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<b>Project #</b>	201118	<b>Project Title:</b>	Airport Facility Upgrades
<b>Department:</b>	Public Works-Airport	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Phase:</b>	Design		
<b>Budget Action:</b>	C – Revenue Update	<b>Date:</b>	August 27, 2014

<b>CAPITAL BUDGET SUMMARY</b>				
Year	2013	2014	2015	Total
Project Phase	Budget & Concept	Design	Construction	Project
Expenditure Budget	\$11,000	\$59,000	\$540,000	\$610,000
Revenue Budget	\$0	\$0	\$10,000	\$10,000
Net County Cost	\$11,000	\$59,000	\$530,000	\$600,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>	
Architect	\$70,000		Airport Fund Balance	\$600,000
Construction	\$500,000		Donation Revenue	\$10,000
Contingency	\$40,000			
Total Project Cost	\$610,000		Total Revenue	\$610,000
<b>EXPENDITURE BUDGET</b>	\$610,000		<b>REVENUE BUDGET</b>	\$10,000

**Project Scope & Description**

Replace the heating, ventilation, and air conditioning (HVAC) infrastructure, replace associated equipment, and increase functionality of the buildings.

**Location**

Terminal and control tower buildings at the Waukesha County Airport.

**Analysis of Need**

Waukesha County Airport’s main terminal building serves as the aviation gateway to Waukesha County for pilots, passengers and the community. The terminal building was built in 1998 and requires a functional upgrade to better serve the increasing demands of our customers. The upgrades increase the functionality of the passenger waiting area by allowing business patrons and outside organizations to utilize the space for training, conferences and to conduct business meetings.

The Air Traffic Control Tower has been in service since 1997 and is due for repair and reconfiguration of the workspace to aid the functionality and use of the air traffic controller space. Both buildings have been measured and assessed for repairs and a five-year-building improvement plan was developed to calculate the cost of these repairs.

The HVAC equipment installed in this facility was scheduled to be replaced in the LAW study in 2010 and 2011. The equipment is still in operable condition and it is recommended that replacement be deferred until 2015. The HVAC unit located at the Control Tower had to be replaced in the summer of 2013 due to failure and there has been increased maintenance on the Terminal Building units indicating the end of their useful life.

Revenue includes estimated corporate donation towards new automated doors at the terminal entrances.

**Alternatives**

Replace the HVAC equipment only and program interior upgrades/replacements in subsequent years in the building improvement plan as they fail.

Upgrade the building interiors only and replace mechanical equipment as it fails.

**Ongoing Operating Costs**

Energy consumption will be reduced by replacing the older equipment with newer high efficiency equipment. The return on investment is minimal as an end of its useful life mechanical equipment replacement.

**Previous Action**

Approved as new project in 2011-2015 Plan.  
 2012-2016, 2013-2017 capital plans: approved as planned.  
 2014-2018 capital plan: approved with cost update.

<b>Project #</b>	201311	<b>Project Title:</b>	South and West Terminal Ramp Expansion
<b>Department:</b>	DPW – Airport	<b>Sponsor:</b>	Kurt Stanich – Airport Manager
<b>Phase:</b>	Design	<b>Manager:</b>	Allison Bussler – Public Works Director
<b>Budget Action</b>	C – Scope, \$ - Update, Rev	<b>Date:</b>	August 28, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2013	2015	Total
Project Phase	<u>Design/Engineering/Construc</u>	<u>Construction</u>	Project
Expenditure Budget	\$560,000	\$140,000	\$700,000
Revenue Budget	\$0	\$0	\$0
Net County Cost	\$560,000	\$140,000	\$700,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Design/Engineering	\$30,000		
Construction*	\$670,000		
*Includes Contingency		Airport Fund Balance	\$700,000
Total Project Cost	\$700,000		
<b>EXPENDITURE BUDGET</b>	\$700,000	<b>REVENUE BUDGET</b>	\$0

**Project Scope & Description**

This project was originally designed to expand the South and West Airport Terminal Ramps to accommodate requests by aeronautical service providers to construct corporate aircraft hangars, and included federal and state funding to lower the County’s share of costs. However, federal and state funding was redirected to the runway reconstruction (Project 200704) necessitating a reduction in scope. The decision was made to reconstruct (rather than just rehabilitate) the runway in order to increase the useful life of the runway from 5 years to 25 years. Had the shorter-term solution to the runway project been chosen, state and federal funding would have been available for this ramp expansion project.

The new design includes 8,400 square yards of new pavement on the West Terminal Ramp. This project adds a taxi lane between the existing terminal ramp and the West Corporate Hangar area that will increase both aircraft and vehicle safety. Work also includes improvements to airport drainage, and airfield lighting and signage. All of these improvements have been identified in the Airport Master Plan and the Airport Layout Plan.

Before construction begins on the ramp expansion project, the County will require a signed agreement with Stein Aircraft Services, LLC (SAS), guaranteeing that SAS will construct a new hangar (see analysis of need below).

**Location**

Waukesha County Airport Terminal Ramp

**Analysis of Need**

The current extent of the terminal ramp was constructed with the Airport Terminal in 1997. It was designed to meet the projected demand for aeronautical service providers with the intent of expanding the ramp once demand for the available hangar lots was met. The current west terminal ramp can only accommodate one additional hangar building. Stein’s Aircraft Services, LLC. (SAS), a corporate aircraft management, maintenance, charter, and flight school company, has submitted conceptual plans for a 33,900 square foot hangar to be located on West Ramp lot 2641 Aviation Drive. Their proposed building occupancy is August 2015. Atlantic Aviation, Inc, our Fixed Base Operator (FBO), has applied for West Ramp lot 2621 Aviation Drive. This proposed activity consumes all of the remaining lots on the west ramp.

**Alternatives**

A smaller extension of the existing taxi lane to accommodate the new hangar development, which will not aid in increased safety or operational flow of aircraft and related airport support.

**Ongoing Operating Costs**

Ongoing operating costs include an additional \$200 per year in pavement maintenance and marking costs and \$28,000 per year in depreciation expense based on a 25-year pavement life cycle. Snow removal costs for the leased ramp area is the responsibility of hangar owner. The additional taxiway pavement may increase the County’s snow removal contract base cost an estimated \$2,000 to \$2,500. Additional land lease revenue is projected at \$50,000 from the related hangar development.

**Previous Action**

Approved as amendment to County Capital Plan in 2013 (Enrolled Ordinance 167-83).

<b>Project #</b>	201401	<b>Project Title:</b>	Replace Brine Maker/Construct <u>Canopy</u> Roof
<b>Department:</b>	Public Works-Hwy Operations	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Formation	<b>Manager:</b>	Peter Chladil, Highway Operations Manager
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 26, 2014

<b>CAPITAL BUDGET SUMMARY</b>				
Year	2015	2016	2017	Total
Project Phase	Budget & Concept Design	Construction	Construction	Project
Expenditure Budget	\$10,500	\$0	\$313,200	\$323,700
Revenue Budget	\$0	\$0	\$0	\$0
Net County Cost	\$10,500	\$0	\$313,200	\$323,700
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>		
Design	\$10,500			
Equipment	\$190,000			
Construction	\$100,000			
Contingency	<u>\$23,200</u>			
Total Project Cost	\$323,700			\$0
<b>EXPENDITURE BUDGET</b>	\$323,700		<b>REVENUE BUDGET</b>	\$0

### **Project Scope & Description**

Replace existing brinemaker originally purchased in 2007 by Wisconsin Department of Transportation (DOT). Purchase of replacement brinemaker and five (5) additional 6,000 gallon tanks for salt brine storage and liquid blending of de-icing chemicals. Construct canopy roof off back of Highway Operations to shelter truck wash, liquid loading area and additional storage tanks.

### **Location**

Highway Operations, 1641 Woodburn Road, Waukesha, WI 53188. Two of the five additional 6,000 gallon tanks will be located at the New Berlin and Sussex substations.

### **Analysis of Need/Return on Investment**

The useful life of this type of equipment has not been established. We estimate that the existing brinemaker could have a useful life of 10 years. The Highway Operations Division has 100% of its trucks applying pre-wet to its salt as it comes off the salt spinner. Additionally, we anti-ice prior to storms and sell approximately 150,000 gallons of salt brine to other municipalities within Waukesha County and to Jefferson County Highway Department.

It is essential that we continue to be able to produce salt brine as not using it as a pre-wet would increase our salt usage by at least 20%. County has used on average 16,532 tons of salt over the last 5 winter seasons. A 20% increase by not being able to pre-wet salt causing more bounce and scatter would add an additional 3,300 tons of salt use annually. At an average of \$56 a ton, this would amount to an additional \$184,880 cost on salt. Under this scenario, replacing the brinemaker would pay for itself in approximately 1.5 years.

The project includes the construction of a canopy roof to the Highway Operations building. The additional roofing is intended to provide cover from the elements while county staff refill trucks with salt brine during snow storms.

### **Alternatives**

Replace equipment individually as it breaks down.

### **Ongoing Operating Costs**

The current brinemaker continues to run with minimal costs to maintain at this point. We have spent approximately \$500-700 per year on parts and sensors. This will continue to increase as the brinemaker ages.

### **Previous Action**

Approved as a new project in 2014-2018 Capital Plan

<b>Project #</b>	201415	<b>Project Title:</b>	Fuel Tank Replacement and Infrastructure Project
<b>Department:</b>	Public Works–Central Fleet	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Formation	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	Delay	<b>Date:</b>	August 27, 2014

CAPITAL BUDGET SUMMARY								
Year	2018	2019	2020	2021	2022	2023	2024	Total
Project Phase	Constr	Constr	Constr	Constr	Constr	Constr	Constr	Project
Expenditure Budget	\$400,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$100,000	\$1,500,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$400,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$100,000	\$1,500,000
COST DOCUMENTATION		Item	Quantity	Price	Total Cost			
Tank Inspection & Testing	\$20,000	Underground Tank Testing	5	\$4,000	\$20,000			
Construction	\$1,400,000	Underground tanks*	5	\$150,000	\$750,000			
Contingency	\$80,000	Above Ground Tanks*	25	\$15,000	\$375,000			
		Monitors	5	\$20,000	\$100,000			
Total Project Cost	\$1,500,000	Card Readers	16	\$15,000	\$240,000			
		Fuel Software Systems	2	\$5,000	\$10,000			
		Signage/Fencing	All Sites		\$5,000			
<b>EXPENDITURE BUDGET</b>	\$1,500,000	<b>Total</b>			<b>\$1,500,000</b>			

\*Higher cost of underground tanks is partially due to larger capacity needed for highway operations at substations, including four 10,000 gallon tanks and one 6,000 gallon tank, and also due to necessary monitoring systems and electronic devices. By contrast smaller above ground tanks are needed at other locations and hold either 550 or 1,000 gallons. Previously, those underground tanks that could be replaced by above ground tanks were replaced, based on the implementation of a replacement plan in the early 1990s. Those underground tanks remaining were due to inadequate space (that would have required the purchase of additional land) and safety issues.

**Project Scope & Description:**

There are 16 vehicle fuel sites utilized by Waukesha County departments with a total of 30 tanks (5 Underground [UGT], and 25 Above Ground [AGT]). All tanks were installed in the early 1990's. The infrastructure is aging and will begin to exceed tank warranties and useful lives of technology and equipment associated with site operations. The 25 Above Ground and 5 Underground tanks will be replaced with similar tank styles, design, and capabilities. Note: all underground tanks are monitored with sensors designed to shut-off system operations immediately at time of detection thus eliminating the loss of fuel into the ground.

The project plan retains the same \$1.5 million spending level, but is updated to spread out funding into later years. This allows for more initial research into replacement strategies and costs before committing too much funding. The concept for capital budgeting for tank replacement: \$400,000 Capital dollars will be set aside beginning in 2018 and then \$200,000 each year for a total \$1.5 million funding level, replacing tanks as needed.

The budget strategy for the project is to fully fund the project and to utilize funds only as needed to complete improvements when necessitated by aging infrastructure. This strategy is similar to the method used in the Highway Paving program where funds are allocated to paving but not specifically to a location.

**Location:**

All 16 fuel sites that are utilized by Waukesha County Departments will require some form of replacements, upgrades and/or modifications. Sites include Highway Operations Center, Nashotah Substation, North Prairie Substation, Sussex Substation, New Berlin Substation, Nagawaukee Golf Course, Wanaki Golf Course, Moor Downs Golf Course, Nagawaukee Park, Nashotah Park, Menomonee Park, Fox Brook Park, Minooka Park, Fox River Park, Muskego Park, and Mukwonago Park.

**Alternatives:**

Three alternative options exist at this time: close the site(s), fuel off-site in the local area or consolidate fuel sites with other governmental agencies. Neither is an effective option given the nature of daily departmental operating procedures and emergency operation requirements.

**Ongoing Operating Costs:**

Waukesha County currently spends \$40K annually to maintain all 16 of the vehicle fuel sites. The funding is contained within the Central Fleet Division's fuel budget.

**Previous Action:**

Regulatory requirements associated with the State of Wisconsin "Comm 10" statutes necessitated a fuel capital project in 2012-14 totaling \$232K (project # 201211). The project focused on upgrading fuel dispenser spill containment and monitoring systems. The work contained in the 2012-14 project will not be duplicated in this project and therefore, no funds are anticipated to be duplicated in the future project.

Approved as a new project in the 2014-2018 capital plan.

<b>Project #</b>	200808	<b>Project Title:</b>	Communications Center Expansion
<b>Department:</b>	Public Works -Buildings	<b>Sponsor:</b>	Gary Bell
<b>Phase:</b>	Design	<b>Manager:</b>	Allison Bussler
<b>Budget Action:</b>	C – Scope, \$ - Update	<b>Date:</b>	August 27, 2014

<b>CAPITAL BUDGET SUMMARY</b>				
Year	2015	2016	2017	Total
Project Phase	Budget & Concept	Design	Construction	Project
Expenditure Budget	\$45,000	\$203,000	\$2,943,000	\$3,191,000
Revenue Budget	\$0	\$0	\$708,400	\$708,400
Net County Cost	\$45,000	\$203,000	\$2,234,600	\$2,482,600
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>		
Architect	\$248,000		Municipal Cost Share per ordinance*	\$350,000
Construction	\$2,476,000		New Berlin Joining fee for	\$358,400
Contingency	\$198,000		infrastructure received in 2012	
Survey/Soil Test/Permits/Etc	\$28,000		and reserved in General Fund Balance	
Furniture	\$241,000			
Total Project Cost	\$3,191,000		Total Revenue	\$708,400
<b>EXPENDITURE BUDGET</b>	\$3,191,000		<b>REVENUE BUDGET</b>	\$708,400
			*Future new large member that requires expansion	

### **Project Scope & Description**

This project was proposed in 2008 and will incorporate space for the Waukesha Communications Center (WCC) to accommodate additional dispatch agencies and space for the Emergency Operations Center (EOC) to better handle countywide emergencies. This project adds approximately 1,200 square feet to the original proposal for an approximate total of 5,300 square feet to the WCC. Based on further research, the hiring of a new Director, EOC training exercises, and actual experience with a large incident, the project will expand the EOC to include the additional 1,200 square feet. The project will also include storage and administrative space to free up existing space in the current facility to accommodate additional dispatch positions and have the needed space to better manage significant incidents.

### **Location**

Waukesha County Communications Center, 1621 Woodburn Road, Waukesha, WI 53188

### **Analysis of Need**

The existing facility was completed in 2004 and started operations that same year. The facility was designed to handle all the agencies that committed originally and a small increase to the number of agencies in the future. The current dispatch floor has workstations for fourteen 9-1-1 positions, one 9-1-1 supervisor position and two supervisor workstations. While the facility is capable of handling increases in activity and a small number of new partners in the existing structure, at some point the facility will need to expand to accommodate substantial growth due to more agencies joining. Since 2004, three police departments and three fire departments have been added to the WCC, as well as additional emergency management and Information Technology Division personnel. The most recent addition was in 2012 with New Berlin Police and Fire becoming part of the WCC. Within the next couple of years, growth is estimated to include additional police and fire departments, but the size of these agencies is unknown at this point. In addition, space is needed in the EOC to handle countywide incidents. The current square footage is insufficient for substantial growth due to new agencies.

### **Alternatives**

- Until the building is expanded, the dispatch floor can be re-configured to add up to four 9-1-1/dispatch positions and convert the two supervisor's workstations to 9-1-1/dispatch workstations, but room for support staff, storage, meeting rooms, etc. is in short supply.
- Only allow one partner/agency and deny all other agency requests.
- Create new formula to better account for all cost of new agencies that join the dispatch center.

### **Ongoing Operating Costs**

The major components of the building already exist. Additional space and equipment will require additional staff and increases in personnel, maintenance and utilities costs. Estimated costs will be determined as the project construction design plan is completed.

### **Previous Action**

- 2008-2012 capital plan: approved as new.
- 2009-2013, 2010-2014, 2011-2015; 2013-2017 capital plans: delayed one year.
- 2012-2016 capital plan: cash update.
- 2014-2018 capital plan: approved as planned.

<b>Project #</b>	201109	<b>Project Title:</b>	Highway Substations HVAC Upgrades
<b>Department:</b>	Public Works -Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Design	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 16, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2014	2016	Total
Project Phase	Budget & Concept Design	Construction	Project
Expenditure Budget	\$36,000	\$575,000	\$611,000
Revenue Budget	\$0	\$0	\$0
Net County Cost	\$36,000	\$575,000	\$611,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Architect	\$36,000		
Construction	\$530,000		
Contingency	\$45,000		
Total Project Cost	\$611,000	Total Revenue	\$0
<b>EXPENDITURE BUDGET</b>	\$611,000	<b>REVENUE BUDGET</b>	\$0

**Project Scope & Description**

HVAC equipment controls and upgrades at the four Highway Division substations.

**Locations**

Nashotah Substation–N46W33480 CTH R, Nashotah, WI 53058  
 New Berlin Substation–20300 W. Lawnsdale Road, New Berlin, WI 53058  
 North Prairie Substation–126 Oakridge Drive, North Prairie, WI 53153  
 Sussex Substation–N51W23093 Lisbon Road, Sussex, WI 53098

**Analysis of Need**

The equipment targeted to be replaced in this project has been identified to have reached the end of its useful life. Mechanical HVAC equipment normally has a useful life of approximately 25 years depending upon the quality of the equipment and the frequency of maintenance. With proper maintenance the useful life of the equipment can be extended. The substations were constructed as follows: Nashotah 1972 (42 years ago), New Berlin 1950 (64 years ago), North Prairie 1988 (26 years ago) and Sussex 1965 (49 years ago). The project proposes a concept and budget in 2014 to determine which equipment needs to be replaced, reconditioned or reused. This project will also allow the County to install high-efficiency equipment to reduce annual utility costs.

**Alternatives**

Repair or replace equipment when it breaks down.

**Ongoing Operating Costs**

Energy consumption will be reduced with more efficient equipment, estimates to be determined by the 2014 budget and concept study.

**Previous Action**

- 2011-2015 capital plan: approved as a new project.
- 2012-2016 capital plan: approved with cost update.
- 2013-2017 capital plan: delayed.
- 2014-2018 capital plan: approved as planned

<b>Project #</b>	201113	<b>Project Title:</b>	Administration Center Roofing Upgrades
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Construciton	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 16, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2014	2015	Total
Project Phase	Design	Construction	Project
Expenditure Budget	\$11,000	\$211,000	\$222,000
Revenue Budget	\$0	\$0	\$0
Net County Cost	\$11,000	\$211,000	\$222,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Architect	\$11,000		
Construction	\$196,000		
Contingency	\$15,000		
Total Project Cost	\$222,000	Total Revenue	\$0
<b>EXPENDITURE BUDGET</b>	\$222,000	<b>REVENUE BUDGET</b>	\$0

**Project Scope & Description**

This project is to replace 34,000 GSF (gross square feet) of 60 mil EDPM (rubber) roofing on the Administration Center.

**Location**

Administration Center, 515 W. Moreland Boulevard, Waukesha, WI 53188

**Analysis of Need**

This replacement was originally scheduled for 2008 but patching done in 2010 to the perimeter of the building, deferred replacement until 2015 when the roof will be 21-years-old. EDPM roofs are typically under warranty for 15 years and have a useful life expectancy between 15 and 20 years. The patched roofing has shrunk and deteriorated due to sun exposure. The Administration Center was constructed in 1994.

**Alternatives**

Patch the roof when leaks develop.

**Ongoing Operating Costs**

Operating costs will be reduced for labor and materials associated with repairing leaks and associated damages.

**Previous Action**

- 2011-2015 capital plan: approved as a new project.
- 2012-2016, 2013-2017, 2014-2018 capital plans: approved as planned.

<b>Project #</b>	201206	<b>Project Title:</b>	HWY Ops-Fleet HVAC Upgrades
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Design	<b>Manager:</b>	Allison Bussler Director
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 26, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2015	2017	Total
Project Phase	Budget & Concept Design	Construction	Project
Expenditure Budget	\$45,000	\$718,000	\$763,000
Revenue Budget	\$0	\$0	\$0
Net County Cost	\$45,000	\$718,000	\$763,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Design	\$45,000		
Construction	\$663,000		
Contingency	\$55,000		
Total Project Cost	\$763,000	Total Revenue	\$0
<b>EXPENDITURE BUDGET</b>	\$763,000	<b>REVENUE BUDGET</b>	\$0

**Project Scope & Description**

This project will upgrade the HVAC infrastructure including pumps, motors, air handling units and heaters at the Highway Operations and Fleet Facilities.

**Location**

Highway Operations and Fleet Facilities, 1641 Woodburn Road, Waukesha, WI 53188

**Analysis of Need**

The Highway Operations Center was constructed in 1997 and the Fleet Garage was constructed in 1998. The LAW study is a planning document to help the county plan for equipment replacement at the end of a piece of equipment's useful life, but before it fails. The study identified approximately 63 individual pieces of HVAC-related equipment that should be upgraded or replaced at these facilities.

**Alternatives**

Replace equipment individually as it breaks down.

**Ongoing Operating Costs**

Energy consumption will be reduced by replacing older equipment with newer high efficiency equipment. Estimated energy consumption reductions to be determined as part of the budget and concept design in 2015.

**Previous Action**

2012-2016 capital plan: approved as new project.  
2013-2017, 2014-2018 capital plan: approved as planned.

