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Mission

To provide comprehensive planning and analysis of the long-range capital needs of Waukesha County. This process contributes to the fiscal review and prioritization of such capital projects as facility development (new construction and improvements), infrastructure maintenance, technology, major equipment and systems installations.

Policy

A capital project is defined as an active or proposed non-recurrent expenditure in one or more specified plan years of an amount usually in excess of \$100,000 for a permanent fixed asset (building, land, improvement, or equipment or technology installation) which has a useful life or extends the useful life of an existing fixed asset, usually in excess of seven years.

This budget maintains the emphasis on planning and funding for infrastructure and capital improvements projects, as they are needed rather than reacting to unplanned situations. Most new projects are to be requested in the last year of the five-year plan, unless circumstances require a more immediate time frame. County Code Section 7-16 (c) requires design and implementation for larger projects to be, at a minimum, in separate calendar years. Justification of projects includes costs versus benefits, return on investment analysis and project need.

A long-range goal to managing overall debt service is to use annual cash balances from tax levy and governmental fund balance to fund capital projects at a minimum of 20 percent of net capital expenditures. This "down payment," reduces the need to borrow additional funds and manages debt service growth in relationship to the operating budget to accommodate the policy for debt service of less than 10% of operating budget.

In this section, under "2018 Capital Projects and Operational Impact," is a summary of operational impacts resulting from implementation of the capital improvement program. Also, in this section are individual capital project sheets, which detail operational impacts. Impacts associated with new facility operations are included in planning for future funding needs for county operations (See individual project pages), but are only included in operating department budgets in the year they will be incurred; however, the county's five-year operating budget projection considers these impacts in the appropriate years.

Financial Summary

	2016 Budget	2017 Budget	2018 Budget	Change from 2017
Expenditures	\$20,782,800	\$16,863,400	\$18,786,300	\$1,922,900
Revenues-Project Specific	\$3,353,000	\$1,406,400	\$659,000	(\$747,400)
Enterprise Fund Balance (a)	\$637,800	\$110,000	\$190,000	\$80,000
Internal Service Fund Balance (b)	\$0	\$0	\$0	\$0
Restricted Special Rev Fund Bal (c)	\$0	\$465,000	\$308,000	(\$157,000)
Net Expenditures	\$16,792,000	\$14,882,000	\$17,629,300	\$2,747,300
Other Financing Sources:				
Investment Earnings	\$275,000	\$300,000	\$280,000	(\$20,000)
Debt Issue Proceeds	\$11,500,000	\$10,000,000	\$12,500,000	\$2,500,000
Cash Balances from				
Governmental Fund Balance (d)	\$2,570,000	\$2,085,000	\$955,200	(\$1,129,800)
Other Fund Balance (e)	\$0	\$0	\$1,242,000	\$1,242,000
Revenues-General	\$700,000	\$750,000	\$905,100	\$155,100
Tax Levy	\$1,747,000	\$1,747,000	\$1,747,000	\$0
Total Cash Balances	\$4,517,000	\$4,582,000	\$4,849,300	\$267,300
Est. Use of Cash Balances				
as % Of Net Expenditures	27%	31%	28%	

- (a) 2018 budget use of enterprise fund balance consists of \$190,000 of Airport Fund Balance for a related project.
- (b) Internal service fund balance is budgeted in 2018 as a cash balance toward county-wide projects (see footnote (e)).
- (c) 2018 budget use of restricted special revenue fund balance consists of \$308,000 of Tarmann Parkland Acquisition Fund balance budgeted for Parks and Land Use capital projects (Eble Park Ice Arena Refrigeration System project #201808), in accordance with enrolled ordinance 170-87.
- (d) 2018 budget use of governmental fund balance of \$955,200 includes General Fund Balance of \$905,200 and Tarmann Parkland Acquisition Fund Balance of \$50,000 for Parks and Land Use capital projects.
- (e) Other fund balance includes internal service fund balance budgeted for related county-wide projects, including \$452,000 of End User Technology Fund Balance, \$400,000 of Central Fleet Fund Balance, and \$390,000 of Collections Fund Balance.

Capital Projects

2018 Capital Projects

Summary

	2016 Budget (a)	2017 Budget	2018 Budget	17-18 Budget Change
EXPENDITURES				
Justice and Public Safety	\$2,634,000	\$4,183,000	\$6,575,000	\$2,392,000
Health and Human Services	\$0	\$0	\$0	\$0
Parks, Env, Edu & Land Use	\$1,531,800	\$2,372,400	\$2,422,000	\$49,600
Public Works	\$16,297,000	\$9,758,000	\$7,922,300	(\$1,835,700)
County Wide Technology Projects	\$190,000	\$400,000	\$1,692,000	\$1,292,000
Est. Financing Costs	\$130,000	\$150,000	\$175,000	\$25,000
Total Gross Capital Expenditures	\$20,782,800	\$16,863,400	\$18,786,300	\$1,922,900

REVENUES-Project Specific

Municipal Cost Share - Communication Center Expansion		\$708,400		(\$708,400)
County Highway Improvement Program (CHIP)	\$300,000	\$300,000	\$330,000	\$30,000
CHIP-Discretionary	\$844,000	\$300,000	\$229,000	(\$71,000)
Highway Local Reimbursement	\$1,959,000			\$0
Other State/Federal Highway Funding	\$200,000			\$0
Park Trail Local Reimbursement	\$50,000			\$0
State Dept of Natural Resources Stewardship Grant		\$98,000		(\$98,000)
Landfill Siting Revenues			\$100,000	\$100,000
Subtotal: Revenues-Project Specific	\$3,353,000	\$1,406,400	\$659,000	(\$747,400)

REVENUES-General

State Shared Revenue/Utility Payment	\$100,000	\$150,000	\$305,100	\$155,100
State Computer Equipment Exemption	\$600,000	\$600,000	\$600,000	\$0
Subtotal: Revenues-General	\$700,000	\$750,000	\$905,100	\$155,100

FUND BALANCE APPROPRIATIONS:

Airport Fund		\$110,000	\$190,000	\$80,000
Radio Services Fund				\$0
Material Recycling Fund Balance	\$356,000			\$0
Golf Course Fund	\$65,000			\$0
Ice Arena Fund	\$216,800			\$0
Subtotal: Enterprise Fund Balance	\$637,800	\$110,000	\$190,000	\$80,000

Tarmann Parkland Acquisition Fund Balance	\$0	\$465,000	\$308,000	(\$157,000)
Subtotal: Restricted Special Revenue Fund Balance	\$0	\$465,000	\$308,000	(\$157,000)

Collections Fund Balance			\$390,000	\$390,000
End User Technology Fund Balance			\$452,000	\$452,000
Central Fleet Fund Balance			\$400,000	\$400,000
Subtotal: Other Fund Balances Used for Countywide Projects	\$0	\$0	\$1,242,000	\$1,242,000

General Fund Balance	\$230,000	\$1,160,000	\$813,200	(\$346,800)
Gen Fund - Assigned: Jail Assessment Revenue Reserves	\$55,000		\$92,000	\$92,000
Capital Project Funds Assigned	\$1,785,000	\$570,000		(\$570,000)
Tarmann Parkland Acquisition Fund Balance (a)	\$500,000	\$355,000	\$50,000	(\$305,000)
Subtotal: Cash Balances from Governmental Fund Balance	\$2,570,000	\$2,085,000	\$955,200	(\$1,129,800)
Total Fund Balance Uses For Capital Projects	\$3,207,800	\$2,660,000	\$2,695,200	\$35,200

Investment Earnings	\$275,000	\$300,000	\$280,000	(\$20,000)
Debt Proceeds (a)	\$11,500,000	\$10,000,000	\$12,500,000	\$2,500,000

Tax Levy	\$1,747,000	\$1,747,000	\$1,747,000	\$0
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(a) The 2016 budget was modified to appropriate \$500,000 for Parks and Land Use capital projects, thereby reducing the need for debt issue proceeds from \$12,000,000 to \$11,500,000 (enrolled ordinance 170-87).

Pg #	PROJECT TITLE	Project Number	2018 Project Budget	Fund Balance & Revenue Applied		Net \$'s Needed After Revenues Applied
PUBLIC WORKS - AIRPORT						
460	AIRPORT RAMP EXPANSION	201621	\$190,000	\$190,000	(a)	\$0
PUBLIC WORKS - FLEET & HIGHWAY OPS						
462	CONSTR SALT STORAGE FACILITY/REPLACE BRINEMAKER	201401	\$313,200	\$313,200	(b)	\$0
463	FUEL TANK REPLACEMENT AND INFRASTRUCTURE	201415	\$400,000	\$400,000	(c)	\$0
PUBLIC WORKS - BUILDINGS						
464	MHC ROOF REPLACEMENT	201412	\$287,000			\$287,000
465	COURTHOUSE PROJ-SECURE COURTROOM CONSTRUCTION	201418	\$6,500,000			\$6,500,000
467	UWW ROOFING UPGRADES	201210	\$1,000,000			\$1,000,000
PUBLIC WORKS - HIGHWAYS						
468	CTH YY, UNDERWOOD CREEK STRUCTURE	201302	\$179,000			\$179,000
469	CTH Y, PILAK CREEK TRIBUTARY BRIDGE REPLACEMENT	201304	\$24,000			\$24,000
470	CTH O & I INTERSECTION RECONSTRUCTION	201603	\$50,000			\$50,000
471	CTH C, HASSLINGER DRIVE INTERSECTION	201611	\$18,100			\$18,100
472	CTH V V, HICKORY STREET TO CTH F	201620	\$5,000			\$5,000
473	CTH D, CALHOUN ROAD TO 124TH STREET REHAB	201706	\$50,000			\$50,000
474	CTH ES, FOX RIVER BRIDGE	201004	\$197,000			\$197,000
475	CTH Q OCONOMOWOC RIVER BRIDGE	201201	\$164,000			\$164,000
476	CTH F, NORTHBOUND BRIDGE AT GREEN ROAD	201801	\$6,000			\$6,000
477	CTH V V, WESTBOUND BRIDGE OVER MENOMONEE RIVER	201802	\$6,000			\$6,000
478	CTH V V at CTH E INTERSECTION	201813	\$198,000		(d)	\$198,000
479	CTH KF at CTH JK INTERSECTION	201814	\$185,000		(d)	\$185,000
480	BRIDGE AID PROGRAM 2018 - 2022	201701	\$100,000			\$100,000
481	CULVERT REPLACEMENT PROGRAM 2018-2022	201618	\$100,000			\$100,000
482	REPAVING PROGRAM 2018-2022	201416	\$4,450,000	\$559,000	(e)	\$3,891,000
483	SIGNAL/SAFETY IMPROVEMENTS	200427			(d)	\$0

(a) Airport Fund Balance

(b) Prior-year revenues earned for maintenance work on state highways through the Performance-Based Maintenance (PbM) program.

(c) Central Fleet Fund Balance

(d) There is no additional funding for the Signal and Safety Improvement projects. However, there is a scope update and the transfer out of two intersection projects to be stand-alone projects in the 2018-2022 capital plan: (1) #201813 – CTH V V and CTH E, and (2) #201814 – CTH KF and CTH JK.

(e) Includes County Highway Improvement Program (CHIP) funding of \$330,000 and discretionary (CHIP - D) funding of \$229,000.

Pg #	PROJECT TITLE	Project Number	2018 Project Budget	Fund Balance & Revenue Applied		Net \$'s Needed After Revenues Applied
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PARKS AND LAND USE

485	UWW INFRASTRUCTURE SITE IMPROVEMENTS	201703	\$558,000			\$558,000
486	MENOMONEE PARK BEACH HOUSE RENOVATION	201605	\$606,000			\$606,000
487	EBLE PARK ICE ARENA REFRIGERATION SYSTEM	201808	\$308,000	\$308,000	(f)	\$0
488	PAVEMENT MANAGEMENT PLAN 2018 - 2022	201406	\$950,000	\$150,000	(g)	\$800,000

INFORMATION TECHNOLOGY - SHERIFF

489	JAIL VIDEO VISITATION SYSTEM REPLACEMENT	201702	\$75,000	\$75,000	(h)	\$0
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COUNTYWIDE TECHNOLOGY PROJECTS

491	PAYROLL/HR INFORMATION SYSTEM	201617	\$952,000	\$452,000	(i)	\$500,000
492	INTELLITIME: DYNAMIC SCHEDULING	201812	\$50,000	\$17,000	(h)	\$33,000
493	TAX SYSTEM AND COUNTYWIDE CASHIERING REPLACEMENT	201815	\$690,000	\$390,000	(j)	\$300,000

EST. FINANCING OF BORROWING ISSUE (Includes Discount)	999999	\$175,000	\$0		\$175,000
TOTAL EXPENDITURES/Fund Balance Applied/Net \$ Needed		\$18,786,300	\$2,854,200		\$15,932,100

ADDITIONAL REVENUES & FUND BALANCE-GENERALLY APPLIED

STATE COMPUTER EQUIPMENT EXEMPTION	\$600,000	(k)
STATE SHARED REVENUE/UTILITY PAYMENT	\$305,100	
GENERAL FUND BALANCE	\$500,000	
CAPITAL PROJECT FUND BALANCE	\$0	
DEBT ISSUE PROCEEDS	\$12,500,000	
INVESTMENT INCOME EARNED ON DEBT ISSUE	\$280,000	
TOTAL FROM OTHER FUNDING SOURCES		\$14,185,100

TAX LEVY	\$1,747,000
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- (f) Tarmann Parkland Acquisition Fund Balance
 (g) Includes landfill siting fee revenue of \$100,000 and Tarmann Parkland Acquisition Fund Balance of \$50,000.
 (h) Prior-year jail assessment fee revenue reserves
 (i) Project is funded with \$452,000 of End User Technology Fund Balance and \$500,000 of General Fund Balance (see footnote (j)).
 (j) Collections Fund Balance
 (k) General Fund Balance budgeted for the Payroll/Human Resources Information System project.

GENERAL SUMMARY

Capital project expenditures in 2018 increase about \$1.9 million from the 2017 Adopted Budget to \$18.8 million. Changes are identified by functional areas below.

Justice and Public Safety

Projects in this functional area total about \$6.6 million, which is an increase of about \$2.4 million from the prior-year budget. The 2018 budget includes \$6.5 million to begin construction for the first phase of a two-phase project to modernize and expand the courthouse. The first phase entails the construction of eight new secure courtrooms to be located adjacent to jail facilities and will feature improved security, prisoner transport, and public access. Construction is expected to continue into 2021. The 2018 budget also includes \$75,000 for the design phase of a project to replace the jail's video visitation system and to study the feasibility of implementing a jail-based video court/video conferencing system.

Parks, Environment, Education and Land Use

Projects in this functional area total about \$2.4 million. Maintenance of existing facilities includes \$950,000 for the parks pavement management plan; \$606,000 to renovate and upgrade the Menomonee Park beach house; \$558,000 as part of a multi-year effort to address University of Wisconsin-Waukesha (UWW) site work to replace sidewalks, exterior stairways, and parking lots; and \$308,000 to upgrade components of the Eble Park Ice Arena refrigeration system.

Public Works

Project expenditures in the public works functional area total \$7.9 million, a decrease of \$1.8 million from the 2017 budget. County dollars leverage an additional \$760,000 of state/federal funds for highway projects and an additional \$3.6 million for an airport project (mentioned later). Projects include buildings, highways and the airport as follows:

Buildings

Building infrastructure improvements total about \$2 million. The 2018 budget includes \$1,000,000 for the final phase of roofing upgrades at the UW-Waukesha (UWW) campus. Fuel tank replacement begins with first-year funding of \$400,000 to replace an aging software system and card readers. The budget also includes \$313,200 to build a new salt storage facility and replace a brinemaker at the Highway Operations Building in 2018 as part of a project with the Wisconsin Department of Transportation. Roof replacement at the Mental Health Center in 2018 is budgeted at \$287,000.

