
MADISON PUBLIC LIBRARY 2020 CAPITAL IMPROVEMENT PLAN

GREG MICKELLS



SUMMARY

2020 CIP Highlights

Funding for the Imagination Center at Reindahl Park was moved to the Horizon List. The project remains a high priority for the library and planning will continue. A scope of services and funding strategy will be ready for the 2021 CIP submission.

Major Changes from 2019

10 Plus Year Flooring Replacement: Project added to the CIP (\$350,000)

Neighborhood Library LED Upgrade: Project added to the CIP (\$675,000)

Technology Upgrades: Project added to the CIP (\$387,000)

Reindahl Library: Project moved to the Horizon List (\$16.6m)

Library Collection: Program funding increased (\$100,000)

10 PLUS YEAR FLOORING REPLACEMENT

Project Description

This project funds the replacement of the flooring at the Alicia Ashman, Hawthorne, and Sequoya Libraries. Flooring in these branches is at end of its useful life. The goal of the project is to create a safer and healthier environment.

Project Priority

- Citywide Element: Culture and Character
- Strategy: Does not meet a strategy.

Total Budget

\$350,000

Prior Appropriation

\$0

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	-	-	175,000	175,000
Other	-	-	-	-	-	-
TOTAL	-	-	-	-	\$175,000	\$175,000

CENTRAL LIBRARY IMPROVEMENTS

Project Description

- After 10 years of heavy use (projected visits by 2023: 3,850,000), Central Library will require new flooring on the third floor, a building wide LED lighting conversion, updated self check technology, furniture replacement, painting, site work repairs, exterior building repairs, space reconfiguration, and other potential refurbishments. City Engineering has agreed to work closely with Library Facilities over the following year to complete a full building survey which specifically details each refurbishment project.

Project Priority

- Citywide Element: Culture and Character
- Strategy: Create safe and affirming community spaces that bring people together and provide social outlets for underrepresented groups.

Total Budget

\$1,000,000

Prior Appropriation

\$0

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	500,000	500,000	-	-
Other	-	-	-	-	-	-
TOTAL	-	-	\$500,000	\$500,000	-	-

LIBRARY MAJOR REPAIRS/REPLACEMENTS

Program Description

- This program funds repair and maintenance needs at the nine library locations and the Library Support Center. The goal of the program is to maintain efficient building systems. Progress will be measured by monitoring utility costs, energy usage, and by customer feedback.

Program Priority

- Citywide Element: Culture and Character
- Strategy: Create safe and affirming community spaces that bring people together and provide social outlets for underrepresented groups.

2020 Planned Activities

Funding in 2020 is for major plumbing repairs, electrical additions and HVAC replacement at the Sequoya branch, and front desk reconfiguration at the Alicia Ashman branch.

	2020	2021	2022	2023	2024	2025
Borrowing	140,000	150,000	150,000	150,000	160,000	166,000
Other	-	-	-	-	-	-
TOTAL	\$140,000	\$150,000	\$150,000	\$150,000	\$160,000	\$166,000

LIBRARY COLLECTION

Program Description

- This program funds Madison Public Library’s materials collection in all formats. The goal of the program is to maintain an equitable collection of materials in a variety of formats that meets the cultural, educational, and recreational needs of the Library’s patrons. Progress will be measured by use of materials by City residents, number of holds placed, and number of new borrowers added annually.

Program Priority

- Citywide Element: Culture and Character
- Strategy: Create safe and affirming community spaces that bring people together and provide social outlets for underrepresented groups.

2020 Planned Activities

Funding in 2020 will sustain and enhance the Library collection.

	2020	2021	2022	2023	2024	2025
Borrowing	700,000	720,000	720,000	720,000	740,000	740,000
Other	-	-	-	-	-	-
TOTAL	\$700,000	\$720,000	\$720,000	\$720,000	\$740,000	\$740,000

NEIGHBORHOOD LIBRARY LED UPGRADE

Project Description

- This project funds the conversion of lighting in the neighborhood libraries to LED. The goal of the project is reduced energy consumption. Progress will be measured by energy savings measured by kilowatt hours.

Project Priority

- Citywide Element: Green and Resilient
- Strategy: Increase the use and accessibility of energy efficiency upgrades and renewable energy.

2020 Planned Activities

Library will consult with Public Works to determine which locations will be the first for the upgrade.

Total Budget

\$650,000

Prior Appropriation

\$0

	2020	2021	2022	2023	2024	2025
Borrowing	337,500	-	337,500	-	-	-
Other	-	-	-	-	-	-
TOTAL	\$337,500	-	\$337,500	-	-	-

TECHNOLOGY UPGRADES

Project Description

- This project funds technology upgrades at Madison Public Library locations. The goal of the project is to allow for more effective communication and effective security. Specific projects include implementing system wide digital signage and VOIP telephones, replacing aging AV equipment, installing cameras at several branches, replacing the commercial printer, and replacing RFID equipment at Lakeview and Alicia Ashman Libraries.

Project Priority

- Citywide Element: Effective Government
- Strategy: Improve accessibility to government agencies and services.

Total Budget

\$387,000

Prior Appropriation

\$0

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	-	-	237,000	150,000
Other	-	-	-	-	-	-
TOTAL	-	-	-	-	\$237,000	\$150,000

TRAFFIC ENGINEERING 2020 CAPITAL IMPROVEMENT PLAN

YANG TAO, PH.D., P.E., CITY TRAFFIC ENGINEER



SUMMARY

2020 CIP Highlights

Program Adjustments

Street Light Installation: Funding increased over CIP (\$0.4m)

Traffic Safety Infrastructure: Funding decreased over CIP (\$0.2m)

Major Changes from 2019

Programs Removed

URD/UCD Install: Program removed from the CIP (\$0.69m) and consolidated with Street Light Installation.

Projects Added

Blackhawk Water Tower Relocation: Project construction added to 2024 (\$0.35m)

STREET LIGHT INSTALLATION

Program Description:

- Upgrade/replace outdated street lighting systems, including computer support, replacement or painting/refurbishing of older poles, fixtures, cable and other major street light equipment; and install new street lights

Program Priority

- Citywide Element: Neighborhoods and Housing
Strategy: Create complete neighborhoods across the city where residents have access to transportation options and resources needed for daily living

2020 Planned Activities

LED lighting conversion (E Washington, High Point, bike path)

State Street streetlighting replacement

	2020	2021	2022	2023	2024	2025
Borrowing	155,000	170,000	175,000	175,000	175,000	180,000
Other	440,000	440,000	440,000	440,000	440,000	440,000
TOTAL	595,000.00	610,000.00	615,000.00	615,000.00	615,000.00	620,000.00

TRAFFIC SIGNAL INSTALLATION

Program Description:

Replace and modernize the City's traffic signal network; provide energy efficient dynamic traffic signals that are adaptable to provide for safe, efficient traffic flow for vehicles, bicycles, and pedestrians

Program Priority

Citywide Element: Land Use and Transportation

Strategy: Implement new technologies to more efficiently use existing transportation infrastructure

2020 Planned Activities

Transit Signal Priority Pilot

Dedicated traffic signals for transit use, such as for bus queue jumps

Upgrade traffic control cabinets

	2020	2021	2022	2023	2024	2025
Borrowing	350,000	355,000	360,000	360,000	360,000	365,000
Other	470,000	470,000	470,000	470,000	470,000	470,000
TOTAL	820,000	825,000	830,000	830,000	830,000	835,000

TRAFFIC SAFETY INFRASTRUCTURE

Program Description:

Fund traffic control devices, traffic safety studies, and local share of grants to improve traffic safety and accessibility for pedestrians, bicyclists, motorists and transit users

Program Priority

Citywide Element: Effective Government

Strategy: Ensure all neighborhoods are clean and safe through the provision of quality non-emergency services

2020 Planned Activities

Respond to emerging public safety issues

	2020	2021	2022	2023	2024	2025
Borrowing	50,000	50,000	50,000	50,000	50,000	50,000
Other	0	0	0	0	0	0
TOTAL	50,000	50,000	50,000	50,000	50,000	50,000

PUBLIC SAFETY RADIO SYSTEM

Program Description:

Purchase digital emergency communications equipment

Program Priority

Citywide Element: Effective Government

Strategy: Ensure all neighborhoods are clean and safe through the provision of quality non-emergency services

2020 Planned Activities

Office furniture for new Nakoosa Facility
(funding not included in construction project)

	2020	2021	2022	2023	2024	2025
Borrowing	50,000	50,000	50,000	50,000	50,000	50,000
Other	0	0	0	0	0	0
TOTAL	50,000	50,000	50,000	50,000	50,000	50,000

BLACKHAWK WATER TOWER RELOCATION

Project Description

- Construct a new communication structure at the Blackhawk Water Tower and relocate equipment from a UW tower

Project Priority

- Citywide Element: Effective Government
- Strategy: Locate community facilities to provide a high level of service to all neighborhoods

2020 Planned Activities

Relocation of communication structure and equipment to the Blackhawk Water Tower

Total Budget

350,000

Prior Appropriation

0

	2020	2021	2022	2023	2024	2025
Borrowing	0	0	0	0	350,000	0
Other	0	0	0	0	0	0
TOTAL	0	0	0	0	350,000	0

PARKING DIVISION 2020 CAPITAL IMPROVEMENT PLAN

SABRINA TOLLEY



SUMMARY

2020 CIP Highlights

Major Changes from 2019

Vehicle Replacement Program funding increased in 2020 (\$90K)

Sayle Street Renovation project funding from Parking Reserves consolidated in Engineering Facilities Management (\$260K)

LAKE STREET GARAGE REPLACEMENT

Project Description

Replacement of the State Street Campus Lake Garage with construction of an approximately 600 stall parking garage. The garage is also a potential site for an intercity, intermodal bus terminal which may be constructed in conjunction with the garage replacement project.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: Maintain downtown Madison as a major activity center for the region while improving access and inclusivity.

