JACKSON COLLEGE



Five-Year Capital Outlay Plan Fiscal Year 2026 Capital Project Request

October 2024

JACKSON COLLEGE

Five-Year Capital Outlay Plan

Fiscal Year 2026 Capital Project Request

Contents

I.	Mission Statement	
II.	Instructional Programming	5
III.	Staffing and Enrollment	12
IV.	Facility Assessment	25
V.	Implementation Plan	
VI.	Fiscal Year 2026 Capital Project Request	

I. Mission Statement

Mission Together we inspire and transform lives.

Vision Jackson College is a world-class institution of higher education where learners succeed and community needs are met

Statement of Beliefs As employees of Jackson College, an innovative institution totally committed to student success (TCS²), we believe:

- The success of our students is always our first priority
- We perform our jobs admirably, giving our best service and support every day, for everyone
- Teamwork is founded upon people bringing different talents and perspectives
- We provide educational and holistic opportunities for those who might otherwise not have them
- A safe and fulfilling environment provides students, employees and community members with an opportunity to grow and learn
- Our progress is validated by setting goals, measuring and celebrating our achievements
- We make decisions that are best for the institution as a whole
- Building and maintaining trusting relationships with each other is essential
- Competence and innovation sustain our values in a competitive marketplace
- We serve as role models, making a positive difference in the lives of our students, our employees, and our communities
- Integrity, opportunity and fairness are our guiding principles
- We prepare our students to be successful in a global environment
- Our work matters!

Values

- **Integrity** We demonstrate integrity through professional, ethical, transparent, and consistent behavior in both our decision-making and in our treatment of people; being accountable for our work and actions is the basis of trust.
- **Caring** We demonstrate caring through attentive and responsive action to the needs of students, employees and our community. We listen with open minds, speak kindly, and foster relationships based on mutual respect and trust.
- **Collaboration** We demonstrate collaboration through the mutual commitment of individuals and organizations who come together for a common cause.
- **Innovation** We demonstrate innovation through the continuous improvement of all processes and services.
- Equity We demonstrate equity by seeking involvement and providing access for those with diverse backgrounds to work toward a culture of inclusion while maintaining differences in a respectful way.
- Service We demonstrate service by striving to make the communities we serve great places to live, work, and learn.
- Leadership We demonstrate leadership by nurturing the full development of our employees and those we serve.
- Stewardship We demonstrate stewardship through our mindful management of the human, intellectual, fiscal and environmental resources entrusted to us.

II. Instructional Programming

PROGRAMS

BUSINESS AND COMPUTER TECHNOLOGY PATHWAY

Accounting Business Administration Computer Networking Computer Support Digital Marketing Entrepreneurship Esport Esport Management Management Public Administration Software Engineering Sport Management

HEALTH SCIENCES PATHWAY

Allied Health Cardiac Sonography Dental Hygiene **EKG** Technician **Emergency Medical Services** General Sonography Health Sciences Foundations Medical Assistant Medical Insurance Coder/ Biller Medical Office Support Nursing Patient Care Technician Phlebotomy Technician Radiography Respiratory Therapy Surgical Technology Therapy Vascular Sonography

HUMAN SERVICES PATHWAY

Behavioral Sciences Communications Corrections Law Enforcement Psychology Social Work

LIBERAL ARTS PATHWAY

3D Design and Animation Art Associate in Arts Associate in General Studies Digital Photography English Graphic Design History Music Pre-Law Theatre

SCIENCE, ENGINEERING and MATHEMATICS PATHWAY

Engineering Mathematics Sciences

PROFESSIONAL TRADES/INDUSTRY 4.0 AND AGRICULTURE PATHWAY

Advanced Manufacturing Agriculture Technology Electrician Energy Systems Lineworker Pre-Apprentice Occupational Studies



* Source: Web Query Enrollment Summary, IPEDS 2023-2024 Reporting

6

BACHELOR DEGREES

• Bachelor of Science in Energy Systems Management

TRANSFER DEGREES

- Associate in Arts
- Associate in General Studies
- Associate in Science

TRANSFER PROGRAMS

- English
- History
- Mathematics
- Music
- Physical Therapy
- Pre-Law
- Psychology
- Social Work

OCCUPATIONAL DEGREE

• Associate in Applied Science

New programs are frequently being developed; to learn more visit www.jccmi.edu/academics, or speakwith admissions staff or a student success navigator. If you are thinking about transferring, Jackson College has agreements in place with many universities to allow a seamless experience.



AA - Associate in Arts AAS - Business Administration AGS - Associate in General Studies AAS - Nursing

Certificate - Business Management **36**

Certificate - Health Science Foundation 29

Projected programming changes, initiatives

Jackson College offers many degree options and content specializations that support the healthcare ecosystem within the tri-county area. Jackson College's Health Sciences Pathway allows students to obtain the most current and highest-level skills in their chosen health profession. Programs in this pathway include Nursing (Associate degree and certificate), Dental Hygiene (Associate degree), Emergency Medical Services (certification), Medical Assistant , new in 2024-Medical Assistant Apprenticeship Program (Certificate), Medical Insurance Coder/Biller (Certificate), Medical Office Support (Certificate), Respiratory Care (Associate degree), Radiography (Associate degree), Diagnostic Medical Sonography, Cardiac Sonography and Vascular Sonography (Associate degrees), Surgical Technology, Pre-Physician Assistant and Patient Care Technician (Certificate, including EKG and Phlebotomy). JC recognizes the importance of designing workforce-centered programs and meeting students and partners where they are.

Jackson College's goal is to create a new learning space that allows the acquisition of clinical skills through deliberate practice and service learning. JC plans to redesign the simulation center and build a shared community simulation program; where the community families can receive high-quality medical screening services and workforce partners can upskill employees and enhance life-long learning. The simulation center will replicate a trauma one emergency service department where learners and guests will experience the depth and breadth of how a healthcare team works cohesively. The holistic space will integrate subject matter with the most relevant augmented reality, virtual reality, and high-fidelity simulation. Ultimately, the new approach to integrating workforce, community, and education will close the equity gap, attract talent, accelerate learning, and increase completion.

Jackson College plans to expand our Lineworker program to include a broader utilities focus. This includes forming partnerships with multiple Electric Associations in the state and expanding programming.

Partnerships with intermediate school districts

Jackson College has several partnerships with intermediate school districts. High school students thinking about college don't have to wait to get started. Jackson College provides an opportunity for motivated students to enrich their high school education with dual enrollment options made possible by the Postsecondary Option Act. Jackson College also offers more opportunities for high school students to attend college in Jackson, Lenawee, and Hillsdale counties with a variety of early and middle college programs.

The new Jackson County Early College is open to students in every public high school in Jackson County and is designed as a Universal Entry/Universal Exit model whereby students can begin their college education as early as their freshman year and stay through year 13, with opportunity to earn their high school diploma and an associate degree.

Also, a preparatory and early/middle college program is located on the Jackson College Central Campus, educating grades 6-12. Students then attend a fifth year, earning both their high school diploma and an associate degree.

The Jackson Area College and Career Connection Early/ Middle College is a unique learning program that creates a pathway for high school students to earn a high school diploma, college credit up to an associate degree, a technical/career credential, participation within a school-to- registered apprenticeship and the opportunity for employment upon graduation.

The JC/LISD Academy is a middle college program located in the LISD TECH Center and Jackson

College @ LISD TECH campuses. Students may attend throughout high school and complete the fifth year, with the opportunity to earn both their high school diploma and an associate degree.

Starting in fall 2017, the early/middle college provides a combined high school and middle college program. Beginning in the 11th grade, students complete high school requirements and enroll in college classes. After 12th grade, students will attend the fifth year, earning both their high school diploma and at least 15 college credits.

Community activities

The Affinity leaders at Jackson College are committed to serving diverse communities and to increase service and understanding of the identified community in the JC service area. Each Affinity leader is responsible for developing relationships with and implementing programs designed to increase connections with the locally recognized community. The Affinity groups are African American, Asian, Hispanic/Latinx, LBGTQIA, Pakistan, Indian, Faith & Elder. JC's goal is to increase understanding and harmony leading to a more inclusive campus culture, increased identified student enrollment, and increased culture diversity of Jackson College employees. Here is a list of community and adult education focus activities that Jackson College has done over the past academic year including the Hispanic Heritage Festival, Lakshmi Puja Ceremony, Faith Community Guide -introduces students and community members to the many different faith communities that call Jackson home, Hindu Temple - Satyanarayana Pooja and Katha Puja Performances, Japanese Tea Ceremony, Japanese Furoshiki- "The Spirit of Mottainai", AAPI Heritage Origami Event, Free Tuition for Senior Citizens, Lunch and Learn for seniors, Financial Literacy, Kwanza Celebration, assistance in relaunching MLK courses at the Martin Luther King Recreation Center, Virtual Symposium on the impact of Implicit Bias, Festivista on the Patio and Hanging of the Pride Flag

Articulation agreements

Jackson College has articulation agreements with Albion College, Baker College, Central Michigan University, Cleary University, Eastern Michigan University, Ferris State University, Northwood University, Siena Heights University, University of Michigan – Flint, University of Detroit Mercy, Western Michigan University, and Wayne State University.

Corporate and Continuing Education (CCE) at Jackson College focuses on providing quality training opportunities to up-skill the workforce in the tri-county area, by offering customized training, facilitating the Michigan New Job Training Program and collaborating with workforce organizations to identify additional resources as needed.

JC also helps individuals advance their careers with personal training, finding new occupations, or to simply explore a personal interest.

Over the 2022-23 academic year CCE has offered several workforce trainings, on-line self- paced training courses, along with community enrichment classes. Included is a spreadsheet of the various classes offered over the 2022-23 academic year.

In the Summer of 2024 Jackson College partnered with the YMCA of Jackson to offer Summer Camp on campus. Students who participated in the YMCA day camp program were bussed to JC for a day of career exploration, learning and fun. This program was held over a 6-week period /2 days per week with 60-80 students attending each day.

Jackson College partners with several area businesses using the Michigan New Jobs Training Program (MMJTP). Currently CCE manages over 4 million in MMJTP contracts and has provided training for over 300 new positions.

Currently the College has 14 active contracts and 14 different partners. Partners include:

- Commonwealth Associates
- True Community Credit Union
- CPC Operating, LLC
- Careline Holding Company
- Lomar Machine & Tool
- Lifeways
- Technique
- ACME Graphics, LLC
- PlaneWave Instruments.
- Henry Ford Jackson
- Production Saw and Machine
- Ultimate Auto Repair
- Align Center
- AAEJACT

Jackson College's Corporate and Continuing Education department offers continued education courses. Here is a list from last year.