<b>Project #</b>	201412	<b>Project Title:</b>	MHC Roof Replacement
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Formation	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	As Planned	<b>Date:</b>	Aug-14

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2017	2018	Total
Project Phase	Budget & Concept, Design	Construction	Project
Expenditure Budget	\$15,000	\$238,000	\$253,000
Revenue Budget	\$0	\$0	\$0
Net County Cost	\$15,000	\$238,000	\$253,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Architect	\$15,000	Energy rebates will be identified prior to construction year.	
Construction	\$222,000		
Contingency	<u>\$16,000</u>		
Total Project Cost	\$253,000	Total Revenue	\$0
<b>EXPENDITURE BUDGET</b>	\$253,000	<b>REVENUE BUDGET</b>	\$0

**Project Scope & Description**

This project is to replace 55,000 GSF (gross square feet) of 60 mil EPDM (rubber) roofing on the Mental Health Center.

**Location**

Mental Health Center, 1501 Airport Road, Waukesha, WI 53188

**Analysis of Need**

This Mental Health Center was constructed in 1994 and has the original roofing system. EPDM roofs are typically under warranty for 15 years and have a useful life expectancy between 15 and 20 years. The roof is 20 years old and has been patched and deteriorated due to sun exposure. At time of replacement the roof will be 24 years old.

**Alternatives**

Patch the roof when leaks develop.

**Ongoing Operating Costs**

Operating costs will be reduced for labor and materials associated with repairing leaks and associated damages.

**Previous Action**

2014-2018 capital plan: approved as new project

<b>Project #</b>	201418	<b>Project Title:</b>	Courthouse Project – Step 1
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Formation	<b>Manager:</b>	Allison Bussler, Director
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 15, 2014

<b>CAPITAL BUDGET SUMMARY</b>					
Year	2017	2018	2019	2020	Total
Project Phase	Budget & Concept	Design/Constr	Construction	Construction	Project
Expenditure Budget	\$700,000	\$8,000,000	\$14,000,000	\$13,700,000	\$36,400,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$700,000	\$8,000,000	\$14,000,000	\$13,700,000	\$36,400,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>		
Design	\$2,275,000				
Construction Management	\$2,275,000				
Construction	\$30,450,000				
Contingency	\$1,400,000				
Total Project Cost	\$36,400,000				\$0
<b>EXPENDITURE BUDGET</b>	\$36,400,000				<b>REVENUE BUDGET</b>
					\$0

### **Project Scope & Description**

The existing courthouse, located at 515 W. Moreland Blvd., was constructed in 1959 and remains structurally sound. The Courthouse currently houses the Judiciary, Clerk of Courts, Family Court Counseling, District Attorney's Offices (including Victim/Witness), County Board Office, The County Board Room, Information Technology and other miscellaneous functions. Throughout the life of the Courthouse, extensive remodeling has taken place to add additional courtrooms and reconfigure interior space to meet the expanding needs of the services located in the Courthouse. Operational and business inefficiencies, particularly for the courts systems, have been created due to both space and building limitations. In addition, existing courtrooms do not meet current design standards. Also, the Courthouse building infrastructure is approaching the end of its useful life.

The County retained Zimmerman Architectural Studios to develop a "Courthouse Study," (capital project #200914), to provide a comprehensive analysis of Courthouse space requirements and design needs. Zimmerman was asked to present an analysis for both Waukesha County needs alone and an analysis of needs for a joint Waukesha County and City of Waukesha partnership. This study has been completed, and Zimmerman recommended a two-step design approach (below). This project is intended to address step 1. A separate future capital project will need to address step 2. While approving this project in the plan does not obligate future County Boards for step 2 (renovation of the existing courthouse facility as outlined in the aforementioned study), it does reflect the County's future guidance for the overall courthouse project.

Step 1: Construction of a new 4 story, 8 courtroom facility and relocation of 8 existing courtrooms to the new facility. This work also includes the demolition of the existing the 1959 jail.

Step 2: This future capital project would renovate the existing Courthouse facility in a 3 stage vertical segmented approach to provide newly renovated facilities for all divisions, except the criminal courtrooms and the commissioner courtroom addressed in Step 1, and to also possibly provide space for the City of Waukesha facilities and services. Courthouse renovation will also include the installation of new state of the art mechanical, electrical, fire protection, window systems and new wall, floor and ceiling finishes in all renovated areas. This approach will not require temporary relocation of Courthouse personnel.

<b>Project #</b>	201418	<b>Project Title:</b>	Courthouse Project – Step 1
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Formation	<b>Manager:</b>	Allison Bussler, Director
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 15, 2014

**Location**

Waukesha County Courthouse, 515 West Moreland Blvd., Waukesha, WI 53188.

**Analysis of Need**

The existing Courthouse building, constructed in 1959, remains structurally sound. Over the years, extensive remodeling has taken place to add additional courtrooms and reconfigure interior space. Public access to the building is now limited to the main entrance (door #2) where security screening takes place. Customer circulation has been identified for improvement, particularly the Courts area. Due to the remodeling, some courtrooms are considered inadequate since the space and/or security does not measure up to current courtroom design standards.

Based on the needs identified by the County and analyzed by the consultant, the consultant has recommended the construction of a new 4-story Courts building adjacent and contiguous to the existing Courthouse and the relocation of 8 existing courtrooms to this building. This will address courtroom security needs, prisoner transport needs, and customer circulations needs. Due to the design of this new building, it will not be necessary to temporarily relocate any courtrooms or staff during construction.

The existing Courthouse is in need of complete replacement of its mechanical, electrical, plumbing, fire protection and window systems. The need for these replacements will coincide with the completion of the Courts Building and the vacating of 8 courtrooms in the existing Courthouse. The space left vacant by the courtrooms will be used in consideration with the consultant’s recommendation for Step 2, as described previously in the Project Scope and Description.

At this time, there are a number of factors that may impact the design and the construction costs of future courthouse modernization projects. These factors make it difficult to provide detailed cost estimates for these projects. Those factors include but are not limited to: partnership with the City of Waukesha, future economic conditions and the maturing of the design process for the remaining 3 stages of work that are part of step 2. Additional design work will be performed to finalize the staging of the remaining work during the design phase of the step 1 effort.

**Alternatives**

Continue to operate all County functions and services at their present location utilizing existing facilities.

**Ongoing Operating Costs**

Continue at the present energy consumption and maintenance required.

The new project is expected to reduce energy costs given the opportunity to increase operational efficiency that state of the art equipment and windows provide.

**Previous Action**

The Courthouse Study was completed in August, 2013.

Approved as a new capital project in the 2014-2018 capital plan.

<b>Project #</b>	201214	<b>Project Title:</b>	MHC Chiller Upgrades
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Design	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	C - \$ Update	<b>Date:</b>	August 27, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2013	2015	Total
Project Phase	Budget & Concept, Design	Construction	Project
Expenditure Budget	\$48,000	\$694,000	\$742,000
Revenue Budget	\$0	\$0	\$0
Net County Cost	\$48,000	\$694,000	\$742,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Architect	\$48,000	Energy rebates will be identified prior to construction year.	
Construction	\$642,000		
Contingency	<u>\$52,000</u>		
Total Project Cost	\$742,000	Total Revenue	\$0
<b>EXPENDITURE BUDGET</b>	\$742,000	<b>REVENUE BUDGET</b>	\$0

**Project Scope & Description**

This project is for the replacement of the chiller and controls at the Mental Health Center (MHC). This project would include variable frequency drives (VFD) for energy efficiency that should qualify for Focus on Energy rebates.

**Location**

Mental Health Center, 1501 Airport Road, Waukesha, WI 53188

**Analysis of Need**

Normal life expectancy for mechanical equipment is approximately 25 years. The chiller unit at the MHC has experienced equipment problems needing repairs to coils, compressors and pumps in the last few years. The chillers and related equipment are outdated, use significantly more energy than new high efficiency models and have reached the end of their useful life. As a 24/7 healthcare facility, it is imperative that the County provide a properly conditioned environment for Mental Health patients and Health and Human Services staff. The facility was constructed in 1994, and the new chiller and related equipment will be operating 24/7 for the next 22 years to the end of its useful life. Construction costs updated based on budget and concept developed in 2013.

**Alternatives**

Delay the project and replace equipment only when it can no longer be repaired, breaks down frequently, and/or operation interruptions cannot continue to be tolerated. To replace the equipment when it breaks will result in excessive costs for temporary air conditioning, equipment acquisition, and significant operation interruptions. The replacement chiller and related equipment has a 90-day lead time for manufacturing and delivery. A planned, end of useful life, chiller replacement will allow for minimal operations interruptions and equipment down time.

**Ongoing Operating Costs**

The updated equipment is estimated to be 10% to 20% more efficient, per manufacturer specifications, than existing equipment and provide more reliable service to the Mental Health Center. The MHC uses 996,000 kWh of energy use per year based on a three year average. If 20% of the electrical load was attributed to the chiller operation, between 20,000 and 40,000 kWh could be saved per year equaling \$2,000 to \$4,000 in utility costs. The return on investment is minimal as an end of its useful life mechanical equipment replacement.

**Previous Action**

2012-2016 capital plan: approved as a new project.  
 2013-2017 capital plan: approved as planned.  
 2014-2018 capital plan: approved as planned.

<b>Project #</b>	201413	<b>Project Title:</b>	LEC Mechanical Upgrades
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Formation	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	C – Scope, \$ - Update, Accelerate, Rev Update	<b>Date:</b>	August 16, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2015	2016	Total
Project Phase	Budget & Concept, Design	Construction	Project
Expenditure Budget	\$220,000	\$2,376,000	\$2,596,000
Revenue Budget	<u>\$220,000</u>	<u>\$0</u>	<u>\$220,000</u>
Net County Cost	\$0	\$2,376,000	\$2,376,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Architect	\$220,000	Energy rebates will be identified prior to construction year.	
Construction	\$2,200,000	Jail Assessment Fund Balance	\$220,000
Contingency	<u>\$176,000</u>	Total Revenue	\$220,000
Total Project Cost	\$2,596,000	<b>REVENUE BUDGET</b>	\$220,000
<b>EXPENDITURE BUDGET</b>	\$2,596,000		

### **Project Scope & Description**

This project will upgrade the HVAC infrastructure including chillers, air handling units, variable air volume (VAV) boxes, controls, pumps, and motors at the Law Enforcement Center (LEC).

### **Location**

Law Enforcement Center, 515 West Moreland Blvd., Waukesha, WI 53188

### **Analysis of Need**

The Law Enforcement Center was constructed in 1993 and houses administrative staff and jail cells. The LAW study is a planning document to help the county plan for equipment replacement at the end of a piece of equipment's estimated useful life, but before it fails. Mechanical HVAC equipment normally has a useful life of approximately 25 years depending on the quality of the equipment and the frequency of maintenance. With proper maintenance the useful life of the equipment can be extended. At the time of replacement the HVAC mechanical equipment will be 23 years old. Being a 24/7 operation, the chiller units, VAV boxes, and associated equipment at the LEC have a reduced life expectancy and experienced significant problems needing repairs in the last few years. The chillers and related equipment are outdated, use significantly more energy than new high efficiency models and have reached the end of their useful life. As a 24/7 Law Enforcement and Corrections facility, it is imperative that the County provide a properly conditioned environment for Law Enforcement and Corrections staff and inmates.

The project is updated to include VAV boxes and associated controls due to equipment failure. Also these VAV boxes are no longer manufactured nor supported, so simply replacing them requires an expensive kit to continue with the temporary VAV technology.

### **Alternatives**

Delay the project and replace equipment only when it can no longer be repaired, breaks down frequently and/or operation interruptions cannot continue to be tolerated. To replace the equipment when it breaks will result in excessive costs for temporary air conditioning, equipment acquisition, and significant operation interruptions. The replacement chiller and related equipment has a 90 day lead time for manufacturing and delivery. A planned, end of useful life, chiller and related equipment replacement will allow for minimal operations interruptions and equipment down time.

### **Ongoing Operating Costs**

Energy consumption will be reduced by replacing the older equipment with newer high efficiency equipment and direct digital controls. Energy consumption reductions will be determined as part of the budget and concept design in 2015.

### **Previous Action**

2014-2018 capital plan: approved as new project

<b>Project #</b>	201503	<b>Project Title:</b>	Demolish Former Health & Human Services Building
<b>Department:</b>	Public Works—Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	One-Year Project	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	New	<b>Date:</b>	August 27, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2015	2015	Total
Project Phase	Design	Removal/Demolition	Project
Expenditure Budget	\$50,000	\$3,250,000	\$3,300,000
Revenue Budget	\$0	\$0	\$0
Net County Cost	\$50,000	\$3,250,000	\$3,300,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Design*	\$50,000	Most of project will be funded with appropriated Capital Project Fund Balance.	
Removal/Demolition	\$3,050,000		
Contingency	<u>\$200,000</u>		
Total Project Cost	\$3,300,000	Total Revenue	\$0
<b>EXPENDITURE BUDGET</b>	\$3,300,000	<b>REVENUE BUDGET</b>	\$0

\*Includes demolition consultant.

### **Project Scope & Description**

As set forth in County Board Resolution 168-R-007, this proposal advances the demolition of the former Waukesha County Health and Human Services Building. The project includes the stabilization of site conditions and the construction of new parking spaces (TBD). The site restoration will include a commemorative marker.

On January 28, 2014, the Waukesha County Board approved Resolution 168-R-007 to sell and relocate or tear down the former Waukesha County Health and Human Services Building. Waukesha County has not received any proposals meeting the intent of Resolution 168-R-007.

**Location:** The former HHS building is located at 500 Riverview Drive, Waukesha, WI 53186.

### **Analysis of Need**

The main building is over 100 years old (opened in 1910). As a result of a 1995 facilities improvement study of the Health and Human Services Building, the Waukesha County Board in 1995 approved expending nearly \$1.3 million for building maintenance to extend the service life of the building 10-15 years. The facility analysis showed that it would not have been prudent use of tax dollars to make a greater investment in the building to extend the service life. The decision by the Waukesha County Board to extend the service life of the building 10-15 years started the planning process for a replacement Health and Human Services Building.

In 2010, the Waukesha County Board approved a capital project to construct a new Health and Human Services Building on the Moor Downs property to replace the former building. The new Health and Human Services Building was opened in 2013.

In 2013, Waukesha County evaluated use of the former Health and Human Services Building as temporary space for Courts operations during a future Courthouse remodeling project. The analysis showed that the former Health and Human Services Building would not have been suitable for this temporary use.

### **Alternatives**

- Retain the building and continue to incur repair, maintenance, and liability costs.
- Implement County Board Resolution 168-R-007 to sell and relocate or tear down the former Waukesha County Health and Human Services Building. There were no proposals received for the sale and relocation that met the intent of the resolution, leaving building demolition as the recommended alternative.

### **Ongoing Operating Costs**

Operating costs to continue to repair and maintain the former HHS building are expected to be \$58,000/yr. Insurance costs will continue to be incurred at \$16,000/yr. Vandalism and other liability will continue to be a concern in a vacant building.

### **Previous Action**

County Board adopted Resolution 168-R-007 which authorized the Department of Public Works to proceed with the sale and relocation or tear down of the former HHS building.

<b>Project #</b>	200902	<b>Project Title:</b>	UWW Boiler, Chiller and Controls Replacement
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Construction	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 16, 2014

<b>CAPITAL BUDGET SUMMARY</b>					
Year	2011	2013	2014	2015	Total
Project Phase	Budget & Design & Const. Concept	Design & Const. Chillers	Design & Const. Chillers	Design & Const. Boilers	Project
Expenditure Budget	\$20,000	\$947,000	\$1,007,000	\$1,386,000	\$3,360,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$20,000	\$947,000	\$1,007,000	\$1,386,000	\$3,360,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>		
	Chiller & Grant Work	Boiler & Controls	UW-Waukesha has qualified for funding from the State based on the investment grade audit and energy report identifying a return on investment up to 16 years. The State will be funding up to \$2 million through the Department of Facilities Development (DFD) Energy Efficiency Program. With the adoption of this Capital Project the County will be committing \$1,750,000 towards the \$3.75 million partnership with UW.		
Current Project scope	\$1,750,000	\$1,472,000			
Additional Project scope* (Air handling units, electrical motors, Plumbing, Bldg Envelope	\$1,943,000	\$0			
Contingency	\$77,000	\$118,000			
Total Project Cost	\$3,770,000	\$1,590,000			
* funded with state grant			Total Revenue		\$2,000,000
<b>EXPENDITURE BUDGET</b>	\$3,360,000		<b>REVENUE BUDGET</b>		\$0

#### **Project Scope & Description**

This project replaces aging boilers, chillers, controls and related equipment at the University of Wisconsin-Waukesha (UWW). The campus central heating plant currently includes two steam boilers and one hot water boiler. Steam is converted to hot water in seven different locations throughout the campus and hot water is distributed to the various loads. This equipment serves most of the campus with the exception of a few gas fired units in some isolated areas. The central plant also includes two chillers, a primary and secondary, and two cooling towers for cooling. Chilled water is distributed to most cooling loads on campus.

A feasibility study was completed to determine the best solution for long-term viability of the central heating and cooling plant including the condition of the existing equipment, system efficiencies, long-term reliability and maintenance concerns, operating costs and environmental considerations. The study recommended replacement of the existing steam boilers and chillers and converting the steam system to a campus-wide hot water system with removal or replacement of the steam-to-hot-water converters. The study also recommended replacing the standard motor drive units with variable frequency drive motors for greater energy efficiency. The project will also include replacing and upgrading HVAC system controls.

Funding was granted to UWW to have an Investment Grade Audit and Energy Assessment Report completed by Honeywell ESG, to qualify for State funding through an Energy Efficiency Bond for State Facilities. The County participated in the RFP process to select Honeywell ESG to perform the audit and report. The State has gone through the competitive process allowing the County to utilize Honeywell as the construction manager to deliver project design, specifications, and construction management. The State program is based on a 16 year Return on Investment (ROI) for building system efficiencies, electrical, mechanical replacements and energy improvements. The State has funded similar projects at other two-year campuses. The audit and report qualified the primary chiller, VFD motors, and HVAC controls identified in the County's feasibility study. These items will be funded by the County, up to \$1,750,000, as indicated in the current project scope. The County's project fund will be handled by the State and distributed to Honeywell as the construction management firm for the project. The following table identifies the current project scope items:

- Campus Wide - Energy Management and DDC - Enhanced scope for HVAC system controls
- Campus Wide - Valve, Pipe, and Accessory Fittings, Insulation - for boiler and chiller lines
- Field House - Variable Speed Drives/Ventilation Control (VFD)
- Field House - Replace Chiller - Identical Capacity
- South View Theater - Energy Management DDC - Dual Duct Air Handling Unit (AHU) Variable Air Volume (VAV) Boxes
- Admin/Commons/Westview - Energy Management DDC - Danfoss Upgrade
- Admin/Commons/Westview - Variable Speed Drives/Ventilation Control (VFD)

<b>Project #</b>	200902	<b>Project Title:</b>	UWW Boiler, Chiller and Controls Replacement
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Construction	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 16, 2014

The total scope of work in the Investment Grade Audit and Energy Assessment Report address additional items identified in the County's feasibility study. The additional scope items, such as the two AHU units installed in 1965, are projected to be replaced by the County in the next 10 years. The completed State audit and report qualified these items as part of the State program for replacement. These items will be paid through State funds, up to \$2,000,000, resulting in County savings on a future capital expenditure. The following bullet points illustrates the additional project scope items as part of the State program:

- Campus Wide - Electrical Motor Efficiency Improvements
- Campus Wide - Plumbing Improvements
- Campus Wide - Building Envelope/Air Leakage
- Campus Wide - PC - Power Management
- Campus Wide - Lighting Retrofit Interior
- Campus Wide - Lighting Retrofit Exterior
- Admin/Commons/Westview - Replace AHU-B1 & AHU-B2
- Fieldhouse – 1 Cooling Tower

The secondary chiller did not qualify for replacement as it did not meet the State's 16 year ROI in the Investment Grade Audit and Energy Assessment Report. The secondary chiller operates as a back-up to the primary chiller and runs 5% to 10% during peak summer demand. The boilers, heating controls, and related equipment addressed in the County's feasibility study and project scope will be constructed one year in advance due to the County's ability to capture the State funds in 2013 for the chillers and controls.

**Location**

UW Waukesha, 1500 N. University Drive, Waukesha, WI 53188

**Analysis of Need**

The UWW Campus was constructed in 1965. Most of the heating and cooling plant is from the original construction and much of the existing equipment is approximately 48-years-old. Mechanical equipment usually has a useful life expectancy of 25 to 30 years. Many times the useful life can be extended with a good preventative maintenance program. The replacement of the heating and cooling plant equipment and controls is needed because of the age and potential failure of the equipment. In addition to the rising cost of energy, it is prudent to replace older inefficient mechanical equipment and controls with new high efficiency equipment. Two 400 horse power Cleaver Brooks boilers provide heat to the entire campus which is approximately 266,000 square feet. One 175 ton and 300 ton Carrier Hermetic Centrifugal Chiller provide cooling to approximately 204,000 square feet of campus. Both chillers contain refrigerant R-11, which is considered unfriendly to the environment.

**Alternatives**

Do not replace the equipment and operate it until it breaks down with plans to replace it under emergency conditions, which will have potential impact on the daily operation of the university.

**Ongoing Operating Costs**

If the project proceeds with the State program, Waukesha County will benefit from the additional scope items in the State program. The County will also see a reduction in annual expenses for maintenance repair parts, materials, and labor. In addition the interior and exterior lighting upgrades and PC power management efficiencies funded through the State will aid in reduction of energy consumption at the UWW Campus.

If the project scope proceeds without the State program, the UWW campus will still benefit from the impact on the amount of energy used per square foot with the new energy efficient equipment and controls and see a cost reduction on maintenance repair parts, materials, and labor.

**Previous Action**

- Feasibility study completed July 15, 2008.
- 2009-2013 capital plan: new.
- 2010-2014 capital plan: cost update.
- 2011-2015 capital plan: approved as planned.
- 2012-2016 capital plan: delayed.
- 2013-2017 capital plan: updated scope and revenue.
- 2014-2018 capital plan: approved as planned.

