

## NMHED Summer Hearings Presentation- Responses from 8/13/2021

August 24, 2021- Final

Deadline for responses to enter in CFRMS is on 8/27/21. This requires coordination through multiple document locations for NMHED website and coordination with ICIP in DFA database.

### 1. Support for NMSU LC- College of Engineering, Thomas and Brown Replacement (\$25,000,000)

- To better understand the cost for abate/demolition, replacement facility for TBH (new construction), and addition to Engineering Complex I (ECI) for Aggie Innovation Space (AIS), add this breakdown as Phases to the Project Evaluation Form, under Project Description:

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

Project/Phase #	Phase/Project Description	Approximate Amount
1	Addition to Engineering Complex I for AIS	\$3,100,000 (\$413/SF*)
2	Abate and Demolish Thomas and Brown Hall (TBH)	\$1,031,000 (\$21/SF*)
3	New Construction to replace TBH	\$20,869,000 (\$445/SF*)

\*Cost per square foot are construction costs only, excluding soft costs and NMGR.

Project/Phase #	Phase/Project Description	Square Footage
1	Addition to Engineering Complex I for AIS	+7,500 GSF
2	Abate and Demolish Thomas and Brown Hall (TBH)	- 48,366 GSF
3	New Construction to replace TBH	+31,832 GSF

\*Total square footage is 7,500 GSF - 48,366 + 31,832 = - 9,034 GSF (overall reduction)

### Construction Sequencing Narrative for College of Engineering, Thomas and Brown Replacement:

- Construct addition to Engineering Complex I (ECI) for Aggie Innovation Space (AIS) for experiential learning spaces for College of Engineering. Providing this expansion will support faculty and student for advanced research labs and capstone classroom needs while TBH is abated/demolished and the new replacement facility is under construction.
- Electrical Engineering moves out of Thomas and Brown Hall. Faculty relocated to Engineering Complex III (ECIII), Suite 300 into the space that currently houses the Learning Communities for Engineers. Student learning communities are part of the replacement facility, with flexible spaces, small group meeting area, tutoring, conference/distance learning capabilities, and support spaces.
- Abate and demolish Thomas and Brown Hall (building 301).
- Construct the new replacement facility.

- Timeline for demolition, new construction to replace TBH and Addition to ECI for AIS.

#### Project Timeline for construction:

- Design November 2022 through August 2023 – Addition to ECI for AIS, Demolition and Replacement facility
- Construction start August 2023 – Addition to ECI
- Moves start June 2023 – Moves from TBH
- Demolition start November 2023 – Thomas and Brown Hall
- Construction start June 2024 – New facility to replace Thomas and Brown Hall
- Construction completion for TBH Replacement December 2025

(See Construction Time in Months)

- To better understand the broadly the enrollment and growth data impact of this replacement facility on the workforce in New Mexico. What is the economic impact of this project long-term? Data to back it up. For

Measure B2. (See TBH two-pager justification summary on impact to student learning, research and economic development, and Activity Report)

- At the facility level, what are the sustainability initiatives being employed for energy savings and carbon neutrality. Measure C1, C2 and C3. (See Sustainability One Pager Executive Order 2019-003.)
- 2. **Support for Nursing Expansion, Health and Education Renovations (\$15,000,000) add \$2,000,000 for Nursing Simulation Skills Center modernization**
  - The **second** priority is support for the need for Nursing Expansion in a now combined college of Health and Education renovations in two facilities, Health and Social Services (HSS) Building and O'Donnell Hall. As the President previously mentioned, we are proposing an increase in this request by \$2,000,000 that was submitted as a Capital Web Request for the 2021 Legislative Session. NMSU received a small portion of the \$2 million request to modernize the Nursing Simulation and Skills Center in HSS to study for planning and design (\$150,000).

Add \$2,000,000 to the Project Evaluation Form, Five Year Facilities Plan and ICIP. (UA)

3. **Chemistry Building HVAC and Ventilation Upgrades for current codes and standards (\$5,000,000)**

- The Chemistry HVAC and Ventilation Upgrades project will improve the mechanical system and fume hoods only. What is the timeframe for this fix?

The HVAC and ventilation fixes are short-term solution for the mechanical system only, lasting 5-7 years. Chemistry Building is in need of a full renovation or replacement as part of long-term planning.

Add to Project Evaluation information on CFRMS website. (UA)

4. **Dona Ana Community College:**

a. **NMSU-DACC Cooling Tower and Chiller Replacement Espina Campus (DACC Local Fund Commitment \$100,000) (\$650,000)**

b. **NMSU- DACC Sunland Park Roof Replacement (DACC Local Fund Commitment \$250,000); (\$500,000).**

- Harrison Rommel and Stevie Olson would like to connect with President Torres regarding DACC enrollment data provided in presentation. (DACC) *This is a comment, no action for resubmittal.*
- NMAC 5.3.9 has a 25% required local match for two-year institutions. Please update your local funding if the 25% match is not being met or, per NMAC 5.3.9.8f, request a waiver for one of the items listed. Please make sure to provide specific details to support the request. (See NMSU- DACC waiver request.)
- Upload PowerPoint presentation to the CFRMS system. (UA to upload)

5. **Alamogordo:**

a. **NMSU A- Rohovec Fine Arts Theatre Roof Replacement/Repairs and Renovation (\$1,500,000) (NMSU-A Institutional Fund Commitment \$25,000)**

- What is this project accomplishing?  
(See NMSU-Alamogordo Rohovec Facility Renovation, Overview, Estimate and FTE memo)
- Data to support the need.  
(See NMSU-Alamogordo Rohovec Facility Renovation, Overview, Estimate and FTE memo)
- Need to understand what is housed where.  
(See attached NMSU-A Rohovec Fine Arts graphical Space Plans and location uses)
- Breakdown cost estimate into phases in prioritized order.
- (See NMSU-Alamogordo Rohovec Facility Renovation for Priority List)

The budgetary estimate for the above reference includes the following for the Fine Arts building:

1. Restrooms ADA, code compliance and expansion
  - Renovate all restrooms (look at increasing size)
2. Storage Renovation and demolition
  - Replacing stairs to storage areas

- Renovate storage area
- Remove and dispose of theater curtains
- Women's dressing room into storage
- Remove dressing room restroom
- Clear backstage area
- Combine storage areas if possible
- Turn W/D area into custodial closet
- Remove old baseboard heaters
- 3. Replace all flooring
- 4. Typical classroom tech upgrade
- 5. Exterior doors and stucco, and re-roof

Additional scope included in the 6/21/21 update to the Summer Hearings submittal for interior theatre renovations for \$1,200,000 NMSU- Alamogordo Institutional committed matching funds:

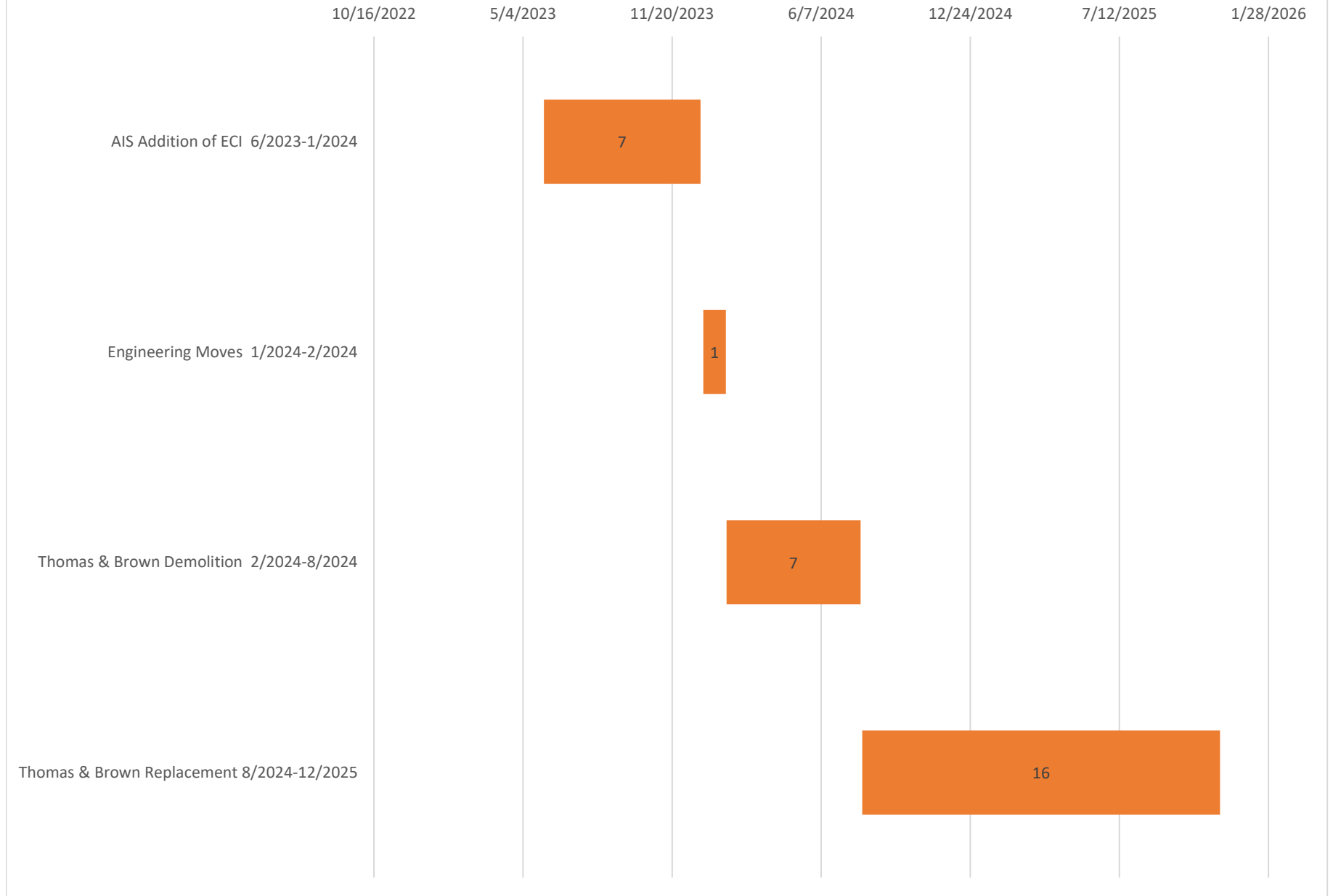
- 6. Replace seating and flooring in auditorium
- 7. Replacing stage geared towards lecturing
- 8. Replace total HVAC system (ductwork at a minimum)
- 9. Remove partitions and upgrade lighting and audio systems
- (NMSU-A Cost Estimate Rohovec Center Renovations)
- The FTE from 2013 went from 1500 (FTE-OFTE on Project Evaluation Form) to 668 in 2019. In 2020 the number dropped to 373. What is the data showing for Fall 2021 on campus?  
(See NMSU-Alamogordo Rohovec Facility Renovation, Overview, Estimate and FTE memo)
- NMAC 5.3.9 has a 25% required local match for two-year institutions. Please update your local funding if the 25% match is not being met or, per NMAC 5.3.9.8f, request a waiver for one of the items listed. Please make sure to provide specific details to support the request. (Alamogordo contribution exceeds 25%, no waiver required)
- Upload PowerPoint presentation to the CFRMS system. (UA to upload)