Listing Name	Enrollment Count	
1. Conflict Resolution Techniques in the Workplace		2
2024 Astronomy High School Camp		1
2024 High Tech Making Camp	1	11
2024 Summer Art Camp	1	15
2024 Summer Band Camp	6	54
2024 Theatre Summer Camp		4
Advance Turning Machinist Training Spring 2024	1	10
Advanced Emergency Medical Technician (EMS-154-H1) Summer 2024		1
Advanced Emergency Medical Technician (EMS-154-H2) Summer 2024		1
Astronomy Basics	3	38
Basic Blueprint Reading Spring 24 (Technique)	1	16
Basic Electricity and Fluid Systems (ELT-106-I51) Summer 2024		3
Basic Electricity and Fluid Systems (ELT-106-I60) Spring 2024		1
Basic Electricity and Fluid Systems Fall 2023	10)5
Basic Fundamentals of Photography	1	19
Basic Programmable Controllers (ELT-260-I50) Spring 2024		1
Basic Programmable Controllers Session 1 (September 2023)	11	4
Basic Programmable Controllers Session 2 (October 2023)	10)4
BBQ Basics Workshop		5
Beginner Sweetheart Waltz Experience	1	18

Bloodborne Pathogens (MMEA)	2
Bloodborne Pathogens Training	5
Blueprint Reading and Precision Measurement Spring 2024	84
Canvas for Advanced Students: Beyond the Basics	24
Ceramics Workshop II	8
Chunky Knit Blankets	10
Circuit Analysis I (ELT-120-I51) Spring 2024	1
Coder/Biller Capstone (MIC-255-II) Summer 2024	1
Communication Strategies	4
Conflict Resolution Techniques in the Workplace	1
Critical Thinking	1
Emergency Medical Tech. Basic (EMS-124-H1) Summer 2024	5
Employment Hub	25
Emt-Basic Technology (EMS-123-H1) Summer 2024	4
Google: AI Essentials	16
Henry Ford Jackson Nurse Assistant 2023	13
Holiday Charcuterie and Wine 2023	5
Infection Control: How to Do Your Part	21
Intro Diagnostic Imaging (DMS-100) AM Session Spring 24	36
Intro Diagnostic Imaging (DMS-100) PM Session Spring 24	15
Intro to Body Systems (MED-125-I50) Summer 2024	1
Intro to Computer Systems Fall 2023	59
Intro To Digital Electronics Spring 2024	52
Intro to Instructional Design	2
Jackson College Online Instructor Certificate (OIC)	14
Jackson College Pop-Up Ceramics: For the Birds	11
Jackson College Pop-Up Ceramics: Pottery Wheel for Beginners	15
Jackson College Pop-Up Ceramics: Tile Mural	10
Jackson College Welcome to Canvas Basics (Student) Spring 2024	462
Jackson College Welcome to Canvas Basics (Student) Summer 2024	39
Jetway Course Proposal Submission Pathway	9
Junior Chef Cooking Corner	16
Leadership and Influence	1
Leadership and Influence	5
Leadership and Influence	2
Lineworker PPE	6
Make Your Own Personalized Charcuterie Board	8
Medical Terminology (MOA-120-I50) Summer 2024	1
Paint Parties To Go - Fall Canvas Paint Night	1
Paint Parties To Go - Thanksgiving Theme Ceramics	1
Paint Parties To Go - Wood Holiday Cheer Paint Night	6
Phlebotomy Technician (HOC-145-H50) Fall 2023	1
Phlebotomy Technician (HOC-145-150) Summer 2024	1

Physician Office Medical Coding (MIC-241-I1) Summer 2024	1
Principles of Medical Coding and Billing (MIC-141-I60) Spring 2024	1
Principles of Medical Coding and Billing (MIC-141-I60) Summer 2024	1
Protecting Your Finances: Safeguarding Against Fraud	4
Ready Set Jet ELA Summer 2024	1
Residential Wiring (ELT-150-I51) Summer 2024	2
The Fundamentals of Drawing: Beginner/Intermedite	4
The Fundamentals of Drawing: Let's Add Color	3
Theatre Practicum (THR-268-01) Spring 2024	7
Utilities Career Exploration July 2024	1
Workforce Ready Program	1
Workforce Ready Program	1

Custom Training

Company Name	Name of Training	Number of Students	Dates
Henry Ford Jackson	Nurse Assistant Training 2023	11	8/7/23 - 8/18/23
	Basic Programmable Controllers Session 1 (Sep		
GPWE	2023)	107	9/11/23 - 10/27/23
GPWE	Basic Electricity and Fluid Systems	99	10/25/23 - 12/16/23
	Basic Programmable Controllers Session 2 (Oct		
GPWE	2023)	98	10/25/23 - 12/16/23
GPWE	Intro to Computer Systems	53	10/25/23 - 12/16/23
Advance Turning	Intro to Manufacturing (Credit for Prior Learning)	5	1/29/24 - 3/8/24
Advance Turning	Intro to Manufacturing (Credit for Prior Learning)	5	3/11/24 - 4/19/24
GPWE	Introduction to Digital Electronics	34	3/11/24 - 4/26/24
GPWE	Blueprint Reading and Precision Measurement	77	3/11/24 - 4/26/24
Misa Specialty	· · ·		3/12/2024
Processing	Leadership Training	19	
Technique	Basic Blueprint Reading	16	4/8/24 - 5/1/24
Advance Turning	Intro to Manufacturing (Credit for Prior Learning)	8	4/29/24 - 6/3/24
Technique	Yellow Belt Six Sigma (Cohort 1)	16	5/6, 5/20, & 6/3/24
	Total Students Trained:	548	

III. Staffing and Enrollment



42%

20 - 25

25%

26 AND

OVER

33%

FINANCIAL

AID

WHITE	65%
UNKNOWN	9 %
BLACK OR AFRICAN AMERICAN	13%
HISPANIC	7%
MORE THAN ONE RACE	5%
ASIAN	1%

77% of STUDENTS were awarded some type of grant or scholarships from federal, state, local or institution.

Per IPEDS reporting 23-24 cycle

Central Campus • Jackson, MI Clyde LeTarte Center • Hillsdale, MI Jackson College @ LISD TECH • Adrian, MI MLK Center • Jackson College Global

MEN 41%

T

faculty

WOMEN **59%**

1% UNIDENTIFIED

STUDENT TO FACULTY RATIO*

<u>******</u>*

15 students

CERTIFICATES AWARDED

IN 2023-2024

ACADEMIC YEAR

799

653

Certificates

& Degrees

Awarded

Graduates

5 locations



Institutional Research and Effectiveness

Enrollment by Program & Student FTE Status

Full Time: 12 or more credit hours

Time Period: 24/FAL

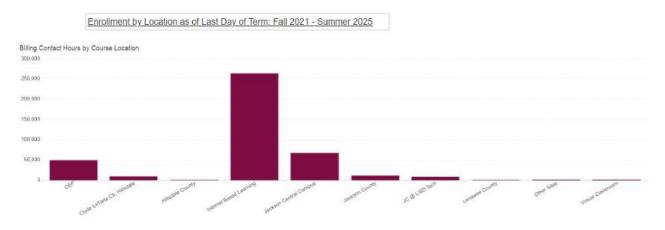
WEBI Query- Institutional Research/ Departments/ Business Office/ 5 Year Plan

Primary Program	Primary Program Description	Full-Time	Part-Time	Grand Total	
ACCT.AAS	CCT.AAS AAS - Accounting		57	80	
ADMA.AAS	AAS - Advanced Manufacturing	4	16	20	
AGTE.AAS	AAS- Agricultural Technology	4	13	17	
AHGS.AAS	AAS - Allied Health General Studies	1	2	3	
ALHE.AAS	AAS - Allied Health	36	76	112	
ARTS.AA	AA - Associate in Arts	256	323	579	
AUTO.AAS	AAS - Automotive Service Technology	0	1	1	
BHSC.CERT	Certificate - Behavioral Sciences	1	12	13	
BMGT.CERT	Certificate - Business Management	1	12	13	
BUAD.AA	AA - Business Administration	110	93	203	
BUAD.AAS	AAS - Business Administration	179	504	683	
CAAM.CERT	Certificate - Advanced Manufacturing CAD/CAM	0	1	1	
CLNE.AAS	AAS - Cloud Networking	1	5	6	
CNSA.AAS	AAS- Cloud, Networking, Security and Administration	25	24	49	
COMM.AA	AA-Communication	10	14	24	
CORR.AAS	AAS - Corrections	6	9	15	
CORR.CERT	Certificate - Corrections	1	8	9	
CSON.AAS	AAS - Cardiac Sonography	0	20	20	
CSST.AAS	CSST.AAS AAS- Computer Support Specialist		0	1	
CSST.CERT Certificate - Computer Support Specialist		0	4	4	
CYSE.AAS AAS - Cyber Security		20	27	47	
DDDA.CERT	Certificate - 3D Design and Animation	1	2	3	
DENT.AAS AAS - Dental Hygiene		10	0	10	
DIPH.CERT	Certificate - Digital Photography	2	4	6	
DMKT.CERT	Certificate- Digital Marketing	5	3	8	
DUAL.NDS	NDS - Dual Enrolled School Students	5	367	372	
EGYM.BS	BS - Energy Systems	4	9	13	
EGYT.AAS	AAS - Energy Systems Technology	3	8	11	
ELEC.AAS	AAS - Electrician	20	24	44	
ELEC.CERT	ELEC.CERT Certificate - Electrician		31	44	
EMMT.AAS	AAS - Emergency Medical Technology	0	1	1	
EMTE.CERT Certificate - Emergency Medical Services - Emt B License		6	11	17	
ENSC.AAS	NSC.AAS AAS - Environmental Science		11	20	
ENTR.AAS	AAS - Entrepreneurship	4	6	10	
ENTR.CERT	Certificate - Entrepreneurship	2	3	5	
ESGD.CERT	Certificate - Esport Game Design	0	4	4	

