

ENROLLED RESOLUTION 173-002

ADOPT FIVE-YEAR CAPITAL PROJECTS PLAN

WHEREAS, the County Board's Executive Committee completed its review of capital projects proposed in the County Executive's (2019-2023) Capital Projects Plan; and

WHEREAS, the Executive Committee prepared a listing of recommended capital projects for adoption by the Waukesha County Board of Supervisors as the Waukesha County Five-Year (2019-2023) Capital Projects Plan; and

WHEREAS, the Waukesha County Board of Supervisors has completed its review and made any changes through amendments to the (2019-2023) Capital Projects Plan; and

WHEREAS, a copy of the Capital Projects Plan is available from the Department of Administration and online at the County's website, www.waukeshacounty.gov/capitalplan.

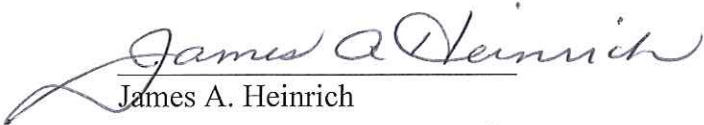
NOW THEREFORE, BE IT HEREBY RESOLVED BY THE WAUKESHA COUNTY BOARD OF SUPERVISORS that the Waukesha County Five-Year (2019-2023) Capital Projects Plan, on file in the Office of the County Clerk, is hereby adopted.

ADOPT FIVE-YEAR CAPITAL PROJECTS PLAN

Presented by:
Executive Committee



Paul L. Decker, Chair



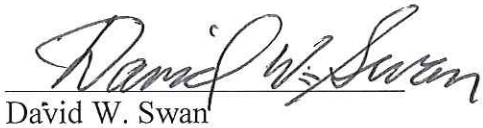
James A. Heinrich



Christine M. Howard



Larry Nelson

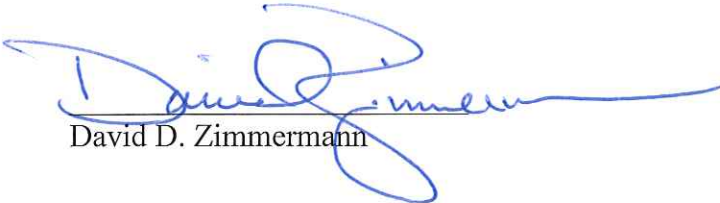


David W. Swan

Absent




Peter M. Wolff



David D. Zimmermann

The foregoing legislation adopted by the County Board of Supervisors of Waukesha County, Wisconsin, was presented to the County Executive on:

Date: 10/23/18, 
Kathleen Novack, County Clerk

The foregoing legislation adopted by the County Board of Supervisors of Waukesha County, Wisconsin, is hereby:

Approved: X
Vetoed: _____

Date: 10/28/18, 
Paul Farrow, County Executive

COUNTY BOARD APPROVED 2019-2023 CAPITAL PROJECT PLAN

#	PROJECT TITLE	NO.	ACTION	2019		2020		2021		2022		2023	
				ADOPTED	CO EXEC	ADOPTED	CO EXEC	ADOPTED	CO EXEC	ADOPTED	CO EXEC		
PUBLIC WORKS - CENTRAL FLEET													
1	FUEL TANK REPLACEMENT AND INFRASTRUCTURE	201415	As Planned	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
PUBLIC WORKS - FACILITIES													
2	COURTHOUSE PROJ-SECURE COURTROOM CONSTRUCTION	201418	As Planned	\$15,000,000	\$15,000,000	\$13,700,000	\$13,700,000	\$2,600,000	\$2,600,000	\$8,000,000	\$8,000,000	\$16,500,000	\$16,500,000
3	COURTHOUSE PROJ STEP 2 - RENOVATE 1959 COURTHOUSE	201705	As Planned					\$1,200,000	\$1,200,000	\$8,000,000	\$8,000,000	\$16,500,000	\$16,500,000
PUBLIC WORKS - HIGHWAYS													
4	CTH Y, PILAK CREEK TRIBUTARY BRIDGE REPLACEMENT	201304	As Planned	\$520,000	\$520,000	\$520,000							
5	CTH XX, PEBBLE BROOK CREEK BRIDGE	201402	As Planned	\$87,000	\$87,000	\$11,000	\$11,000	\$53,000	\$53,000				
6	CTH O, I-94 TO USH 18	201502	As Planned	\$100,000	\$100,000	\$500,000	\$500,000	\$1,150,000	\$1,150,000				
7	CTH O, CTH I TO CTH ES	201610	As Planned			\$185,000	\$185,000	\$961,000	\$961,000	\$2,035,000	\$2,035,000		
8	CTH E, WOODLAND DRIVE INTERSECTION	201614	As Planned			\$75,000	\$75,000	\$116,000	\$116,000	\$844,000	\$844,000		
9	CTH V V, HICKORY ST TO CTH F	201620	As Planned	\$582,000	\$582,000								
10	CTH F, NORTHBOUND BRIDGE AT GREEN ROAD	201801	As Planned					\$92,000	\$92,000			\$70,000	\$70,000
11	CTH V V, WESTBOUND BRIDGE OVER MENOMONEE RIVER	201802	As Planned					\$187,000	\$187,000			\$235,000	\$235,000
12	CTH O, CTH ES TO STH 59 REHABILITATION	201803	As Planned									\$345,000	\$345,000
13	CTH DE, WILD ROSE LANE TO OAK COURT - SPOT IMPRVMENT	201804	As Planned									\$77,000	\$77,000
14	CTH T, NORTHVIEW ROAD TO I-94 REHABILITATION	201805	As Planned									\$91,000	\$91,000
15	CTH ES, FOX RIVER BRIDGE	201004	C - \$ Update, Delay	\$0	\$35,000								
16	CTH M, CALHOUN RD TO EAST COUNTY LINE	201008	C - \$ Update			\$3,642,000	\$4,351,000	\$1,300,000	\$2,300,000				
17	CTH Q OCONOMOWOC RIVER BRIDGE	201201	C - \$, Rev Update	\$0	\$45,000								
18	CTH YY, UNDERWOOD CREEK STRUCTURE	201302	Delay	\$1,017,000	\$0	\$0	\$1,017,000						
19	CTH I, FOX RIVER BRIDGE	201601	C-Scope, \$, Rev Update			\$102,000	\$89,000	\$147,000	\$103,000				
20	CTH O & J INTERSECTION RECONSTRUCTION	201603	Delay	\$414,000	\$0	\$0	\$414,000						
21	CTH C, HASSLINGER DRIVE INTERSECTION	201611	C-Scope, \$, Rev Update	\$214,000	\$165,000	\$82,700	\$108,000						
22	CTH D, MORAIN HILLS DRIVE INTERSECTION	201613	C - Rev Update	\$62,000	\$6,200	\$365,000	\$365,000	\$683,000	\$68,300				
23	CTH D, CALHOUN ROAD TO 124TH ST REHAB	201706	Delay	\$506,000	\$0			\$506,000	\$506,000				
24	BRIDGE AID PROGRAM 2018 - 2022	201701	As Planned	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
25	BRIDGE AID PROGRAM 2023 - 2027	201904	New									\$100,000	\$100,000
26	CULVERT REPLACEMENT PROGRAM 2018-2022	201618	As Planned	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
27	CULVERT REPLACEMENT PROGRAM 2023-2027	201901	New									\$100,000	\$100,000
28	REPAVING PROGRAM 2018-2022	201416	C - Rev, Accelerate	\$2,800,000	\$3,800,000	\$3,700,000	\$2,700,000	\$4,200,000	\$4,200,000	\$4,300,000	\$4,300,000	\$4,300,000	\$4,300,000
29	REPAVING PROGRAM 2023-2027	201906	New									\$4,300,000	\$4,300,000

COUNTY BOARD APPROVED 2019-2023 CAPITAL PROJECT PLAN

#	PROJECT TITLE	NO.	ACTION	2019		2020		2021		2022		2023	
				ADOPTED	CO EXEC	ADOPTED	CO EXEC	ADOPTED	CO EXEC	ADOPTED	CO EXEC		
PARKS AND LAND USE													
30	UWW INFRASTRUCTURE SITE IMPROVEMENTS	201703	As Planned			\$491,000	\$491,000						
31	PEWAUKEE TO BROOKFIELD TRAIL	201807	As Planned	\$300,000	\$300,000			\$2,240,000	\$2,240,000				
32	CAMP POW WOV EXPANSION	201504	Delete			\$0		\$0					
33	LAKE COUNTRY TRAIL STH 67 UNDERPASS	201607	C - \$ & Rev Update	\$780,000	\$1,010,000								
34	2020 ORTHOPHOTOGRAPHY	201609	Delete			\$195,500							
35	PAVEMENT MANAGEMENT PLAN 2018 - 2022	201406	C - \$ & Rev Update	\$950,000	\$1,200,000	\$1,000,000	\$1,000,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000
36	PAVEMENT MANAGEMENT PLAN 2023 - 2027	201908	New										
IT - SHERIFF													
37	SECURITY SYSTEM RECORDING & DISPLAY EQUIPMENT REPLCMNT	201615	As Planned	\$755,000	\$755,000								
38	JAIL VIDEO VISITATION SYSTEM REPLACEMENT	201702	As Planned	\$450,000	\$450,000								
IT - COUNTYWIDE													
39	TAX SYSTEM AND COUNTYWIDE CASHIERING REPLACEMENT	201815	As Planned	\$175,000	\$175,000								
40	ENTERPRISE CONTENT MANAGEMENT	200910	C-Scope, \$ Update		\$175,000								
41	INTELLITIME: DYNAMIC SCHEDULING	201812	Delete	\$170,000	\$0								
42	EST. FINANCING (includes Arb Rebate/Discount)	999999		\$175,000	\$200,000	\$205,000	\$175,000	\$160,000	\$160,000	\$175,000	\$180,000	\$180,000	\$220,000
GROSS EXPENDITURES				\$25,457,000	\$25,005,200	\$25,611,000	\$24,424,200	\$17,072,600	\$17,209,300	\$17,072,000	\$17,072,000	\$17,072,000	\$24,638,000
Change from Adopted Plan				(\$451,800)	(\$451,800)	\$1,186,800	\$1,186,800	\$136,700	\$136,700	\$5,000	\$5,000	\$5,000	

COUNTY BOARD APPROVED 2019-2023 CAPITAL PROJECT PLAN

#	PROJECT TITLE	NO.	ACTION	2019		2020		2021		2022		2023	
				ADOPTED	CO EXEC	ADOPTED	CO EXEC	ADOPTED	CO EXEC	ADOPTED	CO EXEC		
	LESS REVENUES: (Excludes investment income earned on debt issue)												
	LIS Fund Balance #201609 Orthophotography						\$0						
	EUTF Fund Bal - #200910 Enterprise Content Management				\$175,000								
	Local Revenue - #201008 CTH M, Calhoun Rd to East County Line					\$445,000							
	Developer Cost-Share - #201603 CTH O & I Intersection		\$125,500	\$0		\$125,500							
	CHIP D Revenue - #201416/201906 CTH Repaving Program			\$330,000		\$260,000		\$260,000		\$260,000		\$260,000	\$260,000
	CHIP Revenue - #201416/201906 CTH Repaving Program		\$330,000	\$330,000		\$330,000		\$330,000		\$330,000		\$330,000	\$330,000
	CHIP D Revenue - #201620 CTH V V, Hickory Street to CTH F		\$291,000	\$291,000									
	Revenue - #201807 Pewaukee to Brookfield Trail		\$240,000	\$240,000				\$2,046,000					
	Partner (ARCh) share for #201504 Camp Pow Wow Expansion							\$375,000					
	Revenue - #201607 Lake Country Trail STH 67 Underpass		\$780,000	\$887,000									
	Community Development Block Grant #201406 PLU Pavement Mgmt Plan		\$0	\$200,000									
	Landfill Siting Revenue - #201406 PLU Pavement Mgmt Plan		\$200,000	\$200,000		\$200,000		\$200,000		\$200,000		\$200,000	\$200,000
	State Shared Revenue/Utility Payment		\$250,000	\$250,000		\$300,000		\$350,000		\$400,000		\$450,000	\$450,000
	Personal Property Replacement - State Aid			\$600,000									
	General Transportation Aid (GTA) #201416/201906 CTH Repaving Program			\$325,000		\$250,000		\$200,000		\$200,000		\$200,000	\$200,000
	Tarmann Fund Balance - #201406 PLU Pavement Mgmt Plan		\$50,000	\$50,000									
	General Fund Bal Jail Assmnt - #201615 Sec Syst Recording & Display Eqpmnt Rplcmnt		\$755,000	\$755,000									
	General Fund Bal Jail Assmnt - #201702 Jail Video Visitation System Replacement		\$450,000	\$450,000									
	General Fund Bal Jail Assmnt - #201812 IntelliTime: Dynamic Scheduling		\$58,000	\$0									
	General Fund Bal Jail Assmnt - #201418 Courthouse Proj - Secure Courtroom Construct		\$300,000	\$300,000									
	General Fund Balance						\$350,000						
	EUTF Fund Bal - #201815 Tax System/Countywide Cashiering System Replacement		\$175,000	\$175,000									
	Capital Proj Fund Bal - Above Budget GTA from 2018 #201416 CTH Repaving Program												
	Capital Project Fund Balance		\$800,000	\$152,200		\$2,900,000		\$350,000		\$600,000		\$600,000	
	Subtotal Revenue & Fund Balance*		\$4,804,500	\$5,380,200		\$5,160,500		\$4,836,000		\$1,990,000		\$1,440,000	\$1,440,000
	Net Expenditures		\$20,652,500	\$19,625,000		\$20,450,500		\$12,373,300		\$15,082,000		\$23,198,000	\$23,198,000
	Change from Adopted Plan			(\$1,027,500)		(\$693,200)		(\$988,300)		(\$1,195,000)		(\$1,195,000)	

*Tax levy, personal property aid, borrowing, and investment income for capital projects will be provided in the 2019 budget document.