<b>Project #</b>	201210	<b>Project Title:</b>	UWW Roofing Upgrades
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Construction	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	C – Delay, \$ - Update	<b>Date:</b>	August 17, 2014

CAPITAL BUDGET SUMMARY						
Year	2012	2015	2016	2017	2018	Total
Project Phase	Design	Design & Construction	Design & Construction		Design & Construction	Project
Expenditure Budget	\$67,000	\$1,442,000	\$700,000	\$0	\$2,000,000	\$4,209,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$67,000	\$1,442,000	\$700,000	\$0	\$2,000,000	\$4,209,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>			
Architect	\$67,000					
Construction	\$3,852,000					
Contingency	<u>\$290,000</u>					
Total Project Cost	\$4,209,000					\$0
<b>EXPENDITURE BUDGET</b>	\$4,209,000					<b>REVENUE BUDGET</b> \$0

### **Project Scope & Description**

This project will repair and replace building envelope components on facilities at the University of Wisconsin–Waukesha (UWW) campus. The four main UWW campus facilities Northview/Library, Southview/Fine Arts, Commons/Administration/Westview and Fieldhouse are 48-years-old and constructed in 1966. The useful life of a roof ranges from 15 to 40 years depending on roof type. A 60 mil EDPM roof usually lasts between 15 and 20 years. An asphalt ballasted roof has a useful life of 25 to 40 years. Extensive roof patching was undertaken in 2009 and tuckpointing completed in 2009 and 2010.

A portion of project funding originally planned for 2016 is being delayed until 2018 (and adjusted for inflation) to accommodate other priorities in the five-year capital plan. Funding remaining for 2015 and 2016 is budgeted to help ensure the roofs requiring more immediate attention are addressed in a timely manner. The roofs will continue to be monitored - and patched and repaired on an as needed basis.

### **Location**

UWW Campus, 1500 N. University Avenue, Waukesha, WI 53188

### **Analysis of Need**

A February 2009 roofing survey was completed on UWW facilities indicated that significant roofing upgrades are required to maintain the integrity of the roofs.

### **Alternatives**

Continue to patch the roof as leaks occur.

### **Ongoing Operating Costs**

Operating costs will be reduced for labor and materials associated with repairing leaks and associated damages.

### **Previous Action**

- 2012-2016 capital plan: approved as a new project.
- 2013-2017 capital plan: delay.
- 2014-2018 capital plan: approved as planned

<b>Project #</b>	201414	<b>Project Title:</b>	UWW Roof Top Unit Replacements
<b>Department:</b>	Public Works-Buildings	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Design	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Budget Action:</b>	C - Delay	<b>Date:</b>	August 17, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2017	2018	Total
Project Phase	Budget & Concept, Design	Construction	Project
Expenditure Budget	\$46,000	\$324,000	\$370,000
Revenue Budget	\$0	\$0	\$0
Net County Cost	\$46,000	\$324,000	\$370,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Architect	\$46,000	Energy rebates will be identified prior to construction year.	
Construction	\$300,000		
Contingency	<u>\$24,000</u>		
Total Project Cost	\$370,000	Total Revenue	\$0
<b>EXPENDITURE BUDGET</b>	\$370,000	<b>REVENUE BUDGET</b>	\$0

### **Project Scope & Description**

This project is for the replacement of the 9 roof top air handling units (RTU) at the University of Wisconsin Waukesha campus (UWW). This project would include energy efficiency that should qualify for Focus on Energy rebates. This project is being delayed in conjunction with the UWW roofing upgrade project, to accommodate project priorities in the five-year capital plan.

### **Location**

UWW Campus, 1500 N. University Avenue, Waukesha, WI 53188

### **Analysis of Need**

The UWW Campus was constructed in 1965. Most of the hvac equipment is from the original construction and much of the existing equipment experienced equipment problems needing repairs to belts, motors and controls in the last few years. Mechanical equipment usually has a useful life expectancy of 25 to 30 years. Many times the useful life can be extended with a good preventative maintenance program. The roof top units and related equipment are outdated, use significantly more energy than new high efficiency models and have reached the end of their useful life. In addition to the rising cost of energy, it is prudent to replace older inefficient mechanical equipment and controls with new high efficiency equipment.

### **Alternatives**

Do not replace the equipment and operate it until it breaks down with plans to replace it under emergency conditions, which will have potential impact on the daily operation of the university.

### **Ongoing Operating Costs**

Energy consumption will be reduced by replacing the older equipment with newer high efficiency equipment. Energy consumption reductions will be determined as part of the budget and concept design in 2017.

### **Previous Action**

2014-2018 capital plan: approved as new project

<b>Project #</b>	201005	<b>Project Title:</b>	CTH I, CTH ES-CTH O Rehab
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	Beloit Road
<b>Phase:</b>	Preliminary Design	<b>Project Type:</b>	Rehabilitation
<b>Budget Action</b>	As Planned	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>					
Year	2015	2016	2017	2018	Total
Project Phase	Design	Land	Construction	Construction	Project
Expenditure Budget	\$353,000	\$1,164,000	\$681,000	\$0	\$2,198,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$353,000	\$1,164,000	\$681,000	\$0	\$2,198,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>		
Design	\$293,000			Surface Transportation Program -	\$2,726,000
WisDOT Plan Review	\$60,000				
Land Acquisition	\$1,164,000				
Construction	\$2,989,000				
Construction Management	\$299,000				
Contingency	\$119,000				
Total Project Cost	\$4,924,000			Total Revenue	\$2,726,000
<b>EXPENDITURE BUDGET</b>	\$2,198,000			<b>REVENUE BUDGET</b>	\$0

### **Project Scope & Description**

This 1.8 mile long project involves the two-lane rehabilitation/reconstruction of CTH I to bring it up to current standards. Improvements may include: widening the roadway, shoulders and clear zone areas, regrading the ditches and drainage areas, and improving the side road intersections. Improve the horizontal and vertical alignment east of Calhoun Road. The road base and surface will be crushed and re-laid with a new surface on the top.

### **Location**

City of New Berlin

### **Analysis of Need**

The roadway vertical and horizontal alignments are substandard. Additionally, many of the side ditches, shoulders, and clear zones are below current standards. This segment of highway also has a high accident rate. The eastern portion is quickly becoming developed and traffic on CTH I is increasing due to a new Children's Hospital facility and retail development which is being constructed at the corner of Moorland Road and CTH I. Other development is planned between Calhoun Road and Moorland Road. The 2012 traffic volume is 4,950 vehicles per day.

### **Alternatives**

- Re-pave CTH I. While addressing the pavement condition, this alternate will not address shoulder, drainage, and alignment issues that exist along CTH I
- Reconstruct/rehabilitate CTH I as described above.

### **Ongoing Operating Costs**

Operating costs are not expected to change.

### **Previous Action**

- 2011-2015 capital plan: approved as a new project.
- 2012-2016 capital plan: project approved as planned.
- 2013-2017, 2014-2018 Capital Plans: project approved as planned

<b>Project #</b>	201008	<b>Project Title:</b>	CTH M, CTH YY to East County Line
<b>Department:</b>	Public Works- Highways	<b>Road Name:</b>	North Avenue
<b>Phase:</b>	Preliminary Design	<b>Project Type:</b>	Priority Corridor
<b>Budget Action:</b>	As Planned	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>						
Year	2014	2015	2016	2017	2018	Total
Project Phase	Design	Design	Land	Land	Const	Project
Expenditure Budget	\$0	\$1,098,000	\$1,000,000	\$1,800,000	\$2,792,000	\$6,690,000
Revenue Budget	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$210,000</u>	<u>\$210,000</u>
Net County Cost	\$0	\$1,098,000	\$1,000,000	\$1,800,000	\$2,582,000	\$6,480,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>			
Design		\$890,000	STP - M (Anticipated)			\$10,326,000
WisDOT Design Review		\$208,000				
Land Acquisition		\$2,800,000	Local Municipality			\$210,000
Construction		\$11,712,000				
Construction Management		\$820,000				
Contingency		\$586,000				
Total Project Cost		\$17,016,000	Total Revenue			\$10,536,000
<b>EXPENDITURE BUDGET</b>		\$6,690,000	<b>REVENUE BUDGET</b>			\$210,000

### **Project Scope & Description**

This project involves the reconstruction and widening of 2.1 miles of CTH M (North Avenue) from CTH YY (Pilgrim Road) to 124<sup>th</sup> Street to four lanes and the replacement of a bridge over Underwood Creek. The use of a median or a two-way left turn lane to provide for left turn movements will be evaluated during the design phase of this project. The roadway alignment will stay at its present location. Land will be acquired to a distance of 60 feet from the roadway centerline and additional grading easements and vision corners may be required. Federal aid is anticipated to be used on this project and at 80% is estimated at \$10,326,000. Additional revenue of \$210,000 from the City of Brookfield and Village of Elm Grove is anticipated as the local share for sidewalk and other requested amenities.

### **Location**

City of Brookfield, Village of Elm Grove

### **Analysis of Need**

CTH M or North Avenue has been identified as a priority corridor for widening to four lanes by the Department of Public Works. This portion of CTH M is shown as a four-lane roadway in the 2035 SEWRPC Jurisdictional Highway Plans for Waukesha County. Traffic volumes recorded in 2011 along this portion of CTH M range from approximately 14,100 vehicles per day (VPD) at Pilgrim Road to 20,400 vpd at 124<sup>th</sup> Street. These volumes indicate that the existing two-lane roadway is beyond its operating capacity, and is in need of widening.

### **Alternatives**

- Rehabilitate CTH M: This alternate will address pavement issues but will not provide the capacity warranted by traffic volumes, or improve ingress to the highway.
- Reconstruct CTH M to provide necessary additional capacity.

### **Ongoing Operating Costs**

Operating costs are expected to increase by approximately \$28,800 per annum for the additional lane miles after the 2018 construction phase is completed.

### **Previous Action**

- 2010 -2014 capital plan: approved as a new project.
- 2011-2015, 2012-2016, 2013-2017 capital plans: approved with a cost update.
- 2014-2018 As Planned

<b>Project #</b>	201201	<b>Project Title:</b>	CTH Q, Oconomowoc River Bridge
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	County Line Road
<b>Phase:</b>	Formation	<b>Project Type:</b>	Bridge
<b>Budget Action:</b>	As Planned	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>				
Year	2016	2017	2018	Total
Project Phase	Design	Right of Way	Construction	Project
Expenditure Budget	\$119,000	\$22,000	\$112,000	\$253,000
Revenue Budget	\$0	\$0	\$0	\$0
Net County Cost	\$119,000	\$22,000	\$112,000	\$253,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>	
Design	\$97,000		Federal Bridge Aid (Anticipated)	\$450,000
State Review for Design	\$22,000			
Land Acquisition	\$22,000			
Construction	\$472,000			
Construction Management	\$66,000			
Contingency	\$24,000			
Total Project Cost	\$703,000		Total Revenue	\$450,000
<b>EXPENDITURE BUDGET</b>	\$253,000		<b>REVENUE BUDGET</b>	\$0

### **Project Scope & Description**

This project is a replacement of the CTH Q bridge over the Oconomowoc River. A single span slab bridge is anticipated, but various structure types will be investigated. The roadway will remain two lanes over the bridge and will be constructed to current standards. The roadway profile will likely need to be raised in elevation at the bridge to provide adequate navigational clearance. This will require reconstruction of additional approach roadway to match the profile. Right of way was purchased to the ultimate width of 100 feet in the 1960's for most of the expected project limits. Additional right of way and easements will be acquired as needed. Federal bridge aid is anticipated to be used on this project and at 80% of construction phase is estimated at \$450,000.

### **Location**

Towns of Merton and Erin

### **Analysis of Need**

The existing bridge (P-67-0078) is a single-span steel deck girder structure constructed in 1925. The concrete deck was replaced and widened in 1981. The deck remains in fair condition. The girder paint system has failed and girders have deteriorated with the loss of section near the abutments and on the outermost girders. The abutments are deteriorating with areas of delamination and spalling. The bridge is considered both "structurally deficient" and "functionally obsolete". The structure sufficiency number is 46.3, which indicates that structure replacement is warranted according to WisDOT guidelines and makes the bridge eligible for federal bridge replacement funding with a sufficiency below 50. The 2011 traffic volume on this roadway segment was 3,280 vehicles per day.

### **Alternatives**

- Rehabilitation, which does not address all structural and geometric deficiencies.
- Reconstruct the existing bridge and roadway approaches to current WisDOT standards.

### **Ongoing Operating Costs**

Maintenance costs will be reduced in the early years after construction beyond 2018.

### **Previous Action**

- Approved as a new project in the 2012-2016 capital plan.
- Approved as planned in the 2013-2017 capital plan.
- Approved with a cost update in the 2014-2018 capital plan.

<b>Project #</b>	201302	<b>Project Title:</b>	CTH YY, Underwood Creek Structure
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	Pilgrim Road
<b>Phase:</b>	Formation	<b>Project Type:</b>	Bridge
<b>Budget Action:</b>	As Planned	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>				
Year	2017	2018	2019	Total
Project Phase	Design	Land	Construction	Project
Expenditure Budget	\$170,000	\$179,000	\$1,017,000	\$1,366,000
Revenue Budget	\$0	\$0	\$0	\$0
Net County Cost	\$170,000	\$179,000	\$1,017,000	\$1,366,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>		
Design	\$170,000			\$0
Land Acquisition	\$179,000			
Construction	\$877,000			
Construction Management	\$105,000			
Contingency	<u>\$35,000</u>			
Total Project Cost	\$1,366,000			Total Revenue \$0
<b>EXPENDITURE BUDGET</b>	\$1,366,000			<b>REVENUE BUDGET</b> \$0

### **Project Scope & Description**

This project is a replacement of the CTH YY structure over Underwood Creek. The roadway will remain two lanes over the structure but the substandard shoulder width will be improved to current standards. The project is not straight-forward due to a number of site constraints which include: Underwood Creek runs parallel to the highway for 300 feet, site is adjacent to a city park (Wirth Park), structure is in close proximity to a public street and park entrance, project site is near a railroad crossing, school, and cemetery. The 2035 Regional Transportation Plan calls for CTH YY to become a 4-lane facility. Design of the project will include study of various alignments of future 4-lane expansion to determine best location for a 2-lane bridge. Various structure types will be considered. The project may require stream relocation, bridge site relocation, park entrance relocation, an additional stream crossing structure at park entrance, relocation of an existing pedestrian bridge, removal of existing retaining wall, and changes to roadway vertical alignment. Right-of-way acquisition to the ultimate width of 120 feet is required. Significant additional easements are anticipated.

### **Location**

City of Brookfield

### **Analysis of Need**

The existing structure is a single-span, concrete slab that spans approximately 18 feet. Also, the structure was widened to its current width using pre-stressed girders. Dates of initial construction and widening are unknown. The roadway and bridge transferred from City of Brookfield to county jurisdiction in 2006. The abutments and superstructure are in poor condition, per the 2012 structure inspection report. The roadway over the structure is narrow, with minimal shoulders. Structure replacement is recommended. The structure has a span of 18 feet and is not classified as a bridge per Federal Highway Administration (FHWA) standards, and therefore is not eligible for federal bridge aid. Traffic volume on CTH YY in 2011 was 14,100 vehicles per day.

### **Alternatives**

- Rehabilitate the existing bridge, which does not address all structural and geometric deficiencies.
- Reconstruct the existing bridge.

### **Ongoing Operating Costs**

Initial maintenance costs may be reduced.

### **Previous Action**

- Approved as a new project in the 2013-2017 capital plan.
- Approved as planned in the 2014-2018 capital plan.

<b>Project #</b>	201303	<b>Project Title:</b>	CTH D, Deer Creek Bridge
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	Cleveland Avenue
<b>Phase:</b>	Formation	<b>Project Type:</b>	Bridge
<b>Budget Action:</b>	As Planned	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>				
Year	2013	2017	2018	Total
Project Phase	Concept	Design-R/W	Construction	Project
Expenditure Budget	\$5,000	\$110,000	\$116,000	\$231,000
Revenue Budget	\$0	\$0	\$0	\$0
Net County Cost	\$5,000	\$110,000	\$116,000	\$231,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>		
Budget/Concept	\$5,000	Federal Bridge Aid		\$462,000
Design	\$65,000	(Anticipated)		
Land Acquisition	\$21,000			
WDOT Plan Review	\$24,000			
Construction	\$486,000			
Construction Management	\$68,000			
Contingency	\$24,000			
Total Project Cost	\$693,000	Total Revenue		\$462,000
<b>EXPENDITURE BUDGET</b>	\$231,000	<b>REVENUE BUDGET</b>		\$0

### **Project Scope & Description**

This project is a rehabilitation of the CTH D bridge at Deer Creek. Anticipated scope includes culvert lining and grouting, headwall reconstruction, and approach ditch re-grading. Structure rehabilitation will effectively extend the life of the structure, while avoiding the need to close the highway and excavate the deep roadway embankment for a stream diversion. However, the proposed rehab does not address structure widening that may be needed for highway expansion. Under this project, the roadway will remain two lanes over the bridge. The acquisition of temporary easements is anticipated to construct this project. An independent engineering study report is being completed to verify the cost effectiveness of the proposed rehabilitation strategy. Waukesha County will apply for an estimated \$462,000 in Federal Bridge Aid to help fund the project.

### **Location**

City of New Berlin

### **Analysis of Need**

The existing bridge (P-67-779) is a triple-barrel corrugated steel pipe culvert. Each barrel is 72-inches in diameter. The structure was initially constructed in 1959 with two culvert barrels. The culverts were lowered, and a third culvert barrel added in 1969 by a developer along with re-grading of Deer Creek. The structure now sits under a 30-foot high roadway embankment. The two original barrels are rusting through at the normal water line. The stone masonry headwalls are in poor condition. The riprap ditch at the northeast bridge approach is eroding. The existing structure appears to have adequate hydraulic capacity. The structure sufficiency number is 43.4, which indicates that structure replacement or rehabilitation is warranted according to WisDOT guidelines and makes the bridge eligible for Federal Bridge Aid (replacement or rehabilitation). The 2010 traffic volume on CTH D was 14,100 vehicles per day.

### **Alternatives**

- Rehabilitate the existing bridge to address structural deficiencies. This is the recommended alternative.
- Reconstruct the existing bridge.

### **Ongoing Operating Costs**

Initial maintenance costs may be reduced following construction.

### **Previous Action**

- Approved as a new project in the 2013-2017 plan.
- Approved with a cost update in the 2014-2018 capital plan.

<b>Project #</b>	201304	<b>Project Title:</b>	CTH Y, Pilak Creek Tributary Bridge Rplc
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	Racine Avenue
<b>Phase:</b>	Preliminary Design	<b>Project Type:</b>	Bridge
<b>Budget Action:</b>	As Planned	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>				
Year	2017	2018	2019	Total
Project Phase	Design	Land	Construction	Project
Expenditure Budget	\$90,000	\$24,000	\$520,000	\$634,000
Revenue Budget	\$0	\$0	\$0	\$0
Net County Cost	\$90,000	\$24,000	\$520,000	\$634,000
<b>COST DOCUMENTATION</b>				
Design	\$90,000			\$0
Land Acquisition	\$24,000			
Construction	\$448,000			
Construction Management	\$18,000			
Contingency	\$54,000			
Total Project Cost	\$634,000			
<b>EXPENDITURE BUDGET</b>				\$634,000
<b>REVENUE</b>				
Total Revenue				\$0
<b>REVENUE BUDGET</b>				\$0

### **Project Scope & Description**

This project is a replacement of the CTH Y structure over an un-named tributary to Pilak Creek. The roadway will remain a two lane rural section over the structure. Various structure types will be considered. The City of Muskego is planning a bicycle facility along the west side of the highway. Accommodation of the bicycle facilities may require additional culvert length, as well as some land acquisition. Additional acquisition of easements may be required to construct this project.

### **Location**

City of Muskego

### **Analysis of Need**

The existing structure is a two-barrel corrugated steel plate arch. The structure was initially constructed in 1968 with a single barrel (84"x61"). A second barrel (103"x71") was added in 1989. Both barrels are rusted through near the water line. The existing two-lane roadway over the structure has adequate shoulder width, and is consistent with the 2035 Regional Transportation Plan. The structure is not a bridge, as defined by Federal Highway Administration standards, and therefore is not eligible for federal bridge aid. The 2011 traffic volume on CTH Y was 13,100 vehicles per day.

### **Alternatives**

- Rehabilitate the existing structure, which is likely not cost effective.
- Reconstruct the existing structure.

### **Ongoing Operating Costs**

Initial maintenance costs may be reduced.

### **Previous Action**

- Approved as a new project in the 2013-2017 capital plan.
- Approved as planned in the 2014-2018 capital plan.

<b>Project #</b>	201402	<b>Project Title:</b>	CTH XX, Pebble Brook Creek Bridge
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	Oakdale Drive
<b>Phase:</b>	Preliminary Design	<b>Project Type:</b>	Bridge
<b>Budget Action:</b>	As Planned	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>						
Year	2014	2015	2016	2017	2018	Total
Project Phase	Concept		Design	R/W	Construction	Project
Expenditure Budget	\$5,000	\$0	\$48,000	\$11,000	\$33,000	\$97,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$5,000	\$0	\$48,000	\$11,000	\$33,000	\$97,000
<b>COST DOCUMENTATION</b>				<b>REVENUE</b>		
Budget/Concept	\$5,000				Federal Bridge Aid	\$133,000
Design	\$37,000				(Anticipated)	
State Review For Design	\$11,000					
Land Acquisition	\$11,000					
Construction	\$133,000					
Construction Management	\$26,000					
Contingency	\$7,000					
Total Project Cost	\$230,000				Total Revenue	\$133,000
<b>EXPENDITURE BUDGET</b>	\$97,000				<b>REVENUE BUDGET</b>	\$0

### **Project Scope & Description**

This project is an overlay of the CTH XX bridge over Pebble Brook Creek. A concrete overlay is anticipated, but several overlay types will be considered during design. Concrete repairs will be made to the spalled areas of the deck edges. Existing bridge railing may be salvaged/remounted or completely replaced with this project. Approach guardrail will be replaced to meet current standards. The asphalt bridge approaches will be repaved, and concrete approach slabs will be added at the structure. Right of way was purchased to the ultimate width of 100 feet at this bridge in the 1970's. No additional fee acquisition is anticipated. Some easements may be necessary due to the proximity to railroad right of way. Federal bridge aid is anticipated to be used, and at 80% of construction phase is estimated at \$133,000.