	Sum:	1512	4021	5533
WLAM.CERT	Certificate - Welding:Advanced Manufacturing	6	11	17
VSON.AAS	SON.AAS AAS - Vascular Sonography 16 0			
UNDC.NDS	NDS NDS - Undeclared Non Degree Seeking 0 1			
SUTE.AAS	AAS - Surgical Technology			6
STAR.CERT	Certificate - Studio Art	1	2	3
SOEN.AAS	AAS - Software Engineering	24	37	61
SMGT.AA	AA - Sport Management	26	12	38
SCIE.AS	AS - Associate in Science	107	98	205
RECA.AAS	AAS - Respiratory Therapy	18	14	32
RADI.AAS	AAS - Radiography	3	35	38
PTEC.CERT	Certificate - Production Technician	0	2	2
PTCT.CERT	Certificate - Patient Care Technician	2	1	3
PPSC.CERT	Certificate - Pre-Professional Science	1	0	1
PNCE.CERT	Certificate - Practical Nursing	7	1	8
PERS.NDS	NDS - Personal Interest	3	31	34
PAMT.CERT	Certificate - Public Leadership and Administration	0	7	7
PAMT.AA	Aa - Public Leadership and Administration	5	7	12
NURS.AAS	AAS - Nursing	3	98	101
NESP.CERT	Certificate - Networking Specialist	3	1	4
NESP.AAS	AAS - Networking Specialist	3	11	14
MTAC.DIP	Diploma - Michigan Transfer Agreement Completion	1	12	13
MSOS.CERT	Certificate - Microsoft Office Specialist	0	1	1
MICB.CERT	Certificate - Medical Insurance Coder/Biller	6	51	57
MEOS.CERT	Certificate - Medical Office Support	1	3	4
MEDA.CERT	Certificate - Medical Assistant	9	23	32
MDAM.CERT	Certificate - Manufacturing Design:Advanced Manufacturing	0	2	2
LINE.CERT	Certificate - Empower Lineworker Pre-Apprentice	3	51	54
LEMC.NDS	NDS - Lenawee Early Middle College	6	46	52
LECN.NDS	Lenawee College Now	7	144	151
LAEN.AAS	AAS - Law Enforcement	19	20	39
JPEC.NDS	NDS - Jackson Prepatory Early College	20	72	92
JCEC.NDS	NDS - Jackson County Early College	112	716	828
ISAM.CERT	Certificate - Industrial Systems:Advanced Manufacturing	0	1	1
HSGT.NDS	NDS - High School Guest Student	0	1	1
HESC.CERT	Certificate - Health Sciences Foundations	233	573	806
HEMC.NDS	NDS - Hillsdale Early Middle College	16	53	69
GUES.NDS	NDS - Guest Student - College	0	25	25
GSON.AAS	AAS - General Sonography	1	13	14
GRDE.CERT	Certificate - Graphic Design	1	2	З
GRDE.AAS	AAS - Graphic Design	18	25	43
GEST.AGS	AGS - Associate in General Studies	59	104	163
FUEN.CERT	Certificate - Fundamentals of Engineering	5	4	g
EXAS.AAS	AAS - Executive Assistant	0	2	2

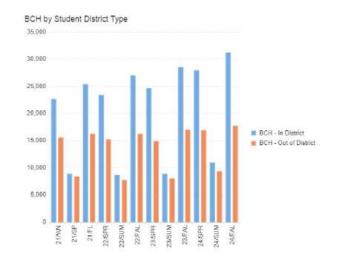
How programs are accessed by students

Jackson College owns more than 500 acres and sits on a scenic rural site six miles south of the city of Jackson. Jackson College has one central campus located in Jackson County with two satellite locations. The Letarte Center is one of the satellite locations where students may access their program of study that is equipped with a state-of-the-art science lab and computers available for student use. The Lenawee Independent School District Tech Center is the second satellite location which features the latest in technology, state-of-the-art science wing, and full-service bookstore.

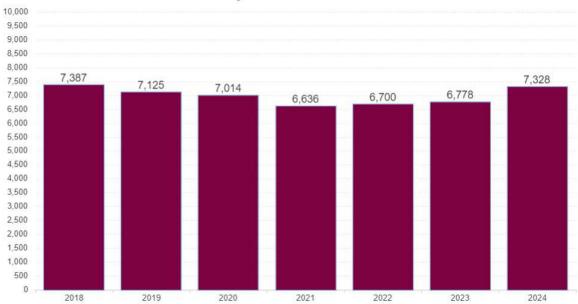


Billing Credit Hour Comparison for all Terms at 7 Weeks After Start of Term





17



Unduplicated Headcount Enrollment Trends by Academic Year

Projected enrollment patterns

Enrollment projections were calculated using the Autoregressive Moving Average model. This model accounts for the seasonality of enrollment at the college and uses previous enrollment patterns for its projections. Jackson College anticipates a year-over-year decline in enrollment for the next five years. It is important to note the environmental factors that impact Jackson College's enrollment which include the pandemic, high school enrollment levels, unemployment rate, and inflation.

Academic Year	Forecasted Billing Hours
2024-2025	105040
2025-2026	103,260
2026-2027	102,000
2027-2028	101,000
2028-2029	99,000

Academic Year	Fall Headcount	Year-Over-Year Change
2024-2025	5349	
2025-2026	5258	-1.7%
2026-2027	5194	-1.2%
2027-2028	5143	-1.0%
2028-2029	5041	-2.0%

Billing Contact Hour (BCH) by Discipline by Term.

Operational Definition: Total number of billing contact hours generated in an academic year by discipline.

	23/FAL	24/SPR	24/SUM	Grand Total
ACC	1011	950	573	2534
AGT	37	15		52
ANT	189	282	183	654
ART	946	948	316	2210
BIO	3176	3033	1781	7990
BUA	2622	3198	1989	7809
CAD	68	152	48	268
CEM	1199	820	599	2618
CIS	1569	1322	468	3359
CNS	1002	981	188	2171
СОМ	1242	1416	507	3165
CPS		12	6	18
CRJ	480	606	123	1209
DHY	225	406	230	861
DMS	1549	1464	1412	4425
ECM	10	42	18	70
ECN	678	906	405	1989
EDU	96	190	36	322
EGY	338.5	234.25	183.5	756.25
ELT	1421	1219	254	2894
EMS	189	126	213	528
ENG	4238	3505	1212	8955
ENT	363	381	252	996
FYS	376	247	218	841
GEL	650	835	285	1770
GEO	204	150	146	500
GER	68			68
HIS	1052	1250	399	2701
НОС	824	878	322	2024
HPF	173	233	84	490
НИМ	1158	1074	318	2550
LTL	0	0	0	0

MAT	3943	3535	2466	9944
MED	294	324	241	859
MFG	268	449	95	812
MIC	222	240	273	735
MOA	810	762	483	2055
MUS	582	716	282	1580
NRS	1589.12	1692.88	84	3366
NSC	435	466	331	1232
PAM	312	768	387	1467
PHL	276	372	192	840
PHY	256	185	102	543
PLS	525	483	249	1257
PNC	329.5	402.18		731.68
PSY	2975	3021	627	6623
RAD	392.5	395	365	1152.5
RES	426	481	380	1287
SEM	2172	924	228	3324
SMT	204	237		441
SOC	399	384	273	1056
SPN	248	187	132	567
STM	6	33		39
SUR	55	123	118	296
SWK		140		140
THR	144	274	135	553
WLD	220	176		396
Sum:	44236.6	43645.31	20211.5	108093.43

Jackson College Employee to Student Ratios Fiscal Year 2023

Annual FTE Students

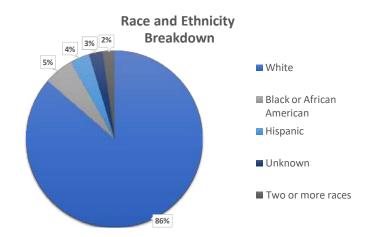
2735

Employee Classification Administrators	FTE Employee Count 38	FT Employee/ Student Ratio 1 to 72
Staff	183	1 to 15
Faculty	65	1 to 42
Overall	286	1 to 10

Employee Profile

Source: Webi Query HR IPEDS Staff Report /June 2024 Does not include Adiunct Employees

	Position Type		
Leadership	Administration	Faculty	Staff
11	28	67	174



Average Class Size Source: WEBI Report- 5 Year Plan



Class Size Year	Sections	Duplicated Headcount	Average
2023-2024	2,075	32,120	15.5
2022-2023	1,921	29,451	15.3
2021-2022	1,862	28,273	15.2
2020-2021	1,802	28,444	15.8
2019-2020	2,153	32,465	15.1
2018-2019	2,289	33,903	14.8
2017-2018	2,019	30,314	15.0
2016-2017	2,236	33,058	14.8
2015-2016	2,518	37,044	14.7
2014-2015	2,283	36,197	15.9
2013-2014	2,883	38,188	13.2
2012-2013	2,559	41,826	16.3
2011-2012	2,850	47,799	16.8
2010-2011	3,053	56,055	18.4
2009-2010	3,072	58,410	19.0
2008-2009	2,900	48,197	16.6
2007-2008	2,791	43,500	15.6
2006-2007	2,514	39,959	15.9
2005-2006	2,356	36,640	15.6
2004-2005	2,309	36,960	16.0
2003-2004	2,226	36,030	16.2
2002-2003	3,054	38,956	12.8
2001-2002	3,149	37,326	11.9
2000-2001	3,306	36,153	10.9
1999-2000	3,689	36,920	10.0
1998-1999	3,795	41,555	10.9
1997-1998	3,900	44,186	11.3

IV. Facility Assessment

IV. Facility Assessment

In August 2023, Jackson College partnered with Parsons Environment & Infrastructure Group Inc. out of Grand Rapids to conduct an exhaustive campus wide Facilities Condition Assessment. The report, which was received in January 2024 included an assessment of all campus buildings, as well as the campus site (parking, sidewalks, etc.). The report identified deficiencies in each building in one of three broad categories, Operations/Maintenance, Code Compliance and Capital Renewal. The lists are being used to determine existing deferred maintenance liabilities and will inform short- and long-term capital investment and maintenance budgeting and planning which is in process now.

a. Summary description:

See Attached Facilities Assessment Spreadsheet

b. Classroom Utilization Rates

Room hour usage per building rates are based on a standard schedule of Monday through Friday, 8am – 10pm.

Traditional classroom spaces are scheduled in times that meet demands of the varied student populations. Clinical spaces and nursing/allied health labs are scheduled at appropriate times to meet program and accreditation requirements.

See Attached Classroom Utilization Summary by Hour of Day, Day of Week

c. Mandated facility standards:

Programs and departments comply with applicable laws and standards such as OSHA and MIOSHA. Facilities are reviewed regularly to ensure compliance. Industrial programs (Manufacturing, Welding, etc.) as well as science, particularly chemistry labs, are reviewed more frequently.

d. Functionality of existing structures and space allocation

Classrooms in the newer buildings are adequate and meet current needs, however, classrooms in older buildings (McDivitt and Whiting Hall) need complete renovation. The HVAC system in McDivitt is outdated, obsolete and in need of complete replacement.

