RESOLUTION FY 2014-10

Adoption of Facility Master Plan

WHEREAS, Edison Community College is committed to providing an up-to-date and safe learning environment for its students, and

WHEREAS, the creation of a *Facility Master Plan* was initiated in order to develop future plans for the campus buildings and grounds that are consistent with and support the College's recently completed *Strategic Master Plan*, and

WHEREAS, such a plan is necessary in order to identify maintenance, capital improvements, and capital funding requirements to keep the buildings, mechanical systems, and grounds in the condition required to support the mission of the College, and

WHEREAS, it is imperative that the buildings on Edison's campus continue to evolve in response to the needs of students and the community.

NOW, THEREFORE, BE IT RESOLVED by the Board of Trustees of Edison Community College that the attached *Facility Master Plan* document be adopted.

Edison Community College Facility Master Plan

For Presentation to the Edison Community College Board of Trustees October, 2013

Prepared by Doug Riehle, Director of Physical Plant and Facilities

Table of Contents

1.0 Introduction

The Facility Master Plan has two main goals:

- To develop futures plans for the campus buildings and grounds that are consistent with and support the College's recently completed Strategic Master Plan.
- To identify maintenance, capital improvements, and capital funding requirements to keep the buildings, mechanical systems, and grounds in the condition required to support the mission of the College.

Edison Community College was chartered in 1973 under provisions of the Ohio Revised Code as the first general and technical college in Ohio. The College thus emerged without special local taxation as a two-year, public, co-educational, state-supported institution of higher learning. Under its charter it is authorized to offer studies in the arts and sciences, technical education and continuing education. By virtue of legislative action, the College's name was changed in 1977 from Edison State General and Technical College to Edison State Community College.

The buildings on Edison's campus have evolved over its relatively short history to respond to the needs of students and the community. West Hall, the original main building, was constructed after moving the campus from leased structures in downtown Piqua in 1973. Increasing enrollment pushed construction east to include classrooms in South Hall in 1975 and East Hall in 1988. Northern expansion added dining facilities, a gymnasium, theater, classrooms and laboratories to accommodate the growing nursing and healthcare programs in 1994. The most recent development points westward and includes technologically advanced meeting spaces designed to bring the world to Edison through the Emerson Center, an architecturally unique LEED-certified building completed in 2007.

Emerson Regional Center of Excellence

The College's enrollment and offerings have grown steadily during its brief history, from 309 students enrolled in 30 courses in 1973 to more than 3,000 students enrolled today in about 30 technical fields, a broad range of baccalaureate transfer programs, developmental course work, and continuing education offerings.

Edison students range from new high school graduates to senior citizens, and from people just becoming acquainted with the possibilities of higher education to those returning for retraining and exploration of new fields. The College points with pride to the fact that over 30 percent of its students began their higher education at another college or university, but have chosen to continue at Edison, in many cases in recognition of its attention to quality and standards.

As Edison adapts its planning to incorporate sustainable building practices, we are committed to laying a foundation for the future in many ways. Increasing enrollment and advancing technology have Edison prepared to be a trusted resource for its community as it has been since its inception.

Located in Greenville, Ohio, the Darke County Campus is the local attendance center for Edison Community College. Courses offered at the Darke County Campus are designed to meet general education requirements for both technical and transfer associate degrees. Courses include: English composition, communication, humanities, art, philosophy, religion, psychology, sociology, economics, math, science, and personal computer applications. An associate of arts or associate of science degree as well as applied associate degree programs in business management, and social work may be completed at the Campus through a combination of traditional, web enhanced, and on-line classes. Additional classes for engineering technology, industrial management, and office administration systems degrees are offered on a limited basis.

The Piqua Main Campus buildings total 204,107 Sq. Ft. The Darke County Campus is an additional 17,257 Sq. Ft.

2.0 Campus Grounds

The main campus of Edison Community College is located across I-75 from the historic city of Piqua, Ohio, in Miami County. The campus sits on a rural plain among agricultural fields and neighboring educational institutions. Piqua Junior High School, Piqua High School, and the Upper Valley Career Center are located within the same square mile as Edison creating a quiet and studious environment. The Piqua campus is 108 acres, much of which is a park like setting with mature trees, shaded lawns, and subtle landscaping. The buildings are set back about 250 yards east of Looney road with a large green space between the road and the parking lots.

Two containment ponds located along the main drive add to the park-like feeling of the campus setting and provide an accent to the new Emerson Center Building. Parking lots wrap around the main campus buildings to provide convenient parking close to the entrances. Most of the students can find parking close the campus buildings, although during peak times students may have to park in the overflow lots located NE of the main campus.