Highways

The 2018 capital budget for roadways continues priorities established in four categories and includes projects in all categories to provide a balanced plan. Projects and funding priorities are identified below.

Repaving

A funding level of \$4.45 million is budgeted for the annual County Trunk Highway (CTH) Repaving program with a goal of covering approximately 20 lane miles of road. In addition, the project to rehabilitate three miles of CTH D (Cleveland Avenue), from Calhoun Road to 124th Street in the city of New Berlin, continues with land acquisition of \$50,000. In preparation for rehabilitation of CTH V V (Silver Spring Drive), from Hickory Street to CTH F in the Village of Sussex in 2019, \$5,000 is budgeted for soil borings and other engineering needs.

Bridges/Culverts

The existing culvert replacement program continues with an appropriation of \$100,000. The budget funds construction of \$197,000 for the Fox River Bridge on CTH ES in the village and town of Mukwonago and \$164,000 for the Oconomowoc River Bridge on CTH Q in the town of Merton. The budget funds land acquisition of \$179,000 for improvements related to the Underwood Creek Structure on CTH YY (Pilgrim Road) in the city of Brookfield and \$24,000 for the Pilak Tributary Bridge on CTH Y (Racine Avenue) in city of Muskego. Initial rehabilitation engineering reports are funded at \$6,000 each for the northbound bridge on CTH F over Green Road in the city of Pewaukee and the westbound bridge on CTH V V over the Menomonee River in the village of Butler. The 2018 budget includes \$100,000 for the bridge aid program, which covers half the cost of town bridge reconstruction and repair.

Signal & Safety Improvements

Decisions to initiate signal and safety spot improvements are based on safety, traffic congestion and roadway safety audits to identify the use of lower-cost remediation strategies. Construction is budgeted for the intersection of CTH V V, CTH E in the town of Merton at \$198,000 and for CTH KF, CTH JK in the town of Lisbon at \$185,000. Land acquisition for the intersection improvement at CTH O (Moorland Road), CTH I (Beloit Road) in the city of New Berlin is budgeted at \$50,000. The design phase for the intersection improvement at CTH C, Hasslinger Drive in the town of Merton and village of Chenequa is budgeted at \$18,100.

Priority Corridors

Due to the timing of project phases and the federal funding cycle, there are no priority corridor improvements budgeted in 2018. However, there are two major projects underway, including the construction of West Waukesha Bypass and widening three miles of CTH M (North Avenue) in the city of Brookfield and village of Elm Grove (currently in design phase, construction planned for 2020-2021).

Airport

The 2018 budget includes \$190,000 for the third year of a three-year project to expand airport ramp space. The project is expected to improve capacity and safety at the airport, while generating additional revenues through new land lease agreements and increasing fuel sales. County dollars leverage an additional \$3.6 million of state/federal funds for this project.

County Wide Technology Investments

Project expenditures for county-wide technology investments total about \$1.7 million, an increase of about \$1.3 million from the 2017 budget. The budget includes \$952,000 to finish replacement of the county's human resources and payroll information systems in 2018. In addition, \$690,000 is budgeted to begin the replacement of the county-wide cashing and property tax systems. Also, \$50,000 is budgeted to study the feasibility and return-on-investment (ROI) of upgrading the staff scheduling systems for the Jail, Mental Health and Clerk of Courts operations. No project dollars will be spent unless the study findings prove favorable.

Project Revenue Funding

Revenues and various fund balance appropriations for project funding decrease by about \$577,000 million to \$4.5 million for the 2018 Budget.

Project specific revenues decrease by \$747,400 to \$659,000, mostly due to one-time contributions of \$708,400 toward the Waukesha County Communication Center expansion project in 2017 (from municipalities joining county dispatch) not being repeated in the 2018 budget. County highway repavement projects are partially funded with \$559,000 of federal/state County Highway Improvement Program (CHIP) revenues. Landfill siting revenues of \$100,000 are budgeted to partially fund the Parks and Land Use Pavement Management Program.

Revenues also include state payments received for personal property tax exemption for technology equipment of \$600,000 and state shared revenue payments allocated to capital projects budget estimated at \$305,100.

Current Funding Sources

Use of Fund Balances in 2017 totals \$2,695,200, which is an increase of \$35,200 from 2017. This includes \$905,200 of **General Fund Balance**, which includes \$500,000 to fund a portion of the human resources/payroll information system replacement capital project (see EUTF Fund balance below). Another \$313,200 is from prior-year revenues earned by the Public Works Highway Operations Division for state highway projects through the Performance-Based Maintenance (PbM) program, and used to fund the construction of a salt storage facility and brinemaker replacement. Also, \$92,000 of prior-year jail assessment fee revenue reserves for jail-specific projects (Video Visitation Replacement and IntelliTime Dynamic Scheduling) is budgeted. **End User Technology Fund Balance (EUTF)** is budgeted at \$452,000 to cover the remaining portion of the human resources/payroll information system. **Central Fleet Fund Balance** is budgeted at \$400,000 to fund the first-year software system upgrades for the fuel tank replacement project. **Collections Fund Balance** is budgeted at \$390,000 to fund the county-wide cashing system replacement. **Tarmann Parkland Acquisition Fund Balance** is budgeted at \$358,000 for Park and Land Use capital projects (\$308,000 for the Eble Park Ice Arena refrigeration system upgrade and \$50,000 toward the Parks Pavement Management Program) in accordance with enrolled ordinance 170-78. **Airport Fund Balance** of \$190,000 is budgeted for the airport ramp expansion project.

Borrowed funds are budgeted at \$12.5 million, which is \$2.5 million higher than in 2017 due to higher capital expenses related to the first-phase courthouse project. However, borrowing is \$2 million less than originally planned for 2018 compared to last-year's five-year capital plan. Investment income is budgeted at \$280,000, a decrease of \$20,000 from the 2017 budget. Property tax levy funding remains at the 2017 budgeted level of \$1,747,000. Tax levy and the use of governmental fund cash balance and other revenues maintains the County's "down payment" at 28% of net capital expenditures, well above the policy target of 20%.

OPERATING IMPACTS BY FUNCTIONAL AREA

Justice and Public Safety/Public Works - Buildings

The first-phase courthouse project to construct eight new courtrooms is expected to increase energy efficiency on a square-foot basis due to the installation of state-of-the-art equipment and windows. However, the new space will be occupied and replaces space that was occupied on a partial basis. Therefore energy consumption and costs overall will increase. Also, it is anticipated that contracted cleaning and facility maintenance costs will increase for the new square footage. Based on the conceptual design developed through the budget and concept phase, the Sheriff's Department anticipates there will be a need for additional staff for court security, but the number of correctional officers needed is subject to change as final design progresses.

A study and staff research conducted for the Jail video visitation system replacement project has identified the potential for a revenue sharing arrangement that may cover vendor operating costs and potentially yield net annual revenue to the county.

Park, Environment, Education and Land Use

The project to renovate the Menomonee Park beach house is expected to result in some utility savings due to upgrading HVAC equipment, lighting, and replacing windows.

Public Works - Airport

The project to expand the terminal ramp is expected to correspond with commitments from aeronautical service providers to build new corporate hangars, which are estimated to generate approximately \$84,000 in additional land lease revenues plus additional fuel sales revenue from more based aircraft (county receives \$0.10 for every gallon sold at the airport.) The new ramp space will result in additional ongoing costs for snow removal and pavement maintenance. As part of their future lease agreements, the hangar owners will pay for portions of the new pavement for which they are leasing (adjacent to their hangar lots). Ongoing maintenance for the remaining pavement will be paid for by County, estimated at \$8,000 annually for snow removal and \$2,000 for pavement repairs (after about five years when the new pavement will start needing repair).

Public Works - Highways

Annual operating costs for additional lane miles are estimated at approximately \$7,000 per lane mile. The County's goal is to maintain or improve the current overall pavement condition index (1-100 scale), which was estimated at 60 in 2016. The County follows Wisconsin Department of Transportation guidelines for bridge replacement. Structure rehabilitation is warranted when the sufficiency number drops below 80, and a structure replacement is warranted when the sufficiency number drops below 50. The Highway Engineering Division continues to work to maintain an average sufficiency index rating of 80 or higher for all county bridges. The overall bridge sufficiency index for 2016 was 83.9.

Technology Projects

The capital budget includes a project to implement a new human resources and payroll information system and includes annual software maintenance costs of \$189,000. These new costs are expected to be partially offset by savings from discontinuing use of the current payroll system of \$125,000 and from operating efficiencies (e.g., automating a number of processes that are currently performed manually.)

Project Title:	Airport Ramp Expansion Project	Project #:	201621
Department:	Public Works - Airport	Project Type:	Airport
Phase:	Construction	Sponsor:	Kurt Stanich – Airport Manager
Budget Action:	As Planned	Manager:	Allison Bussler – DPW Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY						
Year	2016	2017	2018	2019	2020	Total
Project Phase	Design & Construction	Construction	Construction			Project
Expenditure Budget	\$325,000	\$110,000	\$190,000	\$0	\$0	\$625,000
Revenue Budget (Airport Fund Balance)	<u>\$325,000</u>	<u>\$110,000</u>	<u>\$190,000</u>	<u>\$0</u>	<u>\$0</u>	<u>\$625,000</u>
Net County Cost	\$0	\$0	\$0	\$0	\$0	\$0
COST DOCUMENTATION			REVENUE			
Design & Engineering	\$1,610,000				Federal Aviation Administration	\$8,430,000
Construction	\$7,670,000				Wisconsin Bureau of Aeronautics	\$625,000
Contingency	<u>\$400,000</u>				County Airport Fund Balance	\$625,000
Total Project Cost	\$9,680,000				Total Revenue	\$9,680,000
EXPENDITURE BUDGET	\$625,000				REVENUE BUDGET	\$625,000

Project Scope & Description

This project will expand the South and West Airport Terminal Ramps to accommodate requests by Aeronautical Service Providers to construct corporate aircraft hangars. The grass islands that currently divide the main terminal ramp will be filled in with concrete creating more parking for transient aircraft and improve ramp operations. Additionally, the west terminal ramp will connect to the west corporate hangar area significantly increasing safety as well as improving timely delivery of fuel service to corporate customers.

The new design includes 37,700 square yards of new pavement on the West Terminal Ramp, 6,600 square yards on the Main Terminal Ramp, and 9,000 square yards on the South Ramp. Work also includes improvements to storm water management, airfield lighting and signage. All of these improvements have been identified in the Airport Master Plan and the Airport Layout Plan.

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. Both Fixed Base Operators (FBO's), Atlantic Aviation and Stein's Aircraft Services, LLC., and one Aeronautical Service Provider, Spring City Aviation, Inc., have submitted conceptual plans for large corporate hangar buildings on the West and South Terminal Ramps. This proposed activity consumes all of the remaining lots on the west and south ramps and necessitates expanding both areas in order to realize the revenue from these hangar developments. As a condition of new FBO operating agreements with Stein's Aircraft Services and Atlantic Aviation and an Aeronautical Service Provider Agreement with Spring City Aviation, each are required to build an additional hangar in the terminal ramp area. Without this ramp expansion, these companies will be unable to operate out of their new facilities.

Currently, the west corporate hangar area can only be accessed by driving fuel trucks and airport service vehicles onto aircraft movement areas causing a safety hazard as identified by the Federal Aviation Administration's (FAA) Runway Safety Action Team (RSAT). Connecting these two areas will eliminate vehicles from the Aircraft Movement Areas and from the airport's busiest taxiway. Service to corporate flight operations like Flight for Life will become more timely providing great benefit to their critical operations.

Project Title:	Airport Ramp Expansion Project	Project #:	201621
Department:	Public Works - Airport	Project Type:	Airport
Phase:	Construction	Sponsor:	Kurt Stanich – Airport Manager
Budget Action:	As Planned	Manager:	Allison Bussler – DPW Director
Date:	December 6, 2017		

The Main Terminal Ramp is divided by three grass islands. These were put in place during the 1997 construction to divide the main ramp from both the adjacent Taxiway and from the South Terminal Ramp. Changes in airport design, aircraft size and maneuverability, and increased demand for aircraft parking necessitate filling in these islands to make one contiguous ramp.

The three additional hangar lots and ability to handle more transient traffic will significantly increase revenues received (discussed below under ongoing operating costs) and assist the airport in reducing its reliance on County Tax Levy.

Alternatives

A smaller extension of the existing of the west ramp and south ramps would only accommodate the proposed hangar developments. The proposed project scope with a larger ramp expansion is expected to provide additional operational efficiencies and safety improvements.

Ongoing Operating Revenues/Costs

New hangar construction is expected to occur over three years (2016 – 2018) and estimated to result in approximately \$84,000 in land lease revenues paid to the Airport. The new hangars will also support additional based aircraft at the Airport, increasing fuel revenues paid to the County (receive \$0.10/gallon sold).

The new ramp space will result in additional ongoing costs for snow removal and pavement maintenance. As part of their future lease agreements, the hangar owners will pay for portions of the new pavement for which they are leasing (adjacent to their hangar lots). Ongoing costs for the remaining pavement will be paid for by the County, estimated at \$8,000 annually for snow removal and \$2,000 for pavement repairs and maintenance about five years after construction (first few years should need minimal repair).

Previous Action

- South and West terminal ramp expansion previously included in capital project #201311.
- Approved as a new project in Ordinance 171-030.
- Approved as planned in 2017-2021 capital plan.

Project Title:	Fuel Tank Replacement and Infrastructure Project	Project #:	201415
Department:	Public Works - Central Fleet	Project Type:	Equipment Replacement
Phase:	Implementation	Sponsor:	Public Works
Budget Action:	C - Rev Update	Manager:	Allison Bussler, DPW Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY								
Year	2018	2019	2020	2021	2022	2023	2024	Total
Project Phase	Implementation	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	<u>\$400,000</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$400,000</u>
Net County Cost	\$0	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$100,000	\$1,100,000
COST DOCUMENTATION						REVENUE		
<u>Item</u>	<u>Quantity</u>	<u>Price</u>	<u>Total Cost</u>					
Underground Tank Testing	5	\$4,000	\$20,000					
Underground tanks*	5	\$150,000	\$750,000					
Above Ground Tanks*	25	\$13,800	\$345,000					
Monitors	5	\$20,000	\$100,000					
Card Readers	16	\$15,000	\$240,000					
Fuel Software Systems	1	\$40,000	\$40,000					
Signage/Fencing	All Sites		\$5,000					
EXPENDITURE BUDGET			\$1,500,000					

*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.

Funding for this project is spread out into later years, which 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 and \$100,000 in the last year for a total \$1.5 million funding level, replacing tanks as needed. The focus for 2018 will be replacement of the aging software system and card readers. Tank replacement evaluation will take place in 2018, with actual replacement in subsequent years. Project revenues are updated to include \$400,000 of Central Fleet Fund Balance.

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. None 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. An additional \$25,000 in annual software licensing fees is estimated for the new fuel system.

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. Approved with delay in 2015-2019 capital plan. Approved as planned: 2016-2020, 2017-2021 capital plans.