## 6. Grants:

- a. **NMSU-G- Martinez Hall Improvements and SBDC Roof** (NMSU-G Institutional Fund Commitment \$130,000 for SBDC); (\$1,500,000)
  - NMSU-Grants has received large appropriations for Fidel Hall and Martinez Hall. Breakdown the funding appropriations by category for each, to include:
    - Roof
    - Stucco
    - Restroom ADA and code compliance
    - Utility infrastructure
    - Site Improvements
    - Lighting
  - (See NMSU Grants Funding 2018-2020)
  - Breakdown cost estimate into phases in prioritized order.  
NMSU-G to prioritized order below:
    - Martinez Hall Electrical Distribution Upgrade (\$450,000)
    - Martinez Hall Restroom ADA and Code Compliance Upgrades (\$550,000)
    - Martinez Hall Classroom and Lab Renovations (\$500,000)
  - Revisit Space Verification Spreadsheet Form:  
I&G Eligibility for Walter Martinez Building (315Q) went from 98% in 2019 to 13% in 2020. This will affect the funding for this project. Building should be I&G Eligible.  
(Facilities Space Planning has reviewed NMSU-G I&G Space Verification spreadsheet and updated the GSF for the FTE data.)

- Understand impact of projects listed above on Deferred Maintenance on Grants campus. What is the total deferred maintenance on campus, what was it five years ago, and how will it be reduced with this project? Committee is requesting and update.  
(See Deferred Maintenance Memo from NMSU-Grants Facilities Manager and Facilities FCA impact memo)
  - Revisit Space Verification Spreadsheet Form:  
I&G Eligibility for Roosevelt Building (613) went from 91% in 2019 to 72% in 2020. This will affect the funding for this project. Building should be I&G Eligible.  
(Facilities Space Planning has reviewed NMSU-G I&G Space Verification spreadsheet and updated the GSF for the FTE data.)
  - DFA would like some direction broad language for appropriation in case there is a system failure before 2022 GOB funding is available.  
Martinez Hall Energy Upgrades for HVAC. (NMSU-G confirmed)
  - NMAC 5.3.9 has a 25% required local match for two-year institutions. Please update your local funding if the 25% match is not being met or, per NMAC 5.3.9.8f, request a waiver for one of the items listed. Please make sure to provide specific details to support the request. (See NMSU-Grants waiver request.)
  - Upload PowerPoint presentation to the CFRMS system. (UA to upload)
- 7. Carlsbad:**
- a. **NMSU-C- Vocational Trades Center (Energy Building) upgrades (\$4,000,000)**  
(NMSU-C Institutional Fund Commitment \$4,000,000, and Business and Industry Contribution \$4,000,000)
  - Per Chairman Burke, there is only one way he would vote for this project to be on the 2022 GO Bond.  
Carlsbad to provide a letter as an issuance of assurance that the State supports \$4 million for this project, Carlsbad (soon to be Southeast NM College) is obligated to \$8 million out of reserves for the \$12 million total project budget. (See NMSU-Carlsbad letter attached.)
  - Update ICIP for amount of funding from Carlsbad Institutional Funds from \$4M to \$8M. (NMSU-C confirmed. No ICIP update is needed.)
  - NMAC 5.3.9 has a 25% required local match for two-year institutions. Please update your local funding if the 25% match is not being met or, per NMAC 5.3.9.8f, request a waiver for one of the items listed. Please make sure to provide specific details to support the request. (Carlsbad contribution exceeds 25%, no waiver required)
  - Upload PowerPoint presentation to the CFRMS system. (UA to upload)

## Construction Time in Months



The new Thomas and Brown Building will house active learning spaces promoting community-based learning, experiential learning laboratories, some parts of Electrical and Computer Engineering, and part of Aggie Innovation Space.

The Eloy Torrez Family Learning Communities project to be housed in the new building was initiated in 2018, and it quickly outgrew the space made available to the project. The student traffic exceeded 1000 visits per year which included tutoring, mentoring, academic and non-academic help. The project is expected to attract increased number of students in the coming years, and it is an integral part of our student success strategy.

The Department of Electrical and Computer Engineering will locate its student learning spaces in the new building along with some key laboratories. This department has placed more than 60% of its graduates in the regional industries, and its faculty actively collaborate with Los Alamos and Sandia laboratories. The department's current emphasis on Power Systems and Renewable Energy is instrumental for regional economic development as a part of the Chancellor's strategic initiative.

The new building will house some segments of the Aggie Innovation Space (AIS). AIS was designed with multiple objectives: i) promote hands-on learning by engaging students in real-world projects, ii) partner with Arrowhead Center and aid regional industries in their design and prototype needs by way of promoting economic development, and iii) engage research faculty and senior students in real-world projects (capstone design) and commercialization. A brief description follows.



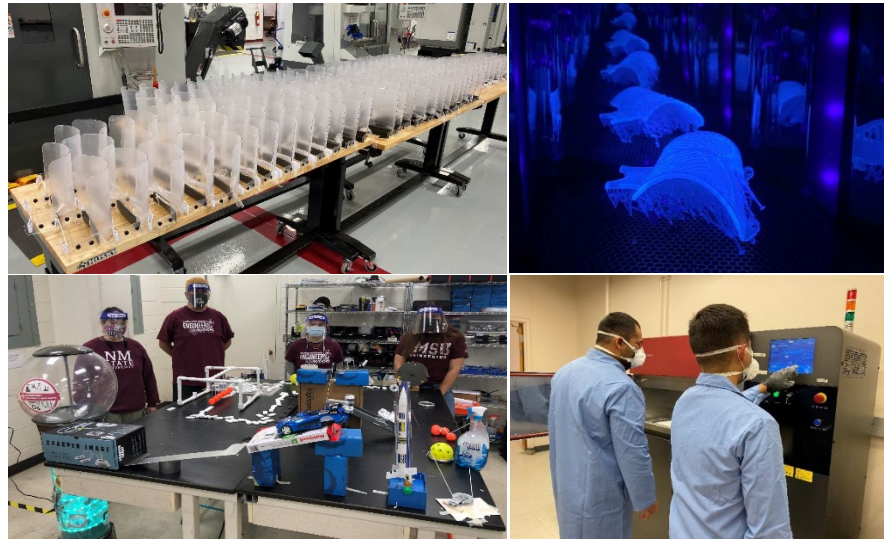
## Serving New Mexico

- Increased manufacturing-based education and activities.
- Building entrepreneurship capacity among students and faculty.
- Support economic development.
- Support entrepreneurs through design, build, and testing.
- Advance cutting-edge research with commercial value.
- Prepare students who are workforce-ready.
- Provide technical and manufacturing support for local industry.
- Support career pathways in manufacturing through K-12 outreach.



