FISCAL YEAR 2025

CAPITAL OUTLAY MAJOR PROJECT REQUEST

Institution Name:	Grand Valley State University
Capital Outlay Code:	
Request Code:	
Project Title:	Blue Dot Lab
Project Focus:	Academic
Type of Project:	Renovation and Addition
Approximate Square Footage:	175,000 sf
Total Estimated Cost:	$140 Million
Estimated Duration of Project:	Three Years
Is the Five-Year Plan posted on the department's public Internet site?	Yes
Is the requested project included in the Five-Year Capital Outlay Plan?	Yes

Project Purpose.

GVSU Blue Dot Center for Talent, Technology and Transformation

Technological innovation is fundamentally transforming the world we live in, requiring all institutions of learning to update their course of study, physical layouts, and enterprise relationships to align with the skills required for the contemporary workplace and the new economy. We know that all business and industries must transform with the evolution of technology and the role that big data and artificial intelligence, just to name a few, will have on our world. During this transformation, we will all face the threat of insufficient numbers of people entering the workforce with the necessary human, digital and translational skills. GVSU intends to provide a solution to that imminent threat.

This paradigm shift is best approached with education, industry and the community coming together to catalyze solutions and ensure that more talent leave higher education with future-ready skills and an ability to make a profound positive impact on our state.

Grand Valley State University plans to become the intersection for this convergence of talent, transformation, and technology by establishing the Blue Dot Lab, a trans-disciplinary hub of teaching, learning, innovation, and research that will develop skills in every graduate for an ever-changing world. The Blue Dot Lab will be a regional and national beacon supporting the 1) development of digital literacies in all GVSU graduates 2) expansion of the number of graduates with deep technical, computing, data, AI and related expertise and 3) expansion of the applied research and business supports through increased synergies between GVSU, startup organizations, entrepreneurs, local businesses, and corporate partners to advance their digital transformations.

Blue Dot will enable the creation of a rich ecosystem of talent in a world-class facility that will produce superior learning outcomes through a new learning model, increasing experience and project-based learning for students, affording more solutions to critical problems for employers and supporting the regional economic development and economic transition as we migrate from an industrial to digital and AI economy. These collaborations will be designed to increase educational access as we facilitate future-ready 21st century digital literacy and expand the skills driving the new economy. By working together with business and combining the value offered by GVSU's digitally infused curriculum, students, faculty, and staff can generate breakthroughs and accelerate solutions to local and global challenges.

Scope of the Project.

The Blue Dot Lab will provide unique learning spaces central to business and industry that do not exist elsewhere on campus. They will be designed to encourage interdisciplinary work to drive deep learning and innovative thinking so desired by employers. The Blue Dot Lab will serve as GVSU's response to high impact teaching and learning and applied research in critical areas. The Blue Dot lab is founded on a vision of creating proficiency in digital skills, catalyzing the highest forms of cooperation amongst GVSU and the community and reducing the degree of separation between resources and the people needing them most.

The facility will feature technology-rich teaching environments, flexible learning spaces, and trans-disciplinary innovation centers. It will invite business and industry to bring forward their transformation and talent challenges to work together with students and faculty to find solutions. A curated slate of physical - audio and video studios, fabrication labs, collision spaces, research labs, and presentation space - and software tools - audio and video editing, graphic design, data visualization, 3-D modeling - will be integrated to create an easily accessible hub for the development of digital skills and their integration in all endeavors. Students, faculty, and the community will leverage Blue Dot Lab for its state-of-the-art technology and transformation resources. It will provide the home for and

expansion of our computer science college/program and the Applied Computing Institute. These programs will build competencies in computing, data science, cybersecurity, machine learning, and adjacent fields for our students. The Blue Dot will also be home to a new trans-disciplinary program at the intersection of business, technology, and design.

The environment will be rich with experiential learning and industry collaboration with the aim of further enhancing learning opportunities for GVSU students, while simultaneously providing key industry partners with access to faculty, staff and student resources in computer science and related disciplines.

Below are examples of the types of spaces the Blue Dot Lab will incorporate.