Project Title:	MHC Roof Replacement	Project #:	201412
Department:	Public Works - Buildings	Project Type:	Roof Replacement
Phase:	Construction	Sponsor:	Public Works
Budget Action:	C - \$ Update	Manager:	Allison Bussler, DPW Director
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY			
Year	2017	2018	Total
Project Phase	Budget & Concept, Design	Construction	Project
Expenditure Budget	\$15,000	\$287,000	\$302,000
Revenue Budget	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net County Cost	\$15,000	\$287,000	\$302,000
COST DOCUMENTATION		REVENUE	
Architect	\$15,000		
Construction	\$266,000		
Contingency	<u>\$21,000</u>		
Total Project Cost	\$302,000	Total Revenue	\$0
EXPENDITURE BUDGET	\$302,000	REVENUE BUDGET	\$0

Project Scope & Description

This project is to replace 33,175 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 23 years old and has been patched and deteriorated due to sun exposure. At time of replacement the roof will be 24 years old. Construction costs are updated based on budget and concept developed in 2016.

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
2015-2019 capital plan: approved as planned
2016-2020 capital plan: approved as planned
2017-2021 capital plan: approved as planned

Project Title:	Courthouse Project – Secure Courtroom Construction	Project #:	201418
Department:	Public Works - Buildings	Project Type:	New Building
Phase:	Preliminary Design	Sponsor:	Public Works
Budget Action:	C - \$ Update C - Rev Update	Manager:	Allison Bussler, DPW Director
Date:	December 19, 2017		

CAPITAL BUDGET SUMMARY						
Year	2017	2018	2019	2020	2021	Total
Project Phase	Budget & Concept	Design/Constr	Construction	Construction	Construction	Project
Expenditure Budget	\$700,000	\$6,500,000	\$15,000,000	\$13,700,000	\$2,600,000	\$38,500,000
Revenue Budget	\$0	\$0	\$300,000	\$500,000	\$0	\$800,000
Net County Cost	\$700,000	\$6,500,000	\$14,700,000	\$13,200,000	\$2,600,000	\$37,700,000
COST DOCUMENTATION			REVENUE			
Design	\$2,275,000		Jail Assessment Fund Balance Reserves			\$300,000
Construction Management	\$2,275,000					
Construction	\$32,550,000		Capital Project Fund Balance			\$500,000
Contingency	\$1,400,000					
Total Project Cost	\$38,500,000		Total Revenue			\$800,000
EXPENDITURE BUDGET	\$38,500,000		REVENUE BUDGET			\$800,000

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), 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. The courthouse building infrastructure is approaching the end of its useful life. In addition, existing courtrooms do not meet current design standards.

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. This study was completed in 2013, and Zimmerman recommended a two-step design approach (below). This project addresses step 1. A separate capital project will 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, project #201705), it does reflect the county's future guidance for the overall courthouse project.

- Step 1: Construction of a new four-story, eight-courtroom facility and relocation of eight existing courtrooms to the new facility. This work also includes the demolition of the existing 1959 jail.
- Step 2: Courthouse Project Step 2 will renovate the existing courthouse facility in a three-phase vertical segmented approach to provide newly renovated facilities for all divisions, except the secure courtrooms addressed in Step 1. 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 offsite relocation of courthouse personnel.

Project Title:	Courthouse Project – Secure Courtroom Construction	Project #:	201418
Department:	Public Works - Buildings	Project Type:	New Building
Phase:	Preliminary Design	Sponsor:	Public Works
Budget Action:	C - \$ Update C - Rev Update	Manager:	Allison Bussler, DPW Director
Date:	December 19, 2017		

The budget and concept report for step 1 identified cost increases totaling \$2.1 million resulting from, temporary court solutions (during construction), an increase in square footage, and the overall costs associated with the work.

Step 2 is currently estimated to be \$58.6 million. Going forward, many factors may impact eventual project costs, including, but not limited to, incorporating additional operations to the courthouse space, future economic conditions, and the maturing of the design process for the remaining three stages of work that are part of step 2. Project funding is reallocated between project years due to updated cash-flow estimates. Project funding is also updated to include \$500,000 of capital project fund balance and \$300,000 of prior-year jail assessment fee revenue reserves, applied to partially cover the costs of the new courts building jail-holding area.

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 four-story courts building adjacent and contiguous to the existing Courthouse and the relocation of eight 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 off-site 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 eight 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.

Alternatives

Continue to operate all county functions and services at their present location utilizing existing facilities, risking HVAC failure, and without gaining future HVAC, utility and staffing efficiencies.

Ongoing Operating Costs

The project is expected to increase energy efficiency on a square foot basis with the implementation of state of the art equipment and windows. However the new space will be occupied and replaces space that was occupied on a partial basis. Therefore energy consumption and costs overall will increase. As part of the design development phase the consultants will be running comparison energy models to determine efficiencies and consumption. In addition, cleaning and maintenance are expected to increase as the new space will be occupied. It is anticipated that the cleaning contract will increase by approximately 12%, and overall courthouse maintenance costs will increase by 15%.

Based on the conceptual design developed through budget and concept, the Sheriff's Department anticipates there will be a need in additional staff to operate this phase of the courthouse. The number of correctional officers needed is subject to change as final design progresses.

Previous Action: The Courthouse Study was completed in August, 2013. Approved as a new capital project in the 2014-2018 capital plan. Approved as planned in the 2015-2019, 2016-2020, and 2017-2021 capital plans.

Project Title:	UWW Roofing Upgrades	Project #:	201210
Department:	Public Works - Buildings	Project Type:	Roof Replacement
Phase:	Construction	Sponsor:	Public Works
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY								
Year	2012	2013	2014	2015	2016	2017	2018	Total
Project Phase	Design			Construction	Construction		Construction	Project
Expenditure Budget	\$67,000	\$0	\$0	\$1,442,000	\$700,000	\$0	\$1,000,000	\$3,209,000
Revenue Budget	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net County Cost	\$67,000	\$0	\$0	\$1,442,000	\$700,000	\$0	\$1,000,000	\$3,209,000
COST DOCUMENTATION				REVENUE				
Architect	\$67,000							
Construction	\$2,852,000							
Contingency	<u>\$290,000</u>							
Total Project Cost	\$3,209,000							\$0
EXPENDITURE BUDGET	\$3,209,000							REVENUE BUDGET
								\$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 51-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 EPDM (rubber) 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 tuck pointing completed in 2009 and 2010.

In the 2015-2019 capital plan, a portion of project funding originally planned for 2016 was delayed until 2018 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. The 2016 bid results provided actual construction numbers for the 2018 project reducing the overall project cost by \$1,000,000.

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
- 2015-2019 capital plan: cost update, delay
- 2016-2020 capital plan: as planned
- 2017-2021 capital plan: approved with a cost update

Project Title:	CTH YY, Underwood Creek Structure	Project #:	201302
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Land Acquisition	Road Name:	Pilgrim Road
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY				
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
COST DOCUMENTATION		REVENUE		
Design	\$170,000			\$0
Land Acquisition	\$179,000			
Construction	\$877,000			
Construction Management	\$105,000			
Contingency	\$35,000			
Total Project Cost	\$1,366,000			
		Total Revenue		\$0
EXPENDITURE BUDGET	\$1,366,000	REVENUE BUDGET		\$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 2014 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 2015 was 13,175 vehicles per day.

Alternatives

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

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 and 2015-2019 capital plans.
- Approved as planned in the 2016-2020 and 2017-2021 capital plans.

Project Title:	CTH Y, Pilak Creek Tributary Bridge Rplc	Project #:	201304
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Land Acquisition	Road Name:	Racine Avenue
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY				
Year	2017	2018	2019	Total
Project Phase	Design	Land	Construction	Project
Expenditure Budget	\$90,000	\$24,000	\$520,000	\$634,000
Revenue Budget	<u>\$0</u>	<u>\$0</u>	\$0	<u>\$0</u>
Net County Cost	\$90,000	\$24,000	\$520,000	\$634,000
COST DOCUMENTATION		REVENUE		
Design	\$90,000			\$0
Land Acquisition	\$24,000			
Construction	\$448,000			
Construction Management	\$18,000			
Contingency	<u>\$54,000</u>			
Total Project Cost	\$634,000			
		Total Revenue		\$0
EXPENDITURE BUDGET	\$634,000	REVENUE BUDGET		\$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 has constructed 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 2014 traffic volume on CTH Y was 11,517 vehicles per day.

Alternatives

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

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 and the 2015-2019 capital plans.
- Approved as planned in the 2016-2020 and 2017-2021 capital plans.

Project Title:	CTH O & I Intersection Reconstruction	Project #:	201603
Department:	Public Works - Highways	Project Type:	Rehabilitation
Phase:	Land Acquisition	Road Name:	Moorland Road/Beloit Road
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY						
Year	2016	2017	2018	2019	2020	Total
Program Project		Design	Land Aquis	Const.		Project
Expenditure Budget	\$0	\$45,000	\$50,000	\$414,000	\$0	\$509,000
Revenue Budget	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$125,500</u>	<u>\$0</u>	<u>\$125,500</u>
Net County Cost	\$0	\$45,000	\$50,000	\$288,500	\$0	\$383,500
COST DOCUMENTATION			REVENUE			
Design	\$193,000			Surface Transportation		
WisDOT Design Review	\$30,000			Program - Milwaukee (STP - M)		\$1,840,000
Land Acquisition	\$50,000					
Construction	\$1,806,000			Developer Agreement 1 - Budgeted		\$63,000
Construction Mgmt	\$180,000			Developer Agreement 2 - Budgeted		\$62,500
Contingency	<u>\$90,000</u>					
Total Project Cost	\$2,349,000			Total Revenue		\$1,965,500
EXPENDITURE BUDGET	\$509,000			REVENUE BUDGET		\$125,500

Project Scope & Description

This project involves improvements to the intersection at Moorland Road and Beloit Road. Left turn lanes on Moorland Road will be turned into double left turn lanes; right turn islands will be added; Beloit Road will be restriped to provide two lanes in each direction; failing pavement on Moorland Road will be replaced; and traffic signals will be upgraded.

Proposed developments in the area have indicated the need for a number of incremental improvements at this intersection to meet their needs. Additionally, pavement conditions and future background growth have identified further deficiencies at this location. However, due to the proximity of I-43, it has been determined that a single project funded with developer, county and federal funding would disrupt traffic patterns less and cause fewer potential safety problems than a series of small incremental projects. The project has been approved for \$1,840,000 in federal STP-M revenues.

Location

City of New Berlin

Analysis of Need

This intersection controls traffic on two heavily used roadways, Moorland Road and Beloit Road, and is a major gateway to New Berlin from I-43. Recent traffic impact studies conducted for developments in the area have shown that the intersection operates at a low level of service and that relatively small increases in traffic are having a large impact on the intersection operations. As more developments occur in the area, background traffic will grow. The existing intersection capacity is insufficient to meet the current and future traffic volumes and turning movements. Also, while the roadway was last rehabilitated in 2006, the latest Pavement Condition Index (PCI) for this segment is 45, the concrete pavement on Moorland Road is in poor condition and should be replaced. Traffic volumes within this segment of Moorland Road are currently 31,000 vehicles per day.

Alternatives

- Reconstruct the intersection to provide necessary additional capacity.
- Reconsider project in a future capital plan.

Ongoing Operating Costs

Minor operational cost increase due to increased size and number of turn lanes.

Previous Action

Project approved as new in 2016-2020 capital plan. Approved as planned in 2017-2021 capital plan.

Project Title:	CTH C, Hasslinger Drive Intersection	Project #:	201611
Department:	Public Works - Highways	Project Type:	Spot Improvement
Phase:	Preliminary Design	Road Name:	Kettle Moraine Drive
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY				
Year	2018	2019	2020	Total
Project Phase	Design	Land Acquis.	Construction	Project
Expenditure Budget	\$18,100	\$214,000	\$82,700	\$314,800
Revenue Budget	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net County Cost	\$18,100	\$214,000	\$82,700	\$314,800
COST DOCUMENTATION			REVENUE	
Design	\$152,000		Federal Highway Safety	
WisDOT Review	\$29,000		Improvement Program (HSIP)	
Land Acquisition	\$214,000		Funding	\$907,200
Construction	\$719,000			
Construction Management	\$72,000			
Contingency	<u>\$36,000</u>			
Total Project Cost	\$1,222,000		Total Revenue	\$907,200
EXPENDITURE BUDGET	\$314,800		REVENUE BUDGET	\$0

Project Scope & Description

The purpose of this proposed project is to correct the safety problems along the curved segment of CTH C (Kettle Moraine Drive) at Hasslinger Drive. Proposed improvements addressing the conditions described above and other existing potential hazards include:

1. Realign approximately 2,200' of CTH C with one gradual horizontal curve.
2. Realign and combine Hasslinger Drive, the private Oakland Road and the driveway as one common intersection approach aligned perpendicular to CTH C. Include a right turn-only lane and acceleration taper along CTH C at this reconfigured 'T'-intersection. Combining the driveways will remove the visual effect for north bound traffic whereby the road appears to be straight – not curved.
3. Widen the CTH C lane widths from 11' to 12', its paved shoulders from 1' to 3' and clear zones along this curve. Add new pavement edges.
4. Add center line and shoulder rumble strip pavement markings to alert motorists approaching and driving through this curved highway segment.
5. Add intersection area highway lighting.

Waukesha County will apply for an estimated \$907,200 in Federal Highway Safety Improvement Program funding to help fund this project.

Location: Town of Merton and Village of Chenequa

Analysis of Need

A sharp curve along CTH C (Kettle Moraine Drive) has an awkwardly configured intersection with a residential street (Hasslinger Drive), a driveway and a private road (Oakland Road). Drivers must react suddenly to the changing curve radii of its existing alignment. This rural highway intersection has among the highest collision rates along Waukesha's County Trunk Highways. There have been twenty-one (21) crashes reported during the past 13 years at this intersection where average daily traffic is approximately 3,800 vehicles/day for a crash rate of 1.174 per million vehicles. All of these crashes involved northbound vehicles running off the right side of CTH C at the midpoint of its curve. All but one had occurred with wet/snow pavement and/or dark conditions. One crash had a fatality and four others had severe injuries.

Alternatives

Changing this intersection to a full-way stop or a roundabout is not warranted and would not address the prevailing northbound traffic flow problem along CTH C.

Ongoing Operating Costs: None

Previous Action: Approved as a new project in the 2016-2020 Capital Plan. Approved with cost and revenue update in the 2017-2021 capital plan.

Project Title:	CTH V V, Hickory Street to CTH F	Project #:	201620
Department:	Public Works - Highways	Project Type:	Rehab/Jurisdictional Transfer
Phase:	Preliminary Design	Road Name:	Silver Spring Drive
Budget Action:	As Planned	Manager:	Allison Bussler, Director DPW
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY				
Year	2017	2018	2019	Total
Project Phase		Design	Construction	Project
Expenditure Budget	\$0	\$5,000	\$582,000	\$587,000
Revenue Budget	\$0	\$0	\$291,000	\$291,000
Net County Cost	\$0	\$5,000	\$291,000	\$296,000
COST DOCUMENTATION			REVENUE	
Design - in house	\$0		County Highway	\$291,000
Soil Borings	\$5,000		Improvement Program -	
Construction	\$554,000		Discretionary (CHIP-D)	
Construction Management	\$0			
Contingency	\$28,000			
Total Project Cost	\$587,000		Total Revenue	\$291,000
EXPENDITURE BUDGET	\$587,000		REVENUE BUDGET	\$0

Project Scope & Description

The Village of Sussex and Waukesha County have signed a jurisdictional transfer agreement to transfer approximately half a mile of CTH V V (from Main Street to CTH F/Waukesha Avenue) to the Village. The Village has already taken the northwestern most portion of the roadway (Main Street to Hickory Street). The remaining portion (Hickory Street to CTH F) will not be transferred until this project is complete. The agreement would include a cost share agreement for any amenities that might be requested by the Village.

