

DMACC Physical Plant

The purpose of the DMACC Physical Plant is to operate and maintain campus facilities in an efficient and economical manner and provide the college community a safe, healthy and attractive learning environment. The Physical Plant Department is responsible for the operation of the college's facilities at the Ankeny, Boone, Carroll, Newton, Urban and West Campuses; and the Capital Medical Office Building, Hunziker Career Academy, Perry VanKirk Career Academy, Transportation Institute and the Southridge Center.

The mission of the Physical Plant has remained the same since the start. The original name, Plant Services, was changed to Physical Plant in 1970. Changes have included expanding the facilities, using new technologies, responding to new laws, and reacting to societal changes and new expectations. Another significant change is the use of contracted security and custodial services. Up until the mid-1970s, DMACC hired "in-house" security and custodial personnel; today, there are more than 40 contracted security and custodial staff members working in the Physical Plant, as well as more than 100 temporary employees who work each year in the Physical Plant.

Department Subdivisions

- Mechanical/Electrical Maintenance: Heating, cooling, ventilation, electrical, plumbing, utility infrastructure, energy management and fire systems
- Custodial Services: Housekeeping, waste hauling, pest control, and paper recycling
- Grounds Maintenance: Lawn, shrubs and tree care, landscaping, road, parking lot, and sidewalk maintenance
- Transportation Services: Vehicle pool operation, vehicle maintenance, moving and snow removal
- Mail Services: US Mail and inter-campus mail processing and delivery
- Security Services: Uniformed officers at Ankeny and Urban Campuses, crime reporting, prevention and investigation, parking control
- Building Services: Carpentry, modular furniture and walls, painting, flooring, roofing, locks, signage and CCTV
- Construction Services: Design and construction management for remodeling and new buildings, and manage construction drawings on AutoCAD
- Warehouse Services: Purchase and issue Physical Plant support parts, materials and supplies
- College Safety: Provide leadership role for College Safety and the Crisis Management Team that addresses OSHA, EPA, Physical Security and other safety related laws and concerns

Developments since the department originated

When DMACC began, classes were held in rented buildings in West Des Moines. These programs were then relocated to the newly-constructed Ankeny campus buildings in 1969.

The college's facilities have grown from seven buildings on the Ankeny and Boone campuses in 1969 to 55 buildings at 11 locations in central Iowa.

The increased use of new technology, training and partnerships make the department more efficient and productive through the following ways:

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- Can instantaneously call all employees and send work orders via smart phones; mailed documents replaced by email messages with electronic;
- Manages work orders and preventative maintenance with software that interacts with requesters;
- Building and grounds monitored by hundreds of Web based CCTV cameras to enhance security;
- Building Automation and Energy Management Systems greatly enhanced and improved;
- Construction projects documented with digital photographs; owners training documented with digital video, and all construction documents, correspondence, shop drawings; owner's manuals etc. stored on electronic files and accessible from any location via the internet;
- DMACC Alert sends emergency messages to student and staff cell phones home/office phones, email building speakers;
- Significant improvements in security officer training and professionalism;
- Leadership role in college safety and crisis management significantly expanded;
- More partnerships with agencies such as Maytag, The Iowa Energy Center, FFA, City of Perry, Story County, Southridge Mall, UnityPoint, Polk County and C Fresh Grocer to build and occupy college buildings;
- Use of more and better equipment in all departments; and
- Installed a computerized energy management system in 1979 that created a network of microprocessors in buildings to control HVAC systems. This was only the second direct digitally controlled system at a US college and the first computer network at DMACC. The network speed then was 300 baud (not 300k, not 300 meg, just 300 bits per second).

Challenges

In 1975 there were 19 buildings, two campuses and 440,000 square feet of space, administrative and skilled employees (not custodial, mail or security employees). In 2014 there are 55 buildings at 11 locations and 1,485,000 square feet of space, 34 administrative and skilled employees (not custodial, mail or security employees). This amounts to a 275% increase in building space, but only a 61% increase in administrative and skilled employees. Other challenges include the following:

- Maintaining an aging infrastructure--roads, buried utilities, HVAC systems, electrical systems, roofs, building envelopes;
- Security and safety on campus--increasingly more crime and a greater threat of a crisis such as an active shooter on campus; and
- Increased amount of staff travel time between the many locations, some of which have no assigned Physical Plant staff.

Campus milestones

1967 **Ankeny Campus** land was purchased from Iowa State University in 1967. The first buildings, now known as 15, 16, 17 & 18, were built in 1969 thru a lease purchase agreement. Emory Prall Architects designed the first DMACC building on the east side of the Ankeny Campus in the late '60s. Architect Ken Bussard with Bussard Dikis Architects (presently RDG) performed much of the planning and design of the college's buildings during the '70s, '80s and '90s. Jessie Lewis with Crose Gardner performed much of the campus landscaping and site planning/design during this same period.



1968 **Boone Campus** Boone School District opened two new Boone Jr. College buildings (the west Academic Building and east Gymnasium Building) on today's Boone Campus site. DMACC took ownership of these buildings in 1969 and paid off the remaining debt. In 1995 the two buildings were connected with the construction of the Courter Center. In 2001, privately owned and operated Student Housing apartments were added and in 2008 DMACC purchased these housing units. In 2005 the Nursing and CET wings were added. The baseball field was constructed in 2010 and the softball field in 2014.

1978 **Urban Campus** Land for the Urban Campus was purchased after several years of investigating potential locations in Des Moines. The final site selected on 7th Street was an Urban Renewal project. Building 1 was opened in 1979 and expanded in 1987. Building 5 opened in 1995 to assist with the child care needs of students with young children. Building 2 and 3 were purchased from the Central Iowa Blood Bank Center, remodeled and opened in 2003. Building 4 was purchased from Mail Services, remodeled and opened in 2004. The Roberts Dairy Building was purchased, demolished and converted to parking in 2006. The Evelyn Davis Center, previously a Top Value grocery store, was purchased, remodeled and opened in 2012.

