EXECUTIVE SUMMARY

Item Name: **Arizona State University Capital Development Plan**

☒ Action Item

Requested Action: Arizona State University asks the board to approve its $83.5 million Capital Development Plan (CDP), which includes two new projects, as described in this executive summary.

Previous Board Action

- FY 2022 – 2024 Capital Improvement Plan October 2020
  - ASU at Mesa City Center Tenant Improvements
  - Bateman Physical Sciences Center Improvements

Prior Year Activity

- Five capital projects totaling $160.55 million and one third-party project were substantially completed in the last twelve months.
- Fifteen capital projects totaling $686.6 million and one third-party project began or continued construction activity in the last twelve months.
- Details on completed and ongoing capital projects are listed in Exhibit 1.

Overview and Alignment with Enterprise and University Goals and Objectives

- This ASU CDP includes two new projects totaling $83.5 million.
- ASU has developed this CDP to align with the university's campus master plan and the enterprise and university strategic goals and objectives.
- The primary institutional priorities supported by this CDP include:
  - **Academic Success:** The proposed projects will contribute to advancing the university's twin pillars of academic success -- leadership in academic excellence and accessibility and establishing national standing in academic quality. These projects will provide essential support to achieving these goals and metrics by 2025:
    - Increase total student enrollment to 125,000

Contact Information:
Morgan R. Olsen, ASU Morgan.R.Olsen@asu.edu 480-727-9920

- Improve the freshman retention rate to 90 percent
- Increase the six-year graduation rate to 75 percent
- Increase the number of bachelor's degrees awarded to 21,430 and graduate degrees to 10,670.

- **Research and Development:** The proposed projects will support the university's research goals, including the enhancement of its research competitiveness to more than $815 million in annual research expenditures by 2025. University research expenditures are used in part to advance the state of knowledge in various fields; purchase local goods and services; help create new companies and jobs; support the development of next-generation scientists and innovators; and attract top research talent to the faculty. Research and development expenditures also support the state's competitive advantage in the fields of science, technology and medicine.

- **Student Support and Engagement:** The proposed projects will support the advancement of the university's mission to enhance student development and learning to national leadership levels. These projects will foster student engagement in programs, events and activities that will enhance their learning and personal development by connecting them with their campus and community, building leadership skills, and preparing them for academic, personal and career success.

- **Campus Operations and Infrastructure Priorities:** To advance the university's academic and research goals, its facilities and related infrastructure must be maintained in a safe and reliable operational condition. Buildings and utility systems also must be cost-effective to maximize the use of the university's operational funds over time.

- **Life Safety and Code Compliance:** Life safety and code compliance issues must be resolved promptly and assume the highest priority in ensuring the safety and security of students, faculty, staff and visitors, as well as supporting the achievement of the university's academic and research goals.

- **Community Service:** Serving Arizona communities is an integral aspect of the university's mission and its programs. Enhancing and expanding the university's local impact and social embeddedness is vital to improving the quality of life and economic prosperity in Arizona.

- **Capital Infrastructure Fund:** The Bateman Physical Sciences Center Improvements project will benefit from the Capital Infrastructure Fund (CIF) to provide annual funding for capital projects, matched with tuition.

Capital Development Plan Projects

- Following are the new projects proposed for CDP approval:
  - ASU at Mesa City Center Tenant Improvements
  - Bateman Physical Sciences Center Improvements.

- Additional details on project costs, financing and scope are included in the tables in Exhibits 2 and 3 and the attached individual Project Justification Reports.

Fiscal Impact and Management

- This ASU CDP, if fully implemented, will cost a total of $83.5 million.

- Of the total amount, $60.0 million will be debt-financed with system revenue bonds. The university will internally fund $23.5 million in capital costs with tuition and amortize the cost over an approximately twenty-year term.

- The incremental total annual operating and maintenance (O&M) cost associated with the new projects in this CDP is estimated to be $1,239,495. ASU plans to use tuition revenues to pay the O&M costs.

- ASU will:
  (a) sell one or more series of System Revenue Bonds to finance the project, as identified in Exhibit 2, costs of issuance, and payments to a bond insurer or other credit enhancer, provided such payments result in a benefit that exceeds the amount of such payments;
  (b) sell bonds at a price at, above or below par, on a tax-exempt or taxable basis, in one or more series, at a fixed or variable rate of interest;
  (c) enter into necessary agreements, including those related to bond insurance or other credit enhancement agreements; and
  (d) utilize a financial advisor, bond counsel and bond trustee for the financing. The system revenue bonds will be marketed and sold on a negotiated basis, either to one or more investment banking firms currently in a pool of bond underwriters procured by the three state universities or by the State of Arizona or by a direct sale to a bank or banks or other financial institutions.