This project will rehabilitate 0.42 miles of CTH V V. The project scope includes manhole and culvert repairs, replacing broken and settled curbs, and repaving the roadway and restriping. The Department will use \$291,000 in CHIP-D funding to offset the cost of this project.

Location

Village of Sussex

Analysis of Need

The existing pavement is nearing the end of its service life and is in need of resurfacing/rehabilitation and has a pavement condition index of 45, which is in the poor to fair range. The pavement deficiencies include transverse and longitudinal cracking, some alligator cracking and minor settlement/heaving. Some curb lines have settled and need replacing. There has also been settlement around some manholes. Some minor repair work has been identified to one of the box culverts on this portion of CTH V V. Traffic volumes along this portion of CTH V V are approximately 8,000 vehicles per day as measured in 2012.

Alternatives

- Repave CTH V V. While addressing pavement condition, this alternate does not address curb settlement, manhole or culvert issues along CTH V V.
- Reconstruction of the existing roadway. While addressing the issues this is a more expensive alternate.

Ongoing Operating Costs

This project once complete will lower the Departments operational costs.

Previous Action

- Approved as new project in 2016-2020 capital plan
- Jurisdictional transfer agreement approved in 2016 (Enrolled Ordinance 170-81)
- Approved with a delay, change in scope and cost/revenue updates in 2017-2021 capital plan

Project Title:	CTH D, Calhoun Road to 124 th Street Rehab	Project #:	201706
Department:	Public Works - Highways	Project Type:	Rehabilitation
Phase:	Land Acquisition	Road Name:	Cleveland Avenue
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY						
Year	2017	2018	2019	2020	2021	Total
Project Phase	Design	Land	Construction			Project
Expenditure Budget	\$66,000	\$50,000	\$506,000	\$0	\$0	\$622,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$66,000	\$50,000	\$506,000	\$0	\$0	\$622,000
COST DOCUMENTATION			REVENUE			
Design		\$258,000	Federal Surface Transportation			\$2,287,000
WisDOT Design Review		\$68,000	Program (STP) Funding			
Land Acquisition		\$50,000				
Construction		\$2,174,000				
Construction Management		\$250,000				
Contingency		\$109,000				
Total Project Cost		\$2,909,000	Total Revenue			\$2,287,000
EXPENDITURE BUDGET		\$622,000	REVENUE BUDGET			\$0

Project Scope & Description

This project is a rehabilitation of CTH D between Calhoun Rd and 124th Street and the rehabilitation of the culverts at Deer Creek. The roadway will be rehabilitated with minor shoulder and intersection improvements. The anticipated scope for the culverts includes culvert lining and grouting, headwall reconstruction, and approach ditch re-grading. Structure rehabilitation will effectively extend the life of the culvert 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. The acquisition of temporary easements is anticipated to construct this project.

Culvert rehabilitation was originally proposed in capital project #201303, CTH D, Deer Creek Bridge, but federal bridge aid funding was not available. However, federal Surface Transportation Program funding is available for structure rehabilitation under this broader road rehabilitation project. Waukesha County has been approved for \$2,287,000 in federal aid to help fund the project.

Location: City of New Berlin

Analysis of Need

The pavement along this 3-mile long portion of CTH D is in poor condition and requires reconditioning. In 2013 the pavement inspection conducted along CTH D found that the overall condition index for the pavement varies between 21 and 43, which is the poor to fair range. Shoulders are paved and relatively wide. Intersections have turn lanes although some minor grading may be needed to extend turn lanes.

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-feet 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 33.1, which indicates that structure replacement or rehabilitation is warranted according to WisDOT guidelines. The 2013 traffic volume on CTH D was 16,995 vehicles per day.

Alternatives

- Reconstruct the existing bridge
- Reconstruct the pavement

Ongoing Operating Costs

Initial maintenance costs may be reduced following construction.

Previous Action: Bridge rehabilitation portion originally proposed as a separate capital project #201303 (CTH D, Deer Creek Bridge). Approved as a new project in the 2017-2021 Capital Plan

Project Title:	CTH ES, Fox River Bridge	Project #:	201004
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Construction	Road Name:	National Avenue
Budget Action:	C - Scope C - \$ Update C - Rev Update	Manager:	Allison Bussler, DPW Director
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY					
Year	2012	2013	2014	2018	Total
Project Phase	Budget/Concept	Design	Construction	Construction	Project
Expenditure Budget	\$6,000	\$150,000	\$176,000	\$197,000	\$529,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$6,000	\$150,000	\$176,000	\$197,000	\$529,000
COST DOCUMENTATION			REVENUE		
Budget/Concept	\$4,000		Federal Bridge Aid		\$0
Design	\$124,000				
Land Acquisition	\$0				
Construction	\$334,000				
Construction Management	\$50,000				
Contingency	\$17,000				
Total Project Cost	\$529,000		Total Revenue		\$0
EXPENDITURE BUDGET	\$529,000		REVENUE BUDGET		\$0

Project Scope & Description

A bridge rehabilitation report was completed for this project and recommended deck repairs and a deck overlay. However to meet federal funding eligibility requirements regarding shoulder widths, the project scope was expanded to become a substructure widening and concrete deck replacement. During the early stages of project design, it became apparent that the proximity of both underground utilities and the remaining foundations of the old CTH ES Bridge would pose a significant risk to construction cost overruns. In addition, closing CTH ES for long-term construction posed a significant concern for local emergency service providers. Therefore, the project has been re-scoped back to the original intent to repair and overlay the existing bridge deck. CTH ES will remain open as much as possible during construction. This change in scope will mean the project will no longer be eligible for federal funding and will therefore add \$197,000 in county funds to the cost of the project.

Location

Village of Mukwonago and Town of Mukwonago

Analysis of Need

The existing bridge (B-67-147) is a two-span, pre-stressed concrete girder structure that was constructed in 1971. A concrete overlay was placed on the deck in 1995. The abutments and girders are generally in good condition. The bridge is considered "structurally deficient" due to the condition of the deck which includes deterioration and spalling on the underside of the deck along both edges. The roadway over the structure is narrow with minimal shoulders, causing the bridge to be classified as "functionally obsolete." The structure sufficiency number is 59.3, which indicates that structure rehabilitation is warranted according to WisDOT guidelines and makes the bridge eligible for Federal Bridge Aid (rehabilitation). The 2012 traffic volume at the site is 10,500 vehicles per day.

Alternatives

- Don't do project, which does not address the identified deficiencies.
- Rehabilitate the existing bridge to address structural deficiencies.
- Rehabilitate with structure widening and federal bridge aid funding, but could result in higher overall County share of costs.

Ongoing Operating Costs

Initial maintenance costs may be reduced following construction.

Previous Action

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

Project Title:	CTH Q, Oconomowoc River Bridge	Project #:	201201
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Construction	Road Name:	County Line Road
Budget Action:	C - \$ Update	Manager:	Allison Bussler, DPW Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY				
Year	2016	2017	2018	Total
Project Phase	Design	Right of Way	Construction	Project
Expenditure Budget	\$119,000	\$22,000	\$164,000	\$305,000
Revenue Budget	\$0	\$0	\$0	\$0
Net County Cost	\$119,000	\$22,000	\$164,000	\$305,000
COST DOCUMENTATION		REVENUE		
Design	\$105,000	Federal Bridge Aid (Anticipated)		\$595,000
State Review for Design	\$30,000			
Land Acquisition	\$22,000			
Construction	\$609,000			
Construction Management	\$104,000			
Contingency	\$30,000			
Total Project Cost	\$900,000	Total Revenue		\$595,000
EXPENDITURE BUDGET	\$305,000	REVENUE BUDGET		\$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 have been 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. The budget has been increased to reflect higher than anticipated construction costs. The County's share of costs have increased by \$52,000. Federal bridge aid is anticipated to be used on this project and at 80% of construction phase is estimated at \$595,000.

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 is in fair condition, though the deck edges are now spalling. 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 35.9, 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 2013 traffic volume on this roadway segment was 3,120 vehicles per day.

Alternatives

Rehabilitation, which does not address all structural and geometric deficiencies.

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.
- Approved as planned in the 2015-2019, 2016-2020 and 2017-2021 capital plans.

Project Title:	CTH F, N.B. Bridge at Green Road	Project #:	201801
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Preliminary Design	Road Name:	Redford Blvd.
Budget Action:	New	Manager:	Allison Bussler, DPW Director
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY							
Year	2018	2019	2020	2021	2022	2023	Total
Project Phase	Design	Design	Design	Design/Land	Land	Const	Project
Expenditure Budget	\$6,000	\$0	\$0	\$92,000	\$0	\$70,000	\$168,000
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	\$6,000	\$0	\$0	\$92,000	\$0	\$70,000	\$168,000
COST DOCUMENTATION				REVENUE			
Design			\$76,000	Federal Bridge Aid (Anticipated)			\$282,000
WisDOT Design Review			\$22,000				
Land Acquisition			\$0				
Construction			\$280,000				
Construction Management			\$58,000				
Contingency			\$14,000				
Total Project Cost			\$450,000	Total Revenue			\$282,000
EXPENDITURE BUDGET			\$168,000	REVENUE BUDGET			\$0

Project Scope & Description

This project is a rehabilitation of the northbound (N.B.) CTH F bridge over Green Road. The scope includes concrete overlay of the wearing surface, and reconstruction of the concrete bridge railings. Some incidental concrete surface repairs may be appropriate on the slab underside. The roadway will remain two travel lanes over the bridge. Right of way acquisition is not anticipated. A bridge rehabilitation report will be necessary to verify the cost effectiveness of the proposed rehabilitation scope. Following WisDOT approval of the rehabilitation report, Waukesha County will apply for an estimated \$282,000 in federal bridge aid.

Locations

City of Pewaukee

Analysis of Need

The existing bridge (B-67-95) is a three span haunched slab structure that was constructed in 1966. A concrete overlay was placed on the wearing surface in 1989. Overall, the slab and substructure are in good to fair condition. A 2016 thermal infrared scan of the wearing surface (concrete overlay) indicates 17% delamination or de-bonding. The concrete parapets (railings) exhibit significant cracking, spalling, and deterioration. There is some surface spalling on the slab underside along the edges. The structure sufficiency number is 81.8, and currently not eligible for federal bridge aid. It is anticipated that the bridge's National Bridge Inventory (NBI) ratings and sufficiency number will drop soon based on the rate of deterioration over the last two years. It is appropriate to initiate a project now, given the time frame required to secure federal funding on bridge rehabilitation projects. The 2015 traffic volume on the northbound roadway was 14,700 vehicles per day.

Alternatives

Reconstruct the existing bridge, but will not be eligible for federal bridge aid.

Ongoing Operating Costs

Maintenance costs may be reduced in the early years after construction.

Previous Action

None

Project Title:	CTH V V, CTH E - Intersection	Project #:	201813
Department:	Public Works - Highways	Project Type:	Spot Improvement
Phase:	Construction	Road Name:	CTH V V
Budget Action:	New	Manager:	Allison Bussler, DPW Director
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY			
Year	2016-2017	2018	Total
Project Phase	Design/land	Construction	Project
Expenditure Budget	\$406,000	\$198,000	\$604,000
Revenue Budget	\$0	\$0	\$0
Net County Cost	\$406,000	\$198,000	\$604,000
COST DOCUMENTATION		REVENUE	
Design	\$143,000	Federal Highway Safety Improvement Program (HSIP)	\$1,044,000
Land Acquisition	\$125,000		
Construction	\$1,200,000		
Construction Management	\$120,000		
Contingency	\$60,000		
Total Project Cost	\$1,648,000	Total Revenue	\$1,044,000
EXPENDITURE BUDGET	\$604,000	REVENUE BUDGET	\$0

Project Scope & Description

The purpose of this proposed project is to correct the safety problems at the CTH V V and CTH E intersection. A single lane roundabout will be installed, which has been proven to be the most effective method of reducing fatalities and injuries at intersections.

The project will also improve the CTH E vertical alignment by removing a dip at the crossing of CTH E and the Bugline bicycle trail thus making it safer for bicycle traffic to cross CTH E.

This project will use \$1,044,000 in Federal Highway Safety Improvement Program funds.

Location

Town of Merton

Analysis of Need

The intersection of CTH V V and CTH E has been the site of a number of angle crashes. The roadways are both straight and relatively flat, but a high crash rate with a significant number of injuries has persisted at this location. The crash rate for this location is 1.013 crashes per million vehicles entering. Of the 23 crashes recoded at this intersection between 2008 and 2016, 8 have resulted in incapacitating injuries. Efforts such as the installation of flashing stop signs have significantly reduced the number of crashes.

Alternatives

Improved signing and marking may reduce the crash rate but are not as effective as improving the roadway geometry per the recommended scope.

Ongoing Operating Costs

None

Previous Action

This project was previously part of the Signal and Safety Capital Project (#200427). Updated cost estimates indicated that this intersection improvement will require additional funding in 2018. However, the last year of funding for project 200427 was in 2017, so this intersection improvement is transferred out to be stand-alone project in the 2018-2022 capital plan.

Project Title:	CTH KF, CTH JK - Intersection	Project #:	201814
Department:	Public Works - Highways	Project Type:	Spot Improvement
Phase:	Construction	Road Name:	CTH KF
Budget Action:	New	Manager:	Allison Bussler, DPW Director
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY			
Year	2016-2017	2018	Total
Project Phase	Design/land	Construction	Project
Expenditure Budget	\$290,000	\$185,000	\$475,000
Revenue Budget	\$0	\$0	\$0
Net County Cost	\$290,000	\$185,000	\$475,000
COST DOCUMENTATION		REVENUE	
Design	\$126,000	Federal Highway Safety Improvement Program (HSIP)	\$860,000
Land Acquisition	\$75,000		
Construction	\$990,000		
Construction Management	\$99,000		
Contingency	\$45,000		
Total Project Cost	\$1,335,000	Total Revenue	\$860,000
EXPENDITURE BUDGET	\$475,000	REVENUE BUDGET	\$0

Project Scope & Description

The purpose of this proposed project is to correct the safety problems at the CTH KF and CTH JK intersection. A traffic signal in conjunction with turn lane improvements is the recommended treatment for this location. A roundabout was ruled out due to the steep vertical geometry on CTH KF.

Location

Town of Lisbon

Analysis of Need

The intersection of CTH KF and CTH JK has been the site of a number of a number of angle crashes. Collisions have persisted at this CTH KF / CTH JK intersection. Twenty-three (23) collisions were reported here during the January 2011 – December 2015 five-year period for a crash rate of 1.167 crashes per million vehicles entering this intersection. Seven of these collisions involved injuries, with one having incapacitating (Type A) injuries. Seventeen of the crashes at this intersection involved left turning vehicles. Primary causes of these collisions appear to include:

1. 15 of the 17 angle crashes involved cross traffic going straight through the intersection where one of the movements has a stop sign. The intersection is a two-way stop, at which CTH KF does not stop; CTH JK has a stop condition.
2. Visibility of south bound traffic approaching the intersection is limited by terrain and vegetation.
3. Some CTH JK motorists report that they assumed the intersection was a four-way stop.

Alternatives

Improved signing and marking may reduce the crash rate but are not as effective as improving the roadway geometry per the recommended scope.

Ongoing Operating Costs

\$3,600 per year for the traffic signal

Previous Action

This project was previously part of the Signal and Safety Capital Project (#200427). Updated cost estimates indicated that this intersection improvement will require additional funding in 2018. However, the last year of funding for project 200427 was in 2017, so this intersection improvement is transferred out to be stand-alone project in the 2018-2022 capital plan.

