



Capital Outlay Request Report
018 - Vocational Trades Center Building

Business Case Status

Pending Start

Request

Institution NMSU - Carlsbad

Project Title Vocational Trades Center Building

Building	Building Age	Building GSF
Carlsbad Vocational Trades Center	0.00	0

Project Location See campus map site plan

Project Map

Project Map Link

FY Priority # 1

Master Plan Priority #

1

Total Project Cost \$12,000,000

State Funding Request

\$4,000,000

Committed Match Funding \$4,000,000

Match Funding Source

Carlsbad institutional reserve for \$4,000,000 and is seek additional matching fund of \$4,000,000.00 from external sources such as business and industry.

Construction Type New Construction

Previous Request Summary N/A

History of Facility N/A

Current Condition N/A

Renovation Information N/A

Scope of Work

The Vocational Trades Center project will construct a new facility to provide postsecondary education and life-learning opportunities training to improve job-seeking skills and workplace development on the Carlsbad campus. NMSU hired an architectural consultant, Nine Degrees Architecture & Design, Inc., to assist in developing a feasibility study, draft document dated May 2021. The new vocational facility will develop a physical structure to experience in a career in business or opportunities in the oil and gas industry, and other various fields of study. The overall goal is to offer some of the most innovative and state-of-the-art training and workforce facilities in the Carlsbad region, for upcoming trades. Planning for new construction to provide postsecondary education and life-learning opportunities training to improve job-seeking skills and workplace development. A training facility designed for flexible and technologically-advanced learning environments that is safe, accessible, healthy, comfortable, and aesthetically-pleasing with the Carlsbad campus context. The building will need to accommodate the specific space and equipment needs of the training program and curriculum. The Carlsbad Campus serves a host community population of approximately 55,000 residents in Eddy County, with a significant portion of students commuting from the neighboring City of Artesia. The main industries in the area are in oil and natural gas exploration and agriculture. Partners in this venture are the Carlsbad business and industry with the Carlsbad campus. Currently, Carlsbad does not have an existing building that meets these space needs. The proposed Carlsbad facility is planned for up to approximately 17,000 gross square feet. Space Types Carlsbad Vocational Trades Center space needs: • academic classroom(s), • hybrid lab/classroom, • learning lab(s), • computer training room, • trainee storage spaces with lockers, • business stations, • lobby entry, • restrooms, • administrative offices, • trainee offices, • operational storage, and • work yard Design considerations to focus on flexibility, connectivity, indoor air quality, lighting, signage, sustainability, and security/safety of the occupants. The Carlsbad Campus occupies a hillside site and is organized north to south with a covered pedestrian walk and adjoining courtyards linking the three existing buildings. The proposed location is just west of the existing loop access road, and there are plans to add 34 additional parking spaces off of the existing drive adjacent to the new vocational trades facility.

Phases

Complete table if this project request contains multiple projects or if the project can be phased. List in priority order:

Phase #	Description	Part of Request	Amount	Start Date	End Date
1	Full Project	<input type="checkbox"/>	\$0.00	7/1/2023	12/31/2025

Students Impacted

Provide the instructional program majors being served by this project:

Major	HeadCount	FTE	% Growth Last Year	% Growth Average
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Enrollment

Provide Fall Semester enrollment data per year as reported on the NMHED website/eDEAR:

Year	FTE	OFTE
2013	1894	627
2014	1953	573
2015	2007	576
2016	1872	516
2017	2054	534
2018	1890	587
2019	2045	650
2020	1379	637

B. Project Rationale and Need:

Measure B1: Projects promotion of enrollment growth, retention, and degree production

B1 Score Substantially ▼

B1 Explanation NMSU Carlsbad strives to meet the needs of students, community, business, and industry through education, training, and workforce development. The College offers certificates and programs in vocational or Career Technical Education (CTE). However, one of the challenges to growth in enrollment, persistence, retention, and graduation/completion is space limitations for vocational programs. This lack of space has been a major limitation to program expansion and enrollment increase. As a result of this, the necessity of building a vocational trades center becomes apparent. The College has stipulated incremental targets for enrollment (2500 by 2025), retention (Fall to Fall – 60% by 2025 and Fall to Spring 85% by 2025), and completion (25% by 2025) and through the increased efforts of all campus entities, the Institution will measure the success through key element of the College's Strategic Plan.