- **Debt Ratio Impact:** Based upon the projects included in this CDP and the first year of the CIP, the university's projected debt ratio is expected to reach its maximum in FY 2022 at 4.9 percent excluding SPEED debt and 5.3 percent including SPEED debt.

- The tables in Exhibits 2 and 3 provide details on project financing, funding sources

and debt ratio impact.

Committee Review and Recommendation

The Finance, Capital and Resources Committee reviewed this item at its January 28, 2021 meeting and recommended forwarding to the full board for approval.

Statutory and Policy Requirements

- Pursuant to Arizona Board of Regents Policy Chapter 7-107, each university shall submit an annual Capital Development Plan for the upcoming year in accordance with the calendar approved by the executive director of the board.

- CDPs are reviewed by the Finance, Capital and Resources Committee and are approved by the board.

- Approval of the CDP allows the university to complete design and planning, execute construction and financing agreements, and begin construction as outlined in policy.

EXECUTIVE SUMMARY

Exhibit 1

Arizona State University Capital Project Status Report							
Project Name	**Gross Square Feet**	**Total Budget**	**Direct Construction Budget**	**Percent Work Completed**	**Percent to Gift Target**	**Date Last Board Approval**	**Original/ Revised Occupancy Date**
Ongoing Projects							
ASU at Mesa City Center	110,000	$10,000,000	$10,000,000	46	N/A	11/7/2019	3/15/2022
Biomedical Research Laboratory Building Improvements	113,600	$40,000,000	$28,459,200	87	N/A	2/8/2018	3/23/2021
Building & Infrastructure Enhancements and Modifications	N/A	$32,000,000	$17,600,000	67	N/A	11/15/2018	12/31/2021
Building & Infrastructure Enhancements and Modifications	N/A	$20,000,000	$14,000,000	31	N/A	2/13/2020	2/28/2023
Classroom and Academic Renovations	50,000	$10,000,000	$7,500,000	85	N/A	11/15/2018	5/31/2021
Classroom and Academic Renovations	50,000	$15,000,000	$11,250,000	31	N/A	2/13/2020	2/28/2023
Durham Hall Renovation	137,067	$65,000,000	$48,600,000	71	N/A	2/8/2018	12/1/2021
Herald Examiner Building Tenant Improvements	74,030 NSF	$40,000,000	$28,143,414	43	33%	8/1/2021	7/30/2021
Information Technology (IT) Infrastructure Improvements	N/A	$32,000,000	$32,000,000	61	N/A	9/28/2018	3/31/2022
Interdisciplinary Science and Technology Building (ISTB) 7	281,378	$192,000,000	$149,126,103	63	N/A	9/19/2019	12/23/2021
Multipurpose Arena	179,238	$115,000,000	$91,488,424	4	N/A	11/19/2020	11/30/2022
Research Laboratories and Faculty Startup	40,000	$15,000,000	$10,400,000	85	N/A	11/15/2018	5/31/2021
Research Laboratories and Faculty Startup	40,000	$20,000,000	$14,000,000	31	N/A	2/13/2020	2/28/2023
Thunderbird School of Global Management	111,000	$67,000,000	$47,500,000	79	N/A	9/19/2019	5/28/2021
University Drive Pedestrian Bridge and Plaza	N/A	$13,600,000	$11,433,381	12	N/A	6/12/2020	12/23/2021
Ongoing Third-Party Project							
Downtown Phoenix Residence Hall and Entrepreneurial Center	284,000	N/A	N/A	70	N/A	9/19/2019	7/15/2021
Completed Projects							
Energy Conservation I	N/A	$12,950,000	$12,950,000	100	N/A	11/16/2017	3/4/2020
Health Futures Center	150,000	$80,000,000	$56,694,000	100	N/A	2/8/2018	11/20/2020
Novus Place Parking Structure	400,000	$36,000,000	$28,660,000	100	N/A	6/14/2018	5/1/2020
Novus Place Parking Structure Expansion	179,770	$16,200,000	$13,308,155	100	N/A	2/13/2020	10/19/2020
Recreation and Sports Fields	N/A	$15,400,000	$12,443,723	100	N/A	11/21/2019	10/31/2020
Completed Third-Party Project							
Lantana Hall (Polytechnic New Residence Hall)	101,000	N/A	N/A	100	N/A	4/11/2019	8/1/2020
This exhibit reflects the status of Arizona State University capital projects effective January 28, 2021.							