Aerial View of Piqua Main Campus

East of the campus buildings are a baseball field, soccer field, basketball courts, and tennis courts. The campus also has a PDGA certified 18 hold disk golf course that is laid out around the perimeter of the campus.

The campus has a main center courtyard with benches and picnic tables where the staff and students can enjoy lunch, studying, or socializing during the warm weather months. There are also two smaller courtyards located south of the buildings that provide additional outdoor space for use by the students and staff. There are also picnic tables and grills in the grassy area south of West Hall that is used by staff during breaks and lunch.

The three issues that have been identified by the College's Facilities staff as areas that can be improved are general lawn care, landscaping, and outdoor gathering places.

2.1 Groundskeeping

The College has 108 acres of grounds. 20 acres is a farm field that is leased for planting. Much of the remaining 88 acres is taken up by buildings, parking lots, driveways, and walkways. This leaves about 50 acres of grass to mow and trim. There are also about 300 trees spread over the 50 acres which, along with the flower beds and other landscaping, add to the mowing and trimming time. The Facilities Department has two 60" grasshopper mowers for the smaller lawn areas and a 14Ft Batwing mower for the larger open areas.

Many larger colleges have a dedicated grounds crew but Edison does not. The lawn care is handled by the regular maintenance crew. In general this is not a big problem because much of the mowing

season is during the summer break which begins in mid-May and goes until the end of August. The normal workload is naturally reduced during this period because there are fewer students on campus.

During the summer period there is less general cleaning, fewer general maintenance calls, and fewer special event setups. This allows manpower to be shifted from those tasks to groundskeeping. There are sometimes problems keeping up between April 1st to May 15th and September 1st to October 31st. The April to May period is particularly a problem because the grass and weeds are growing at their fastest pace and there are normally a number of rainy days during this period which compounds the manpower problem.

The College Facilities department recognizes the problem and has taken several steps to improve the groundskeeping. Two new pieces of equipment have been purchased to speed up the mowing. In 2011 the College purchased a 14Ft. batwing mower to replace the 6Ft. mowing deck that was currently being used. In 2012 a new, more powerful tractor was purchased to further speed up the mowing. Although the mowing is still a major task, the new equipment has reduced the mowing time by about 24 man-hours per week.

The other new initiative that the Facilities Department began in 2011 is to use "Manpower" temporary services to come in for two to four weeks at a time to help cover the peak periods. This provides the additional groundskeeping needed during the peak times without the overhead of a dedicated grounds crew.

2.2 Landscaping

The College has a beautiful campus with mature trees, scenic ponds, and attractive lawns as noted above, but the one area of criticism is that the landscaping is very basic. There are not many flowers and therefore not much color. The landscaping around most of the campus is limited to decorative trees, scrubs, and mulch with few features that stand out.

For the past several years additional resources have been put in place, improving the landscaping with minimal funding. There were some donated flowers planted with volunteer labor that made a very positive improvement in the main entrance and center courtyard area. More money was allocated to purchasing mulch, and some of the temporary manpower mentioned above was dedicated to weeding and trimming the flower beds.

2.3 Outdoor Gathering Places

The campus has a beautiful main courtyard and several appealing smaller courtyards for individuals and small groups to informally gather on campus. The Facilities Department has worked on each year improving and adding to the outdoor facilities by adding comfortable park style benches and tables with umbrellas in key locations throughout the campus grounds.

Most of the additional tables and benches have been located to take full advantage of the mature shade trees on the campus grounds while also considering distances to food service and the cafe' locations. The goal is to make it easy for students or staff to take their lunch or coffee breaks outside during the warm weather months.

2.4 Future Outdoor Classroom

One of the major outdoor upgrades planned for the near future will be the addition of an outdoor classroom. The will be an inviting, partially shaded area in the southwest section of the campus near West Hall. There will be a covered podium for teaching, granite benches for seating, and attractive landscaping. The Outdoor Classroom is also an area that will honor Edison's retirees with names etched in pavers as a focal point in the landscaping. The cost is estimated at approximately $100,000. The College is currently working on securing funding the project for possible implementation in 2014 or 2015.

Artist's concept of Outdoor Classroom

3.0 Parking

The College has a total of 1219 parking spots with 1080 general undesignated parking spots. Based upon 2012 enrollment of 3713 FTE this is approximately .3 spaces per FTE. There are two parking lots in front of West Hall. Lot #1 is SW of the Main West Hall entrance and Lot #2 is due west of the Main Entrance. Lot #3 is located north of the North Hall entrance. Lot #4 is located due north of East Hall and lots #5 and 6 are located northeast of East Hall.

The Table 1 below details the location and designation breakdown of all of the parking spots.