- Active Learning Classrooms – Places to learn and develop critical digital competencies, whether that be how to create a succinct presentation or how to use photo/video editing tools to enhance a project for class.
- Audio / Video Production Labs – Spaces to experiment and hone skills using the latest technology and software to create, develop and publish digital content. Creating new ways to use virtual reality (VR) or produce podcasts and digital videos. These are spaces to create digital content, not just consume it.
- 3D Fabrication Labs – Creating hands-on learning opportunities where users can take the digital concepts they have created and turn them into physical objects and prototypes. These spaces bridge the gap between theory and reality.
- Research and Design Studios – Reserve-able places for long-term or semester long project teams can be used as a "home base" for their research or project-based learning courses. These places are located adjacent to the production and fabrication labs to take advantage of the latest technology and tools for these teams to further their exploration.
- Huddle Rooms – Reserve-able and open rooms for short-term group projects. A place to collaborate with peers and to complete course work and class projects.
- Technology Help Desk – It is not only important to have the latest technology available, but equally important that someone is there to show the users how to use the technology or software. The Help Desk will provide experts that are trained to use the equipment and technology in the Blue Dot Lab. They will also provide seminars and training courses on a variety of software and digital topics (cyber security, social media safety, etc.)
- Emerging Technology Hub – This space will have GVSU staff and students researching emerging technologies, partnering with industry leaders to beta test the newest technologies and software coming to market. The Blue Dot Lab will fulfill digital competency needs for today's world as well as anticipate the needs of tomorrow.
- Global Classroom – This space will allow GVSU learners to collaborate with industry leaders and other institutions from around the world. These spaces will be equipped with technology that allows for easy transfer of information and collaboration virtually anywhere in the world. There will be places to hone presentation skills, especially for potential employers and investors.
- Simulation and Visualization spaces – Faculty and staff can use this space to create models, experiment with them, visualize them, and interact with them using state of the art visualization tools and virtual and augmented reality environments.
- Faculty Research and Collaboration space – Creating spaces for faculty and staff to gather and collaborate on an interdisciplinary scale is critical. This is a space where faculty can find other "Big Idea Thinkers" to create new cross- disciplinary challenge courses or research new ways to increase on-line course offerings.
- Start-up and Community Partner space – This is an area specifically designed for the interaction of GVSU and Industry partners to explore, hone, and innovate with each other. This space allows a place for GVSU partners to gain access to faculty experts, the latest technology and students with a passion for innovation.

Program Focus of Occupants.

There are three primary areas of focus for the Blue Dot Lab:

1) Digital skills enhancement across all programs and majors for GVSU students.

   No matter the major or degree pathway, all GVSU students need to have enhanced digital skills to meet the expectations of today's and tomorrow's workforce. The primary purpose of the Blue Dot Lab is to serve as a learning and teaching place for all, dedicated to supporting team-based, project-based, and problem-based learning, with students becoming increasingly fluent in the emerging digital language and skill sets demanded by today's workforce and post- secondary education.

2) Expand the number of GVSU graduates with deep technical, computing, data, AI and related expertise.

   The facility will house computer science, data science and trans-disciplinary degrees at the intersection of computing, business, and the humanities. Blue Dot will allow GVSU to drastically increase the number of these graduates. The profile of the graduate from these programs will be a perfect fit for the jobs of the future.

3) Significantly increase synergies between GVSU, startup organizations, entrepreneurs, local businesses, and corporate partners to advance their digital transformations through the expansion of applied research and experiential learning for students.

   The Blue Dot Lab will be a collaboration space and innovation accelerator for faculty and students working on applied research and projects supported by digital simulation, data analytics and virtual environments. It will also ignite a new model of collaboration with a blend of educational institutions, startup organizations, entrepreneurs, local businesses, and corporate partners all in the same space, solving our state, national and global problems.

How does the project support Michigan's talent enhancement, job creation and economic growth initiatives on a local, regional and/or statewide basis?

Employers must simultaneously attract new talent and up-skill 50 percent of their current workforce. Employers have identified the most in-demand 'soft' skills as teamwork, communication, and problem solving and the most desirable 'hard' skills as analytical skills, IT skills, and technical skills/computer knowledge (survey by zety.com of 200 hiring managers in 2021). According to the National Association of Colleges and Employers (naceweb.org), among the top ten attributes in demand by employers for 2021 were: ability to work in a team (#1), problem solving skills (#2), analytical/quantitative skills (#3), communication skills (#4), and technical skills (#8).

Encouragingly, this aligns with what most Americans want from their higher education institutions moving forward. A national survey by Populace revealed that, "American priorities for higher education paint a dynamic picture of learning in action, on-the- job training in the form of internships, hands-on workshops and lab-based classes, and instruction from professors who have industry bona fides over textbook credentials." The Blue Dot Lab will serve as GVSU's response to this new approach to teaching and learning - one that can help drive job creation throughout the region and serve as a national model for the re-imagined, modern learning culture and environment.