1987 **Carroll Campus** After being temporarily located in St. Anthony Hospital and the Carroll Glass Building, the permanent Carroll Campus was built on the site of an abandoned American Legion bathhouse and swimming pool acquired from the city. Some existing City Little League fields had to be relocated, which did cause protests from some residents at the time the pool was filled in and the historic bathhouse was renovated into the Campus Administration Building. Later additions were added to the building in 1992 and 2003.

1992 **Newton Campus** Maytag Corp. donated a six-acre site and old manufacturing building built in 1950 to DMACC at the present campus location. A second floor was added inside the building and extensive remodeling was completed. The building opened in 1993 and housed DMACC programs as well as Maytag training rooms, an ISU Extension Office, Newton High School Basics and Beyond and a

Conference Center. The Conference Center was operated by Marriott and was the catalyst for building a new hotel east of campus, helping to revitalize this area of the city. Maytag donated two additional buildings in 2008, which were remodeled and opened in 2009 as the Building 2 Career Academy.

1999 **West Campus** After holding classes in leased space at 6000 Westown Parkway in West Des Moines, DMACC purchased 23 acres of land at the present campus location. Since the land was in a flood plain, a significant amount of fill dirt was brought in to raise the site. Construction of the building was started in 2000 and in 2001 the technology-focused campus opened. This project was DMACC's first use of geothermal energy using heat pumps and the lake as a heat sink to heat and cool the building. The building won several energy-efficiency awards. The small maintenance/storage building was added in 2013.

Other milestones

- 1966 First held classes in space leased in the former Ankeny Post Office at 315 Walnut and a former grocery store at 2501 Vine in West Des Moines
- 1967 Purchased 240 acres of land in Ankeny from Iowa State University
- 1967 Leased space in a former skating rink at 2020 Grand in Des Moines
- 1972 Purchased 80 additional acres of land in Ankeny from Iowa State University
- 1981 Building 1 Student Services and 5 Student Center on the Ankeny Campus were the first buildings whose functions were not primarily for classrooms/labs but for student support services
- 1983 In conjunction with the IDOT constructing Oralabor Road, the dam creating the Ankeny Campus Lake was built
- 1985 Oralabor Road and the Ankeny Campus south entrance were completed
- 1986 Golden Circle Business Incubator was established in Buildings 15, 16,17,18,19 & 20; a federal grant was used to construct links between these buildings
- 1989 Opened the privately owned and operated Ankeny Student Housing
- 1989 Opened the International House apartments in Ankeny to provide guest quarters for international and other distinguished visitors--the first and only campus buildings built by the Building Trades students
- 1994 Opened the District Management Center in the southwest corner of the Ankeny Campus, intentionally isolated from other campus buildings to provide District Administrators more autonomy from any one campus
- 1995 Energy Resources Station (Building 23) was built with funding provided by the Iowa Energy Center to do research on HVAC and lighting systems to reduce energy consumption in Iowa buildings
- 1997 Purchased 12 acres of land that houses the Transportation Institute; the first offices located in a temporary residential style doublewide trailer
- 1998 Built Transportation Institute office, classroom and lab building
- 2000 DMACC gifted 22 acres of land on the Ankeny Campus to the State of Iowa, which then constructed the Iowa Laboratory Facilities in 2003; land previously housed 13 Little League baseball fields for over 20 years in a partnership with the Ankeny Little League.
- 2001 Opened the privately owned and operated Boone Student Housing; purchased by DMACC in 2008
- 2006 Built the Hunziker Career Academy on five acres of land donated by the Hunziker family—DMACC's first Career Academy; second floor expanded in 2013
- 2008 Built Building 24, Health Sciences, the first 3 story building at the college and utilized geothermal heat pumps and 200 foot deep wells to heat and cool the building; financial support donated by Polk County and Unity Point (Iowa Health)
- 2010 In partnership with and financial support from the FFA, the FFA building constructed on land north of campus traded for DMACC land on the west edge of Ankeny Campus and provided needed conference space for DMACC
- 2010 The 105 KW wind turbine generator installed and connected to Building 23, provides electricity to campus buildings and serves as an educational tool for the Wind Turbine technician program; funding provided through the Iowa Office of Energy Independence
- 2011 City of Perry built the VanKirk Career Academy, donating the building to DMACC
- 2013 Purchased and remodeled the Capital Center Building