Lot #	Undesignated	Faculty/Staff	Adjunct	Handicapped	Van Accessible	Visitor	Totals
1	225	25					250
2	65		17		14	20	116
3	91				4		95
4	165	29	11	1	10	8	224
5	262						262
6	272						272
Totals	1080	54	28	1	28	28	1219

3.1 Student Parking

Studies of the College's parking needs have shown that there is adequate student parking. During peak hours Lot #6, which is the furthest lot from any of the campus entrances, is only a little more than half full. At first glance that would indicate that the College does not have a parking problem, but every student survey that has been conducted indicates that parking is the number one complaint for many students. This requires looking into the parking situation in a little more in depth.

By any objective standard Edison has reasonably good parking. As stated above there are more than enough spaces. In general, the parking lot locations are well laid out. Lots #1, 2, 3, & 4 wrap around the main campus buildings and are all close to at least one building entrance. Lot #1 is close to the Main West Hall Entrance. Lot #2 is adjacent to both West Hall and the Emerson Center. Lot #3 is close to the North Hall Entrance. Lot #4 is adjacent to East Hall, South Hall, and North Hall entrances. Only Lots #5 and #6 are somewhat distant from one of the campus entrances.

The Edison campus is also relatively small as compared to almost any of the other college in the area. A student can walk from the furthest parking spot in Lot #6 to anyplace on campus in approximately six minutes. The key issue with parking is expectations. The most common complaint of students is there is not enough parking, but the real issue is that there is not always parking in the lot where the student wants to park. Many students expect to find a parking spot in Lot #1 or #2 if they have a class in West Hall or they are going to the Library or Leaning Center in the Emerson Center. If a student is running late and they drive around both Lots #1 and #2 looking for a spot and then eventually end up in Lot #5 or #6 they become frustrated.

3.2 Student Parking – Future Plans

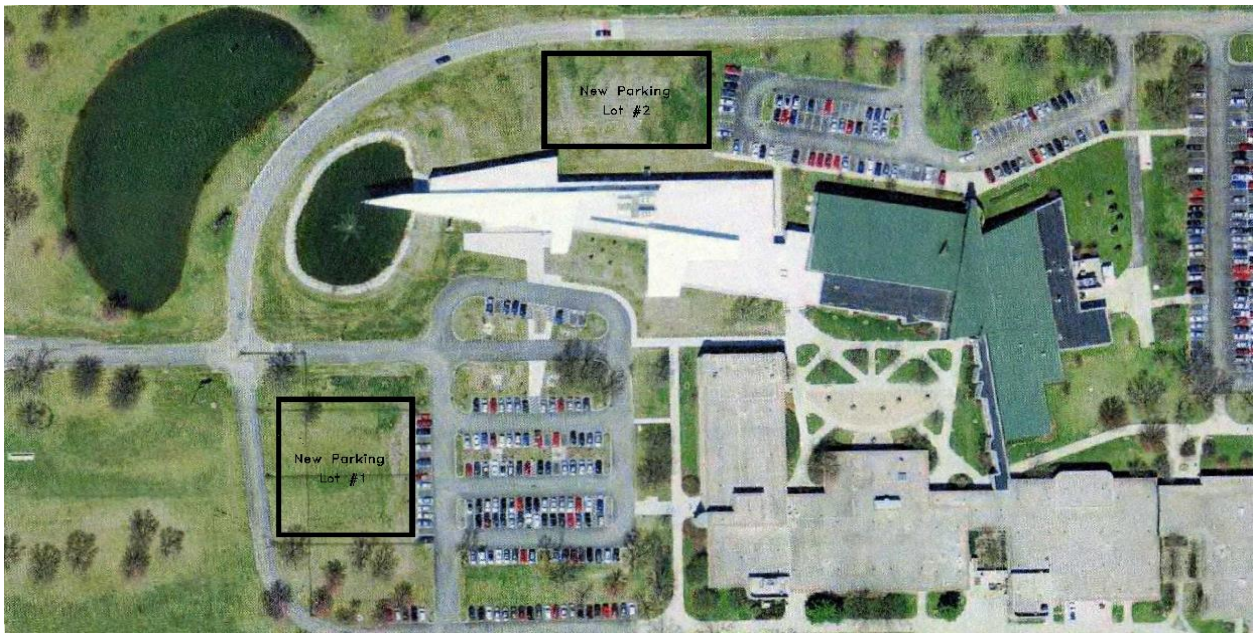
The conclusion from the student survey results is that although there is adequate overall parking, there is not enough parking close to the classrooms in West Hall or the Library in the Emerson Center. Two possible locations for additional parking were evaluated.

The first location for additional parking is an area just West of Lot #2. There is adequate space to add 63 parking spots in this location. The reason this is considered the best location is that it is relatively close to both West Hall and Emerson and therefore would be used by students going to either location.