Project Title:	Bridge Aid Program: 2018-2022	Project #:	201701
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Program Project	Road Name:	
Budget Action:	As Planned	Manager:	Allison Bussler, Director DPW
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total
Project Phase						Project
Expenditure Budget	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
COST DOCUMENTATION		REVENUE				
2018 Appropriation	\$100,000					
2019 Appropriation	\$100,000					
2020 Appropriation	\$100,000					
2021 Appropriation	\$100,000					
2022 Appropriation	\$100,000					
Total Project Cost	\$500,000					Total Revenue \$0
EXPENDITURE BUDGET	\$500,000					REVENUE BUDGET \$0

Project Scope & Description

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

Locations

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.

Alternatives

- County participation in the program is required by a statutory mandate.
- The county can opt out of participation with villages.

Ongoing Operating Costs

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

Previous Action

Capital Project 9131 – Bridge Aid Program through 2017.
Approved as a new project in the 2017-2021 Capital Plan.

Project Title:	Culvert Replacement Program 2018 - 2022	Project #:	201618
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Program Project	Road Name:	Various
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total
Project Phase						Project
Expenditure Budget	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
Revenue Budget	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net County Cost	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
COST DOCUMENTATION				REVENUE		
2018 Appropriation	\$100,000					
2019 Appropriation	\$100,000					
2020 Appropriation	\$100,000					
2021 Appropriation	\$100,000					
2022 Appropriation	<u>\$100,000</u>					
Total Project Cost	\$500,000					
EXPENDITURE BUDGET				REVENUE BUDGET		
	\$500,000					
				Total Revenue		\$0
						\$0

Project Scope & Description

Provide annual funding for a countywide culvert replacement program.

Location

Various

Analysis of Need

The Public Works Department replaces a number of culverts every year because of deterioration. This program is designed to address larger culvert structures that require extensive design, more land acquisition and higher construction costs. Generally the individual cost of culvert replacements is approximately \$50,000 and do not warrant capital projects. However, when grouped together, the annual costs exceed \$100,000. The County averages one to two culvert replacements per year under this program. Individual culvert locations are not normally known until the year they are to be replaced.

Alternatives

Schedule individual projects as needed.

Ongoing Operating Costs

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

Previous Action

Approved as a New project in the 2016-2020 capital plan.

Approved as Planned 2017-2021 capital plan.

Project Title:	Repaving Program 2018-2022	Project #:	201416
Department:	Public Works - Highways	Project Type:	Repaving
Phase:	Program Project	Road Name:	Various
Budget Action:	C - \$ Update C - Rev Update	Manager:	Allison Bussler, DPW Director
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY							
Year	2018		2019	2020	2021	2022	Total
Project Phase							
Expenditure Budget	\$4,450,000		\$2,800,000	\$3,700,000	\$4,200,000	\$4,300,000	\$19,450,000
Revenue Budget	\$559,000		\$330,000	\$590,000	\$590,000	\$590,000	\$2,659,000
Net County Cost	\$3,891,000		\$2,470,000	\$3,110,000	\$3,610,000	\$3,710,000	\$16,791,000
COST DOCUMENTATION				REVENUE			
				County Highway Improvement Program (CHIP)			
Hwy Paving				and CHIP-D (Discretionary)			
	Paver Study	Shouldering	Total		CHIP	CHIP-D	Total
2018	\$50,000	\$4,400,000	\$4,450,000	2018	\$330,000	\$229,000	\$559,000
2019	\$50,000	\$2,750,000	\$2,800,000	2019	\$330,000	\$0	\$330,000
2020	\$50,000	\$3,650,000	\$3,700,000	2020	\$330,000	\$260,000	\$590,000
2021	\$50,000	\$4,150,000	\$4,200,000	2021	\$330,000	\$260,000	\$590,000
2022	\$50,000	\$4,250,000	\$4,300,000	2022	\$330,000	\$260,000	\$590,000
Total Project Cost	\$250,000	\$19,200,000	\$19,450,000	Total Revenue	\$1,650,000	\$1,009,000	\$2,659,000
EXPENDITURE BUDGET			\$19,450,000	REVENUE BUDGET			\$2,659,000

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 lane 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, and parking lots at the Department's substation facilities.

Inflation and a reduced number of highway capital projects has caused a gradual reduction in the number of lane miles paved and hence we have seen our average pavement condition rating decline. Additional funds were added in the previous capital plan (2017-2021) to maintain pavement in good condition. In this capital plan (2018-2022), adjustments are made to planned pavement funding, including \$250,000 more in 2019, \$2,100,000 less in 2021 (from \$6,300,000 to \$4,200,000), and \$150,000 more in 2022. The project is also updated to reflect planned use of state funding from the County Highway Improvement Program.

Location: Various locations throughout the county.

Analysis of Need

The Department of Public Works presently maintains about 400 centerline miles of asphalt-surfaced roadways on the county trunk system and the parking lots at UW Waukesha. The typical useful life of pavement is 15 years. 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 Pavement Condition Index (PCI) of asphaltic pavements in 2016 was 60. It is the intention of this project to continue to maintain and improve current pavement conditions. Resurfacing projects take into consideration the PCI of existing pavements and classification of the road. The PCI 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 about \$7,000 per mile annually (2013).

Previous Action

Approved as a new project in the 2014-18 capital plan. Approved as planned in 2015-2019 Capital Plan. Approved as planned in the 2016-2020 Capital Plan. Approved with cost updates and accelerated in the 2017-2021 Capital Plan.

Project Title:	Signals & Safety Improvements	Project #:	200427
Department:	Public Works - Highways	Project Type:	Spot Improvement
Phase:	Program Project	Road Name:	
Budget Action:	C – Scope, \$ Update	Manager:	Allison Bussler, DPW Director
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY							
Year	2014	2015	2016	2017	2018	2019	Total Project
Expenditure Budget	\$950,000	\$842,400	\$1,250,000	\$554,000	\$0	\$0	\$3,596,400
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$950,000	\$842,400	\$1,250,000	\$554,000	\$0	\$0	\$3,596,400
COST DOCUMENTATION				REVENUE			
2014 Appropriation (a)	\$950,000						
2015 Appropriation	\$842,400						
2016 Appropriation	\$1,250,000						
2017 Appropriation (b)	\$554,000						
					Federal HSIP (Highway Safety Improvement Program)		\$1,092,000
Total Project Cost	\$3,596,400				Total Revenue		\$1,092,000
EXPENDITURE BUDGET	\$3,596,400				REVENUE BUDGET		\$0

- (a) At year-end 2014, \$250,000 of unspent appropriations were allowed to lapse since \$250,000 of budgeted County Highway Improvement Program – Discretionary funding was not available for these projects, as originally budgeted.
- (b) The 2017 appropriation is reduced to transfer funding for the CTH V V at CTH E and CTH JK at CTH KF, which will stand alone as capital projects in the 2018-2022 capital plan.

Project Scope & Description

This program addresses roadway safety needs in two specific areas. Firstly, there are upgrades to existing traffic signals and new locations where traffic signals are warranted. Secondly, there are 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 two years (2016-17). 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.

Projects at the intersections of CTH V V at CTH E and CTH JK at CTH KF require additional funding in 2018. Regarding CTH V V at CTH E, higher costs are due to increased approach lengths due to adjacent side roads and paths, poor soils, and traffic control issues. Regarding CTH JK at CTH JK, higher costs are due to additional grading, storm sewer, and longer turn lanes than originally anticipated. Since 2017 was the last year of funding for this signal and safety program project, these intersection improvements are transferred out to be stand-alone projects in the 2018-2022 capital plan (#201813 and #201814).

To cover higher-than-anticipated costs for existing projects within available funding, spot improvements are being prioritized and some eliminated (shown in the table below).

			COST ESTIMATE		
Intersection	Location	Year	County Share (In Co. Budget)	HSIP Funded (Not in Co. Budget)	Total Cost Estimate
CTH I, between Ehr DR and Point Dr: realign roadway to remove substandard curve.	Town of Vernon	Design in 2016, Construction in 2019	\$184,000	\$1,092,000	\$1,276,000
CTH V V, CTH E Intersection: Install roundabout to reduce crashes. Move to Project 201813	Town of Merton	Design in 2015/17, Complete construction in 2018	\$604,000	\$1,044,000	\$1,648,000
CTH KF/JK intersection: Add traffic signal and turn lanes to improve safety. Move to project 201814	City of Pewaukee	Design in 2015/17, Construction in 2018	\$475,000	\$860,000	\$1,335,000
CTH V V/CTH YY and CTH W/CTH YY: Intersection, traffic signal/Intersection upgrades to add and improvements to pedestrian crossings.	Village of Menomonee Falls	Project Eliminated	\$0	\$0	\$0
CTH CI, County line to STH 67, safety project to improve signing, marking, improve lateral clearances.	Towns of Eagle and, Ottawa	Project Eliminated	\$0	\$0	\$0
CTH O, Moorland Road: Upgrade and retime traffic signal interconnect.	Cities of New Berlin and Brookfield	Project Eliminated, to be completed internally	\$0	\$0	\$0

Project Title:	Signals & Safety Improvements	Project #:	200427
Department:	Public Works - Highways	Project Type:	Spot Improvement
Phase:	Program Project	Road Name:	
Budget Action:	C – Scope, \$ Update	Manager:	Allison Bussler, DPW Director
Date:	November 6, 2017		

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: add new projects, revenue update
- 2015-2019 capital plan: add new projects, revenue update
- 2016-2020 capital plan: add new projects, revenue update
- 2017-2021 capital plan, approved as planned

Project Title:	University of Wisconsin Waukesha Site Infrastructure Improvements	Project #:	201703
Department:	Parks & Land Use	Project Type:	Concrete/Repaving
Phase:	Construction	Sponsor:	Parks and Land Use
Budget Action:	Accelerate	Manager:	Dale Shaver, PLU Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY					
Year	2017	2018	2019	2020	Total Project
Project Phase	Design/Constr.	Design/Constr.	Design/Constr.	Design/Constr.	
Expenditure Budget	\$182,400	\$558,000	\$0	\$491,000	\$1,231,400
Revenue Budget	\$0	\$0	\$0	\$0	\$0
Net County Cost	\$182,400	\$558,000	\$0	\$491,000	\$1,231,400
COST DOCUMENTATION			REVENUE		
Design/Engineering	\$171,000				
Construction	\$902,000				
Contingency	\$158,400				
Total Project Cost	\$1,231,400				
EXPENDITURE BUDGET	\$1,231,400				
			Total Revenue		\$0
			REVENUE BUDGET		\$0

Project Scope & Description

Waukesha County owns the land and buildings, which serve as the University of Wisconsin - Waukesha campus. Waukesha County and the Regents of the University of Wisconsin entered into a Partnership Agreement on June 11, 1965 and later amended on July 1, 1970 and January 1, 2000 to detail County and University responsibilities related to the property. The Partnership Agreement details County responsibilities for maintenance items such as infrastructure, HVAC, plumbing, sidewalks, parking lots and landscaping. The Partnership Agreement terminates on June 30, 2040.

The proposed project will repair and replace existing deteriorating concrete walks, terraces, stairways, asphalt parking lots and update the conditions for ADA code compliance, safety, stormwater management, and improved ease of maintenance and campus function. All concrete projects will include erosion and sediment control, site preparation, drainage improvements, excavation, demolition, pavement installation and vegetative restoration. The project also includes consideration for reducing or eliminating concrete to save future operations and maintenance costs. Third year (2019) project funding is brought forward into 2018 to help balance overall capital plan spending between those two years. No appropriation is needed in 2019 because it is expected that funds from 2018 will be available for that two-year period.

Location: The UWW campus is located on University Drive, south of Northview Road, and north of Summit Avenue in the City of Waukesha.

Analysis of Need

In 2015, an assessment of need and condition evaluation report was completed to review the existing conditions, identify improvements, and prioritize concrete walk, terrace and stairway segments for improvements. Priority segments are identified as areas that have failed or are in poor condition.

Alternatives

1. Continue to repair failed or poor condition areas as series of small projects.
2. Repair and replace site infrastructure over a shorter or longer period of time.

Ongoing Operating Costs

The proposed projects will help to reduce on-going operating costs for UWW involving maintenance, walk closures and potential risk areas. Reduction of total concrete square footage on campus will help to reduce future concrete replacement costs for the County.

Previous Action: Approved as a new project in the 2017-2021 capital plan.

Project Title:	Menomonee Park Beach House Renovation	Project #:	201605
Department:	Parks & Land Use	Project Type:	Renovation/Upgrade
Phase:	Construction	Sponsor:	
Budget Action:	C - Scope C - \$ Update C - Rev Update	Manager:	Dale Shaver, PLU Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY						
Year	2016	2017	2018	2019	2020	Total
Project Phase	<u>Design/Engineering</u>	<u>Construction</u>				Project
Expenditure Budget	\$0	\$93,000	\$606,000	\$0	\$0	\$699,000
Revenue Budget	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Net County Cost	\$0	\$93,000	\$606,000	\$0	\$0	\$699,000
COST DOCUMENTATION				REVENUE		
Design	\$93,000					
Construction	\$556,700					
Contingency	<u>\$49,300</u>					
Total Project Cost	\$699,000			Total Revenue		\$0
EXPENDITURE BUDGET	\$699,000			REVENUE BUDGET		\$0

Project Scope & Description

The existing Menomonee Park beach house was built in the mid 1970's as a bathhouse and shelter building. This project proposes remodeling of the beach house to replace the original mechanical systems, lighting, windows, and doors/frames, while updating bathrooms and ADA accessibility to current code compliance. The lifeguard room will move to the front of the building facing the beach to improve safety. Proposed building renovation costs are estimated at \$426,700, and the required utility and site improvements estimated at \$130,000. This project is updated to reflect that the project will not receive \$300,000 of Department of Natural Resources Stewardship funding. Project scope and costs have been adjusted down by \$313,600, and will no longer include the partial enclosing of the outdoor pavilion, but will focus on renovation and extension of the facility's useful life.

Location

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

Analysis of Need

After 40 years of use, the existing beach house is in need of remodeling. The remodeling is recommended to extend the life of the building for another 30 years. The remodeling design moves the lifeguard room to the beach side of the building for improved visibility. The design also makes more functional and efficient use of available space.

Alternatives

1. Remodel the structure to address mechanical, window, doorway, and lighting replacement, and space reconfiguration
2. Demolish the existing building and rebuild new. This would provide opportunity to enhance rentability separate from summer beach use, but would add another estimated \$500,000 to \$750,000 to the cost.

Ongoing Operating Costs

Expected operating costs would be equivalent to current conditions with some utility savings due to upgrading HVAC and lighting to more efficient equipment and fixtures.

Previous Action

Approved as new project in 2016-2020 Capital Plan. Approved with a cost and revenue update in the 2017-2021 capital plan.

Project Title:	Eble Park Ice Arena Refrigeration System	Project #:	201808
Department:	Parks & Land Use	Project Type:	Mechanicals/Bldg Systems
Phase:	One-Year Project	Sponsor:	Parks & Land Use
Budget Action:	New	Manager:	Dale Shaver, PLU Director
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total
Project Phase	Design/Engineering & Construction					Project
Expenditure Budget	\$308,000	\$0	\$0	\$0	\$0	\$308,000
Revenue Budget	<u>\$308,000</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$308,000</u>
Net County Cost	\$0	\$0	\$0	\$0	\$0	\$0
COST DOCUMENTATION		REVENUE				
Design/Engineering	\$22,000	Tarmann Parkland Acquisition				
Construction	\$265,000	Fund Balance				
Contingency	<u>\$21,000</u>	\$308,000				
Total Project Cost	\$308,000	Project Revenue				
EXPENDITURE BUDGET	\$308,000	REVENUE BUDGET				
		\$308,000				

Project Scope & Description

The existing refrigeration system is original to the ice arena, constructed in 1988. The current system of refrigerant piping set in a concrete floor is an R-22 Freon system. R-22 as a refrigerant product is being phased out of the market place in the next five years. R-22 will be more difficult and more expensive to purchase and use. The quality of frost protection for ice arenas has improved since this system was installed, and it is necessary to replace valves and insulation, and to address system leaks and blockages. This project will replace pipe that was noted through the non-destructive testing as highly deteriorated. It will also remove, replace, and paint insulation covering the refrigerated vessels and lines, and replace refrigerant relief valves. The desiccant system will be replaced to improve efficiency and to reduce the load on the refrigeration plant. The design consultant will evaluate the use of an alternative refrigerant, R-421a, to replace the R-22 Freon. The project as proposed will extend the life of the current system for 5-10 years. Since this is a one-year project, funds for construction will not be spent until a standing committee of the County Board approves the request for proposal process.