In addition, West Michigan is poised to capitalize on the knowledge-based economy. Already, more than 1,100 IT

establishments call greater Grand Rapids home and provide more than 11,500 jobs. The sector has a projected job growth rate of more than 18% and needs to be supported by a substantial increase in tech graduates each year. The growth required in technical, engineering and STEM is 10 X our current degree production over the next decade. The Greater Grand Rapids region alone has seen an 82% increase in tech job postings between 2020 and 2022. In a recent survey of regional employers, 78% of companies identified technology as "highly important" to their strategy in the coming years and 72% of them plan to increase their tech hiring needs in the next five years. To meet those needs, we need more tech talent. Blue Dot will provide that talent.

In sum, the work of the Blue Dot Lab will accelerate the preparation of all GVSU students to imagine and actively participate in the growth economy and will develop new and expanded programs including the expansion of computing and new trans-disciplinary programs. Blue Dot will allow GVSU to specifically prepare graduates for the jobs of the future with cross disciplinary training, a collaborative mindset, and a keen awareness of the many interactions between technology, human behaviors, and human values in the future of Michigan and beyond.

The Blue Dot Lab's infrastructure will also create a "local innovation ecosystem," something MIT's Elizabeth Hoffeker defines as a "place-based community of interacting actors engaged in producing innovation and supporting processes of innovation, along with the infrastructure, resources, and enabling environment that allow them to create, adopt, and spread more effective ways of doing things."

How does the project enhance the core academic, development of critical skill degrees, and/or research mission of the institution?

Beginning in 2024, GVSU will add digital literacy as a required outcome of all undergraduate students, regardless of their primary program focus. This will ensure that all students have the requisite digital skills to function in today's society and beyond and will include directed and self-directed learning, curricular/co-curricular/extracurricular mechanisms, necessary academic supports and practice or co-op opportunities. Faculty from every department will integrate the resources in the Blue Dot Lab into their course work. Business and industry will inform and co-create our coursework to best design solutions to their talent challenges. We plan to develop the digital literacies necessary to equip an individual for living, learning, and working in a digital society. Here are just a few examples of digital skills, fluencies, and competencies they will learn:

- *Data and Information literacy*
- *Digital image manipulation*
- *Digital object creation and Multimedia composition creation*
- *Digital collaboration with teams and projects*
- *Selection, use, and critique of digital tools and platforms*
- *Digital learning and personal learning networks*
- *Digital identity management and wellbeing*

The Blue Dot will be home to new academic trans-disciplinary programs, integrating technology, business, and humanities. These programs are currently under development and set to start within a year. They include new full bachelor's and master's degrees as well as stackable badges and certificates. Employers in our state have clearly articulated a need for "new talent" and the need to up-skill half of the current workforce. The Blue Dot lab will provide the anchor for the creation and enhancement of the critical skills workers for the future must have.

The Blue Dot Lab has been designed and located to be accessible to all students, faculty, and community members.

The Blue Dot Lab will create the opportunity for people to connect and learn from each other. This reciprocity of learning (learning from not only experts but peer-to-peer learning) will be embedded in the culture and activation of the space.

The Blue Dot Lab is not "owned" by any one department or college at the University, but will be managed by an internal team who are responsible to all degrees, departments, and colleges. It will not matter which educational pathway a person is on; they will be able to engage in the Blue Dot space. No longer will a student's ability to have access to this new digital technology be based on who they know.

Key to the DNA of the Blue Dot Lab is its ability to create hands-on, experimental learning for the GVSU community. Students, faculty and staff will have the same access to these tools to further the research and innovation of their education and course work. There are places and spaces for teams to work on innovating new technology and spaces "to find other Big Idea Thinkers." There are places for people to see what others are doing and to be seen by others. This will build a community of innovation that gives GVSU students an advantage in their future pursuits.

Concurrent with the development of the Blue Dot Lab, GVSU has adopted a strategic plan for the university called Reach Higher 2025. The Blue Dot Lab will be an integral component for GVSU in the achievement of Reach Higher 2025's three key strategic goals:

- Empowered Educational Experience - Develop an educational pathway reflective of our students' unique experiences and passions. We accomplish this through cutting-edge programs, experiential learning, a foundation of liberal education, a relationship-rich community, and each student's personal network of mentors and advisors.
- Lifelong Learning - The approach to teaching and learning integrates liberal and professional education in both disciplinary and interdisciplinary ways and is directly relevant to the worlds you will shape. Our faculty will model the passionate pursuit of lifetime learning through cutting-edge research, scholarship, and expression. We will pursue reciprocal relationships with alumni and community partners to create sustainable and supportive learning networks.
- Educational Equity - Together, we ensure that our community serves as a catalyst towards a more just and sustainable world on our campuses and beyond. We work to eliminate disparities and obstacles for student success, especially those that have historically been along lines of race, gender, class, and social structures.