The second location for future parking expansion is north of the Emerson Center and west of current Lot #3. This lot would improve parking for the Library, Learning Center, and the 500 series classrooms in Emerson, and would also be convenient to North Hall for access to Nursing, the gym, and Theater. The Nursing students would likely park in this lot due to its convenience to the Nursing classrooms. This would free up space in current Lot #2 for students going to West Hall. There is space for 61 additional parking spots in this location.

Initial plans have been developed and $300,000 capital funds of have been appropriated by the state legislature to expand these two parking lots. The college has hired an architect and plans have been completed for the expansion. The project is currently out for bids, with construction to start in the spring of 2014 and completed before the 2014 fall semester.

The completion of these two new parking lots will add a total of 124 new spaces in prime locations to provide easy access to classrooms and the library. The additional parking spots will also increase the College's parking capacity to support a total FTE enrollment of 4476 from the current capacity of 4063.



Layout of Expanded Parking Lots

3.3 Visitor Parking

There are currently visitor parking spots in three locations. There are sixteen spots located directly west of the main West Hall Entrance in Lot #2. There are also four spots just south of the entrance to the Emerson Center in Lot #2. There are four general visitor spots in Lot #4 and also four Daycare drop off spots that are limited to ten minute parking.

A study was conducted of the visitor parking patterns and it was concluded that during peak times such as mid-morning and early afternoon there are not enough visitor spots. This is primarily a problem for the West Hall Lot #2 where most of the visitors to the campus would attempt to park. A second study was undertaken to determine whether the problem was that there were too few visitor spots, or if students were parking in the visitor spots. There had been anecdotal evidence that this was a problem.

The first survey just checked the open spots during peak time periods. For the second survey the Security Vehicle was parked in the immediate area or was patrolling the lot for the prior hour before the check of visitor spots was taken. This second survey indicated that there was adequate visitor parking as long as the parking rules were enforced and students were not parking in visitor spots. There are no current plans to expand visitor parking, but this will be monitored and could be revisited in the future. Any significant increase in enrollment could require more visitor parking at West Hall due to increased traffic to Student Affairs.

3.4 Faculty and Staff Parking

There are designated spaces in Lot #1 and Lot #4 for full time faculty and staff. There are a total of 54 designated spots near the entrances reserved for faculty and staff. On a normal work day there are about 110 faculty and staff members on campus, so many of them park in undesignated spots. Many of the undesignated spots are also close to the buildings so this is generally not considered a big problem. Also, most of the faculty and staff arrive before there are many students on campus so they can normally find adequate parking. The most common complaint is when someone leaves campus and returns mid-day they often cannot find an open spot in either the designated faculty and staff parking or the undesignated spots close to the buildings. This is not considered to be an issue that needs to be addressed.

3.5 Handicapped/Van Accessible Parking

In 2010 the college did an analysis of the current ADA guidelines for Handicapped Accessible and Van Accessible parking. As a result many of the standard handicapped spots were expanded to van accessible spots. Based upon the parking lot capacity of 1219 spots, ADA standards require 23 Handicap Accessible spots with 3 of those being Van Accessible. The college has 29 Handicapped Accessible spots with 28 of those being Van Accessible.

The College exceeds both guidelines so there are no current plans for changes of the Handicapped Accessible or Van Accessible number of spots or locations.

4.0 Buildings and Infrastructure

4.1 Roofs

The College was built in five different major phases and there are five different types of roofing systems of different ages and conditions, so an analysis of the Colleges roofs will require looking at

each area separately. The roof on the Emerson Center is original. All of the other phases have had the roofs completely replaced one time since their original construction.

About 40% of the total roof square footage is approaching the 20-year threshold that is usually considered the life of a normal roof. The College had a complete inspection of all of the roofs in the fall of 2012 and determined that the North Hall roof was in the worst shape. Funds were appropriated in the 2013-14 biennial capital bill and this roof was replaced in the fall of 2013. The inspection also determined that South Hall and West Hall roofs should be replaced within 3-5 years. Funding for these two areas will be requested in the 2015-20 biennial capital bills.

The College performs preventive maintenance each fall to minimize leaks and extend the reliable life of the roofs as long as possible.

Below are the major building phases and the installation year for the current roof:

West Hall	1993
South Hall	1994
East Hall	2011
North Hall	2013
Emerson Center	2007

West Hall has a single ply 60 mil. E.P.D.M. membrane with ballast surfacing that was installed in 1993. It is generally in good condition and with yearly preventive maintenance should not need to be replaced before 2015. The estimated cost for replacing the West Hall roof (55,000 Sq. Ft.) is $390,000 for the 1st floor area and $330,000 for the second floor area.