2013 Obtained and remodeled the Southridge Career Academy

Key people who founded and developed the department

First Physical Plant staff

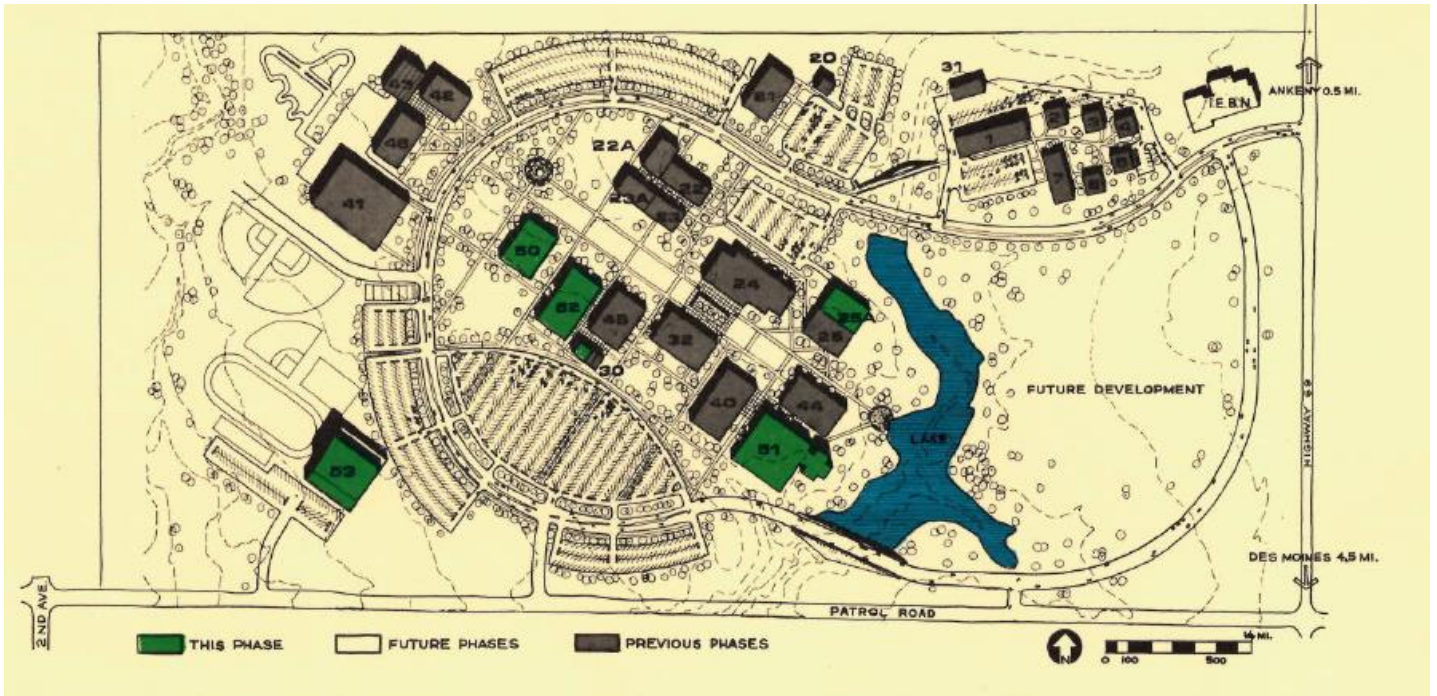
- Whitey Jacobs Ankeny Campus Maintenance Supervisor
- Jim Blair Ankeny Campus Custodial Supervisor
- George Sturtz Boone Campus maintenance Supervisor
- Max Arnburg Skill Center Maintenance Supervisor

Physical Plant Directors

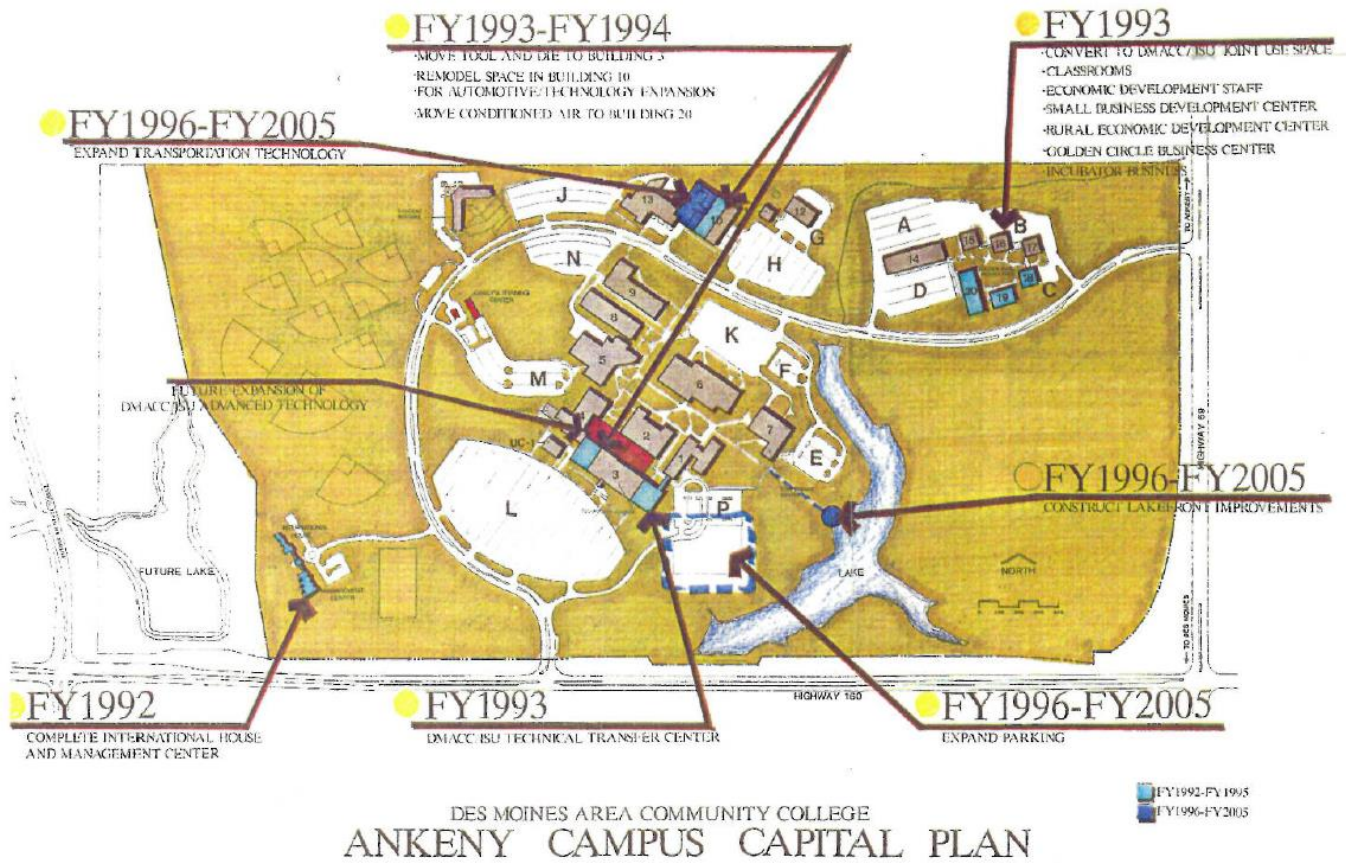
- Don Zuck 1969 through 1976
- Don Miller 1976 thru 1980
- Ken Brown 1980 thru 1992
- Mark Baethke 1992 thru 2013
- Ned Miller 2013 thru present