COUNTY BOARD APPROVED 2019-2023 CAPITAL PROJECT PLAN

#	PROJECT TITLE	NO.	ACTION	2019		2020		2021		2022		2023		2023	
				ADOPTED	CO EXEC	ADOPTED	CO EXEC	ADOPTED	CO EXEC	ADOPTED	CO EXEC	ADOPTED	CO EXEC	CO BOARD	CO BOARD
PLAN BY FUNCTIONAL AREA															
	Functional Area		2018 BUDGET												Plan Total
	JUSTICE & PUBLIC SAFETY		\$6,575,000	\$16,205,000	\$16,205,000	\$13,700,000	\$13,700,000	\$3,800,000	\$3,800,000	\$3,800,000	\$8,000,000	\$8,000,000	\$16,500,000	\$16,500,000	\$58,205,000
	PARKS, ENVIRONMENT, EDUCATION & LAND USE		\$1,864,000	\$2,510,000	\$2,510,000	\$1,000,000	\$995,500	\$3,735,600	\$3,040,000	\$3,040,000	\$800,000	\$800,000	\$800,000	\$800,000	\$8,150,000
	PUBLIC WORKS		\$0	\$0	\$0	\$4,351,000	\$3,642,000	\$1,300,000	\$2,300,000	\$2,300,000	\$0	\$0	\$0	\$0	\$6,651,000
	PRIORITY CORRIDOR EXPANSION		\$1,227,100	\$1,058,200	\$1,058,200	\$2,279,000	\$635,700	\$1,478,000	\$819,300	\$819,300	\$1,121,000	\$1,121,000	\$598,000	\$598,000	\$5,875,500
	INTERSECTIONS AND BRIDGES		\$4,505,000	\$4,482,000	\$4,482,000	\$3,385,000	\$4,385,000	\$6,384,000	\$6,890,000	\$6,890,000	\$6,771,000	\$6,771,000	\$6,320,000	\$6,320,000	\$27,848,000
	PAVEMENT AND REHABILITATION		\$5,732,100	\$5,540,200	\$5,540,200	\$10,015,000	\$8,862,700	\$9,162,000	\$10,009,300	\$10,009,300	\$7,892,000	\$7,892,000	\$6,918,000	\$6,918,000	\$40,374,500
	Subtotal Roadways		\$287,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	FACILITIES		\$190,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	AIRPORT		\$713,200	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
	OTHER		\$6,922,300	\$5,740,200	\$5,740,200	\$10,215,000	\$9,062,700	\$9,362,000	\$10,209,300	\$10,209,300	\$8,092,000	\$8,092,000	\$7,118,000	\$7,118,000	\$41,374,500
	Subtotal Public Works		\$1,558,000	\$0	\$0	\$491,000	\$491,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$491,000
	UW - WAUKESHA (Incl. Parks, Env., Edu & Land Use and Public Works)		\$1,692,000	\$350,000	\$350,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$350,000
	COUNTY-WIDE PROJECTS		\$175,000	\$200,000	\$200,000	\$205,000	\$175,000	\$175,000	\$160,000	\$160,000	\$180,000	\$180,000	\$220,000	\$220,000	\$965,000
	FINANCING		\$18,786,300	\$25,005,200	\$25,005,200	\$25,611,000	\$24,424,200	\$17,072,600	\$17,209,300	\$17,209,300	\$17,072,000	\$17,072,000	\$24,638,000	\$24,638,000	\$109,535,500
	GROSS EXPENDITURES		\$4,259,300	\$5,380,200	\$5,380,200	\$5,160,500	\$3,280,500	\$3,711,000	\$4,836,000	\$4,836,000	\$1,990,000	\$1,990,000	\$1,440,000	\$1,440,000	\$18,806,700
	REVENUES - BEFORE TAXES, DEBT BORROWING & INTEREST		\$14,827,000	\$19,625,000	\$19,625,000	\$20,450,500	\$21,143,700	\$13,361,600	\$12,373,300	\$12,373,300	\$15,082,000	\$15,082,000	\$23,198,000	\$23,198,000	\$90,728,800
	NET EXPENDITURES														

PROJECT TITLE	NO.	Page #
PUBLIC WORKS - CENTRAL FLEET		
FUEL TANK REPLACEMENT AND INFRASTRUCTURE	201415	1
PUBLIC WORKS - FACILITIES		
COURTHOUSE PROJ-SECURE COURTROOM CONSTRUCTION	201418	2
COURTHOUSE PROJ STEP 2 - RENOVATE 1959 COURTHOUSE	201705	3
PUBLIC WORKS - HIGHWAYS		
CTH Y, PILAK CREEK TRIBUTARY BRIDGE REPLACEMENT	201304	4
CTH XX, PEBBLE BROOK CREEK BRIDGE	201402	5
CTH O, I-94 TO USH 18	201502	6
CTH O, CTH I TO CTH ES	201610	7
CTH E, WOODLAND DRIVE INTERSECTION	201614	8
CTH V V, HICKORY ST TO CTH F	201620	9
CTH F, NORTHBOUND BRIDGE AT GREEN ROAD	201801	10
CTH V V, WESTBOUND BRIDGE OVER MENOMONEE RIVER	201802	11
CTH O, CTH ES TO STH 59 REHABILITATION	201803	12
CTH DE, WILD ROSE LANE TO OAK COURT-SPOT IMPRVMENT	201804	13
CTH T, NORTHVIEW ROAD TO I-94 REHABILITATION	201805	14
CTH ES, FOX RIVER BRIDGE	201004	15
CTH M, CALHOUN RD TO EAST COUNTY LINE	201008	16
CTH Q, OCONOMOWOC RIVER BRIDGE	201201	17
CTH YY, UNDERWOOD CREEK STRUCTURE	201302	18
CTH I, FOX RIVER BRIDGE	201601	19
CTH O & I INTERSECTION RECONSTRUCTION	201603	20
CTH C, HASSLINGER DRIVE INTERSECTION	201611	21

PROJECT TITLE	NO.	Page #
PUBLIC WORKS - HIGHWAYS (Continued)		
CTH D, MORaine HILLS DRIVE INTERSECTION	201613	22
CTH D, CALHOUN ROAD TO 124TH ST REHAB	201706	23
BRIDGE AID PROGRAM 2018 - 2022	201701	24
BRIDGE AID PROGRAM 2023 - 2027	201904	25
CULVERT REPLACEMENT PROGRAM 2018-2022	201618	26
CULVERT REPLACEMENT PROGRAM 2023-2027	201901	27
REPAVING PROGRAM 2018-2022	201416	28
REPAVING PROGRAM 2023-2027	201906	29
PARKS AND LAND USE		
UWW INFRASTRUCTURE SITE IMPROVEMENTS	201703	30
PEWAUKEE TO BROOKFIELD TRAIL	201807	31
CAMP POW WOW EXPANSION	201504	32
LAKE COUNTRY TRAIL STH 67 UNDERPASS	201607	33
2020 ORTHOPHOTOGRAPHY	201609	34
PAVEMENT MANAGEMENT PLAN 2018 - 2022	201406	35
PAVEMENT MANAGEMENT PLAN 2023 - 2027	201908	36
IT - SHERIFF		
SEC SYSTM RECORDING & DISPLAY EQPMNT RPLCMNT	201615	37
JAIL VIDEO VISITATION SYSTEM REPLACEMENT	201702	38
IT - COUNTYWIDE		
TAX SYSTEM AND COUNTYWIDE CASHIERING REPLACEMENT	201815	39
ENTERPRISE CONTENT MANAGEMENT	200910	40
INTELLITIME: DYNAMIC SCHEDULING	201812	41

Project Title:	Fuel Tank Replacement and Infrastructure Project	Project #:	201415
Department:	Public Works - Central Fleet	Project Type:	Equipment Replacement
Phase:	Construction	Sponsor:	Public Works
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	August 20, 2018		

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 After Revenues Applied	\$0	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$100,000	\$1,100,000	

COST DOCUMENTATION				REVENUE	
Item	Quantity	Price	Total Cost		
Underground Tank Testing	5	\$4,000	\$20,000	Central Fleet	
Underground tanks*	5	\$150,000	\$750,000	Fund Balance	\$400,000
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	Total Revenue	\$400,000
Signage/Fencing	All Sites		\$5,000		
EXPENDITURE BUDGET			<u>\$1,500,000</u>	REVENUE BUDGET	<u>\$400,000</u>

*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 (five underground, and 25 above ground). 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 five 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 follows: \$400,000 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.

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. Approved as a new project in the 2014-2018 capital plan. Delayed in 2015-2019 capital plan. Approved as planned: 2016-2020, 2017-2021 capital plans. Approved with a revenue update in 2018-2022 capital plan.

Project Title:	Courthouse Project – Secure Courtroom Construction	Project #:	201418
Department:	Public Works - Buildings	Project Type:	New Building
Phase:	Construction	Sponsor:	Public Works
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	August 30, 2018		

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 After Revenues Applied	\$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			Capital Project Fund Balance		\$500,000
Construction	\$32,550,000					
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.

This courthouse projects (steps 1 and 2, mentioned below) will enhance security at the courthouse by establishing "three-way separation" among inmates, court staff, and court visitors, which is a judicial standard that limits unnecessary interaction and prevents potential confrontations. Other security enhancements will include improved video surveillance; upgraded fire protection; better courtroom design, with clear line-of-sight for judges and bailiffs to monitor people; ability for judges to automatically lock-down courtrooms in emergency situations; installation of staff and public announcement systems to provide notifications during emergencies; and redesign of the security entrance to improve the flow of courthouse visitors.

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:	Construction	Sponsor:	Public Works
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	August 30, 2018		

Project funding includes \$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.

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.

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

Based on information gathered through the design review process, there will be operating impacts related to staffing and facility maintenance. Consolidating office space and moving operations within departments closer together, is expected to result in greater operational efficiencies for most affected departments. With the exception of the Sheriff’s Department, none of the affected departments have indicated a need for additional staff. The Sheriff’s Department is requesting an additional six correctional officer positions during construction for Step 1 (January 2019 through March 2021), with three of the positions remaining permanently after construction. These additional positions are estimated to cost \$1 million during the interim construction period and \$240,000 annually for the three permanent positions beginning in 2021.

Step 1 of this project will demolish approximately 52,000 square feet of old jail space, which provided holding cells connected to existing courtrooms in the current courthouse. A new 62,000 square-foot court tower will increase County building space and is expected to result in higher utility, housekeeping, and repair/maintenance costs. Utilities are expected to increase by a net of \$5,000. For Step 2, the renovation of the existing courthouse will involve replacing existing systems (e.g., HVAC) with energy efficient technology, which is expected to lower utility costs.

The court tower addition in Step 1 is expected to increase contracted housekeeping costs by \$80,000. These additional expenses will likely be partially offset by savings as the Facilities Maintenance Division plans to continue transitioning from in-house cleaning staff to contracted cleaning staff.