South Hall has a single ply 60 mil. E.P.D.M. membrane with ballast surfacing that was installed in 1994. It is generally in good condition and with yearly preventive maintenance should not need to be replaced before 2015. The estimated cost for replacing the South Hall roof (24,000 Sq. Ft.) is $333,000.

East Hall has a multi-layer built up roof was installed in 2011. Since this roof is less than 2 years old there is no current plan to replace this roof.

North Hall has a single ply 60 mil. E.P.D.M. membrane with smooth surfacing and standing seam metal roofing that was installed in 1994 when this phase was built. The E.P.D.M. membrane portion of the roof was replaced in 2013. The standing seam metal roof is in good condition and with some routine repairs should not need to be replaced before 2025. Since the E.P.D.M. portion of the roof is new and the metal roof is in good condition there are no current plans to replace either of these roofs.

The Maintenance Building has a single ply 60 mil E.P.D.M. membrane which is original from when the building was built in 1988. This roof is due to be replaced and is planned for 2015. The estimated cost for replacing the Maintenance Building roof (2,100 Sq. Ft.) is $40,000.

The Athletic Building has a single ply 60 mil E.P.D.M. membrane which was replaced in 2010. There are no current plans to replace this roof.

4.2 Fire Protection

Only East Hall, North Hall, and the Emerson Center have sprinkler systems. West Hall and South Hall do not have general sprinkler coverage due to the age of the buildings and code requirements at the time of construction. The West Hall server room does have a standalone inert gas fire protection system.

Adding sprinkler coverage to West Hall and South Hall is currently under review as a possible future capital request. The high cost and logistical problems of adding sprinklers to an existing building that is actively occupied makes this a difficult upgrade to accomplish.

All fire protection systems and equipment are regularly inspected and are generally in good shape.

4.3 Electrical

The high voltage (12,470V) primary service comes in underground from Looney Road and feeds five transformers, one for each of the major buildings. The service was rebuilt in 1992 and is good condition. The service is only about 20% loaded.

The five transformers are only partially loaded and are in good condition. The West Hall transformer was rebuilt in 2006.

The West Hall electrical service is fed from a 1000 KVA, outdoor, oil filled transformer to a 1600 AMP, 480/277 volt, switchgear. The 208/120 volt loads are fed from a 150 KVA transformer and a 600 amp switchgear.

The building lighting is mostly 2 x 4 lay-in T8 fluorescent lights. These were updated from T12 fixtures in 2006 as part of an energy performance contract. The emergency lighting is fed from a central battery inverter system with local fixtures throughout the building.

The receptacle power (120 Volt) is fed from nine panel boards distributed throughout the building. The existing panels are full.

The South Hall electrical service is fed from a 500 KVA, indoor, dry type transformer to a 800 AMP, 480/277 volt, indoor switchgear. The 208/120 volt loads are fed from a 112 KVA transformer and a 400 amp switchgear.

The building lighting is mostly 2 x 4 lay-in T8 fluorescent lights. These were updated from T12 fixtures in 2006 as part of an energy performance contract. The emergency lighting is fed from a

central battery inverter system with local fixtures throughout the building. The inverter failed and was replaced in 2011.

The receptacle power (120 Volt) is fed from two panel boards in the building. The existing panels are full.

The East Hall electrical service is fed from a 1500 KVA, outdoor, oil filled transformer to a 2000 AMP, 480/277 volt indoor switchgear. The 208/120 volt loads are fed from a 150 KVA transformer and a 600 amp switchgear.

The building lighting is mostly 2 x 4 lay-in T8 fluorescent lights. These were updated from T12 fixtures in 2006 as part of an energy performance contract. The emergency lighting is fed from a central battery inverter system with local fixtures throughout the building.

The North Hall electrical service is fed from a 1000 KVA, outdoor, oil filled transformer to a 1600 AMP, 480/277 volt indoor switchgear.

The building lighting is mostly 2 x 4 lay-in T8 fluorescent lights. These were updated from T12 fixtures in 2006 as part of an energy performance contract. The emergency lighting is fed from a central battery inverter system with local fixtures throughout the building.

Emerson Regional Center for Excellence electrical service is fed from a 1000 KVA, outdoor, oil filled transformer to indoor switchgear.

The building lighting is a variety of T5 fluorescent lights and CLF light fixtures. The emergency lighting is fed from a central battery inverter system with local fixtures throughout the building.

4.4 Electrical System Testing and Preventative Maintenance

The emergency lights are tested once per year. The emergency light batteries are replaced every 7 years on a rotating basis on the following schedule: 1- West Hall – Classroom Wing 1st Floor, 2- West Hall – Classroom Wing 2nd Floor, 3- West Hall Office Areas, 4 - South Hall, 5 - East Hall, 6 - North Hall, & 7 - Emerson Center.