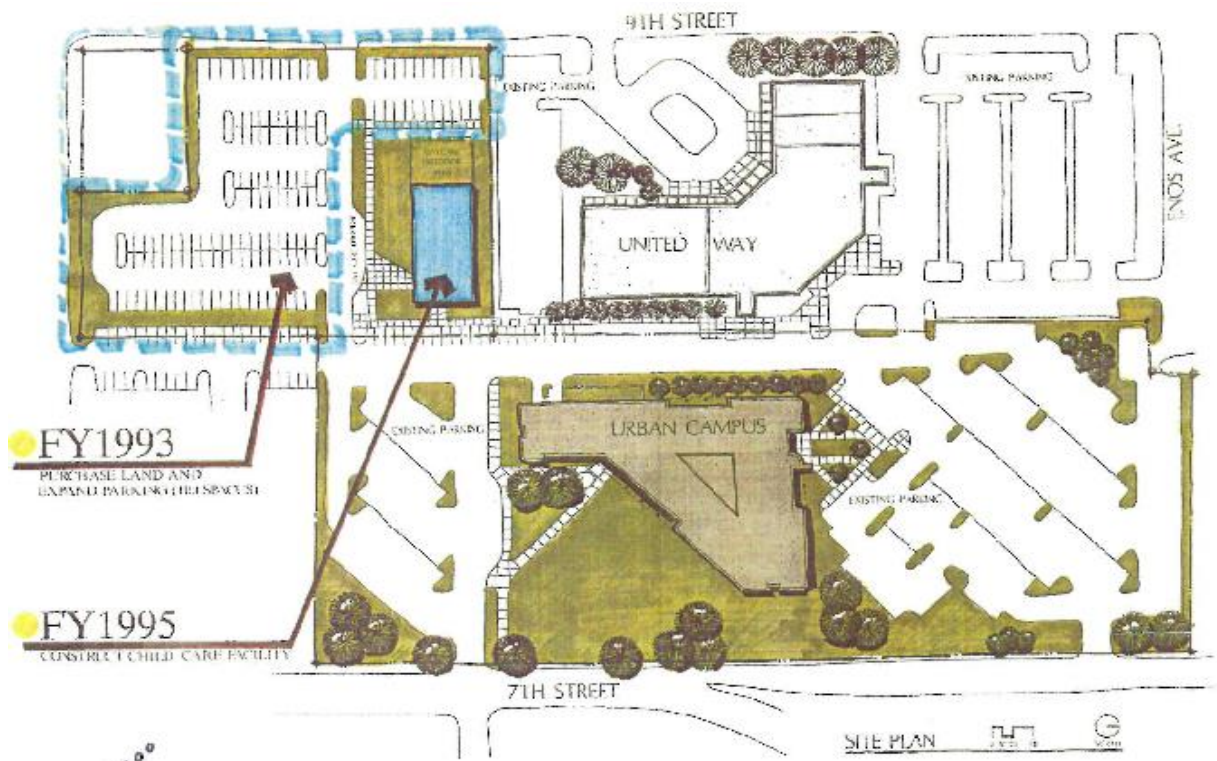
MASTER PLANS

1972



1992





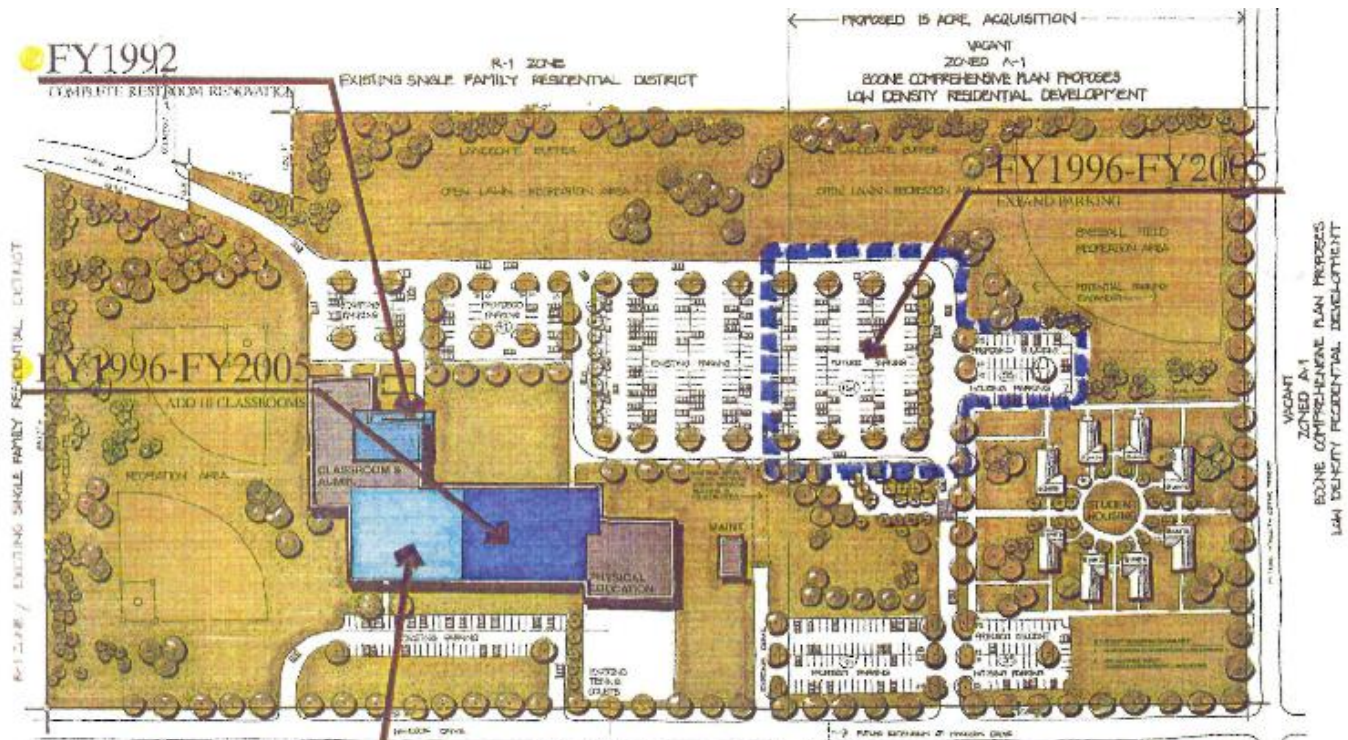
FY1993
PURCHASE LAND AND
EXPAND PARKING (SEE SPACE 31)

