Capital Projects

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Mission

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

Policy

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

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

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

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

Financial Summary

	2019 Budget	2020 Budget	2021 Budget	Change from 2020
Expenditures	$25,005,200	$27,794,700	$19,201,900	($8,592,800)
Revenues-Project Specific	$2,148,000	$2,279,800	$3,470,500	$1,190,700
Enterprise Fund Balance (a)	$0	$247,000	$25,000	($222,000)
Internal Service Fund Balance	$175,000	$0	$0	$0
Restricted Special Rev Fund Bal	$0	$0	$0	$0
Net Expenditures	$22,682,200	$25,267,900	$15,706,400	($9,561,500)
Other Financing Sources:				
Investment Earnings	$325,000	$340,000	$120,000	($220,000)
Debt Issue Proceeds	$17,500,000	$18,000,000	$12,000,000	($6,000,000)
Cash Balances from				
Governmental Fund Balance (b)	$1,707,200	$3,707,900	$473,617	($3,234,283)
Other Fund Balance	$175,000	$0	$0	$0
Revenues-General (c)	$1,919,073	$1,864,073	$1,596,856	($267,217)
Tax Levy	**$1,055,927**	**$1,355,927**	**$1,515,927**	**$160,000**
Total Cash Balances	$4,857,200	$6,927,900	$3,586,400	($3,341,500)
Est. Use of Cash Balances as % Of Net Expenditures	21%	27%	23%	

(a) 2021 budgeted use of enterprise fund balance consists of $25,000 of Airport Fund balance for the Airport Terminal and Tower Roof Replacement project (#202101).

(b) 2021 budgeted use of governmental fund balance of $473,617 includes $381,117 of Capital Project Fund balance (including $350,000 of prior-year General Transportation Aid revenues received above budget to be appropriated for the County Highway Repaving Program (#201416) and $92,500 of Tarmann Parkland Acquisition Fund balance budgeted for the Pewaukee Lake Boat Launch project (#202104)).

(c) General revenues include $250,000 of state Shared Revenues, $600,000 of state aid for the personal property tax exemption of computers, $100,000 of state General Transportation Aids, and $646,856 of state personal property aid for the tax exemption of machinery, tools, and patterns not used for manufacturing (beginning in the 2019 budget).

2021 Capital Projects

	2019 Budget	2020 Budget	2021 Budget	20-21 Budget Change
EXPENDITURES				
Justice and Public Safety	$16,205,000	$14,196,000	$2,800,000	($11,396,000)
Health and Human Services	$0	$330,000	$190,000	($140,000)
Parks, Env, Edu & Land Use	$2,510,000	$3,023,800	$4,290,000	$1,266,200
Public Works	$5,740,200	$10,039,900	$11,761,900	$1,722,000
County Wide Technology Projects	$350,000	$0	$0	$0
Est. Financing Costs	$200,000	$205,000	$160,000	($45,000)
Total Gross Capital Expenditures	$25,005,200	$27,794,700	$19,201,900	($8,592,800)
REVENUES-Project Specific				
Local Municipal Share	$0	$695,000	$882,000	$187,000
Donations/Contributions	$0	$699,800	$0	($699,800)
County Highway Improvement Program (CHIP)	$330,000	$330,000	$330,000	$0
CHIP-Discretionary	$291,000	$260,000	$260,000	$0
Federal, State, & Municipal Funding for PLU Projects	$1,127,000	$24,000	$1,798,500	$1,774,500
Community Development Block Grant Funding	$200,000	$71,000	$0	($71,000)
Landfill Siting Revenues	$200,000	$200,000	$200,000	$0
Subtotal: Revenues-Project Specific	$2,148,000	$2,279,800	$3,470,500	$1,190,700
REVENUES-General				
State Shared Revenue/Utility Payment	$250,000	$250,000	$250,000	$0
State Aid for Computer Equipment Property Tax Exemption	$600,000	$600,000	$600,000	$0
State General Transportation Aids	$325,000	$270,000	$100,000	($170,000)
State Aid for Tax Exempt Machinery, Tools, & Patterns (Non-Mfg)	$744,073	$744,073	$646,856	($97,217)
Subtotal: Revenues-General	$1,919,073	$1,864,073	$1,596,856	($267,217)
FUND BALANCE APPROPRIATIONS:				
Airport Fund	$0	$0	$25,000	$25,000
Material Recycling Facility Fund Balance	$0	$247,000	$0	($247,000)
Subtotal: Enterprise Fund Balance	$0	$247,000	$25,000	($222,000)
End User Technology Fund Balance	$175,000	$0	$0	$0
Subtotal: Internal Service Funds	$175,000	$0	$0	$0
Collections Fund Balance	$0	$0	$0	$0
End User Technology Fund Balance	$175,000	$0	$0	$0
Central Fleet Fund Balance	$0	$0	$0	$0
Subtotal: Other Fund Balances Used for Countywide Projects	$175,000	$0	$0	$0
General Fund Balance		$350,000	$0	($350,000)
Gen Fund - Assigned: Jail Assessment Revenue Reserves	$1,505,000	$496,000	$0	($496,000)
Capital Project Funds Assigned	$152,200	$2,611,900	$381,117	($2,230,783)
Tarmann Parkland Acquisition Fund Balance	$50,000	$250,000	$92,500	($157,500)
Subtotal: Cash Balances from Governmental Fund Balance	$1,707,200	$3,707,900	$473,617	($3,234,283)
Total Fund Balance Uses For Capital Projects	$2,057,200	$3,954,900	$498,617	($3,456,283)
Investment Earnings	$325,000	$340,000	$120,000	($220,000)
Debt Proceeds	$17,500,000	$18,000,000	$12,000,000	($6,000,000)
Tax Levy	$1,055,927	$1,355,927	$1,515,927	$160,000

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Pg #	PROJECT TITLE	Project Number	2021 Project Budget	Fund Balance & Revenue Applied		Net $'s Needed After Revenues Applied
	PUBLIC WORKS - AIRPORT					
476	AIRPORT TERMINAL AND TOWER ROOF REPLACEMENT	202101	$25,000	$25,000	(a)	$0
	PUBLIC WORKS - CENTRAL FLEET					
477	FUEL TANK REPLACEMENT AND INFRASTRUCTURE	201415	$200,000			$200,000
	PUBLIC WORKS - BUILDINGS					
478	COURTHOUSE PROJ-SECURE COURTROOM CONSTRUCTION	201418	$1,600,000			$1,600,000
480	COURTHOUSE PROJ STEP 2 - RENOVATE 1959 COURTHOUSE	201705	$1,200,000			$1,200,000
	PUBLIC WORKS - HIGHWAYS					
482	CTH I, FOX RIVER BRIDGE	201601	$103,000			$103,000
483	CTH D, CALHOUN RD TO 124TH ST REHAB	201706	$506,000			$506,000
484	CTH B, MORGAN ROAD INTERSECTION	202009	$48,000			$48,000
485	CTH D, CTH E INTERSECTION	202010	$8,000			$8,000
486	CTH X, WEST HIGH DRIVE INTERSECTION	202012	$253,000			$253,000
487	CTH M, CALHOUN RD TO EAST COUNTY LINE	201008	$4,890,000	$867,000	(b)	$4,023,000
488	CTH YY, UNDERWOOD CREEK STRUCTURE	201302	$369,000			$369,000
489	CTH C, HASSLINGER DRIVE INTERSECTION	201611	$74,800			$74,800
490	CTH F, NORTHBOUND BRIDGE AT GREEN ROAD	201801	$20,000			$20,000
491	CTH T, NORTHVIEW ROAD TO I-94 REHABILITATION	201805	$47,900			$47,900
492	CTH O, CTH I TO CTH ES	201610	$190,000			$190,000
493	CTH O, CTH ES TO CTH D REHABILITATION	201803	$112,200			$112,200
494	CTH F, LINDSAY ROAD INTERSECTION	202105	$15,000	$15,000	(c)	$0
495	BRIDGE AID PROGRAM 2018 - 2022	201701	$100,000			$100,000
496	CULVERT REPLACEMENT PROGRAM 2018-2022	201618	$100,000			$100,000
497	REPAVING PROGRAM 2018-2022	201416	$4,700,000	$1,040,000	(d)	$3,660,000

(a) Airport Fund balance
(b) Municipal local share
(c) Municipal local share
(d) Includes state County Highway Improvement Program (CHIP) funding of $330,000, CHIP-Discretionary funding of $260,000, state General Transportation Aid (GTA) revenue of $100,000, and prior-year GTA revenues received above budget (Capital Project Fund Balance) of $350,000

Pg #	PROJECT TITLE	Project Number	2021 Project Budget	Fund Balance & Revenue Applied		Net $'s Needed After Revenues Applied
	PARKS AND LAND USE					
498	PEWAUKEE TO BROOKFIELD TRAIL	201807	$1,900,000	$1,706,000	(e)	$194,000
499	EXPO ARENA FURNACE/MECHANICAL SYSTEMS	202006	$1,305,000			$1,305,000
500	PEWAUKEE LAKE BOAT LAUNCH RECONSTRUCTION	202104	$185,000	$185,000	(f)	$0
501	PAVEMENT MANAGEMENT PLAN 2018 - 2022	201406	$900,000	$200,000	(g)	$700,000
	HEALTH AND HUMAN SERVICES TECHNOLOGY PROJECTS					
502	HHS ELECTRONIC MEDICAL RECORD MODULE IMPRVMENTS	202014	$190,000			$190,000
	COUNTYWIDE TECHNOLOGY PROJECTS					
503	HRIS / PAYROLL SYSTEM IMPLEMENTATION	201617	$0		(h)	$0
	EST. FINANCING OF BORROWING ISSUE (Includes Discount)	999999	$160,000	$0		$160,000
	TOTAL EXPENDITURES/Fund Balance & Revenues Applied/Net $ Needed		$19,201,900	$4,038,000		$15,163,900

ADDITIONAL REVENUES & FUND BALANCE-GENERALLY APPLIED		
STATE COMPUTER EQUIPMENT EXEMPTION	$600,000	
STATE SHARED REVENUE/UTILITY PAYMENT	$250,000	
STATE PERSONAL PROPERTY AID FOR EXEMPT MACHINE, TOOLS, & PATTERNS (NON-MFG)	$646,856	
CAPITAL PROJECT FUND BALANCE (i)	$31,117	
DEBT ISSUE PROCEEDS	$12,000,000	
INVESTMENT INCOME EARNED ON DEBT ISSUE	$120,000	
TOTAL FROM OTHER FUNDING SOURCES		$13,647,973
TAX LEVY		$1,515,927

(e) Includes WI Department of Transportation through the Federal Transportation Alternatives Program (TAP) Grant and WI Department of Natural Resources funding
(f) Includes WI Department of Natural Resources funding of $92,500 and Tarmann Parkland Acquisition Fund balance of $92,500 for the county's share
(g) Landfill siting revenues
(h) Budget action requested is a change in scope, and no additional funding is requested
(i) Does not include $350,000 of prior-year General Transportation Aid revenues received above budget and appropriated for the county highway repaving program (see footnote (d) on previous page)

GENERAL SUMMARY
Capital project expenditures in 2021 decrease about $8.6 million from the 2020 Adopted Budget to $19.2 million. Changes are identified by functional areas below.

Justice and Public Safety
Projects in this functional area total about $2.8 million, which is a decrease of $11.4 million from the prior-year budget. The 2021 budget includes $1.6 million to finish the first phase of a two-phase project to modernize and expand the courthouse. The first phase entails the construction of eight new secure courtrooms to be located adjacent to jail facilities and will feature improved security, prisoner transport, and public access. Construction is expected to be completed by June 2021. The 2021 budget also includes funding of $1.2 million to begin the concept and design for phase two of the courthouse renovation project. Phase two entails the renovation of the existing courthouse building to include installation of new state of the art mechanical, electrical, fire protection, window systems, and new wall, floor, and ceiling finishes in all renovated areas.

Health and Human Services
The budget includes $190,000 in 2021 to fund the public health module replacement of the Health and Human Services Department's electronic medical records system. This project will provide a new, industry-standard billing module to promote efficiencies by eliminating workaround business processes (for example, clinical and billing staff time on progress notes; case management billing pre-verification; remittance and reconciliation; maintaining multiple databases, spreadsheets, paper inventory; and duplication of time and effort). The current Public Health Division's electronic medical record module is being de-supported.