Is the requested project focused on a single, stand-alone facility?

Yes, the Blue Dot Lab would be a single stand-alone facility on the Grand Valley State University Campus.

The Blue Dot Lab would be the renovation of an existing 1988 academic building plus a new addition.

How does the project support investment in or adaptive re-purposing of existing facilities and infrastructure?

The primary focus of the project is to bring the 35-year-old Eberhard Center into alignment with the ongoing evolution of best practices for instructional methods while supporting the strategic mission of GVSU to deliver exceptional experiential learning to our students.

Adaption of the existing 10 story, 160,000 sf building is being pursued through two avenues: the renovation of usable

facilities into new purposes and the demolition and repurposing of poorly utilized tiered lecture halls. Both are critical to repurpose the facility into an academic center which supports current curriculum and pedagogies to maximize benefits to students. The result will be a full renovation to the facility and expansion to an approximate size of 175,000 sf.

The existing location of Eberhard Center provides a strategic opportunity to advance University initiatives centered around experiential learning. Located between the GVSU Pew Campus and downtown Grand Rapids, Eberhard Center will serve as a gateway to the University and provide the opportunity to engage the local business community, allowing partnerships to be built in support of experiential learning and job placement.

Built in 1988, Eberhard Center has not seen any major renovations throughout its history. While the building has been maintained at a high level by the University, a 2020 facility conditions assessment identified $32 million of asset improvements which were recommended to addressed by 2026. These improvements are the result of the natural aging of the facility including façade/envelope restoration, mechanical system replacement, and energy improvements. The project includes the funding to address these improvements in totality removing the $32 million from the University's deferred maintenance budget.

Does the project address or mitigate any current health/safety deficiencies relative to existing facilities?

The existing facility is designed and built to standards which do not meet those currently in place. The scope of work identified will bring the facility in line with current standards while also addressing maintenance aspects related to cleanliness, both of which will contribute to a significant improvement to occupant health and safety.

Current mechanical systems will be replaced to improve occupant health through improvements to indoor air quality, thermal comfort, and fresh air intake. This improvement will also result in reduced operational costs because of improved energy efficiencies, lowering overall operational costs while providing more resources for janitorial services.

The renovation will also increase natural daylight into the facility through new exterior glazing. In response, electrical systems will be improved to address light levels while implementing systems that respond to daylight conditions through new fixtures and lighting controls creating an overall improved learning environment.

New finishes will be integrated throughout the building to replace those that are difficult to clean including rough face brick and small format tiles. The design will also implement best practices in cleaning, focusing on simplicity and durability. These changes will result in decreased janitorial costs per square foot as well as a healthier environment.

The renovation will also bring the building up to current Michigan Bureau of Fire Services standards including fire suppression and alarm systems.

How does the institution measure utilization of its existing facilities, and how does it compare relative to established benchmarks for educational facilities? How does the project help to improve the utilization of existing space and infrastructure, or conversely how does current utilization support the need for additional space and infrastructure?