The system is massive, inefficient, and failing regularly, requiring significant repair costs. Windows are outdated and single pane and lack energy efficiencies. In the Five-Year Master Plan, McDivitt Hall and Whiting Hall are planned for renovation. McDivitt Hall is the priority.

e. Replacement value

See Facilities Assessment Spreadsheet

f. Utility system condition (i.e., HVAC, water, sewer, electrical)

The condition of these systems varies greatly depending on the building. Newer and recently renovated buildings (Walker Hall, HLC, Atkinson, STEAM, etc.) are in excellent to very good condition. Boiler systems and air handling systems in the Gymnasium, McDivitt Hall, Whiting Hall are aging and past their expected useful lifespan, with McDivitt being of the most pressing concern. Chillers are new in the newer and recently renovated buildings, and adequate as in most others.

Water systems are new in newer buildings and recently renovated buildings. While the campus is connected to township provided water, most buildings on campus require water softeners due to excessive calcium levels. Water heaters in Maroon Hall were replaced in September 2023 and Gold Hall water heaters were replaced in December of 2023. The water main and service lines are original to the campus construction and are roughly 50-60 years old. In 2024, there were two unrelated water main breaks on campus. The township has a chlorination station on campus to service the College, that station is checked daily by a trained technician. The township also has a 1,000,000-gallon water tower on campus for storage and backup.

The sewer system was connected to township sewer lines in the mid 2010's, however the main campus service line is original, as well as original lines to the buildings.

The campus is serviced by an 8,320 Volt 3 phase power feed which enters the main switch gear for the campus located in the Campus Services building. This service is currently adequate for existing needs and planned expansion over the next five years. The College has a recloser system to prevent damage from single phase outages and disruptions. All panels were inspected and certified in the last year, as well as ARC flash rated. Additionally, in 2024, panels were IR tested, cleaned, and serviced as needed.

g. Facility infrastructure condition

All Central Campus parking lots and the Jet's Beltway were seal coated during the Fall of 2022, including the LeTarte Center. The parking lots in McDivitt, Field House/Whiting/CS are patch sealed, sealed, and maintained but are well past their useful life and need to be replaced.

Sidewalks are in generally good condition, with several areas being hydro jacked in 2022 and 2024. The sidewalks along the perimeter of McDivitt Hall, and Whiting Hall are in poor condition and need replacing. The 1.25-mile Jet's Walking Trail on Central Campus is in excellent condition. The Jet's Beltway is poor in some places and excellent in others. The replacement of the Northeast section will need to be addressed in the next five years.

h. Adequacy of existing utilities and infrastructure system to current and 5-year projected programming needs.

Existing utilities and infrastructure systems are adequate to support any future programming needs within the next five years, however, it is anticipated that additional

electrical capacity will need to be added in 2029 or possibly sooner based on any unanticipated projects outside of the five-year master plan.

i. Enterprise-wide energy plan and what are the goals.

The College has contracted with Tenurgy LLC in the past, to audit and analyze utility costs and other business operating expenses including electric, natural gas, water/sewer, telecommunications, and waste/trash services. The College is also addressing its environmental impact as one of the institution's strategic agenda.

In addition to this ongoing relationship with Tenurgy, the College is looking at partnering with other organizations to reduce energy costs and consider alternative energy options.

Finally, the College also partners with Consumers Energy in its Demand Response program which the College has committed to reducing its energy load by 70% in the case of a demand notice due to extreme conditions or demands on its energy grid.

j. Land owned by the institution and determined if capacity exists for future development, future demands etc.

Jackson College owns thirty-six parcels of land totaling over three hundred acres. Most of these properties (24) are included in a 99-year land lease with the Dahlem Environmental Education Center and are not accessible for College use outside of environmental education, expansion per se is not possible. The Central Campus sits on over 150 acres, with adequate acreage for expansion. Other properties include building lots and other lots donated by friends of the College or are owned and operated by the Jackson College Foundation for the benefit of Jackson College but have restricted uses which limits expansion on those sites.

The College is considering further reducing the number of campuses by a sale/lease back of the Hillsdale campus. The sale of the Adrian Campus site occurred in July 2024. The sale of the North Campus which was owned by the Jackson College Foundation was completed in June 2023. These sales will place an increased burden on central campus classrooms and buildings and will reduce annual operating expenses for these sites. The reduction in sites will necessitate the renovations of James McDivitt Hall and Justin Whiting Hall.

k. Buildings Bonded and any timelines for expiration.

Jackson College has four existing SBA leases. The most recent was Bert Walker Hall renovation, the SBA cost was \$7,599,800 and the lease is set to expire on 8/31/2052. The College also completed HLC/Whiting Hall Renovations in 2011, the SBA cost was \$10,949,800 and is set to expire in 2046. The College completed William Atkinson Hall/Information Commons in 2008 and had an SBA cost of \$7,499,800 and is set to expire in 2043. The remaining project was the Health Program Expansion in 2005, with an SBA cost of \$1,499,900 and an expiration date of 2039.

🝌 Ad Astra

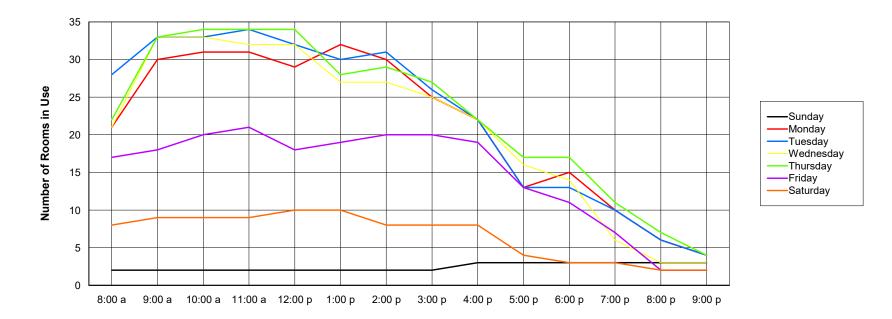
Central Campus CLASSROOM: Percent of Rooms in Use

by Day and Time

Number of Rooms:	42	For all sections and events occurring 8/28/2023 - 8/12/2024													
		8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM
Sunday		5%	5%	5%	5%	5%	5%	5%	5%	7%	7%	7%	7%	7%	7%
Monday		50%	71%	74%	74%	69%	76%	71%	60%	52%	31%	36%	24%	14%	10%
Tuesday		67%	79%	79%	81%	76%	71%	74%	62%	52%	31%	31%	24%	14%	10%
Wednesday		50%	79%	79%	76%	76%	64%	64%	60%	52%	38%	33%	14%	7%	7%
Thursday		52%	79%	81%	81%	81%	67%	69%	64%	52%	40%	40%	26%	17%	10%
Friday		40%	43%	48%	50%	43%	45%	48%	48%	45%	31%	26%	17%	5%	5%
Saturday		19%	21%	21%	21%	24%	24%	19%	19%	19%	10%	7%	7%	5%	5%

Central Campus CLASSROOM Rooms in Use

by Day and Time



10/8/2024

8:24AM



Central Campus CLASSROOM: Percent of Rooms in Use

by Day and Time



Percent of Rooms in Use by Day and Time for Selected Room Type

Purpose of Report

The Percent of Rooms in Use by Day and Time for Selected Room Type report shows the percent of rooms used for sections or events of a selected room type during a selected date range. Usage is broken down by time of day and day of the week. This allows a user to see what percentage of rooms are in use at different times of day. The included graph provides a visual representation of rooms in use. The percentage calculation can either be based on the total number of rooms of the selected type in the room inventory, or be based only on the number of rooms used during the selected date range. This report can be used to assist in identifying bottlenecks (when certain types of rooms are used at a disproportionate level at certain times). This information can be used to help enforce an academic scheduling policy emphasizing the spreading of classes throughout the entire scheduling week.

Note: Only activities that a user is allowed to see on the event and section lists are counted in this report. Users who have a security profile that will not allow them to see all sections and events will not see utilization from those activities counted in the percentages above.

10/8/2024

Room type and day/time grouping = Report is grouped by selected campus and room type. Percent of usage is shown in day/time combination.

ASTRA SCHEDULE A

AACC - Overland Park Classroom: Percent of Rooms in Use

For all sections and events occurring 2/5/2006 - 2/9/2007 Number of Rooms: 110

Room usage percentage = This report shows the percentage of rooms in use by day/time combination during the selected time period. For example, if an institution has 10 Classrooms and five of them are in use by sections or events on Monday at 1:00 pm, the Monday, 1:00 pm field would contain "50%". If the selected date range is longer than one week, usage during the day/time combination at any time during the date range is counted.



	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM
Sunday	15%	15%	15%	16%	15%	18%	18%	17%	15%	15%	2%	2%	3%	2%
Monday	38%	35%	34%	45%	40%	56%	48%	38%	29%	24%	56%	58%	1%	1%
Tuesday	44%	55%	49%	60%	61%	59%	49%	51%	35%	28%	55%	53%	1%	1%
Wednesday	45%	47%	47%	57%	55%	64%	55%	48%	39%	23%	53%	54%	1%	1%
Thursday Friday Saturday	55% 53%	65% 56%	62% 56%	67% 58% 58%	73% 48% 52%	68 56	70							
	Line graph = The shows the change i rooms used in the s throughout each da graph helps to illus utilization during pr times.	n the num selected ro by of the w trate spike	ber of om type eek. The es in			Number of Rooms in Use	60 60 40 20 10							- Sunday - Monday - Transfay - Transfay - Thursday - Friday - Sahuday
							8:00 + 9:00	a 10.00 a 11	00 a 12:00 p 1:00	p 200 p 3:00 p	400 0 500 0	8.00 p 7:00 p	8:00 0 9:00 0	