The five main feed transformers are visually inspected once every three months for general cleanliness, oil leaks, and unobstructed free air flow around entire unit.

The four oil-filled transformers are tested by a high voltage power service every two years. The oil is tested for high gas levels that indicate overheating, a lighting strike, or overloading. The oil is tested in accordance with ASTM D-923 for:

- Dielectric breakdown voltage
- Acid neutralization number
- Specific Gravity
- Interfacial tension
- Color
- Visual

- Dissolved gas analysis (DGA)
- Water (PPM)

The five main feed transformers and switchgear will have a complete shut down and PM performed every five years on a rotating schedule: 1- West Hall, 2 – South Hall, 3- East Hall, 4- North Hall, 5 – Emerson Center. West Hall was the last to have PM in late 2008. South Hall is next up and will be scheduled in 2014.

The electrical switchgear has an infrared check completed every two years. This was last performed in the spring of 2013. There were no major problems found at that time.

4.5 HVAC

The college was built in phases so the HVAC systems are set up with chillers, boilers, and air handlers for each major section of the college. There is some sacrifice in efficiency of scale with this setup, but this is offset by additional flexibility to run each phase of the campus on an individual schedule based upon its usage. Much of the equipment is original with the construction of the particular phase and is in general in good shape (see the attached HVAC Equipment Condition section of the ECC Facility Assessment Report). Due to the age of the older phases of the campus, some of the key equipment has been replaced over the last ten years. Other equipment is planned for replacement in the near future in the Capital Plan.

All of the campus is heated with hot water generated from (8) boilers. The boilers are set in in pairs with a primary and secondary. The three oldest of the four primary boilers are in the process of being replaced with high efficiency condensing boilers. The fourth primary boiler is a relatively new high efficiency pulse boiler that is not slated for replacement.

All of the campus is cooled with cold water chiller systems except for the Emerson Center which has staged rooftop DX units. The campus has (4) chillers that supply West Hall, East Hall, South Hall, and North Hall. The East Hall chiller compressor was replaced in 2012 with a continuous scrolling, magnetic bearing, high-efficiency unit. The other three chillers are planned for replacement with high-efficiency units in the Capital Plan between 2015 and 2020.

The HVAC system has been upgraded with digital controls and a Tridium Building Management System. The system allows individual scheduling and control of all equipment to maximize efficiency while improving the ability to control comfort levels. The Tridium system is an open source system that allows easy integration of additional equipment or systems.

The College has a PM contract with an HVAC contractor to perform regular servicing and preventive maintenance on all of the HVAC equipment. All of the HVAC equipment is operational and in good working order.

5.0 Energy Efficiency – HB251

Energy is a major operating cost at Edison Community College. The College spent $395,000 on electricity, natural gas, and water in fiscal year 2013. In this day of tightening budgets and shrinking resources, Edison Community College is looking at every possible opportunity to reduce energy

consumption and lowering the cost of operating as much as possible. Balancing the implementation costs of an Energy Conservation project with long term benefits presents a particular challenge as a limited amount of resources are available.

House Bill 251 (ORC Sec. 3345.69) Energy Efficiency and Conservation Guidelines were approved in June 2007, by the Inter-University Council (IUC) of Ohio and the Ohio Association of Community Colleges (OACC), in consultation with the Office of Energy Services of the Department of Administrative Services. The bill developed guidelines for use by the board of trustees of each state institution of higher education to ensure energy efficiency and reduce energy consumption in both on and off-campus facilities. The established goal is to reduce energy consumption by at least 20 percent by the end of fiscal year 2014 compared to fiscal year 2004 as the benchmark year.

Even before H. B. 251 was enacted, the College was focused on energy conservation. In 2005 Edison Community College entered into an "Energy Performance Contract" with Energy Systems Group (ESG) in an effort to reduce energy usage and reverse the trend of continually rising energy costs.

The ESG energy saving project required a total investment of $610,000 with a guaranteed annual savings of $81,405. This project included the following energy savings initiatives:

- Installed upgraded lighting including conversion of the fluorescent lights from T12 fixtures to T8 fixtures with electronic ballasts, incandescent bulbs were replaced with compact fluorescent bulbs, and the exit signs were converted to LEDs
- Installed a new Building Management System
- Installed Direct Digital Controls on the Boilers, Chillers, Pumps, Valves, and main HVAC dampers
- Replaced the West Hall Cooling Tower
- Installed Variable Frequency Drives on (8) Air Handler Units
- Retrofitted (19) of the VAV boxes with Direct Digital Controls
- Installed Electric Sub Meters for each Phase
- Installed Vending Machine Miser Controllers

Through March 2010, ESG calculates that the College has saved $433,359. From FY 2004 to FY 2010 the College implemented both capital and operating improvements that have resulted in a reduction of 28.2% in mmBTU per square foot.