Locations

Eble Park Ice Arena is located at 19400 West Bluemound Road, Brookfield, Wisconsin 53045

Analysis of Need

The current, well-maintained refrigeration system was installed in 1988; the expected lifespan of this type of refrigeration plant is 25 years. The plant is generally in good shape although several components and pipes require replacement to extend the life expectancy. In 2016, through the operations budget, a series of tests were done to determine the condition of the refrigeration plant. A high-pressure test was performed to identify any leaks. The system held up well and maintained constant pressure throughout the 24-hour test. Non-destructive testing was also done to determine the condition of the metal vessels and piping. The report showed some areas of wear, and those will be addressed with this capital project.

Alternatives

1. Do nothing. The risk of the refrigeration plant shutting down would be high, which would most likely close the facility without much notice to users.
2. Replace the entire refrigeration plant. This would cost upwards to \$2.3 million. The cost to replace the refrigeration plant is high, as the entire concrete floor would need to be removed to replace the refrigeration piping currently held in the concrete floor.

Ongoing Operating Costs

There will likely be no changes to the current cost of operation as these repairs are to keep the Eble refrigeration plant in operation. The desiccant system will have the biggest gain in saving natural gas expense as the current system is working at a very low capacity.

Previous Action: None

Project Title:	Pavement Management Plan 2018-2022	Project #:	201406
Department:	Parks & Land Use	Project Type:	Repaving
Phase:	Program Project	Sponsor:	
Budget Action:	C - \$ Update C - Rev Update	Manager:	Dale Shaver, PLU Director
Date:	December 19, 2017		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total
Program Project						Project
Expenditure Budget	\$950,000	\$950,000	\$800,000	\$800,000	\$800,000	\$4,300,000
Revenue Budget	\$150,000	\$250,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Net County Cost	\$800,000	\$700,000	\$600,000	\$600,000	\$600,000	\$3,300,000
COST DOCUMENTATION			REVENUE			
				Tarmann	Landfill	
				Fund Balance	Siting Revenue	Total
2018	\$950,000		2018	\$50,000	\$100,000	\$150,000
2019	\$950,000		2019	\$50,000	\$200,000	\$250,000
2020	\$800,000		2020	\$0	\$200,000	\$200,000
2021	\$800,000		2021	\$0	\$200,000	\$200,000
2022	\$800,000		2022	\$0	\$200,000	\$200,000
Total Project Cost	\$4,300,000		Total Revenue	\$100,000	\$900,000	\$1,000,000
EXPENDITURE BUDGET	\$4,300,000		REVENUE BUDGET			\$1,000,000

Project Scope & Description: In cooperation with the Public Works Department, the Department of Parks and Land Use 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 over 70 is satisfactory, and pavement ratings improve up to a scale maximum of 100. The goal is to maintain an average pavement PCI rating of 70 ("satisfactory") or better. The focus of the Pavement Management Plan for the next five years will be the Expo Center. With a current PCI average of 49, improvements to the large areas of pavement at Expo are necessary to upgrade the pavement infrastructure. Due to the focus on Expo pavement, the schedule for other Park System projects will be adjusted, and projects will be prioritized and fit into the Plan based on PCI rating, safety, and access issues. Additional pavement management expenses are offset with Tarmann Parkland Acquisition Fund Balance and Landfill Siting revenues.

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, Trails 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 (PLU) 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 yards of paved surface. Currently PLU maintains 876,498 square yards of paved surface around the Government Center, remote County facilities and the major parks. This represents approximately 3.6 times as much pavement to maintain. 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, concrete replacement and consulting. 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. Cost documentation shows an increase in each year's expenditure budget to support efforts for pavement improvement at the Expo Center in addition to other park pavement management and repair projects throughout the Parks System.

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. Approved with cost update in the 2015-2019 capital plan. Approved as planned in the 2016-2020 capital plan. Approved with a cost update in the 2017-2021 capital plan.

Project Title:	Jail Video Visitation System Replacement	Project #:	201702
Department:	Sheriff's Department	Project Type:	Equipment Replacement
Phase:	Preliminary Design	Sponsor:	Sheriff's Department
Budget Action:	Delay C - Scope C - \$ Update	Manager:	Mike Biagioli, IT Manager
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY				
Year	2017	2018	2019	
		Design	Implementation	Total
Project Phase				Project
Expenditure Budget	\$0	\$75,000	\$450,000	\$525,000
Revenue Budget	\$0	\$75,000	\$450,000	\$525,000
Net County Cost	\$0	\$0	\$0	\$0
COST DOCUMENTATION		REVENUE		
Study/Design		\$75,000		
Hardware/Software		\$400,000	Jail Assessment	\$525,000
Contingency		\$50,000	Fund Balance Reserves	
Total Project Cost		\$525,000	Total Revenue	\$525,000
EXPENDITURE BUDGET		\$525,000	REVENUE BUDGET	\$525,000

Project Scope & Description

When the 2005 jail was planned on the current site, a decision was made that visitation with the public would be allowed only by video visitation. This option was selected due to operational efficiencies of video visits including reduced inmate transports; eliminating the opportunity for contraband entering the facility from visitors; and reduced monitoring requirements between inmate and visitor.

The current video visitation equipment is 12 years old. The vendor that maintains the equipment indicates that, due to the age of the equipment, the system is nearing the end of its useful life, and that the Sheriff's Department should begin the process to plan its replacement. The vendor further indicates that while replacement parts to repair the equipment are currently available, as the system continues to age, it will become more difficult to locate replacement parts. Based on the need to replace the system, the Sheriff's Department hired a consultant to conduct a study to investigate replacement options that could result in a new system.

The project was included in the 2017-21 Capital Improvement Plan with anticipated funding to occur in 2018. The Department is requesting that the funding for project implementation be delayed until 2019 so that project implementation would occur the same year as the Security System replacement project (#201615). It is anticipated that some of the cabling work necessary for this project could occur with the Security System Replacement project. It is expected that if the projects occurred the same year, it would be less disruptive to the facility and the Department could receive more cost effective bids for the cabling work. The project is also updated to include an additional \$75,000 in 2018 for design of system specifications and for a business process study to assess and cost out what facility and staffing changes would be required to implement a jail-based video-court/video-conferencing system and whether there would be a return-on-investment.

Current System:

The video visitation system is an analog system that consists of approximately 95 video visitation booths located in the public visitation area and in the inmate pods. There is a Knox matrix audio/video switcher that connects the visitor to the inmate. This type of analog systems is being phased out in the electronic security industry.

Concerns with Current Video Visitation Process:

- **The current video visitation process is staff intensive.** The current system requires clerical staff to be made available during visitation hours so that they can check people in and set up the visits.
- **The visitation process distracts correctional officers from their responsibility of supervising inmates as the correctional officers need to direct inmates for video visits.**
- **The current video visitation system is not convenient for the public.** There is limited parking outside the jail. There are limited visitation hours due to staffing issues. Due to limited hours, each member of the public is only able to visit twice a week. The public lobby visitation booths can only accommodate two visitors at a time.
- **The current video visitation process is not family friendly.** Children are not permitted to be left unattended in the jail lobby. If a spouse of an inmate and their two children show up for a visit, the visit is not permitted because neither child can be left unattended (in either the visitation booth or in the lobby), nor can three people visit at one time.

Project Title:	Jail Video Visitation System Replacement	Project #:	201702
Department:	Sheriff's Department	Project Type:	Equipment Replacement
Phase:	Preliminary Design	Sponsor:	Sheriff's Department
Budget Action:	Delay C - Scope C - \$ Update	Manager:	Mike Biagioli, IT Manager
Date:	December 6, 2017		

Features of Video Visitation Systems:

Since the implementation of the current video visitation system in 2005, there have been technological improvements in video visitation systems that would result in a reduction of staff involvement in the video visitation process, make the video visitation process more convenient for the general and professional public, and generate additional ongoing money for the Sheriff's Department. New features in video visitation systems include:

- **Internet visits** so the general public can visit from home and attorneys can visit from their office via the internet. There are many benefits which include the ability to conduct visits after the jail lobby has closed; public convenience as visitors do not have to drive to the jail or wait in line to visit; and an increase in revenue because the public and attorneys are charged a fee for off-site visits.
- **Visit tracking** ensures that visitation policies are applied consistently. This feature also allows the Department to generate additional revenue by charging individuals who choose to purchase additional visits.
- **Conflict checking** places restrictions on visitors so that they are not at the facility together if there are outside conflicts.

Location: Waukesha County Jail

Analysis of Need

Department of Corrections Administrative Code requires correctional facilities to provide an opportunity for visitation. The jail was not constructed to allow in-person visits, so this is critical equipment for the jail to ensure visits are permitted. Although the system is currently functioning and the current security electronics provider indicates the system can continue to be supported through proactive maintenance and continued repair, the Department does not want to wait until the point of failure before planning its replacement.

System Alternatives

1. Replace the current video visitation system with a comparable system fully funded by Waukesha County. By replacing the current system with a comparable system, the Sheriff's Department would forgo opportunities to utilize technology to improve efficiency, reduce staff involvement in the visitation process, and would be forgoing revenue associated with home or office visitation options.
2. Replace the current video visitation system with an enhanced system that would allow for home and office visits (as proposed in this project). While the Department would like to expand the current video visitation capabilities, Sheriff's Department staff do not possess the workload capacity or knowledge required to troubleshoot issues with offsite visits should they occur. The Department will need to contract with a provider that has a process in place to ensure success of offsite visits.

Regardless of which option is selected, the Department would like to be able to consider either adding or relocating some of the existing video visitation booths (currently located in the lobby, used by visitors) to the pods if there is adequate room and if it is not cost prohibitive. If the system that allows for off-site visitation was selected, the additional visitation booths in the pods could generate additional revenue for the Department by providing inmates with greater opportunity to visit.

System Acquisition Alternatives

The consultant's report included four different system acquisition options and four different capital and on-going costs associated with each option. The four options that were reviewed include:

1. Lease a combined inmate phone and video visitation system
2. Lease a stand-alone video visitation system
3. Lease a video visitation system through an existing inmate phone provider
4. Purchase and own an enhanced visitation system, with contracted system support

The consultant's study recommended option 4 as the most cost-effective, with the Sheriff's Department replacing the existing system with an enhanced video visitation system and contract with a video visitation software provider who will be responsible for remote management, maintenance and revenue collection for the Department.

Ongoing Operating Costs: Depending on the vendor selected, on-going operating costs could be addressed through a revenue-sharing arrangement between the video visitation software provider and the County. Dependent on the vendor selected, a portion of the revenue generated by the video visitation system would be retained by the vendor to compensate them for their staff time to troubleshoot technical issues, gather and disburse revenue and conduct maintenance issues on the system. Based on inquiries with similar video visitation systems, it is projected that the new system could generate \$10,000-\$15,000 annually.

Previous Action

Funding for system replacement study included in capital project #201615 in the 2016-2020 capital plan. This project was approved as a new project in the 2017-2021 capital plan.

Project Title:	HRIS / Payroll System Implementation	Project #:	201617
Department:	DOA - Information Technology	Project Type:	Information Technology
Phase:	Implementation	Sponsor:	HR Mgr. Jim Richter & Accounting Services Mgr. Larry Dahl
Budget Action:	As Planned	Manager:	Mike Biagioli, IT Manager
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY				
Year	2016	2017	2018	Total
Project Phase	Analysis Design	Software Selection/ Implementation	Implementation	Project
Expenditure Budget	\$75,000	\$400,000	\$952,000	\$1,427,000
Revenue Budget	\$0	\$0	\$452,000	\$452,000
Net County Cost	\$75,000	\$400,000	\$500,000	\$975,000
COST DOCUMENTATION		REVENUE		
Software	\$320,000	General Fund Balance		\$500,000
Vendor Implementation	\$300,000			
Consulting/Implementation	\$552,000	End User Technology Fund Balance		\$452,000
Training	\$30,000			
Contingency	<u>\$225,000</u>			
Total Project Cost	\$1,427,000	Total Revenue		\$952,000
EXPENDITURE BUDGET	\$1,427,000			

Project Scope & Description

This project addresses the procurement and replacement of the human resource information system (HRIS) and payroll system. Based on a 2016 study in the first year of this project, it has been determined that the current system is near the end of its life cycle. The current vendor is no longer providing enhancements, which does not provide the opportunity to create efficiencies and effective workflows and processes. The second year of the project funds the services of a consultant to assist in the assessment and selection of the appropriate software vendor. Project funds in the second year are also budgeted to begin implementation after vendor selection.

The new system will allow for process improvements in the area of integration between existing systems, a centralized database, the minimization of shadow systems, ability to establish electronic vs manual workflows and processes, more effective communications with management and employees, streamlined payroll processing, management query and reporting tools, and more cost effective software delivery by using cloud based systems. Specific HR and Payroll areas to be improved include benefits administration (including interfaces with third-party benefit providers), HR administration, Affordable Care Act management, new hire reporting to meet federal requirements, recruiting, employee self-service, document management, performance management, management reporting, and dashboards.

Location: All County departments.

Analysis of Need

The current payroll system has been in use since 2004, and will need to be replaced at some point in the next few years. The current vendor no longer provides enhancements which will enable the County to meet its regulatory reporting requirements. New system functionality will replace functionality that is now done through a variety of manual tasks. This project will also transition payroll and HR information systems from self-hosted applications to a cloud-based solution, freeing up internal IT resources and eliminating the server infrastructure environment supporting the current in-house systems.

Alternatives

- Continue with the current payroll system until replacement is required.
- Pursue the needed Human Resources functionality in a number of separate projects.

Ongoing Operating Costs: Ongoing annual maintenance costs for the new vendor selected through the RFP process will be \$189,000. These new costs are expected to be partially offset by savings from discontinuing use of the current payroll system (\$125,000 in annual maintenance fees) and from operating efficiencies.

Previous Action

Approved as a new project in the 2016-2020 capital plan.
Approved with a cost and revenue update in the 2017-2021 capital plan.

Project Title:	IntelliTime: Dynamic Scheduling	Project #:	201812
Department:	DOA - Information Technology	Project Type:	Information Technology
Phase:	Preliminary Design	Sponsor:	Larry Dahl, Accounting Services Manager
Budget Action:	New	Manager:	Mike Biagioli, Information Technology Manager
Date:	November 6, 2017		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total
Project Phase	Budget & Concept Design	Implementation				Project
Expenditure Budget	\$50,000	\$170,000	\$0	\$0	\$0	\$220,000
Revenue Budget	\$17,000	\$58,000	\$0	\$0	\$0	\$75,000
Net County Cost	\$33,000	\$112,000	\$0	\$0	\$0	\$145,000
COST DOCUMENTATION			REVENUE			
Proof of Concept	\$50,000		Jail Assessment Fund			
Implementation	\$150,000		Balance Reserves			\$75,000
Contingency	\$20,000		(For Jail Portion of Project)			
Total Project Cost	\$220,000		Total Revenue			\$75,000
EXPENDITURE BUDGET	\$220,000		REVENUE BUDGET			\$75,000

Project Scope & Description

Review a Proof of Concept (POC) with the IntelliTime (vendor) Dynamic Scheduling Module to address current staff scheduling business practices.