	1	1				1						
Jackson College Facilities Assessment												
October 2023												
October 2023												
												pricing note
1											100% demo and	
BUILDING	Abbreviation	Site	Туре	Location	Constructed	Capital Outlay	Gross Sq. Ft	Net Assign	Ratio	Condition	replacement value	
1			Classroom 10%									
			Office 80%									
Bert H Walker Hall SBA Building	BW	Α	Administration 10%	Central Campus	1972	Yes	73,954	47,946	64.8%	Excellent	\$51,028,260	
			Warehouse 40%									electrical swi
			Engineering 10% Office 10%									is shown in
Campus Service Building	CS	в	Garage 40%	Central Campus	1969	No	17,135	10,236	59.7%	Fair	\$7 710 750	Campus Ele Distribution I
Campus Service Building	00	В	Auditorium 60%	Central Campus	1909		17,155	10,230	59.770		φ1,110,150	DISTIDUTION
I			Dining 10%									
			Classroom 10%									
			Administration 5%							Good/Very		
George Potter Center	GP	С	Offices 15%	Central Campus	1976	No	147,372	141,929	96.3%		\$103,160,400	
	1											
1			Classrooms 40%									science utilit
James A McDivitt Hall	15.4	D	Laboratory 40% Offices 20%	Control Commun	1060	Vee	76 072	60.005	01 60/	Poor/Fair	\$57,729,750	up cost
James A McDivill Hall	JM	U	Offices 20%	Central Campus	1969	res	76,973	62,825	81.0%	POOI/Fall		n atiant aime
			Classrooms 40%									patient simu and dental
			Laboratory 40%									equipment a
Justin R Whiting Hall	JW	E	Offices 20%	Central Campus	1967	No	81,266	78,418	96.5%	Fair / Good	\$56,886,200	included
Justin R Whiting Hall Annex		F	Service 100%	Central Campus	1975		1,978	12,853	649.8%		\$642,850	
5			80% Gymnasium				,	,				
1			10% Engineering									
			7% Offices 3%									
Victor Cuiss Fieldhouse	FH	Н	Classroom	Central Campus	1971	No	55,952	49,576	88.6%	Fair	\$30,773,600	
l l			80% Auditorium									
1			10% Offices 5%									specialty cor
loto Hongor	JETS	l. –	Classroom 5%	Central Campus	1977	No	14 200	13,500	94.4%	Cood		
Jets Hangar Dahlem Environmental Education		1	Dining Hall 50% Classroom	Central Campus	1977	INO	14,300	13,500	94.4%	Guu	\$10,010,000	
Center			50% Office	Central Campus	1975	No	3,005	2,850	94.8%	Fair	\$1,141,900	
			50% Library 20%		1970		3,003	2,000	34.070		ψι, ι τι, 300	
William Atkinson Hall SBA			Offices 30%									
Building	WA	к	Classrooms	Central Campus	2007	Yes	56,950	37,120	65.2%	Very Good	\$40,434,500	
Gold Hall	GH	L	100% Dormitory	Central Campus	2008		42,500	38,000		Very Good	\$15,300,000	
			90% Dormitory									
Maroon Hall	MH	М	10% Classroom	Central Campus	2010	No	44,000	39,000	88.6%	Very Good	\$15,840,000	
			60% Classroom				10.00-	05.005		-	**** ****	
Health Laboratory Center	HLC	Ν	40% Laboratory	Central Campus	2011	res	42,390	25,060	59.1%	Excellent	\$29,673,000	
The STEAM Factory	TSF		90% Classroom 10% Services	Control Compute	Renovation 2022	No	13,401		0.00/	Excellent	\$7,370,550	
			25% Warehouse			NU	13,401		0.0%		¢ <i>1</i> ,370,350	
			60% Service									
Jets Pavilion	JP		15% Engineering	Central Campus	2022	No	1,690	1,690	100.0%	Excellent	\$845,000	
		<u> </u>	80% Classroom	senar campus	2022		1,000	1,000			÷0.000	
			15% Office 5%									
Educational Innovation Center	EIC		Dining		2000/2010	No	8,954		0.0%	Good	\$4,924,700	
	1											backstops a
												lighting are r
Baseball and Softball bldgs			100% Gymnasium?		2022		4,692			Excellent	\$1,524,900	included
Outback 1	OB1		100% Service	Central Campus	2002		4,000			Good	\$1,300,000	
Outback 2	OB2		100% Service	Central Campus	2008		4,000		0.0%	Good	\$1,300,000	L
Howser Child Development			100% Sondice	Control Comment			F 500		0.00/	Foir	¢0 640 500	
Center	HCDC	1	100% Service	Central Campus	unknown		5,500		0.0%	rair	\$2,612,500	

	Projects
tes	
	Maintenance only
	,
witchgear	
n Central lectric	
h below	Maintenance only
	Maintenance only
lities drive	One of the last instructional facilities on campus in need of a
inties arrive	comprehensive renovation. HVAC
ulators	obsolete
are not	Renovation Needed
	Maintenance only
	Maintenance only/ NO AC, Aging Boiler
onstruction	
	Maintenance & Roof Issues
	Maintenance only- Space leased
	maintonanoo oniy- opaoo loasou
	Maintenance only
	Maintenance only Maintenance only
	Maintenance only
	Maintenance only
	Maintenance only
	Maintenance Only
	Maintenance Only
and field	
enot	

													Projects
												pricing notes	
BUILDING	Abbreviation	Site	Туре	Location	Constructed	Capital Outlay	Gross Sq. Ft	Net Assign	Ratio	Condition	100% demo and replacement value		
Campus View	cv	v	95% Dormitory 5% Office	Central Campus	2015	No	69,500	50,600	72.8%	Excellent	\$20,850,000		Maintenance Only
Tiny Home A	JVA	Ŵ	100% Dormitory	Central Campus	2013		577	477		Excellent	\$225,030		Maintenance Only
Tiny Home B	JVB	W	100% Dormitory	Central Campus	2020		577	477		Excellent	\$225,030		Maintenance Only
Tiny Home C	JVC	X	100% Dormitory	Central Campus	2020		650	550		Excellent	\$253,500		Maintenance Only
Tiny Home D	JVD	X	100% Dormitory	Central Campus	2020		650	550		Excellent	\$253,500		Maintenance Only
Tiny Home E	JVE	X	100% Dormitory	Central Campus	2020		650	550		Excellent	\$253,500		Maintenance Only
Tiny Home F	JVF	X	100% Dormitory	Central Campus	2020		650	550		Excellent	\$253,500		Maintenance Only
	AO	^	100% Laboratory	Central Campus	2020		000	550	#DIV/0!	Excellent	\$253,500		
Astronomical Observatory	AU				2023					Excellent			
Storage	 		100% Service	Central Campus	0000	No	 		#DIV/0!	ļ	\$178,098		
Flag Pole & Improvements	ļ		1000/ 0	Central Campus	2006				#DIV/0!		\$191,209		
Facilities Storage Bldg			100% Service	Central Campus		No			#DIV/0!		\$136,578		
Fannie Beach Arboretum									#DIV/0!		\$211,969		
Dahlem Center "Cabin"									#DIV/0!		\$24,038		
Dahlem Pavilion									#DIV/0!		\$22,946		
Dahlem Storage Barn									#DIV/0!		\$27,316		
Dahlem Farm Hse & Barn									#DIV/0!		\$109,262		
Garage/Corn Bin									#DIV/0!		\$109,262		
Wickwire Hse, Deck, & Garage									#DIV/0!		\$737,521		
Warehouse (Pole Barn)									#DIV/0!		\$81,947		
Central Campus Infrastructure													
Parking Lots				Central Campus	Various	No	625,521	1,841 spaces		Fair/Good	\$70,000,000		Maintenance only, many of the lots are in poor condition
												sidewalks, pedestrian / street lighting and	
Site Development				Central Campus						Fair	\$85,000,000	signage	
										Poor/		<u> </u>	Portions of the roadway are poor,
Jet's Beltway				Central Campus	Various	No	1.25 Miles			Excellent	\$30,000,000		others are very good
Central Electric Distribution				Central Campus	Various					Fair/Good	\$100,000,000	site only / not in buildinas	Maintenance only
Central Gas Distribution				Central Campus	Various					Fair/Good	Consumers	, , , , , , , , , , , , , , , , , , ,	Maintenance only
				oonaa oampao						,	001100	site only / not in	Maintenance only
Water/Sewer				Central Campus	Various					Fair/Good	\$55,000,000	buildings	
										Poor/		this is included in each buildings	Generally Mtce Only, New Systems needed in Gym, McDevitt, Whiting,
HVAC				Central Campus	Various					Excellent	n/a	replacement calc	WA
JCC at Lenawee VoTech SBA			80% Classroom								.		
Building	LEN	0	20% Office	Adrian	2003	Yes	26,000	24,000	92.3%	Very Good	\$14,950,000		Maintenance only
Parking Lots				Adrian	2003					Fair	\$1,500,000		Maintenance only
Central Electric Distribution				Adrian	2003					Good	n/a		Maintenance only
		<u> </u>	80% Classroom										
Clyde LeTarte Center	HIL	R	20% Office	Hillsdale	Unknown	No	10,640	9,600	90.2%	Very Good	\$5,852,000		Maintenance only
Parking Lots	l	1		Hillsdale	Unknown		· · ·			Good	\$750,000		Maintenance only
Central Electric Distribution	1	1		Hillsdale	Unknown		1			Good			Maintenance only
		1		 			1				\$0		, · · · · · · · · · · · · · · · · · · ·

V. Implementation Plan

V. Implementation Plan

The Five-Year Capital Outlay Plan should identify the schedule by which the institution proposes to address major capital deficiencies, and:

a. Prioritize major capital projects requested from the State, including a brief project description and estimated cost, in the format provided. (Adjust previously developed or prior years' figures utilizing industry standard CPI indexes where appropriate).

Please see attached Fiscal Year 2025-2030 Facilities Plan spreadsheet.

b. If applicable, provide an estimate relative to the institution's current deferred maintenance backlog. Define the impact of addressing deferred maintenance and structural repairs, including programmatic impact, immediately versus over the next five years.

In August 2023, Jackson College partnered with Parsons Environment & Infrastructure Group Inc. out of Grand Rapids to conduct an exhaustive campus wide Facilities Condition Assessment. The report, which was received in January 2024 included an assessment of all campus buildings, as well as the campus site (parking, sidewalks, etc.). The report identified deficiencies in each building in one of three broad categories, Operations/Maintenance, Code Compliance and Capital Renewal. The lists are being used to determine existing deferred maintenance liabilities and will inform short- and long-term capital investment and maintenance budgeting and planning which is in process now.

Jackson College will be managing this process through a new position that was implemented in March 2024. The position, Coordinator of Deferred, Corrective and Preventative Maintenance will focus over the next twenty-four months on designing and implementing a deferred, corrective and preventative program at the College.