**Location** - Town of Waukesha

### **Analysis of Need**

The existing bridge (B-67-195) is a two-span concrete box culvert that was constructed in 1980. The roof of the box culvert serves as the roadway driving surface. Most of the box culvert is in good condition. However, approximately 5% of the top deck surface is delaminated, and some concrete is beginning to spall. The delamination is due to corrosion of the top mat of bar steel. This bar steel is not epoxy coated. There is also spalling of concrete along both edges of the deck (roof) at the drip edge. The approach guardrail is in poor condition and does not meet current standards. The roadway is functionally classified as a 'Principal Arterial'. The bridge is considered 'structurally deficient' due to its current condition rating. The structure sufficiency number is 67.1. This indicates that structure rehabilitation is warranted according to WDOT guidelines which makes the bridge eligible for federal bridge rehabilitation funding when the sufficiency is below 80. An independent engineering study report will need to be prepared for this project prior to application for federal bridge funding. This report verifies that the proposed project scope is a cost effective rehabilitation strategy. The 2011 traffic volume on this roadway segment was 6,446 vehicles per day.

### **Alternatives**

- Rehabilitation, which does address all structural deficiencies and is the recommended alternative.
- Reconstruct the existing bridge and roadway approaches to current WisDOT standards. This alternate, while addressing the deficiencies, is not warranted.

### **Ongoing Operating Costs**

Maintenance costs will be reduced in the early years after construction beyond 2018.

### **Previous Action**

- Approved as a new project in the 2014-2018 capital plan.

<b>Project #</b>	200511	<b>Project Title:</b>	CTH D, Calhoun Road–Intersection
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	Cleveland Avenue
<b>Phase:</b>	Land/Const	<b>Project Type:</b>	Intersection
<b>Budget Action:</b>	C- Scope, \$ Update	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

CAPITAL BUDGET SUMMARY							
Year	2010	2011	2012	2013	2014	2015	Total
Project Phase	Design	Design	Design	Design/Land	Const/Land	Const/Land	Project
Expenditure Budget	\$100,000	\$1,100,000	\$300,000	\$590,000	\$495,000	(\$200,000)	\$2,385,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$100,000	\$1,100,000	\$300,000	\$590,000	\$495,000	(\$200,000)	\$2,385,000
<b>COST DOCUMENTATION</b>				<b>REVENUE</b>			
Design	\$200,000						
Land Acquisition	\$460,000						
Construction	\$1,495,000						
Construction Management	\$160,000						
Contingency	\$70,000						
	<hr/>						
Total Project Cost	\$2,385,000						\$0
<b>EXPENDITURE BUDGET</b>	\$2,385,000						<b>REVENUE BUDGET</b>
							<b>\$0</b>

#### Project Scope & Description

The previous scope of this project was to fully reconstruct the intersection of CTH D (Cleveland Avenue) and Calhoun Road in New Berlin. The work would have involved reconstructing the entire intersection and pavement core and widening the intersection to provide for future traffic volumes and to accommodate the ultimate 4-lane section on Cleveland Ave. A conventional intersection consisting of two through traffic lanes, a left turn lane on all four approaches and a roundabout were considered as alternatives for the intersection. Following consultation with the City of New Berlin, an alternative has been chosen, which consists of a conventional signalized intersection that will not require full reconstruction like the previous scope. The work will involve keeping the existing pavement core in place, widening the intersection and using painted striping to delineate turn lanes to provide for future traffic volumes, improve capacity and reduce delays at the intersection. Project costs have been decreased to reflect the change in scope.

#### Location

City of New Berlin, Intersection at Calhoun Road and Cleveland Avenue

#### Analysis of Need:

This intersection controls traffic on two heavily used roadways, Calhoun Road and Cleveland Avenue. Cleveland Avenue is intended to become 4-lanes in the future and this intersection design will allow the 4-lanes without additional effort in the future. This project will improve travel through the intersection and be compatible with future County and SEWRPC road widening plans.

#### Alternatives

Reconsider project in a future capital plan.

#### Ongoing Operating Costs

Ongoing costs are expected to increase by approximately \$10,000 per annum for the additional lane miles after construction..

#### Previous Action

- 2005-2009 capital plan: approved as a new project.
- 2006-2010 and 2010-2014 capital plans: approved as planned.
- 2007-2011, 2011-2015, 2012-2016 capital plans: approved with cost update.
- 2008-2012 capital plan: delayed.
- 2009-2013, 2013-2017 capital plan: change in scope and cost update.
- 2012-2016 capital plan: change in cost update.

<b>Project #</b>	200606	<b>Project Title:</b>	CTH P, Bark River Bridge
<b>Department:</b>	Public Works - Highways	<b>Road Name:</b>	Sawyer Road
<b>Phase:</b>	Construction	<b>Project Type:</b>	Bridge
<b>Budget Action:</b>	C - \$ Update	<b>Manager:</b>	Allison Bussler, Director
<b>Date:</b>	August 26, 2014		

CAPITAL BUDGET SUMMARY						
Year	2007	2008	2009	2011	2015	Total
Project Phase	Design	Right of Way	Construction	Construction	Construction	
Expenditure Budget	\$124,000	\$110,000	\$96,400	\$137,600	\$106,000	\$574,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$124,000	\$110,000	\$96,400	\$137,600	\$106,000	\$574,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>			
DOT Design Review	\$30,000					
Design	\$144,000					
Land Acquisition	\$110,000					
Construction	\$991,000					
Construction Management	\$99,000					
Contingency	\$50,000					
Total Project Cost	\$1,424,000					
						Federal Bridge Aid
						\$850,000
						Total Revenue
						\$850,000
<b>EXPENDITURE BUDGET</b>	\$574,000					<b>REVENUE BUDGET</b>
						\$0

### **Project Scope & Description**

This project includes the replacement of the existing box culvert with a new culvert and reconstruct the immediate roadway approaches on existing alignment. Replacement of an integral dam spillway is anticipated with this project. The roadway will remain a two-lane facility and will be constructed to current standards. In accordance with the County's bicycle plan, the project will include the construction of a bike path along the west side of the road. At a minimum, right of way will be acquired to the ultimate width of 40 feet from the roadway centerline although additional right of way width may be necessary to construct this project. The dam spillway is not maintained by Waukesha County. The Village of Summit has assumed ownership of the spillway. Waukesha County and Village of Summit are working toward a project agreement. Per Federal Highway Administration (FHWA) rules the spillway construction is ineligible for Federal Bridge funds therefore Waukesha County will fund 100% of the spillway portion of the project. The project will receive an estimated \$850,000 in Federal Bridge Aid on the bridge portion of the project.

Increased funds for this project are needed due to some additional length of roadway that is needed to safety match existing CTH P, retaining walls that are required to limit fills into the Bark River floodplain and some additional length of structure required to provide a bike path on the west side of the structure and a future sidewalk on the other.

### **Location**

Town of Summit

### **Analysis of Need**

The existing bridge is two-cell box culvert that was constructed in 1932. The upstream and downstream ends of the culvert are severely deteriorated. The railing is deteriorating and is substandard design. The structure has no approach guardrail. The roadway over the structure is narrow with minimal shoulders. The structure sufficiency number is 41.9, which indicates that a structure replacement is warranted according to WisDOT guidelines that state that a bridge should be replaced when the sufficiency drops below 50. There is a dam spillway constructed integrally with the box culvert on the upstream side of the culvert. The location of the existing dam spillway will conflict with shoulder widening.

### **Alternatives**

1. Reconsider in a future capital plan.
2. Reconstruct the existing bridge and roadway approaches to current WisDOT standards.

**Ongoing Operating Costs** Initial maintenance costs will be reduced.

**Previous Action** Approved as a new project in the 2006-2010 Plan. Approved with cost update in the 2007-2011, 2008 - 2012 Plans. Approved as planned in the 2009-2013 and 2010-2014 Plans. Approved with cost update in the 2011-15 Plan.

<b>Project #</b>	200810	<b>Project Title:</b>	CTH CW, Ashippun River Bridge
<b>Department:</b>	Public Works - Highways	<b>Road Name:</b>	Mapleton Road
<b>Phase:</b>	Construction	<b>Project Type:</b>	Bridge
<b>Budget Action:</b>	C - Scope, \$ - Update, Revenue	<b>Manager:</b>	Allison Bussler, Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>					
Year	2009	2010	2011	2015	Total
Project Phase	Design	Right of Way	Construction	Construction	Project
Expenditure Budget	\$125,000	\$75,000	\$133,400	\$407,600	\$741,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$125,000	\$75,000	\$133,400	\$407,600	\$741,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>		
WisDOT Design Fee					
Design	\$136,000			Federal Bridge Aid	\$326,000
Land Acquisition	\$75,000			HSIP	\$324,000
Construction	\$1,025,000				
Construction Management	\$103,000				
Contingency	\$52,000				
Total Project Cost	\$1,391,000			Total Revenue	\$650,000
<b>EXPENDITURE BUDGET</b>	\$741,000			<b>REVENUE BUDGET</b>	\$0

### **Project Scope & Description**

This project includes the replacement of the existing steel girder bridge on CTH "CW" over the Ashippun River. Additionally, approximately 2,100 feet of approach roadway will be reconstructed on new alignment to correct the substandard horizontal curvature and improve safety. The roadway will remain a two-lane facility and will be constructed to current standards. At a minimum, right of way will be acquired to the ultimate width of 50 feet from the roadway centerline. The project will require an estimated \$326,000 in Federal Bridge Aid and \$324,000 in Federal Highway Safety Improvement Program (HSIP) Funds.

Increased funds are needed for this project due to the additional 800 ft of roadway needed to safely match into existing CTH CW and for over excavation and fills needed due to poor soils from the relocated roadway.

### **Location**

Town of Oconomowoc

### **Analysis of Need**

The existing bridge (P-67-0046) is a single span steel girder structure that was constructed in 1930. The deck was replaced in 1986 and is in fair condition. The steel girders and concrete abutments are severely deteriorated. The structure sufficiency number is 40.7, which indicates that a structure replacement is warranted according to WisDOT guidelines that state that a bridge should be replaced when the sufficiency drops below 50. The roadway over the structure is narrow with minimal shoulders. The horizontal curvature of the roadway is substandard just east of the bridge and has been the location of numerous single vehicle run off the road crashes.

### **Alternatives**

1. Reconsider in a future capital plan.
2. Reconstruct the existing bridge and roadway approaches to current WisDOT standards.

### **Ongoing Operating Costs**

Initial maintenance costs will be reduced.

### **Previous Action**

Approved as New Project in 2008 – 2012 Capital Plan. Approved as planned in 2009 – 2013 Plan. Approved with cost update in the 2010-2014 Plan. Approved as planned in 2011-2015 Plan.

<b>Project #</b>	200917	<b>Project Title:</b>	Waukesha West Bypass
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	Meadowbrook Road/Merrill Hills Road
<b>Phase:</b>	Right-of-Way	<b>Project Type:</b>	Jurisdictional Plan Implementation
<b>Budget Action:</b>	C-\$ Update	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 27, 2014		

CAPITAL BUDGET SUMMARY							
Year	2009	2010	2011 *	2012 *	2013	2016	Total
Project Phase	Design	Design	Right of Way	Right of Way	Construction	Construction	Project
Expenditure Budget	\$250,000	\$1,750,000	\$2,000,000	\$3,600,000	\$1,220,000	\$735,000	\$9,555,000
Revenue Budget	<u>\$250,000</u>	\$0	<u>\$1,400,000</u>	<u>\$3,600,000</u>	\$0	\$0	\$5,250,000
Net County Cost	\$0	\$1,750,000	\$600,000	\$0	\$1,220,000	\$735,000	\$4,305,000
<b>COST DOCUMENTATION</b>				<b>REVENUE</b>			
Design	\$3,000,000			Surface Transportation Program (STP)- (not budgeted)			\$3,819,000
Land Acquisition	\$5,600,000			STP - (Right of Way Acq.) budgeted State ROW reimbursement			\$2,600,000 (State 100%)
Construction	\$4,151,000			STP - (Right of Way Acq.) budgeted County ROW reimbursement			\$2,400,000 (Cty 80%)
Construction Management	\$415,000			Capital project fund balance			\$250,000
Contingency	<u>\$208,000</u>						
Total Project Cost	\$13,374,000			Total Revenue			\$5,250,000
<b>EXPENDITURE BUDGET</b>	\$9,555,000			<b>REVENUE BUDGET</b>			\$5,250,000

\* Funding will only be spent if project proceeds per the memorandum of understanding.

### **Project Scope & Description**

Waukesha County has signed a memorandum of understanding (MOU) with the Wisconsin Department of Transportation (WisDOT) and City of Waukesha for completion of the West Waukesha Bypass, which clearly defines each party's responsibility for the completion of the corridor.

Under the terms of the MOU, Waukesha County is responsible for the completion of the environmental Impact Statement (EIS) and the preliminary design for the entire corridor. This capital project will complete the preliminary design for the West Waukesha Bypass from STH 59 to I-94, real estate acquisition for the entire corridor south of Northview Rd and the final design and construction of the West Bypass from USH 18 to Northview Rd. The roadway will be designed as a 4 lane facility.

The MOU further states that the City of Waukesha will construct the portion north of Northview Road. The Wisconsin Department of Transportation will construct the bypass between STH 59 and USH 18 and contribute toward the cost of real estate. Waukesha County will be responsible for real estate acquisition south of Northview Road up to the cost of \$3 million (offset with 80% Federal funding) and the State of Wisconsin will reimburse the County for up to an additional \$2.6 million for total land acquisition costs of \$5.6 million. Waukesha County will also be responsible for the construction of the new roadway between USH 18 and Northview Road

As the Bypass will become a State Trunk Highway, a jurisdictional transfer agreement has been signed with WisDOT. STH 74 between STH 190 in Pewaukee and Menomonee Avenue in Lannon will be transferred to Waukesha County. CTH TT, Sunset to Northview and the new highway goes to the State jurisdiction.

Review comments from agencies such as US Environmental Protection Agency (EPA) and Corps of Engineers have led to significant additional effort to address those agencies concerns and obtain concurrence with the proposed alternate. Also, additional design complexities has raised the total design cost by a further \$500,000 to \$3,000,000. Updated construction cost estimates comprise the other \$235,000 of additional expenditures in 2016. The final Environmental Impact Statement will be submitted in late June/early July 2014 with an anticipated Record of Decision fall 2014. Real Estate Acquisition is expected to begin in 2015 and construction in 2016.

### **Location**

City and Town of Waukesha

<b>Project #</b>	200917	<b>Project Title:</b>	Waukesha West Bypass
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	Meadowbrook Road/Merrill Hills Road
<b>Phase:</b>	Right-of-Way	<b>Project Type:</b>	Jurisdictional Plan Implementation
<b>Budget Action:</b>	C-\$ Update	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 27, 2014		

### **Analysis of Need**

The St. Paul Avenue-Sunset Drive-Merrill Hills Road corridor is a two-lane roadway that has been acting as a de facto West Waukesha Bypass since the portion of CTH TT between USH 18 and Northview Road was opened in 1997. New development has occurred adjacent to CTH TT as well as the areas west and south of the corridor with traffic volumes along CTH TT north of USH 18 over 16,000 vehicles per day and approximately 12,000 vehicles per day south of USH 18 and along Sunset. Traffic volumes along St. Paul Avenue are over 20,000 vehicles per day. Typically roadways are widened to four-lanes once traffic volumes reach 13,000 vehicles per day. From 2006 through 2008, there have been 145 crashes along the bypass route between Northview and STH 59 resulting in 56 injuries. Additionally Merrill Hills Road has substandard vertical and horizontal alignment, shoulder widths are narrow and most intersections lack bypass lanes. Although development has slowed along the corridor, growth in the area continues at a slower pace. This continued growth and the projected use of the road for I-94 traffic relief for those going south, will add further pressure to the existing under-capacity, substandard route and if the roadway is not improved will cause an increase in the rate of accidents and congestion.

### **Alternatives**

Rehabilitate CTH TT which may address some of the geometric needs of the roadway, but does not meet the long term capacity requirements of the corridor.

### **Ongoing Operating Costs**

Waukesha County will lose 3.4 miles of two-lane highway but gain 4.9 miles of two-lane roadway and 3.6 miles of four-lane road, a net gain of 17.4 lane miles. The total annual operating cost increase is estimated at \$114,000. Potential revenue offsets include about \$22,000 in state revenue associated with more miles in the overall CTH system to maintain. Additional lane miles from this project may qualify for federal funding for future capital projects as needed. These estimates are based on full implementation of jurisdictional transfers that are expected to take place over multiple years.

### **Previous Action**

Project 200009, widen CTH TT between USH 18 and Northview was approved in previous budgets but was removed from the 2009 capital plan pending negotiations with the State of Wisconsin and the City of Waukesha. This project for the construction (\$4.5 million over 5 years) of the entire Waukesha West Bypass includes project 200009 but has had no previous County Board action. Approved as a new project by ordinance in 2009 in conjunction with approval of memorandum of understanding. Project expenditures have been modified for cash flow in the 2011-2015 Plan. 2012-2016 capital plan: approved with cost and revenue updates. Approved with cost updates in 2013-2017 capital plan.

<b>Project #</b>	201006	<b>Project Title:</b>	CTH NN, STH 83 to CTH ES
<b>Department:</b>	Public Works–Highways	<b>Road Name:</b>	CTH NN
<b>Phase:</b>	Design	<b>Project Type:</b>	Rehabilitation
<b>Budget Action:</b>	C – Scope, \$ Update, Revenue	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 27, 2014		

<b>CAPITAL BUDGET SUMMARY</b>					
Year	2013	2014	2015	2016	Total
Project Phase	Design	Design	Land/const	Const.	Project
Expenditure Budget	\$288,000	\$0	\$818,000	\$580,000	\$1,686,000
Revenue Budget	\$0	\$0	\$0	\$544,000	\$544,000
Net County Cost	\$288,000	\$0	\$818,000	\$36,000	\$1,142,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>		
Design	\$50,000		CHIP - D		\$544,000
Land Acquisition	\$50,000				
Construction	\$1,379,000				
Construction Management	\$138,000				
Contingency	\$69,000				
Total Project Cost	\$1,686,000		Total Revenue		\$544,000
<b>EXPENDITURE BUDGET</b>	\$1,142,000		<b>REVENUE BUDGET</b>		\$540,000

### **Project Scope & Description**

Rehabilitate 1.1 miles of CTH “NN” to meet current design standards. The pavement, shoulders and ditches will be improved as will intersections to improve side road safety. If requested by the Village of Mukwonago sidewalks will be added to the project. Limited real estate acquisition is anticipated although, some fee, easement and access rights will need to be purchased. The project did not receive federal funding, however the Department has been allocated \$544,000 in State - County Highway Improvement – Discretionary funds for the project.

The Village of Mukwonago and The Wisconsin Department of Transportation are in discussions regarding the possibility of rerouting STH 83 to CTH NN. County staff is participating in those discussions and has communicated to the parties the County’s intent to improve CTH NN while staying within the County’s expenditure budget.

The project as originally scoped would have performed a more long-lasting crush and relay treatment to the pavement, provided curb and gutter and storm sewers, and turn lanes throughout the project, and purchased real estate to 50 feet from the centerline of the roadway. The re-scoped project will consist of a reclamation and overlay process on the pavement, and only provide curb and gutter, turn lanes, and real estate acquisition where needed.

**Location:** Village of Mukwonago

### **Analysis of Need**

This portion of CTH NN through Mukwonago carries 9,500 vehicles per day and is an arterial highway linking STH 83 to CTH ES and Holtz Drive. CTH NN and Holtz Drive act as a STH 83 bypass around the east side of Mukwonago. With two schools, a number of businesses and subdivision and condominium driveways, CTH NN has an odd mix of bypass and turn lanes. The pavement in this area is in poor condition with a pavement condition index of 32, roadway ditches are poor to non-existent and shoulders are below standard.

### **Alternatives**

- Repave CTH NN. While addressing pavement condition, this alternate does not address access, drainage or shoulder issues along CTH NN.
- Rehabilitate/reconstruction of the existing roadway.

### **Ongoing Operating Costs**

Operating costs may decrease in the early years following reconstruction.

### **Previous Action**

- 2010-2014, 2013-2017 capital plan: approved as planned.
- 2012-2016 capital plan: revenue source modified.
- 2014-2018 Capital Plan: Delayed.

DELETE PROJECT			
<b>Project #</b>	201007	<b>Project Title:</b>	CTH O, CTH HH to Grange Avenue
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	Moorland Road
<b>Phase:</b>	Design/Land	<b>Project Type:</b>	Priority Corridor
<b>Budget Action:</b>	Delete	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

CAPITAL BUDGET SUMMARY				
Year	2013	2014	2015	Total
Project Phase	Design	Design/Land	Const.	Project
Expenditure Budget	\$351,000	\$140,000	\$1,657,000	\$2,148,000
Revenue Budget	\$0	\$0	\$1,000,000	\$1,000,000
Net County Cost	\$351,000	\$140,000	\$657,000	\$1,148,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>		
Design	\$351,000	Surface Transportation Program		\$2,627,000
WisDOT Review	\$75,000			
Land Acquisition	\$65,000	Business/TIF		\$1,000,000
Const, DOT oversight	\$3,725,000			
Construction Mgmt	\$373,000			
Contingency	\$186,000			
Total Project Cost	\$4,775,000	Total Revenue		\$3,627,000
<b>EXPENDITURE BUDGET</b>	\$2,148,000	<b>REVENUE BUDGET</b>		\$1,000,000

#### **Project Scope & Description**

This project will add and complete additional lanes on CTH O, between CTH HH (College Avenue) to Grange Avenue (1.0 miles) to create a continuous four-lane roadway. Moorland Road currently has a four lane section to the north of Grange and south of College. The road will have a median to provide for separation of opposing movements and will stay on its current alignment. The roadway will be situated within the existing 130-foot wide corridor and although most of the right-of-way was previously acquired, some additional land acquisition and grading easements may be needed. Federal STP-M allotments estimated at \$2.6 to \$3.4 million will be used to fund 80% of the project construction cost. Project costs are updated to reflect required WisDOT review fee. Additionally a \$1,000,000 contribution toward the project will be assessed to the adjacent land developer and/or TIF to help fund the project.