Parks, Environment, Education and Land Use
Projects in this functional area total about $4.3 million, an increase of $1.3 million from the 2020 budget. Maintenance of existing facilities includes $900,000 for the parks pavement management plan. The budget includes $1.9 million for the construction phase of a project to build a 3.5-mile trail from the city of Pewaukee, to a proposed trailhead near the intersection of River Road and Brookfield Road in the city of Brookfield. The budget includes $1.3 million for the installation phase of a project to replace aging furnace and mechanical systems at the Expo Center's Arena building. The budget also includes $185,000 for the reconstruction of the largest public boat launch on Pewaukee Lake. The county will contribute half of the costs ($92,500) and a Wisconsin Department of Natural Resources (WDNR) Recreational Boat Grant will fund the other half.

Public Works
Project expenditures in the public works functional area total $11.8 million, an increase of $1.7 million from the 2020 budget. County dollars leverage an additional $4.7 million of state/federal funds for highway projects. Projects include buildings, highways and the airport as follows:

Buildings/Land Improvements
The major focus for building improvements in the five-year capital plan is the two-phase project to upgrade and modernize the county courthouse (discussed previously under the Justice and Public Safety functional area). The 2021 budget includes $200,000 as part of a multiple-year project to replace county fuel tanks when needed.

Highways
The 2021 capital budget for roadways continues priorities established in four categories and includes projects in all categories to provide a balanced plan. Projects and funding priorities are identified below.

Repaving
A funding level of $4.7 million is budgeted for the annual County Trunk Highway (CTH) Repaving Program. In addition, the budget includes $190,000 for the design/land acquisition phase of a project to rehabilitate CTH O (Moorland Road), from CTH I (Beloit Road) to CTH ES (National Avenue) in the city of New Berlin (construction in 2023). The design phase for a project to rehabilitate Moorland Road from National Avenue to CTH D (Cleveland Avenue) in the city of New Berlin is funded at $112,000 (construction in 2024). A project to rehabilitate CTH D, Calhoun Road to 124th Street in the city of New Berlin is funded at $506,000 for the construction phase. Funding in the amount of $48,000 is budgeted for the design phase of a project to improve the condition of CTH T (Grandview Boulevard), from Northview Road to I-94 in the city of Waukesha (construction in 2023).

Bridges/Culverts
The existing Culvert Replacement Program continues with an appropriation of $100,000. The budget funds $103,000 for the construction phase of improvements at the CTH I (River Road) bridge over the Fox River in the village of Waukesha. The land acquisition/utility phase of a project to replace the structure over Underwood Creek at CTH YY (Pilgrim Road) in the city of Brookfield is budgeted at $369,000 (construction in 2022). The

design/land acquisition phase of a bridge rehabilitation project at northbound CTH F (Redford Boulevard) and Green Road in the city of Pewaukee is budgeted at $20,000 (construction in 2023).

Signal & Safety Improvements
Decisions to initiate signal and safety spot improvements are based on safety, traffic congestion, and roadway safety audits to identify the use of lower-cost remediation strategies. The land acquisition phase is funded with $48,000 for the CTH B (Valley Road) and Morgan Road intersection in the village of Summit and city of Oconomowoc (construction in 2022). The design phase of a realignment project at CTH D (Wern Way) and CTH E (Tomlin Road) intersection in the town of Genesee is budgeted at $8,000 (construction in 2023). The construction phase of a signal installation project at CTH X (Saylesville Road) and West High Drive in the city of Waukesha is budgeted at $253,000. The construction phase for the CTH C (Kettle Moraine Drive) at Hasslinger Drive intersection improvement project in the town of Merton and the village of Chenequa is budgeted at $74,800. The design phase for a project at the intersection of CTH F (Redford Boulevard) and Lindsay Road in the city of Pewaukee is budgeted at $15,000 (construction in 2023).

Priority Corridors
The budget includes about $4.9 million to finish the widening of about three miles of CTH M (North Avenue) from Calhoun Road to the East County Line (124th Street) in the city of Brookfield and village of Elm Grove.

County Wide Technology Investments
The budget includes a scope change request (no additional funds are requested) for the Human Resources Information System/Payroll System Implementation project. The project vendor was acquired by another company, and due to the acquisition, the Department of Administration team is working to transition to a new supported platform by the new vendor.

Project Revenue Funding
Revenues and various fund balance appropriations for project funding decrease by about $2.8 million to $5.9 million for the 2021 Budget.

Project specific revenues increase by $1.2 million to $3.5 million. This budget increase includes $882,000 in local municipal revenues, including $867,000 from the city of Brookfield for their share of amenities as part of the project to widen CTH M (North Avenue) from Calhoun Road to the east county line (124th Street) and $15,000 from the city of Pewaukee to cover the design costs for the CTH F (Redford Boulevard) at Lindsay Road intersection improvements. The budget also includes $1.5 million in Federal Transportation Alternatives Program (TAP) Grant funding administered through the Wisconsin Department of Transportation (WisDOT) and $250,000 of Wisconsin Department of Natural Resources (DNR) Stewardship Grant funding to construct the 3.5-mile trail between the cities of Brookfield and Pewaukee.

The budget also includes state County Highway Improvement Program (CHIP) funding of $330,000 and CHIP-Discretionary funding of $260,000 to help fund the County Highway Repaving Program. The Parks and Land Use Repaving Program includes $200,000 of landfill siting revenue to fund the repavement of park roads and pavement around county facilities. The Pewaukee Boat Launch Reconstruction project includes $92,500 in Wisconsin Department of Natural Resources Recreational Boat Grant funding.

Current Funding Sources
The budget includes $600,000 in state aid for tax-exempt computer property and $250,000 of state Shared Revenues. State personal property aid for the tax exemption of machinery, tools, and patterns (not used in manufacturing) is budgeted at $646,856. The budget also includes $100,000 of state General Transportation Aid revenues, which are used to fund the County Highway Repaving Program.

Use of fund balances in 2021 totals $498,600, which is a decrease of $3.5 million from the 2020 budget. **Airport Fund** balance is budgeted at $25,000 to fund the airport terminal and tower roof replacement project. **Tarmann Parkland Acquisition Fund balance** is budgeted at $92,500 to provide the 50 percent match to the Wisconsin Department of Natural Resources Recreational Boat Grant for the Pewaukee Lake Boat Launch project. **Capital Project Fund Balance** of $381,117 is budgeted in 2021.

Borrowed funds are budgeted at $12.0 million, which is $6,000,000 lower than in 2020. Investment income is budgeted at $120,000. This is a decrease of $220,000 from the 2020 budget. Property tax levy funding increases $160,000 to $1,515,927. Tax levy, the use of governmental fund balance, and other revenues generates the county's "down payment" at 23% of net capital expenditures, above the policy target of 20%.

OPERATING IMPACTS BY FUNCTIONAL AREA

Justice and Public Safety/Public Works

Regarding the Courthouse Project: 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.

Step 1 of this project will demolish approximately 52,000 square feet of space for the previous intake court and 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 $4,000. 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 annually when the tower is fully operational. These additional expenses will likely be realized in 2022. Until the tower is fully operational, in-house staff will provide the housekeeping services. Future 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 is not budgeted to increase in 2021. Additional in-house maintenance/repair work is expected to be absorbed within the division's existing staffing levels.

Step 2 of this project will renovate the existing courthouse building to enhance security at the courthouse; upgrade the fire protection system; install staff and public announcement systems to provide notifications during emergencies; and redesign the security entrance to improve the flow of courthouse visitors. The renovation will also include the installation of state of the art mechanical, electrical, plumbing, and window systems; and new wall, floor, and ceiling finishes in all renovated areas. This new project is expected to reduce energy consumption through the installation of energy efficient equipment, systems, and windows. Consolidating office space and moving department operations closer together are expected to improve operational efficiency.

Health and Human Services

The project to replace the public health module for the Department of Health and Human Services is expected to promote efficiencies by eliminating workaround business processes: clinical and billing staff time on progress notes; case management billing pre-verification; remittance and reconciliation; maintaining multiple databases, spreadsheets, and paper inventory; and duplication of time and effort. The ongoing costs for the new module are expected to be a net increase of about $7,000 from the existing module.

Public Works - Highways

Annual operating costs for additional lane miles are estimated at approximately $6,200 per lane mile. The county's goal is to maintain or improve the current overall pavement condition index (1-100 scale) for county highways, which was estimated at 62 in 2019. Regarding bridges, the county follows Wisconsin Department of Transportation guidelines for bridge replacement. Structure rehabilitation is warranted when the sufficiency number drops below 80, and a structure replacement is warranted when the sufficiency number drops below 50. The Highway Engineering Division continues to work to maintain an average sufficiency index rating of 80 or higher for all county bridges. The overall bridge sufficiency index for 2019 was 86.

Project Title:	Airport Terminal and Tower Roof Replacement	**Project #:**	202101
Department:	Public Works - Airport	**Project Type:**	Roof Replacement
Phase:	Preliminary Design	**Sponsor:**	Public Works
Budget Action:	New	**Manager:**	Allison Bussler
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2020	2021	2022	2023	2024	Total
Project Phase	Budget & Concept, Design		Construction			Project
Expenditure Budget	$0	$25,000	$242,500	$0	$0	$267,500
Revenue Budget	$0	$25,000	$242,500	$0	$0	$267,500
Net Costs After Revenues Applied	$0	$0	$0	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Architect	$25,000	Airport Fund Balance	$267,500
Construction	$225,000		
Contingency	$17,500		
Total Project Cost	$267,500	Total Revenue	$267,500
EXPENDITURE BUDGET	$267,500	**REVENUE BUDGET**	$267,500

Project Scope & Description
This Project is to replace 10,600 GSF (gross square feet) of 60 mil EPDM (rubber) roofing on the Airport Terminal building and 500 GSF of 60 mil EPDM roofing on the Airport Control Tower building.

Locations
2525 Airport Drive, Waukesha, WI 53188

Analysis of Need
The Airport Terminal was constructed 1998 and the control tower in 1995 and both have the original roofing systems. EPDM roofs are typically under warranty for 15 years and have a useful life expectancy between 15 and 20 years. The terminal roof is 22 years old and the tower roof is 25 years old and both have been patched and deteriorated due to sun exposure. At time of replacement the roofs will be 23 and 26 years old.

Alternatives
Patch the roof when leaks develop.

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

Previous Action
None

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:	C - Scope	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

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	$400,000	$0	$0	$0	$0	$0	$0	$400,000
Net County Cost After Revenues Applied	$0	$200,000	$200,000	$200,000	$200,000	$200,000	$100,000	$1,100,000

COST DOCUMENTATION

Item	Quantity	Price	Total Cost
Underground Tank Testing	5	$4,000	$20,000
Underground Tanks*	5	$150,000	$750,000
Above Ground Tanks*	23	$13,800	$317,400
Monitors	5	$20,000	$100,000
Card Readers	16	$15,000	$240,000
Fuel Software Systems	1	$40,000	$40,000
Signage/Fencing ($5,000) and Contingency ($27,600)	All Sites		$32,600
EXPENDITURE BUDGET			$1,500,000

REVENUE

Central Fleet Fund Balance	$400,000
Total Revenue	$400,000
REVENUE BUDGET	$400,000

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

Project Scope & Description: There are 15 vehicle fuel sites utilized by Waukesha County departments with a total of 28 tanks (five underground, and 23 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 23 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 2018-2019 is the replacement of the aging software system and card readers. Tank inspections will be implemented when monitoring systems indicate they are warranted and replacement is likely in the near future.

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.

Update 2020: Fleet management division will be replacing the aging above ground diesel tank at Sussex with a combination unleaded/ diesel above ground tank which aligns with other main county substations. The Wanaki Golf Course was sold in 2020 and the two above ground tanks at that golf course will no longer be replaced. The number of above ground tanks is reduced from 25 to 23. And the number of fuel sites is reduced from 16 to 15.