Location

The POC would be for the Clerk of Courts, Jail Division and Health & Human Services/Mental Health Center.

Analysis of Need

The Clerk of Courts, Jail Division and HHS-Mental Health currently uses a combination of Excel spreadsheets and/or an outdated software applications to collect data to manage and schedule staff resources on a 24/7 basis such as variable shift schedules, vacations, sick leave and compensatory time for training and overtime. Current scheduling processes are outdated having many restrictions and inefficiencies to functionality. While these applications remain operational, they require intensive staff time.

The current vendor has notified the Jail Division it plans to discontinue all levels of support for the Jail Division scheduling module (InTime), having shifted development resources to a new Cloud and Enterprise product platform.

The resources budgeted for this project include: 1) process reviews of the POC; 2) customization of business rules; 3) implementation; 4) training and; 5) acquisition of additional licenses for the Dynamic Scheduling Module with improved capabilities for scheduling practices in the aforementioned departments. Purchase of the additional Dynamic Scheduling Module licenses would only occur if the POCs show clear return-on-investment (ROI) and meets the business needs for the departments. If approved, the sequence of implementation would be 1) Jail Division, 2) HHS-Mental Health and 3) Clerk of Courts.

Alternatives

An alternative would be to develop an in-house scheduling application, 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 scheduling differences between departments. Moreover, the Jail Division would be required to upgrade to the new InTime-scheduling module.

Ongoing Operating Costs

Annual software license costs for an estimated 365 staff is \$55,000 for the first year.

Previous Action

None

Project Title:	Tax System and Countywide Cashiering Replacement	Project #:	201815
Department:	DOA - Information Technology	Project Type:	Information Technology
Phase:	Study/Implementation	Sponsor:	Andrew Thelke, DOA Business Services and Collections Manager
Budget Action:	New	Manager:	Mike Biagioli, Information Technology Manager
Date:	December 6, 2017		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total
Project Phase	Study/ Implementation	Implementatio				Project
Expenditure Budget	\$690,000	\$175,000	\$0	\$0	\$0	\$865,000
Revenue Budget	<u>\$390,000</u>	<u>\$175,000</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$565,000</u>
Net County Cost	\$300,000	\$0	\$0	\$0	\$0	\$300,000
COST DOCUMENTATION			REVENUE			
Study	\$75,000		Previous Cashiering Project -			
Implementation	\$720,000		Remaining Funds (Collections FB)			\$280,000
Contingency	<u>\$70,000</u>		Collections Fund Balance			\$110,000
			EUTF Fund Balance			<u>\$175,000</u>
Total Project Cost	\$865,000		Total Revenue			\$565,000
EXPENDITURE BUDGET	\$865,000		REVENUE BUDGET			\$565,000

Project Scope & Description

The project replaces the Active Network Payment Manager (TAN) countywide cashiering system and the County's Property Tax Application (PTA) through the evaluation of current business processes and future business needs. It is necessary to combine tax and cashiering replacement into one project due to interdependencies between the applications and their interfaces with other Line of Business Applications (LOBs) throughout County departments.

Replacement of these systems begins with a business process review and analysis of off-the-shelf software available for property tax listing and billing within the State of Wisconsin. Decisions made on how best to incorporate cashiering within the property tax system will establish the framework for the selection of software solution(s).

Specific areas affected by property tax system replacement include: tax billing, tax collection/settlement and related systems/programs that use tax data such as municipal tax systems, geographic information systems (GIS), internal/shared data warehouses and online payment portals.

TAN replacement may use native cashiering components within the selected tax application or a hybrid approach where multiple systems contribute to the general ledger for centralized financial reporting. Current TAN functionality will be replaced through new system implementation or modification to LOB applications and/or business process modifications. Current live cashiering interfaces to replace include:

- Property Tax
- General Ledger (GL) to the County Financial Management System (FMIS)
- Accounts Receivables to FMIS
- Collections – Delinquent Receivables

The replacements will also incorporate efficiencies gained through cashiering database centralization, batch processing, cash handling improvements and consistency of over the counter transactions. Although not planned, the project will create the infrastructure and systems architecture for future LOB integrations (e.g., Sheriff, HHS, payment card processing).

This project replaces project 200414 in pursuit of a replacement for cashiering and tax functionality outlined above and the integration of credit card processing, data protection and hardware/workstation replacement to improve overall efficiency and security.

Project Title:	Tax System and Countywide Cashiering Replacement	Project #:	201815
Department:	DOA - Information Technology	Project Type:	Information Technology
Phase:	Study/Implementation	Sponsor:	Andrew Thelke, DOA Business Services and Collections Manager
Budget Action:	New	Manager:	Mike Biagioli, Information Technology Manager
Date:	December 6, 2017		

This project will be partially funded with appropriated Collections Fund Balance, most of which will come from the \$280,000 of remaining funds for the previous cashiering project (#200414). These funds are projected to lapse when the project closes at year-end 2017. Additional Collections and EUTF Fund Balance is added to prepare and improve existing LOBs prior to integration.

Locations

Major departments affected by tax system replacement include the Treasurer's Office, Register of Deeds, Department of Administration, and Parks and Land Use. Waukesha County municipalities will also be affected due to their use of the system for listing, bill preparation and collections.

All departments will be affected by cashiering replacement with higher volume departments (e.g., Treasurer, Department of Administration, Sheriff and Health and Human Services) closely participating in process redesign/system implementation.

Analysis of Need

PTA was fully implemented in 2012. Waukesha County is the only user of PTA in the State of Wisconsin. Tax listing and billing have unique requirements specific to state law and local requirements. As the County and local municipalities seek to increase efficiencies and share information more effectively, improvements to workflow, reporting and customer interfaces need to be continuously improved in conjunction with law and policy changes.

Life expectancy of Property Tax Systems are limited. Although no software sunset date has been announced, the likelihood of continued development and support is less than a more widely used system. As the County seeks to meet changing requirements and pursue improvements to property tax listing, billing and collection processes for internal users and external customers, changes to the PTA application will likely become increasingly expensive, as the vendor does not have a customer base to share development costs.

Although no formal de-support notification for TAN has been received, TAN indicates that the 2015 release of the software is the last major version and that additional functionality will not be added to the product. The elimination of product development, combined with increasing compliance demands (i.e., Health Insurance Portability and Accountability Act and Payment Card Industry-Data Security Standards), has made it impossible to meet new customer service expectations such as integrations and mobile/online payments. The TAN application will also not be supported on Microsoft operating systems above Windows 7, which effectively establishes TAN's end of life at the close of 2019.

Development need, expected cost increases and risk related to a limited customer base warrant the investment of funds to replace the property tax and cashiering systems within the capital plan.

Alternatives

Although no sunset date has been officially announced for either application, the inability to improve cashiering functions requires replacement of cashiering systems. The corresponding interdependencies with property tax and cashiering required both systems to be include in one replacement project.

The alternative would be to revert to multiple receivable systems, standalone tax system and multiple manual processes, which would result in overall increased costs to the County.

Ongoing Operating Costs

A future solution would likely have similar annual maintenance expenses. To the extent replacements could leverage existing line of business applications, reduce redundancy and improve operating efficiency, annual licensing and personnel costs may be avoided.

Previous Action

Capital project 200414 received a scope change in the 2015-2019 capital plan to conduct a gap analysis and fund a cashiering replacement. The gap analysis and preliminary scope is completed. The creation of this new capital project included the dissolution of capital project 200414 to fund replacement.

Capital Projects Plan

Each year, the County Executive submits a capital budget and an updated five-year Capital Plan to the County Board. After review and modification, the County Board adopts the plan by resolution. The plan represents the prioritization of long-range capital infrastructure needs linked to the county's strategic plan.

Justice and Public Safety projects total \$48.3 million or 47% of the plan. This includes \$37.8 million for the first phase of a two-phase project to upgrade the courthouse to meet the county's future needs. This phase will include the construction of a new secure courtroom facility. The second phase of this project begins in the last two years of the plan with \$9.2 million for design and to begin renovation of the existing courthouse. Construction for the second phase is expected to continue into 2025 and is currently estimated to cost \$58.6 million in total.

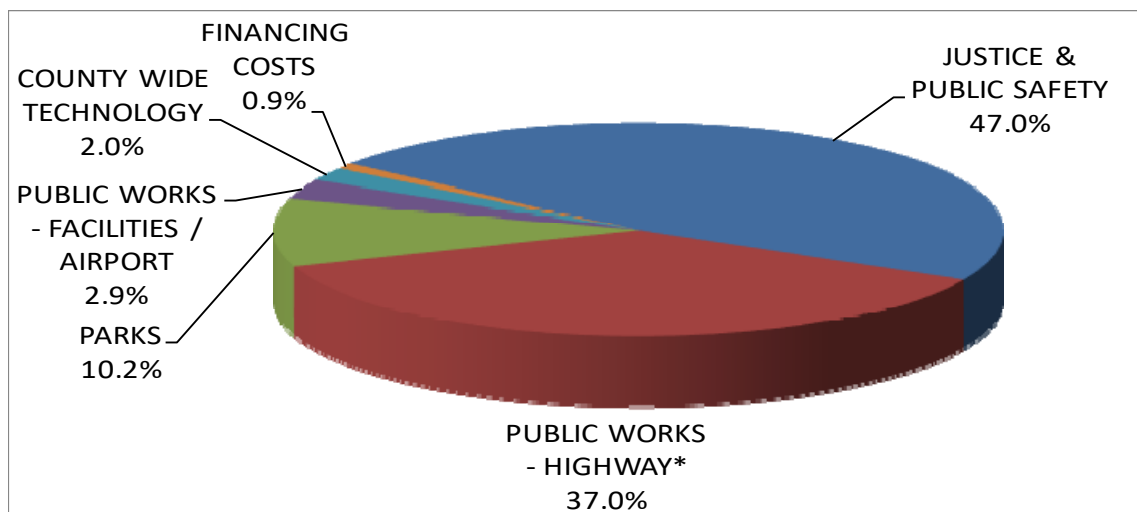
Public Works–Highway projects are about 37% of the plan at \$38.2 million. However, many of the projects are managed by the Wisconsin Department of Transportation, who account for a majority of project costs using federal funds (typically paying 80% to 90%), and billing the county for its remaining share. As a result, the capital plan reflects only the county's net share on much larger transportation investments. **Factoring in total transportation costs, including approximately \$37 million of federal funds, highway projects make up over 50% of the five-year capital plan.**

The Parks and Land Use functional area includes \$10.5 million or about 10% of the plan, of which \$7.6 million is for trails and parks pavement improvements. Trail project costs are partially funded with federal, state, and local dollars of about \$2.8 million. Parks building projects total about \$1.6 million, and about \$1 million is planned for sitework to replace sidewalks, exterior stairways, and parking lots at the University of Wisconsin-Waukesha (UWW) campus.

Public Works–Facilities/Airport projects total about \$3 million or 3% of the plan. This includes \$1.8 million for County facilities and \$1 million for UWW campus buildings. Airport projects include \$190,000 for ramp expansion.

County-wide technology initiatives total \$2 million or 2% of the plan, and include \$952,000 to replace the human resources/payroll information system and \$865,000 to replace the county-wide cashing and property tax systems.

General Administration totals \$875,000 for financing costs (cost to issue and potential bond discounts) over the five years.



FUNCTIONAL AREA FOR TOTAL PLAN 2018-2022

FUNCTIONAL AREA	TOTAL 2018-2022	% OF TOTAL
JUSTICE & PUBLIC SAFETY	\$48,280,000	47.0%
PUBLIC WORKS - HIGHWAY*	\$38,150,800	37.0% *
PARKS	\$10,474,100	10.2%
PUBLIC WORKS - FACILITIES / AIRPORT	\$2,990,200	2.9%
COUNTY WIDE TECHNOLOGY	\$2,037,000	2.0%
FINANCING COSTS	\$875,000	0.9%
TOTAL PLAN EXPENDITURES	\$102,807,100	100.0%

*Factoring in total transportation costs, including approximately \$37 million of federal funds, highway projects make up over 50% of the five-year capital plan.

WAUKESHA COUNTY 2018-2022 CAPITAL PROJECT PLAN SUMMARY

FUNCTIONAL AREA:	2018 BUDGET	2019 PLAN	2020 PLAN	2021 PLAN	2022 PLAN	TOTAL FIVE- YEAR PLAN
JUSTICE & PUBLIC SAFETY						
Facility Projects	\$6,500,000	\$15,000,000	\$13,700,000	\$3,800,000	\$8,000,000	\$47,000,000
System Projects	<u>\$75,000</u>	<u>\$1,205,000</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$1,280,000</u>
Subtotal	\$6,575,000	\$16,205,000	\$13,700,000	\$3,800,000	\$8,000,000	\$48,280,000
PARKS, ENVIRONMENT, EDUCATION & LAND USE						
Parks, Facilities, Pavement, System Projects*	\$2,422,000	\$2,030,000	\$1,486,500	\$3,735,600	\$800,000	\$10,474,100
PUBLIC WORKS						
Priority Corridor Expansion	\$0	\$0	\$3,642,000	\$1,300,000	\$0	\$4,942,000
Intersections and Bridges	\$1,227,100	\$2,514,000	\$835,700	\$1,478,000	\$1,121,000	
Pavement and Rehabilitation	<u>\$4,505,000</u>	<u>\$3,988,000</u>	<u>\$4,385,000</u>	<u>\$6,384,000</u>	<u>\$6,771,000</u>	<u>\$26,033,000</u>
Subtotal Highways	\$5,732,100	\$6,502,000	\$8,862,700	\$9,162,000	\$7,892,000	\$38,150,800
Facilities	\$1,000,200	\$200,000	\$200,000	\$200,000	\$200,000	\$1,800,200
UW-Waukesha	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000
Airport	<u>\$190,000</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$190,000</u>
Subtotal Public Works	\$7,922,300	\$6,702,000	\$9,062,700	\$9,362,000	\$8,092,000	\$41,141,000
GENERAL ADMINISTRATION COUNTY WIDE						
TECHNOLOGY PROJECTS	\$1,692,000	\$345,000	\$0	\$0	\$0	\$2,037,000
FINANCING	<u>\$175,000</u>	<u>\$175,000</u>	<u>\$175,000</u>	<u>\$175,000</u>	<u>\$175,000</u>	<u>\$875,000</u>
Subtotal	\$1,867,000	\$520,000	\$175,000	\$175,000	\$175,000	\$2,912,000
TOTAL GROSS EXPENDITURES	\$18,786,300	\$25,457,000	\$24,424,200	\$17,072,600	\$17,067,000	\$102,807,100
LESS PROJECT SPECIFIC REVENUES	<u>(\$659,000)</u>	<u>(\$1,966,500)</u>	<u>(\$1,235,000)</u>	<u>(\$3,211,000)</u>	<u>(\$790,000)</u>	<u>(\$7,861,500)</u>
NET EXPENDITURES	\$18,127,300	\$23,490,500	\$23,189,200	\$13,861,600	\$16,277,000	\$94,945,600
Cash Balances Excluding Property Tax Levy	<u>(\$3,600,300)</u>	<u>(\$2,838,000)</u>	<u>(\$2,045,500)</u>	<u>(\$500,000)</u>	<u>\$0</u>	<u>(\$8,983,800)</u>
NET EXPENDITURES BEFORE TAX LEVY, DEBT BORROWING AND INTEREST APPLIED	\$14,527,000	\$20,652,500	\$21,143,700	\$13,361,600	\$16,277,000	\$85,961,800

*Category includes concrete sidewalk, stairway and parking lot improvements for UW-Waukesha Campus

The 2018-2022 Capital Plan identifies 45 projects at an estimated total cost of \$102.8 million over the five-year period. Projects in the first year of the plan represent the 2018 Budget. Major projects for future years are briefly explained in the following narrative. A project listing all projects in the plan is shown on the following pages.