Total Budget

\$22,000,000

Prior Appropriation

\$0

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	-	-	-	-
Other-Parking Reserves	-	-	-	\$1,200,000	\$20,800,000	-
TOTAL	\$0	\$0	\$0	\$1,200,000	\$20,800,000	\$0

VEHICLE REPLACEMENT

Program Description

- Replace vehicles on an average 10-year cycle to recognize savings on maintenance, repairs, and fuel.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Increase the use and accessibility of energy efficiency upgrades and renewable energy.
- Asset Type: Machinery and Equipment

2020 Planned Activities:

- Purchases include a utility vehicle, sweeper, dump truck, and service worker vehicle.

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	-	-	-	-
Other-Parking Reserves	\$223,000	\$139,000	\$53,000	\$83,000	\$34,000	\$50,000
TOTAL	\$223,000	\$139,000	\$53,000	\$83,000	\$34,000	\$50,000

TRANSPORTATION 2020 CAPITAL IMPROVEMENT PLAN

TOM LYNCH DEPARTMENT HEAD

DAVID TROWBRIDGE, MIKE CECHVALA PRESENTING



SUMMARY

2020 CIP Highlights

Purchase of Satellite Facility (Part of Metro's Budget - Oscar Mayer)

BRT Moving Forward with Construction Planned for 2022

Madison Motion – Updating 1997 Pedestrian Plan focused on crossings

Major Changes from 2019

BRT accelerated from 2024 to 2022

Inter-city Intermodal bus facility reduced to \$200k and moved up to 2020

Interstate 94 Interchange Study removed from budget in 2021

BUS RAPID TRANSIT

Project Description:

Implement Bus Rapid Transit from West Towne Mall to East Towne Mall

Project Priority 1

- Citywide Element:

- Land Use and Transportation

- Strategy 2

- Implement **bus rapid transit (BRT)** to improve travel times, enhance reliability, and increase ridership.

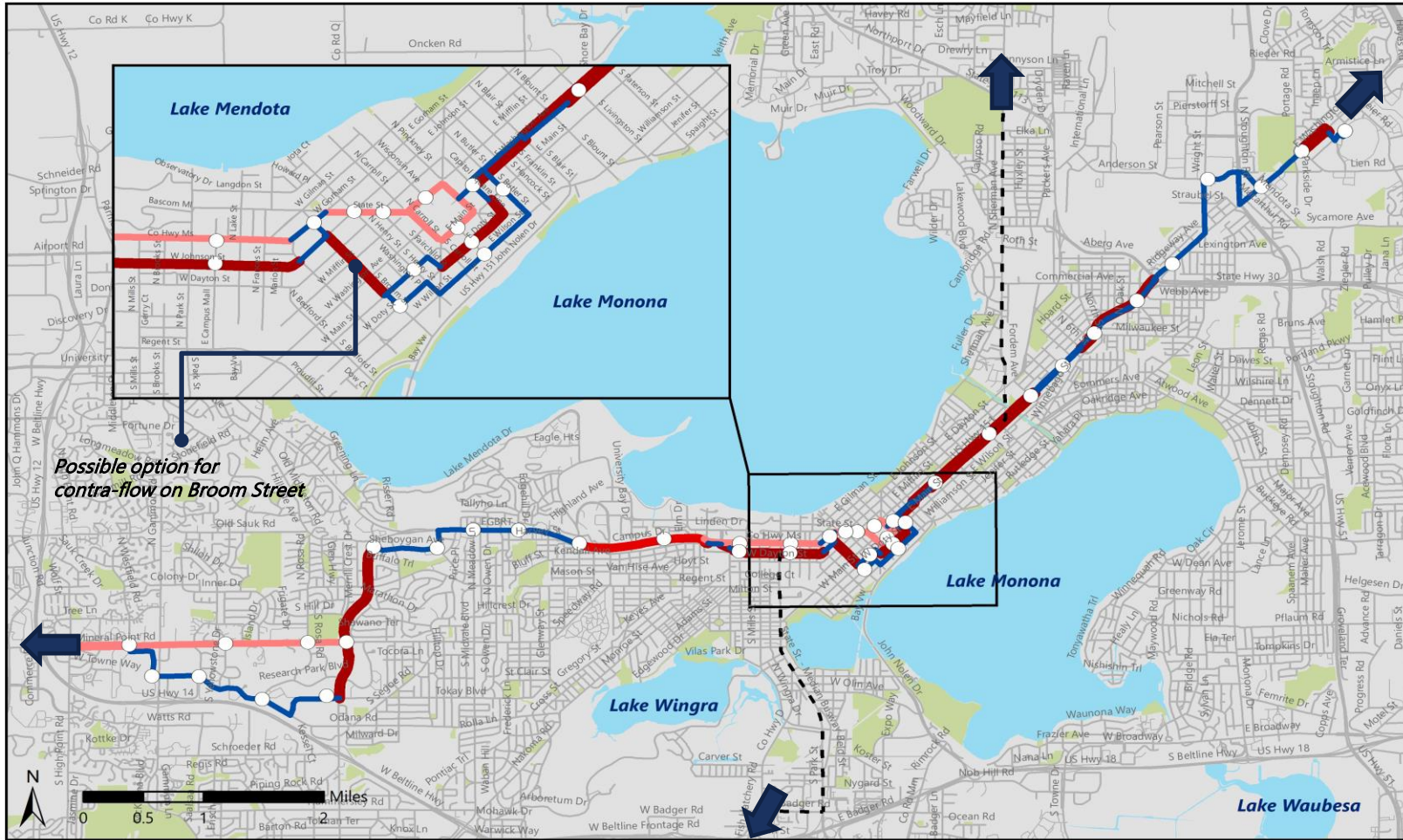
	Millions
Total Budget	\$128
Prior Appropriation	\$80

	2020	2021	2022	2023	2024	2025
Borrowing	\$1.5	\$7.5	\$13.3	\$4.2		
Federal	\$2.0	\$1.7	\$82.6	\$11.7		
TIF			\$3.5			
TOTAL	\$3.5	\$9.2	\$99.4	\$15.9		

Bus Rapid Transit

- **Frequent Service** (every 15 minutes most of the day)
- **Dedicated bus lanes (>50%)**
- **Special Signals and Intersection Treatments**
- **Off board payment**
- **High-end stations with amenities**





**Between 45%
and 55%
Dedicated
Running Way**



Planning Study

- East-West BRT Proposed Station
- Future North-South BRT
- ← Future BRT Extensions

Dedicated Lanes

- Dedicated Bus Lane (BRT vehicle in new bus lane)
- Bus-only Shoulder (Bus uses during congestion)

- Existing Bus Lane (BRT vehicle utilizes existing bus lanes)
- Mixed Traffic (BRT vehicle shares lane with other vehicles)

Cost Categories	Working LPA Cost (\$2019 in millions)
Dedicated Lane Marker (Paint)	\$2
Stations and Shelters	\$24
Maintenance Facility	\$8
Roadway Improvements	\$19
Transit Signals and Intersection Improvements	\$22
Right-of-Way Acquisition	\$1
Electric Buses	\$30
Engineering, Environmental, and Construction Design	\$17
Contingencies	\$4
Total	\$120-\$130 million
Federal Contribution	(up to) \$100 million
Local (Non-Federal) Contribution	\$20-\$30 million

INTER-CITY INTERMODAL BUS TERMINAL

Project Description

- Currently planning on constructing inter-city intermodal bus terminal in conjunction with Lake Street Ramp reconstruction, scheduled for 2024.
- There may be opportunities to move implementation up to 2022.
- Fees will be used to study feasibility, layout and programming of facility

Project Priority 3

- Citywide Element:
Land Use and Transportation
- Strategy 4a
Support construction of an intercity bus terminal that is well-integrated with Madison Metro and future BRT

Total Budget	Net new \$ \$200,000
Prior Appropriation	\$350,000

	2020	2021	2022	2023	2024	2025
Borrowing	\$200,000					
Other						
TOTAL	\$200,000					

MADISON IN MOTION – PEDESTRIAN PLAN UPDATE

Project Description

- Madison’s Pedestrian Plan hasn’t been updated since 1999.
- Many new crossing treatments have been developed since then
- This study will help standardize policy for ped crossings, bicycle/pedestrian interaction, and identify areas of greatest need.