Estimated third-party maintenance/repair services are estimated to increase \$15,000. Additional in-house maintenance/repair work is expected to be absorbed within the Division’s existing staffing levels.

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. Approved with a cost and revenue update in the 2018-2022 capital plan. All phases included committee review meetings open to the public.

Project Title:	Courthouse Project Step 2 – Renovate 1959 Courthouse	Project #:	201705
Department:	Public Works - Buildings	Project Type:	Renovation/Upgrade
Phase:	Formation	Sponsor:	Public Works
Budget Action:	As Planned	Manager:	Allison Bussler
Date:	August 30, 2018		

CAPITAL BUDGET SUMMARY							
Year	2021	2022	2023	2024	2025	Total Project	
Project Phase	Budget & Concept	Design & Construction	Construction	Construction	Construction		
Expenditure Budget	\$1,200,000	\$8,000,000	\$16,500,000	\$16,450,000	\$16,450,000	\$58,600,000	
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0	
Net Cost After Revenues Applied	\$1,200,000	\$8,000,000	\$16,500,000	\$16,450,000	\$16,450,000	\$58,600,000	
COST DOCUMENTATION				REVENUE			
Architect	\$4,578,000						
Construction Management	\$4,578,000						
Construction	\$45,780,000						
Contingency	<u>\$3,664,000</u>						
Total Project Cost	\$58,600,000					Total Revenue	\$0
EXPENDITURE BUDGET	\$58,600,000					REVENUE BUDGET	\$0

Project Scope & Description

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

This project will enhance security at the courthouse by improving video surveillance; upgrading fire protection; installation of staff and public announcement systems to provide notifications during emergencies; and redesign of the security entrance to improve the flow of courthouse visitors.

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 is intended to address step 2 (renovation of the existing courthouse facility as outlined in the aforementioned study).

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 the 1959 jail. (capital project #201418 Secure Courtroom Construction.)

Step 2: This capital project would renovate the existing courthouse building in a three-phase vertical segment 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 Step 2 – Renovate 1959 Courthouse	Project #:	201705
Department:	Public Works - Buildings	Project Type:	Renovation/Upgrade
Phase:	Formation	Sponsor:	Public Works
Budget Action:	As Planned	Manager:	Allison Bussler
Date:	August 30, 2018		

The project cost for step 1 is estimated at \$38.5 million. At this time, estimated project costs for step 2 remain at \$58.6 million, based on the 2013 Courthouse Study (mentioned previously). However, there are a number of factors that may impact the design and the construction costs of this project, including, but not limited to, incorporating additional operations to the courthouse space, future economic conditions, and the maturing of the design projects for the remaining three phases of work that are part of step 2.

Locations

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.

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 (step 1) 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 new project is expected to reduce energy consumption through installation of energy efficient equipment and windows. Consolidation of office space and moving departmental operations closer together are expected to improve operational efficiency.

Previous Action

- The Courthouse Study was completed in August, 2013.
- (Step 1) Approved as a new capital project in the 2014-2018 capital plan.
- (Step 1) 2015-2019 capital plan: Approved as planned.
- (Step 1) 2016-2020 capital plan: Approved as planned.
- (Step 1) 2017-2021 capital plan: Approved as planned.
- (Step 1) 2018-2022 capital plan: Approved with a cost and revenue update.
- (Step 2) 2017-2021 capital plan: Approved as a new project.
- (Step 2) 2018-2022 capital plan: Approved as planned.

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:	August 28, 2018		

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 Cost After Revenues Applied	\$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, 2015-2019, 2016-2020, 2017-2021, and 2018-2022 capital plans.

Project Title:	CTH XX, Pebble Brook Creek Bridge	Project #:	201402
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Preliminary Design	Road Name:	Oakdale Drive
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY						
Year	2014	2015-18	2019	2020	2021	Total
Project Phase	Concept		Design	Right of Way	Construction	Project
Expenditure Budget	\$5,000	\$0	\$87,000	\$11,000	\$53,000	\$156,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$5,000	\$0	\$87,000	\$11,000	\$53,000	\$156,000
COST DOCUMENTATION				REVENUE		
Budget/Concept	\$5,000					Federal Bridge Aid (Anticipated) \$214,000
Design	\$65,000					
State Review For Design	\$20,000					
Land Acquisition	\$11,000					
Construction	\$203,000					
Construction Management	\$56,000					
Contingency	\$10,000					
Total Project Cost	\$370,000					Total Revenue \$214,000
EXPENDITURE BUDGET	\$156,000					REVENUE BUDGET \$0

Project Scope & Description

This project is an overlay of the CTH XX bridge over Pebble Brook Creek. A concrete overlay is anticipated, but several overlay types will be considered during design. Concrete repairs will be made to the spalled areas of the deck edges. Existing bridge railing may be salvaged/remounted or completely replaced with this project. Approach guardrail will be replaced to meet current standards. The asphalt bridge approaches will be repaved, and concrete approach slabs will be added at the structure. Right of way was purchased to the ultimate width of 100 feet at this bridge in the 1970's. No additional fee acquisition is anticipated. Some easements may be necessary due to the proximity to railroad right of way. Federal bridge aid is anticipated to be used, and at 80% of construction phase, is estimated at \$214,000. This project was delayed in the 2017-2021 capital plan because the project was not approved for federal funding for the 2015 application. Waukesha County again applied for federal funding in 2017, and in May 2018 WisDOT approved federal bridge funding for the project, with the award amount to be determined when the agreement is finalized.

Location - Town of Waukesha

Analysis of Need

The existing bridge (B-67-195) is a two-span concrete box culvert that was constructed in 1980. The roof of the box culvert serves as the roadway driving surface. Most of the box culvert is in good condition. However, approximately 5% of the top deck surface is delaminated, and some concrete is beginning to spall. The delamination is due to corrosion of the top mat of bar steel. This bar steel is not epoxy coated. There is also spalling of concrete along both edges of the deck (roof) at the drip edge. The approach guardrail is in poor condition and does not meet current standards. The roadway is functionally classified as a 'principal arterial'. The bridge is considered 'structurally deficient' due to its current condition rating. The structure sufficiency number is 51.1. This indicates that structure rehabilitation is warranted according to WisDOT guidelines which makes the bridge eligible for federal bridge rehabilitation funding when the sufficiency index is below 80. An independent engineering study report will need to be prepared for this project prior to application for federal bridge funding. This report verifies that the proposed project scope is a cost-effective rehabilitation strategy. The 2013 traffic volume on this roadway segment was 5,510 vehicles per day.

Alternatives

Reconstruct the existing bridge and roadway approaches to current WisDOT standards. This alternate, while addressing the deficiencies, is not warranted.

Ongoing Operating Costs

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

Previous Action

- Approved as a new project in the 2014-2018 capital plan.
- Approved as planned in the 2015-2019 capital plan.
- Approved with delay/cost update in the 2016-2020 capital plan.
- Delayed in the 2017-2021 capital plan.
- Approved with cost update in the 2018-2022 capital plan.

Project Title:	CTH O, I-94 to USH 18	Project #:	201502
Department:	Public Works - Highways	Project Type:	Rehabilitation
Phase:	Formation	Road Name:	Moorland Road
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY					
Year	2019	2020	2021	2022	Total
Project Phase	Design	Land	Construction	Construction	Project
Expenditure Budget	\$100,000	\$500,000	\$1,150,000	\$0	\$1,750,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$100,000	\$500,000	\$1,150,000	\$0	\$1,750,000
COST DOCUMENTATION			REVENUE		
Design	\$400,000			Surface Transportation Program - Milwaukee (STP - M)	\$5,000,000
WisDOT Plan Review	\$100,000				
Land Acquisition	\$500,000				
Construction	\$5,000,000				
Construction Management	\$500,000				
Contingency	\$250,000				
Total Project Cost	\$6,750,000			Total Revenue	\$5,000,000
EXPENDITURE BUDGET	\$1,750,000			REVENUE BUDGET	\$0

Project Scope & Description

This 0.8-mile long project involves the rehabilitation/reconstruction of CTH O to bring it up to current standards. Improvements will include: replacing the existing concrete pavement, reconfiguring intersections to improve safety, replacing older traffic signals, minor grading, and adding sidewalks and storm water improvements. Access to Brookfield Square Mall and other businesses adjacent to Moorland Road will need to be maintained during construction. Therefore, traffic control will be a major challenge for this project. Federal funds will be used to offset the cost of design and construction for this project. The Department applied for \$5,000,000 in federal STP-M funds in 2017, with no decision on funding as of May 2018.

Location

City of Brookfield

Analysis of Need

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

Alternatives

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

Ongoing Operating Costs

Operating costs are not expected to change.

Previous Action

- Approved as a new project in the 2015-2019 Capital Plan
- Approved as planned in the 2016-2020 Capital Plan
- Approved with a revenue update in the 2017-2021 Capital Plan
- Approved as planned in the 2018-2022 Capital Plan.

Project Title:	CTH O, CTH I to CTH ES	Project #:	201610
Department:	Public Works - Highways	Project Type:	Rehabilitation
Phase:	Formation	Road Name:	Moorland Road
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY				
Year	2020	2021	2022	Total
Project Phase	Design	Land Acquis.	Construction	Project
Expenditure Budget	\$185,000	\$961,000	\$2,035,000	\$3,181,000
Revenue Budget	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$185,000	\$961,000	\$2,035,000	\$3,181,000
COST DOCUMENTATION		REVENUE		
WisDOT Design Review	\$200,000	STP - M		\$8,882,000
Design	\$723,000	Surface Transportation Program - Milwaukee		
Land Acquisition	\$961,000			
Construction	\$8,851,000			
Construction Management	\$885,000			
Contingency	\$443,000			
Total Project Cost	\$12,063,000	Total Revenue		\$8,882,000
EXPENDITURE BUDGET	\$3,181,000	REVENUE BUDGET		\$0

Project Scope & Description

This 1.4-mile long project involves the rehabilitation/reconstruction of CTH O to bring it up to current standards. Improvements will include: replacing the existing concrete pavement, reconfiguring intersections to improve safety, replacing older traffic signals, minor grading, adding sidewalks and storm water improvements. Access to other businesses and residences adjacent to Moorland Road will need to be maintained during construction. Therefore, traffic control will be a major challenge for this project. This project will use federal funds to partially offset the cost of design and construction. The Department applied for for \$8,882,000 in federal STP-M funds in 2017, with no decision on funding as of May 2018.

Location

City of New Berlin

Analysis of Need

The concrete pavement along this portion of Moorland Road (CTH O) now has a pavement condition index (PCI) of 50 which is regarded as fair. While the PCI isn't in poor condition, the transverse and longitudinal joints show signs of significant deterioration, and it is anticipated that the roadway will be ready for a pavement replacement by 2022. The roadway was first built in 1978 and was rehabilitated in 2006 but that rehabilitation will be at the end of its useful life by 2022, and the concrete pavement will need to be replaced. Pavement issues are further compounded by the fact that this portion of Moorland Road is one of the busiest on the County system with over 30,000 vehicles per day using the corridor which serves as a major access road to Between I-43 and I-94.

Alternatives

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

Ongoing Operating Costs

Operating costs are not expected to change.

Previous Action

Approved as new project in the 2016-2020 Capital Plan.
 Approved with a revenue update in the 2017-2021 Capital Plan.
 Approved as planned in the 2018-2022 Capital Plan.

Project Title:	CTH E, Woodland Drive Intersection	Project #:	201614
Department:	Public Works - Highways	Project Type:	Spot Improvement
Phase:	Formation	Road Name:	CTH E
Budget Action:	As Planned	Manager:	Allison Bussler, Director DPW
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY				
Year	2020	2021	2022	Total
Project Phase	Design	Land Acquis.	Construction	Project
Expenditure Budget	\$75,000	\$116,000	\$844,000	\$1,035,000
Revenue Budget	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$75,000	\$116,000	\$844,000	\$1,035,000
COST DOCUMENTATION			REVENUE	
Design	\$75,000			
Land Acquisition	\$116,000			
Construction	\$734,000			
Construction Management	\$73,000			
Contingency	<u>\$37,000</u>			
Total Project Cost	\$1,035,000		Total Revenue	\$0
EXPENDITURE BUDGET	\$1,035,000		REVENUE BUDGET	\$0

Project Scope & Description

The purpose of this proposed project is to correct the safety problems along the curved segment of CTH E at Woodland Drive. Proposed improvements addressing the existing potential hazards include:

1. Realign approximately 1,500 feet of CTH E with one gradual horizontal curve.
2. Widen the CTH E lane widths from 11' to 12', add shoulders that are 8 feet wide of which 3 feet are paved and the rest gravel and clear zones along this curve. Add pavement safety edges.
3. Improve clear zones to proper standards.
4. Add center line and shoulder rumble strip pavement markings to alert motorists approaching and driving through this curved highway segment.