Exhibit 2

EXECUTIVE SUMMARY

Arizona State University Capital Development Plan							
Project	**Board Approval Status**	**Est. Square Footage**	**Project Cost**	**Amount Financed**	**Funding Method**	**Annual Debt Service**	**Debt Ratio**
New Academic/Support Projects							
ASU–ASU at Mesa City Center Tenant Improvements	CIP 10/2020	118,386	$23,500,000	$0	Internally Financed	N/A	N/A
ASUT–Bateman Physical Sciences Center Improvements	CIP 10/2020	90,400	$60,000,000	$60,000,000	System Revenue Bonds	$4,442,000	0.11%
New Project Total		**208,786**	**$83,500,000**	**$60,000,000**		**$4,442,000**	**0.11%**
Total CDP		**208,786**	**$83,500,000**	**$60,000,000**		**$4,442,000**	**0.11%**

EXECUTIVE SUMMARY

Exhibit 3

Capital Development Plan–Annual Debt Service by Funding Source											
Project	Amount Financed	CIF	TUI	AUX	ICR	OLF	SLP	FGT	DFG	OTH	Total Annual Debt Service
New Academic/Support Project											
ASUT–Bateman Physical Sciences Center Improvements	$60,000,000	$1,969,500	$2,472,500								$4,442,000
New Project Total	**$60,000,000**	**$1,969,500**	**$2,472,500**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,442,000**
Total CDP	**$60,000,000**	**$1,969,500**	**$2,472,500**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,442,000**

Funding Source Codes:
(CIF) Capital Infrastructure Fund
(TUI) Tuition
(AUX) Auxiliary
(ICR) Indirect Cost Recovery
(OLF) Other Local Funds
(GFA) General Fund Appropriation
(FGT) Federal Grant
(DFG) Debt Financed by Gifts
(OTH) Other

Capital Development Plan–Operation and Maintenance by Funding Source										
Project	CIF	TUI	AUX	ICR	OLF	GFA	FGT	DFG	OTH	Total Annual O & M
New Academic/Support Projects										
ASU–ASU at Mesa City Center Tenant Improvements		$1,239,495								$1,239,495
ASUT–Bateman Physical Sciences Center Improvements										$0
New Project Total	**$0**	**$1,239,495**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,239,495**
Total CDP	**$0**	**$1,239,495**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,239,495**

Funding Source Codes:
(CIF) Capital Infrastructure Fund
(TUI) Tuition
(AUX) Auxiliary
(ICR) Indirect Cost Recovery
(OLF) Other Local Funds
(GFA) General Fund Appropriation
(FGT) Federal Grant
(DFG) Debt Financed by Gifts
(OTH) Other

Exhibit 4
Debt Capacity Update

PURPOSE

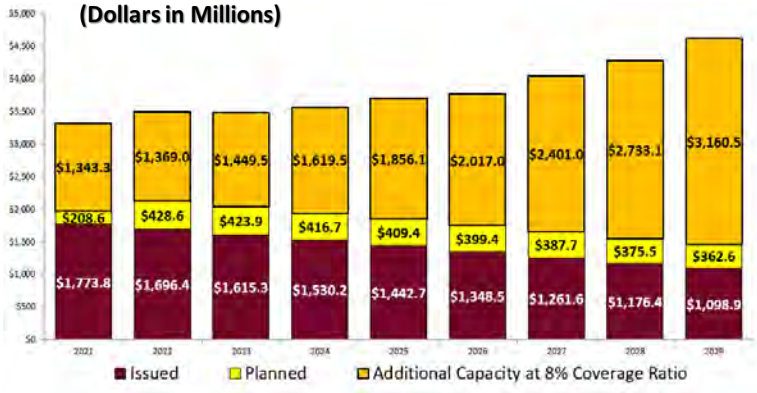
To demonstrate Arizona State University's ability to finance additional capital investment through debt instruments and to fund the related debt service (principal and interest).

PROJECTED DEBT CAPACITY

Maximum Projected Ratio of Debt Service to Total Expenditures Excluding/Including SPEED debt
4.9%/5.3%

Based upon the projects included in this CDP and the first year of the CIP, the maximum projected debt ratio is 4.9 percent in FY 2022. Outstanding debt in FY 2022 is projected to be $2.13 billion, with total annual debt service of $157.8 million. The 4.9 percent ratio is within the range used by credit rating firms to confirm an institution's creditworthiness and is below the 8 percent statutory maximum.