Existing knowledge and data gathered from the Parson's study will be used to generate a multiyear implementation plan of all deferred maintenance needs based on criticality of the system, conditions, safety considerations, and budget. This will be overlayed where appropriate with the five-year master plan.

c. Include the status of on-going projects financed with State Building Authority resources and explain how completion coincides with the overall Five-Year Capital Outlay Plan.

Not Applicable

d. Identify, to the extent possible, a rate of return on planned expenditures. This could be expressed as operational "savings" that a planned capital expenditure would yield in future years.

The potential savings which would be captured by renovating McDivitt Hall and Whiting

Hall are significant. Each uses outdated and, in some cases, obsolete HVAC systems. The lighting and energy systems in the building are not completely converted to LED. The windows and ingress and egress systems are single pane and not energy efficient. The College is looking to improve the utilization and efficacies of its Building Automation Systems to generate additional cost-saving measures.

e. Where applicable, consider alternatives to new infrastructure, such as distance learning.

The College discontinued operations at its North Campus. This will provide annual cost savings of more than \$400,000. Additionally, the College also sold its Lenawee Co campus and is leasing back space from its new owners, the Lenawee Co. Intermediate School District. Finally, the College is looking into the feasibility of selling and leasing back space at its other satellite campus in Hillsdale. These changes will relieve the institution of long-term deferred maintenance costs, as well as facilities upgrades and maintenance staffing.

Additionally, Jackson College has created Jackson College Global which is a significant investment in resources, capital, people, and infrastructure to upscale our online and distance learning operations.

Identify a maintenance schedule for major maintenance items more than \$1,000,000 for fiscal year 2025 through fiscal year 2030.Please see attached spreadsheet. The major maintenance initiative that would be more than \$1M in a fiscal year would be roadway and parking lot repairs of \$1,250,000 in 2026-2027.

f. Identify the amount of non-routine maintenance the institution has budgeted for in its current fiscal year and relevant sources of financing.

The College has several funding sources for non-routine maintenance. This number is demonstrated on the five-year master plan from major maintenance plant funds we hold in fund balance. Additionally, the College holds funds for life safety and emergency repairs, as well as general operating budget support for most day-to- day expenditures for operating facilities. The plant fund consists of fund transfers annually from the general fund of 4.5% per board policy to be used for deferred and capital renovation and construction. Additionally, private donations and grants are also usually received for specific building projects and initiatives.

Specifically, the College is planning several capital projects for the 2025-26 Fiscal Year.

The College will be embarking on a publicly and privately funded renovation and addition of a Medical Simulation Center for its Allied Health programs. This project is being funded through a grant from the State of Michigan and through a major gift from the Glick Foundation.

The College is planning on replacing the fire suppression heads in the Scheffer Music Hall. This 1375-seat performing arts center has not had the heads replaced, and they are reaching the end of their useful life span as they were installed over 40 years ago. Cost is estimated to be \$500,000 +/- based on early bids. The project is scheduled to be completed in the fiscal year.

Jackson College

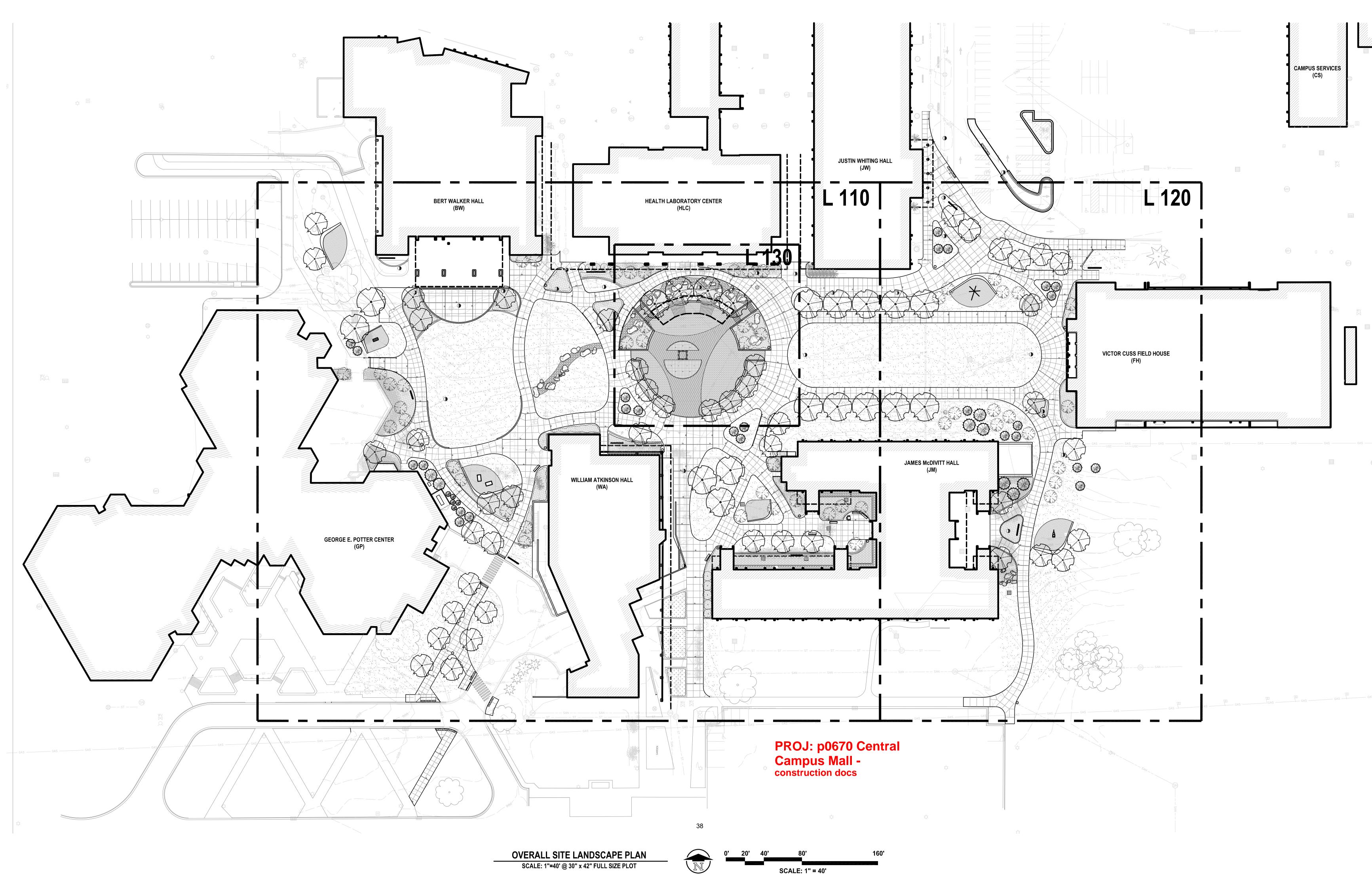
Fiscal Year 2026 - 2030

Facilities Plan

Building	Projects	Es	timated Cost
	Projected Balance 06.30.25		\$129,463
	Figure Veer 2025 20		
	Fiscal Year 2025-26 Misc. Building and Site Repairs		(150,000)
	Tiny Homes Phase 2		(300,000)
	Exterior Weather Proofing		(203,974)
	06.30.26 Year-End Transfer		1,434,919
	Projected Balance 06.30.26	\$	910,408
	*		,
	Fiscal Year 2026-27		(100.000)
	Misc. Building and Site Repairs		(100,000)
	Roof Repairs		(350,000)
	Central Campus Mall		(4,000,000)
	Fieldhouse Showers		(900,000)
	Tiny Homes Phase 2		(300,000)
	ITEMS Funding		1,555,700
	Foundation Support		800,000
	06.30.27 Year-End Transfer		1,872,712
	Projected Balance 06.30.27	\$	(511,180)
	Fiscal Year 2027-28		
	Misc. Building and Site Repairs		(100,000)
	Roof Repairs		(300,000)
	McDivitt Hall Capital Outlay Project (\$45M)		(45,000,000)
	Central Campus Mall		(3,710,000)
	Tiny Homes Phase 2		(300,000)
	Debt Service for Capital Outlay		22,500,000
	Capital Outlay Funding		22,500,000
	06.30.28 Year-End Transfer		2,178,522
	Projected Balance 06.30.28	\$	(2,742,658)
	Fiscal Year 2028-29		(450,000)
	Misc. Building and Site Repairs		(150,000)
	Tiny Homes Phase 2		(300,000)
	Jets Beltway		(3,225,000)
	06.30.29 Year-End Transfer	•	2,488,109
	Projected Balance 06.30.29	\$	(3,929,549)
	Fiscal Year 2029-30		
	Tiny Homes Phase 2		(300,000)
	06.30.30 Year-End Transfer		2,827,015
	Projected Balance 06.30.30	\$	(1,402,535)