FY1995
CONSTRUCT CHILD CARE FACILITY

50' x 110' x 55' 00"

DES MOINES AREA COMMUNITY COLLEGE
URBAN CAMPUS CAPITAL PLAN

FY1993-FY1995
FY1996-FY2005



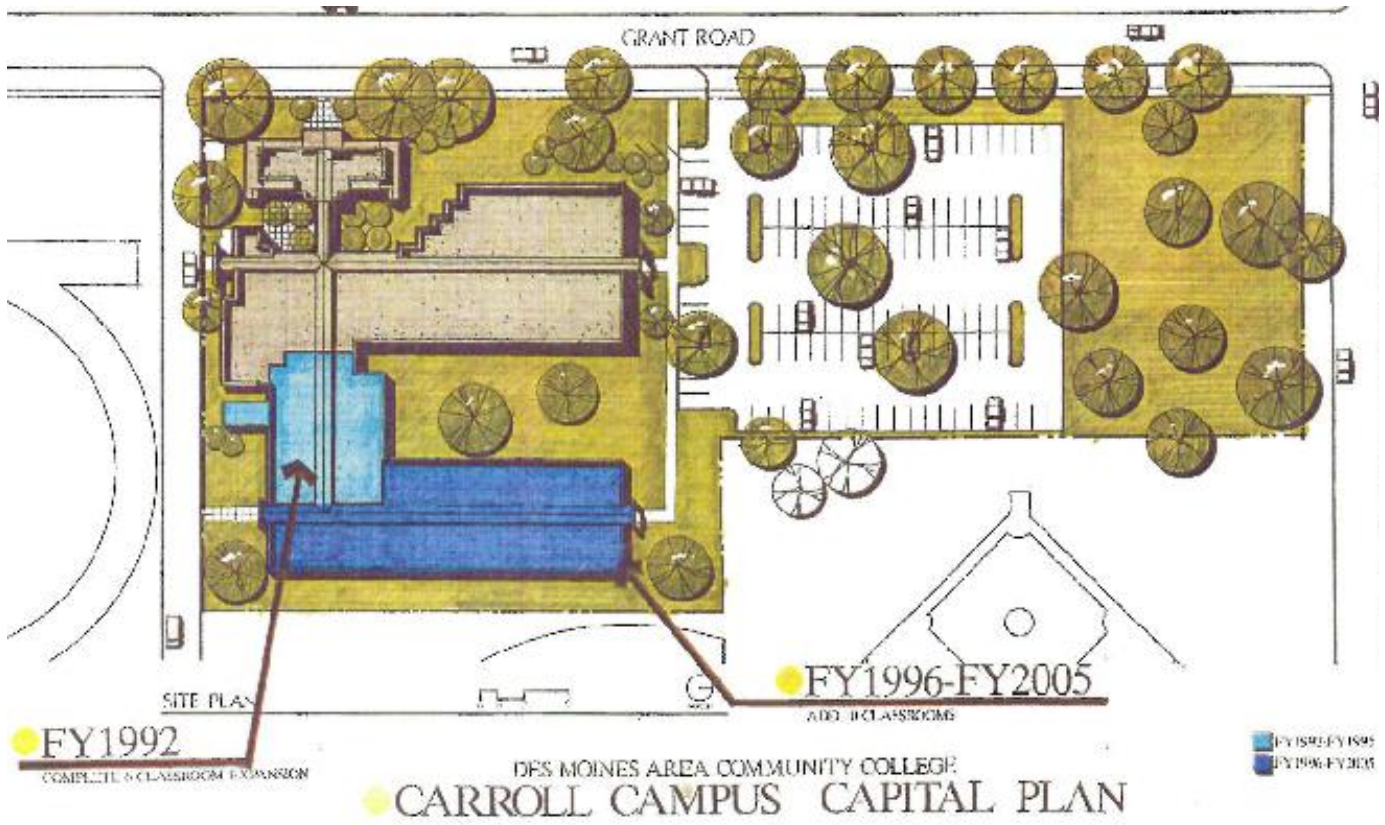
FY1992
COMPLETE RESTRUCTURE RENOVATE

FY1996-FY2005
ADD 10 CLASSROOMS

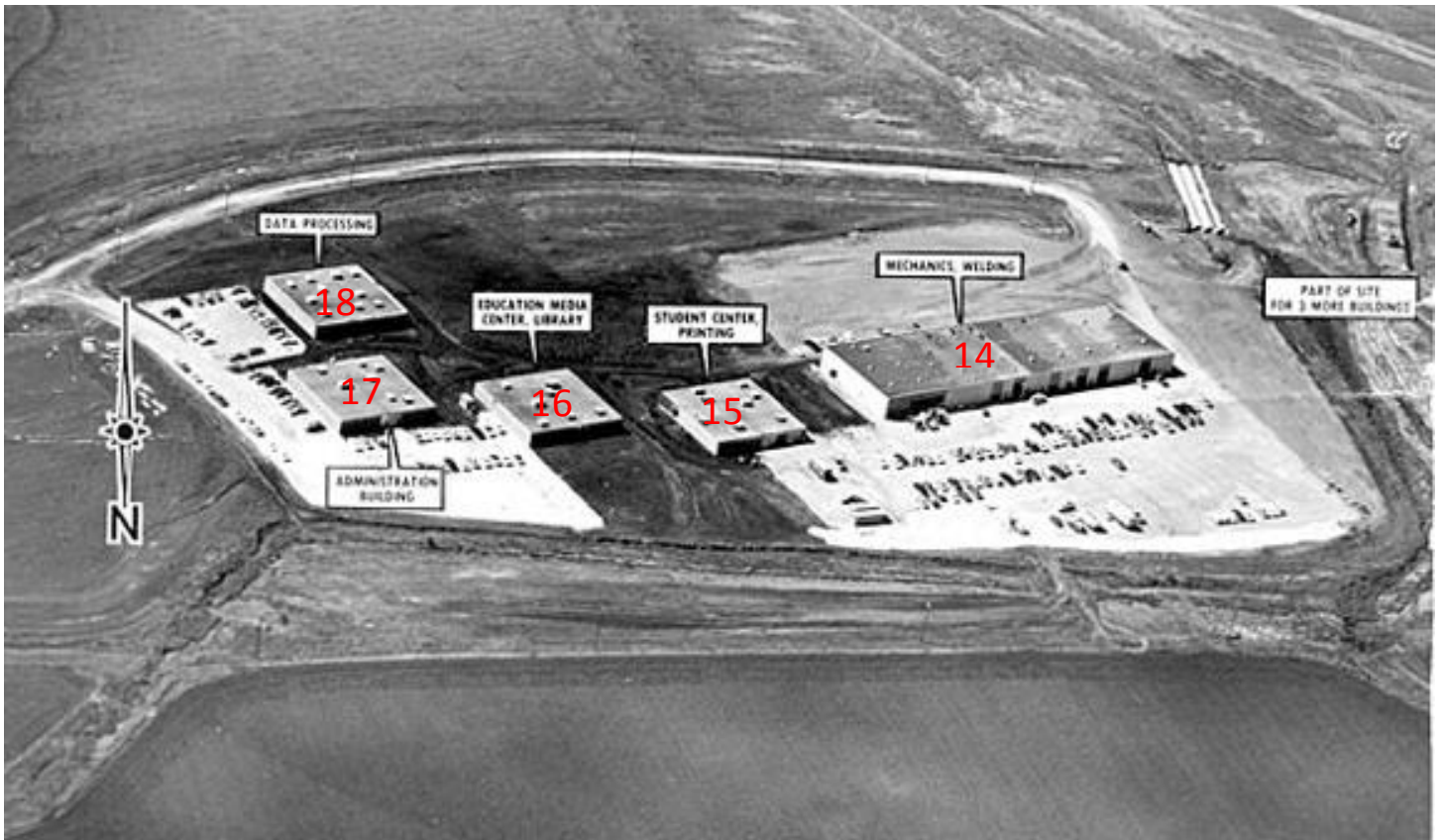
FY1994-FY1995
ADD 6 CLASSROOMS AND
ADVANCED TECHNOLOGY COMPUTER LAB

DES MOINES AREA COMMUNITY COLLEGE
BOONE CAMPUS CAPITAL PLAN

FY1992-FY1995
FY1996-FY2005



DMACC ANKENY CAMPUS 1ST BUILDINGS ON EAST SIDE OF CAMPUS IN 1968



DMACC CAMPUSES 2014

ANKENY



BOONE



URBAN



NEWTON

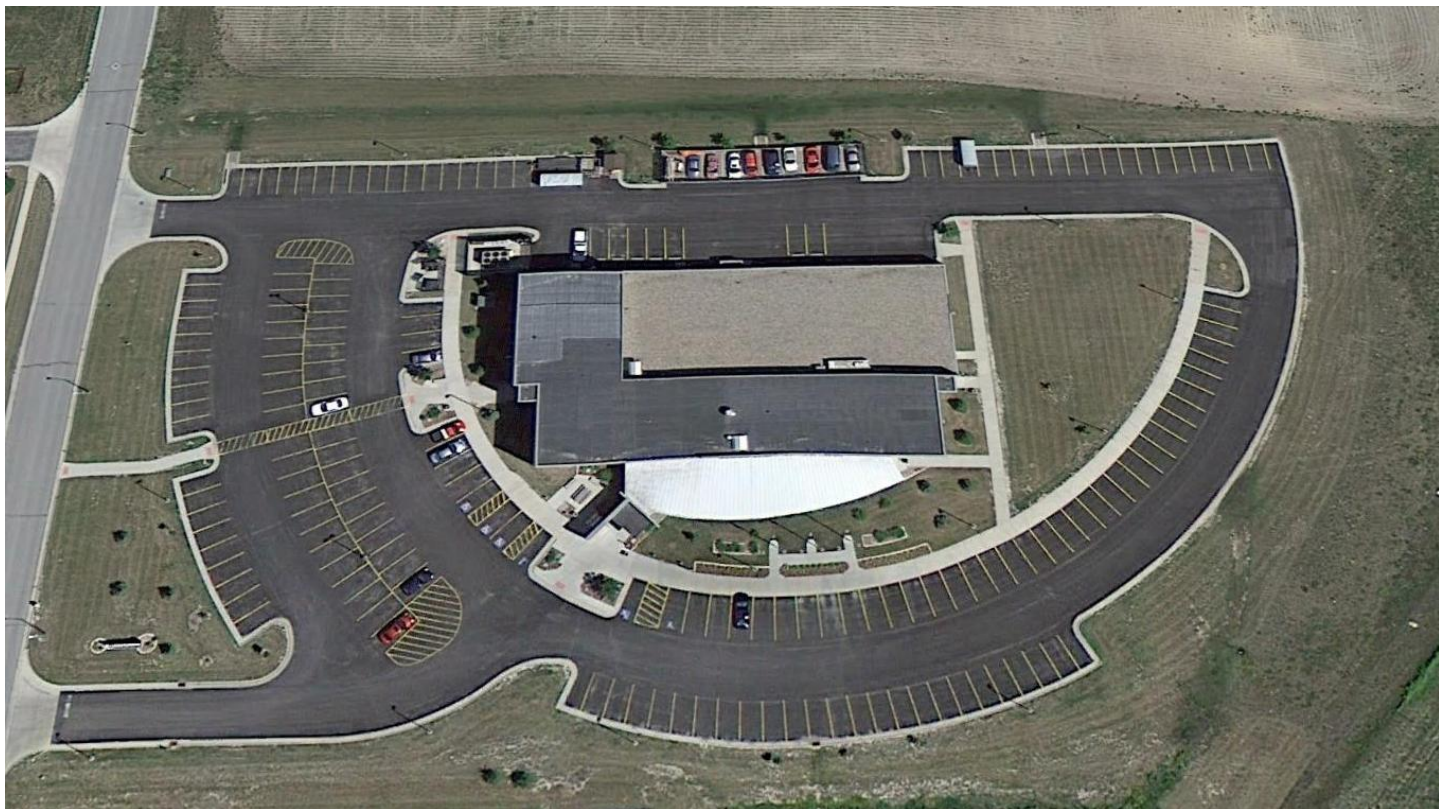


WEST



DMACC CENTERS 2014

HUNZIKER IN AMES



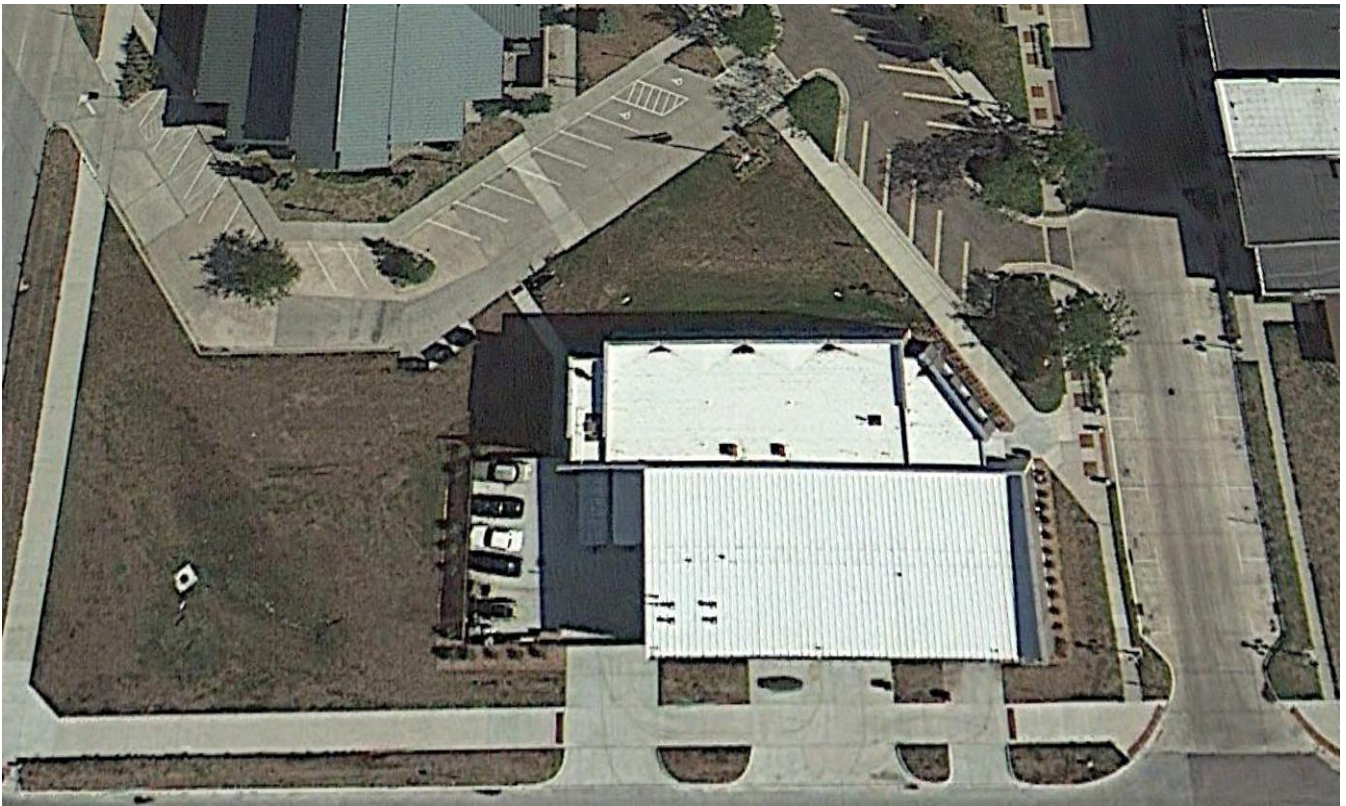
SOUTHRIDGE



CAPITAL CENTER



VANKIRK IN PERRY



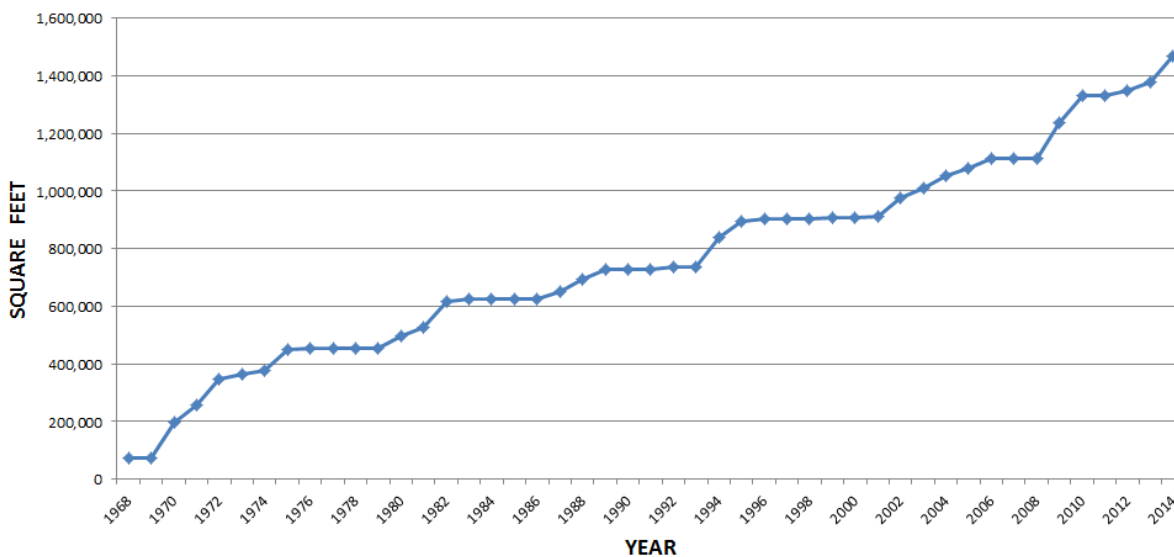
TRANSPORTATION INSTITUTE



DMACC BUILDING SUMMARY

YEAR	GSF	BUILDINGS	CAMPUSES	CENTERS
1968	71,312	2	2	
1970	198,744	10	2	
1971	255,236	13	2	
1972	346,328	15	2	
1973	362,204	16	2	
1974	378,056	17	2	
1975	448,407	20	2	
1976	452,699	21	2	
1980	495,859	23	3	
1981	527,449	24	3	