Location: All 15 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, 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 15 of the vehicle fuel sites. The funding is contained within the Central Fleet Division's fuel budget. An additional $2,500 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. Approved as planned in the 2019-2023 capital plan. Approved as planned in the 2020 – 2024 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:	C - $ Update	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

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	$1,600,000	$37,500,000
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	$1,600,000	$36,700,000

COST DOCUMENTATION		**REVENUE**	
Design	$2,275,000	Jail Assessment Fund Balance Reserves	$300,000
Construction Management	$2,275,000		
Construction	$31,550,000	Capital Project Fund Balance	$500,000
Contingency	$1,400,000		
Total Project Cost	$37,500,000	Total Revenue	$800,000
EXPENDITURE BUDGET	$37,500,000	**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 multi-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 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 phases of work that are part of step 2.

Project Title:	Courthouse Project – Secure Courtroom Construction	Project #:	201418
Department:	Public Works - Buildings	Project Type:	New Building
Phase:	Construction	Sponsor:	Public Works
Budget Action:	C - $ Update	Manager:	Allison Bussler, DPW Director
Date:	December 4, 2020		

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.

Update: The expenditure budget in 2021 has been reduced by $1,000,000 to reflect actual expenses as the project nears completion.

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. Approved as planned in the 2019-2023 capital plan. All phases included committee review meetings open to the public. Approved as planned in the 2020 – 2024 capital plan.

Project Title:	Courthouse Project Step 2 – Renovate 1959 Courthouse	**Project #:**	201705
Department:	Public Works - Buildings	**Project Type:**	Renovation/Upgrade
Phase:	Preliminary Design	**Sponsor:**	Public Works
Budget Action:	As Planned	**Manager:**	Allison Bussler
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2021	2022	2023	2024	2025	2026	Total
Project Phase	Budget & Concept	Design & Construction	Construction	Construction	Construction	Construction	Project
Expenditure Budget	$1,200,000	$8,000,000	$12,400,000	$12,350,000	$12,350,000	$12,300,000	$58,600,000
Revenue Budget	$0	$0	$0	$0	$0	$0	$0
Net Cost After Revenues Applied	$1,200,000	$8,000,000	$12,400,000	$12,350,000	$12,350,000	$12,300,000	$58,600,000

COST DOCUMENTATION		**REVENUE**	
Architect	$4,578,000		
Construction Management	$4,578,000		
Construction	$45,780,000		
Contingency	$3,664,000		
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.

This project will enhance security at the courthouse by improving video surveillance; upgrading fire protection; installing staff and public announcement systems to provide notifications during emergencies; and redesigning 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 multi-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:	Preliminary Design	Sponsor:	Public Works
Budget Action:	As Planned	Manager:	Allison Bussler
Date:	December 4, 2020		

The project cost for step 1 is estimated at $37.5 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 process for the remaining 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 (Project 201418): Approved as a new capital project in the 2014-2018 capital plan. Approved as planned in the 2015-2019, 2016-2020, 2017-2021 capital plans. Approved with a cost and revenue update in the 2018-2022 capital plan. Approved as planned in the 2019-2023 and 2020-2024 capital plans.
- Step 2: Approved as a new project in the 2017-2021 capital plan. Approved as planned in the 2018-2022 and 2019-2023 capital plans. Approved with a schedule update in the 2020-2024 capital plan.

Project Title:	CTH I, Fox River Bridge	**Project #:**	201601
Department:	Public Works - Highways	**Project Type:**	Bridge
Phase:	Construction	**Road Name:**	River Road
Budget Action:	As Planned	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

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	WisDOT Bridge Aid	$426,000
Design	$71,000		
State review for Design	$18,000		
Land Acquisition	$0		
Construction	$472,000		
Construction Management	$42,000		
Contingency	$15,000		
Total Project Cost	$624,000	Total Revenue	$426,000
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 WisDOT that recommends deck replacement. Waukesha County amended a 2017 application for federal bridge aid to be consistent with the approved bridge rehabilitation report. This was a change in scope from superstructure replacement, which was the recommended rehabilitation alternative in 2017. Waukesha County applied for federal bridge aid, and in May 2018 WisDOT approved the county's application. An agreement with WisDOT was executed in February 2019 authorizing $426,000 in Bridge Aid funding toward the project, which was $12,000 more than previously anticipated. This is offset by an increase in overall costs of $12,000 resulting in no change in net county costs. In June 2019 the project was approved for participation in WisDOT's new "Low Risk Pilot Program" using state rather than federal funds in construction. The Low Risk Pilot Program allows for a streamlined and accelerated design process. Success of this pilot program may lead to improvements in the Local Bridge Program that result in time savings and cost savings.

Location: Village 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 75.4, 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 2017 traffic volume on this roadway segment was 2,300 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.
- Approved with scope change and cost/revenue update in the 2019-2023 capital plan.
- Approved with cost and revenue update in the 2020-2024 capital plan.

Project Title:	CTH D, Calhoun Road to 124th Street Rehab	**Project #:**	201706
Department:	Public Works - Highways	**Project Type:**	Rehabilitation
Phase:	Construction	**Road Name:**	Cleveland Avenue
Budget Action:	As Planned	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

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 Program (STP) Funding	$2,287,000
WisDOT Design Review	$68,000		
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 Road 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 was previously 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-feet high roadway embankment. The two original barrels are rusting through at the normal water line. The stone masonry headwalls are in poor condition. The riprap ditch at the northeast bridge approach is eroding. The existing structure appears to have adequate hydraulic capacity. The structure sufficiency number is 33.1, which indicates that structure replacement or rehabilitation is warranted according to WisDOT guidelines. The 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. Approved with schedule update in 2019-2023 Capital Plan. Approved as planned in the 2020-2024 Capital Plan.

Project Title:	CTH B, Morgan Rd Intersection	**Project #:**	202009
Department:	Public Works - Highways	**Project Type:**	Spot Improvement
Phase:	Land Acquisition	**Road Name:**	Valley Road
Budget Action:	As Planned	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2020	2021	2022	Total
Project Phase	Design	Land Acq	Construction	Project
Expenditure Budget	$5,000	$48,000	$47,000	$100,000
Revenue Budget	$0	$0	$0	$0
Net Costs After Revenue Applied	$5,000	$48,000	$47,000	$100,000

COST DOCUMENTATION		REVENUE	
Design	$50,000	Federal Highway Safety Improvement Program (HSIP) Funding	$386,000
Land Acquisition	$48,000		
Construction	$346,000		
Construction Management	$22,000		
Contingency	$20,000		
Total Project Cost	$486,000	Total Revenue	$386,000
EXPENDITURE BUDGET	**$100,000**	**REVENUE BUDGET**	**$0**

Project Scope & Description

The purpose of this proposed project is to correct the safety problems along the westbound and eastbound directions of this curved segment of CTH B (Valley Road). Proposed improvements include:

- Realign the Morgan Road intersection approach for providing a perpendicular connection with CTH B near the midpoint of its existing curve. Add a right turn lane and acceleration taper along westbound CTH B at this reconfigured 'T'-intersection.
- Lower the CTH B profile along this highway curve by ~1' - 2' for improving driver sight distance.
- Expand slightly the curve alignment of the westbound CTH B travel lane and adjust its superelevation as part of inserting a new eastbound CTH B left turn lane for Morgan Road.
- Widen the CTH B paved shoulders from 1' to 3' and clear zones along this curve.

Waukesha County was awarded Highway Safety Improvement Program (HSIP) funding for these intersection improvements.

Location

Village of Summit/City of Oconomowoc

Analysis of Need

A CTH B (Valley Road) sharp curve at a Y-intersection with Morgan Road has been the site of a number of run-off-the-road crashes. Westbound CTH B drivers approaching too fast can be misled by the appearance of this intersection's large paved area, so when entering this curve they must react suddenly and can lose vehicle control. Not all turning and other oncoming vehicles at this Y-intersection are visible from along its CTH B curve and from the existing orientation of the Morgan Road approach. This curve has a crash rate of 0.61 per million-vehicles, which is high for an average daily traffic of only ~3,900 vehicles/day. Many of the crashes caused severe injuries.

Alternatives

Improved signing (sharp turn advance warning signs with 20 MPH advisory panels and directional arrow warning) was implemented as a lower cost alternative three years ago. Crashes persist along this short curved segment of CTH B as the signing was not as effective of an option as improving the geometry per the recommended scope.

Ongoing Operating Costs: None

Previous Action:

Approved as new project in the 2020 – 2024 capital plan.

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Project Title:	CTH D, CTH E Intersection	**Project #:**	202010
Department:	Public Works - Highways	**Project Type:**	Spot Improvement
Phase:	Preliminary Design	**Road Name:**	Wern Way & Tomlin Road
Budget Action:	As Planned	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2021	2022	2023	Total
Project Phase	Design	Land Acq	Construction	Project
Expenditure Budget	$8,000	$30,000	$39,000	$77,000
Revenue Budget	$0	$0	$0	$0
Net Costs After Revenues Applied	$8,000	$30,000	$39,000	$77,000

COST DOCUMENTATION		**REVENUE**	
Design	$73,000	Federal Highway Safety Improvement Program (HSIP) Funding	$418,000
Land Acquisition	$30,000		
Construction	$333,000		
Construction Management	$39,000		
Contingency	$20,000		
Total Project Cost	$495,000	Total Revenue	$418,000
EXPENDITURE BUDGET	**$77,000**	**REVENUE BUDGET**	**$0**

Project Scope & Description

The purpose of this proposed project is to correct safety problems at the CTH E (Tomlin Road) / CTH D (Wern Way) intersection. Proposed improvements addressing the conditions described below include:

- Realign ~500' of CTH D so its approaches to this 2-way stop intersection are closer to perpendicular with CTH E.
- Add overhead STOP sign assemblies at the CTH D approaches.

A significantly greater realignment of the CTH D intersection approaches was proposed for HSIP funding by Waukesha County in 2015. WisDOT had agreed with the need for these CTH D realignment intersection improvements, but noted its $913,000 estimated construction cost and real estate requirements were too large. Waukesha County plans to apply for HSIP funding with this reduced scope in 2020. HSIP Funding has been applied for in 2020.

Location

Town of Genesee

Analysis of Need

The angle of the CTH D / CTH E intersection angle is at about 54°/126° for the existing highway alignments, compared to a 90° preferred angle or a 70° - 110° acceptable range.

Fifty-seven (57) collisions were reported at the CTH E / CTH D intersection from 2004 to 2018 where average daily two-way traffic totals 8,400 vehicles/day for a crash rate of 1.240 per million vehicles and has one of the highest collision rates among Waukesha County's rural highway intersections. Sixteen (16) of these collisions had incapacitating or severe injuries during this period. Nearly all of these angle collisions were caused by this intersection's sharp angle which limits CTH D drivers' view of CTH E traffic coming from their right. Trucks turning right from CTH D also may tend to swing wide into opposing CTH E traffic.

Alternatives

Improved signing and striping (additional stop signs, adjusted stop bars and improved ahead warning signs) was implemented as a lower cost alternative in 2015. Crashes persist at the intersection as the signing was not as effective of an option as improving the geometry per the recommended scope.

Changing this intersection to a full-way stop would not be appropriate for the contrasting traffic volumes along CTH E and CTH D. A roundabout would require significantly more right-of-way and higher construction costs for addressing this intersection's prevailing hazard for CTH D cross-traffic.

Ongoing Operating Costs: None

Previous Action:

Approved as new project in 2020 – 2024 capital plan.

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Project Title:	CTH X, West High Drive Intersection	**Project #:**	202012
Department:	Public Works - Highways	**Project Type:**	Spot Improvement
Phase:	Construction	**Road Name:**	Saylesville Road
Budget Action:	As Planned	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY			
Year	2020	2021	Total
Project Phase	Land	Construction	Project
Expenditure Budget	$10,000	$253,000	$263,000
Revenue Budget	$0	$0	$0
Net Costs After Revenues Applied	$10,000	$253,000	$263,000

COST DOCUMENTATION		REVENUE	
Land Acquisition	$10,000		
Construction	$220,000		
Construction Management	$22,000		
Contingency	$11,000		
Total Project Cost	$263,000	Total Revenue	$0
EXPENDITURE BUDGET	**$263,000**	**REVENUE BUDGET**	**$0**

Project Scope & Description

The purpose of this proposed project is to install permanent signal poles and equipment at the CTH X (Saylesville Road) / West High Drive signalized intersection. This existing signalized intersection had been identified by WisDOT during 2012 as one of 5% of local road locations in Wisconsin warranting a local intersection safety evaluation. Proposed improvements include:

- Remove and replace all temporary wood poles, span wires, and signal heads with WisDOT-standard permanent equipment mounted on monotube structures. Re-mount existing video detectors and emergency vehicle pre-empt devices (EVP).
- This intersection's existing controller would serve the new traffic signal. Minor signal operation improvement details also will be implemented, including new clearance intervals, all-red times, minimum gap times, and left and right turn detectors.