Location

Town of Merton

Analysis of Need

A sharp horizontal curve at the intersection of CTH E just south of Woodland Drive has been the site of a number of run-off-the-road crashes. Not only is the curve substandard, but on the north bound approach, there is also a sharp crest just to the south of the curve, which limits drivers' sight distance. In combination with the horizontal curve, this causes an unsafe situation. The crash rate for this location is 1.433 crashes per million vehicles entering, which includes one fatality.

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

Approved as new project in 2016-2020 capital plan. Approved as planned in 2017-2021 capital plan. Approved as planned in the 2018-2022 capital plan.

Project Title:	CTH V V, Hickory Street to CTH F	Project #:	201620
Department:	Public Works - Highways	Project Type:	Rehab/Jurisdictional Transfer
Phase:	Construction	Road Name:	Silver Spring Drive
Budget Action:	As Planned	Manager:	Allison Bussler, Director DPW
Date:	August 21, 2018		

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 Cost After Revenues Applied	\$0	\$5,000	\$291,000	\$296,000
COST DOCUMENTATION			REVENUE	
Design - in house	\$0			County Highway
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
EXPENDITURE BUDGET	\$587,000			\$291,000
				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 completed, will lower the department's 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
- Approved as planned in 2018-2022 capital plan

Project Title:	CTH V V, W.B. Bridge over Menomonee River	Project #:	201802
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Preliminary Design	Road Name:	Silver Spring Drive
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

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	\$187,000	\$0	\$235,000	\$428,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$6,000	\$0	\$0	\$187,000	\$0	\$235,000	\$428,000
COST DOCUMENTATION				REVENUE			
Design			\$130,000				\$942,000
WisDOT Design Review			\$63,000				
Land Acquisition			\$0				
Construction			\$957,000				
Construction Management			\$172,000				
Contingency			\$48,000				
Total Project Cost			\$1,370,000				\$942,000
EXPENDITURE BUDGET			\$428,000	REVENUE BUDGET			\$0

Project Scope & Description

This project is a rehabilitation of the westbound (W.B.) CTH V V bridge over the Menomonee River. The scope includes concrete deck replacement. In addition, concrete approach slabs will be replaced and approach guardrail upgraded to current standards. The roadway will remain two travel lanes on 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 \$942,000 in federal bridge aid.

Locations

Village of Butler

Analysis of Need

The existing bridge (B-67-85) is a three-span concrete deck girder structure that was constructed in 1964. A concrete overlay was placed on the deck in 1994. The bridge girders and substructure are in good condition. A 2016 thermal infrared scan of the deck wearing surface indicates 20% delamination or debonding of the previous overlay. In addition, the sidewalk and railings are deteriorating, with spalling and exposed bar steel. The structure sufficiency number is 87.7, and is currently not eligible for federal bridge aid. It is anticipated that the 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 westbound bridge was 11,750 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

New project in the 2018-2022 capital plan.

Project Title:	CTH O, CTH ES to STH 59 Rehabilitation	Project #:	201803
Department:	Public Works - Highways	Project Type:	Rehabilitation
Phase:	Formation	Road Name:	Moorland Road
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY				
Year	2022	2023	2024	Total
Project Phase	Design	Land Aquis.	Construction	Project
Expenditure Budget	\$345,000	\$1,580,000	\$4,004,000	\$5,929,000
Revenue Budget	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$345,000	\$1,580,000	\$4,004,000	\$5,929,000
COST DOCUMENTATION			REVENUE	
WisDOT Design Review	\$300,000		STP - M	\$17,385,000
Design	\$1,424,000		Surface Transportation Program - Milwaukee	
Land Acquisition	\$1,580,000			
Construction	\$17,400,000			
Construction Management	\$1,740,000			
Contingency	<u>\$870,000</u>			
Total Project Cost	\$23,314,000		Total Revenue	\$17,385,000
EXPENDITURE BUDGET	\$5,929,000		REVENUE BUDGET	\$0

Project Scope & Description

This 2.3-mile long project involves the rehabilitation/reconstruction of CTH O to bring it up to current standards. Improvements will include: replacing the existing concrete pavement, reconfiguring intersections to improve safety, replacing older traffic signals, minor grading, adding sidewalks and storm water improvements. Access to other businesses and residences adjacent to Moorland Road will need to be maintained during construction. Therefore, traffic control will be a major challenge for this project. This project will use federal funds to partially offset the cost of design and construction. The Department will apply for \$17,385,000 in federal STP-M funds for this project.

Location

City of New Berlin

Analysis of Need

The concrete pavement along this portion of Moorland Road (CTH O) now has a pavement condition index (PCI) of 50 which is regarded as fair. While the PCI isn't in poor condition, the transverse and longitudinal joints show signs of significant deterioration, and it is anticipated that the roadway will be ready for a pavement replacement by 2024. The roadway was first built in 1978 and was rehabilitated in 2006 but that rehabilitation will be at the end of its useful life by 2024, and the concrete pavement will need to be replaced. Pavement issues are further compounded by the fact that this portion of Moorland Road is one of the busiest on the County system with over 30,000 vehicles per day using the corridor which serves as a major access road to Between I-43 and I-94.

Alternatives

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

Ongoing Operating Costs

Operating costs are not expected to change.

Previous Action

Approved as a new project in the 2018-2022 capital plan

Project Title:	CTH DE, Wild Rose Lane to Oak Court	Project #:	201804
Department:	Public Works - Highways	Project Type:	Spot Improvement
Phase:	Formation	Road Name:	CTH DE
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY				
Year	2022	2023	2024	Total
Project Phase	Design	Land Acquis	Construction	Project
Expenditure Budget	\$77,000	\$93,000	\$844,000	\$1,014,000
Revenue Budget	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$77,000	\$93,000	\$844,000	\$1,014,000
COST DOCUMENTATION			REVENUE	
Design	\$77,000			
Land Acquisition	\$93,000			
Construction	\$734,000			
Construction Management	\$73,000			
Contingency	\$37,000			
Total Project Cost	\$1,014,000		Total Revenue	\$0
EXPENDITURE BUDGET	\$1,014,000		REVENUE BUDGET	\$0

Project Scope & Description

The purpose of this proposed project is to correct the safety problems along the curved segment of CTH DE between Wild Rose Lane and Oak Court. Proposed improvements addressing existing potential hazards include:

1. Realign approximately 1,600 feet of CTH DE with one gradual horizontal curve.
2. Widen the CTH D lane widths from 11' to 12', add shoulders that are 8 feet wide of which 5 feet are paved and the rest gravel and clear zones along this curve. Add pavement safety edges.
3. Improve clear zones to proper standards.
4. Add center line and shoulder rumble strip pavement markings to alert motorists approaching and driving through this curved highway segment.

Location

Town of Genesee

Analysis of Need

A sharp horizontal curve on CTH DE between Wild Rose Lane and Oak Court has been the site of a number of run-off-the-road crashes. Not only is the curve CTH DE substandard but the approach alignments are such that the curve sits at the bottom of a hill that also has poor vertical approach geometry. The crash rate for this location is 1.976 crashes per million vehicles entering, which includes one fatality. This rate is above the limit of 1.5 crashes per million vehicles entering above which action is recommended.

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

Approved as a new project in the 2018-2022 capital plan.

Project Title:	CTH T, Northview Road to I-94	Project #:	201805
Department:	Public Works - Highways	Project Type:	Rehabilitation
Phase:	Formation	Road Name:	Grandview Boulevard
Budget Action:	As Planned	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY				
Year	2021	2022	2023	Total
Project Phase	Design	Design/land	Construction	Project
Expenditure Budget	\$73,000	\$91,000	\$440,000	\$604,000
Revenue Budget	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$73,000	\$91,000	\$440,000	\$604,000
COST DOCUMENTATION			REVENUE	
Design		\$287,000	Federal Surface Transportation	\$2,055,000
WisDOT Design Review		\$80,000	Program (STP) Funding	
Land Acquisition		\$91,000		
Construction		\$1,913,000		
Construction Management		\$192,000		
Contingency		\$96,000		
Total Project Cost		\$2,659,000	Total Revenue	\$2,055,000
EXPENDITURE BUDGET		\$604,000	REVENUE BUDGET	\$0

Project Scope & Description

This 0.9-mile long project involves the rehabilitation/reconstruction of CTH T to improve the condition of the roadway. Improvements will include: milling of and replacing the existing asphaltic pavement, base repairs to the underlying concrete pavement, minor reconfiguration of intersections to improve safety, replacing/upgrading of older traffic signals, storm water improvements and adding additional sidewalks if requested by the City of Waukesha. Traffic volumes along CTH T are approximately 24,000 vehicles per day. Therefore, traffic control will be a major challenge for this project. Federal funds will be used to offset the cost of design and construction for this project. The Department will apply for \$2,055,000 in federal STP funds for this project.

Location

City of Waukesha

Analysis of Need

The asphalt pavement along this portion of Grandview Boulevard (CTH T) has deteriorated to the point where it now has a pavement condition index (PCI) of 32 at which rehabilitation should be considered. The roadway was rehabilitated and widened in 1997, but that rehabilitation is now at the end of its useful life. The existing pavement structure consists of an asphalt overlay of an older concrete pavement. There are significant transverse and longitudinal cracks, some curb failure, and the existing traffic signals, especially at the Woodburn Road intersection, are requiring more maintenance attention. The 2012 traffic volumes on CTH T were 24,000 vehicles per day.

Alternatives

Reconstruct the pavement. The distresses shown in the pavement surface indicate that the underlying concrete pavement is still in a reasonable condition, therefore rehabilitation is a good option. Reconstructing the pavement would at least double the cost of this project.

Ongoing Operating Costs

Initial maintenance costs may be reduced following construction.

Previous Action

Approved as a new project in the 2018-2022 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 - \$ Update Delay	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY						
Year	2012	2013	2014	2018	2019	Total
Project Phase	Budget/Concept	Design	Construction	Construction	Construction	Project
Expenditure Budget	\$6,000	\$150,000	\$176,000	\$197,000	\$35,000	\$564,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$6,000	\$150,000	\$176,000	\$197,000	\$35,000	\$564,000
COST DOCUMENTATION			REVENUE			
Budget/Concept	\$4,000					Federal Bridge Aid
Design	\$124,000					
Land Acquisition	\$0					
Construction	\$363,000					
Construction Management	\$55,000					
Contingency	\$18,000					
Total Project Cost	\$564,000					Total Revenue
EXPENDITURE BUDGET	\$564,000					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. The cost estimate increased by \$35,000 as estimates were refined during the preliminary design process. The project construction phase is being postponed to 2019.

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 63.1, 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.
- Approved with scope change, cost and revenue update in the 2018-2022 capital plan.

Project Title:	CTH M, Calhoun Road to East County Line	Project #:	201008
Department:	Public Works - Highways	Project Type:	Priority Corridor
Phase:	Preliminary Design/Land Acquisition	Road Name:	North Avenue
Budget Action:	C-\$ Update	Manager:	Allison Bussler, DPW Director
Date:	August 28, 2018		

Year	2015	2016	2017	2020	2021	Total
Project Phase	Design	Design/Land	Land	Const	Const	Project
Expenditure Budget	\$1,098,000	\$1,524,000	\$2,132,000	\$4,351,000	\$2,300,000	\$11,405,000
Revenue Budget	\$0	\$0	\$0	\$445,000	\$0	\$445,000
Net Cost After Revenues Applied	\$1,098,000	\$1,524,000	\$2,132,000	\$3,906,000	\$2,300,000	\$10,960,000
COST DOCUMENTATION			REVENUE			
Design		\$1,769,000	Federal Surface Transportation			\$16,110,000
WisDOT Design Review		\$362,000	Program - STP Funding			
Land Acquisition		\$3,200,000	(Per State Municipal Agreements)			
Construction		\$19,290,000	Local Municipality			\$445,000
Construction Management		\$1,929,000				
Contingency		\$965,000				
Total Project Cost		\$27,515,000	Total Revenue			\$16,555,000
EXPENDITURE BUDGET		\$11,405,000	REVENUE BUDGET			\$445,000

Project Scope & Description

This project involves the reconstruction and widening of about 3.0 miles of CTH M (North Avenue) from Calhoun Road to 124th Street to four lanes and the replacement of bridges and culverts over Underwood Creek. A raised median will be provided along the project for left turn movements. The median area, along with 3 ponds, will provide additional capacity for storm water management. The roadway alignment will stay at its present location. Land will be acquired to a distance of 60 feet from the roadway centerline and additional grading easements and vision corners as may be required.