#### **Location**

New Berlin

#### **Analysis of Need**

When CTH O was constructed between Janesville Road and Grange Avenue in 1997, it was designed so that the two-lane roadway would become the north bound lanes of a future four-lane roadway. At that time the Southeastern Wisconsin Regional Planning Commission (SEWRPC) jurisdictional plan called for CTH O to be a two-lane highway. Since then traffic has increased significantly and was measured at 17,900 vehicles per day in 2011. These traffic volumes meet the warrants for the road to be a four lane highway. Additionally the latest SEWRPC jurisdictional plan calls for CTH O to be a four-lane highway. In 2009 the City of Muskego as part of a TIF created the planned four-lane roadway between Janesville Road and College Ave by building the southbound lanes. The portion of CTH O between College Avenue and Grange Avenue remains a two-lane roadway. Mixed use development is now moving ahead for the 640 acres immediately east of the roadway. This development will have a significant impact on Traffic volumes and the will increase the potential for congestion and safety issues along CTH O.

#### **Alternatives**

- Reconsider in a future capital plan.
- Reconstruct CTH O as described above.

#### **Ongoing Operating Costs**

Operating costs are expected to increase by approximately \$13,700 per annum for the additional lane miles after construction in 2016 and beyond.

#### **Previous Action**

- 2010-2014 capital plan: approved as a new project.
- 2011-2015, 2012-2016 capital plans: approved as planned.
- 2012-2016 capital plan: approved as planned.
- 2013-2017, 2014-2018 capital plans: approved with cost update.

<b>Project #</b>	201116	<b>Project Title:</b>	CTH C, Mill Street to Oakwood Road
<b>Department:</b>	Public Works- Highways	<b>Road Name:</b>	Genesee Street
<b>Phase:</b>	Design	<b>Project Type:</b>	Rehabilitation/Jurisdictional Transfer
<b>Budget Action:</b>	C - \$ Update	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>				
Year	2014	2015	2016	Total
Project Phase	Design	Design/Land	Land/Const	Project
Expenditure Budget	\$130,000	\$103,000	\$1,850,000	\$2,083,000
Revenue Budget	\$0	\$0	\$463,000	\$463,000
Net County Cost	\$130,000	\$103,000	\$1,387,000	\$1,620,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>	
Design	\$150,000		City of Delafield	\$463,000
Land Acquisition	\$83,000			
Construction	\$1,610,000			
Construction Management	\$160,000			
Contingency	\$80,000			
Total Project Cost	\$2,083,000		Total Revenue	\$463,000
<b>EXPENDITURE BUDGET</b>	\$2,083,000		<b>REVENUE BUDGET</b>	\$463,000

### **Project Scope & Description**

The City of Delafield passed a resolution dated July 28, 2008 requesting a jurisdictional transfer of this segment of roadway. The jurisdictional agreement will need to be finalized and approved by both parties. As part of this agreement, Waukesha County would enter into an agreement for cost sharing of the reconstruction. Between Mill Street and Church Street, the project includes the reconstruction of the existing two-lane roadway to an urban section with bypass lanes as needed. The existing culvert structures may be replaced to improve the hydraulic capacity. Storm sewer, sidewalks and curb and gutter will be added. From Church Street to Oakwood Road, the pavement will be resurfaced and the road will remain a two-lane rural roadway. The City of Delafield's share of the project is approximately 22% of the total project cost and covers the design and construction of City-requested amenities, such as sidewalks, storm sewers, bypass lanes, streetscaping and landscaping, street lights, decorative railings, etc. Additional funds are being requested because the costs for design are more than originally budgeted.

### **Location**

City of Delafield

### **Analysis of Need**

This roadway was last resurfaced in 1996 and the latest Pavement Condition Index (PCI) for this segment is 50. Major rehabilitation is recommended when PCI ratings drops below 40. Additionally, the twin galvanized steel culverts over the Bark River were placed in 1950 and show signs of deterioration. Traffic volumes within this segment have steadily increased to 10,036 vehicles per day (2013).

### **Alternatives**

- Reconsider in a future capital plan.
- Reconstruct CTH C as outlined above.

### **Ongoing Operating Costs**

Initial and future costs will be reduced as a result of the jurisdictional transfer.

### **Previous Action**

- 2011-2015 capital plan: approved as a new project.
- 2012-2016, 2013-2017, and 2014-2018 capital plan: approved as planned.

<b>Project #</b>	201202	<b>Project Title:</b>	Expand CTH M, Calhoun Rd – CTH YY
<b>Department:</b>	Public Works- Highways	<b>Road Name:</b>	North Avenue
<b>Phase:</b>	Formation	<b>Project Type:</b>	Priority Corridor
<b>Budget Action:</b>	C - Delay	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>					
Year	2016	2017	2018	2019	Total
Project Phase	Design	Design/Land	Design/Land	Construction	Project
Expenditure Budget	\$524,000	\$1,732,000	\$0	\$1,309,000	\$3,565,000
Revenue Budget	\$0	\$0	\$0	\$90,000	\$90,000
Net County Cost	\$524,000	\$1,732,000	\$0	\$1,219,000	\$3,475,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>		
Design		\$428,000	STP - M		\$4,878,000
WisDOT Design Review		\$96,000			
Land Acquisition		\$1,732,000	City of Brookfield		\$90,000
Construction		\$5,406,000			
Construction Management		\$511,000			
Contingency		\$270,000			
Total Project Cost		\$8,443,000	Total Revenue		\$4,968,000
<b>EXPENDITURE BUDGET</b>		\$3,565,000	<b>REVENUE BUDGET</b>		\$90,000

### **Project Scope & Description**

This project involves the reconstruction and widening of approximately one mile of CTH M (North Avenue) from Calhoun Road to CTH YY (Pilgrim Road) to four lanes. The use of a median or a two-way left turn lane to provide for left turn movements will be evaluated during the design phase of the project. The roadway alignment will stay at its present location. Land will be acquired to a distance of 60 feet from the roadway centerline and additional grading easements, drainage easements and vision corners may be required. Federal aid of \$4,878,000 and local funds of \$90,000 are anticipated to be used on this project. Local funds are to be included to pay for sidewalks requested by the City. Project construction funding is being delayed to 2019 because it is anticipated that 2019 is most likely the year construction will take place.

### **Location**

City of Brookfield

### **Analysis of Need**

CTH M or North Avenue has been identified as a priority corridor for widening to four lanes by the Department of Public Works. This portion of CTH M is shown as a four-lane roadway in the 2035 SEWRPC Jurisdictional Highway Plans for Waukesha County. Traffic volumes recorded in 2011 along this portion of CTH M are approximately 14,400 vehicles per day (vpd). These volumes indicate that the existing two-lane roadway is beyond the operating capacity, and is in need of widening.

### **Alternatives**

- Rehabilitate CTH M: This alternate will address pavement issues but will not provide the capacity warranted by traffic volumes, or improve ingress to the highway.
- Reconstruct CTH M as described above.

### **Ongoing Operating Costs**

Operating costs are expected to increase by approximately \$13,700 per annum for the additional lane miles, after the planned 2019 construction is completed.

### **Previous Action**

Approved as new project in 2012-2016 capital plan.

Approved with cost update in 2013-2017, 2014-2018 capital plan.

<b>Project #</b>	201502	<b>Project Title:</b>	CTH O, I-94 to USH 18
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	Moorland Road
<b>Phase:</b>	Formation	<b>Project Type:</b>	Rehabilitation
<b>Budget Action</b>	New	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>					
Year	2019	2020	2021	2022	Total
Project Phase	Design	Land	Construction	Construction	Project
Expenditure Budget	\$500,000	\$500,000	\$1,150,000	\$0	\$2,150,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$500,000	\$500,000	\$1,150,000	\$0	\$2,150,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>		
Design	\$400,000			Surface Transportation Program - Milwaukee	\$4,600,000
WisDOT Plan Review	\$100,000				
Land Acquisition	\$500,000				
Construction	\$5,000,000				
Construction Management	\$500,000				
Contingency	\$250,000				
Total Project Cost	\$6,750,000			Total Revenue	\$4,600,000
<b>EXPENDITURE BUDGET</b>	\$2,150,000			<b>REVENUE BUDGET</b>	\$0

**Project Scope & Description**

This 0.8 mile long project involves the rehabilitation/reconstruction of CTH O to bring it up to current standards. Improvements will include: replacing the existing concrete pavement, reconfiguring intersections to improve safety, replacing older traffic signals, minor grading, adding sidewalks and storm water improvements. Access to Brookfield Square Mall and other businesses adjacent to Moorland Road will need to be maintained during construction. Therefore traffic control will be a major challenge for this project. The Department will apply for \$4,600,000 in federal STP-M funds for this project.

**Location**

City of Brookfield

**Analysis of Need**

The concrete pavement along this portion of Moorland Road (CTH O) has deteriorated to the point where it now has a pavement condition index (PCI) of 30 which is regarded as poor. A PCI of 20 would indicate that the pavement has failed. The roadway was first built in 1978 and was rehabilitated in 2001 but that rehabilitation is now at the end of its useful life, paving slabs have deteriorated, paving joints have faulted and the concrete pavement is in need of replacement. Pavement issues are further compounded by the fact that this portion of Moorland Road is one of the busiest on the County system with over 30,000 vehicles per day using the corridor which serves as a major access road to Brookfield Square Mall and to the Bluemound Road corridor.

**Alternatives**

- Attempt further rehabilitation. This alternate is not recommended because it is not considered cost effective due to the poor condition of the existing pavement and the high cost of traffic control needed to maintain traffic for this roadway.
- Reconstruct/rehabilitate CTH O as described above.

**Ongoing Operating Costs**

Operating costs are not expected to change.

**Previous Action**

None

<b>Project #</b>	9131	<b>Project Title:</b>	Bridge Aid Program
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	
<b>Phase:</b>	Program Project	<b>Project Type:</b>	Bridge
<b>Budget Action:</b>	C - \$ Update	<b>Manager:</b>	Allison Bussler, Director
<b>Date:</b>	August 17, 2014		

<b>CAPITAL BUDGET SUMMARY</b>							
Year	Previous	2015	2016	2017	2018	2019	Total
Project Phase							Project
Expenditure Budget	\$180,000	\$0	\$100,000	\$100,000	\$0	\$0	\$380,000
Revenue Budget	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net County Cost	\$180,000	\$0	\$100,000	\$100,000	\$0	\$0	\$380,000
<b>COST DOCUMENTATION</b>				<b>REVENUE</b>			
Previous	\$180,000						
2015 Appropriation	\$0						
2016 Appropriation	\$100,000						
2017 Appropriation	\$100,000						
2018 Appropriation	\$0						
2019 Appropriation	<u>\$0</u>						
Total Project Cost	\$380,000			Total Revenue		\$0	
<b>EXPENDITURE BUDGET</b>	\$380,000			<b>REVENUE BUDGET</b>		\$0	

**Project Scope & Description**

The program provides assistance to municipalities for the replacement of large drainage structures. The project normally provides 50% of the funding for engineering, design, and construction of town-, village-, or city-initiated projects that do not receive federal or state aid.

**Location**

Various

**Analysis of Need**

Wisconsin Statute 82.08 requires the County to fund half the cost of construction or repair of local bridge and culvert projects initiated by townships. Such projects arise during the course of the budget year and funds are distributed on the basis of requests received. Requests that exceed the remaining funding for one year are carried over to the next year. This funding program has historically been expanded to cover all municipalities.

**Alternatives**

- County participation in the program is required by a statutory mandate.
- The County could opt out of participation with cities and villages.

**Ongoing Operating Costs**

The projects do not require departmental budget operating expenditures. Projects are reviewed by County engineering staff.

**Previous Action**

- 1996-2000 capital plan: approved as on going program project as planned.
- 1997-1999: funding suspended.
- Approved as planned in subsequent five-year plans.
- 2001-2005 to 2009-2013 capital plans: approved with additional years.
- 2010-2014 through 2014-2018 capital plans: funding suspended.



<b>Project #</b>	200911	<b>Project Title:</b>	Repaving Program 2013–2017
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	
<b>Phase:</b>	Program Project	<b>Project Type:</b>	Repaving
<b>Budget Action:</b>	As Planned	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

<b>CAPITAL BUDGET SUMMARY</b>						
Year	Previous	2013	2014	2015	2016	2017
Project Phase						
Expenditure Budget	\$0	\$1,200,000	\$2,000,000	\$3,000,000	\$3,000,000	\$3,000,000
Revenue Budget	<u>\$0</u>	<u>\$0</u>	<u>\$330,000</u>	<u>\$330,000</u>	<u>\$0</u>	<u>\$0</u>
Net County Cost	\$0	\$1,200,000	\$1,670,000	\$2,670,000	\$3,000,000	\$3,000,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>			
			Hwy Paving & shouldering	County Highway Improvement Program (CHIP)		
	Paver Study	UWW Pav.				
2013	\$20,000	\$50,000	\$1,130,000			
2014	\$70,000	\$50,000	\$1,880,000	2014		\$330,000
2015	\$50,000	\$50,000	\$2,900,000	2015		\$330,000
2016	\$50,000	\$50,000	\$2,900,000			
2017	\$50,000	\$50,000	\$2,900,000			
Total Project Cost	\$240,000	\$250,000	\$11,710,000	Total Revenue		\$660,000
<b>EXPENDITURE BUDGET</b>			\$12,200,000	<b>REVENUE BUDGET</b>		\$660,000

**Project Scope & Description**

The project involves resurfacing or rehabilitation of county trunk highways to remove distressed areas and provide improved riding surfaces. It is the Department of Public Works' goal to pave approximately 20 miles of roadway on an annual basis. Crush, relay and surface or other alternative methods will be used as necessary in lieu of a simple patch and overlay. The project includes the cost of the ongoing Pavement Inspection Program, which determines the sections of highways to be repaved, along with the cost of shouldering, the paving program at UW-Waukesha and parking lots at the Department's substation facilities.

**Location**

Various locations throughout the county.

**Analysis of Need**

The Department of Public Works presently maintains about 396 centerline miles of asphalt-surfaced roadways on the county trunk system and the parking lots at UW Waukesha. The Department reconstructed existing two-lane roadways to four-lane facilities. These four-lane facilities are now coming to the end of their design life and need repaving. As asphalt pavements age, the surface tends to rut and crack due to vehicle loads and weathering of the asphalt. The Department has initiated a pavement management program, using Cartegraph's Pavementview software to rate pavement conditions and manage pavement projects. The average Overall Condition Index (OCI) of asphaltic pavements in 2013 was 68. It is the county's goal to maintain an average OCI rating of 70 with less than 10% of roadways under a PCI of 40. Resurfacing projects take into consideration the OCI of existing pavements and classification of the road. The OCI ratings are updated on a rolling three-year schedule.

**Alternatives**

- Spot repairs and patching. The result will be a slight delay in the deterioration of the system.
- Resurface roadways based on pavement conditions determined by the PAVER pavement management system and Department review.

**Ongoing Operating Costs**

The cost of maintaining a two-lane roadway in good condition is projected to cost approximately \$7,000 per mile annually (2013).

**Previous Action**

- 2009-2013 capital plan: approved as a new project.
- 2010-2014 and 2011-2015 capital plans: approved as planned.
- 2014-2018 capital plan: approved with revenue update.

<b>Project #</b>	201416	<b>Project Title:</b>	Repaving Program 2018–2022
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	
<b>Phase:</b>	Program Project	<b>Project Type:</b>	Repaving
<b>Budget Action:</b>	As planned	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

CAPITAL BUDGET SUMMARY						
Year	Previous	2018	2019	2020	2021	2022
Project Phase						
Expenditure Budget	\$0	\$3,100,000	\$3,100,000	\$3,150,000	\$3,150,000	\$3,200,000
Revenue Budget	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net County Cost	\$0	\$3,100,000	\$3,100,000	\$3,150,000	\$3,150,000	\$3,200,000
<b>COST DOCUMENTATION</b>				<b>REVENUE</b>		
	Paver Study UWW Pav.		Hwy Paving & shouldering			
2018	\$50,000	\$55,000	\$2,995,000			
2019	\$50,000	\$55,000	\$2,995,000			
2020	\$50,000	\$55,000	\$3,045,000			
2021	\$50,000	\$55,000	\$3,045,000			
2022	\$50,000	\$55,000	\$3,095,000			
Total Project Cost	\$250,000	\$275,000	\$15,175,000	Tot. Revenue	\$0	
<b>EXPENDITURE BUDGET</b>			\$15,700,000	<b>REVENUE BUDGET</b>		\$0

**Project Scope & Description**

The project involves resurfacing or rehabilitation of county trunk highways to remove distressed areas and provide improved riding surfaces. It is the Department of Public Work's goal to pave approximately 20 miles of roadway on an annual basis. Crush, relay and surface or other alternative methods will be used as necessary in lieu of a simple patch and overlay. The project includes the cost of the ongoing Pavement Inspection Program, which determines the sections of highways to be repaved, along with the cost of shouldering, the paving program at UW-Waukesha and parking lots at the Department's substation facilities.

**Location**

Various locations throughout the county.

**Analysis of Need**

The Department of Public Works presently maintains about 396 centerline miles of asphalt-surfaced roadways on the county trunk system and the parking lots at UW Waukesha. The typical useful life of a pavement is 15 years. As asphalt pavements age, the surface tends to rut and crack due to vehicle loads and weathering of the asphalt. The Department has initiated a pavement management program, using Cartegraphs Pavementview software to rate pavement conditions and manage pavement projects. The average Overall Condition Index (OCI) of asphaltic pavements in 2013 was 68. It is the county's goal to maintain an average OCI rating of 70 with less than 10% of roadways under a PCI of 40. Resurfacing projects take into consideration the OCI of existing pavements and classification of the road. The OCI ratings are updated on a rolling three-year schedule.

**Alternatives**

- Spot repairs and patching. The result will be a slight delay in the deterioration of the system.
- Resurface roadways based on pavement conditions determined by the PAVER pavement management system and Department review.

**Ongoing Operating Costs**

The cost of maintaining a two-lane roadway in good condition is projected to cost approximately \$7,000 per mile annually (2013).

**Previous Action**

- Approved as a new project in the 2014-18 capital plan

<b>Project #</b>	200427	<b>Project Title:</b>	Signals & Safety Improvements
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	
<b>Phase:</b>	Program Project	<b>Project Type:</b>	Spot Improvement
<b>Budget Action:</b>	C - \$ Update, Revenue	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

CAPITAL BUDGET SUMMARY							
Year	2014 (existing budget)	2015	2016	2017	2018	2019	Total Project
Expenditure Budget	\$1,200,000	\$842,400	\$1,250,000	\$1,250,000	\$0	\$0	\$4,542,400
Revenue Budget	\$250,000	\$0	\$0	\$0	\$0	\$0	\$250,000
Net County Cost	\$950,000	\$842,400	\$1,250,000	\$1,250,000	\$0	\$0	\$4,292,400
<b>COST DOCUMENTATION</b>				<b>REVENUE</b>			
2014 Appropriation	\$1,200,000						
2015 Appropriation	\$1,250,000						
2016 Appropriation	\$1,250,000						
2017 Appropriation	\$1,250,000						
2018 Appropriation	\$0						
2019 Appropriation	\$0						
Total Project Cost	\$4,950,000						
<b>EXPENDITURE BUDGET</b>				<b>REVENUE BUDGET</b>			
	\$4,542,400						\$250,000

### Project Scope & Description

This program addresses roadway safety needs in two specific areas. Firstly, upgrades to existing traffic signals and new locations where traffic signals are warranted. Secondly, locations where there are significant safety issues, these may occur at intersections, or where there is poor roadway geometry. For the intersections that meet signal warrants, the Department will study signal and roundabout alternatives. For intersections that are upgraded, new equipment and some minor geometric updates will be included to increase intersection safety and performance. Where safety is the concern The Department will conduct safety studies and proceed with the solution which best addresses the observed needs. The following projects will be studied, designed and constructed over the next three years (2015/17). Others may be added if funding allows. Beginning in 2018, intersection and safety projects will be introduced separately and evaluated on their merits against all other capital projects.

Intersection	Location	Year	COST ESTIMATE		
			County Share (In Co. Budget)	HSIP Funded (Not in Co. Budget)	Total Cost Estimate
CTH Y and CTH I – Intersection: Add traffic signals and turn lanes (Revised decrease of \$23,000).	City of New Berlin	Design in 2014, Construction in 2015	\$707,000	\$0	\$707,000
CTH YY and Burleigh Rd - Intersection: Upgrade existing signals and improve turn lanes and approaches (Revised increase of \$251,000).	City of Brookfield	Design in 2014/15, Construction in 2016	\$1,281,000	\$0	\$1,281,000
CTH VV, CTH E Intersection: Install roundabout to reduce crashes.	Town of Merton	Design in 2015/16, Complete construction in 2017	\$305,000	\$941,000	\$1,246,000
CTH JJ and Silvernail: Improve intersection to address high crash rates (Revised decrease of \$257,000).	City of Pewaukee	Design 2014/15, Construction 2016	\$99,000	\$444,000	\$543,000
CTH JJ/J intersection and CTH JJ/SR intersection: Upgrades to improve safety.	Cities of Pewaukee, Waukesha	Design in 2014/15, Construction in 2016	\$110,000	\$896,000	\$1,006,000
CTH VV, Lilly Rd intersection: realign left turn lanes and upgrade traffic signal.	Village of Menomonee Falls	Design in 2015, Construction in 2016	\$109,000	\$663,000	\$772,000
CTH KF/JK intersection: Add traffic signal and turn lanes to improve safety.	City of Pewaukee	Design in 2015/16, Construction in 2017	\$190,000	\$678,000	\$868,000

<b>Project #</b>	200427	<b>Project Title:</b>	Signals & Safety Improvements
<b>Department:</b>	Public Works-Highways	<b>Road Name:</b>	
<b>Phase:</b>	Program Project	<b>Project Type:</b>	Spot Improvement
<b>Budget Action:</b>	C - \$ Update, Revenue	<b>Manager:</b>	Allison Bussler, DPW Director
<b>Date:</b>	August 26, 2014		

**Analysis of Need**

As the County's population continues to grow, roadway vehicular traffic volumes and crashes increase, resulting in the need to install new traffic signals or roundabouts, or make geometric changes to reduce crash rates, delays and congestion. Some existing signals are more than 20-years-old and are in need of new features such as turn arrows and pedestrian phases. Some high crash site locations do not meet traffic signal warrants and need to be addressed with other lower cost improvements.

**Alternatives**

- Use signing and marking to address crash issues. This alternate can reduce the number of crashes and should be used when appropriate, but it does not always bring crashes down to acceptable levels
- Implement improvements as described.

**Ongoing Operating Costs**

Increased costs of approximately \$9,600 annually per new signal installation and additional lane miles.