Location: City of Waukesha

Analysis of Need: The traffic signal at this 'T'-intersection serving Waukesha West High School was installed with wood poles and span wire during the fall of 2007 following several severe-injury angle collisions. The intersection was installed on temporary poles due to anticipation of future development. The development of 35 homes was anticipated to begin in 2019. The primary access to the subdivision will be located on a local City of Waukesha roadway, not at this intersection. What will be installed at the intersection will be a driveway for a church located adjacent to the proposed subdivision. The church and developer are implementing several infrastructure improvements, including a southbound CTH X right turn lane, a northbound CTH X left turn lane, supplemental signal equipment mounted on the existing wood poles-span wires, and new sidewalks with a CTH X crosswalk added between this new neighborhood and Waukesha West High School. With the development moving forward with a driveway at this intersection, the final configuration of the intersection will be established and permanent signal infrastructure should be implemented.

Alternatives: The alternative is to leave the existing wood poles and temporary signal configuration in place, but at some point this temporary system will need a permanent solution implemented.

Ongoing Operating Costs: Maintaining proper alignment of the vehicle detection video cameras mounted on the wood poles after strong winds and seasonal freeze-thaw conditions is an operational and maintenance challenge. Public complaints about malfunctioning signal operation responses to traffic are frequently received by the Waukesha County DPW. A new permanent signal will alleviate these operational calls and responses.

Previous Action: Approved as new project in 2020 – 2024 capital plan.

Project Title:	CTH M, Calhoun Road to East County Line	**Project #:**	201008
Department:	Public Works - Highways	**Project Type:**	Priority Corridor
Phase:	Construction	**Road Name:**	North Avenue
Budget Action:	C - $ Update, C - Rev Update	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

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	$4,890,000	$13,995,000
Revenue Budget	$0	$0	$0	$445,000	$867,000	$1,312,000
Net Cost After Revenues Applied	$1,098,000	$1,524,000	$2,132,000	$3,906,000	$4,023,000	$12,683,000

COST DOCUMENTATION		**REVENUE**	
Design	$1,900,000	Federal Surface Transportation	$16,110,000
WisDOT Design Review	$200,000	Program - STP Funding	
Land Acquisition	$3,500,000	(Per State Municipal Agreements)	
Construction	$22,140,000		
Construction Management	$1,520,000	Local Municipality	$1,312,000
Contingency	$845,000		
Total Project Cost	$30,105,000	Total Revenue	$17,422,000
EXPENDITURE BUDGET	$13,995,000	**REVENUE BUDGET**	$1,312,000

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 county proposes increasing the project budget by $2,590,000 (net costs to the county of $1,723,000 after additional municipal revenues applied) in 2021. Several reasons for this increase include: During the design phase, WisDOT and the Federal Highway Administration (FHWA) took nearly two years to review the environmental document, leading to a need for accelerated final design and increased costs; WisDOT and Canadian Pacific RR, the entities responsible for designing the railroad crossings/signals, went over their budget; and there were higher costs due to compensable utilities.

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 Southeastern Wisconsin Regional Planning Commission (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, 2019-2023 capital plans: approved with a cost update. 2014-2018, 2015-2019, 2018-2022, 2020-2024 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.

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:	C - Rev Update	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2017	2018	2021	2022	Total
Project Phase	Design	Land	Land/Utility	Construction	Project
Expenditure Budget	$170,000	$179,000	$369,000	$1,115,000	$1,833,000
Revenue Budget	$0	$0	$0	$630,000	$630,000
Net Cost After Revenues Applied	$170,000	$179,000	$369,000	$485,000	$1,203,000

COST DOCUMENTATION		**REVENUE**	
Design	$150,000	State Funds (Multimodal Local Supplement (MLS) Program) (reimbursement funding)	$630,000
Land Acquisition/Utility Relocation	$568,000		
Construction	$969,000		
Construction Management	$107,000		
Contingency	$39,000		
Total Project Cost	$1,833,000	Total Revenue	$630,000
EXPENDITURE BUDGET	$1,833,000	**REVENUE BUDGET**	$630,000

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; the site is adjacent to a city park (Wirth Park); the structure is in close proximity to a public street and park entrance; the 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 is underway, and various alignments of future 4-lane expansion are being considered 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 impact mitigation, removal of existing retaining walls, compensable utility relocation, and changes to roadway vertical alignment. Right-of-way acquisition to the ultimate width of 120 feet is anticipated. Significant additional easements are anticipated. In 2020, Waukesha County applied for WisDOT Multimodal Local Supplement (MLS) program funding on this project. The project has been approved for a total of $630,000 MLS funding (state funds). MLS is a reimbursement program, where Waukesha County will administer project construction.

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 structure inspection reports. 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 2018 was 14,900 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, 2015-2019, 2016-2020, 2017-2021, and 2018-2022 capital plans.
- Approved with delay in the 2019-2023
- Approved with delay and a cost update in the 2020-2024 capital plan.

Project Title:	CTH C, Hasslinger Drive Intersection	**Project #:**	201611
Department:	Public Works - Highways	**Project Type:**	Spot Improvement
Phase:	Construction	**Road Name:**	Kettle Moraine Drive
Budget Action:	C - Rev Update	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2018	2019	2020	2021	Total
Project Phase	Design	Design/Land	Design/Land	Construction	Project
Expenditure Budget	$18,100	$165,000	$82,900	$74,800	$340,800
Revenue Budget	$0	$0	$0	$0	$0
Net Cost After Revenues Applied	$18,100	$165,000	$82,900	$74,800	$340,800

COST DOCUMENTATION		**REVENUE**	
Design	$160,000	Federal Highway Safety	
WisDOT Review	$20,000	Improvement Program (HSIP)	
Land Acquisition	$165,000	Funding - Design	$165,600
Construction	$550,000	HSIP Funding - Construction	$471,600
Construction Management	$55,000		
Contingency	$28,000		
Total Project Cost	$978,000	Total Revenue	$637,200
EXPENDITURE BUDGET	$340,800	**REVENUE BUDGET**	$0

Project Scope & Description

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

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

Waukesha County was originally awarded $404,000 in Federal Highway Safety Improvement Program (HSIP) funding to help fund this project. In fall 2019, Waukesha County applied for additional federal HSIP revenue via WisDOT's change management process. The justification was based on additional public involvement and design effort to develop a design with an alternative access reconfiguration for the side streets. This change management was approved and resulted in an additional $233,200 in HSIP funding for the project.

Location: Town of Merton and Village of Chenequa

Analysis of Need

A sharp curve along CTH C (Kettle Moraine Drive) has an awkwardly configured intersection with a residential street (Hasslinger Drive), a driveway and a private road (Oakland Road). Drivers must react suddenly to the changing curve radii of its existing alignment. This rural highway intersection has among the highest collision rates along Waukesha's County Trunk Highways. There have been twenty-two (22) crashes reported from 2001 through 2017 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. Approved with scope, cost, and revenue updates in the 2019-2023 plan. Delayed with a cost update in the 2020 – 2024 capital plan.

Project Title:	CTH F, N.B. Bridge at Green Road	**Project #:**	201801
Department:	Public Works - Highways	**Project Type:**	Bridge
Phase:	Preliminary Design	**Road Name:**	Redford Blvd.
Budget Action:	C - $ Update C - Rev Update	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

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	$20,000	$0	$128,000	$154,000
Revenue Budget	$0	$0	$0	$0	$0	$0	$0
Net Cost After Revenues Applied	$6,000	$0	$0	$20,000	$0	$128,000	$154,000

COST DOCUMENTATION		**REVENUE**	
Prelim Design	$6,000		
Design	$82,000	Federal Bridge Aid (Anticipated)	$590,000
WisDOT Design Review	$14,000		
Land Acquisition	$0		
Construction	$547,000		
Construction Management	$68,000		
Contingency	$27,000		
Total Project Cost	$744,000	Total Revenue	$590,000
EXPENDITURE BUDGET	$154,000	**REVENUE BUDGET**	$0

Project Scope & Description

This project is a rehabilitation of the northbound (N.B.) CTH F bridge over Green Road. The scope includes concrete overlay of the wearing surface, and repair of the railings and deck edges. Some incidental concrete surface repairs may be appropriate on the slab underside. It is anticipated bridge will be closed during construction with one lane of traffic detoured to adjacent bridge. Right of way acquisition is not anticipated. A bridge rehabilitation report was completed and approved by WisDOT. Total project cost has increased based on bridge rehabilitation report estimate. In 2019, Waukesha County applied for an estimated $590,000 in federal bridge aid on both design and construction phase. In March, 2020 federal funding was approved for this project. Additionally, Waukesha County has applied for participation in the Low Risk Pilot Program, which would use state rather than federal funds and provides for streamlining some project design.

Location

City of Pewaukee

Analysis of Need

The existing bridge (B-67-95) is a three-span haunched slab structure that was constructed in 1966. A concrete overlay was placed on the wearing surface in 1989. The bridge transferred from state to county jurisdiction in 2005. Overall, the slab and substructure are in good to fair condition. A 2018 thermal infrared scan of the wearing surface (concrete overlay) indicates 25.5% delamination or de-bonding. The concrete parapets (railings) exhibit significant cracking, spalling, and deterioration. There is some surface spalling on the slab underside along the edges. The structure sufficiency number is now 62.6. The 2018 traffic volume on the northbound roadway was 12,750 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.
Approved as planned in the 2019-2023 capital plan.
Approved as planned in the 2020-2024 capital plan.

Project Title:	CTH T, Northview Road to I-94 Rehabilitation	**Project #:**	201805
Department:	Public Works - Highways	**Project Type:**	Rehabilitation
Phase:	Preliminary Design	**Road Name:**	Grandview Boulevard
Budget Action:	C - $ Update C - Rev Update	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2021	2022	2023	Total
Project Phase	Design	Design/land	Construction	Project
Expenditure Budget	$47,900	$109,000	$532,100	$689,000
Revenue Budget	$0	$0	$0	$0
Net Cost After Revenues Applied	$47,900	$109,000	$532,100	$689,000

COST DOCUMENTATION		**REVENUE**	
Design	$229,000	Federal Surface Transportation	
WisDOT Design Review	$15,000	Program (STP) Funding - Design	$196,100
Land Acquisition	$109,000	STP Funding - Construction	$1,745,900
Construction	$2,021,000		
Construction Management	$156,000		
Contingency	$101,000		
Total Project Cost	$2,631,000	Total Revenue	$1,942,000
EXPENDITURE BUDGET	$689,000	**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, and storm water improvements. 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 was awarded $1,942,000 in federal STP funds for this project. The county's net share of project costs is increasing by $85,000 due to an updated cost estimate and to achieve the local match requirement needed to accept the federal funds.

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. Approved as planned in the 2019-2023 capital plan. Approved as planned in the 2020-2024 capital plan.

Project Title:	CTH O, CTH I to CTH ES	**Project #:**	201610
Department:	Public Works - Highways	**Project Type:**	Rehabilitation
Phase:	Preliminary Design	**Road Name:**	Moorland Road
Budget Action:	As Planned	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2020	2021	2022	2023	Total
Project Phase	Design	Design/Land		Const	Project
Expenditure Budget	$211,000	$190,000	$0	$2,300,000	$2,701,000
Revenue Budget	$0	$0	$0	$0	$0
Net Costs After Revenues Applied	$211,000	$190,000	$0	$2,300,000	$2,701,000

COST DOCUMENTATION		**REVENUE**	
Design	$1,038,000	Federal Surface Transportation	
WisDOT Design Review	$15,000	Program (STP) Funding - Design	$842,000
Land Acquisition	$950,000	STP Funding - Land	$760,000
Construction	$10,000,000	STP Funding - Construction	$9,200,000
Construction Management	$1,000,000		
Contingency	$500,000		
Total Project Cost	$13,503,000	Total Revenue	$10,802,000
EXPENDITURE BUDGET	$2,701,000	**REVENUE BUDGET**	$0

Project Scope & Description

This 1.4-mile long project involves the rehabilitation 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, land acquisition, and construction. The Department applied for approximately $10.8 million in federal STP funds in 2017, and was awarded $1,602,000 in 2018 for the design and land acquisition phases of the project. The County reapplied for and was approved STP funding for the construction phase. Construction is scheduled for the next federal funding cycle (2023).