The increased costs are based on a more developed plan, including storm water management ponds and further refined items and quantities as well as the rising construction costs. Due to some anticipated high construction costs at or near Pilgrim Road, in the 2017-2021 capital plan, this project was combined with project 201202 (CTH M, Calhoun Road to CTH YY) to form a single project to construct CTH M from Calhoun Rd to 124th St. To keep approved federal funding, the Wisconsin Department of Transportation needed to move all construction funding to 2020-21.

Location

City of Brookfield, Village of Elm Grove

Analysis of Need

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

Alternatives

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

Ongoing Operating Costs

Operating costs are expected to increase by approximately \$42,500 per annum for the additional lane miles after the construction phase is completed.

Previous Action

2010 -2014 capital plan: approved as a new project. 2011-2015, 2012-2016, 2013-2017, 2014-2018, 2016-2020 capital plans: approved with a cost update. 2014-2018, 2015-2019 capital plans: approved as planned. Combined with project 201202 and approved in 2017-2021 capital plan with a delay and updates to cost and revenues. Approved as planned in the 2018-2022 capital plan.

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 C - Rev Update	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY					
Year	2016	2017	2018	2019	Total
Project Phase	Design	Right of Way	Construction	Construction	Project
Expenditure Budget	\$119,000	\$22,000	\$164,000	\$45,000	\$350,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$119,000	\$22,000	\$164,000	\$45,000	\$350,000
COST DOCUMENTATION			REVENUE		
Design	\$105,000			Federal Bridge Aid	\$625,000
State Review for Design	\$30,000				
Land Acquisition	\$22,000				
Construction	\$684,000				
Construction Management	\$104,000				
Contingency	\$30,000				
Total Project Cost	\$975,000			Total Revenue	\$625,000
EXPENDITURE BUDGET	\$350,000			REVENUE BUDGET	\$0

Project Scope & Description

This project is a replacement of the CTH Q bridge over the Oconomowoc River with a single span slab bridge. The roadway will remain two lanes over the bridge and will be constructed to current standards. The roadway profile will 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. Project costs are updated to include an additional \$45,000 to cover costs related to potential field condition issues. Federal Bridge Aid revenue, which covers 80% of construction costs up to a cap of \$625,000, is budgeted to increase.

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.
- Approved with a cost update in the 2018-2022 capital plan.

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:	Delay	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY				
Year	2017	2018	2020	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 Cost After Revenues Applied	\$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. Project construction is delayed from 2019 to 2020.

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, 2017-2021, and 2018-2022 capital plans.

Project Title:	CTH I, Fox River Bridge	Project #:	201601
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Preliminary Design	Road Name:	River Road
Budget Action:	C - Scope C - \$ Update C - Rev Update	Manager:	Allison Bussler, DPW Director
Date:	August 28, 2018		

CAPITAL BUDGET SUMMARY					
Year	2016	2017-19	2020	2021	Total
Project Phase	Concept	Budget	Design	Construction	Project
Expenditure Budget	\$6,000	\$0	\$89,000	\$103,000	\$198,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$6,000	\$0	\$89,000	\$103,000	\$198,000
COST DOCUMENTATION			REVENUE		
Budget/concept	\$6,000				Federal Bridge Aid \$414,000
Design	\$71,000				
State review for Design	\$18,000				
Land Acquisition	\$0				
Construction	\$450,000				
Construction Management	\$45,000				
Contingency	\$22,000				
Total Project Cost	\$612,000				Total Revenue \$414,000
EXPENDITURE BUDGET	\$198,000				REVENUE BUDGET \$0

Project Scope & Description

This project is a deck replacement of the CTH I bridge over the Fox River. In addition, the scope is expected to include railing replacement, approach paving, approach guardrail replacement, and repair of riprap slope paving. The roadway will remain two lanes over the bridge. Right of way acquisition is not anticipated. The Waukesha County Bicycle Plan shows a proposed trail along the Fox River at the site of this project. This project does not include bridge widening for purpose of bicycle trail. Roadway shoulders over the bridge will accommodate bicycles. A bridge rehabilitation report has been approved by WDOT that recommends deck replacement. Waukesha County amended a 2017 application for federal bridge aid to be consistent with the approved bridge rehab. report. This is a change in scope from superstructure replacement, which was the recommended rehabilitation alternative in 2017. Waukesha County applied for \$414,000 in federal bridge aid, and in May 2018 WDOT approved the county's application.

Location: Town of Waukesha

Analysis of Need

The existing bridge (B-67-097) is a two-span, pre-stressed concrete girder structure that was constructed in 1965. A concrete overlay was placed on the deck in 1996. The bridge is considered "structurally deficient" due to the condition of the deck. The deck edges and soffit underside are spalling. A thermal infrared scan of the wearing surface in 2014 indicates the concrete overlay is 22% delaminated. The riprap slope paving beneath the bridge has missing stone, and should be repaired. The structure sufficiency number is 76.2, which indicates that structure rehabilitation is warranted according to WisDOT guidelines and makes the bridge eligible for federal bridge funding (rehabilitation) with a sufficiency below 80. The 2013 traffic volume on this roadway segment was 2,325 vehicles per day

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

Ongoing Operating Costs

Maintenance costs will be reduced in the early years after construction beyond 2021.

Previous Action

- New project in the 2016-2020 capital plan.
- Approved as planned in the 2017-2021 capital plan.
- Approved with scope change and cost update in the 2018-2022 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:	C - Scope C - \$ Update C - Rev Update	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY				
Year	2018	2019	2020	Total
Project Phase	Design	Land Acquis.	Construction	Project
Expenditure Budget	\$18,100	\$165,000	\$108,000	\$291,100
Revenue Budget	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$18,100	\$165,000	\$108,000	\$291,100
COST DOCUMENTATION			REVENUE	
Design	\$88,000		Federal Highway Safety Improvement Program (HSIP) Funding	\$404,000
WisDOT Review	\$20,000			
Land Acquisition	\$165,000			
Construction	\$368,000			
Construction Management	\$36,000			
Contingency	\$18,100			
Total Project Cost	\$695,100		Total Revenue	\$404,000
EXPENDITURE BUDGET	\$291,100		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 has been awarded \$404,000 in Federal Highway Safety Improvement Program funding to help fund this project. The project was re-scoped to reduce the level of alignment changes needed, allowing the project to be a better fit for the Highway Safety Improvement Program. The reduced scope is expected to result in lower land acquisition, grading, and overall construction costs.

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. Approved as planned in the 2018 – 2022 plan.

Project Title:	CTH D, Moraine Hills Drive Intersection	Project #:	201613
Department:	Public Works - Highways	Project Type:	Spot Improvement
Phase:	Preliminary Design	Road Name:	CTH D
Budget Action:	C - Rev Update	Manager:	Allison Bussler, DPW Director
Date:	August 22, 2018		

CAPITAL BUDGET SUMMARY				
Year	2019	2020	2021	Total
Project Phase	Design	Land Acquis	Construction	Project
Expenditure Budget	\$6,200	\$365,000	\$68,300	\$439,500
Revenue Budget	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$6,200	\$365,000	\$68,300	\$439,500
COST DOCUMENTATION			REVENUE	
Design	\$62,000		Federal Highway Safety Improvement Program (HSIP) Funding	\$670,500
Land Acquisition	\$365,000			
Construction	\$594,000			
Construction Management	\$59,000			
Contingency	<u>\$30,000</u>			
Total Project Cost	\$1,110,000		Total Revenue	\$670,500
EXPENDITURE BUDGET	\$439,500		REVENUE BUDGET	\$0

Project Scope & Description

The purpose of this proposed project is to correct the safety problems along the curved segment of CTH D at Moraine Drive. Proposed improvements addressing the existing potential hazards include:

1. Realign approximately 1,200 feet of CTH D with one gradual horizontal curve.
2. Widen the CTH D lane widths from 11' to 12', add shoulders that are 8 feet wide of which 3 feet are paved and the rest gravel and clear zones along this curve. Add pavement safety edges.
3. Improve clear zones to proper standards.
4. Add center line and shoulder rumble strip pavement markings to alert motorists approaching and driving through this curved highway segment.

The county will apply for an estimated \$670,500 in federal Highway Safety Improvement Program (HSIP) revenues to partially fund this project.

Location: Town of Ottawa

Analysis of Need

A sharp horizontal curve at the intersection of CTH D and Moraine Hills Drive has been the site of a number of run-off-the-road crashes. Not only is the curve at Moraine Hills Drive substandard but the approach alignments are such that in combination with the curve they form reverse curves as drivers approach the location. This combined with a relatively steep grade has been the cause of crashes. The crash rate for this location is 1.8 crashes per million vehicles entering, which includes one fatality. This rate is above the limit of 1.5 crashes per million vehicles entering above which action is recommended.

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

Approved as a new project in the 2016 - 2020 capital plan. Approved as planned in 2017-2021 capital plan. Approved as planned in the 2018-2022 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:	Delay	Manager:	Allison Bussler, DPW Director
Date:	August 29, 2018		

CAPITAL BUDGET SUMMARY						
Year	2017	2018	2019	2020	2021	Total
Project Phase	Design	Land			Construction	Project
Expenditure Budget	\$66,000	\$50,000	\$0	\$0	\$506,000	\$622,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$66,000	\$50,000	\$0	\$0	\$506,000	\$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. Project construction is delayed from 2019 to 2021 based on an updated WisDOT funding schedule.

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-foot high roadway embankment. The two original barrels are rusting through at the normal water line. The stone masonry headwalls are in poor condition. The riprap ditch at the northeast bridge approach is eroding. The existing structure appears to have adequate hydraulic capacity. The structure sufficiency number is 33.1, which indicates that structure replacement or rehabilitation is warranted according to WisDOT guidelines. The 2017 traffic volumes on the CTH D corridor ranged from 8,440 to 15,880 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. Approved as planned 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:	August 21, 2018		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total Project
Project Phase						
Expenditure Budget	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
Revenue Budget	\$0	\$0	\$0	\$0	\$0	\$0
Net Cost After Revenues Applied	\$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				\$0
EXPENDITURE BUDGET		\$500,000				REVENUE BUDGET
						\$0

Project Scope & Description

The program provides assistance to municipalities for the replacement of bridge or culvert 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.
 Approved as planned in the 2018-2022 Capital Plan.

Project Title:	Bridge Aid Program: 2023-2027	Project #:	201904
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Program Project	Road Name:	
Budget Action:	New	Manager:	Allison Bussler, Director DPW
Date:	August 29, 2018		

CAPITAL BUDGET SUMMARY						
Year	2023	2024	2025	2026	2027	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 Cost After Revenues Applied	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
COST DOCUMENTATION			REVENUE			
2023 Appropriation		\$100,000				
2024 Appropriation		\$100,000				
2025 Appropriation		\$100,000				
2026 Appropriation		\$100,000				
2027 Appropriation		\$100,000				
Total Project Cost		\$500,000				\$0
EXPENDITURE BUDGET		\$500,000				REVENUE BUDGET
						\$0

Project Scope & Description

The program provides assistance to municipalities for the replacement of bridge or culvert 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

None

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:	August 21, 2018		

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 Cost After Revenues Applied	\$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					
					Total Revenue	\$0
EXPENDITURE BUDGET	\$500,000				REVENUE BUDGE	\$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.

Approved as planned in the 2018-2022 capital plan.