Measure B2: Projects impact on education and workforce needs in local and regional economies

B2 Score Substantially ▼

B2 Explanation The vocational trades center will expand the capacity of the college to provide students the education and workforce training essential in meeting the needs of the community, business, and industry. The College has outgrown the small building space shared with facilities and maintenance. The welding program for example has a few stations despite the higher enrollment demand for the program.

Measure B3: Projects support of HEI Strategic Plan or Facility Master Plan

Demonstrate project alignment with institutional mission and how project advances the institution's strategic or facility master plan.

B3 Score Substantially ▼

Master Plan

Master Plan Link

B3 Explanation The project supports the following goals of NMSUC Strategic Plan: Goal 2: Teaching, Learning, and Academic Programs To provide effective academic programs, stellar teaching and learning, and enhanced student engagement to advance highly capable graduates Goal 4: Economic Development Be a driving force for economic progress in New Mexico Goal 6: Enrollment, retention and Completion Initiate activities to maximize campus enrollment and the retention and completion of the NMSU Carlsbad student population The project supports NMSUC 5-year strategic plan (attached) NMSU Carlsbad Five Year Plan is specifically listed in the campus master plan, along a reference to information technology, campus utility planning, and energy management. The vocational training center has been planned for growth of vocational programs for an increase in space. The master planning document emphasizes this project placed on vocational education and Aggie Pathways, noting that an expansion of trades may require an increase in space over the life of this Plan. In addition, NMSU Carlsbad and Carlsbad Independent School District are exploring options for co-location of an Early College High School, making the Carlsbad campus an ideal location for this partnership.

Measure B4: Facilities Assessment

Provide the facility's most recent condition score and summarize the major structural and systems conditions that resulted in that score. Provide selected supporting documentation in appendices and reference them in the body of the proposal.

B4 Level of Study Completed Somewhat ▼

Study

Study Link

Cost to Repair \$0

Cost to Replace

\$0

Replacement Cost Basis (\$ per SF) \$0

Cost to Repair AFTER Project

\$0

B4 Explanation The Facilities Conditions Index (FCI) compares the cost to fix current building deficiencies with the cost to replace a building. The FCI is used to benchmarking and compare a facilities relative condition. The index is computed as a ratio of the total cost to remedy identified deficiencies to the current replacement value of the building. The facilities assessment included Alamogordo, Carlsbad, Dona Ana, Grants, and all buildings on the main campus. NMSU maintains current condition index for the facilities across the system. This project is new construction. The overall impact to the facility condition index by campus is an addition of a new building will be reduced.

Measure B5: Projects impact on On-campus and Off-campus Instruction

Provide information on how this project request will support both on-campus and off-campus instruction.

B5 Score Somewhat ▼

B5 Explanation NMSUC presently offer on-campus instruction. There is no off-campus instruction except online program delivery. The Vocational Trades Building will support the following programs and certificates: Industrial Maintenance Technician (Electrical) - Associate of Applied Science Industrial Maintenance Technician (Mechanical) - Associate of Applied Science Industrial Maintenance Technology (Mechanical) - Certificate Industrial Maintenance Technology (Electrical) - Certificate Natural Gas Compression Technology - Certificate Building Technology - Associate of Applied Science Building Trades - Certificate Engineering - Associate of Science - Associate of Science Welding Technology - Associate of Applied Science Welding Technology - Certificate There are also programs in development stage designed to meet the workforce needs.

C. Green Screen for Buildings

Measure C1: Energy Audit or similar energy assessment

Document details of the audit to include who performed the audit, when it was completed, level of audit/assessment, improvements proposed, and benefits to this project

C1 Score Substantially ▼

Energy Audit Completed

Yes No

Energy Audit

Energy Audit Link

C1 Explanation

In 2013 Ameresco performed an investment grade audit of 46 of NMSU's buildings throughout the state, totaling nearly 2.7 million gross square feet. The audit included the facilities at Alamogordo, Carlsbad, Dona Ana Community College (DACC), Grants, remote Agricultural Science Centers, and all buildings on the main campus. NMSU also employees two Certified Energy Managers (CEM) who can look at the potential energy savings of projects. List of Green Screen strategies that will be incorporated in the project during construction include: • Construction waste management principles will be followed during the demolition. • Recycling of applicable materials. • Construction waste management principles followed during construction.

Measure C2: Projects impact on Energy / Utility Cost Reduction

Explain the impact of this project to the net energy / utility costs. Provide a justification if no operating budget impact is anticipated.