Locations: 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 2023. 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 2023, 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 2016-2020 capital plan. Approved with a revenue update in the 2017-2021 capital plan. Approved as planned in the 2018-2022 capital plan. Approved as planned in the 2019-2023 capital plan. Delayed with cost and revenue updates in the 2020-2024 capital plan.

Project Title:	CTH O, CTH ES to CTH D Rehabilitation	**Project #:**	201803
Department:	Public Works - Highways	**Project Type:**	Rehabilitation
Phase:	Preliminary Design	**Road Name:**	Moorland Road
Budget Action:	Accelerate C - $ Update C - Rev Update	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2021	2022	2024	Total
Project Phase	Design	Land Aquis.	Construction	Project
Expenditure Budget	$112,200	$156,600	$1,859,400	$2,128,200
Revenue Budget	$0	$0	$0	$0
Net Cost After Revenues Applied	$112,200	$156,600	$1,859,400	$2,128,200

COST DOCUMENTATION		**REVENUE**	
Design	$585,000	Federal Surface Transportation	
WisDOT Design Review	$15,000	Program (STP) Funding - Design	$487,800
Land Acquisition	$787,000	STP Funding - Real Estate	$630,400
Construction	$6,364,000	STP Funding - Construction	$5,459,200
Construction Management	$636,400		
Contingency	$318,200		
Total Project Cost	$8,705,600	Total Revenue	$6,577,400
EXPENDITURE BUDGET	$2,128,200	**REVENUE BUDGET**	$0

Project Scope & Description

This 1.2-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 and was awarded $6,577,400 in federal STP funds for this project. Last year, construction was pushed out to 2025 to better align with future STP cycles, but due to an above average year of STP awards for Waukesha County, the project can be moved up to 2024 to better align with the overall construction schedule for the corridor. The project costs have been updated to reflect the latest estimate and STP application, reducing the net share of county costs by $487,800.

Location: City of New Berlin

Analysis of Need

The concrete pavement along this portion of Moorland Road (CTH O) is in poor condition; the transverse and longitudinal joints show signs of significant deterioration, and several slabs have failed requiring significant investment in maintenance. The roadway was first built in 1978 and was rehabilitated in 2006. 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. The corridor serves as a major access road 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; approved as planned in the 2019-2023 plan. Delayed with a change of scope and a cost update in the 2020-2024 capital plan. This project initially extended from CTH ES to STH 59 as a single project, but was been split into two projects (see #202013, CTH O, CTH D to STH 59) in the 2020-2024 capital plan.

Project Title:	CTH F at Lindsay Road	**Project #:**	202105
Department:	Public Works - Highways	**Project Type:**	Spot Improvement
Phase:	Formation	**Road Name:**	Redford Blvd & Lindsay Rd
Budget Action:	New	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2020	2021	2022	2023	2024	Total
Project Phase		Design	Design/Land	Const		Project
Expenditure Budget	$0	$15,000	$35,000	$78,000	$0	$128,000
Revenue Budget	$0	$15,000	$35,000	$78,000	$0	$128,000
Net Costs After Revenues Applied	$0	$0	$0	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Design	$135,000	Federal Highway Safety	
WisDOT Design Review	$15,000	Improvement Program (HSIP)	$837,000
Land Acquisition	$35,000	Local Municipality	$128,000
Construction	$690,000		
Construction Management	$45,000		
Contingency	$45,000		
Total Project Cost	$965,000	Total Revenue	$965,000
EXPENDITURE BUDGET	$128,000	**REVENUE BUDGET**	$128,000

Project Scope & Description

The purpose of the proposed project is to correct safety problems at the CTH F (Redford Blvd) and Lindsay Road intersection. The project will modify the existing CTH F/Lindsay Road intersection to a “Restricted Crossing U-Turn Intersection" (RCUT) that prohibits left turns and thru traffic across CTH F from both eastbound and westbound Lindsay Road. This intersection's safety improvement include:

- Add a raised median island on CTH F at the center of intersection only allowing right turns onto CTH F from Linday Road.
- Add raised islands at the approaches to intersection to require Lindsay Road traffic to turn right only onto CTH F.
- Modify the CTH F medians north and south of intersection for accomodating U-turns.
- Modify highway lights at this RCUT intersection.

The City of Pewaukee has requested this project and will partner with Waukesha County, paying the county share of the costs. HSIP funding has been applied for in 2020.

Location: City of Pewaukee

Analysis of Need

The CTH F (Redford Blvd) intersection with Lindsay Road has a high collision rate in the county. Thirty-one (31) crashes were reported here during the past 5.5-years for an intersection crash rate of 310 crashes per 100-million vehicle-miles. Two more collisions have occurred here during July 2020. Ten of these collisions involved severe injuries. The collision rate at this intersection is significantly greater than the statewide average and upper control limits of a multilane highway posted at 55 MPH (above 45 MPH).

There are no highway curves and hills that restrict visibility. CTH F has a 55 MPH posted speed and Lindsay Road has a 35-MPH posted speed. Lindsay Road's 1,400 vehicles per day 2-way traffic volume is growing with local business and residential development. However, this remains significantly less than the 22,500 vehicles per day 2-way traffic along CTH F.

Alternatives: A new traffic signal is not appropriate along CTH F nor is it warranted, based on 5-year collision history and October 2019 traffic counts.

Ongoing Operating Costs: The modified highway lights will be maintained by Waukesha County and there will be utility costs associated with the new modified lighting.

Previous Action: None

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:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year Project Phase	2018	2019	2020	2021	2022	Total 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	$100,000		
Total Project Cost	$500,000	Total Revenue	$0
EXPENDITURE BUDGET	$500,000	**REVENUE BUDGET**	$0

Project Scope & Description

The program provides assistance to municipalities for the replacement of 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.
Approved as planned in the 2019-2023 Capital Plan.
Approved as planned in the 2020-2024 Capital Plan.

Project Title:	Culvert Replacement Program 2018 - 2022	**Project #:**	201618
Department:	Public Works - Highways	**Project Type:**	Bridge
Phase:	Program Project	**Road Name:**	Various
Budget Action:	As Planned	**Manager:**	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year Project Phase	2018	2019	2020	2021	2022	Total 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	$100,000		
Total Project Cost	$500,000	Total Revenue	$0
EXPENDITURE BUDGET	**$500,000**	**REVENUE BUDGET**	**$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, 2018-2022, 2019-2023, and 2020 - 2024 capital plans.

Project Title:	Repaving Program 2018-2022	Project #:	201416
Department:	Public Works - Highways	Project Type:	Repaving
Phase:	Program Project	Road Name:	Various
Budget Action:	C - $ Update C – Rev Update	Manager:	Allison Bussler, DPW Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2018	2019	2020	2021	2022	Total
Project Phase						
Expenditure Budget	$4,450,000	$3,870,000	$2,700,000	$4,700,000	$4,300,000	$20,020,000
Revenue Budget	$559,000	$725,000	$860,000	$1,040,000	$690,000	$3,874,000
Net Costs After Revenues Applied	$3,891,000	$3,145,000	$1,840,000	$3,660,000	$3,610,000	$16,146,000

COST DOCUMENTATION

	Paver Study	Hwy Paving & Shouldering	Total
2018	$50,000	$4,400,000	$4,450,000
2019	$50,000	$3,820,000	$3,870,000
2020	$50,000	$2,650,000	$2,700,000
2021	$50,000	$4,650,000	$4,700,000
2022	$50,000	$4,250,000	$4,300,000
Total Project Cost	$250,000	$19,770,000	$20,020,000
EXPENDITURE BUDGET			$20,020,000

REVENUE

	County Highway Improvement Program (CHIP) and CHIP-D (Discretionary)		General Transportation Aid (GTA)		
	CHIP	CHIP-D	GTA	Donation	Total
2018	$330,000	$229,000	$0	$0	$559,000
2019	$330,000	$0	$325,000	$70,000	$725,000
2020	$330,000	$260,000	$270,000	$0	$860,000
2021	$330,000	$260,000	$450,000 *	$0	$1,040,000
2022	$330,000	$260,000	$100,000	$0	$690,000
Total Revenue	$1,650,000	$1,009,000	$1,145,000	$70,000	$3,874,000
REVENUE BUDGET					$3,874,000

*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 Pubic Work'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. Project funding was accelerated in the 2019-2023 capital plan, moving $1,000,000 from 2020 to 2019, to balance resources in the overall five-year capital plan. The 2021-2025 Capital Plan increases expenses by $500,000 in 2021 to cover repaving needs. Beginning in 2019, a portion of the state's allocation of General Transportation Aid (GTA) revenue is budgeted to cover repaving project expenditures. GTA revenues are reduced in 2021 and 2022 by $100,000 each year due to lower revenues received. Inflation and a reduced number of highway capital projects has caused a gradual reduction in the number of lane miles paved and hence the average pavement condition rating has declined.

During 2019, the budget was amended through an ordinance (173-96), increasing expenditures $70,000 in order to pave a five-foot portion of the shoulders along CTH DR (Golf Road) from the Delafield city limits to Maple Avenue in the town of Delafield. This project is funded with $70,000 of donation revenue.

Location: Various locations throughout the county.

Analysis of Need: The Department of Public Works presently maintains about 400 centerline miles of 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 2019 was 62. 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. Accelerated with cost and revenue updates in the 2019-2023 capital plan. Approved to accept a donation through ordinance (173-96) during 2019. Approved with revenue update in the 2020 – 2024 capital plan.

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Project Title:	Pewaukee to Brookfield Trail	Project #:	201807
Department:	Parks & Land Use	Project Type:	Trail System
Phase:	Construction	Sponsor:	
Budget Action:	C - Scope C - $ Update C – Rev Update	Manager:	Dale Shaver, PLU Director
Date:	December 4, 2020		

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	$1,900,000	$0	$2,200,000
Revenue Budget	$0	$240,000	$0	$1,706,000	$0	$1,946,000
Net Cost After Revenues Applied	$0	$60,000	$0	$194,000	$0	$254,000

COST DOCUMENTATION		REVENUE	
Design	$300,000		
Construction	$1,760,000	Fed/State WisDOT	$1,696,000
Contingency	$140,000	WDNR Stewardship	$250,000
Total Project Cost	$2,200,000	Total Revenue	$1,946,000
EXPENDITURE BUDGET	$2,200,000	**REVENUE BUDGET**	$1,946,000

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 $1,696,000 (80:20 cost share reimbursable program) from the Wisconsin Department of Transportation through the Federal Transportation Alternatives Program (TAP) Grant. Originally the cost for the restoration of a depot building into a trailhead was included in the expenditure and revenue budgets. After the initial capital project was approved, and before the TAP funding was applied for, the City of Brookfield informed the county that they were moving forward with the restoration of the depot before TAP funds would be available for this component of the project. The restoration project costs were removed from the TAP request. The City of Brookfield's contribution to the project no longer appears on the capital form as they agreed to fund 100% of the depot part of the project themselves. The county will fund the rest of the project with county funds and other revenue. Waukesha County applied for a $250,000 State of Wisconsin Department of Natural Resources Stewardship Grant. Waukesha County will fund the remaining costs which will provide the required match for the Stewardship grant. 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. Approved as planned in the 2019-2023 and 2020 - 2024 capital plans.