GENERAL NOTES

- I. ALL LANDSCAPE FEATURE LOCATIONS SHALL BE ACCORDING TO THIS PLAN AND THE DIGITAL CAD FILE MADE AVAILABLE ON REQUEST. 2. FIELD CONDITIONS MAY REQUIRE SLIGHT MODIFICATIONS TO PROPOSED LANDSCAPE FEATURES. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY IF/WHEN SUCH CONDITIONS ARE DISCOVERED BEFORE PROCEEDING WITH CONSTRUCTION.
- 3. ALL VEGETATIVE REMOVALS SHALL BE DISPOSED OF AND/OR RECYCLED PROPERLY OFF-SITE ACCORDING TO LOCAL AND STATE REQUIREMENTS. 4. SITE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL NECESSARY AND PROPERLY-SIZED UNDERGROUND SLEEVES WHEREVER UTILITIES RUN UNDERNEATH HARDSCAPE FEATURES (IE. IRRIGATION & ELECTRICAL). REFER TO CIVIL PLAN/DETAILS AND ELECTRICAL SITE PLAN FOR LOCATIONS. INSTALL MINIMUM ONE ADDITIONAL SLEEVE IN EACH TRENCH FOR EACH TYPE OF UTILITY & CAP/SEAL FOR FUTURE USE.
- 5. CALL "MISS DIG" AND HAVE EXISTING UTILITY LOCATIONS MARKED PRIOR TO ANY EXCAVATIONS OR INSTALLATIONS ON SITE.
- 6. EXISTING INFORMATION SHOWN HEREIN IS APPROXIMATE AND MUST BE FIELD VERIFIED PRIOR TO ANY CONSTRUCTION ACTIVITY. 7. MATCH NEW WORK TO EXISTING ELEVATIONS. MAINTAIN POSITIVE SURFACE DRAINAGE IN ALL AREAS.
- 8. PROTECT ALL EXISTING TREES IDENTIFIED TO REMAIN. DO NOT STOCKPILE MATERIAL, PARK OR OPERATE EQUIPMENT WITHIN THE TREES' DRIP LINE / ROOT ZONE. 9. TOPSOIL AND SEED ALL STIPPLED AREAS AND DISTURBED AREAS CAUSED BY CONSTRUCTION, PER SPECIFICATIONS.
- IO. PHASING ENTIRE PROJECT IS TO BE BROKEN UP INTO PHASES PER OWNER AND CM DIRECTION. EXTENTS OF EACH PHASE TO BE FINAL APPROVED BY OWNER PRIOR TO COMMENCING ANY WORK SHOWN HEREIN.
- II. SCULPTURES REMOVAL, SALVAGE, RESTORATION, STORAGE, AND FINAL RELOCATION OF EXISTING SCULPTURES TO BE APPROVED BY OWNER PRIOR TO COMMENCING ANY WORK SHOWN HEREIN, AND CONTINGENT UPON PHASING AS WELL (SEE PREVIOUS NOTE). EXISTING CONCRETE FOOTINGS OF REMOVED SCULPTURES SHALL BE USED AS GUIDES WHEN DETERMINING DESIGN (BY OTHERS) OF NEW CONCRETE FOOTINGS TO SUPPORT EACH SCULPTURE AT THEIR NEW LOCATION. FINAL PROPOSED CONCRETE FOOTING QUANTITY, DIMENSIONS, SPACING, AND ORIENTATION TO BE COORDINATED WITH AND APPROVED BY OWNER PRIOR TO REINSTALLATION. REFER TO ELECTRICAL DRAWINGS FOR POWER SUPPLY AND ELECTRICAL CONTROL STUBS AT EACH SCULPTURE SEATWALL AREA. FINAL LIGHTING FIXTURES, QUANTITIES, LOCATIONS, AND AIMING (BY OTHERS) TO BE APPROVED BY OWNER.





Tower Pinkster Titus Associates Inc. 242 East Kalamazoo Avenue, Suite 200 Kalamazoo, Michigan 49007-5828 269.343.6133 PHONE 269.343.6633 FAX

4 East Fulton Street, Suite 200 Grand Rapids, Michigan 49503 616.456.9944 рноле 616.456.5936 гах

TOWERPINKSTER.COM © 2018 ALL RIGHTS RESERVED

DATE

AUGUST 24, 2018

PROJECT TITLE Central Mall Site Renovations Project #P0670

Jackson College, Summit Township, M

5/21/2018 DATE **ISSUED FOR** SHEET TITLE OVERALL SITE LANDSCAPE PLAN

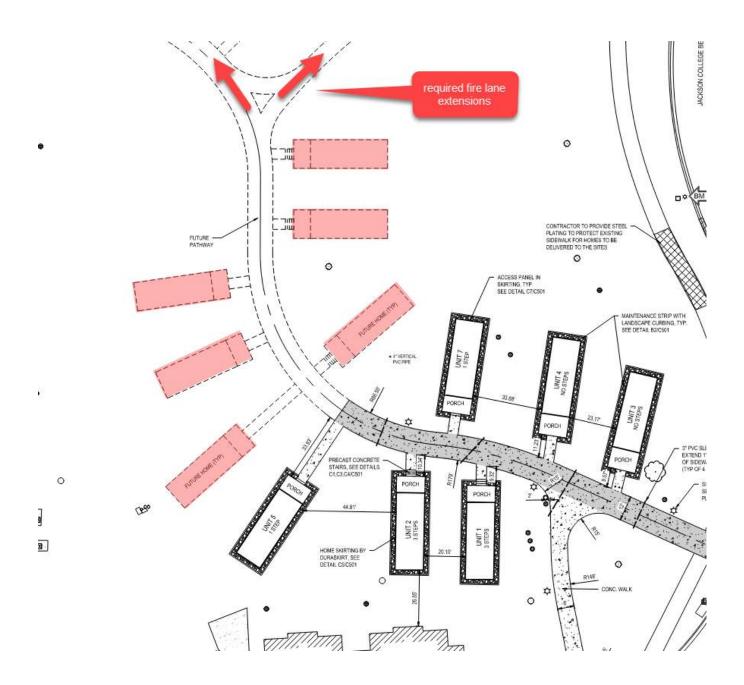
PROGRESS REVIEW







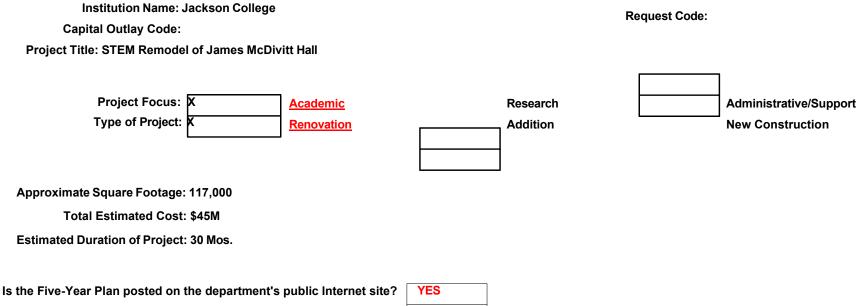
PROJ: p0966 - JM - budgeting zone diagram



PROJ: p1101 - Tiny Homes / Family Housing (phase 2) placement concept (in red) VI. Fiscal Year 2026 Capital Project Request

FISCAL YEAR 2026

CAPITAL OUTLAY MAJOR PROJECT REQUEST



Is the requested project included in the Five-Year Capital Outlay Plan? **YES**

Project Purpose

The purpose of renovating and expanding the Jackson College STEM Center Building is literally at the heart of Jackson College's mission, which declares that we are an institution of higher education whose mission it is to assist all learners in identifying and achieving their educational goals. This proposed Capital Outlay project will result in creating new jobs for the State of Michigan through the employment of new, permanent, full- and part-time College personnel and, concomitantly, adds significant construction jobs for the duration of the project. It is estimated that the project will result in 5 new full-time faculty positions, 3 full-time technician positions, and 3 staff positions (full and part-time) resulting in an addition of \$1,000,000 annually to the state's resident workforce revenues. Further, the economic impact of the project through construction and equipment, utilizing a conservative multiplier will result in \$315,000,000 of economic impact in the State.

Ultimately, the building, and its attendant instructional programming will provide students with educational opportunities in

high-demand instructional programmatic areas designed to lead them to completing a career-based credential of market value, entering the workplace or transferring to a baccalaureate-degree granting institution to continue their studies.

The College seeks to join with the State of Michigan, through this project, to prioritize STEM education for its citizens, among our overall instructional programming in order to future-proof our graduates going forward. According to the National Science Foundation, "...STEM Education brings together our advanced understanding of how people learn with modern technology to create more personalized learning experiences, to inspire learning, and to foster creativity from an early age. It will unleash and harness the curiosity of young people and adult learners across the United States, cultivating a culture of innovation and inquiry, and ensuring our nation remains the global leader in science and technology discovery and competitiveness." As part of this new program for Jackson College, undertake an inclusive approach to student recruitment and support. Additionally, we will be able to ensure access for all students, with special attention given to at-risk students, students of color, and disabled students, including the hiring of faculty to serve as role models for these students.

Scope of the Project

The intended renovation and addition of this approximately 117,000 square foot instructional, classroom and instructional lab facility will be comprised of the following elements:

- Bimodal and hybrid ready learning environments to include:
 - Multi-function/flexible learning studios
 - Science Lab improvements
 - Cadaver Lab improvements
 - Study / breakout rooms
- University Center expansion and dedicated spaces to include Wayne State University, Siena Heights University, and Spring Arbor University
- Faculty/Staff Offices
- Conference Rooms
- Math Peer Study Center
- Science and Study Labs
- Engineering Labs
- Biology/Botany Greenhouse
- VR Learning Lab
- Computer Networking Labs
- Cyber Security Labs
- Building Maintenance and Operating Systems

- Storage
- Human Circulation Spaces
- Building Security / Reception area
- Restrooms
- STEM Commons
- Astronomy Lab
- Physics Manipulation Lab

Makerspace Lab

Program Focus of Occupants

2. The particular focus of the proposed renovation and addition is, of course, providing education in courses and instructional programs that not only meet a strong market demand in the STEM field, but also in providing specific STEM courses and pre-baccalaureate programming for transfer students. The design focus of the instructional spaces is built around faculty input, recommendations from related instructional advisory groups, as well as the general structure of the existing building. Ultimately, the space will provide practical, practicum, laboratory, and programmatic instructional experiences designed to advance student success in their program of study, degree and/or credential completion, and/or transferring to a baccalaureate university, or immediate employment in the industry, including business ownership.

Students emerging from STEM education at Jackson College would be able to secure jobs as Geographers, Computer Systems Specialists, Environmental Specialists, Water Analysts, Forensic Science Technicians, Web Developers, Accountants, Computer Systems Analysts, GeoTechs, Computer Network Architects, Cartographers, Cost Estimators, IT managers, Artificial Reality Techs, Science Lab Techs, Cyber Security Techs, Physics Lab Techs, and Technical Writers. Students choosing to transfer to a baccalaureate-granting institution will have additional opportunities. According to Indeed, their 21 STEM jobs in high demand currently (see: https://www.indeed.com/career-advice/finding-a-job/stem-jobs)

Additional Information:

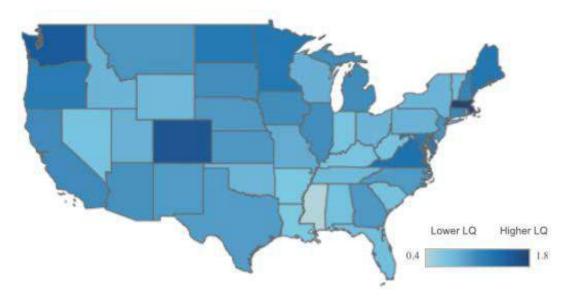
How does the project support Michigan's talent enhancement, job creation and economic growth initiatives on a local, regional and/or statewide basis?