## Where we are going

- Engagement of all students and faculty
- Industrial partners/sponsors with real-world student projects
- Increased exposure of high-tech methods and equipment
- Partner with industry to meet their design, prototyping, and manufacturing needs
- Work with industry to develop manufacturing workshops to meet workforce needs



## Student Projects

- Completed 73 capstone projects with over 440 students
- Currently, 31 capstone projects with over 150 students
- Over 35 projects funded by industry (Honeywell, Sandia National Labs, Los Alamos National Laboratory, Jacobs Technology, General Dynamics, X2NSat, others)
- WERC – annual design competition supported by 3 corporate sponsors and 36 judges from industry
- Over 40 student course, organization, and personal projects

## Research Projects

- Supported over 35 student and faculty research projects
- Actively involved with funding efforts of faculty
- Modeling and 3D printing of homogenizer vial holder - College of ACES – faculty project
- Shaker table research project and environmental testing of structures - Mechanical and Aerospace Engineering
- Prototype testing of bio-inspired radially expansive pile systems – Civil Engineering – faculty project
- SALT project LBRE – Biology – faculty project
- Gusano research project - – Civil Engineering – student project

## Community-based Projects

- Manufactured Personal Protective Equipment (PPE) and provided to Dona Ana County Emergency Management Operations with over 1000 face shields (i.e. Las Cruces medical providers, Las Cruces Public Schools, Emergency Response personnel, Dona Ana Early Childhood Care)
- Clean energy manufacturing and workforce development
- Clean energy business accelerator – energy Sprint – 8 businesses
- Energy efficiency and pollution business assistance – 10 businesses (2 receiving LEDA funding)

- Arrowhead Center Foster Innovation Exchange (FIX) program - 9 projects
- Industry outreach projects – 7 projects
- Arrowhead Center NMSBA program – 6 new projects
- K-12 STEM Outreach – over 900 student participants

## Workforce Development Workshops and Trainings

- 3D printing
- Solid Works
- Finite Element Analysis
- Engineering Drawings
- Computational fluid dynamics
- Python software
- Fusion 360
- MatLab
- Energy Efficiency
- Pollution Prevention
- Raspberry Pi

## Secured Funding

- Capstone Industry Projects (private funding) - \$40,000
- Engineering Entrepreneurship Capstone Program (private funding) - \$60,000 – multiple year gift
- WERC design contest (private funding) - ~\$35,500
- STEM outreach (private funding) - ~\$37,000
- AIS (private funding) - \$116,840 multiple year gift
- U.S. EDA, U.S. EPA grant awards - \$393,721



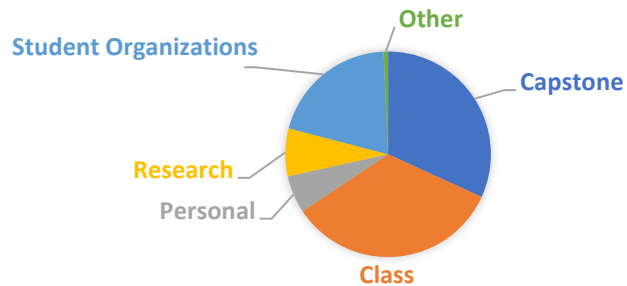
# Aggie Innovation Space & Shop

Activity Report for August 2020-May 2021

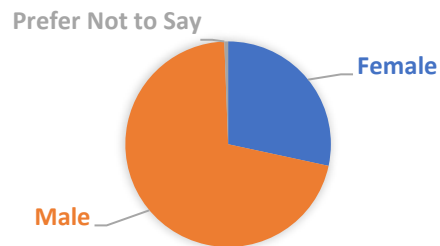
## Visitor Use:

- By Project Type:
  - Capstone: 313
  - Class: 333
  - Personal: 58
  - Research: 74
  - Student Organization: 199
  - Other: 7
- By Gender:
  - Female: 189
  - Male: 859
  - Prefer Not to Say: 4
- By Classification:
  - Faculty: 6
  - Staff: 10
  - Student: 1,036
- By Department:
  - AE: 44
  - CE: 21
  - CHME: 12
  - CS: 3
  - ECET: 3
  - EE: 96
  - EP: 18
  - ET: 11
  - IE: 38
  - MAE: 172
  - ME: 532
  - MET: 23
  - Other Engineering: 24
  - College of ACES: 3
  - College of Arts and Sciences: 50
  - College of Business: 2

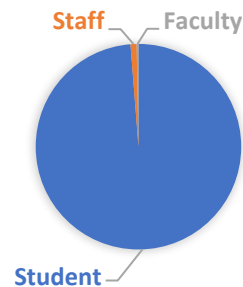
VISITORS BY PROJECT TYPE



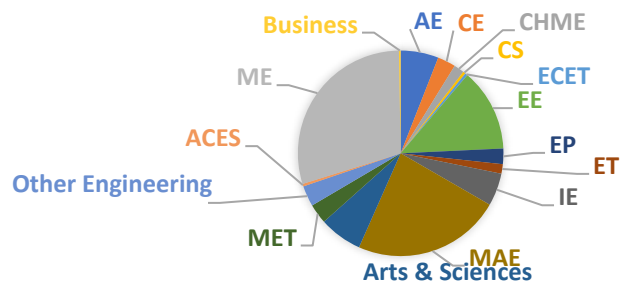
VISITORS BY GENDER



VISITORS BY CLASSIFICATION



VISITORS BY DEPARTMENT



- Total number of visits: 1,052
  - Most students visit the AIS multiple times and an estimated 10% of visits are not recorded if students do not sign in when returning.
  - Due to COVID-19 restrictions, access to the AIS was limited and many visitors were helped via Zoom or other virtual meetings.



- Virtual Meetings (Spring 2021 Semester):
  - Student Project Help: 8
  - FIX Client Meetings: 10
  - Other: 7

## Outreach:

- Student Workshops: 82 Students  
This year, we offered our Capstone workshop series on Zoom to provide students with the resources to learn new skills even through a virtual platform.
  - Python
  - Introduction to 3D Printing
  - Advanced 3D Printing
  - Advanced Solidworks
  - Arduino
  - SolidWorks – Finite Element Analysis
  - SolidWorks – Computational Fluid Dynamics
- K-12 Outreach Programs: 92 Students
  - Expanding Your Horizons Conference: 29
    - Workshops on Simple Circuits and 3D Modeling.
  - Society of Women Engineering 3D Printing Workshop: 21
  - Aggie Experience High School Senior Virtual Tour: 30
  - BEST Robotics – Chaparral Middle School Presentation (Virtual): 12
- Visitors touring the AIS: 14 Guests
  - Prospective NMSU Students: 3
  - Finance committee representative and prospective donors: 3
  - MAE administrators for development of student club lab: 2
  - Alumni Tour: 2
  - AXED Tour: 1
  - NMSU Foundation, Inc.: 3
- Other Outreach events: 95+ Students
  - Aggie Experience: 10
  - Presentation to Capstone Class: 60+
  - Engineering Week: 25
    - Virtual tours and Rube Goldberg machine demonstration.

## Project Highlights:

### Arrowhead Foster Innovation Exchange

- Innovar, New company in patent application process
  - Engineering consultation and manufacturing recommendations for the Callie baby bottle system designed for portable convenience, reducing air ingestion, and giving baby a more nursing like experience.
- EasyFlo, New company in patent application process
  - CAD design and production consultation for EasyFlo, an eco-friendly baby bottle that offers storage for formula and water all within the bottle. This eliminates the hassle of making a baby bottle on the go while also reducing the waste of millions of plastic water bottles and storage containers each year.

- Evus Inc.
  - CAD design, 3D Printing, CNC machining for copper parts, and mechanical assembly strategy for hot water-based heating system.
- Dine Metalworks LLC
  - Creation of 3D files for jewelry design that can be used for quicker production of bracelets and other designs.
- Nobhill Therapeutics Inc.
  - Prototyping of device for inhaled therapy to treat lower respiratory infections.
- Pomp & Circumstance, Small Business
  - Engineering consultation and 3D printing prototypes for a beauty product designed to clean false eyelashes.
- Lasae Creations, Small Business
  - Engineering consultation and prototyping for a custom RPG dice making business.
- John Noel, Custom Medical Braces
  - Design and prototyping of 3D printed medical braces.
- UpCycle Power
  - Assistance understanding the components that go into a prototype racking battery management system, safety equipment, and inverters.
- High Rolls Clay Works
  - Engineering consultation on clay extruder. Efficient design of assembly to reduce cost of manufacturing, improve accuracy and ease of manufacturing and assembly.
- Lucky Dog Billiards, Local Business
  - Mechanical design consultation for branded cue ball holders.
- Speed Joule Energy
  - Engineering consultation and CAD modeling for energy stability install kit.