**Previous Action**

- 2004-2008 capital plan: approved as a combined program.
- 2005-2009, 2006-2010, 2007-2011, 2008-2012 and 2011-2015 capital plans: approved as planned.
- 2009-2013 capital plan: cost update.
- 2010-2014 capital plan: approved use of stimulus funds.
- 2013-2017 capital plan: Cost update. Addition of HSIP funded project.
- 2014-2018 Capital plan: new projects, revenue update.

<b>Project #</b>	201119	<b>Project Title:</b>	2015 Orthophotography
<b>Department:</b>	Parks and Land Use	<b>Sponsor:</b>	
<b>Phase:</b>	5 years–Program Project	<b>Manager:</b>	Dale Shaver, P&LU Director
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 26, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2011	2015	Total
Project Phase	Project Work	Project Work	Project
Expenditure Budget	\$204,520	\$195,500	\$400,020
Revenue Budget	<u>\$204,520</u>	<u>\$195,500</u>	<u>\$400,020</u>
Net County Cost	\$0	\$0	\$0
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Contract Costs	\$400,020	CDBG-EAP	\$204,520
Contingency	<u>\$0</u>	Land Information System	
Total Project Cost	\$400,020	Fund Balance	\$195,500
<b>EXPENDITURE BUDGET</b>	\$400,020	<b>REVENUE BUDGET</b>	\$400,020

**Project Scope & Description**

Aerial images were acquired for Waukesha County in 1963, 1970, 1975, 1980, 1985 and 1990 under programs administered by the Southeastern Wisconsin Region Planning Commission (SEWRPC). Higher precision orthophotography (images that have been “ortho-rectified” to correct for distortion caused by changes in terrain) were acquired in 1995, 2000 and 2005. Capital project 200614 created new orthophotography for the County in 2010.

Orthophotography requires that a Digital Terrain Model (DTM) be created to allow the ortho-rectification process to be completed. The DTM contains data that allows a computer to generate a model of the land surface. The DTM required for the creation of orthophotography is not as precise as the model that is required to generate the topographic base maps usually required for regulation and analysis. Waukesha County Capital projects ROD9900 and 200508 each contributed funds to create the higher precision DTM that was used to generate a countywide two foot contour topographic base map in 2005 and to ortho-rectify the 2005 and 2010 orthophotography products. This DTM was later used by FEMA to refine floodplain boundaries in Waukesha County under a federal matching project that credited the County with \$600,000 in local match due to the existence of the DTM.

This project will fund the acquisition of new orthophotography in 2015 to continue the series and provide high quality imagery to support regulatory and planning activities in the county. In addition, new Light Detection and Ranging (LiDAR) technology will be used to create a new high precision DTM, a new one-foot topographic base file to capture changes in the terrain of the county that have occurred since 2011, and monitor changes in floodplain elevations. A grant was received through the Community Development Block Grant (CDBG)–Emergency Assistance Program for the collection of LIDAR data. In order to take advantage of this grant, the expenditure for the LIDAR portion of this project was advanced to 2011. The LIDAR data collected at this time will still provide precise base data for the anticipated orthophotography of this project in 2015.

**Location** Parks and Land Use Department, 515 W. Moreland Boulevard, Waukesha, WI 53188

**Analysis of Need**

The orthophotography images, topographic maps and underlying DTM are used by the planning, parks, land conservation and transportation departments for planning and development. Without current consistent information, inaccurate assumptions could be made resulting in costly changes in planned activities.

**Alternatives**

Do not create data.

**Ongoing Operating Costs**

None

**Previous Action**

- 2000 capital project ROD 9900.
- 2005 capital project 200508.
- 2006 capital project 200614.
- Modified by Enrolled Ordinance 166-5 in 2011 which moved \$204,520 of expenditure authority to 2011.
- 2012-2016, 2013-2017 capital plans: project approved as planned.
- 2014-2018 capital plan, approved with revenue update.

<b>Project #</b>	201407	<b>Project Title:</b>	Waukesha-Brookfield Multi-Use Trail Project
<b>Department:</b>	Parks and Land Use	<b>Sponsor:</b>	
<b>Phase:</b>	Formation	<b>Manager:</b>	Dale Shaver-Parks & Land Use Director
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 23, 2014

<b>CAPITAL BUDGET SUMMARY</b>					
Year	2014	2015	2016	2017	Total
Project Phase	<u>Prelim. Design</u>	<u>Design/Eng.</u>	<u>Construction</u>	<u>Construction</u>	Project
Expenditure Budget	\$50,000	\$450,000	\$1,240,200	\$1,240,200	\$2,980,400
Revenue Budget	\$0	<u>\$427,500</u>	<u>\$1,178,200</u>	<u>\$1,178,200</u>	<u>\$2,783,900</u>
Net County Cost	\$50,000	\$22,500	\$62,000	\$62,000	\$196,500
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>		
Design	\$500,000		80% Fed/State WisDOT		\$2,344,340
Construction	\$2,380,400		10% State WDNR		\$293,040
Contingency	<u>\$100,000</u>		5% City of Brookfield		\$146,520
Total Project Cost	\$2,980,400		Total Revenue		\$2,783,900
<b>EXPENDITURE BUDGET</b>	\$2,980,400		<b>REVENUE BUDGET</b>		\$2,783,900

**Project Scope & Description**

In 2009, the Waukesha County Board adopted the updated Comprehensive Development Plan for Waukesha County. Through a collaborative effort between the Department of Parks and Land Use, the Department of Public Works, all municipalities within the County, the Wisconsin Department of Transportation, the Wisconsin Department of Natural Resources and the Southeast Wisconsin Regional Planning Commission (SEWRPC) an updated Bicycle Plan was developed and adopted by the Waukesha County Board as part of the Comprehensive Development Plan in 2012.

A component of the Bicycle Plan includes an approximately 4 mile bike-pedestrian trail from the City of Waukesha at Frame Park, to the City of Brookfield at Mitchell Park, and the Brookfield redevelopment district along the old Chicago-Pacific Railroad. The project will be coordinated with the State of Wisconsin Department of Transportation, Department of Natural Resources, Army Corps of Engineers, Chicago-Pacific Railroad Company, State of Wisconsin Railroad Commission, City of Brookfield and City of Waukesha. The trail will offer two trail heads, and crosses three roadways, underpasses Bluemound Road and Interstate 94, crosses the Fox River three times, crosses the Pewaukee River once.

The Department of Parks and Land Use will secure funding from multiple sources. The Trail project anticipates receiving \$2,334,340 (80:20 cost share reimbursable program) from the Wisconsin Department of Transportation through the Federal Transportation Alternatives Program (TAP) Grant; \$293,040 from the Wisconsin DNR Stewardship (50:50) – Recreational Trails program and the City of Brookfield and Waukesha County splitting the remaining costs, less the \$50,000 that Waukesha County will spend in preliminary design. The County does not anticipate plowing the trail in the winter. Depending on future use and demand, this trail may be maintained cooperatively with the City for year round use.

**Location**

The project is located on the abandoned railroad corridor, and is located on the southern terminus at Moreland Boulevard in the City of Waukesha, and on the northern terminus at River Road/Brookfield Road in the City of Brookfield. Features or destinations along the trail include the GE Medical Training Center located on Watertown Plank Road.

**Analysis of Need**

The project is identified as a north-south connector trail in the Waukesha County Bike/Pedestrian Plan. This project will serve an estimated 120,000 in the Waukesha-Brookfield area. This project connects public parks and green space, and is a re-use of an abandoned railroad corridor. The project will offer economic benefits by connecting business and employment centers in the communities.

**Alternatives**

The project alternatives are to not build a connector trail in this part of the county, or build a connector bicycle lane or paved shoulder facility as part of the CTH F overlay project. This county road is a simple overlay project, and not a reconstruction project, and also has limited available right-of-way for separated trail purposes.

**Ongoing Operating Costs**

This project will generate an additional 4 lineal miles of trail to maintain. This facility will be maintained by the current parks staffing level located at Fox Brook Park.

**Previous Action**

No previous action has been taken, other than to acquire the required land area.

<b>Project #</b>	201408	<b>Project Title:</b>	Park Beach Area Renovations
<b>Department:</b>	Parks & Land Use	<b>Manager:</b>	Dale Shaver, Parks & Land Use Director
<b>Phase:</b>	Preliminary Design		
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 17, 2014

<b>CAPITAL BUDGET SUMMARY</b>						
Year	2014	2015	2016	2017	2018	Total
		Analysis		Design	Construction	Project
Expenditure Budget	\$0	\$15,000	\$0	\$88,000	\$901,000	\$1,004,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$0	\$15,000	\$0	\$88,000	\$901,000	\$1,004,000
<b>COST DOCUMENTATION</b>			Cost	<b>REVENUE</b>		
Feasibility/Site Analysis			\$15,000			
Architecture/Engineering/Surveying			\$88,000			
Construction			\$834,000			
Contingency			\$67,000			
Total Project Cost			\$1,004,000			
<b>EXPENDITURE BUDGET</b>			\$1,004,000	<b>REVENUE BUDGET</b>		\$0

**Project Scope and Description**

This project would implement a component of proposed changes identified during the Minooka and Mukwonago Park Master Planning process. The overall goal for parkland management is to increase revenue potential while reducing operational costs through maintenance efficiencies and sustainability initiatives, while preserving/managing in a natural landscape 70% of the park area, and designing and improving 30% of the park area for use areas. At Minooka Park, the project is for the renovation of the beach house to include the code improvements and expansion to a picnic pavilion and update the pond area including a walking path, fishing pier and dog swim area. The expanded building includes provision for a beach guardroom, that could be converted to additional storage should the County decide in the future that the beach function in this park is discontinued. The project would include asbestos and lead paint abatement as necessary, Americans with Disabilities Act (ADA) code compliance, and plumbing and electrical updates.

At Mukwonago Park, in 2015, the Department will conduct a feasibility/site analysis of the existing 1940's era beach house to relocate and/or renovate as a beach house, rental pavilion or a combination of both. Design and construction work planned for 2017 and 2018 pertains to Minooka Park.

**Location**

Minooka Park: 1927 E Sunset Dr, Waukesha, WI 53186  
Mukwonago Park: W325 S9945 Beulah Road, Mukwonago, WI 53149

**Analysis of Need**

Minooka Park's original building was constructed as a beach house in the 1960's. The structure is in need of updating to meet use and ADA standards in addition to modernizing plumbing and electrical fixtures. As part of the master planning process for Minooka Park, staff analyzed beach water quality trends, use levels and the availability of newer aquatic facilities in the City of Waukesha. The Department of Parks and Land Use is proposing the renovation of the beach house to provide use flexibility to meet beach use needs, which could include reduction in beach use or closure and provide for rentable year-round pavilion space to accommodate larger groups.

**Alternatives**

Minooka Park:

1. Maintain the beach operation without change. A major remodel would be necessary to bring the building up to current ADA and use standards.
2. Raze the existing building and do not construct a new shelter.
3. Raze the existing structure and construct a new Pavilion. New construction versus remodeling the existing structure is estimated to increase the budget by approximately \$435,000.

**Ongoing Operating Costs**

Regarding Minooka Park, operation of the existing building would decrease due to new energy efficient lighting, plumbing, HVAC, and day lighting solutions. If beach operations are discontinued, operation costs are anticipated to decrease by \$20,000. Revenue based on rental reservation and park entrance fees is conservatively projected to increase by \$12,000. This would result in a net gain of \$32,000 per year. Estimated ongoing operating costs for Mukwonago Park will be addressed during the feasibility/site analysis phase.

**Previous Action**

Approved as a new project in 2014-2018 capital plan.

<b>Project #</b>	200505	<b>Project Title:</b>	Park Restrooms Renovation
<b>Department:</b>	Parks & Land Use	<b>Manager:</b>	Dale Shaver, Parks & Land Use Director
<b>Phase:</b>	Construction		
<b>Budget Action:</b>	C – Scope, \$ Update	<b>Date:</b>	August 27, 2014

<b>CAPITAL BUDGET SUMMARY</b>									
Year	2009	2010	2011	2012	2013	2014	2016	Total	
Program Project	Plan/Design	Construction	Construction	Construction	Construction	Construction	Design/ Construction	Project	
Expenditure Budget	\$15,000	\$480,000	\$660,000	\$680,000	\$700,000	\$540,000	\$630,000	\$3,705,000	
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Net County Cost	\$15,000	\$480,000	\$660,000	\$680,000	\$700,000	\$540,000	\$630,000	\$3,705,000	
<b>COST DOCUMENTATION</b>	<b># Restrooms</b>	<b>Cost</b>	<b>Item</b>	<b>Per Unit</b>	<b>#</b>				
2009 Planning & Design Building		\$15,000	Soils Testing *	\$1,000	15			\$15,000	
2010 Muskego Park	3	\$480,000	On-Site Sys *	\$20,000	15			\$300,000	
2011 Men. (Nash. moved to 2012)	2	\$660,000	Well *	\$13,000	12			\$156,000	
2012 Nashotah and Nag. Park	6	\$680,000	Restroom	\$120,000	14			\$1,680,000	
2013 Minooka (moved to 2014)	0	\$700,000	Add. RR/ Shelter Minooka	\$630,000	1			\$630,000	
2014 Min. and Mukwonago Park	3	\$540,000	Site work	\$27,550	15			\$413,300	
2016 Minooka	1	\$630,000	Green Design					\$148,200	
Total Project Cost	15	\$3,705,000	Contingency					\$362,500	
				Total				\$3,705,000	
<b>EXPENDITURE BUDGET</b>		\$3,705,000							

\* Not all sites require.

**Project Scope and Description:**

The plan identifies Capital Projects spread-out over multiple years to be accomplished in order to bring the parks up to sanitary expectations of the park user. The project would build new restrooms in the reserved picnic areas of Muskego, Nashotah, Menomonee, Minooka, Naga-Waukee, and Mukwonago parks. This project includes green initiatives such as low-flow fixtures, solar tube skylighting, and energy conserving motion detector/photocell switches for lighting and ventilation fans. Grants and financial incentives for incorporating energy efficiency and renewable energy elements may be available to offset additional costs of sustainable technology. Geothermal was mentioned in previous scoping, but is cost prohibitive for structures of this size. This project addresses only the reserved picnic areas. Golf course and park camping toilets projects are planned to be introduced after completion of this project. Due to the high bids and distance between Nashotah and Menomonee Park, it was decided to only rebid Menomonee Park in 2011 and moved Nashotah Park to 2012.

The original plan in 2005 was to construct 18 new restrooms to replace 22 existing open concrete vault toilets at these parks. However, during the design phase for the proposed Minooka and Mukwonago restrooms, and additional evaluation during the Master Plan update process for these parks, changes to the scope of the planned restrooms are recommended, reducing the total number of new restrooms to 14. Specifically, it is recommended to defer construction of two restrooms at Minooka Park and two restrooms at Mukwonago Park. At Minooka Park, one of the shelters where a restroom was to be added has unforeseen foundation structural issues.

In year 2013, as part of the capital plan approval process, the Waukesha County Board amended this plan to require the Department, in Year 2014, to finalize a design for the replacement of the shelter at Minooka Park picnic area #3 in conjunction with the construction of the proposed restroom. The construction is proposed in calendar year 2016. Therefore, a new restroom shelter is proposed for Minooka Park Picnic Area #3, which will provide the opportunity to accommodate larger user groups using this area of the park, and integrate the shelter structure with a restroom. The existing beach bathhouse is being evaluated for renovation into a pavilion that can be used for year-round rental, thereby expanding the revenue potential at this location (capital project 201408, Park Beach Area Renovations). At Mukwonago Park, as part of the park Master Plan process, one larger restroom building is proposed to be shared among three picnic areas due to proximity. In the future, road and parking lot modifications and a potential replacement of the late 1950's bathhouse/pavilion building would reduce the need for the second restroom.

**Location:**

Various park locations as described in project scope.

<b>Project #</b>	200505	<b>Project Title:</b>	Park Restrooms Renovation
<b>Department:</b>	Parks & Land Use	<b>Manager:</b>	Dale Shaver, Parks & Land Use Director
<b>Phase:</b>	Construction		
<b>Budget Action:</b>	C – Scope, \$ Update	<b>Date:</b>	August 27, 2014

**Analysis of Need:**

The specific parks listed have been in existence for many years. These parks have been upgraded over the years with picnic shelters, camping facilities, swimming areas with beach houses, and the addition of improved shelters with restroom facilities. These improvements are well appreciated by the park user. However, recurring complaints are received regarding the conditions of the older vault restroom facilities. The unpleasant odor of the vault restroom creates a disagreeable experience, even with increased pumping frequencies and the use of deodorants. The existing vault restrooms also lack hand-washing fixtures, critical to maintaining sanitary conditions for park users. Finally, the existing vault restrooms predate ADA (Americans with Disabilities Act) and require improvements for compliance and to best serve all park users by incorporating barrier-free facilities. ADA compliance may require grading approaches and entry areas to manageable slopes, widening doorframes and doors to accommodate wheelchairs, expanding stall areas and adding handrails within the restrooms.

**Alternatives:**

Continue to use the vault toilet: keep trying to overcome the unpleasant odor; provide dispensers with anti-bacterial water-free hand cleansers; attempt to modify site work, doors and fixtures to work toward ADA compliance.

**Ongoing Operating Costs:**

Maintenance costs will increase because of the increased mechanical features and plumbing within the new restrooms. Cutting edge sustainable technologies potentially may have reduced operating and life cycle costs, though require additional staff training for specialized maintenance. Additional operating costs will be somewhat offset by increased use of the parks. Various companies have turned down the parks for company picnics because of the restroom conditions. The six parks identified currently generate as a total of \$51,500 in reservation fees and \$321,200 in entrance fees annually. The parks currently spend \$13,250 for septic services annually.

**Previous Action:** Approved as new project in the 2005-2009 plan. As planned in the 2006-2010 and 2007-2011 plans. Approved with cost update in the 2008-2012 plan. Change to scope in the 2009-2013 Plan. Approved as planned in the 2010-2014 Plan. Approved as planned in the 2011-2015 Plan. Change to scope in the 2012-2016 Plan. Update to 2012-2016 Plan, and a scope update for 2014-2018 Plan.

<b>Project #</b>	201208	<b>Project Title:</b>	Energy Efficiency Improvements
<b>Department:</b>	Parks and Land Use	<b>Sponsor:</b>	Public Works
<b>Phase:</b>	Program Project	<b>Manager:</b>	Dale Shaver, PLU Director
<b>Budget Action:</b>	C – Scope, \$ Update	<b>Date:</b>	August 26, 2014

CAPITAL BUDGET SUMMARY								
Year	Previous	2014	2015	2016	2017	2018	2019	Total
Program Project	Design & Construction	Design & Construction	Project					
Expenditure Budget	\$705,000	\$215,200	\$75,000	\$110,000	\$110,000	\$110,000	\$110,000	\$1,435,200
Revenue Budget	\$0	\$100,000	\$75,000	\$0	\$0	\$0	\$0	\$175,000
Net County Cost	\$705,000	\$115,200	\$0	\$110,000	\$110,000	\$110,000	\$110,000	\$1,260,200
<b>COST DOCUMENTATION</b>						<b>REVENUE</b>		
Architect/Consultant					\$50,000	*To fund non-enterprise, General Fund improvements		\$448,200
Construction					\$425,000			
Contingency					\$40,000			
Previous: 2012 through 2014					\$920,200	Ice Arenas Fund Balance		\$100,000
Total Project Cost					\$1,435,200	Golf Course Fund Balance		\$75,000
<b>EXPENDITURE BUDGET</b>						<b>REVENUE BUDGET</b>		
					\$1,435,200			\$175,000

**Project Scope & Description**

This project will continue the implementation of Energy Efficiency Improvements at Waukesha County facilities. Focus on sound return on investments will continue to demonstrate a sound business approach to energy saving and will provide the strong reduction of utility expenditures in the operating budget.

Energy efficiency improvements for Years 2012 and 2013 consisted primarily of government center campus building lighting upgrades at the Courthouse and Mental Health Center.

Year 2014 projects includes:

Installation of digital controls on all HVAC equipment at the high energy use County facilities such as Retzer Nature Center, Eble and NagaWaukee Ice Arenas and Expo Arena to enable monitoring, troubleshooting and adjustment of the equipment through a central computer system. This enterprise energy management system maximizes the efficiencies of the HVAC system and saves significant staff cost in trouble shooting issues at remote locations. Currently the Department of Public Works – Facility Management Division has the Government Campus buildings on the system. Adding the additional buildings would save additional staff time and further leverage the existing technology.

The remaining lighting projects designed by Leedy and Petzold Associates that were not able to be funded under the former Energy Efficiency and Conservation Block Grant (EECBG) grant are now included in this capital project. The final lighting projects will focus on buildings, parking lot lighting and interior lighting at park facilities.

Project Examples and projected ROI

2014	Eble Ice Arena	Facility HVAC Automation	2.6 years ROI
2014	Nagawaukee Ice Arena	Facility HVAC Automation	3.0 years ROI
2014	Retzer Nature Center	Facility HVAC Automation	6.0 years ROI
2014	Expo Arena	Facility HVAC Automation	4.5 years ROI
2015	Nagawaukee and Wanaki	Lighting upgrade	2.0 years ROI
2016	Parks Buildings/Parking Lots	Lighting LED	5.5 years ROI
2017	Eble Park Drive	Lighting LED	5.5 years ROI
2018	Retzer Nature Center	Lighting LED	5.5 years ROI
2019	Parks Buildings/Parking Lots	Lighting LED	5.5 years ROI

Location

Various Waukesha County owned facilities.

Analysis of Need

With improvements in lighting and mechanical equipment technology and the increasing cost of energy and water, it is in Waukesha County's best interest to continually evaluate opportunities to conserve energy and reduce utility costs. The individual projects submitted were chosen because of the returns on investment as well contributing to successful implementation of the Waukesha County Sustainability Plan.

Alternatives

Do not take advantage of opportunities to reduce utility consumption and related expenditures.

Ongoing Operating Costs

Utility costs will continue to increase based on rate increases and consumption. The County can take steps to manage and reduce consumption. Energy consumption will be reduced by an overall estimated average of 18% based on the consultants design by replacing the existing lighting fixtures with the new higher efficiency lighting fixtures and with the addition of Building Automation Systems for high energy buildings.

Previous Action

Capital Project 200805 Energy Conservation completed in 2008 and 2009. Capital Project 200918 Energy Efficiency and Conservation Block Grant completed in 2010 and 2011. 2012-2016 capital plan: approved as a new project. 2013-2017 capital plan: approved as planned. 2014-2018 capital plan: approved with scope and cost updates.