Project Priority 3

- Citywide Element:
Land Use and Transportation
- Strategy 8

Expand and improve the city's **pedestrian and bicycle networks** to enable safe and convenient active transportation.

	New Expenditures
Total Budget	\$160,000
Prior Appropriation	\$0

	2020	2021	2022	2023	2024	2025
Borrowing	\$160,000					
Other						
TOTAL	\$160,000					

METRO TRANSIT 2020 CAPITAL IMPROVEMENT PLAN

CHUCK KAMP, TRANSIT GENERAL MANAGER



SUMMARY

2020 CIP Highlights

Purchase of property for satellite bus facility

Funding for first three electric buses to be delivered in 2020

Continued renovation of 1101 E. Washington with 2020 construction on HVAC in mechanics and storage area

Major Changes from 2019

Facilities Repairs and Improvement: Renovation at 1101 E. Washington facility phases 3c (bus storage) and 4 (exterior) deferred from 2023-2024 to outside of CIP (\$20.0M)

Metro Satellite Bus Facility: Funding advanced from 2023 to 2020-2021. (\$29.0M)

Transit Coaches program separated into two programs (diesel and electric)

Restoration of funding for Building and Grounds equipment starting in 2025

METRO SATELLITE BUS FACILITY

Project Description

- Construction of a satellite bus facility. The project budget assumes land will be purchased in 2020 and construction will occur 2021. The goal of this project is to provide an additional facility that alleviates space constraints at Metro’s existing East Washington Avenue location in preparation of Bus Rapid Transit (BRT).

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: Implement Bus Rapid Transit (BRT) to improve travel times, enhance reliability, and increase ridership

Total Budget

30,443,000

Prior Appropriation

1,500,000

	2020	2021	2022	2023	2024	2025
Borrowing	\$12,893,000	\$16,050,000				
Other						
TOTAL	\$12,893,000	\$16,050,000				

FACILITY (1101 E WASHINGTON RENOVATION)

Program Description

- This program is for major building repairs and improvements to the existing Metro Transit facility at 1101 East Washington Avenue and the transit system transfer points.

Program Priority

- Citywide Element: Land Use and Transportation
- Asset Type: Building

2020 Planned Activities

- Continued renovation at 1101 East Washington Avenue facility with construction on HVAC in mechanics and storage area

	2020	2021	2022	2023	2024	2025
Borrowing	\$8,440,000	\$10,805,000	\$10,000,000	\$540,000	\$40,000	\$40,000
Other						
TOTAL	\$8,440,000	\$10,805,000	\$10,000,000	\$540,000	\$40,000	\$40,000

TRANSIT SYSTEM UPGRADES

Program Description

- This program is for equipment and software enhancements. The program's goal is to improve the efficiency of Metro Transit's operations by updating the system tools used for the services provided.

Program Priority

- Citywide Element: Land Use and Transportation
- Asset Type: Machinery and Equipment

2020 Planned Activities

- Replacement of two support vehicles
- Study to plan for the future upgrade of the Transit Master System

	2020	2021	2022	2023	2024	2025
Borrowing	\$221,000	\$4,001,000	\$124,000	\$56,000	\$129,000	\$446,000
Other						
TOTAL	\$221,000	\$4,001,000	\$124,000	\$56,000	\$129,000	\$446,000

TRANSIT COACHES (DIESEL)

Program Description

- Replacement of 15 fixed route transit coaches annually to maintain a replacement cycle of 15 years for 40 foot buses so that an adequate number of safe and reliable vehicles is available for peak service.

Program Priority

- Citywide Element: Land Use and Transportation
- Asset Type: Machinery and Equipment

2020 Planned Activities

- Replacement of 12 diesel coaches

	2020	2021	2022	2023	2024	2025
Borrowing	\$3,398,000	\$4,250,000	\$4,635,000	\$5,000,000	\$5,450,000	\$5,941,000
Other	\$2,427,000	\$3,250,000	\$3,090,000	\$2,957,000	\$2,746,000	\$2,501,000
TOTAL	\$5,825,000	\$7,500,000	\$7,725,000	\$7,957,000	\$8,196,000	\$8,442,000

TRANSIT COACHES (ELECTRIC)

Program Description

- This program is to maintain a vehicle replacement schedule that provide an adequate number of safe and reliable vehicles available for peak service. The goal is for electric buses to provide fixed route services with more environmentally sustainable operations.

Program Priority

- Citywide Element: Land Use and Transportation
- Asset Type: Machinery and Equipment

2020 Planned Activities

- Replacement of 3 diesel coaches with electric coaches in conjunction with the awarded Low-No federal grant

	2020	2021	2022	2023	2024	2025
Borrowing	\$728,000					
Other	\$728,000					
TOTAL	\$1,456,000					

FLEET SERVICE

2020 CAPITAL IMPROVEMENT PLAN

MAHANTH S. JOISHY, SUPERINTENDENT



SUMMARY

2020 CIP Highlights

We expect 2020 to be first year for Madison to procure new CNG vehicles to be fueled by Dane County landfill

By 2020, Fleet is aiming to have 40 operational electric vehicles (EVs) of multiple types, expanding our current leadership role as the largest EV fleet in Wisconsin already. Additionally, Madison will be running 60 gas-electric hybrid vehicles by 2020 according to plan

We expect to buy in 2020 our first-ever solar powered EV charging stations, harnessing the cleanest possible way to power vehicles. Solar power will be critical for Madison to approach its 2030 goals for zero net carbon emissions.

By 2020 it is our aim to finally replace the oldest vehicles in the fleet, including 1990s model year trucks.

The new ambulances we are receiving in 2020 will have anti-idling technology.

Major Changes from 2019

Besides the above, the major difference is that approximately \$30 million was budgeted in 2019 for the Nakoosa Trail fleet headquarters construction project. We are expecting to move into the facility and consolidate 4 facilities into one, in fall 2020.

FIRE APPARATUS / RESCUE VEHICLES

Project Description

- This program is for purchasing fire apparatus and rescue vehicles.

Project Priority

- Citywide Element: Green and Resilient
- Strategy:

Increase the use and accessibility of energy efficiency upgrades and renewable energy.

Total Budget

\$ 2,300,000

Prior Appropriation

\$2,635,000

	2020	2021	2022	2023	2024	2025
Borrowing	2,300,000	4,200,000	3,100,000	3,100,000	3,100,000	2,000,000
Other						
TOTAL	2,300,000	4,200,000	3,100,000	3,100,000	3,100,000	2,000,000



FLEET EQUIPMENT REPLACEMENT

Project Description

- This program funds the replacement of the City's general fleet.

Project Priority

- Citywide Element: Green and Resilient
- Strategy:

Increase the use and accessibility of energy efficiency upgrades and renewable energy.

Total Budget

\$ 9,080,000

Prior Appropriation

\$7,356,410

	2020	2021	2022	2023	2024	2025
Borrowing	7,867,937	6,700,000	6,200,000	6,400,000	6,400,000	6,840,000
Other	1,212,063	1,800,000	2,100,000	2,100,000	2,160,000	2,160,000
TOTAL	9,080,000	8,500,000	8,300,000	8,500,000	8,560,000	9,000,000



WATER UTILITY 2020 CAPITAL IMPROVEMENT PLAN

TOM HEIKKINEN



SUMMARY

2020 CIP Highlights

Water is focusing on our main replacement projects in 2020. All other major facility projects have been deferred to future years.

Several recurring projects have been transferred from the Operating Budget to the Capital Budget in 2020 (\$2.33m) including capitalized labor. The total for the five-year capital budget is \$13.9m.

Major Changes from 2019

Booster pump station 109 and 129 projects (\$7.8m) replaced with pump stations 128 and 213 (\$0.8m): **2023 – 2024**

Westside Water Supply added: **2021 – 2025**

Well #15 Mitigation added: **Continuous 2020 – 2025**

Well #14 Mitigation added: **Continuous 2021 – 2025**

Well #8 Reconstruction added: **Planning to commence in 2025**

Unit Well #12 Conversion: **Deferred from 2021 to 2023**

Unit Well #19 Iron & Manganese Filter: **Added back as a project to begin in 2021.**

WATER MAINS REPLACE REHAB IMPROVE – RECONSTRUCT STREETS

Program Description

- This program replaces and upgrades existing water mains. Assessment of an aging infrastructure indicates the Utility must replace or rehabilitate over 400 miles of pipe in over a 40 year period to renew and maintain the system.

Program Priority - 1

- Citywide Element: Green and Resilient
- Asset Type: Water Network

2020 Planned Activities

- West Towne Path, South Gammon Road, Gregory Street, Cross Street, Copeland Street, Western Avenue, Dunning Street, Jackson Street, LaFollette Avenue, Rethke Avenue, Dean Avenue, Allis Avenue, Tyler Circle, Seth Circle, and Rockstream Drive.