In December of 2010 the College Board of Trustees approved the Edison Community College 15 Year Energy Master Plan which set higher savings goals than HB251 (see the separate ECC 15 year Energy Master Plan for more details). The Energy Master Plan set goals of reducing energy usage by 48% and CO2 Emissions by 31% by FY 2014 (see the table below).

	Total mmBTU	Gross Sq. Ft.	mmBTU/Sq. Ft.	CO2 Emissions (Tons)	Cost/Sq. Ft.	Total Cost
FY 2004	37,766	221,693	.1704	6,321	$1.99	$441,498
FY 2010	31,218	257,364	.1213	5,695	$1.88	$484,244
FY 2014 Projected	22,920	257,364	.0891	4,371	$1.34	$344,526*

In May of 2011 the College was awarded EEGCB Energy Efficiency Grant of $450,600 by the Ohio Department of Development. The recently completed ECC 15 Year Energy Master Plan became the blueprint for implementing energy savings projects that were then funded jointly by the grant and the College. A total of $759,000 was spent in FY2011 & 2012 to implement all of the Energy Master Plan energy savings initiatives.

By FY2013 the College had exceeded all of the savings goals set in the Energy Master Plan. The College has reduced its energy usage per square foot by 52.8% from FY2004. The cost per square foot for FY2013 was $1.31, below the goal set for FY2014. CO2 emissions have been reduced by 49.5%. At current rates, the yearly energy savings from implementation of the Energy Master Plan is $223,189 per year.

6.0 The Capital Plan

Key to implementation of the Facilities Master Plan is the Capital Plan. The following chart is the proposed capital spending for facilities-related projects through fiscal year 2020. The spending listed for FY2013-14 has already been appropriated. The spending for FY2015 through 2020 is for proposed projects and has not been appropriated as of this date.

Project Description	**FY2013-14**	**FY2015-16**	**FY2017-18**	**FY2019-20**
Roof Replacement - North Hall	$150,000			
Parking Lot Expansion	$300,000			
Replace North Hall Boiler	$100,000			
Replace East Hall Boiler	$100,000			
Replace West Hall Boiler	$100,000			
Replace West Windows	$310,000			
Access Improvements	$270,000			
Roof Replacement –West Hall -1st		$390,000		
Roof Replacement – Maint. Bldg.		$ 40,000		
New Dishwasher for Kitchen		$ 30,000		
Security Cameras		$160,000		
Electronic Locks		$252,000		
Parking Lot Resurfacing – Lots 1 & 3		$225,000		
Tennis Court Resurfacing		$ 80,000		
Replace Chiller #1 – North Hall		$250,000		
Replace Campus Vehicles		$ 50,000		
Classroom & Lab Renovation		$280,000		
Outdoor Classroom		$100,000		
Roof Replacement –West Hall -2nd			$330,000	
Reroute South Driveway			$300,000	
Parking Lot Resurfacing – Lots 4, 5, & 6			$225,000	
Replace West Hall Chiller			$320,000	
Classroom & Lab Renovation			$350,000	
Emergency Power Generator – for IT			$ 60,000	
Replace Dump Truck			$ 40,000	
Roof Replacement – South Hall				$333,000
Replace Windows – South & East Halls				$380,000
Parking Lot Resurfacing – Lot 2				$200,000
Classroom & Lab Renovation				$350,000
Gas Heat for Emerson RTU 3 & 4				$120,000
Replace Chiller #2 – North Hall				$270,000
Totals	**$1,330,000**	**$1,857,000**	**$1,625,000**	**$1,653,000**

7.0 Future Campus Expansion

For the past two years the College leadership has been working on development of the Strategic Master Plan. This effort included a number of focus group sessions with representatives of staff, faculty, local high schools, businesses, and community leaders. There have also been extensive meetings with the College's business partners to explore ways to support the recruitment and retention of Edison Community College technology students, and to develop a pool of graduates interested in pursuing technology positions in our area.

The College has been meeting with its Advisory Committee partners that include: Abbott Labs, Emerson Climate Technologies, Goodrich Corporation, ITW Hobart, Motoman Inc., Crown Equipment Corporation, Hartzell Propeller Inc., Hydro Aluminum North America, Honda of America, Honeywell French Oil Machinery Company, NK Parts Industries Inc., Minster Machine, Greenville Technologies, and Playtex.