Current Energy Usage

\$0

Energy Usage AFTER Project

\$0

C2 Explanation

NMSU's building guidelines includes policies to encouraging energy reduction with nearly every project. Additionally, there have been specific projects focusing on energy reduction such as the Ameresco projects. With each project resulting in energy savings there will also be a utility cost savings which can result in an observable change. When the equipment is replaced with more a system with increased efficiency there will be a reduction in costs. However, the equipment change can also change the system maintenance requirements as well and without knowing what the replacement system will be we are unable to make accurate predictions.

Measure C3: Executive Order (EO) 2019-003

Provide detailed information on how this project will address the goal of reducing Green House Gas (GHG) emissions by 45% as called for in the EO. Explain the steps taken to reduce the buildings energy demands.

C3 Score

Somewhat 

C3 Explanation

For main campus over 95% of NMSU's scope 1 and 2 emissions are building emissions a similar distribution of emissions is expected for Carlsbad as well. Reaching the goals within EO 2019 -003 for greenhouse gas emission reduction, remodeling and updating existing infrastructure will be required. NMSU building guidelines insure projects keep in mind sustainable infrastructure and planning, energy efficiency technologies, and more.

D. Stewardship - Detail how the HEI provides stewardship for its assets.

Measure D1: Project Estimates

Describe how this projects cost estimates were developed. Provide the total dollars attributed to inflation. Percentage increases MUST be defended in the narrative portion of the document, or 0% inflation will be assumed.

D1 Score

Substantially 

Base Project Estimate

\$11,904,172

Dollars Related to Inflation

\$876,645

Formal Estimate Provided

Yes No

Formal Estimate

Estimate Link

D1 Explanation

The process for determining the capital outlay needs begins with the University Architect (UA), who stays in touch with the needs of the education enterprise through communication on various levels. Each year, the University Architect and Associate Vice President for Facilities and Services set up an in-person meeting with the Community College Presidents and Deans of the Colleges to review the capital outlay requests for the year. The Capital Outlay Briefing is presented to the University Administrative Council, and the flowchart that outlines the process for a project concept to become a priority on NMSU's Five Year Facilities Plan. The estimate is assigned directly to the in-house professional estimator, Senior Project Manager. The scope of work is determined with the relevant stakeholders and UA. Budgetary estimates are produced with the use of 2020 ProEst Estimating Software that is built using the current RS Means database. Note that the in-house professional estimator with Facilities and Services PDE must meet satisfactory evidence of the necessary qualifications as required by the Certifying Body of the American Society of Professional Estimators. The Executive Director for PDE reviews the proposed costs to confirm the estimate is reasonable and accurate. Then the AVP of Facilities reports to the Administration for further action and/or inclusion into Capital Outlay or University Capital Plans. Budgetary estimates older than a year are reviewed and adjusted for inflation as part of the capital outlay process, and incorporation to the current campus Five Year Facilities Plans.

Measure D2: Describe how this project addresses/reduces deferred maintenance on campus

Deferred Maintenance

\$0

Deferred Maintenance AFTER Project

\$0

D2 Explanation

In 2006, the state of New Mexico contracted with Parson's 3DI to assess all higher education facilities in the state and to develop a Facilities Condition Index (FCI) for each facility. At the time, this was intended to be the methodology for assessing capital outlay and capital renewal funding requests. This effort was abandoned at the state level in 2008, so in 2010 NMSU contracted with Arcadis, an assessment firm, to bring the 2006 assessment up to date. Facilities and Services then began tracking the FCI though AiM, and we joined Asstworks for a beta test with the new Assessment and Needs Assessment (ANA) module. This installation is nearly complete and will allow for updates to be made both from inspections and by reducing the needs automatically through the work order system as remedial maintenance is performed. Project level needs are met through Project Development and Engineering. We have completed a multi-year Building Renewals and Replacements plan that addresses the deficiencies at the building system level. At the highest level, we use the Capital Outlay Process and the Campus Master Plan in conjunction with the Facilities Condition Index (FCI). We recently added the Assessment and Needs Analysis module to AiM to help us track system improvements that lower the FCI.

Measure D3: Asset Stewardship Provide information on how the HEI supports the ongoing operational and maintenance needs of current and proposed assets.