	2020	2021	2022	2023	2024	2025
Borrowing	\$1,933,000	\$4,643,00	\$2,568,000	\$1,543,000	\$4,121,000	\$1,583,000
Other						
TOTAL	\$1,933,000	\$4,643,00	\$2,568,000	\$1,543,000	\$4,121,000	\$1,583,000

WATER MAINS REPLACE REHAB IMPROVE – PAVEMENT MANAGEMENT

Program Description

Replace mains on streets identified by City Engineering for resurfacing.

Program Priority - 2

- Citywide Element: Green and Resilient
- Asset Type: Water Network

2020 Planned Activities

South Brooks Street, Devon Court, Glenbrook Circle, and Spaanem Avenue (Water Utility only).

	2020	2021	2022	2023	2024	2025
Borrowing	\$785,000	\$3,869,000	\$4,745,000	\$3,561,000	\$2,962,000	\$1,995,000
Other	-	-	-	-	-	-
TOTAL	\$785,000	\$3,869,000	\$4,745,000	\$3,561,000	\$2,962,000	\$1,995,000

WATER MAINS REPLACE REHAB IMPROVE – PIPE LINING

Program Description

This program improves the quality and useful lives of existing pipes in the water network at a lower cost than complete replacement.

Program Priority - 3

- Citywide Element: Green and Resilient
- Asset Type: Water Network

2020 Planned Activities

MWU Bypass Service System - Phase 1

	2020	2021	2022	2023	2024	2025
Borrowing	\$200,000	\$709,000	\$2,042,000	\$2,401,000	\$2,301,000	\$2,184,000
Other	-	-	-	-	-	-
TOTAL	\$200,000	\$709,000	\$2,042,000	\$2,401,000	\$2,301,000	\$2,184,000

WATER MAINS REPLACE REHAB IMPROVE – NEW

Program Description

The Water Utility has a need to construct new water mains to serve undeveloped areas. New water main projects are also implemented to improve hydraulics and water distribution.

Program Priority - 4

- Citywide Element: Green and Resilient
- Asset Type: Water Network

2020 Planned Activities

Cottage Grove Road, Treetops Drive, Feather Edge Drive, Felland Road and Lien Road

	2020	2021	2022	2023	2024	2025
Borrowing	\$4,082,000	\$96,000	\$1,780,000	\$4,276,000	\$3,081,000	\$5,019,000
Other	-	-	-	-	-	-
TOTAL	\$4,082,000	\$96,000	\$1,780,000	\$4,276,000	\$3,081,000	\$5,019,000

WATER METER AND FIXED NETWORK SYSTEM PROGRAM

Program Description

This program funds the water meter and fixed network advanced metering infrastructure (AMI) improvements. The program identifies projects via the State Public Service Commission (PSC) requirement for a prescribed schedule of meter replacement and testing program.

Program Priority - 5

- Citywide Element: Green and Resilient
- Asset Type: Machinery and Equipment

2020 Planned Activities

Meter replacements (all sizes)

Fixed Network System

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	-	-	-	-
Other	\$650,000	\$666,000	\$683,000	\$700,000	\$718,000	\$736,000
TOTAL	\$650,000	\$666,000	\$683,000	\$700,000	\$718,000	\$736,000

WATER UTILITY VEHICLES AND EQUIPMENT PROGRAM

Program Description

This program funds the annual vehicle and equipment replacements as well as new vehicle and equipment purchases. Replacement is based on age and mileage of the vehicles and equipment.

Program Priority - 6

- Citywide Element: Green and Resilient
- Asset Type: Machinery and Equipment

2020 Planned Activities

Replace 1 service and 1 dump truck

Replace 3 service vehicles

Replace backhoe

New towable lift

Upgrade meter bench

Miscellaneous small equipment replacements

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	-	-	-	-
Other	\$767,000	\$731,000	\$655,000	\$669,000	\$690,000	\$705,000
TOTAL	\$767,000	\$731,000	\$655,000	\$669,000	\$690,000	\$705,000

WATER HYDRANT PROGRAM

Program Description

This program is for the annual raising, replacing and moving of water hydrants and maintaining reliable service for fire suppression.

Program Priority - 7

- Citywide Element: Neighborhoods and Housing
- Asset Type: Water Network

2020 Planned Activities

Total units and activity dependent upon street related projects

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	-	-	-	-
Other	\$550,000	\$567,000	\$583,000	\$601,000	\$619,000	\$637,000
TOTAL	\$500,000	\$567,000	\$583,000	\$601,000	\$619,000	\$637,000

UNIT WELL REHABILITATION PROGRAM

Program Description

This program funds the DNR suggested 10 year rotational unit well upgrade projects to ensure all unit wells are functioning at their highest efficiency level and reduce annual maintenance costs.

Program Priority - 8

- Citywide Element: Green and Resilient
- Asset Type: Machinery and Equipment

2020 Planned Activities

Rehabilitate four unit wells (#11, #17, #8, #30)

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	-	-	-	-
Other	\$320,000	\$240,000	\$255,000	\$270,000	\$270,000	\$285,000
TOTAL	\$320,000	\$240,000	\$255,000	\$270,000	\$270,000	\$285,000

WATER UTILITY FACILITY IMPROVEMENTS PROGRAM

Program Description

This program funds repairs and security upgrades at Water Utility facilities and maintains facilities for reliable services while reducing the need for emergency repairs.

Program Priority - 9

- Citywide Element: Green and Resilient
- Asset Type: Building and Machinery and Equipment

2020 Planned Activities

SCADA system upgrade and expansion
Fiber Optic System Installation and Upgrade
Variable Frequency Drive Installs
Various facility upgrade projects
Meter and fixed network program
Various Olin and Paterson upgrades & improvements

	2020	2021	2022	2023	2024	2025
Borrowing	\$592,000	\$492,000	\$884,000	\$522,000	\$539,000	\$555,000
Other	-	-	-	-	-	-
TOTAL	\$592,000	\$492,000	\$884,000	\$522,000	\$539,000	\$555,000

WATER VALVE CUT-IN PROGRAM

Program Description

This program is for installing new valve cut-ins to the existing water infrastructure to eliminate areas of the city where water availability for customers is impacted during water system maintenance and repair.

Program Priority - 10

- Citywide Element: Green and Resilient
- Asset Type: Water Network

2020 Planned Activities

Total units and activity dependent upon street related repairs and maintenance.

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	-	-	-	-
Other	\$15,000	\$16,000	\$16,000	\$17,000	\$17,000	\$18,000
TOTAL	\$15,000	\$16,000	\$16,000	\$17,000	\$17,000	\$18,000

CHLORINATOR AND FLUORIDATOR PROGRAM

Program Description

This program rebuilds and replaces chlorinator and fluoridator equipment on a 10 year replacement cycle to reduce failures and interruptions in service for safe and reliable water.

Program Priority - 11

- Citywide Element: Green and Resilient
- Asset Type: Machinery and Equipment

2020 Planned Activities

Replacements at unit wells and booster pump stations on a rotational maintenance schedule.

	2020	2021	2022	2023	2024	2025
Borrowing	-	-	-	-	-	-
Other	\$31,000	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000
TOTAL	\$31,000	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000

UNIT WELL #19 WATER QUALITY MITIGATION

Project Description

This project funds a new iron, manganese, and radium treatment system at Well 19 at Lake Mendota Drive on the City's west side.

Project Priority - 12

- Citywide Element: Green and Resilient
- Strategy: Protect Madison's water supply and infrastructure to provide safe clean drinking water.

2020 Planned Activities

None. Initial design and engineering to begin in 2021

Construction and installation in 2023

Total Budget

\$ 8,629,000

Prior Appropriation

\$ 966,000

	2020	2021	2022	2023	2024	2025
Borrowing	\$- 0 -	\$891,000	\$81,000	\$6,691,000	\$- 0 -	\$- 0 -
Other	-	-	-	-	-	-
TOTAL	\$- 0 -	\$891,000	\$81,000	\$6,691,000	\$- 0 -	\$- 0 -

BOOSTER PUMP STATION #128 UPGRADE

Project Description

BPS 128 pumping capacity requires upgrade to meet anticipated growth on the far west side of the water system. Pumps will be increased in capacity to 2100 gpm.

Project Priority - 13

- Citywide Element: Green and Resilient
- Strategy: Protect Madison's water supply and infrastructure to provide safe clean drinking water.

2020 Planned Activities

None. Planning to begin in 2023 with construction in 2024

Total Budget

\$ 532,000

Prior Appropriation

\$ - 0 -

	2020	2021	2022	2023	2024	2025
Borrowing	\$- 0 -	\$- 0 -	\$- 0 -	\$92,000	\$440,000	\$- 0 -
Other	-	-	-	-	-	-
TOTAL	\$- 0 -	\$- 0 -	\$- 0 -	\$92,000	\$440,000	\$- 0 -

UNIT WELL #12 CONVERSION TO A 2 ZONE WELL

Project Description

This project funds rebuilding and expanding Well 12 located on South Whitney Way to provide water supply capacity to five existing pressure zones which represents the majority of the City's west side.