Currently outstanding (issued) debt declines from $1.8 billion in FY 2021 to $1.1 billion in FY 2029 as debt is retired. Planned debt includes future financings of projects presented in this annual CDP and those included in the first year of the 2022-2024 CIP. Additional debt capacity represents debt that can be issued in any given year based on the statutory 8 percent debt ratio maximum.



FUTURE PROJECTS

Future debt-financed projects include those in this annual CDP, and those included in the first year of the FY 2022-2024 CIP. These projects are included in the future debt capacity assumptions.

	Project Budget	Remaining Amount to be Financed
Bateman Physical Sciences Center Improvements	$ 60,000,000	$ 60,000,000
Building and Infrastructure Enhancements and Modifications	20,000,000	20,000,000
Classroom and Academic Renovations	15,000,000	15,000,000
Durham Language and Literature Building Renovation	65,000,000	30,000,000
Information Technology (IT) Infrastructure Improvements	16,000,000	16,000,000
Interdisciplinary Science and Technology Building (ISTB) 7	192,000,000	67,000,000
Mill Avenue Parking Structure	38,000,000	38,000,000
Multipurpose Arena	115,000,000	115,000,000
Research Laboratories and Faculty Startup	20,000,000	20,000,000
Thunderbird School of Global Management	67,000,000	37,000,000
University Drive Pedestrian Bridge	13,600,000	13,600,000
	$ 621,600,000	$ 431,600,000

CREDIT RATINGS

EXECUTIVE SUMMARY

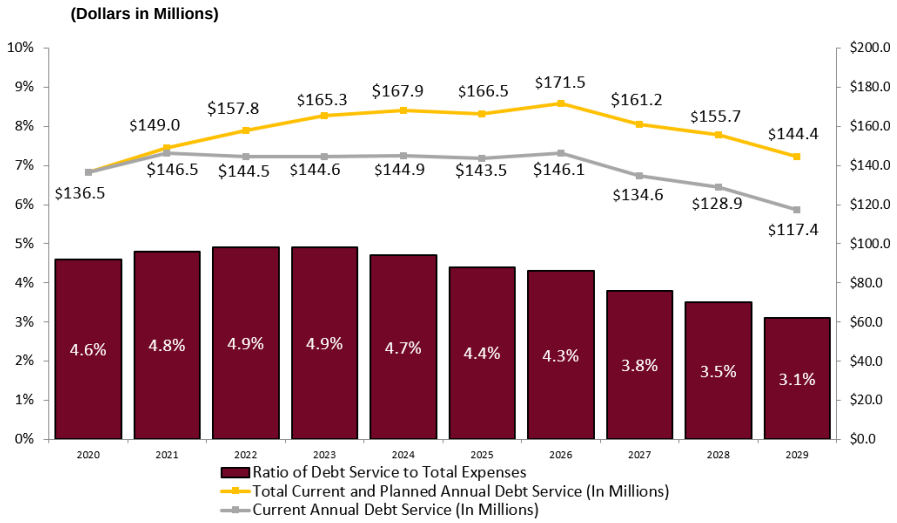
Positive rating factors cited by the credit rating agencies include ASU's ongoing growth and increasing brand recognition that has translated into solid donor support, rising net tuition, and improved research activity; solid fiscal oversight; strong operating cash flow; consistent reserve increases; and disciplined capital investment.

Offsetting factors identified by the agencies include high debt levels, narrow reserves relative to debt, weak state funding, and high reliance on student charges with increasing price sensitivity.

	Moody's		Standard & Poor's (S&P)	
Fiscal Year	Rating	Outlook	Rating	Outlook
2014	Aa3	Stable	AA	Stable
2015	Aa3	Stable	AA	Negative
2016	Aa3	Positive	AA	Stable
2017	Aa3	Positive	AA	Stable
2018	Aa2	Stable	AA	Stable
2019	Aa2	Stable	AA	Stable
2020	Aa2	Stable	AA	Stable