Project Title:	Culvert Replacement Program 2023 - 2027	Project #:	201901
Department:	Public Works - Highways	Project Type:	Bridge
Phase:	Program Project	Road Name:	Various
Budget Action:	New	Manager:	Allison Bussler, DPW Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY						
Year	2023	2024	2025	2026	2027	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 Cost After Revenues Applied	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
COST DOCUMENTATION				REVENUE		
2023 Appropriation	\$100,000					
2024 Appropriation	\$100,000					
2025 Appropriation	\$100,000					
2026 Appropriation	\$100,000					
2027 Appropriation	<u>\$100,000</u>					
Total Project Cost	\$500,000					
					Total Revenue	\$0
EXPENDITURE BUDGET	\$500,000				REVENUE BUDGE	\$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

None

Project Title:	Repaving Program 2018-2022	Project #:	201416
Department:	Public Works - Highways	Project Type:	Repaving
Phase:	Program Project	Road Name:	Various
Budget Action:	C - Rev Update Accelerate	Manager:	Allison Bussler, DPW Director
Date:	August 29, 2018		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total
Project Phase						
Expenditure Budget	\$4,450,000	\$3,800,000	\$2,700,000	\$4,200,000	\$4,300,000	\$19,450,000
Revenue Budget	\$559,000	\$655,000	\$840,000	\$1,140,000	\$790,000	\$3,984,000
Net Costs After Revenues Applied	\$3,891,000	\$3,145,000	\$1,860,000	\$3,060,000	\$3,510,000	\$15,466,000
COST DOCUMENTATION				REVENUE		
				County Highway Improvement Program (CHIP) and CHIP-D (Discretionary)		
				General Transportation Aid (GTA)		
	Paver Study	Hwy Paving & Shouldering	Total	CHIP	CHIP-D	GTA
2018	\$50,000	\$4,400,000	\$4,450,000	\$330,000	\$229,000	\$0
2019	\$50,000	\$3,750,000	\$3,800,000	\$330,000	\$0	\$325,000
2020	\$50,000	\$2,650,000	\$2,700,000	\$330,000	\$260,000	\$250,000
2021	\$50,000	\$4,150,000	\$4,200,000	\$330,000	\$260,000	\$550,000 *
2022	\$50,000	\$4,250,000	\$4,300,000	\$330,000	\$260,000	\$200,000
Total Project Cost	\$250,000	\$19,200,000	\$19,450,000	Total Revenue	\$1,650,000	\$1,009,000
EXPENDITURE BUDGET	\$19,450,000			REVENUE BUDGET	\$3,984,000	

*Includes \$350,000 of GTA received above budget in 2018, appropriated as Capital Project Fund balance.

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. Project funding is accelerated, moving \$1,000,000 from 2020 to 2019, to balance resources in the overall five-year capital plan. Beginning in 2019, a portion of the state's allocation of General Transportation Aid (GTA) revenue is budgeted to cover repaving project expenditures.

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.

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. 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 2017 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.

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. Approved with cost and revenue updates in the 2018-2022 Capital Plan.

Project Title:	Repaving Program 2023-2027	Project #:	201906
Department:	Public Works - Highways	Project Type:	Repaving
Phase:	Program Project	Road Name:	Various
Budget Action:	New	Manager:	Allison Bussler, DPW Director
Date:	August 29, 2018		

CAPITAL BUDGET SUMMARY								
Year	2023	2024	2025	2026	2027	Total		
Project Phase								
Expenditure Budget	\$4,300,000	\$4,300,000	\$4,500,000	\$4,500,000	\$4,700,000	\$22,300,000		
Revenue Budget	\$790,000	\$0	\$0	\$0	\$0	\$790,000		
Net Cost After Revenues Applied	\$3,510,000	\$4,300,000	\$4,500,000	\$4,500,000	\$4,700,000	\$21,510,000		
COST DOCUMENTATION			REVENUE					
			County Highway Improvement Program (CHIP) and CHIP-D (Discretionary) General Transportation Aid (GTA)					
	Hwy Paving							
	<u>Paver Study</u>	<u>& Shouldering</u>	<u>Total</u>	<u>CHIP</u>	<u>CHIP-D</u>	<u>GTA</u>	<u>Total</u>	
2023	\$50,000	\$4,250,000	\$4,300,000	\$330,000	\$260,000	\$200,000	\$790,000	
2024	\$50,000	\$4,250,000	\$4,300,000	\$0	\$0	\$0	\$0	
2025	\$50,000	\$4,450,000	\$4,500,000	\$0	\$0	\$0	\$0	
2026	\$50,000	\$4,450,000	\$4,500,000	\$0	\$0	\$0	\$0	
2027	\$50,000	\$4,650,000	\$4,700,000	\$0	\$0	\$0	\$0	
Total Project Cost	\$250,000	\$22,050,000	\$22,300,000	Total Revenue	\$330,000	\$260,000	\$200,000	\$790,000
EXPENDITURE BUDGET			\$22,300,000	REVENUE BUDGET			\$790,000	

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’s 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.

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. 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 2017 is 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.

Previous Action

None

Project Title:	University of Wisconsin Waukesha Site Infrastructure Improvements	Project #:	201703
Department:	Parks & Land Use	Project Type:	Concrete/Repaving
Phase:	Design/Construction	Sponsor:	Parks and Land Use
Budget Action:	As Planned	Manager:	Dale Shaver, PLU Director
Date:	August 21, 2018		

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 Cost After Revenues Applied	\$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				Total Revenue \$0
EXPENDITURE BUDGET	\$1,231,400				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.

This 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 was 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 a 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. Accelerated in the 2018-2022 capital plan.

Project Title:	Pewaukee to Brookfield Trail	Project #:	201807
Department:	Parks & Land Use	Project Type:	Trail System
Phase:	Preliminary Design	Sponsor:	
Budget Action:	As Planned	Manager:	Dale Shaver, PLU Director
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total
Program Project	Design/ Eng.	Design/ Eng.	Design/ Eng.	Construction	Construction	Project
Expenditure Budget	\$0	\$300,000	\$0	\$2,240,000	\$0	\$2,540,000
Revenue Budget	\$0	\$240,000	\$0	\$2,046,000	\$0	\$2,286,000
Net Cost After Revenues Applied	\$0	\$60,000	\$0	\$194,000	\$0	\$254,000
COST DOCUMENTATION			REVENUE			
Design	\$300,000					
Construction	\$2,060,000			Fed/ State WisDOT		\$2,032,000
Contingency	\$180,000			City of Brookfield		\$254,000
Total Project Cost	\$2,540,000			Total Revenue		\$2,286,000
EXPENDITURE BUDGET	\$2,540,000			REVENUE BUDGET		\$2,286,000

Project Scope & Description

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

A component of the Waukesha County Bicycle Plan includes an approximately five-plus mile multi-use trail from the City of Waukesha at Frame Park to the City of Brookfield Historic Village area along Brookfield Road. This proposed project will develop the three and a half-mile segment of the trail from a proposed trail access located on North Avenue, south of Watertown Road in the City of Pewaukee, to a proposed trailhead located near the intersection of River Road and Brookfield Road. The project will be coordinated with the State of Wisconsin Department of Transportation, Department of Natural Resources, Army Corps of Engineers, City of Brookfield and City of Pewaukee. The trail will cross three roadways and the Fox River three times.

The Department of Parks and Land Use will seek funding from multiple sources. The project budget includes \$2,032,000 (80:20 cost share reimbursable program) from the Wisconsin Department of Transportation through the Federal Transportation Alternatives Program (TAP) Grant. The City of Brookfield and Waukesha County will split the remaining costs. The County does not anticipate plowing the trail in the winter. Depending on future use and demand, the Cities may cooperatively maintain this trail for year-round use.

Location

The project is located on the abandoned railroad corridor, with a southern trailhead terminus on North Avenue, just south of Watertown Road, in the City of Pewaukee, and a northern trailhead terminus at River Road/Brookfield Road in the City of Brookfield. Features or destinations along the trail include the GE Medical Training Center located on Watertown Road.

Analysis of Need: The project is identified as the northern phase of a north-south connector trail in the Waukesha County Bicycle Plan. The trail connects to 26 miles of established on and off road trails in the City of Brookfield, connecting residents in several densely populated areas with a transportation alternative to access employment, retail and recreation centers. The trail also connects to the State of Wisconsin Hank Aaron Trail and Milwaukee County Oak Leaf Trail – extending impact to about 100 miles of connected trails and parkways through Milwaukee County. Additionally, the trail also connects to the Brookfield Square Mall, the Sharon Lynne Wilson Center for the Arts, Waukesha County’s Fox Brook Park, parks in the City of Brookfield and the Village of Elm Grove and several commercial and business areas including the GE Healthcare Institute.

Alternatives

One alternative examined was to build a connector bicycle lane or paved shoulder facility as part of the CTH F overlay project (capital project #200905). However, it was a simple overlay project, and not a reconstruction project, and also has limited available right-of-way for separated trail purposes.

Ongoing Operating Costs: This project will generate an additional three-plus lineal miles of trail to maintain. This facility will be maintained by the current parks staffing level located at Fox Brook Park, with assistance from the City of Brookfield Parks, Recreation & Forestry Department.

Previous Action: This Pewaukee to Brookfield trail was previously included in the Phase I: Waukesha-Brookfield Multi-Use Trail project (#201407), and was approved with this project scope (enrolled ordinance 171-19), but was not awarded federal TAP funding. This project is proposed to correspond with an application for a later federal funding cycle, and was approved as a new project in the 2018-2022 capital plan.

DELETE PROJECT

Project Title:	Camp Pow Wow Expansion	Project #:	201504
Department:	Parks & Land Use	Project Type:	Facility Expansion
Phase:		Sponsor:	
Budget Action:	Delete	Manager:	Dale Shaver, PLU Director
Date:	August 22, 2018		

CAPITAL BUDGET SUMMARY			
Year	2015	2021	Total
Project Phase	<u>Design/Engineering</u>	<u>Construction</u>	Project
Expenditure Budget	\$54,400	\$695,600	\$750,000
Revenue Budget	\$0	\$375,000	\$375,000
Net Cost After Revenues Applied	\$54,400	\$326,600	\$375,000
COST DOCUMENTATION		REVENUE	
Design/Engineering	\$54,400		
Construction	\$644,000		
Contingency	\$51,600		
Total Project Cost	\$750,000	Partnership with ARCh Total Revenue	\$375,000
EXPENDITURE BUDGET	\$750,000	REVENUE BUDGET	\$375,000

This project is being deleted from the capital projects plan because partnership funding from ARCh appears unlikely to materialize before planned construction.

Project Scope & Description

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

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

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

Analysis of Need

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

Location

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

Alternatives

1. Allow camp to function within current space and functionality provided.
2. Partner with ARCh to update and expand the current facility to accommodate additional program participants and functionality desired.

Ongoing Operating Costs

A minimal increase in operating cost due to additional square footage and restroom plumbing fixtures is expected. Some utility savings due to upgrading HVAC and lighting to more efficient equipment and fixtures is also expected.

Previous Action

Approved as a new project in the 2015-2019 Capital Plan. Delayed in 2016-2020 Capital Plan. Approved as planned in the 2017-2021 Capital Plan. Delayed in the 2018-2022 capital

Project Title:	Lake Country Trail STH 67 Underpass	Project #:	201607
Department:	Parks & Land Use	Project Type:	Trail System
Phase:	Preliminary Design	Sponsor:	
Budget Action:	C - \$ Update C - Rev Update	Manager:	Dale Shaver, PLU Director
Date:	August 28, 2018		

CAPITAL BUDGET SUMMARY						
Year	2015	2016	2017	2018	2019	Total
Phase	Design/ Engineering			Construction		Project
Expenditure Budget	\$0	\$229,000	\$98,000	\$0	\$1,010,000	\$1,337,000
Revenue Budget	\$0	\$50,000	\$98,000	\$0	\$887,000	\$1,035,000
Net Cost After Revenues Applied	\$0	\$179,000	\$0	\$0	\$123,000	\$302,000
COST DOCUMENTATION			REVENUE			
<u>Paid for in other budgets:</u>			<u>Funded in other budgets:</u>			
2015 WisDOT Underpass Box - In State Budget		\$500,000	2015 WisDOT Underpass Box - In State Budget		\$500,000	
2015 Initial Utility Relocation Costs - In Ocon. Budget		\$216,000	2015 Initial Utility Relocation - In Ocon. Budget		\$216,000	
<u>In County Budget:</u>			<u>Budgeted by County:</u>			
Preliminary & Final Design/ Bid	\$219,000		Fed Transportation Alternatives Program		\$798,000	
Construction	\$973,000		State DNR Grant		\$151,000	
Contingency	\$145,000		Ocon. Share of Engineering/ Construct.		\$86,000	
Total Project Cost	\$2,053,000		Total Revenue		\$1,751,000	
EXPENDITURE BUDGET	\$1,337,000		REVENUE BUDGET		\$1,035,000	

Project Scope & Description

The south side of the City of Oconomowoc is seeing considerable growth as new residential, commercial and retail development in and around the Pabst Farms area continues to move forward. It is projected that as the growth continues, use will increase on the popular multi-use Lake Country Trail. As a component of the growth in the area, the major north-south connection from the City of Oconomowoc to Interstate 94, State Trunk Highway 67, has been improved and widened to three lanes in each direction to accommodate increased traffic. In order to create a safe crossing of this major roadway for trail users and eliminate traffic delays, a box tunnel was installed by WisDOT in 2015 as part of the STH 67 construction project, for future conversion into a trail underpass.