Project Priority - 14

- Citywide Element: Green and Resilient
- Strategy: Protect Madison's water supply and infrastructure to provide safe clean drinking water.

2020 Planned Activities

None. Planning to begin in 2023 with construction in 2024

Total Budget

\$ 8,823,100

Prior Appropriation

\$ 4,751,100

	2020	2021	2022	2023	2024	2025
Borrowing	\$- 0 -	\$- 0 -	\$- 0 -	\$318,000	\$3,754,000	\$- 0 -
Other	-	-	-	-	-	-
TOTAL	\$- 0 -	\$- 0 -	\$- 0 -	\$318,000	\$3,754,000	\$- 0 -

UNIT WELL #15 PFAS MITIGATION

Project Description

Perfluorinated compounds (PFOS) have been detected in Well 15 producing concerns about the need for treatment at this well. This project will start the process of investigating options for Well 15.

Project Priority - 15

- Citywide Element: Green and Resilient
- Strategy: Protect Madison's water supply and infrastructure to provide safe clean drinking water.

2020 Planned Activities

None. The initial study to investigate mitigation alternatives is planned for 2021.

Total Budget

\$ 146,000

Prior Appropriation

\$ - 0 -

	2020	2021	2022	2023	2024	2025
Borrowing	\$- 0 -	\$82,000	\$16,000	\$16,000	\$16,000	\$16,000
Other	-	-	-	-	-	-
TOTAL	\$- 0 -	\$82,000	\$16,000	\$16,000	\$16,000	\$16,000

WESTSIDE WATER SUPPLY

Project Description

Water demand projections indicate that there will be a supply deficiency on the far west side of the system in the 20's and it will grow as the area develops. This project will develop a new source of supply on the far west side of the system.

Project Priority - 18

- Citywide Element: Neighborhoods and Housing
- Strategy: Create complete neighborhoods across the city where residents have access to transportation

2020 Planned Activities

None. The initial planning phase is planned for 2021 and 2022

Construction: 2023 - 2025

Total Budget

\$ 12,152,000

Prior Appropriation

\$ - 0 -

	2020	2021	2022	2023	2024	2025
Borrowing	\$- 0 -	\$153,000	\$2,370,000	\$1,127,000	\$971,000	\$7,531,000
Other	-	-	-	-	-	-
TOTAL	\$- 0 -	\$153,000	\$2,370,000	\$1,127,000	\$971,000	\$7,531,000

UNIT WELL #14 NA AND CL MITIGATION

Project Description

This project funds improvements to reduce chloride concentration levels at Well 14. Due to winter road salt operations on University Avenue and the surrounding neighborhoods, chloride levels in the water pumped from Well 14 have been rising for several years

Project Priority - 19

- Citywide Element: Green and Resilient
- Strategy: Protect Madison's water supply and infrastructure to provide safe clean drinking water.

2020 Planned Activities

None. The initial planning phase is planned for 2022.

Total Budget

\$ 130,000

Prior Appropriation

\$ - 0 -

	2020	2021	2022	2023	2024	2025
Borrowing	\$- 0 -	\$- 0 -	\$82,000	\$16,000	\$16,000	\$16,000
Other	-	-	-	-	-	-
TOTAL	\$- 0 -	\$- 0 -	\$82,000	\$16,000	\$16,000	\$16,000

ENGINEERING – FACILITIES MANAGEMENT 2020 CAPITAL IMPROVEMENT PLAN

ROBERT PHILLIPS, CITY ENGINEER



SUMMARY

2020 CIP Highlights

Increasing solar PV by over 33% of existing. Goal to achieve a city-wide total of one megawatt by end of 2020.

Major Changes from 2019

Addition of CCB Treasurer/Clerk/Assessor design period work.

CCB Fourth and Fifth floor remodels moved to future years.

Added “horizon list” planning in Facilities Management budget.

Reduced 2021 Streets Facility Improvement budget by \$650,000 due to the advancement of HVAC work in 2019/2020.

CCB 1ST FLOOR REMODEL – ASSESSOR, CLERK & TREASURY

Project Description

- This project is to design and remodel the Assessor, City Clerk, and Treasury suites on the first floor of the City County Building (CCB). The goal of the project is to optimize the usage of available space in the suite and improve work stations for staff. The project’s scope includes design, construction, furniture, audiovisual equipment, moving costs, rental of temporary facilities, and staff costs. Design is planned for 2020 with construction in 2022.

Project Priority

- Citywide Element: Effective Government
- Strategy: Improve accessibility to government agencies and services

Total Budget

\$4,150,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing	150,000		4,000,000			
Other						
TOTAL	150,000		4,000,000			

CCB 1ST FLOOR REMODEL - ENGINEERING

Project Description

- This project is for improvements to the Engineering suite on the first floor of the City County Building (CCB). The project will include improvements to existing workstations and private offices. The goal of the project is to optimize the usage of available space in the suite and improve work stations for staff.

Project Priority

- Citywide Element: Effective Government
- Strategy: Improve accessibility to government agencies and services

Total Budget

\$300,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing	300,000					
Other						
TOTAL	300,000					

CCB 4TH FLOOR REMODEL

Project Description

- This project is for improvements to City occupied office space on the 4th floor of the City County Building (CCB). This project will remodel and renovate the current spaces for the City Attorney, Mayor, Finance, and Common Council suites. The project scope includes design, construction, furniture, audio visual equipment, moving costs, rental of temporary facilities, and staff costs. Design is planned for 2020 with construction in 2023.

Project Priority

- Citywide Element: Effective Government
- Strategy: Improve accessibility to government agencies and services

Total Budget

\$6,400,000

Prior Appropriation

\$2,275,000

	2020	2021	2022	2023	2024	2025
Borrowing	125,000			4,000,000		
Other						
TOTAL	125,000			4,000,000		

CCB 5TH FLOOR REMODEL

Project Description

- This project is for improvements to City occupied office space on the 5th floor of the City County Building (CCB). This project will remodel and renovate the current spaces for the City IT and Department of Civil Rights including renovating the former Human Resources offices. The project scope includes design, construction, furniture, audio visual equipment, moving costs, rental of temporary facilities, and staff costs. Design is planned for 2020 with construction in 2024.

Project Priority

- Citywide Element: Effective Government
- Strategy: Improve accessibility to government agencies and services

Total Budget

\$5,690,000

Prior Appropriation

\$75,000

	2020	2021	2022	2023	2024	2025
Borrowing	115,000				5,500,000	
Other						
TOTAL	115,000				5,500,000	

CCB IMPROVEMENTS

Program Description

- This program is for the City’s portion of renovations scheduled for the City County Building (CCB). The goal of this program is to optimize the building’s space and working conditions with energy savings components when appropriate. Funding in 2023 is for window replacement. Projects planned in 2020 will be determined by Dane County.

Program Priority

- Citywide Element: Effective Government
- Strategy: Co-locate community facilities to provide a high level of service to all neighborhoods

2020 Planned Activities

- To be determined by Dane County

	2020	2021	2022	2023	2024	2025
Borrowing	100,000	100,000	100,000	2,060,000	100,000	100,000
Other						
TOTAL	100,000	100,000	100,000	2,060,000	100,000	100,000

ENERGY IMPROVEMENTS

Program Description

- This program is for energy efficiency improvements at City-owned facilities. The goal of the program is to reduce energy usage within City buildings while improving the work environment for City staff. The City's EnergyCap software measures energy usage for all electrical and natural gas meters providing data to support the progress towards the goals of the program. Projects typically include lighting upgrades and HVAC upgrades.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Increase the use and accessibility of energy efficiency upgrades and renewable energy

2020 Planned Activities

- Lighting replacement projects at Fire Station 09, Police Training (office area), Police South, Fire Station 11
- Building systems/controls upgrades

	2020	2021	2022	2023	2024	2025
Borrowing	260,000	270,000	280,000	290,000	290,000	300,000
Other	20,000	20,000	20,000	20,000	20,000	20,000
TOTAL	280,000	290,000	300,000	310,000	310,000	320,000

FIRE BUILDING IMPROVEMENTS – FACILITIES MANAGEMENT

Program Description

- This program is for miscellaneous improvements to the City’s 14 existing fire stations. The goal of this program is to maintain and improve the City’s fire stations to optimize service operations and working conditions.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Increase the use and accessibility of energy efficiency upgrades and renewable energy

2020 Planned Activities (Revised)

- FS#5 HVAC upgrades
- FS#9 Replacement of kitchen cabinets
- Address priority building assets that have passed their recommended replacement date.