<b>Project #</b>	201309	<b>Project Title:</b>	Wanaki Golf Course Bridges
<b>Department:</b>	Parks and Land Use	<b>Sponsor:</b>	
<b>Phase:</b>	Design	<b>Manager:</b>	Dale Shaver, PLU Director
<b>Budget Action:</b>	C – Scope, \$ - Update, Delay	<b>Date:</b>	August 17, 2014

<b>CAPITAL BUDGET SUMMARY</b>					
Year	2013	2014	2016	2017	Total
Program Project	Design/Eng.	Construction	Construction	Construction	Project
Expenditure Budget	\$50,000	\$160,000	\$200,000	\$225,000	\$635,000
Revenue Budget	<u>\$50,000</u>	<u>\$160,000</u>	<u>\$200,000</u>	<u>\$225,000</u>	<u>\$635,000</u>
Net County Cost	\$0	\$0	\$0	\$0	\$0
<b>COST DOCUMENTATION</b>			Cost	Item	
2013-14 Planning & Design			\$50,000	Soils Testing*	\$6,000
2014 Bridge Construction			\$160,000	Hydraulic Analysis/Design	\$80,000
2016 Ped/Golf Cart Bridge			\$200,000	Site work/removals	\$25,000
2017 Ped/Golf Cart Bridges			\$225,000	Foundation	\$60,000
				Bridges	\$375,000
				Cart paths	\$20,000
				Contingency	\$45,000
Total Project Cost			\$635,000	Construction Inflation to 2017	<u>\$24,000</u>
					\$635,000
<b>EXPENDITURE BUDGET</b>			\$635,000	Revenue: G.C.Fund Bal.	\$635,000

\*Note: The hydraulic analysis, or a portion thereof, may be able to be accomplished using Departmental staff; sitework design by staff; design and bridge structural design by consultant.

#### **Project Scope & Description**

2012 Bridge evaluations have revealed deteriorating conditions that have led to one bridge failure. Current bridge construction dates back to early 1970's, and consists of metal pipe culverts in the Fox River, with stone abutments and crushed stone fill and surfacing. Rain events cause flooding and washout of the six bridges, deposition of crushed stone into the Fox River. Bridge closures due to flooding cause golf course closure and loss of revenue following rain events. The proposed project will improve the flow of the Fox River, reduce the total number of bridge structures, and provide safe, compliant and aesthetic crossings of the river. The project proposes reducing six current bridges down to three or four structures to maintain golf course playability, allowing for use by course maintenance equipment, while reducing on-going structure maintenance cost. One of the structures will be designed and rated to accommodate heavy loads, while the other smaller structures will be rated for pedestrian/golf cart loads.

#### **Location**

Wanaki Golf Course, located in the Village of Menomonee Falls.

#### **Analysis of Need**

A bridge evaluation conducted in 2012 identifies structural failures, and need for replacement. Original construction consists of metal culvert pipe and stone endwalls dating back to early 1970's. Metal culvert pipe has deteriorated and in some cases failed, necessitating limiting the loads on one of the bridges. The existing bridges have served a useful life of over 40 years. The current structures have been evaluated for the option of continuing to repair in specific areas, and attempt to extend the life of the structures. Removal of the existing structures will also improve flow of the Fox River in this area, and reduce continual damage to the stone surface and endwalls in large rain events.

#### **Alternatives**

The design team reviewed bridge locations, evaluated the repair of existing bridge types to extend the life of current structures; reviewed multiple bridge types including prefab steel, laminated wood, precast concrete bridges; analyzed reduction of number of bridges to reduce cost and impact to Fox River. Criteria for final design decisions included cost effectiveness, ability to obtain required regulatory permits, minimize impacts to floodplain, reduce long term maintenance, and aesthetics in the golf course setting.

#### **Ongoing Operating Costs**

It is expected that a reduction of labor and material costs to continuously repair existing structures will be realized. Future maintenance of new structures will be performed by golf course and parks staff. Removal of existing structures will reduce time spent on repair of the six bridges on an on-going basis, and improve the ability of the current staff to focus on golf course turf conditions. Savings will be realized to maintain three or four bridges, as opposed to the former six bridges, with one structure being more substantial to accommodate heavier loads, and the other structures to be lighter load ratings to accommodate pedestrian/golf cart traffic.

#### **Previous Action**

Approved as a new project in the 2013-2017 plan.  
Approved as planned in the 2014-2018 plan.

<b>Project #</b>	201504	<b>Project Title:</b>	Camp Pow Wow Expansion
<b>Department:</b>	Parks and Land Use	<b>Manager:</b>	Dale Shaver Parks and Land Use Director
<b>Phase:</b>	Design	<b>Date:</b>	August 17, 2014
<b>Budget Action:</b>	New		

<b>CAPITAL BUDGET SUMMARY</b>							
Year	2015	2016	2017	2018	2019	Total	
Project Phase	<u>Design/Engineering</u>		<u>Construction</u>			Project	
Expenditure Budget	\$54,400	\$0	\$695,600	\$0	\$0	\$750,000	
Revenue Budget	\$0	\$0	\$375,000	\$0	\$0	\$375,000	
Net County Cost	\$54,400	\$0	\$320,600	\$0	\$0	\$375,000	
<b>COST DOCUMENTATION</b>				<b>REVENUE</b>			
Design/Engineering	\$54,400						
Construction	\$644,000						
Contingency	\$51,600						
Total Project Cost	\$750,000						
					Partnership with ARCh		
					Total Revenue	\$375,000	
<b>EXPENDITURE BUDGET</b>	\$750,000				<b>REVENUE BUDGET</b>	\$375,000	

**Project Scope & Description**

Since 1959, the Association for the Rights of Citizens with handicaps (ARCh) through Camp Pow Wow has been providing outdoor recreational opportunities for adults and children with disabilities. In 1998, in partnership with Waukesha County, a lodge was built in Menomonee Park as the camp's home base. Amenities include: a full-service kitchen, restrooms with showers, nurse's office, covered patio, indoor and outdoor fireplace, heat and air conditioning.

Camp Pow Wow Lodge is reserved exclusively for ARCh annually from May through September. September through May the building is reservable to the public.

Expansion of the current facility will improve functional issues for the camp program and campers' personal health needs including separation of private nurse room, Americans with Disabilities Act (ADA) code updates, restroom expansion and improved energy efficiency. Site improvements will include accessible path connections and educational signage will increase usability and access of the site for camp programs.

**Analysis of Need**

Due to the success of Camp Pow Wow's programming, ARCh has expressed the need for expansion for several years. These improvements will allow ARCh to meet its program needs, comply with ADA codes and continue to retain and attract users of this unique program. Representatives of ARCh have offered to fundraise and partner with Waukesha County to assist with the expansion project. The ARCh organization is celebrating its 55<sup>th</sup> Anniversary in 2014 therefore believes this is an opportune time to launch a fundraising campaign for expansion. The original construction was made possible through a 50/50 cost share agreement between the County. This expansion project is again proposed with a 50/50 cost share agreement between the County and ARCh.

**Location**

Menomonee Park is located in the northeastern section of Waukesha County in the Villages of Lannon and Menomonee Falls.

**Alternatives**

1. Allow camp to function within current space and functionality provided.
2. Don't remodel, but build a new, larger facility in a different area of the park, and rent the current building to the public year round.
3. Partner with ARCh to update and expand the current facility to accommodate additional program participants and functionality desired.

**Ongoing Operating Costs**

Expected minimal increase in operating cost due to additional square footage and restroom plumbing fixtures. Some utility savings due to upgrading HVAC and Lighting to more efficient equipment and fixtures.

**Previous Action**

None.

<b>Project #</b>	200824	<b>Project Title:</b>	Pavement Management Plan 2013 - 2017
<b>Department:</b>	Parks & Land Use	<b>Sponsor:</b>	
<b>Phase:</b>	Program Project	<b>Manager:</b>	Dale Shaver, Parks & Land Use Director
<b>Budget Action:</b>	C - \$ Update	<b>Date:</b>	August 26, 2014

CAPITAL BUDGET SUMMARY						
Year	2013	2014	2015	2016	2017	Total
Program Project						Project
Expenditure Budget	\$0	\$500,000	\$800,000	\$600,000	\$600,000	\$2,500,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$0	\$500,000	\$800,000	\$600,000	\$600,000	\$2,500,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>			
2013	\$0					
2014	\$500,000					
2015	\$800,000					
2016	\$600,000					
2017	\$600,000					
Total Project Cost	\$2,500,000		Total Revenue			\$0
<b>EXPENDITURE BUDGET '15</b>	\$800,000		<b>REVENUE BUDGET</b>			\$0

**Project Scope & Description**

In cooperation with the Public Works Department, retained consultant services to update the Pavement Management Plan, originally done for the Parks System in 1995. The Plan establishes a uniform procedure for pavement maintenance by establishing a Pavement Condition Index (PCI). The PCI is a rated scale of 1-100 based on the state of the asphalt. Pavement repairs are scheduled based on rating. A PCI rating of 86-100 is good and 71-85 satisfactory; pavements with these ratings need routine maintenance or repairs. A rating of 56-70 is fair and 41-55 poor, needing routine maintenance, repairs, major repairs or overall reconstruction. A rating of 26-40 is very poor needing major repairs or overall reconstruction. A rating of 11-25 is serious and 0-10 failed, needing overall reconstruction. The goal is to maintain an average pavement PCI rating of 70 ("satisfactory").

In 2015 the pavement management plan increases from \$500,000 to a budget of \$800,000. The larger increase in 2015 is to address accelerated deterioration as a result of winter conditions in 2013-14. Many of the pavement segments of the government center are of a similar age where more significant repair or reconstruction, including drainage and stormwater management is required. The increase for 2016-2017 is needed to ensure an average PCI of 70 is maintained.

**Location**

Various locations as determined by pavement conditions.

**Analysis of Need**

In 1995 the Waukesha County Department of Parks and Land Use retained consulting services to provide a Pavement Management Plan to assist in cost-effectively managing the pavement assets for the 6 largest parks. At that time there were 6 park facilities with 243,000 square yard of paved surface. Currently we are maintaining 876,498 square yards of paved surface around the Government Center, remote County facilities and the major parks. This represents approximately 3.6 times more pavement. In 2007 the Department changed from the PASER rating, to the PAVER system in an effort to coordinate pavement condition analysis and project bidding with the Department of Public Works to save program cost. The PAVER rating process included field surveys of pavement conditions, development of deterioration models, and preparation of a multi-year pavement management plan.

Approximately 80% of the budget will be used for major rehabilitation on sections selected with a PCI below 40. The remaining budget allocation is first utilized for preventative maintenance on sections with a PCI between 67 and 75, selected on best-first basis. The goal of these practices is to maintain an average PCI of 70. Year 2015 proposed projects include: Juvenile Center and South Sheriff lot, Nagawaukee Campground Road, Minooka for picnic area 5 and Eble Park central lot. Anticipated projects may be adjusted due to project coordination efficiencies or accelerated deterioration.

**Alternatives**

Spot repair with asphalt base patching or sealing road surface has been performed to maintain some function of the roadway or parking area. This could be continued on an annual basis, but will not achieve the desired surface performance or overall PCI rating goal. Reconstruction will be required sooner and risk issues would be more likely to occur.

**Ongoing Operating Costs**

Maintenance of the existing road conditions requires frequent patching and chip and seal applications in order to provide usable conditions. Operating costs within the next five years will be minimal with the proposed pavement improvements.

**Previous Action**

Approved as a new program project in the 1997-2001 Capital Plan, continued in the 1998-2002 Plan and 1999-2003 Capital Plan. Approved with a change in scope to include additional pavement in the 2000-2004 plan. Approved as planned in the 2001-2005 plan, 2002-2006 plan, 2003-2007 plan, 2004-2008 plan, 2005-2009 plan, 2006-2010 plan, 2007-2011 plan, and the 2008-2012 plan. Cost update in the 2009-2013 plan. Cost update in the 2010-2014 and 2012-2016 plan. Approved as planned in the 2013-2017 and 2014-2018 plans.

<b>Project #</b>	201406	<b>Project Title:</b>	Pavement Management Plan 2018-2022
<b>Department:</b>	Parks & Land Use	<b>Sponsor:</b>	
<b>Phase:</b>	Program Project	<b>Manager:</b>	Dale Shaver, Parks & Land Use Director
<b>Budget Action:</b>	C - \$ Update	<b>Date:</b>	August 21, 2014

<b>CAPITAL BUDGET SUMMARY</b>						
Year	2018	2019	2020	2021	2022	Total
Program Project						Project
Expenditure Budget	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$3,500,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$700,000	\$700,000	\$700,000	\$700,000	\$700,000	\$3,500,000
<b>COST DOCUMENTATION</b>			<b>REVENUE</b>			
2018	\$700,000					
2019	\$700,000					
2020	\$700,000					
2021	\$700,000					
2022	\$700,000					
Total Project Cost	\$3,500,000					
						Total Revenue \$0
						<b>REVENUE BUDGET \$0</b>

**Project Scope & Description**

In cooperation with the Public Works Department, retained consultant services to update the Pavement Management Plan, originally done for the Parks System in 1995. The Plan establishes a uniform procedure for pavement maintenance by establishing a Pavement Condition Index (PCI). The PCI is a rated scale of 1-100 based on the state of the asphalt. Pavement repairs are scheduled based on rating. A PCI rating of 86-100 is good and 71-85 satisfactory; pavements with these ratings need routine maintenance or repairs. A rating of 56-70 is fair and 41-55 poor, needing routine maintenance, repairs, major repairs or overall reconstruction. A rating of 26-40 is very poor needing major repairs or overall reconstruction. A rating of 11-25 is serious and 0-10 failed, needing overall reconstruction. The goal is to maintain an average pavement PCI rating of 70 ("satisfactory"). The increase to \$700,000 for 2018-2022 is needed to ensure an average PCI of 70 is maintained.

**Location**

The Waukesha County Department of Parks and Land Use is responsible for the pavement management of the Government Center Complex, Expo, Parks, Ice Arenas, Golf Courses, Boat Launches and various other Waukesha County Facilities. The Department maintains 21 miles of road, 40 miles of paved trails, and 421,000 square yards of parking area.

**Analysis of Need**

In 1995 the Waukesha County Department of Parks and Land Use retained consulting services to provide a Pavement Management Plan to assist in cost-effectively managing the pavement assets for the 6 largest parks. At that time there were 6 park facilities with 243,000 square yard of paved surface. Currently we are maintaining 876,498 square yards of paved surface around the Government Center, remote County facilities and the major parks. This represents approximately 3.6 times more pavement. In 2007 the Department changed from the PASER rating, to the PAVER system in an effort to coordinate pavement condition analysis and project bidding with the Department of Public Works to save program cost. The PAVER rating process included field surveys of pavement conditions, development of deterioration models, and preparation of a multi-year pavement management plan.

Approximately 80% of the budget will be used for major rehabilitation on sections selected with a PCI below 40. The remaining budget allocation is first utilized for preventative maintenance on sections with a PCI between 67 and 75, selected on best-first basis. The goal of these practices is to maintain an average PCI of 70. Anticipated projects may be adjusted due to project coordination efficiencies or accelerated deterioration.

**Alternatives**

Spot repair with asphalt base patching or sealing road surface has been performed to maintain some function of the roadway or parking area. This could be continued on an annual basis, but will not achieve the desired surface performance or overall PCI rating goal. Reconstruction will be required sooner and risk issues would be more likely to occur.

**Ongoing Operating Costs**

Maintenance of the existing road conditions requires frequent patching and seal applications in order to provide usable conditions and extend pavement life. Operating costs within the next 5 years will be minimal with the proposed pavement improvements.

**Previous Action**

Pavement management prior to 2018 covered in project 200824. Approved as a new project in 2014-2018 plan.

<b>Project #</b>	201310	<b>Project Title:</b>	Election System Upgrade
<b>Department:</b>	DOA-Information Technologies	<b>Sponsor:</b>	Kathy Novack, County Clerk
<b>Phase:</b>	Analysis/Implementation	<b>Manager:</b>	Mike Biagioli, Information Technology Mgr
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 27, 2014

<b>CAPITAL BUDGET SUMMARY</b>				
Year	2013	2014	2015	Total Project
Project Phase	Initial Analysis	Implementation	Implementation*	
Expenditure Budget	\$70,000	\$1,248,000	\$1,000,000	\$2,318,000
Revenue Budget	<u>\$70,000</u>	<u>\$248,000</u>	<u>\$0</u>	<u>\$318,000</u>
Net County Cost	\$0	\$1,000,000	\$1,000,000	\$2,000,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>		
Hardware/Software - County Clerk Office/Munis		\$2,000,000	General Fund Balance*	\$318,000
Training		\$8,000		
Contract Services		\$70,000		
Contingency		<u>\$240,000</u>		
Total Project Cost		\$2,318,000		
<b>EXPENDITURE BUDGET</b>		<b>\$2,318,000</b>	<b>REVENUE BUDGET</b>	<b>\$318,000</b>

\*Of the upfront County funding toward this project in 2015, it is estimated that municipalities will repay the County in future years for a portion of their share, totalling approximately \$650,000.

**I. EXISTING SYSTEM BACKGROUND**

The Waukesha County Clerk’s Office (WCCO) is bound by the rules of the Federal and State election mandates. The Wisconsin Government Accountability Board (GAB) is charged with oversight of Wisconsin’s elections. The WCCO oversees the election procedures in the thirty-seven (37) municipalities of Waukesha County. Each municipality determines its own reporting units in accordance with state legislative district lines. There are 179 reporting units and 87 polling places. Currently, there are four (4) municipalities that process absentee ballots on a municipal level at the Municipal Clerk’s office (Central Count) in lieu of the polling places. The WCCO works in partnership with all County municipalities in conducting elections. The WCCO is accountable to the Voters of Waukesha County to ensure the integrity of the County’s election process. Among its many duties, it produces ballots, collects votes, and reports results. County election software and hardware vendors must be certified and approved at the federal and state level in order to be utilized.

Changes and gaps in election hardware, software technology and varying procedures across municipalities increase the difficulty. Ensuring that the municipalities and the County are equipped with standard equipment and processes that will minimize variances and increase successful running of elections.

Voting machines have changed over time, mandated by federal law (and certification), as well as State law (and certification) and County laws and ordinances. Municipalities are responsible for their own election hardware equipment purchases, including support and maintenance. The municipalities have the authority to purchase any certified election hardware they deem appropriate, whether or not it integrates with the County system.

**II. PROJECT GOALS**

- A. Review the County Clerk’s Office business processes for election administration.
- B. Conduct an analysis of the election equipment industry.
- C. Evaluate election equipment systems that are certified or pending certification with Federal and Government Accountability Board (GAB) standards.
- D. Provide a gap analysis between the current state of election equipment utilized by all reporting units and the desired state.
- E. Identify solutions for both election processes and equipment.
- F. Recommend election equipment systems to make the election process more effective and efficient for both the County and the municipalities, and
- G. Implement a new election system.

**III. SCOPE OF SERVICES**

The County wishes to study the current election process, and if recommended and adopted, budget and plan for a single election system to be used by all municipalities throughout the County.

**PROJECT PHASE 1: Budget and Concept Development / Preliminary System Design**

Prepare a Budget and Concept Study inclusive of both hardware and software for an election system. Services shall include, but not limited to the following:

- A. Evaluate the needs assessment of both the County and each individual municipality on the performance of an election from start to finish.

<b>Project #</b>	201310	<b>Project Title:</b>	Election System Upgrade
<b>Department:</b>	DOA-Information Technologies	<b>Sponsor:</b>	Kathy Novack, County Clerk
<b>Phase:</b>	Analysis/Implementation	<b>Manager:</b>	Mike Biagioli, Information Technology Mgr
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 27, 2014

- B. Prepare an itemized estimated cost comparison of hardware and software, along with any other peripherals required for each municipality and their remote polling places. Include a 5-year schedule of annual operational costs (maintenance/support) or fees associated with the operation of the system.
- C. Provide recommendations of the various systems that are available.
- D. Include recommendations for efficiencies to be incorporated into the process.
- E. Participate in submitting and receiving any and all preliminary approvals from all governmental jurisdictions.
- F. Prepare an estimated timetable for the bidding and implementation of a system.

**PROJECT PHASE 2: Detailed System Design and System RFP Development Phase**

Prepare detailed system design and RFP documents based on the decision of the County to proceed.

- A. Prepare the RFP. Sections of the RFP to be included but not limited to the following:
  - General system requirements
  - Sites and site location
  - Operational requirements
  - Hardware and equipment requirements
  - Software requirements
  - Acceptance Test Plan
  - System warranties
  - Support and maintenance annual agreements
  - Training
  - System documentation
- B. All aspects of the proposed system shall meet Wisconsin’s GAB requirements.

**PROJECT PHASE 3: Election System Implementation (County Clerk Office/Municipalities)**

The purpose of Project Phase 3 is to implement the new election system.

**IV. PROJECT SCHEDULE**

- Project Phase 1 (Budget & Concept/Preliminary Design) DRAFT shall be submitted for review and approval no later than November 1, 2013.
- Project Phase 1 (Budget & Concept/Preliminary Design) FINAL VERSION no later than November 30, 2013.
- Project Phase 2 (Detailed system design and system RFP) DRAFT shall be submitted no later than January 10, 2014.
- Project Phase 2 (Detailed system design and system RFP) FINAL VERSION shall be submitted no later than January 17, 2014.
- Project Phase 3 (Election System Implementation – County Clerk Office and Municipalities). The selection of a new election system will occur in 2014, with hardware delivery, equipment testing, and system training (hardware and software) expected to begin after the November 4, 2014 General Election. Additional training (for municipal clerks and poll workers), business process reviews, and further testing will begin early in 2015, with a goal of using the new system in the February 2016 Spring Primary.

**Location**

The County Clerk and Waukesha County municipalities will be affected by this project.

**Analysis of Need**

1. The SysLogic analysis document has highlighted the shortcomings of the current election system and the business practices associated with the overall election process. Key to this was the fact that the size and complexity of the County’s population and reporting units have increased the need for automated processes for efficiency, accuracy and timeliness of vote reporting. The current election process has been defined as overly complex. This project will address both the process improvements as well as the automated system enhancements required to take the election system to a well-founded, logical and effective integrated system and process.
2. Manual transmission of election results is prone to human error, requiring significant review before publication of unofficial results.
3. Validating and publishing of elections results, although better, is still labor-intensive. This process needs to be automated and streamlined.