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Project Title:	Expo Arena Furnace/Mechanical Systems	**Project #:**	202006
Department:	Parks & Land Use	**Project Type:**	Mechanicals/Bldg Systems
Phase:	Construction	**Sponsor:**	
Budget Action:	As Planned	**Manager:**	Dale Shaver, PLU Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2020	2021	2022	2023	2024	Total
Project Phase	Design	Construction				Project
Expenditure Budget	$92,500	$1,305,000	$0	$0	$0	$1,397,500
Revenue Budget	$0	$0	$0	$0	$0	$0
Net Costs After Revenues Applied	$92,500	$1,305,000	$0	$0	$0	$1,397,500

COST DOCUMENTATION		**REVENUE**	
Design/Engineering	$92,500		
Construction	$1,135,000		
Contingency	$170,000		
Total Project Cost	$1,397,500	Total Revenue	$0
EXPENDITURE BUDGET	$1,397,500	**REVENUE BUDGET**	$0

Project Scope & Description

The Waukesha County Exposition Center Arena Building, built in 1972, is a unique oval building with approximately 21,000 square feet of year-round heated and air-conditioned meeting and exhibit space. It features a domed roof, a stage, three meeting rooms, a kitchen, two balconies, staff offices, and a box office. The primary heating and cooling system is original to the building. Now at 47 years of service life, replacement parts are no longer available and, when needed, are custom fabricated. This project will replace the existing estimated 80% efficient heating and air conditioning equipment that serves the main Arena area with a new automated energy efficient system. The new 95% efficient system will implement a hot water boiler plant and two (2) hot water/DX indoor air handling units for heating of the main Arena space, and four (4) roof-mounted air-cooled condensing units mounted on the roof for air conditioning of the space. Heating and cooling of each of the three (3) meeting rooms is currently accomplished with an individual gas-fired furnace in each room, and an individual exterior air-cooled condensing unit. These furnaces would be eliminated, and hot water blower coils that are attached to the main system will provide efficient heat for the meeting rooms, and more efficient air-cooled condensing units will be installed for air conditioning. Ancillary spaces such as vestibules and bathrooms are currently heated by original electric wall heaters. These spaces will also be heated by hot water cabinet heaters that are tied to the main system. To maximize efficiency and temperature control, the hot water boiler plant will use a variable primary pumping system to allow for modulation of the boiler and pumps; each air handling unit will be controlled as single zone variable air volume; and each condensing unit will contain multiple modulating scroll compressors.

Locations: Waukesha County Exposition Center, 1000 Northview Road, Waukesha, WI 53188

Analysis of Need: The Arena is served by two systems, and each consists of a Tjernlund (obsolete product, out-of-business manufacturer) gas-fired heater section and an associated blower section with DX refrigerant cooling coil, with two (2) 30-ton remote condensing units and a centrifugal type return fan. The existing duct systems are run in an inefficient manner, dropping down through the mezzanine floor and then back up into the mezzanine in order to accommodate the undersized equipment rooms. There is currently inadequate access space to remove the existing components in case of failure. The gas fired heater section, blower section, and return fan are also from the original installation of 1972. The gas heater section was 80% efficient when new. The original condensing units were replaced with new units built in 1986. As noted in the 2007 American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Handbook of Applications, the median service life of the fan/air handling unit and air cooled condensing units is 20 years. Although not directly identified, the expected service life of the gas heating section is most likely 20-25 years. This indicates that all of the units are well beyond their useful life span.

Alternatives

1. Install a gas-fired horizontal discharge packaged furnace unit mounted on grade. This approach will require ductwork external to the building, and modifications to the existing parking lot to accommodate construction of an equipment enclosure on the west side of the Arena Building. While a slightly cheaper system, cost savings are nullified by the needed structural modifications and reduced energy efficiency and temperature control flexibility.
2. Continue to operate the existing Expo Arena furnace and mechanical systems. This alternative continues to use custom fabricated replacement parts. In the event of a failure, a temporary heating/cooling system could be connected to the existing ductwork in the building for an estimated cost of $10,000+ per day.

Ongoing Operating Costs: The proposed project will reduce annual energy costs to operate the Expo heating and cooling systems, by an estimated 15-20% per year, an estimated $6,000 per year. Staff time to maintain the equipment will also be significantly reduced, as will costs associated with sourcing and manufacturing custom parts that are required to repair the existing equipment.

Previous Action:
Approved as a new project in the 2020 – 2024 capital plan.

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Project Title:	Pewaukee Lake Boat Launch Reconstruction	**Project #:**	202104
Department:	Parks & Land Use	**Project Type:**	Renovation/Upgrade
Phase:	One-Year Project	**Sponsor:**	
Budget Action:	New	**Manager:**	Dale Shaver, PLU Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2021	2022	2023	2024	2025	Total Project
Project Phase	Const.					
Expenditure Budget	$185,000	$0	$0	$0	$0	$185,000
Revenue Budget	$185,000	$0	$0	$0	$0	$185,000
Net Costs After Revenues Applied	$0	$0	$0	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Design/Engineering	$0		
Construction	$166,500	WDNR Recreational Boating Grant 50/50	$92,500
Contingency	$18,500	Tarmann Fund Balance	$92,500
Total Project Cost	$185,000	Total Revenue	$185,000
EXPENDITURE BUDGET	$185,000	**REVENUE BUDGET**	$185,000

Project Scope & Description

The Pewaukee Lake Access Site, located on the western end of Pewaukee Lake, is the largest public boat launch on 2,493-acre Pewaukee Lake, which is a very popular and busy lake for recreational boating activities, including pleasure boating, skiing/tubing, canoeing and kayaking, and fishing. The launch consistently fills to capacity on ideal weather days from late spring through early fall. This lake access site provides four launch lanes, an asphalt parking lot (for 71 vehicles with trailers and 4 cars for carry-in), and modern toilet facilities. The property was acquired in 1960 and the launch was constructed in 1964. A restroom/vending building was constructed in 2000 and the parking lot was repaved in 2009. Years of extensive launching of recreational boats and commercial barges have had a detrimental impact on the launch ramps, which are now in need of reconstruction.

The current state of the launch ramps requires annual repairs, which have proven to be temporary. The concrete bars that attach together to make up the framework of the ramps are in a state of deterioration. The base gravel continues to wash out of open spaces between the concrete bars, and substantial ice heave has caused buckling and uneven ramp slopes.

The proposed reconstruction will replace the existing 2-feet wide concrete bars with more substantial linked precast concrete panels that are 15 feet wide. These panels will provide a larger surface area to better support the weight of the heavy vehicles and trailers that have done considerable damage to the existing concrete bars, and they will also provide better resistance to ice heave. The existing ramps have a continuous 13% slope, which presents challenges to floating boats off of trailers without requiring tow vehicles to back into the water. The new launch slope will be 10% for the first 15 feet, then 15% for rest of the launch, which is typical of launch construction. This improved slope will facilitate launching and minimize instances of tow vehicles having to back into the water. The project also will include dredging to remove sediment deposits that accumulate at the launch. New decking will be added to the the existing docks to replace composite material decking that has warped over time.

This project is dependent on the award of a WDNR Recreational Boating Facilities Grant that is a 50/50 funding source. The other 50% funding is proposed from the Tarmann Fund balance. The design, construction documents and cost estimate for the project were completed in 2020, and used to develop an accurate project budget.

Location: W305 N2290 Maple Ave, Pewaukee, WI 53072

Analysis of Need: The reconstruction of the boat launch ramps at the Pewaukee Lake Access will maintain boating access and launch safety at this busy launch site.

Alternatives: Annually repair the degrading concrete bars and gravel base course.

Ongoing Operating Costs: Ongoing maintenance will continue to be performed by the Naga-Waukee Park staff. Costs will continue to be offset by sales of annual lake access stickers and daily launch fees, which are required to use the facility.

Previous Action: None

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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 - Scope	**Manager:**	Dale Shaver, PLU Director
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2018	2019	2020	2021	2022	Total
Program Project						Project
Expenditure Budget	$950,000	$1,200,000	$1,000,000	$900,000	$900,000	$4,950,000
Revenue Budget	$150,000	$450,000	$200,000	$200,000	$200,000	$1,200,000
Net Cost After Revenues Applied	$800,000	$750,000	$800,000	$700,000	$700,000	$3,750,000

COST DOCUMENTATION		**REVENUE**	Tarmann Fund Balance	Landfill Siting Revenue	Comm. Develop. Block Grant	Total
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	$900,000	2021	$0	$200,000	$0	$200,000
2022	$900,000	2022	$0	$200,000	$0	$200,000
Total Project Cost	$4,950,000	Total Revenue	$100,000	$900,000	$200,000	$1,200,000
EXPENDITURE BUDGET	**$4,950,000**	**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 2021 and 2022 will be the next phase of pavement improvements at the Expo Center, working toward completion of the work that was initiated at the Expo Center in 2018 and 2019. Other Park System and Government Center projects will be prioritized based on PCI rating, safety and access issues. Also in 2021, the pavement surrounding the Highway Operations Center and four (4) Highway Operations substations will be added to the list of facilities that are evaluated by the pavement management consultant. PCI ratings will be established for the pavement at these facilities, and they will be prioritized and considered for pavement maintenance/reconstruction starting in 2022. $10,000 of the total annual expenditure budget will be reserved for preventative pavement maintenance at the UW-Milwaukee at Waukesha campus, so that pavement reconstruction projects that were undertaken in the 2017-2020 UWW Site Infrastructure Improvements capital project can be properly maintained as needed. Costs are updated to include an additional $100,000 in 2021 and 2022 to reflect additional pavement maintenance needs.

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, Highway Operations Substations, UW-Milwaukee at Waukesha, 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 over 875,000 square yards of paved surface around the Government Center, remote County facilities and the major parks. This represents approximately 3.6 times as much pavement to maintain. In addition, over 65,000 square yards of pavement at the Highway Operations Center and four (4) substations will be added to the list of management responsibilities in 2021. 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 includes 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: 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 and 2019-2023 capital plans. Approved as planned in the 2020 – 2024 capital plan.

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Project Title:	HHS Electronic Medical Record Module Improvements	Project #:	202014
Department:	DOA - Information Technology	Project Type:	Information Technology
Phase:	Implementation	Sponsor:	Health & Human Services
Budget Action:	C - $ Update	Manager:	Donn Hoffmann, IT
Date:	December 4, 2020	Dept Mgr	Randy Setzer, HHS

CAPITAL BUDGET SUMMARY

Year	2020	2021	2022	2023	2024	Total
Project Phase	Design/ Implementation	Implementation				Project
Expenditure Budget	$330,000	$190,000	$0	$0	$0	$520,000
Revenue Budget	$0	$0	$0	$0	$0	$0
Net Costs After Revenues Applied	$330,000	$190,000	$0	$0	$0	$520,000

COST DOCUMENTATION	Clinical Services Module	Public Health Module	Total	REVENUE	
Professional Services & Software	$169,000	$195,000	$364,000		
Recurring Fees	$81,000	$7,000	$88,000		
Contingency	$38,000	$30,000	$68,000		
Total Project Cost	$288,000	$232,000	$520,000	Total Revenue	$0
EXPENDITURE BUDGET			**$520,000**	**REVENUE BUDGET**	**$0**

Project Scope & Description

The Health and Human Services Department uses an electronic health record system, that includes several modules among HHS divisions. This capital project is intended to: (1) Implement a new software solution in the Clinical Services division to improve the tracking, management, and documentation of health claims across third-party care providers, and (2) Replace the current Public Health module (Insight) which is being de-supported (discussed below).

HHS management reviewed options for the Clinical Services module in 2019, and the 2020 project budget includes funding to implement the new Clinical Services module. Replacement of the Public Health module required more research from HHS and the Department of Administration – IT division to investigate system costs and help ensure functionality needs are met, with plans to request additional funding in 2021 for implementation. The cost update for 2021 includes funds to implement the public health module replacement.

Location: Department of Health and Human Services

Analysis of Need

The Clinical Services Division relies on multiple contracted third-party entities to provide care to clients. Currently, the billing process is very manual and time consuming, requiring HHS staff to document and correct billing submissions from the third-party entities. Department management indicates that it is frequently six months behind in reviews and billing. An electronic solution would allow HHS to enhance and streamline the process. System functionality may include the ability to aggregate clinical data to provide a broad picture of the population levels, facilitate care coordination across providers, track clinical quality control measures and outcomes, and manage authorizations and claims across providers.

The current Public Health module was built upon a Microsoft SQL 2007 server, which is being de-supported. There is a three-year extended support period that ends by June 2022. After that, there will be no additional security updates, which would put the system at risk. Implementation of a new, industry-standard billing module is expected to promote efficiencies by eliminating workaround business processes: Clinical and billing staff time on progress notes; case management billing pre-verification; remittance and reconciliation; maintaining multiple databases, spreadsheets, paper inventory; and duplication of time and effort.

Alternatives

HHS will explore multiple software solutions to find a cost-effective solution that meet the Clinical Services and Public Health divisions' functionality needs.