#### New Mexico Small Business Assistance

- Chavez Plumbing
  - Engineering design consultation, 3-D rendering and analysis, recommendations on manufacturing for evaporative cooler valve.
- Concrete Impressions New Mexico LLC
  - Conduct an analysis of materials used in 3-D printing and do simulations of how plastic material mounted in concrete would behave if hit by a vehicle or exposed to different weather conditions.
- Scollon Metal Roofing
  - Engineering consultation and analysis on embossed metal interlocking roof shingles, assess if the embossing process compromises structural integrity of shingle, review efficacy of watertight feature, and provide recommendations on metal types for manufacturing.
- Dankart Inc.
  - Magnetic Hook and Strap System
- Hoop Portal LLC

- Engineering consultation on magnetic lock system for hula hoop assembly, design review, analysis of locking function, and provide recommendations on magnet and manufacturing material/processes.
- High Rolls Clay Works
  - Clay Extruder
  - This is a project that is involved with both the FIX and NMSBA programs

#### New Mexico State University Research

- Dr. Antonio Garcia, Associate Dean of Academics
  - Ion generator for wearable device to prevent against virus particles such as Covid-19.
- Dr. Stochaj, Electrical Engineering
  - NASA optical communications.
- Dr. Randall, College of ACES – Entomology, Plant Pathology, and Weed Sciences
  - Modeling and 3D printing of homogenizer vial holder.
- Dr. Abdessattar Abdelkefi, Mechanical and Aerospace Engineering
  - Shaker table research project and environmental testing of structures
- Dr. Armstrong, Mechanical and Aerospace Engineering
  - Test fixtures
- Dr. Cortes, Civil Engineering
  - Self-Extracting Annelid Inspired Geoprobe
- Dr. Krishna Kota, Mechanical and Aerospace Engineering
  - Surface treatment
  - Covid-19 mask effectiveness
- Dr. Paola Bandini, Civil Engineering
  - Prototype testing of bio-inspired radially expansive pile systems
- Dr. Sarada Kuravi and Abner Garcia, Mechanical and Aerospace Engineering
  - Wave channels research
  - Porous media experiment
- Dr. Shu, Mechanical and Aerospace Engineering
  - Closed-Loop Separation Control for Slotted High-Lift Airfoil
  - Influence of Blood Vessel Stiffness to Wall Shear Stress
- Dr. Smith, Biology
  - SALT project LBRE
- Dr. Xu, Civil Engineering
  - Solar desalination for produced water
- Ph.D. Student Saeedeh Naziri, Civil Engineering
  - Gusano research project
- Abner Luna Garcia, Mechanical Engineering
  - Resin printing of microchannels for microfluidic device.
- Daniel Smith, Electrical Engineering
  - Microscopic study of SLA printing.
- Jeremy Jones, College of Arts and Sciences
  - 3D printing of clay molds.

- Shayan Abotalebi, Electrical Engineering
  - Antenna design.
- Leonardo Escamilla, Electrical and Mechanical Engineering
  - Node design and 3D printing.

#### Student Organizations

- SAE Mini Baja
  - 3D printing parts for car.
  - Design and fabrication of competition car.
- Aggies Without Limits
  - Design and 3D printing of water valve cover to create freshwater spout.
- Atomic Aggies
  - Consulting and part-manufacturing for rocket parts.
  - 3D printing of flaps and brackets in high-strength, high-temperature plastic. 3D printing of camera mount.
- Design, Build, Fly
  - Laser cutting and manufacturing of plane parts.
- Engineering Council
  - Design and construction of Rube Goldberg machine to promote engineering week.

#### Other

- E3 Initiative – Collapsible Helmet
  - CAD modeling and consultation.
- Mannequin Translation
  - CAD design of mannequin simulation in NX.
- Pill Dispenser, Aggie Shark Tank
  - CAD design and prototyping for daily pill bottle.
- Aggie Innovation Space Sign
  - 3D printed and laser cut LED sign for AIS.
- Covid-19 PPE
  - Design and assembly of laser-cut Acrylic dividers for the Aggie Wellness Center and NMSU Activity Center.
  - 2,000+ PPE laser-cut face shields made for locations such as the NMSU police and fire departments, Aggie Health and Wellness Center, Zuhl Library, Mountain View Regional Medical Center, Dona Ana Early Childhood Education Center, Las Cruces Public Schools Special Education Program, Memorial Medical Center, Mesilla Valley Hospital, and Amador Health Center.
  - Design and assembly of 72 custom face shields with fabric guards for Las Cruces Public Schools Special Education classes.
- Donor Gifts
  - Production of 150 custom 3-D printed ornaments for donor gifts for the NMSU Foundation, Inc.

#### **Course Support:**

- ET310 - Dr. Zhong, ET
- ET326 - Luke Nogales, MET
- ME345 - Dr. Armstrong, MAE
- ET217 – Stephen Perez and Eduardo Gamillo
- Engineering Capstone Program
  - Sponsored by companies such as NASA, Sandia National Laboratory, Honeywell, and Los Alamos National Laboratory.
  - Projects include:
    - Design and Testing of Serpentine Inlet for JetCat Turbojet Engine
    - Chile Destemer
    - Electrostatic Discharge Study
    - IOT Rain Gauge
    - Luminaria Bag Folder
    - Method to Characterize Sensor Performance
    - Mobile HF Communication with SDR
    - Motorized Wheelchair Conversion Kit
    - NASA Optical Communications
    - Optical Alignment System
    - Permian
    - Router Table
    - Sandia NM Capstone Challenge
    - Satellite Alignment System - Docking
    - Smart City – Lighting
    - Smart Robot Bed
    - Solar Still Condenser
    - Tooling Development for Maintenance of Trailer Chassis.
    - WERC Sailboat-Mounted Ocean and Atmospheric Sensor
    - Whiteboard with Function Tracking

### 3D Printing Summary (Spring 2021 Semester):

- Use of four different 3D printing capabilities: Fused Deposition Modeling, Selective Laser Sintering, Polyjet, and Stereolithography.
  - **300+ prints** between nine different printers.
  - Over **31 kilograms** of plastic filament and resin used.
  - More than **2,380 printing hours**.

### Other Recognitions:

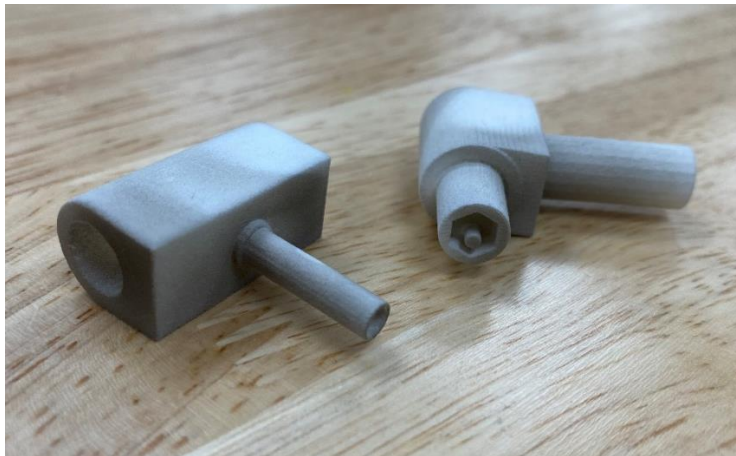
- Published in the NMSU Foundation, Inc. annual giving letter to alumni and donors
- Featured in the NMSU Foundation, Inc. Holiday Card to alumni and donors
- Recognized by MountainView Medical Center for creation and donation of Covid-19 PPE during 2020.
- Featured in NMSU Engineering article, *NMSU Arrowhead Center client UpCycle Power aims to reuse electric vehicle batteries.*

- <https://engr.nmsu.edu/nmsu-arrowhead-center-client-upcycle-power-aims-to-reuse-electric-vehicle-batteries/>
- Featured in NMSU Engineering article, *Engineers supply personal protective equipment*
  - <https://engr.nmsu.edu/engineers-supply-personal-protective-equipment/>