The Waukesha County Department of Parks & Land Use (PLU) will collaborate with the City of Oconomowoc to construct appropriate entrances and exits to the box tunnel installed by WisDOT for an underpass for the Lake Country Trail. Funding will be secured from multiple sources. The county has been awarded \$798,000 toward the project through the Federal Transportation Alternatives Program (TAP) and has applied for \$151,000 in Stewardship Grant funding through the Wisconsin Department of Natural Resources (DNR). The City of Oconomowoc already paid for the initial utility relocation of \$216,000 in 2015, and it's expected the city will contribute an additional \$86,000 toward its share of net project costs (\$302,000 in total). Construction costs have been increased based engineering/design-based projections.

The County was able to take advantage of a significant cost savings opportunity when the Wisconsin Department of Transportation agreed to contribute up to \$500,000 up front in order to install the box tunnel during the STH 67 construction project. The collaboration with the City of Oconomowoc will also help to realize additional cost savings because the underpass project can be bid as a component of the City's annual road reconstruction bid package.

Location

Lake Country Trail intersection with State Trunk Highway 67 in the City of Oconomowoc.

Analysis of Need

The underpass will provide a safe and unimpeded crossing of the major roadway for trail users. It will also help to maintain efficient traffic flow by reducing congestion and time delays for motorists caused by substantial pedestrian and bicyclist clearance times when trail users are crossing the roadway.

- A. Construct in 3-5 years.
- B. Maintain as an at-grade crossing, but would be across six lanes of traffic, which is a safety issue.

Ongoing Operating Costs

The project will require maintenance for a new tunnel underpass along the Lake Country Trail. The maintenance will include the removal of debris, cleanup of vandalism, and monitoring of the operational condition of light fixtures. The underpass facility will be maintained by the City of Oconomowoc. Current staff at Naga-Waukee Park who maintain the Lake Country Trail will maintain the trail approaches and signage.

Previous Action

Approved as a new project in the 2016-2020 Capital plan. Delayed with a cost update in the 2017-2021 capital plan. Approved as planned in the 2018-2022 capital plan.

DELETE PROJECT

Project Title:	2020 Orthophotography	Project #:	201609
Department:	Parks & Land Use	Project Type:	Orthophotography
Phase:	Program Project	Sponsor:	
Budget Action:	Delete	Manager:	Dale Shaver, PLU Director
Date:	August 28, 2018		

CAPITAL BUDGET SUMMARY

Year	2020	Total
Project Phase	Project Work	Project
Expenditure Budget	\$195,500	\$195,500
Revenue Budget	<u>\$195,500</u>	<u>\$195,500</u>
Net Cost After Revenues Applied	\$0	\$0
COST DOCUMENTATION		REVENUE
Contract Costs	\$195,500	Land Information System
Contingency	<u>\$0</u>	Fund Balance
		\$195,500
Total Project Cost	\$195,500	
EXPENDITURE BUDGET	\$195,500	REVENUE BUDGET
		\$195,500

The Department of Parks and Land Use will budget for this project through the Land Information System operating budget. The department expects that updating orthophotography will cost less than \$100,000 and be funded with state Strategic Initiative Grants.

Project Scope & Description

Aerial images were acquired for Waukesha County in 1963, 1970, 1975, 1980, 1985, and 1990 under programs administered by the Southeastern Wisconsin Regional Planning commission (SEWRPC). Higher precision Orthophotography (images that have been “ortho-rectified” to correct for distortion caused by the changes in terrain) were acquired in 1995, 2000, 2005, 2010 and 2015.

Orthophotography requires that a Digital Terrain Model (DTM) be created to allow the ortho-rectification process to be completed. The DTM can also be used to develop traditional contour line data files that display elevation as well as be input to computer models for developing construction design documents and computing such variables as slopes and erosion. The year 2015 capital project created a new DTM that supported the creation of a one-foot contour base file. That DTM was developed using a Light Detection and Ranging (LIDAR) data set captured as part of the capital project to increase the accuracy of the contour data.

This project will fund the acquisition of new Orthophotography in 2020 to continue the series and provide high quality imagery to support a variety of user needs including real estate analysis, development projects, property history analysis, research projects, emergency management, public infrastructure documentation and regulatory and planning activities in the County. In addition, a new LIDAR data set will be acquired. Beyond creating an updated elevation dataset, the new LIDAR dataset will allow data users to automatically detect areas of elevation change that occurred since the capture of the 2015 dataset.

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

Analysis of Need

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

Alternatives: Do not create data.

Ongoing Operating Costs: None

Previous Action

- 2000 capital project ROD 9900.
- 2005 capital project 200508.
- 2006 capital project 200614.
- 2011/2015 capital project 201119
- Approved as a new project in the 2016-2020 capital plan.
- Approved as planned in the 2017-2021 and 2018-2022 capital plans.

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:	August 27, 2018		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total
Program Project						Project
Expenditure Budget	\$950,000	\$1,200,000	\$1,000,000	\$800,000	\$800,000	\$4,750,000
Revenue Budget	<u>\$150,000</u>	<u>\$450,000</u>	<u>\$200,000</u>	<u>\$200,000</u>	<u>\$200,000</u>	<u>\$1,200,000</u>
Net Cost After Revenues Applied	\$800,000	\$750,000	\$800,000	\$600,000	\$600,000	\$3,550,000
COST DOCUMENTATION						
			Tarrann	Landfill	Comm. Develop.	
			<u>Fund Balance</u>	<u>Siting Revenue</u>	<u>Block Grant</u>	<u>Total</u>
2018	\$950,000	2018	\$50,000	\$100,000	\$0	\$150,000
2019	\$1,200,000	2019	\$50,000	\$200,000	\$200,000	\$450,000
2020	\$1,000,000	2020	\$0	\$200,000	\$0	\$200,000
2021	\$800,000	2021	\$0	\$200,000	\$0	\$200,000
2022	<u>\$800,000</u>	2022	<u>\$0</u>	<u>\$200,000</u>	<u>\$0</u>	<u>\$200,000</u>
Total Project Cost	\$4,750,000	Total Revenue	\$100,000	\$900,000	\$200,000	\$1,200,000
EXPENDITURE BUDGET	\$4,750,000	REVENUE BUDGET				\$1,200,000

Project Scope & Description

In cooperation with the Public Works Department, the Department of Parks and Land Use retains consultant services to update the Pavement Management Plan. 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 2018-2022 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. This project is updated with an increase in planned expenditures for 2019 and 2020 to support efforts for pavement improvement at the Expo Center in addition to other park pavement management and repair projects throughout the Parks System. These additional expenditures are partially offset by \$200,000 in anticipated Community Development Block Grant (CDBG) funding for improvements at the Muskego Campground to improve vehicle and pedestrian circulation throughout the campground and enhance ADA accessibility.

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 six 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. The department uses a PAVER rating 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.

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 five years will be minimal with the proposed pavement improvements.

Previous Action: Pavement management prior to 2018 was 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. Approved with a cost and revenue update in the 2018-2022 capital plan.

Project Title:	Pavement Management Plan 2023-2027	Project #:	201908
Department:	Parks & Land Use	Project Type:	Repaving
Phase:	Program Project	Sponsor:	
Budget Action:	New	Manager:	Dale Shaver, PLU Director
Date:	August 22, 2018		

CAPITAL BUDGET SUMMARY						
Year	2023	2024	2025	2026	2027	Total Project
Project Phase						
Expenditure Budget	\$800,000	\$800,000	\$850,000	\$850,000	\$900,000	\$4,200,000
Revenue Budget	\$200,000	\$0	\$0	\$0	\$0	\$200,000
Net Cost After Revenues Applied	\$600,000	\$800,000	\$850,000	\$850,000	\$900,000	\$4,000,000
COST DOCUMENTATION			REVENUE		<u>Landfill Siting Revenue</u>	
2023	\$800,000		2023			\$200,000
2024	\$800,000		2024			\$0
2025	\$850,000		2025			\$0
2026	\$850,000		2026			\$0
2027	\$900,000		2027			\$0
Total Project Cost	\$4,200,000		Total Revenue			\$200,000
EXPENDITURE BUDGET	\$4,200,000		REVENUE BUDGET			\$200,000

Project Scope & Description

In cooperation with the Public Works Department, the Department of Parks and Land Use retains consultant services to update the Pavement Management Plan. 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.

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.

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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.

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 five years will be minimal with the proposed pavement improvements.

Previous Action

Pavement management for 2018 to 2022 covered in project 201406.

Project Title:	Security System Recording & Display Equipment Replacement	Project #:	201615
Department:	Sheriff's Department	Project Type:	Equipment Replacement
Phase:	Implementation	Sponsor:	Sheriff's Department
Budget Action:	As Planned	Manager:	Mike Biagioli, IT Manager
Date:	August 22, 2018		

CAPITAL BUDGET SUMMARY						
Year	2016	2017	2018	2019	2020	Total Project
Project Phase	Design/Analysis		Implementation			
Expenditure Budget	\$55,000	\$0	\$0	\$755,000	\$0	\$810,000
Revenue Budget	<u>\$55,000</u>	<u>\$0</u>	<u>\$0</u>	<u>\$755,000</u>	<u>\$0</u>	<u>\$810,000</u>
Net Cost After Revenues Applied	\$0	\$0	\$0	\$0	\$0	\$0
COST DOCUMENTATION		REVENUE				
Hardware	\$272,000	Jail Assessment Fund Balance Reserves				\$810,000
Installation	\$344,000					
Licenses	\$64,000					
Consulting/Implementation	\$55,000					
Contingency	\$75,000					
Total Project Cost	\$810,000	Total Revenue				\$810,000
EXPENDITURE BUDGET	\$810,000	REVENUE BUDGET				\$810,000

Project Scope & Description

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

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

The security electronics system was installed in 2005 when the jail was constructed. Portions of the system have been replaced as they have failed including:

- the DVR equipment in 2013,
- the analog matrix switcher was replaced in 2015 to convert the analog matrix to a virtual matrix, and
- analog camera replacements which are funded through the jail equipment replacement plan.

The system is utilized 24 hours a day and is a vital component of the jail's safety and security monitoring ability. It is clear the system has a defined life span, so the Sheriff's Department is requesting that the system be replaced prior to failure.

The Sheriff's Department is requesting to replace the current security electronics system with a digital security electronics system. This is a change in scope from the originally proposed DVR recording replacement project due to the recommendation from a study completed in 2016 from a security electronics consultant. The Sheriff's Department hired a consultant to review the existing security electronics system and recommend a process to replace the existing analog system with a digital system. The goals of the study included but are not limited to: ability to safely and securely monitor jail activities; ability to record up to 30 days of video; the installation of a system that would be supported for a minimum of seven years; and the ability of nonprofessional IT staff to perform the day-to-day administrative functions on the system. The consultant reviewed the replacement of the system in a "piecemeal" approach as well as a complete "rip and replace" of the current analog system with a fully digital system. Based on the goals of the study and the need for a fully operational security system 24-hours a day, the consultant recommended the complete replacement of the analog security electronics system with digital system, which is the basis for the scope and cost update of this project.

The cost estimate provided by the consultant included the re-cabling of the jail from coaxial cable to Cat5/Cat6 cable, the replacement of the analog cameras with digital cameras, the replacement of the DVR equipment which record video with a server based recording system, software licenses for management of the security system, backup power supply, replacement work stations, and built in system redundancy for device failures.

Project Title:	Security System Recording & Display Equipment Replacement	Project #:	201615
Department:	Sheriff's Department	Project Type:	Equipment Replacement
Phase:	Implementation	Sponsor:	Sheriff's Department
Budget Action:	As Planned	Manager:	Mike Biagioli, IT Manager
Date:	August 22, 2018		

While the upfront costs of the upgrade would be higher, the consultant noted that it would be less changing to manage a fully digital system than a hybrid system. The consultant further noted that the higher upfront costs would result in lower long-term costs, easy system expandability with minimal cost, a system that supports future technology, superior camera quality, and a more secure video system.