RATIO OF DEBT SERVICE TO TOTAL EXPENSES

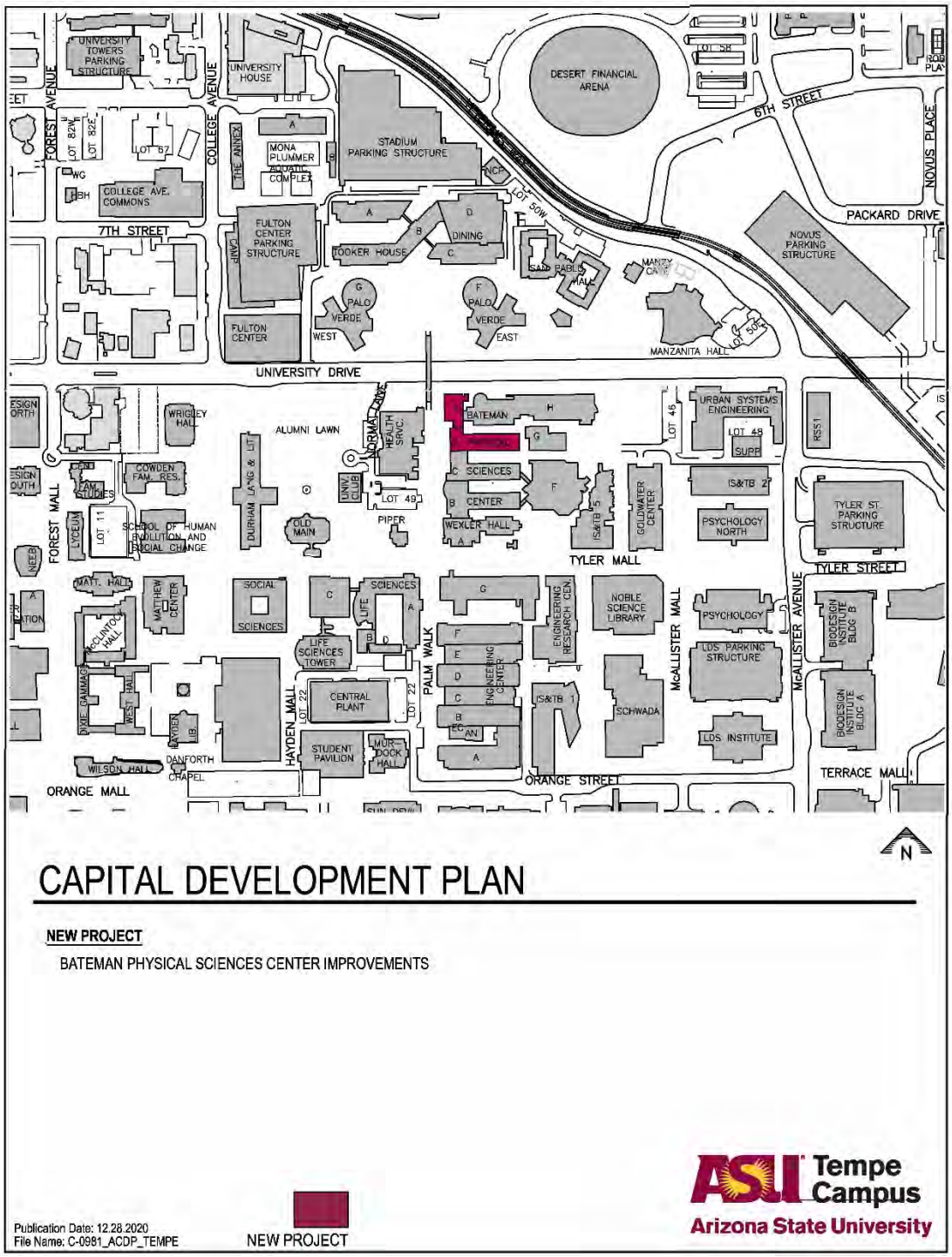
Annual debt service on system revenue bonds and certificates of participation (COPs) is projected to increase from $136.5 million in FY 2020 to a maximum of $171.5 million in FY 2026. The projected ratio of debt service to total expenses is expected to reach its highest point in FY 2022, at 4.9 percent.



Plan bonds eighty lottery by the ratio, million debt 5.3 percent. SPEED (Stimulus for Economic and Educational Development) are funded up to percent by state revenues, with the balance funded University. SPEED debt service is excluded from the statutory debt but if SPEED debt service of $11.9 is included, the highest projected ratio increases to

Exhibit A
Arizona State University
Downtown Mesa Site Location Map

Exhibit B
Arizona State University
Tempe Campus Site Location Map



Arizona State University
Capital Development Plan—Project Justification Report
ASU at Mesa City Center Tenant Improvements

Previous Board Action

- FY 2022 Capital Improvement Plan — October 2020
- Amended Capital Development Plan — November 2019
  Specialized Facility Building Systems and Required Infrastructure
- Lease Agreement with the City of Mesa — September 2018

Project Justification/Description/Scope

- ASU has entered into a collaboration with the City of Mesa in which the city is building a facility to the university's specifications for its Digital and Sensory Technology, Film and Media Arts, User Experience Design and Entrepreneurial Support programs. This project consists of the furniture, fixtures and equipment for the facility, as well as the technical infrastructure required to support these programs.