### Photo Showcase:



**3D Model for the false eyelash washer product prototype.**

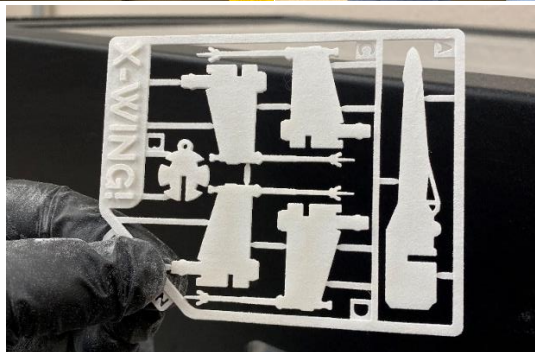


**SLS printed parts for prototype of ion generator.**





**Prototype for daily pill dispenser.**



**Operation of new Selective Laser Sintering 3D printer.**

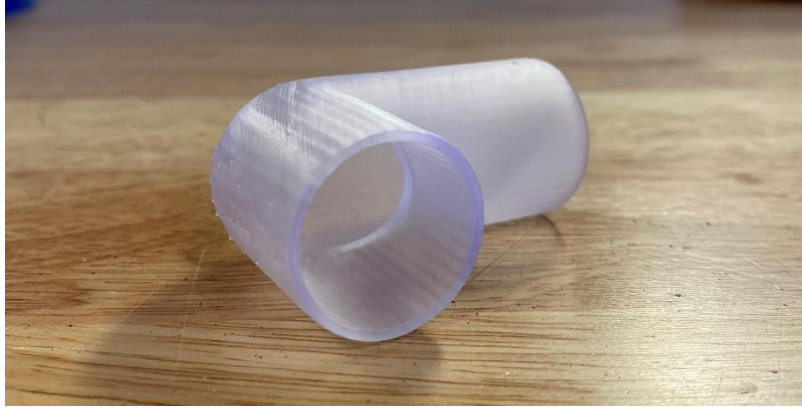


**LED AIS sign created by Innovators combining 3D printing, soldering, and laser cutting.**

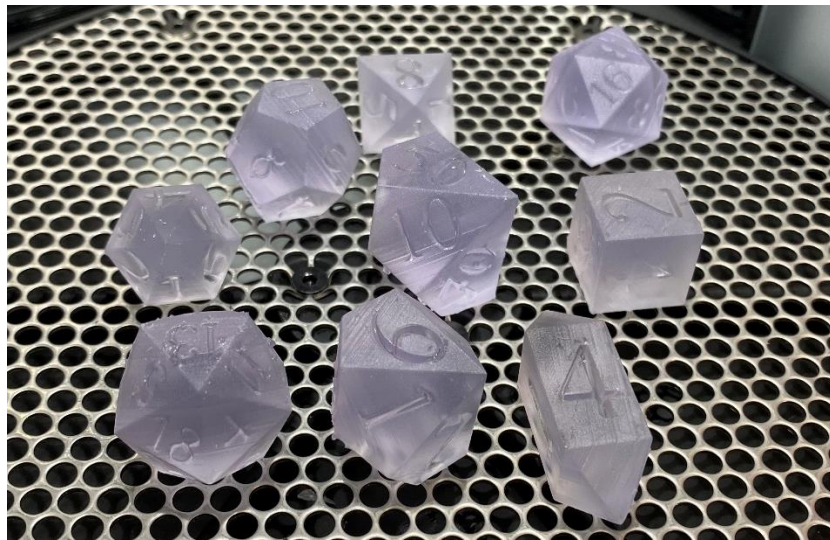


**Engineering Council members with the Rube Goldberg machine they constructed for E-Week 2021.**





**Mouthpiece for a respiratory therapy device 3D printed with biomedical resin.**



**Resin-printed dice for a custom game.**



**3D printed ornaments designed for the NMSU Foundation, Inc. donor gifts.**



**Face shields with fabric guards designed for students and teachers in special education classes.**



**Digging probe for Gusano research project.**





**Copper spirals machined for the hot water-based heating system assembly – FIX project.**



**Construction of car for NMSU SAE Mini Baja.**



**Face shields laser-cut and assembled for NMSU Facilities.**



**Copper spirals machined for Hot Water Based Heating System Assembly – FIX project.**



# New Mexico State University

## Office of the University Architect – Sustainability

8/10/2021

### Executive Order 2019-003

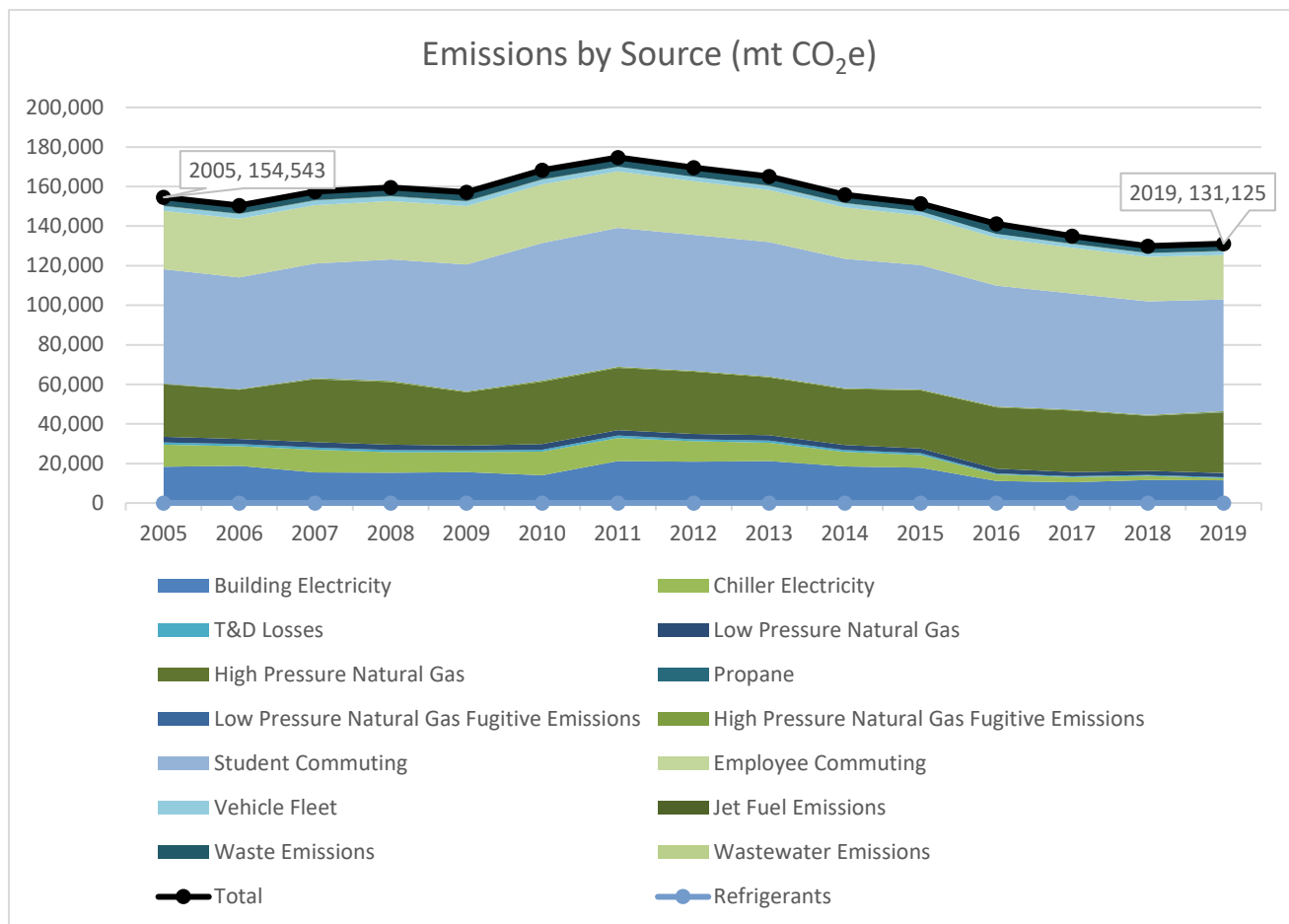
#### Executive Order on Addressing Climate Change and Energy Waste Prevention

##### Summary

The main objective of EO 2019-003 is for a statewide reduction of greenhouse gas emissions of at least 45% by 2030 as compared to 2005 levels.

##### NMSU Action

- NMSU has completed a greenhouse gas inventory for the main campus for fiscal year 2019 along with estimated back cast to 2005 looking at scope 1, 2, and 3.
- Since 2005 the total emissions at NMSU main campus has reduced 15.2% while stationary energy emissions reduced by 23.6% caused by increased energy efficiency on campus.
- Increased efficiency of buildings along with our utilities infrastructure has and will continue to reduce campus greenhouse gas emissions
- The installation of the 3 MW photovoltaic system will result in a large amount of our power consumption to come from renewable energy
- There have been funds through BRR approved for developing an action plan with qualitative steps to reach out carbon neutrality goals. This project will be completed within the next year.



August 24, 2021

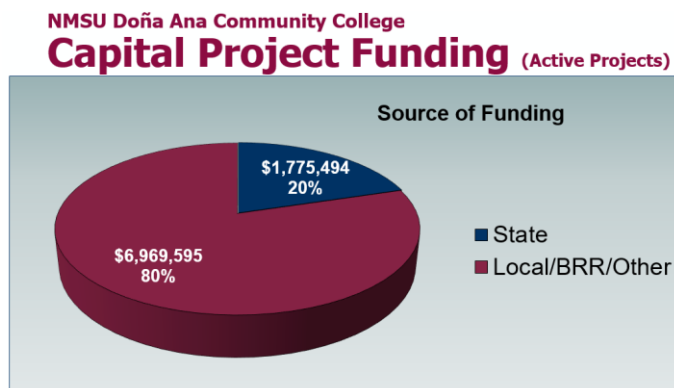
Gerald M. Hoehne  
Director of Capital Projects  
State of New Mexico, Higher Education Department  
2044 Galisteo Street, Suite 4  
Santa Fe, NM 87205-2100  
(sent by email only)

*RE: DACC 2021 Capital Outlay Waiver Request*

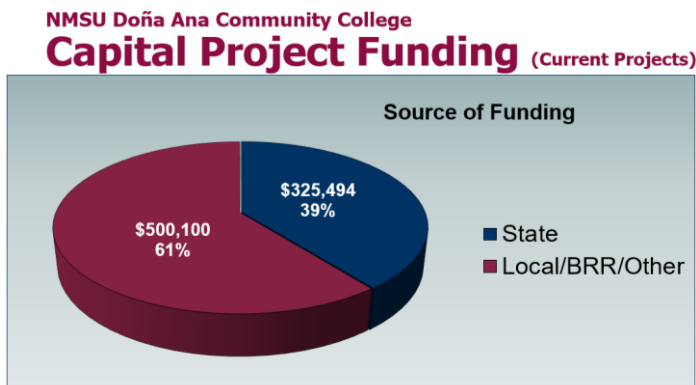
Dear Mr. Hoehne:

DACC is requesting consideration to allow our overall percentage of local funding committed to projects to reflect adherence to the 25% matching requirements set forth in NMAC 5.3.9. Many of our projects significantly exceed this matching requirement, thus allowing for some projects to contribute a lesser percentage, while still maintaining an overall match that far exceeds the 25% requirement.