1982	616,133	26	3	
1983	625,968	26	3	
1987	649,809	27	4	
1998	692,829	28	4	
1989	727,975	28	4	
1992	738,534	29	4	
1994	838,534	30	5	
1995	894,534	34	5	
1996	903,684	35	5	1
1999	909,934	36	5	1
2001	910,654	38	6	1
2002	976,130	41	6	2
2003	1,012,232	41	6	2
2004	1,054,999	42	6	2
2005	1,077,339	42	6	2
2006	1,111,479	43	6	3
2009	1,236,051	48	6	3
2010	1,333,051	50	6	4
2012	1,349,099	51	6	4
2013	1,378,641	53	6	5
2014	1,485,483	55	6	6

DMACC BUILDING AREA GROWTH 1968 THRU 2014



DMACC BUILDINGS SUMMARY BY BUILDING

BLDG #	BLDG NAME	OCC. DATE	SQ. FT.	CAMPUS TOTAL
ANKENY				
1	Student Services	Dec 1981	32,904	
1	Student Services Addition	Dec 2013	12,000	
2	Public Services	Oct 1974	33,532	
3E	Advanced Tech Center	Oct 1994	29,050	
3W	Technology Center	Sep 1987	43,020	
4	Greenhouse Addition	Sep 1982	9,835	
4	Applied Sciences	Mar 1975	30,404	
5	Student Center	Apr 1982	55,780	
6	Classroom/Library	Aug 1971	65,652	
7	Conference Ctr. Addition	Feb 1976	4,292	
7	Culinary Arts	Aug 1971	25,440	
8	Business Addition	Sept 1972	15,876	
8	Business	Dec 1970	16,012	
9	Health Sciences Addition	June 1974	15,852	