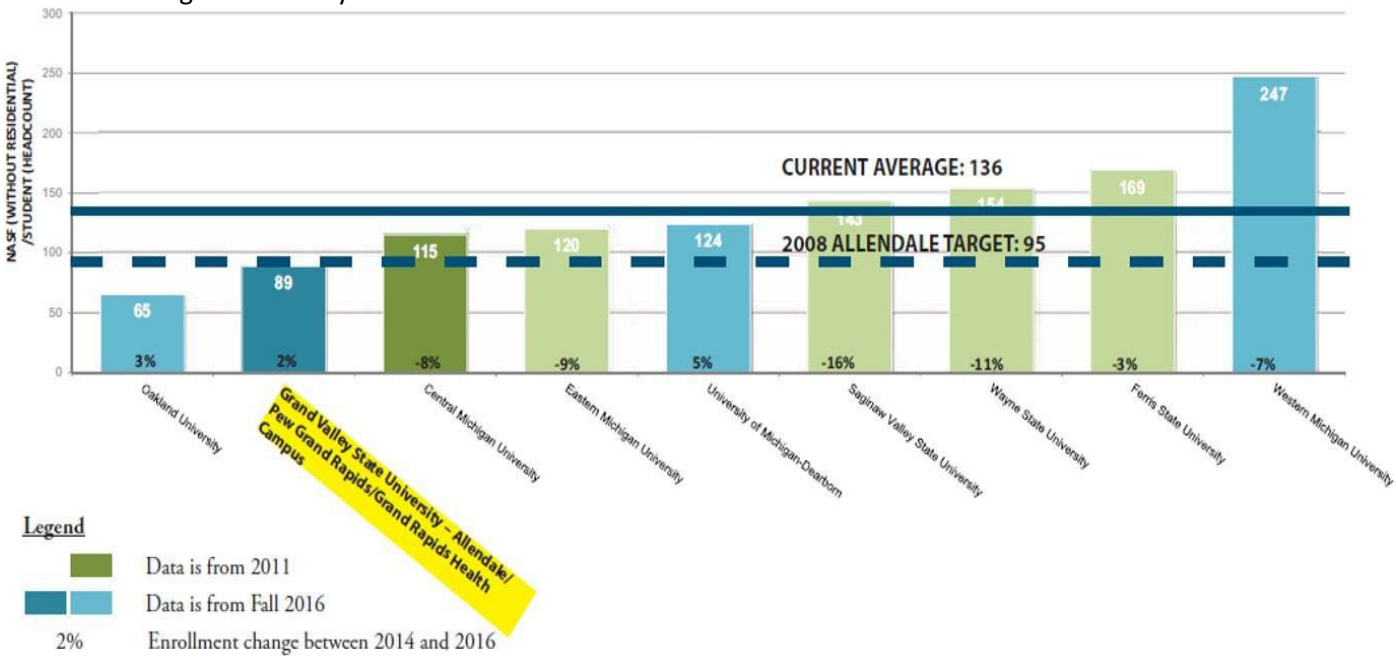
Utilization: GVSU has a detailed report of its facility utilization within the Capital Outlay 5 Year Master Plan submittal.

Benchmarking: A benchmarking study was completed of GVSU-identified peers, both in-state and out-of-state, to understand how GVSU compares in space/student or NASF/headcount. Peer benchmarking shows that GVSU is undersized compared to many of its peer institutions.

Michigan public institutions were evaluated regarding total NASF/headcount. This study offers a great range of differences regarding student enrollment, demographics, and academic programs. To create a more equitable peer comparison, GVSU removed public institutions from peer comparison that had student enrollment less than 9,000 students or larger than 30,000 students or were categorized as Carnegie High Research-Intensive institutions. The universities that were removed from the peer comparison include the University of Michigan-Flint, Michigan Technological University, Northern Michigan University, and Lake Superior State University.

The remaining eight in-state, public, four-year universities selected by GVSU for benchmarking were:

Central Michigan University
Eastern Michigan University
Ferris State University
Saginaw Valley State University
Oakland University
University of Michigan – Dearborn
Wayne State University
Western Michigan University



At 89 NASF per student headcount for academic space, GVSU is well below the state peer average of 136 NASF/headcount.

The existing Eberhard Center will be reconfigured, repurposed, and enlarged to support the Project Purpose and Scope of Project described above. It will include technology-rich learning environments such as digital labs, fabrication workshops, makerspace, active learning classrooms, and collaboration and design studios. Flexible space for startup organizations, entrepreneurs, local businesses, industry partners will be provided to support connections with faculty and experiential learning opportunities for students leveraging intellectual talent to solve problems and challenges faced by our state today.

Departments, classes, and programs that currently reside in the existing building that are not closely associated with the Project Purpose will be moved to other university buildings with capacity for higher utilization.

How does the institution intend to integrate sustainable design principles to enhance the efficiency and operations of the facility?

Implementing LEED® sustainable design principles improves the environment for human beings to work and learn. Occupant wellbeing, environmental performance and economic returns are achieved using established and innovative practices, standards and technologies that are incorporated in the design, construction, and operations of the building. GVSU strives to achieve a balance between creating environmental responsible buildings that concentrate on sustainable sites, energy performance, material and resources and indoor environmental quality, while being fiscally responsible stewards of public funds.

The age of the existing Eberhard Center leads to poor energy performance. A recent energy analysis concluded that the current facility has an energy use intensity of 141 kbtu/sf which is significantly above current baselines. This proposed renovation project would replace and improve mechanical systems and controls, improve thermal performance of the envelope, improve efficiency of electrical systems and lighting, include occupancy-based controls, and strive to achieve LEED® certification. These improvements would result in an energy use intensity of 84 kbtu/sf, which is a 40% reduction in energy use for this facility.