Based on the data submitted in the Active Projects Report submitted for the 2021 Summer Capital Outlay Hearing, DACC has contributed 80% of the funding for these projects – 2018 to current:



If we were to evaluate this percentage based solely on those projects currently active, DACC has contributed 61% of the funding for these projects:



As a result of demonstrating we have met this requirement in total, we are asking to waive the 25% matching on the individual projects submitted by DACC in the 2021 Capital Outlay Summer Hearing.

Sincerely,

A handwritten signature in blue ink, appearing to read 'M. F. Torres', with a horizontal line extending to the right.

Mónica F. Torres, Ph.D.  
President

Cc: (by email only)  
Dan E. Arvizu, Ph.D., NAE, NAPA, Chancellor, NMSU System  
Heather Watenpaugh, AIA, NCARB, AUA, University Architect  
Kelly Brooks, DACC, VP Business & Finance

/klb



## Office of the Chancellor

MSC 3Z  
New Mexico State University  
P. O. Box 30001  
Las Cruces, NM 88003-8001  
575-646-2035, fax: 575-646-6334  
[chancellor.arvizu@nmsu.edu](mailto:chancellor.arvizu@nmsu.edu)

August 23, 2021

Chairman Gerald Burke  
Capital Outlay Hearing Committee  
2044 Galisteo St, Suite 4  
Santa Fe, NM 87505

Dear Dr. Burke and committee members:

### **NMSU–Alamogordo Rohovec Facility Renovation**

#### **Overview of Project**

The Rohovec Fine Arts Theatre was constructed in 1979. The building houses a foyer, gallery, restrooms, seating, projection and stage area. The Rohovec Theatre was designed to provide the campus with a facility for traditional theatre and performing arts. This was an ambitious undertaking to build the college a space for developing a theatre program and a stage to host live plays and performances. The original plans never fully developed into a formal, sustainable, theatre program associated with a degree. However, the facility did provide some theatre classes, set construction, and a location for local performances. For years, the building hosted several live plays each semester. The building has not seen major renovation, since its initial construction. Therefore, it is in need of a new roof, equipment, updated seating and flooring, brighter lighting, and many other items. Rather than upgrade the old building for the single purpose of theatre, it is now practical that the space be renovated into a more flexible and technologically modern space. The intent is to use the space to accommodate current students and the curriculum that is embedded in many of the associate degrees and certificates offered throughout the campus. It is in this context that the facility will not only hold more students for coursework, but would also support distance learning, hybrid learning, and synchronous online delivery and yet continue to serve the campus and community as a space for performances and seminars as well. This strategy will help retain and recruit students to NMSU-A and in turn, help students to completion of either a degree or certificate.

#### **Need for Facility Renovation**

NMSU-A's largest classroom space is limited to 42 students, and most classrooms have space for 24 students or fewer. The facility currently seats approximately 200. The return on investment for this particular renovation is very high, since it would provide quality instruction in a modern classroom environment, and it may also positively affect student recruitment. The Rohovec renovation will allow the campus to retire old classroom space, (some of the classrooms were built in the 1960's), decrease campus instructional area, teach courses more efficiently with less sections, and modernize instructional space.

Over the past few years, NMSU-A has seen a large increase in allied health students. These students take multiple biology and chemistry lecture courses, which would be taught more efficiently (less sections) in a larger auditorium. These allied health pathway classes include:

- BIOL 1120 – Human Biology
- BIOL 2110 – Cell and Molecular Biology
- BIOL 2210 – Human Anatomy and Physiology I
- BIOL 2225 - Human Anatomy and Physiology II
- CHEM 1120G – Introductory Chemistry for Non-Majors
- CHEM 1215G – General Chemistry I

Other popular courses that could be combined into one larger section include:

- CJUS 1110G – Introduction to Criminal Justice
- COMM 1115 – Introduction to Communication
- COMM 1130G – Introduction to Public Speaking
- FYEX 1110 – Freshman Seminar
- PSYC 1110G – Introduction to Psychology

The Rohovec facility renovation would allow also for large guest lectures, seminars, continuing education and community events. This project has the potential to reach multiple entities in the community for collaborative events, such as educational seminars, local business activities, advisory board meetings, and public school activities and campus-wide and administrative meetings. This project will impact on-campus events to include but not limited to student government, student organizations, panel discussions, guest lectures and traditional classes.

### **Breakdown Cost Estimate into Phases**

Priority Listing (1 = highest)

1. Replace all seating and flooring (ADA compliant).
2. Replace roof.
3. Replace or renovate stage to accommodate a multipurpose facility.
4. Install modern classroom technology (microphones, speakers, lighting, cameras, projector, screens, etc.)
5. Renovate all restrooms (ADA compliant).
6. Demolition – remove no longer needed items (room partitions, storage, curtains, dressing rooms, additional backstage areas, stairs).
7. Renovate all electrical, so that it code compliant.
8. Repair exterior stucco and replace exterior doors.
9. Replace entire HVAC system and remove baseboard heaters.
10. Add janitor closet.

**The FTE from 2013 went from 1500 (FTE-OFTE on Project Evaluation Form) to 668 in 2019. In 2020 the number dropped to 373. What is the data showing for Fall 2021 on campus?**

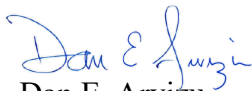
The NMSU Alamogordo enrollment as of August 20, 2021, is holding at 430 FTE. This number although low, demonstrates an improvement over last fall. The pandemic has been especially hard on the community college population in some of our rural areas. However, NMSU-A is determined to work closely with the public schools and local businesses in Otero County to build a larger student body.

A recent title V Grant awarded to the campus (3 million dollars over the next 5 years) was written specifically to address the barriers and challenges that minority and low -income students face. It is within this context that NMSU-A faculty and staff are working to attract and keep more students who deserve the opportunity to go to college from Otero County.

Sincerely,

A handwritten signature in black ink that reads "Ken Van Winkle".

Ken Van Winkle  
Branch Executive Director

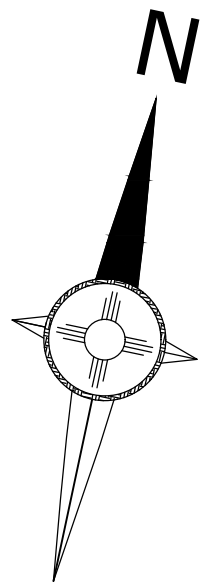
A handwritten signature in blue ink that reads "Dan E. Arvizu".

Dan E. Arvizu  
Chancellor



## 292M - ALAMOGORDO FINE ARTS

LOCATION	FLOOR	LOCATION TYPE LOCATION TYPE DESCRIPTION
100	1	650 LOUNGE FACILITIES
101	1	610 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM
101A	1	615 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM SERVICE
102	1	615 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM SERVICE
103	1	615 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM SERVICE
104	1	310 OFFICE
106	1	615 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM SERVICE
106A	1	615 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM SERVICE
108	1	615 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM SERVICE
110	1	615 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM SERVICE
110A	1	615 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM SERVICE
99	1	W06 PUBLIC CORRIDOR
M90	1	Y04 UTILITY/MECHANICAL SPACE
M91	1	Y04 UTILITY/MECHANICAL SPACE
OSD	1	590 OTHER
R99A	1	X03 PUBLIC REST ROOM
R99B	1	X03 PUBLIC REST ROOM
201	2	615 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM SERVICE
211	2	615 ASSEMBLY, THEATER, AUDITORIUM, BALLROOM SERVICE



**FACILITIES & SERVICES**  
UNIVERSITY ARCHITECT & SPACE MANAGEMENT  
NEW MEXICO STATE UNIVERSITY  
LAS CRUCES, NM 88003  
PHONE # 646-7734

NAME- ALAMOGORDO ROHOVEC FINE ARTS THEATRE	DRAWN BY	DATE	NOTES
NUMBER- 292M			
ADDRESS- 2400 N. SCENIC DR.	RD	08-10-16	Audited and made updates
YEAR BUILT- 1/1/1975	RD	10-12-17	Update Title Block
BUILDING GSF- 9321			
BUILDING NASF- 8605			
FLOOR GSF- 8760			
FLOOR NASF- 8133			

Room numbers used in this drawing reflect actual room markings where available. Unmarked rooms are assigned a number based upon surrounding room numbers. Please contact this office to coordinate all changes in room numbering.