D3 Score

Somewhat 

Level of Plan Somewhat ▼

[BRR Plan](#)

D3 Explanation

NMSU Carlsbad is in the process of developing a formal BRR process. Using the existing Master Plan, the process began 5 years ago, with a report of study of needed preventive maintenance. Much of this information was incorporated within the School Dude system which generates timely tickets indicating what type of maintenance needs to be conducted at each interval. For example, HVAC filters are replaced quarterly and each quarter, the system generates a ticket to be addressed by the maintenance technician. Each year, the campus has expanded this process by performing studies of various areas of the college, highlighting specific areas of concern, with those areas being address in that year and less urgent areas being noted for inclusion and prioritized in the future formal process. As an example, a few years ago, the campus conducted a life safety audit to determine ways to upgrade the safety of students, faculty and staff. While the building is in compliance with the requirements at the time it was built, the campus felt it was important to incorporate some of the more recent safety features that have been added to the code since its construction. The more significant of these were completed, such as expanding firewalls in hall ways, with some of the less essential items identified being relegated to a future project. Having already completed the necessary groundwork, the campus is ready to codify the findings of the last several years in to a formal 5-year plan for the use of our BRR funds using the existing Facilities and Instructional standing committee as a vehicle for campus input into prioritizing the items. The vision is to use the resulting plan as the basis for expending these funds going forward.

Measure D4: Maintenance Cost Reduction

Describe in detail how this project will affect operating appropriations for the current year and all out-years. Provide a justification if no operating budget impact is anticipated.

Total O&M Budget

\$0

Total O&M Budget AFTER

\$0

Project

D4 Explanation

NMSU Carlsbad has consistently optimized the use of its resources in asset management and maintenance. Its management of budget allocation and the effective use of resouces provide a clear indication how it plans to support the ongoing operational and maintenance needs of its assets including the proposed vocational trades center. Low maintenance cost is expected in the first few years of the new building. NMSUC will allocate funding for maintenance of the proposed building as part of the budgetary process.

Measure D5: Health, safety, and security

Describe how this project will address major health and safety issues/concerns on campus, including how it will improve physical safety and cybersecurity on campus. Provide selected supporting documentation and reference them in the body of the proposal.

D5 Score

A single plan ▼

Level of Plan

Level 1 ▼

[HSS Plan](#)

[HSS Plan Link](#)

D5 Explanation

Safety considerations, security, parking and fire protection will be considered in the analysis of space needs and new construction. The facility will be designed to have adequate parking proximity and access to transit, adequate security and access systems, and safe levels of interior and exterior lighting.

Appropriation Language

\$4,000,000 to plan, design, construct, renovate, furnish and equip a new Vocational Trades Center building at New Mexico State University- Carlsbad in Eddy County.

Follow up Questions

Starting Fiscal Year	2021	Expense Type		
Planned Project Start		Planned Project Finish		
Investment to Date	\$0	Funds Needed By		
Discounting Switch	Off	% Complete	0%	
Discount Rates	2022: 0.00%	2023: 0.00%	2024: 0.00%	2025: 0.00%

Forecast

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total	Notes
Pre-Project							Definition: Non-recurring cost to get to an approved and funded project.
Internal Staff Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
Internal Contract Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
External Staff Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
External Contract Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
Software \$	\$0	\$0	\$0	\$0	\$0	\$0	
Hardware \$	\$0	\$0	\$0	\$0	\$0	\$0	
Facilities and Power \$	\$0	\$0	\$0	\$0	\$0	\$0	
Internal Services \$	\$0	\$0	\$0	\$0	\$0	\$0	
Outside Services \$	\$0	\$0	\$0	\$0	\$0	\$0	
Telecom \$	\$0	\$0	\$0	\$0	\$0	\$0	
Other \$	\$0	\$0	\$0	\$0	\$0	\$0	
Total Pre-Project	\$0	\$0	\$0	\$0	\$0	\$0	
Project							Definition: Non-recurring cost to implement and field the product or service.
Internal Staff Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
Internal Contract Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
External Staff Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
External Contract Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
Software \$	\$0	\$0	\$0	\$0	\$0	\$0	
Hardware \$	\$0	\$0	\$0	\$0	\$0	\$0	
Facilities and Power \$	\$0	\$0	\$0	\$0	\$0	\$0	
Internal Services \$	\$0	\$0	\$0	\$0	\$0	\$0	
Outside Services \$	\$0	\$0	\$0	\$0	\$0	\$0	
Telecom \$	\$0	\$0	\$0	\$0	\$0	\$0	
Other \$	\$0	\$0	\$0	\$0	\$0	\$0	
Total Project	\$0	\$0	\$0	\$0	\$0	\$0	
Post-Project							Definition: Recurring cost to support the product or service through the end of the planning horizon.
Internal Staff Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
Internal Contract Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
External Staff Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
External Contract Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
Software \$	\$0	\$0	\$0	\$0	\$0	\$0	
Hardware \$	\$0	\$0	\$0	\$0	\$0	\$0	
Facilities and Power \$	\$0	\$0	\$0	\$0	\$0	\$0	
Internal Services \$	\$0	\$0	\$0	\$0	\$0	\$0	
Outside Services \$	\$0	\$0	\$0	\$0	\$0	\$0	
Telecom \$	\$0	\$0	\$0	\$0	\$0	\$0	
Other \$	\$0	\$0	\$0	\$0	\$0	\$0	
Total Post-Project	\$0	\$0	\$0	\$0	\$0	\$0	
Total Cost	\$0	\$0	\$0	\$0	\$0	\$0	