- The approximately 118,386 gross-square-foot, state-of-the-art facility is under construction on the northwest corner of Centennial Way and Pepper Place in downtown Mesa, as depicted on the attached map as Exhibit C. This location, which is proximate to the Mesa Arts Center and a mass transit hub, will enable the university to expand and embed its programs throughout the region. The location also is ideal for transcending academic disciplines and connecting cutting-edge arts and technology programs with commerce and business applications that will support entrepreneurial endeavors and technology start-ups, fueling economic growth.

- This world-class facility will include large program spaces for producing and experiencing film and immersive media. These spaces will include an enhanced-immersion studio, four sound stages, a 280-seat screening theater and an 80-seat screening room. The facility also will contain high-tech sound-recording studios, control rooms, editing rooms, makerspaces, exhibition spaces, classrooms and office support spaces, as well as community and industry collaboration spaces.

- The planned tenant improvements will include the installation of leading-edge audiovisual, technology, and electronic security systems, as well as the specialized infrastructure required to support these systems. High-tech cameras, sound systems, control devices, shop and makerspace equipment, as well as specialized

lighting and its supporting rigging, will be installed in the program areas. A large high-resolution video screen will be installed on the exterior of the building to enable the community to gather, engage, and experience film and digital media.

- This project will support the primary institutional priorities of enhancing our local impact and establishing the university as a leading global center for interdisciplinary discovery and development by 2025:
  - Become the leading American center for discovery and scholarship in the comprehensive arts and sciences
  - Transform regional economic competitiveness through research and value-added programs
  - Become a leading American center for innovation and entrepreneurship at all levels.

Project Delivery Method and Process

- This project will be delivered through the Construction Manager at Risk (CMAR) delivery method. This approach was selected to provide contractor design input and coordination throughout the project and alleviate potentially adversarial project environments.

- ASU utilized the annual Request for Qualifications process to select The Sextant Group, now known as NV5, as the project Design Professional. The process to select DPR Construction as the CMAR included eleven submittal responses and five contractor interviews. The project team will design and construct the improvements and infrastructure to meet ASU's specifications.

Project Status and Schedule

- Core and shell work is currently underway. The tenant improvements are scheduled to begin when the CMAR's Guaranteed Maximum Price (GMP) scope is substantially complete and after all approvals are in place. Project construction is scheduled to begin in April 2021 and substantial completion is targeted for April 2022.

Project Cost

- The budget for this approximately 118,386 gross-square-foot project is $23.5 million. The budget represents an estimated total project cost of $199 per gross square foot.

- The CMAR will be at risk to provide the completed project within the agreed-upon GMP.

Fiscal Impact and Financing Plan

- The university's $23.5 million cost for the tenant improvements will be internally funded and amortized over an approximate twenty-year term with tuition funds.

- Per the lease agreement with the City of Mesa, ASU will be responsible for the estimated annual operations and maintenance costs of $1,239,495 for this project as well as the long-term capital replacement costs for the building.

- **Debt Ratio Impact**: This project will not impact the university's debt ratio.

Occupancy Plan

- Occupancy of this facility is scheduled for spring 2022. When the Herberger Institute for Design and the Arts Film programs relocate to this facility, ASU will terminate the lease on its current off-campus Sun Studios facility in Tempe.

Statutory and Policy Requirements

- ABOR Policy 7-102 requires all capital projects with an estimated total project cost of $10 million or more be included in the CDP, including technology and third-party projects.

Capital Project Information Summary

University: Arizona State University **Project Name:** ASU at Mesa City Center Tenant Improvements

Project Description and Location: ASU has entered into a collaboration with the City of Mesa in which the city is building a facility to the university's specifications for its Digital and Sensory Technology, Film and Media Arts, User Experience Design and Entrepreneurial Support programs. This project consists of the furniture, fixtures and equipment for the facility, as well as the infrastructure required to support these programs. The facility will be located on the northwest corner of Centennial Way and Pepper Place in downtown Mesa, as depicted on Exhibit C.