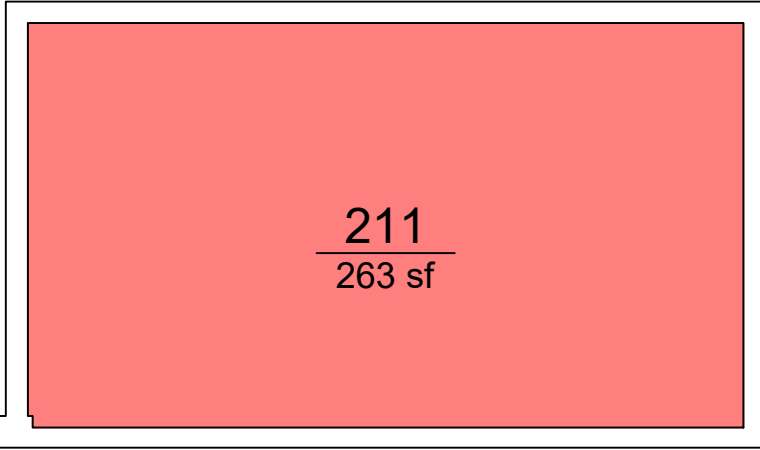
\*Note: This drawing has been prepared for FACILITY AUDIT purposes and is not to architectural drawing specifications. All room dimensions and square footage data are very accurate. Please inform this office of any changes, errors or omissions to maintain accurate drawings and database information.


FLOOR:

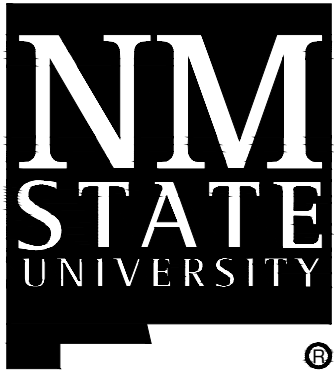
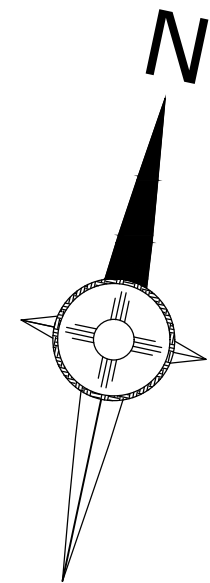
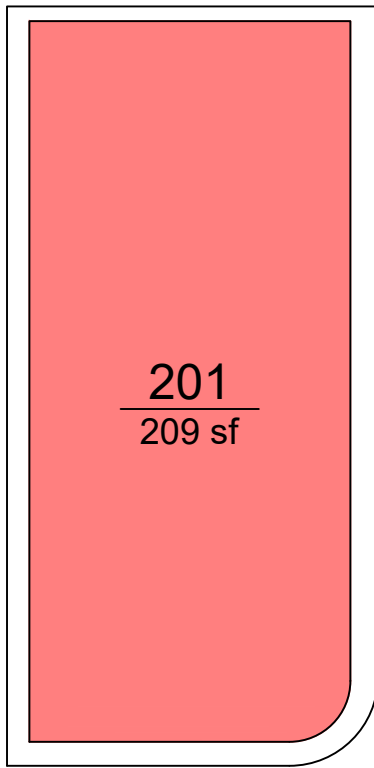
1

SHEET:

1-2



ORGANIZATION			
	ALCC ALAMOGORDO CC	AREA 472	QTY 2
	TOTAL:	472	2
	FLOOR GROSS:	561	



**FACILITIES & SERVICES**  
UNIVERSITY ARCHITECT & SPACE MANAGEMENT  
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FLOOR:  
**2**

SHEET:  
**2-2**

## Estimate: 249 4110 Rohovec Center Renovations

## Estimate Totals

Description	Total Estimate	Job %	Cost/Unit
1 Phase 1, Auditorium Seating and Flooring	\$601,831	22.35%	
2 Phase 2, All Flooring	\$44,197	1.64%	
3 Phase 3, Exterior Doors, Stucco, Re-roof	\$922,433	34.25%	
4 Phase 4, Stage Replacement	\$105,320	3.91%	
5 Phase 5, Classroom Tech Upgrade	\$33,853	1.26%	
6 Phase 6, Restroom Renovations	\$101,559	3.77%	
7 Phase 7, Storage Renovation and Demolition	\$397,773	14.77%	
8 Phase 8, Auditorium Lighting Replacement	\$72,220	2.68%	
9 Phase 9, HVAC Renovation	\$413,759	15.36%	
<b>Total Estimate</b>	<b>\$2,692,944</b>	<b>100%</b>	

## NMSU GRANTS FUNDING 2018-2020

Year	Project	Source	Amount	Description of Improvements		
2018	3391 Martinez Hall LED Lighting	BRR	\$150,000.00	Upgrade Lighting to LED Fixturees in Library/Common Area/10 Classrooms	Lighting	\$73,000
		STB	\$8,270.20			
		<b>TOTAL FUNDING</b>	<b>\$158,270.20</b>			
2018	3043 Roads, Parking and Site Improvements	GOB	\$1,500,000.00	University Road Reconstruction, East Parking Renovation, Landscaping	Site Improvements	\$1,439,924
		NMDOT	\$12,603.00			
		BRR	\$187,105.00			
		<b>TOTAL FUNDING</b>	<b>\$1,699,708.00</b>			
2019/2020	3692 Martinez Hall Renovations	GOB	\$1,500,000.00	Center Roof Remove and Replace, Restrooms ADA Compliant	Roof	\$509,201.00
		<b>TOTAL FUNDING</b>	<b>\$1,500,000.00</b>		Restroom ADA Comp	\$581,669.00
2019/2020	3694 Fidel Hall Renovations	GF	\$880,000.00	ADA Upgrade;Restrooms/Locker Rooms/Showers, HVAC Upgrade, Fire Alarm Upgrade	Locker Room/Restrooms	\$316,969.00
		<b>Total Funding</b>	<b>\$880,000.00</b>		HVAC	\$129,000.00
					Fire Alarm	\$7,796.00
2021	4142 Martinez Hall Exterior and Site Improvement	GOB	\$1,300,000.00	Exterior Building Stucco	Stucco	Design Phase
		<b>TOTAL FUNDING</b>	<b>\$1,300,000.00</b>			



## New Mexico Department of Higher Education

### 2021 Summer Hearing I&G and Fall FTE Data (Headcount)

Institution Type	Institution Acronym	Space Utilization for New Mexico Higher Education Institutions	Institution reported BRR eligible GSF Per Parsons (3DI) 2006	Total GSF of Eligible Instruction and General Space 2020	Percent Difference of Eligible I&G Space Between 2020 & 2021	Total GSF of Eligible Instruction and General Space 2021	Total Enrollment of I&G FTE as reported in eDEAR for Fall of 2020	Total Online Enrollment of I&G FTE for Fall of 2020	Fall Semester I&G FTE minus Online FTE (b-c)	Total Square Footage per On Campus FTE I&G Sq. Ft. / (FTE minus Online FTE)
						a	b	c		a/(b-c)
Research University	NMSU	New Mexico State University	2,970,141	3,041,689	-24%	2,454,306	14,216	4,912	9,304	264
	UNM	University of New Mexico (including HSC)	5,146,904	6,027,289					0	
	NMIMT	New Mexico Institute of Mining and Technology	851,904	1,015,644					0	
Comprehensive University	ENMU	Eastern New Mexico University	1,039,186	844,519					0	
	NMHU	New Mexico Highlands University	719,742	698,838					0	
	WNMU	Western New Mexico University	535,394	545,830					0	
	NNMC	Northern New Mexico College	359,025	436,652					0	
Branch Community Colleges	NMSU - DACC	NMSU - Dona Ana	380,537	531,961	-11%	477,242	7,038	1,053	5,985	80
	UNM - T	UNM - Taos	0	83,402					0	
	UNM - G	UNM - Gallup	167,799	311,082					0	
	NMSU - C	NMSU - Carlsbad	142,314	163,255	-10%	148,452	1,379	637	742	200
	ENMU - Rui	ENMU - Ruidoso	40,000	39,285					0	
	ENMU - Ros	ENMU - Roswell	498,062	439,267					0	
	NMSU - A	NMSU - Alamogordo	190,976	215,452	-24%	173,591	946	573	373	465
	UNM - V	UNM - Valencia	142,033	180,143					0	
	NMSU - G	NMSU - Grants	118,578	137,985	-52%	90,931	638	585	53	1,716
	UNM - LA	UNM - Los Alamos	75,462	76,571					0	
Independent Public Community Colleges and Special Schools	CNM - Main	Central New Mexico Community College	1,215,597	1,613,284					0	
	LCC	Luna Community College	353,924	353,924					0	
	SJC	San Juan College	870,500	1,098,606					0	
	SFCC	Santa Fe Community College	503,673	672,454					0	
	CCC	Clovis Community College	311,561	338,191					0	
	MCC	Mesalands Community College	113,535	113,535					0	
	NMJC	New Mexico Junior College	427,643	381,403					0	
	NMMI	New Mexico Military Institute	740,149	677,517					0	
	NMSD	New Mexico School for the Deaf	254,339	219,528					0	
	NMSBVI	New Mexico School for the Blind and Visually Impaired	150,500	230,915					0	
Native American Institutions	DINE	DINE College	0	174,495					0	
	IAIA	Institute of American Indian Arts	0	169,171					0	
	NTC	Navajo Technical College	0	259,335					0	
	SIPi	Southwestern Indian Polytechnic Institute	0	402,669					0	
Total:			18,319,478	21,493,891	-1	3,344,522	24,217	7,760	16,457	2,725