JUSTICE AND PUBLIC SAFETY

Justice and public safety projects total \$48.3 million. This includes \$37.8 million for the first phase of a two-phase project to modernize and expand the courthouse (constructed in 1959) to meet current and future needs. The first phase is to construct a new secure courtroom facility to be located adjacent to jail facilities and will feature improved security, prisoner transport and public access. Design for this phase began in 2017, with construction planned for 2018 through 2021. Another \$9.2 million is included for the last two years of the plan (2021-2022) for design and to begin construction for the second phase, which is expected to continue through 2025 at an estimated total cost of \$58.6 million. The second phase will renovate the existing courthouse in order to replace aging mechanical systems, enhance business operations through a more efficient office layout, and improve public access.

Jail-related projects include \$755,000 to replace security recording and display equipment and \$525,000 to replace the video visitation system in 2019.

PARKS AND LAND USE

Projects in this functional area total \$10.5 million, and includes \$4.3 million for park roadway maintenance improvements. The plan also includes \$2.5 million to build a 3.5-mile trail from a proposed trail access located on North Avenue, south of Watertown Road in the city of Pewaukee, to a proposed trailhead near the intersection of River Road and Brookfield Road in the city of Brookfield. This project is the first phase of a plan to create a north-south connector trail, eventual connecting with Frame Park in the city of Waukesha, as envisioned in the board-adopted Waukesha County Bike/Pedestrian Plan. The county will apply for federal funding to cover 80% of the costs and share remaining costs with the city of Brookfield. Construction is planned for 2021.

Other Parks and Land Use projects in the plan include about \$1 million to repair and replace existing sidewalks, exterior stairways, and parking lots at the University of Wisconsin-Waukesha (UWW) campus; \$780,000 to construct an underpass for the Lake Country Trail underneath State Highway 67 in the City of Oconomowoc (offset with federal revenues); about \$700,000 to expand the Camp Pow Wow lodge at Menomonee Park, which is used through a partnership with the Association for the Rights of Citizens with Handicaps (ARCh), to provide recreational activities for adults and children with disabilities (50% cost share on project with ARCh); \$606,000 to renovate the Menomonee Park beach house in 2018, upgrading HVAC mechanicals and extending the facility's useful life; \$308,000 to upgrade the Eble Park Ice Arena refrigeration system; and \$200,000 for orthophotography to update digitized maps for Land Information (GIS) Systems.

PUBLIC WORKS

Public works projects for highways, facilities, and airport combined are estimated at \$40.1 million. This includes road projects totaling \$38.2 million. New and expanded road capacity construction is identified in priority corridors and includes about \$4.95 million for Waukesha County's share of project costs to widen about three miles of CTH M (North Avenue), from Calhoun Road to East County Line (124th Street). The project is estimated to total \$25.8 million, with federal aid covering \$16.1 million and the city of Brookfield and village of Elm Grove contributing \$445,000 for local street amenities, for a county cost share of \$9.3 million over the life of the project.

Road projects include \$26 million for major maintenance and roadway rehabilitation; \$3.8 million for bridge improvements; and several spot safety improvements at an estimated cost of \$3.4 million, primarily for intersection and signal work.

Facility/Airport projects total about \$3 million include \$1 million for the final phase of roofing upgrades at the UW-Waukesha (UWW) campus in 2018 (in addition to about \$2.2 million already appropriated in previous budgets). Beginning in 2018, the plan includes \$1.2 million over several years for fuel tank replacements, with an additional \$300,000 planned for out-years (after 2022), for a total project cost of \$1.5 million. The plan includes about \$313,000 to build a new salt storage facility and replace a brinemaker at the Highway Operations Building in 2018 as part of a project with the Wisconsin Department of Transportation. Roof replacement at the Mental Health Center in 2018 is budgeted at \$287,000.

The last year of a three-phase project to expand the south and west terminal ramp space at the airport concludes in 2018 with \$190,000. The project is expected to improve capacity and safety at the airport, while generating additional revenues through new land lease agreements and increasing fuel sales. The county budgets only its share of airport projects, which is estimated at 6.5%, with the Federal Aviation Administration (FAA) and state Bureau of Aeronautics (BOA) funding the remainder. The BOA manages these projects and bills the county for its share.

GENERAL ADMINISTRATION – COUNTYWIDE TECHNOLOGY PROJECTS

Countywide technology projects total about \$2 million and are expected to generally improve operating efficiency by streamlining processes, eliminating manual systems, and centralizing databases. This includes \$952,000 to finish replacement of the county's human resources and payroll information systems in 2018; \$865,000 to replace the county-wide cashiering and property tax systems in 2018-19; and \$220,000 to upgrade the staff scheduling systems for Jail, Mental Health and Clerk of Courts operations to a dynamic scheduling system, with a study of the feasibility and return-on-investment (ROI) in 2018 and implementation in 2019. No project dollars will be spent toward the dynamic scheduling project unless the 2018 study findings prove favorable.

DEBT FINANCING COSTS

Debt financing related costs on planned borrowing of \$70.7 million over the five-year plan include promissory note discounts and is currently estimated at \$875,000 over the five-year plan period.

PROJECT TITLE	NO.	CURRENT APPROP.	2018 PLAN	2019 PLAN	2020 PLAN	2021 PLAN	2022 PLAN	TOTAL FIVE-YEAR PLAN
PUBLIC WORKS - AIRPORT								
AIRPORT RAMP EXPANSION	201621	\$435,000	\$190,000					\$190,000
PUBLIC WORKS - FLEET & HIGHWAY OPS								
CONSTRUCT SALT STORAGE FAC./REPLACE BRINEMAKER	201401	\$10,500	\$313,200					\$313,200
FUEL TANK REPLACEMENT AND INFRASTRUCTURE	201415	\$0	\$400,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,200,000
PUBLIC WORKS - FACILITIES								
MHC ROOF REPLACEMENT	201412	\$15,000	\$287,000					\$287,000
COURTHOUSE PROJ-SECURE COURTROOM CONSTRUCTION	201418	\$700,000	\$6,500,000	\$15,000,000	\$13,700,000	\$2,600,000		\$37,800,000
COURTHOUSE PROJ STEP 2 - RENOVATE 1959 COURTHOUSE	201705	\$0				\$1,200,000	\$8,000,000	\$9,200,000
PUBLIC WORKS - UW - WAUKESHA								
UWW ROOFING UPGRADES	201210	\$2,209,000	\$1,000,000					\$1,000,000
PUBLIC WORKS - HIGHWAYS								
CTH M, CALHOUN RD TO EAST COUNTY LINE	201008	\$4,754,000			\$3,642,000	\$1,300,000		\$4,942,000
CTH YY, UNDERWOOD CREEK STRUCTURE	201302	\$170,000	\$179,000	\$1,017,000				\$1,196,000
CTH Y, PILAK CREEK TRIBUTARY BRIDGE REPLACEMENT	201304	\$90,000	\$24,000	\$520,000				\$544,000
CTH O, I-94 TO USH 18	201502	\$0		\$100,000	\$500,000	\$1,150,000		\$1,750,000
CTH O & I INTERSECTION RECONSTRUCTION	201603	\$45,000	\$50,000	\$414,000				\$464,000
CTH O, CTH I TO CTH ES	201610	\$0			\$185,000	\$961,000	\$2,035,000	\$3,181,000
CTH C, HASSLINGER DRIVE INTERSECTION	201611	\$0	\$18,100	\$214,000	\$82,700			\$314,800
CTH D, MORAIN HILLS DRIVE INTERSECTION	201613	\$0		\$62,000	\$365,000	\$683,000		\$1,110,000
CTH E, WOODLAND DRIVE INTERSECTION	201614	\$0			\$75,000	\$116,000	\$844,000	\$1,035,000
CTH V V, HICKORY ST TO CTH F	201620	\$0	\$5,000	\$582,000				\$587,000
CTH D, CALHOUN ROAD TO 124TH ST REHAB	201706	\$66,000	\$50,000	\$506,000				\$556,000
CTH ES, FOX RIVER BRIDGE	201004	\$332,000	\$197,000					\$197,000
CTH Q OCONOMOWOC RIVER BRIDGE	201201	\$141,000	\$164,000					\$164,000
CTH XX, PEBBLE BROOK CREEK BRIDGE	201402	\$5,000		\$87,000	\$11,000	\$53,000		\$151,000
CTH I, FOX RIVER BRIDGE	201601	\$6,000			\$102,000	\$147,000		\$249,000
CTH F, NORTHBOUND BRIDGE AT GREEN ROAD	201801	\$0	\$6,000			\$92,000		\$98,000
CTH V V, WESTBOUND BRIDGE OVER MENOMONEE RIVER	201802	\$0	\$6,000			\$187,000		\$193,000
CTH O, CTH ES TO STH 59 REHABILITATION	201803	\$0					\$345,000	\$345,000
CTH DE, WILD ROSE LANE TO OAK COURT - SPOT IMPRVMENT	201804	\$0					\$77,000	\$77,000
CTH T, NORTHVIEW ROAD TO I-94 REHABILITATION	201805	\$0				\$73,000	\$91,000	\$164,000
CTH V V at CTH E INTERSECTION	201813	\$0	\$198,000					\$198,000
CTH KF at CTH JK INTERSECTION	201814	\$0	\$185,000					\$185,000
BRIDGE AID PROGRAM 2018 - 2022								
BRIDGE AID PROGRAM 2018 - 2022	201701	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
CULVERT REPLACEMENT PROGRAM 2018-2022								
CULVERT REPLACEMENT PROGRAM 2018-2022	201618	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
REPAVING PROGRAM 2018-2022								
REPAVING PROGRAM 2018-2022	201416	\$0	\$4,450,000	\$2,800,000	\$3,700,000	\$4,200,000	\$4,300,000	\$19,450,000

PROJECT TITLE	NO.	CURRENT APPROP.	2018 PLAN	2019 PLAN	2020 PLAN	2021 PLAN	2022 PLAN	TOTAL FIVE- YEAR PLAN
PARKS AND LAND USE								
LAKE COUNTRY TRAIL STH 67 UNDERPASS	201607	\$327,000		\$780,000				\$780,000
2020 ORTHOPHOTOGRAPHY	201609	\$0			\$195,500			\$195,500
CAMP POW WOW EXPANSION	201504	\$54,400			\$0	\$695,600		\$695,600
UWW INFRASTRUCTURE SITE IMPROVEMENTS	201703	\$182,400	\$558,000	\$0	\$491,000			\$1,049,000
MENOMONEE PARK BEACH HOUSE RENOVATION	201605	\$93,000	\$606,000					\$606,000
PEWAUKEE TO BROOKFIELD TRAIL	201807	\$0		\$300,000		\$2,240,000		\$2,540,000
EBLE PARK ICE ARENA REFRIGERATION SYSTEM.	201808	\$0	\$308,000					\$308,000
PAVEMENT MANAGEMENT PLAN 2018 - 2022	201406	\$0	\$950,000	\$950,000	\$800,000	\$800,000	\$800,000	\$4,300,000
IT - SHERIFF								
SECURITY SYSTEM RECORDING & DISPLAY EQUIPMENT REPLCMNT	201615	\$55,000		\$755,000				\$755,000
JAIL VIDEO VISITATION SYSTEM REPLACEMENT	201702	\$0	\$75,000	\$450,000				\$525,000
IT - COUNTYWIDE								
HRIS/PAYROLL SYSTEM IMPLEMENTATION	201617	\$475,000	\$952,000					\$952,000
INTELLITIME: DYNAMIC SCHEDULING	201812	\$0	\$50,000	\$170,000				\$220,000
TAX SYSTEM AND COUNTYWIDE CASHIERING REPLACEMENT	201815	\$0	\$690,000	\$175,000				\$865,000
EST. FINANCING (Includes Discount)	999999		\$175,000	\$175,000	\$175,000	\$175,000	\$175,000	\$875,000
GROSS EXPENDITURES			\$18,786,300	\$25,457,000	\$24,424,200	\$17,072,600	\$17,067,000	\$102,807,100
REVENUES								
Airport Fund Balance - #201621 Airport Ramp Expansion			\$190,000					\$190,000
Tarmann Fund Balance - #201808 Eble Ice Arena Refrigeration System			\$308,000					\$308,000
LIS Fund Balance #201609 Orthophotography					\$195,500			\$195,500
Local Revenue - #201008 CTH M, Calhoun Rd to East County Line					\$445,000			\$445,000
Developer Cost-Share - #201603 CTH O & I Intersection				\$125,500				\$125,500
CHIP D Revenue - #201416 Repaving Program 2018-2022			\$229,000		\$260,000	\$260,000	\$260,000	\$1,009,000
CHIP Revenue - #201416 Repaving Program 2018-2022			\$330,000	\$330,000	\$330,000	\$330,000	\$330,000	\$1,650,000
CHIP D Revenue - #201620 CTH V V, Hickory Street to CTH F				\$291,000				\$291,000
Revenue - #201807 Pewaukee to Brookfield Trail				\$240,000		\$2,046,000		\$2,286,000
Revenue - #201407 Waukesha-Brookfield Multi-Use Trail			\$0					\$0
Partner (ARCh) share for #201504 Camp Pow Wow Expansion					\$0	\$375,000		\$375,000
Revenue for #201605 Menomonee Park Beach House Renovation			\$0					\$0
Revenue - #201607 Lake Country Trail STH 67 Underpass				\$780,000				\$780,000
Landfill Siting Revenue - #201604 PLU Pavement Management Plan			\$100,000	\$200,000	\$200,000	\$200,000	\$200,000	\$900,000
Subtotal Revenue, Proprietary and Restricted Sepecial Rev Fund Balance			\$1,157,000	\$1,966,500	\$1,430,500	\$3,211,000	\$790,000	\$8,555,000
Net Expenditures			\$17,629,300	\$23,490,500	\$22,993,700	\$13,861,600	\$16,277,000	\$94,252,100
State Shared Revenue/Utility Payment			\$305,100	\$250,000				\$555,100
Personal Property Replacement - State Aid			\$600,000					\$600,000
Tarmann Fund Bal - #201416 PLU Pvmnt Mgmt			\$50,000	\$50,000				\$100,000
General Fund and Capital Project Fund Balance			\$905,200	\$2,363,000	\$1,850,000	\$500,000	\$0	\$5,618,200
Other Fund Balances*			\$1,242,000	\$175,000	\$0	\$0	\$0	\$1,417,000
Subtotal			\$3,102,300	\$2,838,000	\$1,850,000	\$500,000	\$0	\$8,290,300
EXPENDITURES BEFORE TAX LEVY, DEBT BORROWING AND INTEREST			\$14,527,000	\$20,652,500	\$21,143,700	\$13,361,600	\$16,277,000	\$85,961,800

*Other fund balance includes internal service fund balance budgeted for related county-wide projects, including for 2018: \$452,000 of End User Technology Fund Balance (EUTF), \$400,000 of Central Fleet Fund Balance, and \$390,000 of Collections Fund Balance. For 2019, other fund balance includes \$175,000 of EUTF Fund Balance.