This project will provide for the education and practical experience necessary for students to enter into a high-demand job market that is comprised of various specialization areas, as noted previously. This project is consistent with the Governor's and the MI department of education's priority to make Michigan a World Leader in STEM education and careers (see: https://www.michigan.gov/mde/0,4615,7-140-37818_34785-378071--,00.html) as well as the focus of the MI-STEM Council. Our focus on advancing STEM education at Jackson College also supports the State's economic development priories as well (see: https://www.michiganbusiness.org/news/2021/05/a-conversation-on-the-importance-of-stem-talent-and-internship-opportunities-in-michigan/)

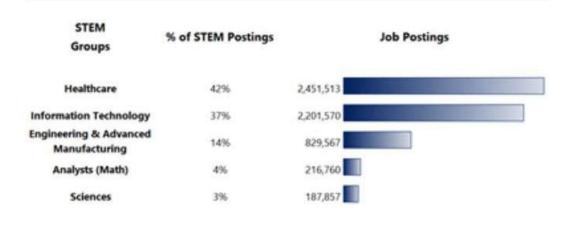
Further, it is our intention to partner with K-12 institutions, as well other colleges and universities to provide for STEM academies for dual enrolled students, advance STEM opportunities particularly for women and minorities, and enhance graduation rates for STEM students.

Data on the demand for STEM jobs is hefty with over 5.7 million job postings, according to Burning Glass. The graphic

Per Capita Concentration of Online STEM Job Postings



above of the United States demonstrates a strong demand for STEM trained graduates. The graphic on the next page outlines the specific areas for job demand within STEM. Furthermore, and salary for STEM degree holders includes a substantial premium when at the associate degree level where annual wages are over \$66,000 annually.



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

The extensive renovation of Jackson College's Whiting Hall is essential in order enhance the critical instructional and workforce training demand for the region. Jackson College is the preeminent leader in education and workforce development that is looked upon by area employers as the educator of first choice. The College is looked upon to provide for a strong cadre of interns, contract training, economic development, and employee certificate and degree graduates. And while not a research-based institution of higher education, Jackson College's Office of Institutional Research and Effectiveness (IRE), does provide extensive outcomes and performance data on the instructional and workforce efforts of the College. Through this Capital Outlay project, Jackson College remains relevant and essential to the employer community by providing the competencies, skills, and abilities for their current employees, as well as with a steady stream of qualified students to meet their workforce needs.

Describe how the project will address, incorporate, or enhance any equity efforts, policies, or goals for the academic programs within the scope of the project or as a component of your institution and campus at large?

Jackson College is dedicated to welcoming all students from all lived experiences and all identities, and to the end possible, are equally committed to undifferentiated outcomes for our students. The following is the College's Statement on Equity:

JACKSON COLLEGE EQUITY STATEMENT

Jackson College is an equal access/equal opportunity institution that embraces diversity as one of its highest priorities and is firmly committed to establishing and maintaining excellence through diversity in education and employment. We respect and value differences among our student body, workforce and community and are dedicated to intentionally fostering a welcoming environment of openness and appreciation for all.

Through our commitment to equity, we will establish and sustain a learning environment that supports the recruitment, retention and success of students from all backgrounds, including those readily visible differences and the underlying differences.

Through our commitment to equity, we are dedicated to advancing and building a diverse workforce through intentional hiring practices, marketing strategies, and performance review procedures to best position ourselves to attract, retain, and develop a talented and highly skilled faculty, staff, and administration from diverse backgrounds.

Through our commitment to equity, Jackson College will sustain and enhance its role as a world-class institution of higher education in a global community.

The complete renovation and modest expansion of James McDivitt Hall, includes AR/VR instructional components which provides for students with limited mobility and other disabilities. Further, this improved building responds to ADA issues that are often common and present in older facilities as this building is.

Additionally, the renovation of the STEM Center at Jackson College focuses on improving equity and access for all students, especially those who are traditionally underrepresented in STEM fields in the following ways:

1. Support for Underrepresented Students - The new facility will offer dedicated spaces for tutoring, mentoring, and advising that focus on helping students of color, low-income, and first-generation students succeed. By offering these resources, the project aims to close achievement gaps in STEM education.

2. Diverse Faculty Recruitment - The enhanced environment will help Jackson College attract diverse faculty members, providing students with role models who share similar backgrounds. This approach improves student success and mirrors efforts seen in other institutions across the country.

3. Accessibility for All – Expanding upon the earlier statement, this STEM Center will follow universal design standards, ensuring it is fully accessible to students with disabilities. The project will go beyond basic requirements to include advanced technologies to support students with visual, hearing, and mobility challenges.

4. Increasing Women in STEM - Jackson College will create programs specifically aimed at recruiting and supporting women in STEM. This includes scholarships, mentoring, and community-building spaces, similar to efforts at top institutions like the University of Michigan.

5. Support for Low-Income Students - The project includes programs to help first-generation and low-income students succeed in STEM, providing them with clear academic pathways and career guidance. These programs will reduce barriers that often limit access for disadvantaged students.

Finally, this STEM Center renovation aligns with national trends in higher education by 1) Focusing on sustainability and

environmentally friendly designs, which promote student well-being; and 2) Ensuring equal access to technology through stateof-the-art labs and learning spaces, helping all students gain skills needed for modern STEM careers. On balance, the STEM Center project will improve equity at Jackson College by providing better resources, access to diverse role models, and inclusive learning spaces. It aligns with national best practices to ensure all students, particularly those from underserved backgrounds, can succeed in STEM fields.

Is the requested project focused on a single, stand-alone facility? If no, please explain.

The projected contemplated by this proposal, is a single, stand-alone-facility, with exterior classroom spaces. However, there is a physical "connector-walkway" to anther nearby building, known as the Health Laboratory Center HLC. That said, no funds proposed in this Capital Outlay request will be associated with the HLC building.

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

As outlined previously, this building is a complete repurposing of the existing facility, with a minor square foot expansion of 20,000 square feet to better accommodate an increased number of simulation centers, training, and prototype lab spaces. Please note that the existing infrastructure (water, sewer, power distribution, boilers, air handlers, etc.) is all in critical need of replacement, and is failing in some areas, and as such, cannot be repurposed. However, much of the classroom furniture will be repurposed into the renovated facility.

Does the project address or mitigate any current health/safety deficiencies relative to existing facilities? If yes, please explain.

The new renovation will indeed correct several current design flaws in the existing building, particularly related to access for people with limited mobility. Further, the new HVAC system contemplated for the facility will include elements that provide for the extreme reduction of airborne disease transmission, by incorporating a variety of filtration and intensive light technologies. Beyond this, the new elevators planned for the existing two-story building, will replace the two smaller ones wherein the cars are insufficient in size so to allow EMT patient transport stretchers/gurneys to enter.

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

College has engaged the CampusWorks organization (see: <u>https://www.campusworksinc.com/</u>) to ensure the creation of a fully-integrated, relational ERP system, that will permit the College to provide real-time data regarding facility utilization, utilization rates, as well as improving utilization efficacy. At present, the process is a manual scheduling system and is a lagging indicator. The remodeled facility will include proximity polling systems that allow the college staff to monitor room utilization, energy consumption, occupancy times, etc. As this building is equipped with room and space monitoring systems, other campus facilities will be likewise equipped with an aftermarket product that will be added into the College's ERP data

and campus facilities management systems.

This building, even in its current configuration is an essential tool in the College's ability to address critical instructional program needs in multiple applied and technical areas.

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

Jackson College is committed to becoming carbon neutral by 2028. To that end, the College will utilize Leadership in Energy and Environmental Design (LEED) guidance principles in both design and construction of the facility. The LEED certified building will be designed to save the college operational money, improve operating efficiency, lower the College's carbon emissions, and create healthier spaces for our students, guests, and employees. This work is critical to our ability to address climate change and meeting the Board of Trustee's ESG goals, enhancing organizational resilience, and supporting a more equitable region of the State of Michigan. Additionally, the construction methodologies utilized on this project will likewise be LEED compliant insofar as scrap materials will be sorted and recycled, as will the refuse from the demolition of the building.

Finally, as part of the design process, the project planning cycle will consider more sustainable options for building operations including the use of carbon credits, photovoltaic and ground thermal options. Minimally, the building development process will prioritize the use of highly efficient energy utilization systems, ensure a full building and equipment commissioning process, and closely monitor energy utilization through advance building censoring systems technologies.

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

Yes, the intended source for the Jackson College 50% match is general operations and bond indebtedness.

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

Given the limited local property tax support for Jackson College operations (i.e., 12% of the College's total revenue stream), and even though multiple requests for additional tax support and/or Headlee Override requests have been declined by Jackson County voters – who have continually denied such requests since 1964, the College is unable to provide additional project match funding for this Capital Outlay project.

It should be noted that such matching is not a requirement of the Capital Outlay legislation, and it is believed that our smaller institution should not be held to the same level of match expectation as other community colleges in the State which have local tax support in excess of 50-60% of their total revenue streams, not to mention the significant tax base of those larger metropolitan areas, as well as their substantial foundation capacities. Such practice is not statutorily required, nor is it equitable in awarding additional application review points for this. We respectfully request the elimination of this practice, or

minimally providing some other weighting measure to allow for such huge variation in the resources available to large and smaller institutions.

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

As a single, discrete building, the total operating costs will be reduced due to incredibly improved HVAC systems, including the introduction of energy management systems, and a reduction of energy costs. The addition of modest supplementary square footage will not create additional operation costs in excess of the savings obtained from energy efficiencies. The additional cleaning team service required for the minor additional spaces will be covered by another half-time support person.

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

Students will not feel the effects of any tuition increase beyond those of normal inflationary adjustments permitted by the Governor and the state legislature – which are currently based upon tuition increase caps.

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

Should Jackson College's request for Capital Outlay be denied, the College will continue to make application for future consideration. Beyond this, the College will be unable to add other instructional programs at a cadence that would allow for timely response to industries' changing needs, let alone attending to rising deferred maintenance costs. As noted previously, part of this project and its renovation is designed to address long-standing and extensive deferred maintenance issues of \$17.2MM that are beyond the immediate financial capabilities of the College. Consequently, the College will be strapped with addressing an unnecessary level of expenses related to energy costs and repairs – in some cases throwing good money after bad.

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

The College has contemplated other options I opposition to pursuing the capital outlay request, which has included seeking private/donor funding, additional millage support, and partnering with private organizations. None of these options were successful. As an example, the College has only 12% of its total revenue coming from the local taxpayer base. On 14 different occasions since its original millage of 1.33 mills in 1964, however all 14 requests for additional support were denied by voters. The millage, due to the Headlee effect, is now 1.13 mills. Though the College is seeking a Headlee Override request of Jackson County voters in November 2023, it is highly doubtful that it will be successful. This, in part, describes why the College is now working through the option of Capital Outlay to achieve its mission and objectives.