## New Mexico Department of Higher Education

### 2021 Summer Hearing I&G and Fall FTE Data

Institution Type	Institution Acronym	Space Utilization for New Mexico Higher Education Institutions	Institution reported BRR eligible GSF Per Parsons (3DI) 2006	Total GSF of Eligible Instruction and General Space 2020	Percent Difference of Eligible I&G Space Between 2020 & 2021	Total GSF of Eligible Instruction and General Space 2021	Total Enrollment of I&G FTE as reported in eDEAR for Fall of 2020	Total Online Enrollment of I&G FTE for Fall of 2020	Fall Semester I&G FTE minus Online FTE (b-c)	Total Square Footage per On Campus FTE I&G Sq. Ft. / (FTE minus Online FTE)
						a	b	c		a/(b-c)
Research University	NMSU	New Mexico State University	2,970,141	3,041,689	-24%	2,454,306	12,806	901	11,905	206
	UNM	University of New Mexico (including HSC)	5,146,904	6,027,289					0	
	NMIMT	New Mexico Institute of Mining and Technology	851,904	1,015,644					0	
Comprehensive University	ENMU	Eastern New Mexico University	1,039,186	844,519					0	
	NMHU	New Mexico Highlands University	719,742	698,838					0	
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	NNMC	Northern New Mexico College	359,025	436,652					0	
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	UNM - T	UNM - Taos	0	83,402					0	
	UNM - G	UNM - Gallup	167,799	311,082					0	
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	ENMU - Rui	ENMU - Ruidoso	40,000	39,285					0	
	ENMU - Ros	ENMU - Roswell	498,062	439,267					0	
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	UNM - V	UNM - Valencia	142,033	180,143					0	
	NMSU - G	NMSU - Grants	118,578	137,985	-52%	90,931	254	218	36	2,547
	UNM - LA	UNM - Los Alamos	75,462	76,571					0	
Independent Public Community Colleges and Special Schools	CNM - Main	Central New Mexico Community College	1,215,597	1,613,284					0	
	LCC	Luna Community College	353,924	353,924					0	
	SJC	San Juan College	870,500	1,098,606					0	
	SFCC	Santa Fe Community College	503,673	672,454					0	
	CCC	Clovis Community College	311,561	338,191					0	
	MCC	Mesalands Community College	113,535	113,535					0	
	NMJC	New Mexico Junior College	427,643	381,403					0	
	NMMI	New Mexico Military Institute	740,149	677,517					0	
	NMSD	New Mexico School for the Deaf	254,339	219,528					0	
	NMSBVI	New Mexico School for the Blind and Visually Impaired	150,500	230,915					0	
Native American Institutions	DINE	DINE College	0	174,495					0	
	IAIA	Institute of American Indian Arts	0	169,171					0	
	NTC	Navajo Technical College	0	259,335					0	
	SIPi	Southwestern Indian Polytechnic Institute	0	402,669					0	
Total:			18,319,478	21,493,891	-1	3,344,522	18,416	2,326	16,090	4,101



**DATE:** 24-Aug-21

Page 1



## Memorandum

To : Dickie Apodaca

From: Corley Valdez NMSU Grants Facilities Manger

Date: 8/20/2021

Subject: Deferred Maintenance

To date are total Deferred Maintenance is 4 major projects

- 1) Martinez Hall HVAC Air handlers 5,6,7&8 replace with RTU's
- 2) Martinez Hall Air handlers 1,2&3 replace with RTU's
- 3) McClure Hall Heat-Pump s replaced with RTU's
- 4) McClure hall Electrical upgrades.

I have only been in this position for 4 years and our Deferred Maintenance was a total of 5 as well

- 1) Martinez Hall Roofing
- 2) Martinez Hall LED lighting Completion we are at 70% LED
- 3) Martinez Hall Stucco
- 4) Campus Parking lot and lighting.
- 5) Fidel Hall Renovations (Restrooms)

For the upcoming projects, we asked for will reduce maintenance footprint.

- 1) By Improving the electrical stability for sensitive running equipment ( Chillers ,HVAC and EMS and computers ) with a Upgraded electrical distribution system. Reducing down time for troubleshooting and repairs.
- 2) Classroom improvements will help maintenance wit upgraded LED lighting flooring and electrical upgrades.
- 3) ADA and code compliance upgrades will be a great maintenance benefit with new door hardware and achieving code compliance all at one time instead of doing a little at a time.

All are lack of necessary funds .I have included a project sheet of Capitol-Outlay and BR&R

[Recipient Name]

August 23, 2021

Page 2

Thank you,

Corley Valdez NMSU Grants Facilities Mgr.

(505) 240-0489




## Office of the Chancellor

MSC 3Z  
New Mexico State University  
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Las Cruces, NM 88003-8001  
575-646-2035, fax: 575-646-6334  
[chancellor.arvizu@nmsu.edu](mailto:chancellor.arvizu@nmsu.edu)

DATE: August 23, 2021

TO: Chairman Gerald Burke, Capital Outlay Hearing Committee

FROM: Dr. Ken Van Winkle, NMSU Branch Executive Director   
Dr. Marlene Chavez-Toivanen, NMSU Grants Associate Campus Director & Vice President  
for Academic Affairs

SUBJECT: Justification for waiving the 25 percent match per NMAC 5.3.9

NMSU Grants requests a waiver for the 25 percent local match for two-year institutions as required by NMAC 5.3.9 for the 2022 Capital Outlay request due to the following reasons:

NMSU Grants is a rural college surrounded by four major Native American communities (Laguna, Acoma, and Zuni Pueblos and parts of the Navajo Nation). Our fiscal challenges are exacerbated by the fact that these public tribal lands cannot be taxed. Additionally, the three national forests in the region and public lands cannot be taxed. However, our tax base which should allow NMSU Grants to generate significant revenue in support of tuition, fees, and state aid, is extremely limited. The local Mill Levy generates approximately \$270,000 annually. Compared to other two-year institutions, this amount is significantly lower. (NMSU Carlsbad 3 Mill Levy, \$12 – 14 Million; NMSU Alamogordo 1 Mill Levy, \$660,000).

The economy of Cibola County has been severely impacted by the closure of two major employers over the past 18 months. The Tri-State Generating Station and the Marathon Refinery closed in 2020 causing many residents in the area to relocate. The closure of the coal plant impacted the reduction of contracts at the Peabody Coal Mine which has caused a large reduction in their workforce. These closures have impacted the population of Grants and Cibola County which negatively impacts the enrollment at NMSU Grants.

The COVID-19 pandemic has also contributed to the decrease in enrollment due to the fact that the college transitioned to 100 percent online with all services offered remotely. The pandemic caused our tribal communities to remain on lockdown for a long period of time with students having little or no internet connectivity. During this time, students were either unable or did not feel safe participating in college courses which negatively impacted enrollment and tuition revenues. Nonetheless, the enrollment has decreased during FY 21 due to the pandemic and is projected to remain the same for FY22.



## Office of the Chancellor

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[chancellor.arvizu@nmsu.edu](mailto:chancellor.arvizu@nmsu.edu)

August 23, 2021

Chairman Gerald Burke  
Capital Outlay Hearing Committee  
2044 Galisteo St, Suite 4  
Santa Fe, NM 87505

Dear Chairman Burke and Capital Outlay Hearing Committee:

Thank you for your consideration of our Capital Outlay request of \$4M for the Vocational Technology building at New Mexico State University Carlsbad (NMSU Carlsbad). This building is an important addition to the campus and will enhance opportunities for students in vocational technology programs for years to come.

NMSU Carlsbad pledges \$4M held in reserves toward the construction of this building and the campus is working with local community and industry to raise another \$4M.

Chairman Burke indicated a desire for NMSU Carlsbad to commit an additional \$4M to ensure the General Obligation bond passes and the campus is awarded the requested \$4M from the state.

With this letter, NMSU Carlsbad commits that if the local fund-raising effort does not reach \$4M, NMSU Carlsbad will make up the difference with its reserves to fully fund the \$12M project.

Sincerely,

A handwritten signature in blue ink that reads "Dan E. Arvizu".

Dan E. Arvizu  
Chancellor

A handwritten signature in black ink that reads "Ken Van Winkle".

Ken Van Winkle  
Branch Executive Director