	2020	2021	2022	2023	2024	2025
Borrowing	450,000	225,000	225,000	225,000	225,000	270,000
Other						
TOTAL	450,000	225,000	225,000	225,000	225,000	270,000

GENERAL BUILDING IMPROVEMENTS

Program Description

- This program is for improvements to City-owned buildings maintained by the Engineering Facilities Management section. The goal of the program is to address unanticipated capital repairs that occur during the year. The Facilities Management section coordinates with other City agencies to address necessary unplanned repairs and improvements.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Increase the use and accessibility of energy efficiency upgrades and renewable energy

2020 Planned Activities

- MEP Issues
- Envelope Issues
- Finishes and Furnishings
- Preliminary Project Planning

	2020	2021	2022	2023	2024	2025
Borrowing	280,000	290,000	300,000	310,000	260,000	290,000
Other						
TOTAL	280,000	290,000	300,000	310,000	260,000	290,000

HORIZON LIST PLANNING

Program Description

- This project is for scoping projects identified on the capital budget Horizon List. The goal of this project is to provide accurate project scope with a detailed cost estimate to ensure readiness of proposed capital projects on the Horizon List.

Program Priority

- Citywide Element: Effective Government
- Strategy:

2020 Planned Activities

- Fire Station #10 Remodel or Reconstruction
- Fire Station #06 Remodel
- Far West Public Works Facility, MPD Property & Evidence Storage, MPD North District Remodel or Reconstruction, and Reindahl Library horizon planning in agency specific budgets.

	2020	2021	2022	2023	2024	2025
Borrowing	300,000	300,000	300,000	300,000	300,000	300,000
Other						
TOTAL	300,000	300,000	300,000	300,000	300,000	300,000

PARK FACILITY IMPROVEMENTS

Program Description

- This program is for improvements to the City's Parks Division facilities. The goals of this program are to maintain the existing parks buildings, provide quality park facilities to the community, and to lower energy costs by implementing efficiency components within the improvement projects.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Increase the use and accessibility of energy efficiency upgrades and renewable energy

2020 Planned Activities

- Door Creek Shelter

	2020	2021	2022	2023	2024	2025
Borrowing	975,000	300,000	325,000	332,000	375,000	503,000
Other						
TOTAL	975,000	300,000	325,000	332,000	375,000	503,000

SAYLE STREET FACILITY REMODEL

Project Description

- This project is for renovating the shared shop space at the Traffic Engineering and Parking Utility facility located at 1120 Sayle Street. The project scope includes space reconfiguration for the Sign Shop and replacement of the existing HVAC system. The goal of the project is to improve work safety conditions. Design will begin in 2022 with construction in 2023.

Project Priority

- Citywide Element: Effective Government
- Strategy: Improve accessibility to government agencies and services

Total Budget

\$1,645,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing			200,000	1,185,000		
Other				260,000		
TOTAL			200,000	1,445,000		

STREETS FACILITY IMPROVEMENTS

Program Description

- This program is for improvements to the four Streets Division facilities. The goal of the program is to reduce energy usage and improve the work environment for staff. Projects planned for 2020 include a hot water solar installation at the Streets East facility. Funding in 2021 was reduced due to a 2019 budget amendment that advanced the HVAC improvements for the Streets East facility at Sycamore Avenue.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Increase the use and accessibility of energy efficiency upgrades and renewable energy

2020 Planned Activities

- Streets East Hot Water Solar

	2020	2021	2022	2023	2024	2025
Borrowing	190,000		500,000	450,000	450,000	500,000
Other						
TOTAL	190,000		500,000	450,000	450,000	500,000

SUSTAINABILITY IMPROVEMENTS

Program Description

- This program is for implementing the 100% Renewable plan via solar installations and energy efficient upgrades throughout the City. Projects planned in 2020 include the Green Power training program, solar installations on city facilities, and purchase of renewable energy credits.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Increase the use and accessibility of energy efficiency upgrades and renewable energy

2020 Planned Activities

- PV Installations
 - Green Power Program - Madison Municipal Building, Metro East Washington (Phase 2), Fire Station 11
 - Contractor - Fleet
- Renewable Energy Credits (REC) Purchases

	2020	2021	2022	2023	2024	2025
Borrowing	750,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Other						
TOTAL	750,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000

ENGINEERING – PEDESTRIAN & BICYCLE 2020 CAPITAL IMPROVEMENT PLAN

ROBERT PHILLIPS, CITY ENGINEER



SUMMARY

2020 CIP Highlights

West Towne Path – Phase 1

Sidewalk Program – Districts 4 (Ald. Verveer) & 8 (Ald. Reddy)

Major Changes from 2019

Cannonball Path – Funding for design and construction added 2024-25

Old Middleton Underpass – Funding for construction added in 2021

BIKEWAYS PROGRAM

Program Description

- This program is for bicycle related improvements and path resurfacing throughout the City. The goal of this program is to improve the pavement quality of the existing bike paths to meet City standards. Projects within this program are prioritized based on pavement quality rating of existing bikeways.

Program Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

2020 Planned Activities

- Southwest Path Resurfacing

	2020	2021	2022	2023	2024	2025
Borrowing	650,000	650,000	650,000	650,000	650,000	680,000
Other						
TOTAL	650,000	650,000	650,000	650,000	650,000	680,000

CANNONBALL PATH

Project Description

- This project extends the Cannonball Trail from Fish Hatchery Road to Wingra Path. The path will parallel Fish Hatchery Road from the existing segment of Cannonball path to Plaenert Drive. When completed, this will add an additional 0.6 miles of path. The project goal is to improve neighborhood connectivity.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

Total Budget

\$1,776,190

Prior Appropriation

\$1,426,190

	2020	2021	2022	2023	2024	2025
Borrowing					80,000	270,000
Other						
TOTAL					80,000	270,000

GARVER PATH

Project Description

- This project is for a new path connecting to the Capital City Trail on Madison's east side. The project's scope includes one new bridge, one replacement bridge over the Starkweather Creek, and one new bridge over the wetlands in Sherry OB Park. The goals of this project are to increase bike and pedestrian mobility and to provide a connection to surrounding neighborhoods. The project will add 0.5 miles of new path. Funding in 2021 is for path construction. Federal funds for the project are secured.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

Total Budget

\$2,250,000

Prior Appropriation

\$550,000

	2020	2021	2022	2023	2024	2025
Borrowing		850,000				
Other		850,000				
TOTAL		1,700,000				

OLD MIDDLETON UNDERPASS

Project Description

- This project is for replacing a pedestrian and bicycle railroad underpass located west of the Old Middleton Road and Whitney Way intersection. The goal of the project is to improve pedestrian and bicycle access for the neighborhood. Construction is planned for 2021 funded by borrowing from TID 41.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

Total Budget

\$1,500,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing						
Other		1,500,000				
TOTAL		1,500,000				

PED/BIKE ENHANCEMENT

Program Description

- This program is for installing bike boulevards and other pedestrian and bike enhancements throughout the City. The goal of the program is to increase safety for bicycle transportation to encourage the use of paths as an alternative mode of transportation. Projects and locations are prioritized annually.

Program Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

2020 Planned Activities

These projects are developed from requests from NRT areas as well as requests from neighborhoods throughout the year. The projects are determined on an annual basis and the priorities are set by the Transportation Commission.

	2020	2021	2022	2023	2024	2025
Borrowing	430,000	243,000	243,000	243,000	243,000	253,000
Other						
TOTAL	430,000	243,000	243,000	243,000	243,000	253,000

SAFE ROUTES GRANTS

Program Description

- This program is for grants that pay 50% of a property owner’s sidewalk assessment. Eligible projects include those that install sidewalk adjacent to an existing street where the right of way was annexed prior to 1981 or where the properties were developed prior to being annexed to the City. The project must also be located in an area where the frontage is at least 70% single family or two family dwelling units.

Program Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city’s pedestrian and bicycle networks to enable safe and convenient active transportation

2020 Planned Activities

These projects are directly related to the rural to urban projects in the reconstruction program that are proposed for that year.

	2020	2021	2022	2023	2024	2025
Borrowing	100,000	100,000	100,000	100,000	100,000	104,000
Other						
TOTAL	100,000	100,000	100,000	100,000	100,000	104,000

SAFE ROUTES TO SCHOOL

Program Description

- This program is for infrastructure surrounding school zones. The goal of this project is to decrease conflict between bicyclists, pedestrians and motor vehicles, by establishing safer crossings, walkways, trails, and bikeways to promote walking and biking to school. Planned projects for 2020 include signs, lighting, and traffic calming installations.

Program Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

2020 Planned Activities

This fund is used by the Traffic Engineering Division. These projects are developed from requests from NRT areas as well as requests throughout the year. The project funds smaller safety projects such as speed display boards and pedestrian crossing enhancements.

	2020	2021	2022	2023	2024	2025
Borrowing	100,000	100,000	100,000	100,000	100,000	104,000
Other						
TOTAL	100,000	100,000	100,000	100,000	100,000	104,000

SIDEWALK PROGRAM

Program Description

- This program is for repairs to defective sidewalk and new sidewalk installation. The goal of this program is to provide consistent maintenance of sidewalks for safe conditions and reduced chance of injury. Each year the Sidewalk Program repairs sidewalk in two or three Aldermanic Districts on a 10-year replacement cycle.