This project also includes \$30,000 to complete a study to review available alternatives for the replacement of the current video visitation system. The current video visitation equipment is thirteen years old. The vendor that maintains the equipment indicates that, due to the age of the equipment, that it is nearing its useful life and that the Sheriff's Department should begin the process to plan its replacement. Since there are number of different replacement options that the Department could consider, funds to complete a study to identify replacement options, with the best return on investment, are included. Following the study, video visitation replacement is funded in a separate capital project (#201702).

Location

Waukesha County Jail

Analysis of Need

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

Alternatives

The security electronics system is critical to the operation of the jail. As previously noted there are over 320 cameras in the jail to monitor doors, elevators, halls, pods, medical services, kitchen, laundry, program areas, etc.

Maintain the Existing Analog Cameras and Use Hybrid DVRs. This option was analyzed by the security electronics consultant as an option but was not their recommendation. This option involves the replacement of the recording equipment and associated management hardware while leaving the existing cameras in place and only replacing those cameras when necessary. The upfront cost of this option is less expensive at \$344,500. However, the option involves utilizing the legacy cabling and infrastructure which the consultant noted would become more difficult to manage and maintain as the system continues to age. The legacy system also has limited expansion ability and relies on technology that is outdated and may become unsupported. This option also lacks in security, scalability and overall system management.

Utilize overtime to monitor the building. The camera system is so vital to the daily operation of the jail that when portions of the system are down, additional staff are brought in on overtime to provide the monitoring ability that the cameras provide until the system is operational. Monitoring using personnel is extremely cost prohibitive. A correctional officer currently costs about \$47.50 per hour of overtime on average (including WRS and Social Security) so the money budgeted for this project would purchase about 15,900 hours of overtime.

Ongoing Operating Costs

The on-going costs of the security electronics system will be dependent on the system selected and the maintenance support required by the vendor. However, the consultant noted that 10% of the total cost of the system is an approximate on-going cost of a video system or approximately \$75,000 per year.

Previous Action

Approved as a new project in the 2016-2020 capital plan. Approved as planned in the 2017-2021 capital plan. Approved with a scope and cost update in the 2018-2022 capital plan.

Project Title:	Jail Video Visitation System Replacement	Project #:	201702
Department:	Sheriff's Department	Project Type:	Equipment Replacement
Phase:	Implementation	Sponsor:	Sheriff's Department
Budget Action:	As Planned	Manager:	Mike Biagioli, IT Manager
Date:	August 22, 2018		

CAPITAL BUDGET SUMMARY				
Year	2017	2018	2019	
Project Phase		Design	Implementation	Total Project
Expenditure Budget	\$0	\$75,000	\$450,000	\$525,000
Revenue Budget	\$0	\$75,000	\$450,000	\$525,000
Net Cost After Revenues Applied	\$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 13 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.

This project is timed 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:	Implementation	Sponsor:	Sheriff's Department
Budget Action:	As Planned	Manager:	Mike Biagioli, IT Manager
Date:	August 22, 2018		

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. The department plans to seek bids from providers that can also provide commissary and inmate phone services, which is expected to improve operating efficiency by reducing the number of separate systems used.

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. This project was delayed with a scope and cost update in the 2018-2022 capital plan.

Project Title:	Tax System and Countywide Cashiering Replacement	Project #:	201815
Department:	DOA - Information Technology	Project Type:	Information Technology
Phase:	Implementation	Sponsor:	Andrew Thelke, DOA Business Services and Collections Manager
Budget Action:	As Planned	Manager:	Mike Biagioli, Information Technology Manager
Date:	August 21, 2018		

This project will be partially funded with appropriated Collections Fund Balance, most of which coming from \$280,000 of the remaining funds from the previous cashiering project (#200414) that closed 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 (HIPAA) 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 included in one replacement project.

The alternative would be to revert to multiple receivable systems, a 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 in the 2018-2022 capital plan included the dissolution of capital project 200414 to fund replacement.

Project Title:	Enterprise Content Management	Project #:	200910
Department:	DOA - Information Technology	Project Type:	Information Technology
Phase:	Implementation	Sponsor:	DOA – Information Technology
Budget Action:	C - Scope C - \$ Update	Manager:	Mike Biagioli, Information Technology Mgr.
Date:	August 28, 2018		

CAPITAL BUDGET SUMMARY						
Year	2010	2011	2013	2015	2019	Project Total
Project Phase	Implementation	Implementation	Implementation	Implementation	Implementation	
Expenditure Budget	\$700,000	\$290,000	\$250,000	\$150,000	\$175,000	\$1,565,000
Revenue Budget	<u>\$700,000</u>	<u>\$290,000</u>	<u>\$250,000</u>	<u>\$150,000</u>	<u>\$175,000</u>	<u>\$1,565,000</u>
Net Cost After Revenues Applied	\$0	\$0	\$0	\$0	\$0	\$0
Cost Documentation		Revenue				
Contract Services	\$516,700	End User Technology				\$1,565,000
Training	\$8,300	Fund Balance				
Hardware	\$649,000					
Software	\$304,000					
Project Contingency	\$87,000					
Total Project Cost	\$1,565,000	Total Revenue				\$1,565,000
Total Project Cost	\$1,565,000	Revenue Budget				\$1,565,000

Project Scope & Description

The project funds replacement of the County’s document management system, and implementation of content management systems to improve efficiency, access and amount of content under standardized information management. To accomplish these goals, the project focuses on improvements to business processes through the application of Enterprise Content Management (ECM) toolsets and the appropriate deployment of application and storage solutions whether they be on-premise or cloud based.

To date the project has successfully replaced the optical scanning environment and storage repository with a Microsoft SharePoint solution that fulfills the write-once read-many requirement, but also allows for deletion of these records as the file retention “end of life” date is reached.

The SharePoint solution combined with proactive policy development and training has also created an environment where content repositories are developed with policy-driven, user-controlled management tools. This environment automates the retention and disposition of electronic records, utilizing the County’s records retention schedule, facilitates record destruction based on scheduled retention, suspends destruction for “legal holds,” and provides end-user tools that simplify the retention and retrieval process.

To effectively develop enterprise wide solutions and manage the unstructured content of legacy file shares, the 2018 and 2019 efforts focus on the replacement of the content capture tool and the selection of a data access governance tool to analyze content, remediate risk and establish base line standards for storage and retention.

- A 2013 budget adjustment of \$250,000 was made to allow for departments to contract for assistance in file conversion if needed to assist moving current documents to the new environment or develop departmental workflows. This effort continues, with added emphasis on the identification, mitigation, and remediation of legacy unstructured content such as file shares and email. Content capture tools will also be developed to allow end users to more easily use the SharePoint environment and/or manage content within a Line of Business Application or alternative content repository.
- A 2015 budget adjustment of \$150,000 was made to accommodate hardware/storage requirements and to address licensing required to make the SharePoint environment available to our citizens and customers. This effort continues with added emphasis on evaluating cloud-based solutions to enhance applications and provide options for mitigating risk.

Project Title:	Enterprise Content Management	Project #:	200910
Department:	DOA - Information Technology	Project Type:	Information Technology
Phase:	Implementation	Sponsor:	DOA – Information Technology
Budget Action:	C - Scope C - \$ Update	Manager:	Mike Biagioli, Information Technology Mgr.
Date:	August 28, 2018		

- A 2019 addition of \$175,000 funds the development of a long-term cloud and on-premise technology strategy to increase value, business continuity/recoverability, and to reduce risk. The 2019 focus is on the implementation of Cloud Study recommendations to migrate selected applications and develop a decision model to assess service providers and applications for cloud provisioning. Metrics will evaluate costs and application performance against customer requirements and business value.

Locations

All County departments.

Analysis of Need

1. The growing concern around the cost associated with e-Discovery, as well as the potential financial exposure for the County if a discovery request is mishandled, makes this project a high-priority effort. Records management responsibilities, as it relates to the protection and non-disclosure of health and other protected information, makes an automated records management environment the most cost efficient and effective method for satisfying this requirement. This project will also greatly reduce the countless hours of staff time required to review electronic records to satisfy open records requests, by providing the ability to search electronic documents by selected key words or streams of characters and returning only those electronic documents that match that criteria.
2. The costs associated with system recovery and the rebuilding of the email environment need to be reduced. This is one major way to accomplish that goal.
3. Reducing our “foot print” for paper records retention will maximize space utilization for paper records retention, reduce the cost of retrieval for these documents, while allowing for greater availability, by the public, to documents retained by the county. Additionally, removing redundant and obsolete digital content will lessen the County’s overall digital footprint, decreasing costs related to storage and recovery and reducing the liability associated with data loss.
4. Application and system vendors are moving toward cloud-centric strategies. To make sound decisions in the areas of information security and financial management the County must develop cloud expertise and cloud service provider evaluation processes.

Alternatives

The alternative to this project would be to continue using the current technology environment, absorbing costs for open records requests, system rebuilds, e-Discovery requirements, and missing opportunities to enhance service and reduce costs in cases where cloud-based services are more cost effective.

Ongoing Operating Costs / Return on Investment

The End User Technology Fund will incur additional maintenance costs associated with the software and hardware estimated at \$58,000 per year beginning in budget year 2012. The 2019 changes are expected to result in reduced overall costs. However, savings are contingent upon developing an effective cloud strategy. An ROI/TCO (Return of Investment/Total Cost of Ownership) calculation will be completed for each application prior to migration. A 2018 benchmark will be established as part of 2018 Phase I Cloud Study completion (4th Quarter 2018). Not all cloud application migration will result in initial savings, but operational flexibility and added features should increase overall efficiency in the related department programs.

Previous Action

- 2009-2013 capital plan: approved as a new project.
- 2010-2014 capital plan: approved as planned.
- 2011-2015 capital plan: Approved with a change in scope.
- 2012-2016 capital plan: approved as planned.
- 2013-2017, 2014-2018 capital plans: approved with change in scope and budget.
- 2015-2019 capital plan: approved with revenue update.

DELETE PROJECT

Project Title:	IntelliTime: Dynamic Scheduling	Project #:	201812
Department:	DOA - Information Technology	Project Type:	Information Technology
Phase:		Sponsor:	Larry Dahl, Accounting Services Manager
Budget Action:	Delete	Manager:	Mike Biagioli, Information Technology Manager
Date:	August 21, 2018		

CAPITAL BUDGET SUMMARY						
Year	2018	2019	2020	2021	2022	Total
Project Phase	Budget & Concept	Implementation				Project
Expenditure Budget	\$50,000	\$170,000	\$0	\$0	\$0	\$220,000
Revenue Budget	<u>\$17,000</u>	<u>\$58,000</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$75,000</u>
Net Cost After Revenues Applied	\$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	<u>\$20,000</u>		(For Jail Portion of Project)			
Total Project Cost	\$220,000		Total Revenue			\$75,000
EXPENDITURE BUDGET	\$220,000		REVENUE BUDGET			\$75,000

After continued review and discussion of business requirements for all three entities (Jail Division, Clerk of Courts, and Health and Human Services – Mental Health Center (MHC)), it has been decided to delete this project. The Jail Division plans to pursue an alternative solution through an upgrade with its existing scheduling software provider, InTime (cloud version), funded through its operating budget. The InTime alternative is also being considered for the Clerk of Courts and MHC operations, as well as County Dispatch, as a potential solution. Jail assessment revenue budgeted for the Jail portion of this project will be returned to reserved General Fund balance.

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: Approved as a new project in the 2018-2022 capital plan.

D1 - Foti	AYE	D14 - Wood	AYE
D2 - Zimmermann	AYE	D15 - Mitchell	AYE
D3 - Morris	Absent	D16 - Crowley	AYE
D4 - Batzko	AYE	D17 - Paulson	AYE
D5 - Dondlinger	AYE	D18 - Nelson	AYE
D6 - Walz	AYE	D19 - Cummings	AYE
D7 - Grant	AYE	D20 - Schellinger	AYE
D8 - Michalski	AYE	D21 - Gaughan	AYE
D9 - Heinrich	(M) AYE	D22 - Wysocki	AYE
D10 - Swan	AYE	D23 - Hammitt	AYE
D11 - Howard	AYE	D24 - Whittow	AYE
D12 - Wolff	(2) AYE	D25 - Johnson	AYE
D13 - Decker	AYE		

173-R-002

Passed (24 Y - 0 N - 1 Absent)

Majority Vote >