000	1,696,000
Cost Escalation	to Phase I: 10.0% to Phase II: 7.0%	1,080,000	6,572,000
assumes 3 yr gap between phases and 12 months escalation before Phase I			
Estimated Total Construction Budget		13,500,000	30,952,000
A/E Basic Services Fee		810,000	1,590,000
Testing and Inspections	1.5%	162,000	318,000
FF&E	12.0%	1,296,000	2,544,000
AV / IT / Security	8.0%	864,000	1,696,000
Estimated Project Fees		3,132,000	6,148,000
Estimated Total Project Cost		16,632,000	37,100,000
Total Cost - All Phases		53,732,000	



SCHEME #7

Phased, Full Building Replacement

SUMMARY:

- PHASE 1:**
- ▶ New Building for Simulation & Skills Labs (~27,000sf)
 - ▶ No work in Building H & Building S
- PHASE 2:**
- ▶ Demolition of Building H & Building S
 - ▶ New Building or Addition for Remaining Program (~53,000sf)

DESIGNATES # OF STORIES

NEW CONSTRUCTION

PHASE 1

PHASE 2

RENOVATION

PHASE 1

PHASE 2

Proposed Project

PIEDMONT TECHNICAL COLLEGE
HEALTH SCIENCE BUILDING RENOVATIONS AND EXPANSION

October 07, 2022