Project Schedule:

Planning	January	2018
Design Start	August	2019
Construction	April	2021
Construction Completion	April	2022

Project Budget:

Total Project Cost	$	23,500,000
Total Project Construction Cost	$	0
Total Project Cost per GSF	$	199
Construction Cost per GSF	$	0

Change in Annual O and M Cost:

Utilities	$	465,247
Personnel		282,680
All Other Operating		491,568
Subtotal	$	1,239,495

Funding Sources:

Capital

A. Tuition $ 23,500,000

Operation/Maintenance $ 1,239,495

Funding Source: Tuition

EXECUTIVE SUMMARY

Capital Project Budget Summary

University: Arizona State University
Project: ASU at Mesa City Center Tenant Improvements

	Capital Development Plan
Capital Costs	
1. Land Acquisition	
2. Construction Cost	
A. New Construction	
B. Tenant Improvement	$ 14,029,636
C. Special Fixed Equipment	2,617,000
D. Site Development (excl. 2.E.)	-
E. Parking and Landscaping	100,000
F. Utilities Extensions	-
G. Other* (Demolition/abatement)	-
Subtotal Construction Cost	$ 16,746,636
3. Fees	
A. CMAR Pre-Construction	$ 477,294
B. Architect/Engineer	550,000
C. Other	-
Subtotal Consultant Fees	$ 1,027,294
4. FF&E Movable	$ 1,600,000
5. Contingency, Design Phase	50,000
6. Contingency, Constr. Phase	629,468
7. Parking Reserve	-
8. Telecommunications Equipment	2,501,750
Subtotal Items 4-8	$ 4,781,218
9. Additional University Costs	
A. Surveys, Tests, Haz. Mat. Abatement	$ 100,000
B. Move-in Costs	20,000
C. Printing Advertisement	-
D. Keying, signage, facilities support	125,000
E. Project Management Cost	620,535
F. State Risk Mgt. Ins. (.0034 **)	79,317
Subtotal Addl. Univ. Costs	$ 944,852
Total Capital Cost	$ 23,500,000

* Universities shall identify items included in this category.

** State Risk Management Insurance factor is calculated on construction costs and consultant fees.

EXECUTIVE SUMMARY

Exhibit C
ASU at Mesa City Center Tenant Improvements
Site Location Map

Arizona State University
Capital Development Plan—Project Justification Report
Bateman Physical Sciences Center Improvements

Previous Board Action

- FY 2022 Capital Improvement Plan October 2020

Project Justification/Description/Scope

- This project will update and increase the number of chemistry instructional laboratories and update the research laboratories and office spaces in the D and E wings of this aging multifunctional complex. The complex is located in the core of the Tempe campus, as depicted on the attached map as Exhibit D. The planned improvements will enable the university to improve its utilization of the spaces required to advance research and discovery of public value and fulfill the evolving program needs associated with new fields of learning and teaching methodologies.

- The guiding principles of this project include modernizing, enhancing and increasing the number of spaces for students to collaborate, learn and conduct research; updating building technology and comfort; improving accessibility; and reducing energy consumption. The approximately 90,400 gross-square-foot project will encompass comprehensive improvements to the basement and three upper floors of the Center's D wing, built in 1965, as well as improvements to the basement and three upper floors of the E wing, built in 1982.

- The scope of this project will include the abatement, demolition and improvement of all interior spaces. Research labs will be consolidated on one level at the north and south perimeter of the D wing. These labs will be equipped to accommodate diverse dry lab needs and enable future specialization as necessary. Fume hood capacity, storage, and wet lab functions will be centrally located, with layouts designed to maximize efficiency and provide the flexibility required to support the university's current and future research initiatives.

- The planned improvements also include the creation of additional chemistry instructional labs to meet the demand for space to support student enrollment growth. These labs will include upgraded equipment and technology and incorporate a flexible design to accommodate current and emerging pedagogies. Adjacent informal spaces will be included to function as an extension of the classrooms, designed to foster creative collaboration that promotes effective solutions.

- Additionally, a new roofing system will be installed and minor exterior envelope improvements are planned, including window replacements to improve the weather tightness of the building envelope, added insulation to increase the energy efficiency of the building, as well as masonry repairs. The existing building systems, including mechanical, plumbing and electrical, are beyond their useful life and will be replaced with new, energy-efficient systems. Life safety and accessibility improvements also are planned, including fire sprinkler and alarm updates and the addition of code-compliant stair towers at the east and west ends of the D wing.

- This project will enhance the quality of the built environment, maintain compliance with current building and life safety codes and Americans with Disabilities Act requirements, reduce energy consumption and deferred maintenance, and expand and enhance the use of technology to enable student success.

- The improvements to the D and E wings in this multifunctional complex will support the following priorities by 2025:
  - Become the leading American center for discovery and scholarship in the comprehensive arts and sciences
  - Enhance research competitiveness to more than $815 million in annual research expenditures
  - Transform regional economic competitiveness through research and discovery and value-added programs.