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total	Notes
Revenue							Definition: Incoming revenue associated with the product or service.
<Source 1> \$	\$0	\$0	\$0	\$0	\$0	\$0	
<Source 2> \$	\$0	\$0	\$0	\$0	\$0	\$0	
<Source 3> \$	\$0	\$0	\$0	\$0	\$0	\$0	
<Source 4> \$	\$0	\$0	\$0	\$0	\$0	\$0	
<Source 5> \$	\$0	\$0	\$0	\$0	\$0	\$0	
<Source 6> \$	\$0	\$0	\$0	\$0	\$0	\$0	
<Source 7> \$	\$0	\$0	\$0	\$0	\$0	\$0	
<Source 8> \$	\$0	\$0	\$0	\$0	\$0	\$0	
Total Revenue	\$0	\$0	\$0	\$0	\$0	\$0	
Cost Reduction							Definition: Money saved that is being spent today. True cost take-out.
Internal Staff Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
Internal Contract Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
External Staff Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
External Contract Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
Software \$	\$0	\$0	\$0	\$0	\$0	\$0	
Hardware \$	\$0	\$0	\$0	\$0	\$0	\$0	
Facilities and Power \$	\$0	\$0	\$0	\$0	\$0	\$0	
Internal Services \$	\$0	\$0	\$0	\$0	\$0	\$0	
Outside Services \$	\$0	\$0	\$0	\$0	\$0	\$0	
Telecom \$	\$0	\$0	\$0	\$0	\$0	\$0	
Other \$	\$0	\$0	\$0	\$0	\$0	\$0	
Total Cost Reduction	\$0	\$0	\$0	\$0	\$0	\$0	
Cost Avoidance							Definition: Preventing money from having to be spent that is not currently being spent today.
Internal Staff Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
Internal Contract Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
External Staff Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
External Contract Labor \$	\$0	\$0	\$0	\$0	\$0	\$0	
Software \$	\$0	\$0	\$0	\$0	\$0	\$0	
Hardware \$	\$0	\$0	\$0	\$0	\$0	\$0	
Facilities and Power \$	\$0	\$0	\$0	\$0	\$0	\$0	
Internal Services \$	\$0	\$0	\$0	\$0	\$0	\$0	
Outside Services \$	\$0	\$0	\$0	\$0	\$0	\$0	
Telecom \$	\$0	\$0	\$0	\$0	\$0	\$0	
Other \$	\$0	\$0	\$0	\$0	\$0	\$0	
Total Cost Avoidance	\$0	\$0	\$0	\$0	\$0	\$0	
Total Benefit	\$0	\$0	\$0	\$0	\$0	\$0	

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Total Pre-Project	\$0	\$0	\$0	\$0	\$0	\$0
Total Project	\$0	\$0	\$0	\$0	\$0	\$0
Total Post-Project	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenue	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost Reduction	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost Avoidance	\$0	\$0	\$0	\$0	\$0	\$0
Total Benefit	\$0	\$0	\$0	\$0	\$0	\$0
Return	\$0	\$0	\$0	\$0	\$0	\$0
Cumulative Return	\$0	\$0	\$0	\$0	\$0	\$0
ROI %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Cumulative ROI %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Results

Total Investment Required (i.e. Total Cost):	\$0	Return \$:	\$0	Revenue % of Total Benefit:	0.00%
Investment to Date: (i.e. \$ Spent so far):	\$0	ROI %:	0.00%	Cost Reduction % of Total Benefit:	0.00%
Investment Remaining to Go:	\$0	Payback Period (in Years):	0.00	Cost Avoidance % of Total Benefit:	0.00%

Notes: 1) These metrics are designed to depict the strength of the business case by the type of benefit. A business case that has its strength in cost avoidance, particularly in the out-years, is not as strong a business case as one that commits to benefits earlier or that delivers cost reduction. 2) The payback period is the length of time required to recover the cost of the investment.