Program Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

2020 Planned Activities

- Aldermanic Districts 4 & 8

	2020	2021	2022	2023	2024	2025
Borrowing	2,015,000	2,115,000	2,215,000	2,315,000	2,326,000	2,419,000
Other	1,035,000	1,085,000	1,140,000	1,200,000	1,260,000	1,310,000
TOTAL	3,050,000	3,200,000	3,355,000	3,515,000	3,586,000	3,729,000

TROY DRIVE UNDERPASS

Project Description

- This project is for replacing the existing sidewalk underpass at Troy Drive on the City's north side. The goal of the project is to expand the size of the current walkway to improve pedestrian safety. Funding in 2024 is for project construction. Federal funds for this project are not yet secured.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

Total Budget

\$1,500,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing					750,000	
Other					750,000	
TOTAL					1,500,000	

WEST TOWNE PATH - PHASE 1

Project Description

- This project is for a new path from Struck Street to Gammon Road. The goal of this project is to increase bike and pedestrian mobility on the City's west side. The new path will add 0.4 miles to the City's path network. Funding in 2020 is for path construction. Federal funds for the project are secured.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

Total Budget

\$4,157,000

Prior Appropriation

\$1,690,000

	2020	2021	2022	2023	2024	2025
Borrowing	2,467,000					
Other						
TOTAL	2,467,000					

WEST TOWNE PATH - PHASE 2

Project Description

- This project is for a new path from Gammon Road to Junction Road. The goal of this project is to increase bike and pedestrian mobility on the City’s west side. The new path will add 1.0 mile to the City’s path network. Funding in 2020 is for land acquisition and construction is planned for 2023.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city’s pedestrian and bicycle networks to enable safe and convenient active transportation

Total Budget

\$1,600,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing	200,000			1,400,000		
Other						
TOTAL	200,000			1,400,000		

ENGINEERING – MAJOR STREETS 2020 CAPITAL IMPROVEMENT PLAN

ROBERT PHILLIPS, CITY ENGINEER



SUMMARY

2020 CIP Highlights

Gammon Rd

Cottage Grove Rd

Pavement Management

Reconstruction Streets

Major Changes from 2019

Martin Luther King Jr Blvd – reduce scope to sidewalks and trees and advance to 2020

High Point Raymond – funding for planning added

ATWOOD AVENUE (FAIR OAKS TO COTTAGE GROVE)

Project Description

- This project is for replacing pavement on Atwood Avenue between Fair Oaks Avenue and Cottage Grove Road. The goal of this project is to improve the pavement quality index of this 1.1 mile stretch to ensure safety and ride quality of the road is brought up to City standards. The current pavement quality index of the roadway is 4 of 10. Design is planned for 2020, construction is planned for 2025.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

Total Budget

\$6,878,000

Prior Appropriation

\$765,000

	2020	2021	2022	2023	2024	2025
Borrowing	200,000					5,164,000
Other						749,000
TOTAL	200,000					5,913,000

BLAIR STREET, S.

Project Description

- This project is for reconstructing South Blair Street from East Washington Avenue to Williamson Street and East Washington Avenue from Blair St to Blount St. The goal of this project is to improve the pavement quality of the 0.3 mile segment to ensure transportation safety. The project scope includes a new traffic signal for the East Main Street and South Blair Street intersection. The current pavement rating of this road is 3 of 10. Design is planned for 2020 with construction in 2022.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$2,055,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing	60,000		1,843,000			
Other	30,000		122,000			
TOTAL	90,000		1,965,000			

BLAIR/JOHN NOLEN INTERSECTION

Project Description

- This project is for replacing pavement, curb, gutter, and sidewalk at the intersection of Blair Street and John Nolen Drive. The goal of the project is to improve the pavement quality rating of the intersection. The current pavement quality rating is 3 of 10. Construction is planned for 2022. Federal funding for this project is secured.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$1,776,000

Prior Appropriation

\$520,000

	2020	2021	2022	2023	2024	2025
Borrowing			1,040,000			
Other			216,000			
TOTAL			1,256,000			

BRIDGE REPAIR

Program Description

- This program is for repairing, replacing, and painting bridges to maintain a safe condition. The goal of this program is to provide safe bridges measured by routine evaluation.

Program Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

2020 Planned Activities

- Packers Ave & Beld St Deck Epoxy Overlay

	2020	2021	2022	2023	2024	2025
Borrowing	160,000	170,000	170,000	170,000	170,000	177,000
Other						
TOTAL	160,000	170,000	170,000	170,000	170,000	177,000

CEDAR STREET

Project Description

- This project is for constructing a new road from South Street to South Park Street. The project is associated with new development included in the South Madison neighborhood plan. Funding in 2020 is for construction funded by special assessments and borrowing from TID 42.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$2,048,000

Prior Appropriation

\$5,000

	2020	2021	2022	2023	2024	2025
Borrowing						
Other	2,043,000					
TOTAL	2,043,000					

COTTAGE GROVE ROAD (I39 TO SPRECHER)

Project Description

- This project is for reconstructing Cottage Grove Road from North Star Drive to Sprecher Road. The goal of the project is to improve the pavement quality index of the existing roadway; the current pavement quality index is 5 of 10. The project is planned for construction in 2020. Federal funding for the project is secured.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$4,524,515

Prior Appropriation

\$1,654,515

	2020	2021	2022	2023	2024	2025
Borrowing	1,500,000					
Other	1,370,000					
TOTAL	2,870,000					

GAMMON ROAD, SOUTH

Project Description

- This project is for replacing pavement on Gammon Road between Mineral Point Road and Seybold Road. The goal of this project is to improve the pavement quality rating of the existing roadway; the current pavement quality rating is 3 of 10. Funding in 2020 is for construction. Federal funds have been secured for this project.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$4,683,400

Prior Appropriation

\$765,900

	2020	2021	2022	2023	2024	2025
Borrowing	3,636,000					
Other	281,500					
TOTAL	3,917,500					

HIGH POINT ROAD AND RAYMOND ROAD

Project Description

- This project is for completing the existing roadway at High Point Road and Raymond Road on the City's southwest side near Marty Road. The goal of this project is to complete the street and path network as planned in the High Point - Raymond Neighborhood Development Plan. Funding in 2020 is for design only.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$311,500

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing	300,000					
Other	11,500					
TOTAL	311,500					

JOHN NOLEN DRIVE

Project Description

- This project is for replacing pavement and six bridges on John Nolen Drive between North Shore Drive and Olin Avenue. The goal of this project is to improve transportation safety and pavement quality for this 1.3 mile segment. The current pavement rating of this road is 5 of 10. Funding in 2025 is for construction. Federal funding for this project has not been secured.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$15,893,000

Prior Appropriation

\$2,880,000

	2020	2021	2022	2023	2024	2025
Borrowing						12,508,000
Other						505,000
TOTAL						13,013,000

MARTIN LUTHER KING JR BLVD

Project Description

- This project is for replacing sidewalk along Martin Luther King Jr Boulevard from Main Street to Wilson Street. The goal of this project is to improve pedestrian experience. Funding in 2020 is for construction.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$985,000

Prior Appropriation

\$185,000

	2020	2021	2022	2023	2024	2025
Borrowing	800,000					
Other						
TOTAL	800,000					

NEIGHBORHOOD TRAFFIC MANAGEMENT & PEDESTRIAN IMPROVEMENTS

Program Description

- This program is for traffic and pedestrian safety improvements on local streets. Enhancements include speed bumps, traffic circles, and installation of roadway islands. The goal of this program is to reduce the speed of traffic and improve pedestrian safety. Projects for 2020 will be identified based on existing traffic impacts and associated neighborhood traffic plans.

Program Priority

- Citywide Element: Land Use and Transportation
- Strategy: Expand and improve the city's pedestrian and bicycle networks to enable safe and convenient active transportation

2020 Planned Activities

These projects are developed from requests from NRT areas as well as requests from neighborhoods throughout the year. The projects are determined on an annual basis and the priorities are set by the Transportation Commission.