9	Health Sciences	Oct 1970	22,140	
10	Welding/Autobody	Oct 1970	29,404	
11	Utility Center	Oct 1970	4,356	
12	Physical Plant	March 1976	13,984	
13	Auto Lab addition	Oct 2005	1,840	
13	Auto Lab/classroomaddition	May 2003	2,834	
13	Automotive	Aug 1979	41,160	
14	Diesel	March 1969	31,540	
15	Commercial Art	Feb 1969	8,341	
16	Architectural Millwork	Feb 1969	8,341	
17	Mortuary Science	Feb 1969	8,341	
17A	Office	Aug 1986	1,500	
18	Business Resources	Feb 1969	8,341	
19	Printing	Feb 1970	11,995	
20	Building Trades	Feb 1970	21,129	
21	Publications	Nov 1994	2,480	
22	Apartments/Boardroom	May 1992	4,700	
22	District Administration	Dec 1994	7,800	
23	Iowa Energy Center	Sept 1995	9,500	
24	Health Sciences	Dec 2008	58,500	
UC1	Utility Center Building	March 1975	6,415	
FFA	FFA	Jan 2010	57,000	751,290

BOONE					
BC	Boone Gym	1968	22,540		
BC	Boone Academic Bldg.	1968	48,772		
BC	Storage Bldg.	Nov 1979	4,000		
BC	Boone Student Lounge	May. 1995	13,620		
BC	Boone Expansion 2005	Aug 2005	20,500		
BC	Student Housing #1 thru 4	July 2009	66,072		