Project Delivery Method and Process

- This project will be delivered through the Construction Manager at Risk (CMAR) delivery method. This method was selected to facilitate contractor design input and coordination throughout the project, alleviate a potentially adversarial project environment and allow for the selection of the most qualified contractor team. With the use of two independent cost estimates at each phase and pre-qualified, low-bid subcontractor work for the actual construction, CMAR project delivery also provides a high level of cost and quality control.

- ASU has selected BWS Architects as the Design Professional (DP) for this project and CORE Construction as the CMAR. The selection process for the DP included thirteen responses and three firms were interviewed. The CMAR selection process included seven submittal responses and three contractors were interviewed.

Project Status and Schedule

- Construction is scheduled to begin when the project design is complete and after all approvals are in place. Project construction is scheduled to begin in May 2021 and substantial completion is targeted for May 2023.

Project Cost

- The budget for this approximately 90,400 gross-square-foot project is $60.0 million. The budget represents an estimated construction cost of $531 per gross square foot. The estimated total project cost is $664 per gross square foot.

- The CMAR will be at risk to provide the completed project within the agreed-upon Guaranteed Maximum Price (GMP).

Fiscal Impact and Financing Plan

- The $60.0 million project will be debt-financed with system revenue bonds. The debt service for $51.0 million of the bonds will be funded by the State of Arizona Capital Infrastructure Fund and matched with tuition. The debt service for the remaining $9.0 million of bonds will be funded by tuition.

- Annual operations and maintenance costs will not be impacted by this project.

- **Debt Ratio Impact**: The projected incremental debt ratio for this project is 0.11 percent.

Occupancy Plan

- No backfill plan is associated with this project.

Statutory and Policy Requirements

- ABOR Policy 7-102 requires all capital projects with an estimated total project cost of $10 million or more be included in the CDP, including technology and third-party projects.

Capital Project Information Summary

University: Arizona State University **Project Name:** Bateman Physical Sciences Center Improvements

Project Description and Location: This project will update and increase the number of chemistry instructional laboratories and update the research laboratories and office spaces in the D and E wings of this aging multifunctional complex. These wings are located in the northwest corner of the complex, bounded by University Drive and Palm Walk, as depicted on the attached map as Exhibit D.

Project Schedule:

Planning	July	2018
Design Start	June	2020
Construction Start	May	2021
Construction Completion	May	2023

Project Budget:

Total Project Cost	$ 60,000,000
Total Project Construction Cost	$ 48,000,000
Total Project Cost per GSF	$ 664
Construction Cost per GSF	$ 531

Change in Annual O and M Cost:

Utilities	$ 0
Personnel	0
All Other Operating	0
Subtotal	$ 0

Funding Sources:

Capital

System Revenue Bonds	$ 60,000,000
Debt Service Funding Sources:	Tuition
	Capital Infrastructure Fund

Operations/Maintenance	$ 0
Funding Source:	N/A

EXECUTIVE SUMMARY

Capital Project Budget Summary

University: Arizona State University
Project: Bateman Physical Sciences Center Improvements

	Capital Development Plan
Capital Costs	
1. Land Acquisition	
2. Construction Cost	
A. New Construction	
B. Tenant Improvement	$ 47,250,000
C. Special Fixed Equipment	-
D. Site Development (excl. 2.E.)	-
E. Parking and Landscaping	-
F. Utilities Extensions	-
G. Other* (Abatement)	750,000
Subtotal Construction Cost	$ 48,000,000
3. Fees	
A. CMAR Pre-Construction	$ 609,000
B. Architect/Engineer	4,502,000
C. Other (Commissioning)	250,000
Subtotal Consultant Fees	$ 5,361,000
4. FF&E Movable	$ 1,620,000
5. Contingency, Design Phase	150,000
6. Contingency, Constr. Phase	1,290,000
7. Parking Reserve	-
8. Telecommunications Equipment	1,452,000
Subtotal Items 4-8	$ 4,512,000
9. Additional University Costs	
A. Surveys, Tests, Haz. Mat. Abatement	$ 75,000
B. Move-in Costs	50,000
C. Printing Advertisement	-
D. Keying, signage, facilities support	240,000
E. Project Management Cost	1,762,000
F. State Risk Mgt. Ins. (.0034 **)	-
Subtotal Addl. Univ. Costs	$ 2,127,000
Total Capital Cost	$ 60,000,000

* Universities shall identify items included in this category.

** State Risk Management Insurance factor is calculated on construction costs and consultant fees.

EXECUTIVE SUMMARY

Exhibit D
Bateman Physical Sciences Center Improvements
Site Location Map