A report by the Department of Job and Family services for Southwest Central Ohio lists some of the fastest growing occupations in STEM fields:

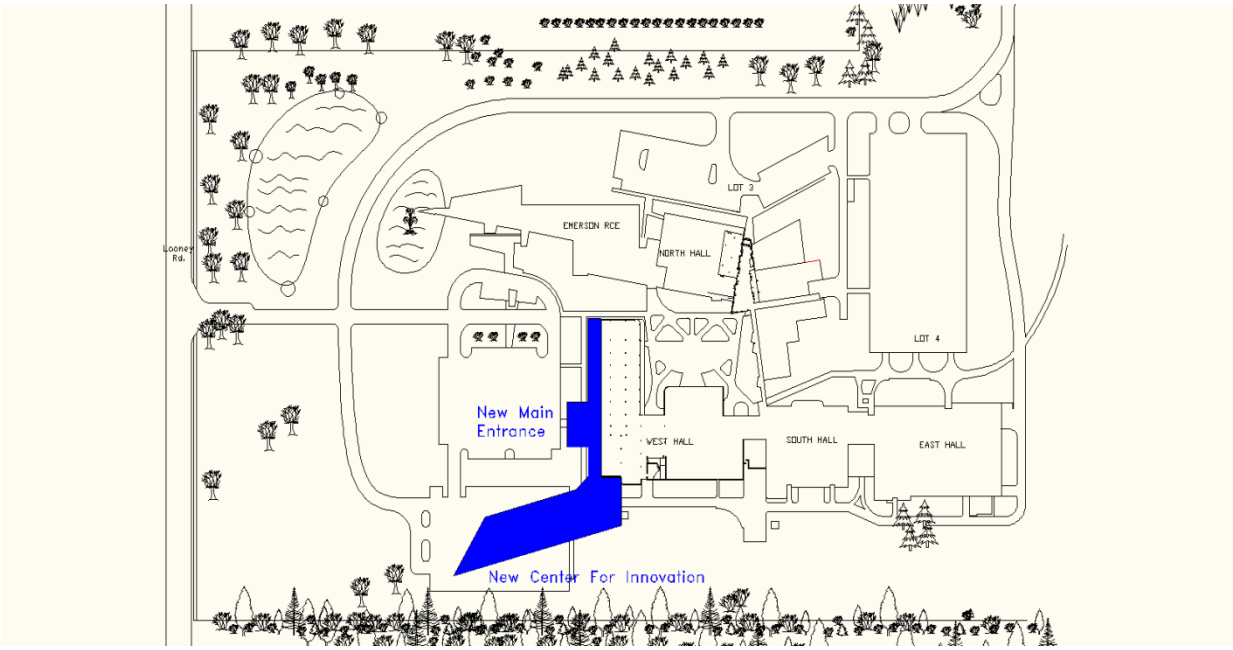
Network Systems & Data Communications Analysts (44.4 % increase)
Computer Software Engineers, Applications (22.3% increase)
Engineering Team Assemblers (183 annual openings)
Computer Support Specialists (111 annual openings)
Overall computer and math occupations (14.4% increase)
Civil engineers (11.9% increase)
Materials engineers (5.7% increase)
Operating engineers (5.3% increase)

(For full report see the attached Ohio 2018 Job Outlook Study)

These efforts identified the need for the College to increase capacity, both human and technical, to align degrees in mechanical, electrical, and industrial engineering technologies with the positions available. To meet these growing needs the college will need to expand both floor space and equipment dedicated to technology programs.

In 2011 the State Architect's office conducted a campus survey of the College. One of their recommendations was that the College needed a more clearly defined main entrance. The current campus main entrance which is at West Hall does not stand out well as a visitor approaches from the main driveway. The Emerson Center to the north of the driveway is more dominant with its modern architecture and is often assumed to be the Main Entrance of the campus by a first-time visitor (For more detail on the State Architects recommendations see the attached ECC Facility Assessment Report).

These needs are addressed by the proposed construction of a new main entrance and a new wing called the "Center for Innovation" that would be built west and southwest of the existing West Hall main entrance (see the campus map below).



New Main Entrance & Center for Innovation

The new construction will include a clearly defined main entrance visible from the main driveway. The entrance would lead to an attractive new lobby and information desk that will flow directly into Student Affairs and other student support areas.

Attached to the new main entrance to the southwest will be the new 40,000 Sq. Ft. Center for Innovation which will include expanded Engineering and Manufacturing lab space, updated equipment, (5) new classrooms, a large video conference area, (12) new offices, and (4) new study rooms.

The initial concept has been estimated at just below 15 million dollars (See the attached "Center for Innovation" for the detailed estimate). This cost is preliminary and will be firmed up during the initial concept and design phase.

The construction and architecture will blend in style with the new Emerson Regional Center for Excellence that is situated north of the main drive, to give the front of the College a consistent modern appearance. The College is currently working with the architect that designed the Emerson Center on developing the initial concept design, floor plan, and detailed construction estimates. The initial concept should be completed in early 2014.