BC	Student Housing #5	July 2012	16,755		192,259
CARROLL					
CC	Carroll Academic	Aug 1986	19,205		
CC	Carroll Administration	Aug 1986	3,136		
CC	Carroll Addition 92	Jan 1992	5,859		
CC	Carroll Ind. Manuf.	May 2002	6,084		
CC	Carroll Addition 2003	Dec 2003	17,744		52,028
NEWTON					
NC	Newton Campus	Oct 1993	100,000		
NC	Newton Career Academy	June 2009	40,290		140,290
URBAN					
UC	Urban Campus B#1	Sept 1980	31,590		
UC	Urban Addition B#1	Aug 1988	35,146		
UC	Urban Child Care B#5	Jan 1995	3,050		
UC	Urban B#2 & 3	Dec 2002	22,431		
UC	Urban B#4 Betts	Aug 2004	22,149		
UC	Evelyn Davis Center	July 2012	12,787		127,153
WEST					
WC	West Campus	Sept. 2001	50,752		
WC	West Storage Bldg	July 2013	2,400		53,152
LOCATIONS					
TI	Transportation Instit	July 1998	5,450		
TI	Transportation Instit Garage	June. 2000	720		6,170
AC	Ames Career Academy	Aug 2006	34,140		
AC	Ames 2nd Floor Addition	Dec. 2013	9,500		43,640
PC	Perry Career Academy	June 2011	16,048		16,048
SR	South Ridge Career Academy	Aug. 2013	64,000		64,000
CMOB	Capital Medical Office Building	May 2013	25,842		25,842
TOTAL			1,485,543	1,485,543	