Ongoing Operating Costs

Department management currently estimate that the ongoing cost for the Clinical Services Division module at about $81,000. However, streamlining the billing process is expected to save staff time that is currently devoted to documenting and correcting supporting data. The ongoing costs for the new Public Health module are expected to be a net increase of about $7,000 from the existing module (mostly already included the department's base budget).

Previous Action

The current electronic health records systems were implemented as part of the HHS Automated System capital project (#200109). Approved as a new capital project in the 2020 – 2024 capital plan.

Project Title:	HRIS / Payroll System Implementation	**Project #:**	201617
Department:	DOA - Information Technology	**Project Type:**	Information Technology
Phase:	Implementation	**Sponsor:**	HR Mgr. Renee Gage & Accounting Services Mgr. Danielle Igielski
Budget Action:	C - Scope	**Manager:**	Lance Spranger, IT Manager
Date:	December 4, 2020		

CAPITAL BUDGET SUMMARY

Year	2016	2017	2018	
Project Phase	Analysis Design	Software Selection/ Implementation	Implementation	Total Project
Expenditure Budget	$75,000	$400,000	$952,000	$1,427,000
Revenue Budget	$0	$0	$452,000	$452,000
Net County Cost	$75,000	$400,000	$500,000	$975,000

COST DOCUMENTATION		**REVENUE**	
Software	$320,000	General Fund Balance	$500,000
Vendor Implementation	$300,000		
Consulting/Implementation	$552,000	End User Technology Fund Balance	$452,000
Training	$30,000		
Contingency	$225,000		
Total Project Cost	$1,427,000	Total Revenue	$952,000
EXPENDITURE BUDGET	$1,427,000		

Project Scope & Description

This project addresses the procurement and replacement of the human resource information system (HRIS) and payroll system. Based on a 2016 study in the first year of this project, it has been determined that the current system is near the end of its life cycle. The current vendor is no longer providing enhancements, which does not provide the opportunity to create efficiencies and effective workflows and processes. The second year of the project funds the services of a consultant to assist in the assessment and selection of the appropriate software vendor. Project funds in the second year are also budgeted to begin implementation after vendor selection. The new system will allow for process improvements in the area of integration between existing systems, a centralized database, the minimization of shadow systems, ability to establish electronic vs manual workflows and processes, more effective communications with management and employees, streamlined payroll processing, management query and reporting tools, and more cost effective software delivery by using cloud based systems. Specific HR and Payroll areas to be improved include benefits administration (including interfaces with third-party benefit providers), HR administration, Affordable Care Act management, new hire reporting to meet federal requirements, recruiting, employee self-service, document management, performance management, management reporting, and dashboards.

During the implementation of the HRIS system, it was announced in 2018 that the system (Highline) that was purchased was acquired by NeoGov. Following this acquisition, it became known that the product was purchased will be replaced by a new cloud solution. The scope of this project is modified to include a gap analysis of the alternate HRIS application provided by NeoGov as well as all other modules that are made available to Waukesha County, including time and attendance, through a fully integrated HRIS suite. It is anticipated that there is sufficient funds available in the current project balance to fund this change of scope.

Location: All County departments.

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

Alternatives: Continue with the current payroll system until replacement is required; pursue the needed Human Resources functionality in a number of separate projects.

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

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

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Capital Projects Plan

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

Justice and Public Safety projects total $47.9 million or 48% of the plan. This includes $1.6 million to finish the first phase of a two-phase project to upgrade the courthouse to meet the county's future needs. This phase includes the construction of a new secure courtroom facility. The second phase of this project begins in the first year of the plan with $46.3 million in 2021-2025 for design and to begin renovation of the existing courthouse. Construction for the second phase is expected to continue into 2026 and is estimated to cost $58.6 million in total.

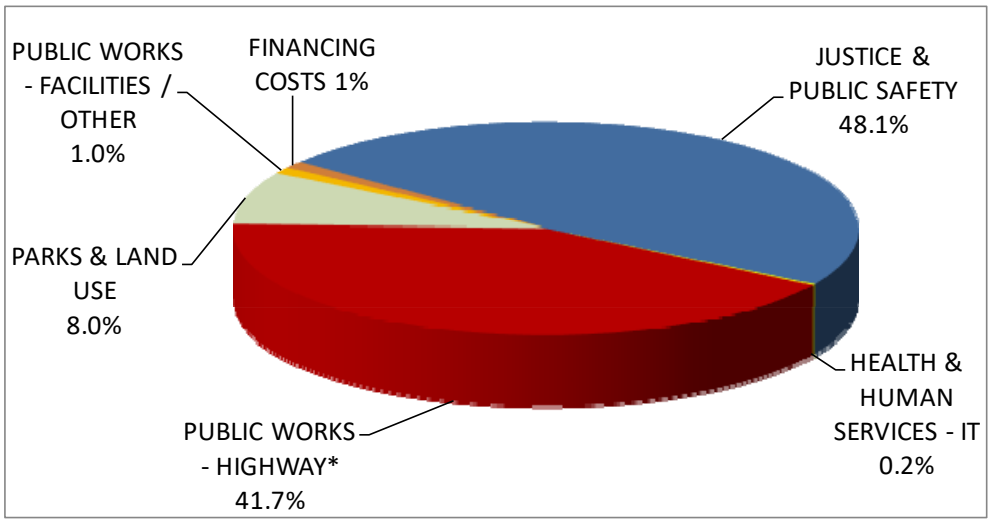
The Health and Human Services functional area includes $190,000 to implement the public health module of its electronic medical records system.

Public Works–Highway projects are about 41.7% of the plan at $41.6 million. However, many of the projects are managed by the Wisconsin Department of Transportation, who account for a majority of project costs using federal funds (typically paying 80% to 90% of most costs), and billing the county for its remaining share. As a result, the capital plan reflects only the county's net share on much larger transportation investments. **Factoring in total transportation costs, including approximately $43 million of federal funds, highway projects make up about 59% (almost $84.6 million in total) of the five-year capital plan.**

The Parks and Land Use functional area includes $8.0 million or about 8% of the plan, of which $6.4 million is for trails and parks pavement improvements. Trail project costs are mostly partially funded with federal, state, and private donation revenues.

Public Works–Facilities/Other projects total $967,500 or about 1% of the plan. The major building project in the five-year capital plan is the two-phase project to upgrade the county courthouse (discussed above under the Justice and Public Safety functional area). The plan includes $700,000 as part of a $1.5 million project to upgrade fuel tank systems and replace tanks as needed (project began in 2018, and continues until 2024).

General Administration totals $1,060,000 for financing costs (cost to issue and potential bond discounts) over the five years.



FUNCTIONAL AREA FOR TOTAL PLAN 2021-2025

FUNCTIONAL AREA	TOTAL 2021-2025	% OF TOTAL
JUSTICE & PUBLIC SAFETY	$47,900,000	48.1%
HEALTH & HUMAN SERVICES - IT	$190,000	0.2%
PUBLIC WORKS - HIGHWAY*	$41,598,100	41.7% *
PARKS & LAND USE	$7,933,000	8.0%
PUBLIC WORKS - FACILITIES / OTHER	$967,500	1.0%
FINANCING COSTS	$1,060,000	1.1%
TOTAL PLAN EXPENDITURES	$99,648,600	100.0%

*Factoring in total transportation costs, including approximately $50.3 million of federal funds, highway projects make about 61.3% of the five-year capital plan.

WAUKESHA COUNTY 2021-2025 CAPITAL PROJECT PLAN SUMMARY

FUNCTIONAL AREA:	2021 BUDGET	2022 PLAN	2023 PLAN	2023 PLAN	2025 PLAN	TOTAL FIVE-YEAR PLAN
JUSTICE & PUBLIC SAFETY						
Facility Projects	$2,800,000	$8,000,000	$12,400,000	$12,350,000	$12,350,000	$47,900,000
System Projects	$0	$0	$0	$0	$0	$0
Subtotal	$2,800,000	$8,000,000	$12,400,000	$12,350,000	$12,350,000	$47,900,000
HEALTH & HUMAN SERVICES						
Facility Projects	$0	$0	$0	$0	$0	$0
System Projects	$190,000	$0	$0	$0	$0	$190,000
Subtotal	$190,000	$0	$0	$0	$0	$190,000
PARKS, ENVIRONMENT, EDUCATION & LAND USE						
Parks, Facilities, Pavement, System Projects (a)	$4,290,000	$1,173,000	$800,000	$800,000	$870,000	$7,933,000
PUBLIC WORKS						
Priority Coridor Expansion	$4,890,000	$123,000	$307,200	$0	$1,518,000	$6,838,200
Intersections and Bridges	$1,090,800	$1,561,100	$735,000	$632,400	$354,000	$4,373,300
Pavement and Rehabilitation	$5,556,100	$6,007,000	$7,528,100	$5,289,400	$6,006,000	$30,386,600
Subtotal Highways	$11,536,900	$7,691,100	$8,570,300	$5,921,800	$7,878,000	$41,598,100
Facilities	$200,000	$200,000	$200,000	$100,000	$0	$700,000
Airport	$25,000	$242,500	$0	$0	$0	$267,500
Subtotal Public Works	$11,761,900	$8,133,600	$8,770,300	$6,021,800	$7,878,000	$42,565,600
GENERAL ADMINISTRATION COUNTY WIDE						
TECHNOLOGY PROJECTS	$0	$0	$0	$0	$0	$0
FINANCING	$160,000	$180,000	$220,000	$250,000	$250,000	$1,060,000
Subtotal	$160,000	$180,000	$220,000	$250,000	$250,000	$1,060,000
TOTAL GROSS EXPENDITURES	$19,201,900	$17,486,600	$22,190,300	$19,421,800	$21,348,000	$99,648,600
Less Proj. Specific Rev./Proprietary Fund Bal.	($3,495,500)	($1,970,500)	($868,000)	$0	($1,075,000)	($7,409,000)
NET EXPENDITURES	$15,706,400	$15,516,100	$21,322,300	$19,421,800	$20,273,000	$92,239,600
Cash Balances Excluding Property Tax Levy	($1,423,617)	($3,775,000)	($2,750,000)	($1,640,000)	($1,270,000)	($10,858,617)
NET EXPENDITURES BEFORE TAX LEVY, DEBT BORROWING AND INTEREST APPLIED (b)	$14,282,783	$11,741,100	$18,572,300	$17,781,800	$19,003,000	$81,380,983

(a) Category includes concrete sidewalk, stairway, and parking lot improvements for the University of Wisconsin-Milwaukee at Waukesha campus.

(b) Net expenditures will also be funded with personal property aid revenue from the state, which is meant to offset the loss of property tax levy from the tax exemption of machinery, tools, and patterns (not used in manufacturing). The personal property aid payment is budgeted at about $646,856 in 2021.

The 2021-2025 Capital Plan identifies 41 projects at an estimated total cost of $99.6 million over the five-year period. Projects in the first year of the plan represent the 2021 Budget. Major projects for future years are briefly explained in the following narrative. A project listing all projects in the plan is shown on the following pages.

JUSTICE AND PUBLIC SAFETY

Justice and public safety projects total $47.9 million. This includes the remaining $1.6 million for the first phase of a two-phase project to modernize and expand the courthouse (constructed in 1959) to meet current and future needs. The first phase is to construct a new secure courtroom facility to be located adjacent to jail facilities and will feature improved security, prisoner transport, and public access. In addition, $46.3 million is included in 2021-2025 for design and construction for the second phase, which is expected to continue through 2026 (total project costs estimated at $58.6 million). The second phase will renovate the existing courthouse in order to replace aging mechanical systems, enhance business operations through a more efficient office layout, and improve public access.

HEALTH AND HUMAN SERVICES

The plan includes $190,000 in 2021 to fund improvements to the Health and Human Services Department's electronic medical records system. The project will implement a new, industry-standard billing module for the Public Health Division. The current system is being de-supported. The new module is expected to promote efficiencies by eliminating workaround business processes.

PARKS AND LAND USE

Projects in this functional area total $7.9 million, and includes $4.2 million for maintenance improvements on park roadways and paved surfaces around county facilities. The plan also includes $1.9 million to build a 3.5-mile trail from a proposed trail access located on North Avenue, south of Watertown Road in the city of Pewaukee, to a proposed trailhead near the intersection of River Road and Brookfield Road in the city of Brookfield. This project is the first phase of a plan to create a north-south connector trail, eventually connecting with Frame Park in the city of Waukesha, as envisioned in the County Board-adopted Waukesha County Bike/Pedestrian Plan. The majority of project costs will be covered with federal and state funding. Construction is planned for 2021. The plan includes $1.3 million to replace the aging furnace and mechanical systems at the Expo Center's Arena building, with installation planned in 2021.