Adapting existing building stock is critical to reducing the overall environmental impact of the project by eliminating the need to produce and transport new materials. Within the project scope the intent is to retain major elements of the existing building including structural steel, masonry, and facades. This strategy will lead to a significant reduction in embodied carbon over a new construction project.

The location of the building within the core of Grand Rapids provides access to transit and walkability. The building is located along a major public transit corridor, bike networks, and pedestrian paths that serve the entire region. The facility will provide the necessary resources for multimodal transportation including access to existing bus stops, bike storage, and bike repair stations.

The project location also seeks to address the flood issues along the Grand River through a resilient site design that allows water levels to adjust without damage to surrounding properties. Not only will this create a more natural environment and habitats, this will also provide greater access for the public to the river.

Water management is also a key element of the design. Low flow fixtures will be utilized within the facility with storm water management included in the site design. Overall, the project is anticipated to result in a reduction of non-pervious surfaces on the site.

Are match resources currently available for the project? If yes, what is the source of the matching resources? If no, identify the intended source and estimated timeline for securing said resources.

The land is University owned. Yes, matching resources will come from a combination of University Reserves, Debt Issuance, federal funding and grants, and/or university donor funds. If bank or market financing is determined to be required for this project, funds can be obtained in 6 months.

If authorized for construction, the state typically provides a maximum of 75% of the total cost for university projects and 50% of the total cost of community college projects. Does the institution intend to commit additional resources that would reduce the state share from the amounts indicated? If so, by what amount?

Yes, GVSU is requesting the State to fund $30 Million of the project cost, with GVSU funding the remaining $110 Million of the project cost. The university is supporting over 75% of the project cost and requesting the State to support less than 25% of the project cost.

Will the completed project increase operating costs to the institution? If yes, please provide an estimated cost (annually, and over a five-year period) and indicate whether the institution has identified available funds to support the additional cost.

The renovation of the existing building is expected to decrease annual operating costs because of the infrastructure improvements being proposed. Annual energy savings are estimated at $154,000. Over a 5-year period, energy savings are estimated at $770,000.

Funding is available for the operations and maintenance of the proposed building.

What impact, if any, will the project have on tuition costs?

There will be no impact on tuition costs.

If this project is not authorized, what are the impacts to the institution and its students?

The type of skills and learning opportunities the Blue Dot Lab will provide GVSU students are among the most essential for those entering the workforce. Consequently, not authorizing this project would seriously hinder not just Grand Valley's, but also Michigan's efforts to proactively prepare its residents for the challenges and opportunities of our rapidly changing modern world.

Projects like Blue Dot allow our state to demonstrate its understanding of the ways the world is changing - and how its own systems and structures must change as well. Indeed, our hope and expectation are that the insights and energy that it generates will spread across campuses and communities as a living model of what the future of learning must look like -- and what it will require.

What alternatives to this project were considered? Why is the requested project preferable to those alternatives?

This project and the transformation of an existing academic building is essential to accomplish the teaching and learning, research and development, and collaboration outcomes described above.

1) Digital skills enhancement across all programs and majors.

   The Blue Dot Lab will serve as a central learning and teaching hub, dedicated to supporting team-based, project-based, and problem-based learning resulting in skill sets demanded by today's workforce. Unique, technology-rich, flexible learning spaces made available to students across all academic programs would not be as successful in other existing buildings. Other university buildings are not of the size and location required to provide a synergistic center necessary for this interdisciplinary work.

2) Expand the number of graduates with deep technical, computing, data, AI and related expertise.

   The facility will house computer science, data science and trans-disciplinary degrees at the intersection of computing, business, and the humanities. Additional program space is not available in the engineering, computing, and business colleges. The existing academic building proposed to be renovated is adjacent to the associated colleges with renovation opportunities that are achievable to meet the program requirements.

3) Expand the applied research and business support through increased synergies between GVSU, startup organizations, entrepreneurs, local businesses, and corporate partners to advance their digital transformations.

   The Blue Dot Lab will also be a collaboration space and innovation accelerator for faculty and students working on applied research and development projects supported by digital simulation, data analytics and virtual environments. The location of the existing building is in the heart of Grand Rapids and is intentional and strategic to provide opportunities for collaboration and fusion between the university, entrepreneurs, business, and corporate partners.