**Alternatives**

Continue to use the current election system, waiting for the certification of the automated transmission of ballot results. During that wait time the count will be required to rely on manual entry of call-in sheets generated by the Government Accountability Board system. This will require the continued programming of the backup system database for each of the ballot configurations required for the current election.

**Ongoing Operating Costs**

To be determined during negotiations with selected vendor. Operating costs will likely consist of licensing, maintenance and support fees, offset by reduced costs from the system being replaced.

**Previous Action**

Approved as a new project in the 2013-2017 plan.  
 Approved with scope and cost update in the 2014-2018 plan.

<b>Project #</b>	201410	<b>Project Title:</b>	Security Electronics Replacement--Jail
<b>Department:</b>	Sheriff's Department	<b>Sponsor:</b>	Sheriff's Department
<b>Phase:</b>	Formation	<b>Manager:</b>	
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 26, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
Year	2017	2018	Total
Project Phase	Analysis	Installation	Project
Expenditure Budget	\$25,000	\$151,000	\$176,000
Revenue Budget	<u>\$25,000</u>	<u>\$151,000</u>	<u>\$176,000</u>
Net County Cost	\$0	\$0	\$0
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>	
Analysis	\$25,000	Jail Assessment	
Matrix Replacement	\$116,000	Fund Balance	\$176,000
Network Cabling	\$35,000		
Total project cost	\$176,000		
<b>EXPENDITURE BUDGET</b>	<b>\$176,000</b>	<b>Revenue Budget</b>	<b>\$176,000</b>

### Project Scope & Description

The Waukesha County Jail has a security electronics system that includes:

- approximately 320 analog cameras which send images through coaxial cable to master control and other staff monitoring stations;
- 20 DVRs (digital video recorders) which record and store camera images for approximately 30 days so staff can access video following an event;
- 175 intercoms; and
- 1 matrix which connects all off these devices so they can be utilized by staff to monitor the jail.

The current security electronics system was installed in 2005 when the jail was constructed so the technology that is utilized by corrections staff 24 hours a day is approximately nine years old. One of the major components of the security electronics system is a matrix, which is used by staff to switch the camera views from one camera location to another camera location. The camera switching ability is extremely important as individuals are allowed to move throughout the jail or into and out of the jail by master control's view and their release of doors, elevators, etc. Given the vital nature of this equipment to the jail operation, the manufacturer's discontinuation of the product, and its constant use, the matrix equipment will need to be replaced in the near future so the Sheriff's Department is submitting a capital request for the replacement of this equipment.

As noted above, the camera system installed in the jail is analog. Analog systems are becoming more and more difficult to support because digital systems are becoming the security electronics industry standard. Recognizing a total replacement of the current analog system with a digital system is cost prohibitive, the Sheriff's Department is taking steps towards upgrading the current system with equipment that can function with analog and digital cameras so the Department can slowly transition into the newer technology. For example, in 2013 the Sheriff's Department utilized approximately \$100,000 in jail assessment money to replace the DVR system as the equipment was requiring significant repairs due to its age and the constant use. The Sheriff's Department worked with the security electronics vendor to purchase DVR equipment that can work with both analog and digital cameras. The DVR equipment can also function as an encoder to convert analog signals to digital signals once that becomes necessary.

The current analog system has one matrix connected with coaxial cable to all of the cameras and monitors. The proposed replacement matrix will consist of 14 virtual matrix displays connected with either CAT 5 or CAT 6 cable to network switches, which is essentially a connection point for data from DVR equipment and cameras. This option allows the Department to continue to use the existing camera equipment, the DVR equipment, and does not require the department to re-wire each individual camera with the CAT 5 or CAT 6 cable. It does, however, provide the Department with the ability to utilize digital cameras if analog cameras are no longer available to be purchased.

<b>Project #</b>	201410	<b>Project Title:</b>	Security Electronics Replacement--Jail
<b>Department:</b>	Sheriff's Department	<b>Sponsor:</b>	Sheriff's Department
<b>Phase:</b>	Formation	<b>Manager:</b>	
<b>Budget Action:</b>	As Planned	<b>Date:</b>	August 26, 2014

### **Location**

Waukesha County Jail

### **Analysis of Need**

The security electronics system is vital to the daily operations of the jail. Without the security electronics system, additional staff would be required to monitor movement into, out of and throughout the jail in order to ensure that only authorized individuals are in the facility. This would result in significant additional personnel costs to provide necessary levels of operational security.

### **Alternatives**

Replacement is critical to operations: The Waukesha County Jail currently has approximately 320 cameras that are used by staff to monitor doors, elevators, halls, pods, kitchen, inmate medical area, etc. The camera system is so vital to the daily operation of the jail that when portions of the system are down, additional staff are often brought in to replace the monitoring ability the cameras provide. If the matrix fails and staff cannot monitor the jail via the camera system, additional staff will be needed until it can be repaired. Given the age of the current equipment, the security electronics vendor may not be able to get replacement parts if it fails.

Replace the entire camera system with a digital system instead of the hybrid analog/digital system. Installing a digital camera system would be substantially more expensive. The jail security system is wired with coaxial cable. For digital cameras to work, the jail security system would need to be re-wired with CAT 5 or CAT 6 cable or technology would need to progress to a point where the rewiring work would not be necessary (ex. wireless cameras). Digital camera systems also have significant on-going costs such as server support costs, software costs, and the equipment costs are more expensive than current analog equipment. The Sheriff's Department recognizes there may be a time when the current analog system will not be supported so the Department might not have an alternative to the digital technology in the future.

### **Ongoing Operating Costs**

There are no additional on going costs associated with the replacement of the matrix with an analog/digital hybrid until the Department acquires digital cameras. At that point, the department will need to pay a one-time software licensing costs for each camera that is installed in the security electronics system.

### **Previous Action**

Approved as a new project in the 2014-2018 capital plan.

<b>Project #</b>	200414	<b>Project Title:</b>	Countywide Cashiering
<b>Department:</b>	DOA	<b>Sponsor:</b>	Information Systems
<b>Phase:</b>	Implementation	<b>Manager:</b>	Andrew Thelke, Collections and Business Services Manager
<b>Budget Action:</b>	C - Scope	<b>Date:</b>	August 27, 2014

<b>CAPITAL BUDGET SUMMARY</b>					
Year	2004	2005	2006	2008	Total Project
	Analysis	Implementation	Implementation	Implementation	
Project Phase	Design				
Expenditure Budget	\$300,000	\$245,000	\$225,000	\$200,000	\$970,000
Revenue Budget	\$0	\$0	\$125,000	\$200,000	\$325,000
Net County Cost	\$300,000	\$245,000	\$100,000	\$0	\$645,000
<b>COST DOCUMENTATION</b>		<b>REVENUE</b>			
Software	\$425,000				
Hardware	\$100,000	Records Management			
Interfaces	\$25,000	Fund Balance Transfer			\$125,000
Training	\$10,000				
Licenses	\$10,000	Collections			
Consulting/Implementation	\$350,000	Fund Balance Transfer			\$200,000
Contingency	\$50,000				
Total Project Cost	\$970,000	Total Revenue			\$325,000
<b>EXPENDITURE BUDGET</b>	\$970,000	<b>REVENUE BUDGET</b>			\$325,000

**Note: This project form has been comprehensively re-written for updated scope.**

### **Project Scope & Description**

The Countywide Cashiering project resulted in the implementation of Active Payment Manager as the cashiering solution in use for the majority of County departments. Original project scope defined a system that provided "back office" functionality, which would automatically update diverse "stand alone" accounts receivable systems and interface with the County's central financial application. Active Payment Manager integrates the majority of County departments' receipting process to the financial system. In addition, Active Payment Manager has receivables integrations to the following line of business applications:

- o Register of Deeds
- o Treasurer – Tax Collection
- o Parks and Land Use – Programs and Reservations
- o Department of Administration – Collections

In calendar year 2014, work continues on audit reporting, system documentation and implementation/analysis of future line of business application integrations. However, this continued work to implement and refine is amended to include a review of user departments' business processes and project objectives in preparation of the likely discontinuation of Active's Payment Manager within four years.

### **Location**

Most departments within the County will be impacted by this Capital project.

### **Analysis of Need**

Active, the County's current cashiering vendor has indicated that it will de-support the CLASS parks registration/reservation modules that are part of the Active Payment Manager suite of cashiering products. Although a formal de-support notification has not been received, Active indicates that the most recent 2013 release of the software will be its last major release and that additional functionality will not be added to the product. In order to adequately plan for the likely migration to new cashiering product(s), a business process review of the current cashiering environment will be conducted in 2015.

The business process review will document efficiencies established as part the original countywide cashiering initiative and conduct a gap analysis of cashiering objectives. Additionally, system integrations will be examined for replication and replacement in alternative system(s). These integrations include: Property Tax, Collections, Register of Deed Land Records, Parks Registration/Reservation and General Ledger, as well as potential integrations with Health and Human Services and the Sheriff Department. The business process review will be used to document and establish the business requirements for a potential cashiering system replacement and for a Request for Proposal to replace the system.

<b>Project #</b>	200414	<b>Project Title:</b>	Countywide Cashiering
<b>Department:</b>	DOA	<b>Sponsor:</b>	Information Systems
<b>Phase:</b>	Implementation	<b>Manager:</b>	Andrew Thelke, Collections and Business Services Manager
<b>Budget Action:</b>	C - Scope	<b>Date:</b>	August 27, 2014

**Alternatives**

Defer planning for replacement.

**Ongoing Operating Costs**

The current annual maintenance contract for Active Payment Manager is \$31,875. A future solution would likely have similar annual maintenance expenses. To the extent a future cashiering solution(s) could leverage existing line of business applications, reduce redundancy, reduce independent interfaces and improve operating efficiency annual licensing and personnel costs may be avoided.

**Previous Action**

Proposed as new project in 2004-2008 plan. Approved with cost update in the 2006-2010 plan. Approved with cost update in 2008-2012

Project #	200910	Project Title:	Enterprise Content Management
Department:	DOA-Information Technology	Sponsor:	DOA
Phase:	Implementation	Manager:	Mike Biagioli, Information Technology Mgr.
Budget Action:	C – Revenue Update	Date:	August 22, 2014

CAPITAL BUDGET SUMMARY					
Year	2010	2011	2013	2015	Project Total
Project Phase	Implementation	Implementation	Implementation	Implementation	
Expenditure Budget	\$700,000	\$290,000	\$250,000	\$150,000	\$1,390,000
Revenue Budget	<u>\$700,000</u>	<u>\$290,000</u>	<u>\$250,000</u>	<u>\$150,000</u>	<u>\$1,390,000</u>
Net County Cost	\$0	\$0	\$0	\$0	\$0
<b>Cost Documentation</b>			<b>Revenue</b>		
Contract Services	\$341,700				
Training	\$8,300		End User Technology		\$1,390,000
Hardware	\$649,000		Fund Balance		
Software	\$304,000				
Project Contingency	\$87,000				
Total Project Cost	\$1,390,000		Total Revenue		\$1,390,000
<b>Total Project Cost</b>	<b>\$1,390,000</b>		<b>Revenue Budget</b>		<b>\$1,390,000</b>

### Project Scope & Description

The purpose of this project is to fund multiple aspects of the County's electronic document management environment and to implement an automated process for storage and archival for electronic records. This is to include:

- The replacement of the County's current optical scanning storage repository that uses optical laser disk storage with a technology environment that allows for the same write-once read-many requirement, but also allows for deletion of these records as the file retention "end of life" date is reached.
- To replace our Stellent Image storage environment, the County has transitioned to the Microsoft SharePoint environment, utilizing the KnowledgeLake software package as the front end to facilitate ease of use for image storage, retrieval and applied records retention discipline to this environment.
- Email archival and retention has transitioned to a dual Microsoft native Email Archiving environment coupled with Microsoft's ability to retain emails and content directly into SharePoint. This allows for email deletion that is policy and date driven as well as totally within the control of the end user.
- An overall enterprise content management environment has been implemented that allows for policy-driven, user-controlled management of all electronic records and documents. This environment automates the retention and disposition of electronic records, utilizing the County's records retention schedule; provides for automated record destruction based on scheduled retention, suspends destruction for "legal holds"; and provides end-user tools that simplify the retention and retrieval process.
- A 2013 budget adjustment of \$250,000 was made to allow for departments to contract for assistance in file conversion if needed to assist moving current documents to the new environment or develop departmental workflows.
- A 2015 budget adjustment of \$150,000 has been made to accommodate hardware/storage requirements and to address licensing required to make the SharePoint environment available to our citizens and customers.

### Location

All County departments.

Project #	200910	Project Title:	Enterprise Content Management
Department:	DOA-Information Technology	Sponsor:	DOA
Phase:	Implementation	Manager:	Mike Biagioli, Information Technology Mgr.
Budget Action:	C – Revenue Update	Date:	August 22, 2014

### **Analysis of Need**

1. The growing concern around the cost associated with e-Discovery, as well as the potential financial exposure for the County if a discovery request is mishandled, makes this project a high-priority effort. Records management responsibilities, as it relates to the protection and non-disclosure of health and other protected information, makes an automated records management environment the most cost efficient and effective method for satisfying this requirement. This project will also greatly reduce the countless hours of staff time required to review electronic records to satisfy open records requests, by providing the ability to search electronic documents by selected key words or streams of characters and returning only those electronic documents that match that criteria.
2. The costs associated with system recovery and the rebuilding of the email environment need to be reduced. This is one major way to accomplish that goal.
3. Reducing our “foot print” for paper records retention will maximize space utilization for paper records retention, reduce the cost of retrieval for these documents, while allowing for greater availability, by the public, to documents retained by the county.

### **Alternatives**

The alternative to this project would be to continue using the current technology environment, absorbing costs for open records requests, system rebuilds and e-Discovery requirements.

### **Ongoing Operating Costs**

The End User Technology Fund will incur additional maintenance costs associated with the software and hardware estimated at \$58,000 per year beginning in budget year 2012.

### **Return on Investment**

Return on investment: 67.50%

Return on investment break-even Period: 3.75 years, based on the project completion date.

#### **Five-Year Forecast**

Tangible Savings	\$24,500
Risk Reduction	\$970,000
Process Improvement	\$27,500
IT Savings	\$151,000
Personnel Time Savings	<u>\$398,000</u>
Total Non-Budgetary / Intangible Savings	\$1,546,500

*\*To be measured in 2015 with follow up in 2016.*

### **Previous Action**

- 2009-2013 capital plan: approved as a new project.
- 2010-2014 capital plan: approved as planned.
- 2011-2015 capital plan: Approved with a change in scope.
- 2012-2016 capital plan: approved as planned.
- 2013-2017, 2014-2018 capital plans: approved with change in scope and budget.

<b>Project #</b>	200912	<b>Project Title:</b>	Workforce Management System
<b>Department:</b>	Administration	<b>Sponsor:</b>	DOA–Accounting/HR
<b>Phase:</b>	Implement	<b>Manager:</b>	Larry Dahl
<b>Budget Action:</b>	C – Revenue Update	<b>Date:</b>	August 17, 2014

CAPITAL BUDGET SUMMARY							
Year	2010	2011	2012	2013	2014	2015	Total
Project Phase	Design/Implement	Implementation	Implementation	Implementation	Implementation	Implementation	Project
Expenditure Budget	\$268,000	\$150,000	\$200,000	\$275,000	\$300,000	\$100,000	\$1,293,000
Revenue Budget	\$0	\$150,000	\$200,000	\$275,000	\$300,000	\$100,000	\$1,025,000
Net County Cost	\$268,000	\$0	\$0	\$0	\$0	\$0	\$268,000
<b>COST DOCUMENTATION</b>				<b>REVENUE</b>			
Software	\$762,000						\$350,000
Hardware	\$140,000						\$675,000
Consultant Services	\$341,000						
Training	\$50,000						
Total Project Cost	\$1,293,000						\$1,025,000
<b>EXPENDITURE BUDGET</b>	\$1,293,000						<b>REVENUE BUDGET</b>
							\$1,025,000

### **Project Scope & Description**

Review alternatives and select and acquire a system for collecting payroll time and attendance data.

### **Location**

This application is used by all County departments.

### **Analysis of Need**

The County currently uses the Ceridian Time and Attendance Professional (TimePro) system to collect time and attendance data for the biweekly payroll and manage the accrual of time-driven benefits such as vacation, sick leave and compensatory time. In addition to nearing the end of its life cycle, the product vendor announced plans to discontinue it, having shifted development resources to a new product. The resources budgeted for this project include a process review and acquisition of a workforce management system with improved capabilities for data collection, scheduling, benefit accrual and leave management and biometric time terminals in certain locations. These additional capabilities (modules) will only be purchased if implementation plans show clear return-on-investments as shown in the consultant's study. The 2014-15 update to this budget includes funding for an extended schedule and consultant assistance to minimize the impact of implementation work on regular staff duties and other project schedules. The revised project anticipates a return on investment of approximately 27% with a discounted pay back period of 4 years. This compares to the previous return on investment estimate of 34% and payback period of 4 years.

### **Alternatives**

An alternative would be to develop an in-house application for collecting data which would be difficult due to the wide variety of business rules that would need to be accommodated. This alternative was rejected in the analysis since there are many competing vendors that provide these services. Continue scheduling systems currently in use by the various departments.

### **Ongoing Operating Costs**

Annual application software maintenance costs are estimated at about \$45,000 per year. The comparable cost for the current system is about \$40,000 per year. Hardware support is estimated at approximately \$10,000/year.

### **Previous Action**

- 2009-2013 capital plan: approved as a new project.
- 2010-2014 capital plan: approved as planned.
- 2011-2015 capital plan: approved with changes in scope and cost updates.
- 2013-2017 capital plan: approved with changes in scope and cost updates.
- 2014-2018 capital plan: approved with cost update.

<b>Project #</b>	201411	<b>Project Title:</b>	End User Report Development
<b>Department:</b>	DOA-Information Technology	<b>Sponsor:</b>	DOA
<b>Phase:</b>	Implementation	<b>Manager:</b>	Mike Biagioli
<b>Budget Action:</b>	C – Revenue Update	<b>Date:</b>	August 27, 2014

<b>CAPITAL BUDGET SUMMARY</b>			
<b>Year</b>	<b>2014</b>	<b>2015</b>	<b>Project Total</b>
<b>Project Phase</b>	<b>Design</b>	<b>Implementation</b>	
Expenditure Budget	\$15,000	\$110,000	\$125,000
Revenue Budget	<u>\$15,000</u>	<u>\$110,000</u>	<u>\$125,000</u>
Net County Cost	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Cost Documentation</b>		<b>Revenue</b>	
Hardware	\$10,000		
Software Licenses	\$5,000	End User Technology	\$125,000
Consulting / Conversion Services	\$75,000	Fund Balance	
Training	\$20,000		
Contingency	\$15,000		
<b>Total Project Cost</b>	<b>\$125,000</b>	<b>Revenue Budget</b>	<b>\$125,000</b>

### **Project Scope & Description**

Waukesha County started a relationship with Crystal Reports and its Crystal Reports Enterprise reporting environment in the early 2000's. Around 2006-2007, this product was purchased by Business Objects and was rebranded as the Business Objects Enterprise (BOE) reporting environment. Around 2009, Business Objects was purchased by SAP. SAP is Tier 1 Software provider much like Oracle and IBM. At that time, all of our licensing was grandfathered and the impact to us has been minimal. Currently, we are using version 3 of BOE which costs us approx. \$50,000 per year. There are approximately 100 users of this environment (25 power users) affecting almost 20 different departments as well as some municipal agencies.

SAP has made a significant change to their licensing which involves changing from CPU to Core licenses and the explicitness of licensing physical vs. virtual environments. This affects us significantly if we want to upgrade to version 4.

The purpose of this project is to move away from the prohibitively expensive SAP and towards the Microsoft SQL Server Reporting Services (SSRS) environment. This new environment came into the county via the New World Financial Package that was implemented in 2013. Since the licensing for SSRS is bundled with SQL and we already own a sufficient number of SQL licenses, there would be no impact on Microsoft licenses. As an additional benefit, this product is fully compatible with the SharePoint implementation currently underway via the ECM capital project (200910).

### **Actions**

1. Set up the hardware environment for SSRS
2. Training
3. Conversion of existing reports using consulting expertise
4. Implement the new reporting methodology by application or department need
5. Decommission the BOE environment and cancel the license

### **Location**

All County departments would be affected.

<b>Project #</b>	201411	<b>Project Title:</b>	End User Report Development
<b>Department:</b>	DOA-Information Technology	<b>Sponsor:</b>	DOA
<b>Phase:</b>	Implementation	<b>Manager:</b>	Mike Biagioli
<b>Budget Action:</b>	C – Revenue Update	<b>Date:</b>	August 27, 2014

### **Analysis of Need**

The County has made a significant investment in the environment and the support tools for End User Report generation and development. Through the selection process Business Objects was selected and staff fully-trained in the use of the tools. Allowing for end user report generation, without the need for development staff from Information Technology, still remains a high priority. Providing this function at the most effective and efficient price needs to be a priority. Avoiding the dictated price increase, associated with SAP's Business Objects Enterprise, is a sound business strategy, especially, given the proven capabilities of the Microsoft alternative.

### **Alternatives**

Alternatives to this project include:

1. Remain with the Business Objects Enterprise solution until we are notified that Version 3 is to be de-supported and determine a strategy at that time.
2. Remain with the Business Objects Enterprise solution until we are impacted by the de-support action. At that time determine a strategy to address the County reporting needs.

### **Fiscal Impacts**

When the conversion is completed and the License for Business Objects Enterprise decommissioned, the current Annual Maintenance cost of \$50,500 will stop and an estimated Annual Maintenance charge of \$5,500 for the incremental Microsoft licenses and associated infrastructure will start. Therefore it is anticipated that there will be a reduction in EUTF costs (associated with end user reporting) to be approximately \$45,000.

### **Return on investment**

Remaining with Business Object Enterprise will require that the County re-license with SAP in 2015 for an anticipated amount of \$190,000 one-time cost and an increase in annual maintenance from \$53,000 to \$83,000. This would result in year-one increase of approximately \$220,000 from our current cost. The total cost of conversion to Microsoft SSRS will be approximately \$125,000. This yields a Return on Investment timeframe of less than one year after the work has been completed.

### **Previous Action**

Approved as a new project in 2014-2018 capital plan.