The plan includes $273,300 to continue to make infrastructure improvements at the Minooka Park mountain bike trail in 2022, including the construction of a new parking lot, expanded trails, and installation of additional trail features. This project will be funded entirely with private contributions. The second phase of a multi-year improvement project is scheduled to begin with design in 2025 to reconstruct (in 2026) an additional asphalt parking lot at the University of Wisconsin-Milwaukee at Waukesha campus. The proposed parking lot is the last remaining parking lot identified that was not addressed as part of the projects in the 2020-2024 capital plan. The plan also includes $185,000 in 2021 to reconstruct the Pewaukee Lake Boat Launch located at the western end of Pewaukee Lake. The Pewaukee Lake access site is the largest public boat launch on the 2,493-acre Pewaukee Lake. The project will replace existing concrete bars, adjust the slope of the ramps, include dredging to remove sediment deposits that accumulate at the launch, and add new decking to the docks. The project will be funded 50% with a Wisconsin Department of Natural Resources Recreational Boat Grant.

PUBLIC WORKS

Highways

Public Works projects for highways and facility/other projects are estimated to total $42.6 million. This includes road projects totaling $41.6 million. New and expanded road capacity construction is identified in priority corridors and includes $4.9 million to complete a project to widen about three miles of CTH M (North Avenue), from Calhoun Road to East County Line (124th Street). Total project costs are estimated at $30.1 million, federal aid covering $16.1 million, and the city of Brookfield contributing $1.3 million for local street amenities, with county's share of costs of $12.7 million over the life of the project. The plan also includes $1.9 million for a new priority corridor project to widen about 1.2 miles of CTH O (Moorland Road), between CTH HH (College Avenue) and Grange Avenue in the city of New Berlin. Project costs are estimated to total $8.9 million, with federal aid covering $7 million, and the city of New Berlin and a developer contributing $1.1 million, with the county cost share of $873,200 (construction is planned in 2025).

Road projects include $30.4 million for major maintenance and roadway rehabilitation, $3.5 million for bridge improvements, and several spot safety improvements at an estimated cost of $900,000, primarily for intersection and signal work.

The plan also includes $700,000 as part of a $1.5 million project to upgrade fuel tank systems and replace tanks as needed (project began in 2018, and continues until 2024).

Airport

The capital plan includes funding in the amount of $267,500 to replace the roof at the airport terminal and airport tower. The airport terminal was constructed in 1998 and the tower was constructed in 1995 and both have the original roofing systems. Replacement is scheduled for 2022.

GENERAL ADMINISTRATION – COUNTYWIDE TECHNOLGY PROJECTS

The capital plan includes funding for information technology projects to improve/replace electronic medical records modules for the Department of Health and Human Services, which were mentioned previously in that functional area section. The plan also includes a scope modification to the Human Resources Information System/Payroll System Implementation project to conduct a gap analysis of alternate applications offered by the firm that purchased the existing vendor. No additional funding is requested for this scope change.

DEBT FINANCING COSTS

Debt financing related costs on planned borrowing of $68.5 million over the five-year plan include promissory note discounts and is currently estimated at $1,060,000 over the five-year plan period.

PROJECT TITLE	NO.	CURRENT APPROP.	2021 PLAN	2022 PLAN	2023 PLAN	2024 PLAN	2025 PLAN	TOTAL FIVE-YEAR PLAN
PUBLIC WORKS - AIRPORT								
AIRPORT TERMINAL AND TOWER ROOF REPLACEMENT	202101	$0	$25,000	$242,500				$267,500
PUBLIC WORKS - CENTRAL FLEET								
FUEL TANK REPLACEMENT AND INFRASTRUCTURE	201415	$800,000	$200,000	$200,000	$200,000	$100,000		$700,000
PUBLIC WORKS - FACILITIES								
COURTHOUSE PROJ-SECURE COURTROOM CONSTRUCTION	201418	$35,900,000	$1,600,000					$1,600,000
COURTHOUSE PROJ STEP 2 - RENOVATE 1959 COURTHOUSE	201705	$0	$1,200,000	$8,000,000	$12,400,000	$12,350,000	$12,350,000	$46,300,000
PUBLIC WORKS - HIGHWAYS								
CTH I, FOX RIVER BRIDGE	201601	$95,000	$103,000					$103,000
CTH D, CALHOUN ROAD TO 124TH ST REHAB	201706	$116,000	$506,000					$506,000
CTH V V, WESTBOUND BRIDGE OVER MENOMONEE RIVER	201802	$6,000			$197,000	$241,000		$438,000
CTH SS, MEADOWBROOK CREEK STRUCTURE	202001	$0				$107,000	$154,000	$261,000
CTH B, MORGAN ROAD INTERSECTION	202009	$5,000	$48,000	$47,000				$95,000
CTH D, CTH E INTERSECTION	202010	$0	$8,000	$30,000	$39,000			$77,000
CTH M REHABILITATION, CTH F TO CTH SR	202011	$0		$52,000	$190,000		$506,000	$748,000
CTH X, WEST HIGH DRIVE INTERSECTION	202012	$10,000	$253,000					$253,000
CTH M, CALHOUN RD TO EAST COUNTY LINE	201008	$9,105,000	$4,890,000					$4,890,000
CTH YY, UNDERWOOD CREEK STRUCTURE	201302	$349,000	$369,000	$1,115,000				$1,484,000
CTH XX, PEBBLE BROOK CREEK BRIDGE	201402	$103,000		$53,000				$53,000
CTH C, HASSLINGER DRIVE INTERSECTION	201611	$266,000	$74,800					$74,800
CTH D, MORAINE HILLS DRIVE INTERSECTION	201613	$378,600	$0	$73,400				$73,400
CTH F, NORTHBOUND BRIDGE AT GREEN ROAD	201801	$6,000	$20,000		$128,000			$148,000
CTH DE, WILD ROSE LANE TO OAK COURT - SPOT IMPRVMENT	201804	$0		$7,700	$93,000	$84,400		$185,100
CTH T, NORTHVIEW ROAD TO I-94 REHABILITATION	201805	$0	$47,900	$109,000	$532,100			$689,000
CTH O, I-94 TO USH 18	201502	$253,600		$1,389,400				$1,389,400
CTH O, CTH I TO CTH ES	201610	$211,000	$190,000		$2,300,000			$2,490,000
CTH O, CTH ES TO CTH D REHABILITATION	201803	$0	$112,200	$156,600		$1,859,400		$2,128,200
CTH O, CTH D TO STH 59 REHABILITATION	202013	$0			$206,000	$130,000		$336,000
CTH O, CTH HH TO GRANGE AVE	202102	$0		$123,000	$307,200		$1,518,000	$1,948,200
CTH F, LINDSAY ROAD INTERSECTION	202105	$0	$15,000	$35,000	$78,000			$128,000
BRIDGE AID PROGRAM 2018 - 2022	201701	$300,000	$100,000	$100,000				$200,000
BRIDGE AID PROGRAM 2023 - 2027	201904	$0			$100,000	$100,000	$100,000	$300,000
CULVERT REPLACEMENT PROGRAM 2018-2022	201618	$300,000	$100,000	$100,000				$200,000
CULVERT REPLACEMENT PROGRAM 2023-2027	201901	$0			$100,000	$100,000	$100,000	$300,000
REPAVING PROGRAM 2018-2022	201416	$11,020,000	$4,700,000	$4,300,000				$9,000,000
REPAVING PROGRAM 2023-2027	201906	$0			$4,300,000	$3,300,000	$5,500,000	$13,100,000

PROJECT TITLE	NO.	CURRENT APPROP.	2021 PLAN	2022 PLAN	2023 PLAN	2024 PLAN	2025 PLAN	TOTAL FIVE-YEAR PLAN
PEWAUKEE TO BROOKFIELD TRAIL	201807	$300,000	$1,900,000					$1,900,000
MINOOKA PARK MOUNTAIN BIKE INFRASTRUCTURE IMPROVEMENTS	202005	$484,300		$273,000				$273,000
EXPO ARENA FURNACE/MECHANICAL SYSTEMS	202006	$92,500	$1,305,000					$1,305,000
UWW SITE INFRASTRUCTURE IMPROVEMENTS - PHASE II	202103	$0					$20,000	$20,000
PEWAUKEE LAKE BOAT LAUNCH RECONSTRUCTION	202104	$0	$185,000					$185,000
PAVEMENT MANAGEMENT PLAN 2018 - 2022	201406	$3,150,000	$900,000	$900,000				$1,800,000
PAVEMENT MANAGEMENT PLAN 2023 - 2027	201908	$0			$800,000	$800,000	$850,000	$2,450,000
IT - HEALTH & HUMAN SERVICES								
HHS ELECTRONIC MEDICAL RECORD MODULE IMPROVEMENTS	202014	$330,000	$190,000					$190,000
IT - COUNTYWIDE								
HRIS/PAYROLL SYSTEM IMPLEMENTATION	201617	$1,427,000						$0
EST. FINANCING (Includes Arb Rebate/Discount)	999999		$160,000	$180,000	$220,000	$250,000	$250,000	$1,060,000
GROSS EXPENDITURES			$19,201,900	$17,486,600	$22,190,300	$19,421,800	$21,348,000	$99,648,600

REVENUES

Airport Fund Balance - #202101 Airport Terminal and Tower Roof Replacement	$25,000	$242,500				$267,500
CHIP D Revenue - #201416/201906 CTH Repaving Program	$260,000	$260,000	$260,000			$780,000
CHIP Revenue - #201416/201906 CTH Repaving Program	$330,000	$330,000	$330,000			$990,000
Landfill Siting Revenue - #201406/201908 PLU Pavement Mgmt Plan	$200,000	$200,000	$200,000			$600,000
Local Muni and Developer Funding - #202102 CTH O, CTH HH to Grange					$1,075,000	$1,075,000
Local Muni Funding - #201008 CTH M, Calhoun to East Co Line	$867,000					$867,000
Local Muni Funding - #202105 CTH F, Lindsay Rd	$15,000	$35,000	$78,000			$128,000
Partner Revenue - #202005 Minooka Park Mountain Bike Infrastructure Imprvmnts	$0	$273,000				$273,000
Revenue - #201807 Pewaukee to Brookfield Trail	$1,706,000					$1,706,000
State MLS Program Funding - #201302 CTH YY Underwood Creek Structure		$630,000				$630,000
WDNR Boat Grant - #202104 Pewaukee Lake Boat Launch	$92,500					$92,500
Subtotal Project Specific Revenue and Proprietary Fund Balance	$3,495,500	$1,970,500	$868,000		$1,075,000	$7,409,000
Net Expenditures	$15,706,400	$15,516,100	$21,322,300	$19,421,800	$20,273,000	$92,239,600
State Shared Revenue/Utility Payment	$250,000	$250,000	$250,000	$250,000	$250,000	$1,250,000
State Personal Property Replacement - Computer Aid	$600,000	$600,000	$600,000	$600,000	$600,000	$3,000,000
State General Transportation Aid (GTA) #201416/201906 CTH Repaving Program	$100,000	$100,000	$100,000			$300,000
Tarmann Fund Balance - #202104 Pewaukee Lake Boat Launch	$92,500					$92,500
General Fund	$350,000					$350,000
Capital Project Fund Balance	$31,117	$2,825,000	$1,800,000	$790,000	$420,000	$5,866,117
Subtotal	$1,423,617	$3,775,000	$2,750,000	$1,640,000	$1,270,000	$10,858,617
EXPENDITURES BEFORE TAX LEVY, DEBT, BORROW & INTEREST (a)	**$14,282,783**	**$11,741,100**	**$18,572,300**	**$17,781,800**	**$19,003,000**	**$81,380,983**

*Tax levy, personal property aid, borrowing, and investment income for capital projects will be provided in the 2020 budget document.

(a) Net expenditures will also be funded with personal property aid revenue from the state, which is meant to offset the loss of property tax levy from the tax exemption of machinery, tools, and patterns (not used in manufacturing). The personal property aid payment is budgeted at about $646,856 in 2021.