	2020	2021	2022	2023	2024	2025
Borrowing	340,000	350,000	350,000	350,000	350,000	364,000
Other						
TOTAL	340,000	350,000	350,000	350,000	350,000	364,000

OUTER CAPITOL LOOP SOUTHEAST

Project Description

- This project is for reconstructing East Doty Street from Martin Luther King Jr. Boulevard to South Webster Street, and South Pinckney from East Doty Street to East Wilson Street. The goal of this project is to improve the roadway's pavement quality rating and pedestrian experience. The pavement quality rating for the roadway is currently 5 of 10. Funding in 2023 is for construction.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$2,168,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing				1,955,000		
Other				213,000		
TOTAL				2,168,000		

PARK STREET, SOUTH (OLIN TO RR)

Project Description

- This project is for reconstructing South Park Street from the railroad to Olin Avenue. The goal of the project is to improve the pavement quality of the roadway. The current pavement rating is 4 of 10. Construction is planned for 2025. Federal funding assumed in the project budget is not yet secured.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$1,081,000

Prior Appropriation

\$170,000

	2020	2021	2022	2023	2024	2025
Borrowing						670,000
Other						241,000
TOTAL						911,000

PARK STREET, SOUTH (W WASH-OLIN, RR-BADGER)

Project Description

- This project is for repairing deteriorated pavement joints on South Park Street from Badger Road to the Union Pacific Railroad, and from Olin Avenue to West Washington Avenue. The goal of the project is to improve the pavement quality of the existing roadway. The current pavement rating is 4 of 10. Funding in 2021 is for construction on south bound lanes.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$3,120,000

Prior Appropriation

\$1,650,000

	2020	2021	2022	2023	2024	2025
Borrowing		1,470,000				
Other						
TOTAL		1,470,000				

PAVEMENT MANAGEMENT

Program Description

- This program is for resurfacing, repair, crack sealants, and chip sealing on existing streets. The goal of the program is to extend the life of existing streets. Each year the program resurfaces 10-13 lane miles of roadway, chip seals 75 miles, and crack seals 75 miles.

Program Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

2020 Planned Activities

- Chip & Crack Seal
- Toepfer Ave
- E Dayton St
- Lien Rd
- Anderson St
- S Brooks St
- High Crossing Blvd

	2020	2021	2022	2023	2024	2025
Borrowing	15,323,000	18,728,000	15,142,000	15,279,000	15,392,000	15,982,000
Other	2,771,000	5,424,000	3,375,000	3,401,000	3,305,000	3,463,000
TOTAL	18,094,000	24,152,000	18,517,000	18,680,000	18,697,000	19,445,000

PLEASANT VIEW ROAD - PHASE 1

Project Description

- This project is for reconstructing the existing two lane rural roadway to a four lane roadway with bike lanes and sidewalks from US-14 to Old Sauk Road. The goal of this project is to expand the existing roadway and improve the pavement quality. The current pavement rating is 5 of 10. Funding in 2022 is for land acquisition with construction in 2023. Federal funding for this project is not yet secured.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$5,293,014

Prior Appropriation

\$3,479,014

	2020	2021	2022	2023	2024	2025
Borrowing			250,000	1,564,000		
Other						
TOTAL			250,000	1,564,000		

RAILROAD CROSSINGS & QUIET ZONES

Program Description

- This program is for repairing railroad crossings and installing infrastructure for railroad quiet zones. The goal of this program is to provide safe railroad crossings and improve the quality of the neighborhoods adjacent to railroads. The proposed funding does not anticipate construction of quiet zones from 2020-2025.

Program Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

2020 Planned Activities

General repairs that arise annually

	2020	2021	2022	2023	2024	2025
Borrowing	50,000	50,000	50,000	50,000	50,000	50,000
Other						
TOTAL	50,000	50,000	50,000	50,000	50,000	50,000

RECONSTRUCTION STREETS

Program Description

- This program is for replacing deteriorated streets to maintain neighborhood roadways. This is a continuing program with projects prioritized on an annual basis for efforts to reach Madison's goal of having less than 30% of local streets with a deficient pavement rating of less than 5 of 10.

Program Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

2020 Planned Activities

- Gregory, Copeland, Cross, Western
- Cedar St
- Vilas, Campbell
- N Ingersoll, Elizabeth
- Dunning, Jackson, LaFollette

	2020	2021	2022	2023	2024	2025
Borrowing	12,601,000	14,580,000	12,472,000	12,448,000	10,600,000	12,953,000
Other	5,189,000	5,057,000	6,058,000	4,858,000	4,822,000	5,046,000
TOTAL	17,790,000	19,637,000	18,530,000	17,306,000	15,422,000	17,999,000

UNIVERSITY AVE (SHOREWOOD TO UNIVERSITY BAY)

Project Description

- This project is for reconstructing University Avenue from Shorewood Boulevard to University Bay Drive. The goal of this project is to improve the pavement quality and stormwater network. The current pavement quality rating is 5 of 10. Funding in 2021 is for construction. Federal funding for this project has been secured.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$30,134,000

Prior Appropriation

\$1,156,000

	2020	2021	2022	2023	2024	2025
Borrowing		11,272,000				
Other		17,706,000				
TOTAL		28,978,000				

WILSON ST (MLK TO KING)

Project Description

- This project is for replacing the concrete on Wilson Street from Martin Luther King Jr Boulevard to King Street. The goal of this project is to improve the pavement rating which is currently 4 of 10. Construction is planned for 2024.

Project Priority

- Citywide Element: Land Use and Transportation
- Strategy: The goal of the Land Use and Transportation portion of the comprehensive plan is that Madison will have a safe, efficient and affordable regional transportation system that offers a variety of choices among transportation modes. The project works toward that goal in providing a safe, efficient transportation corridor for residents.

Total Budget

\$1,841,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing					1,561,000	
Other					280,000	
TOTAL					1,841,000	

ENGINEERING – OTHER PROJECTS 2020 CAPITAL IMPROVEMENT PLAN

ROBERT PHILLIPS, CITY ENGINEER



SUMMARY

2020 CIP Highlights

Equipment and Vehicle Replacement

Aerial Photo/Orthophotos

Service Building Improvements

Right of Way Landscaping

Warning Sirens (zero budget request in 2020)

Waste Oil Collection Sites (zero budget request in 2020)

Major Changes from 2019

Limited to how the budget will be used for Right of Way Landscaping. Traditionally, these dollars have been used to replant and create more landscaping beds planted with traditional perennials in our medians. This practice and the practice of planting our medians with traditional turf grass are highly maintenance intensive.

PROPOSED ROW LANDSCAPE CHANGES

In cooperation with City Parks, for 2020 we propose to go back to medians that have limited planting beds cut into turf areas

Involves removing both the planting beds and the turf and restoring area with a clover/wildflower/low grass mix.

Proposed plantings are more drought & salt tolerant.

Provides pollinator habitat.

Decreases mowing to 1 x per season.

Reduces carbon footprint of City operations.



POSSIBLE LOCATION EXAMPLES – SHOWN BELOW INCLUDE MINERAL POINT, PACKERS & NORTHPORT. ALL AREAS THAT REQUIRE WEEKLY MOWING OF LONG WIDE MEDIANS.



AERIAL PHOTO / ORTHOPHOTOS

Program Description

- This program is for updating the City's GIS base mapping with the aerial photography of existing City lands and adjacent areas where the City may expand. The goal of this program is to provide data and imagery to inform City operations and planning efforts. Data from the program is utilized by City Utilities, Planning, and Public Safety agencies.

Program Priority

- Citywide Element: Effective Government
- Strategy: Ensure that new development occurs in locations that can be efficiently served to minimize costs on the community as a whole

2020 Planned Activities

- Standard biennial aerial photo collection

	2020	2021	2022	2023	2024	2025
Borrowing	20,000		28,000		20,000	
Other	30,000		42,000		30,000	
TOTAL	50,000		70,000		50,000	

EQUIPMENT AND VEHICLE REPLACEMENT

Program Description

- This program is for the purchase of vehicles and equipment utilized by the Landfill, Sewer, and Stormwater Utilities. The goal of this program is to provide the necessary transportation and equipment resources for the services provided by these agencies.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Increase the use and accessibility of energy efficiency upgrades and renewable energy

2020 Planned Activities

- Sanitary & Storm Sewer Maintenance Vehicles & Equipment
- Sanitary & Storm Construction Vehicles & Equipment
- Landfill Monitoring & Maintenance Vehicles & Equipment
- Mowing & Snow Removal Equipment

	2020	2021	2022	2023	2024	2025
Borrowing						
Other	1,701,000	1,701,000	1,931,000	2,025,000	2,120,000	2,205,000
TOTAL	1,701,000	1,701,000	1,931,000	2,025,000	2,120,000	2,205,000

RIGHT OF WAY LANDSCAPING & TREES

Program Description

- This program is for landscaping on boulevards and right of ways throughout the City. The goal of the program is to increase drought resistance, add plant species diversity, increase pollinator habitat, and add native plant species.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Improve and preserve urban biodiversity through an interconnected greenway and habitat system

2020 Planned Activities

- East Washington Ave Native Species Replanting

	2020	2021	2022	2023	2024	2025
Borrowing	160,000	172,000	175,000	175,000	180,000	187,000
Other						
TOTAL	160,000	172,000	175,000	175,000	180,000	187,000

SERVICE BUILDING IMPROVEMENTS

Program Description

- This program is for the replacing the existing mechanical equipment at the Engineering Services Building located at 1600 Emil Street. The goal of the program is to upgrade the aged mechanical equipment for energy efficient operations.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Increase the use and accessibility of energy efficiency upgrades and renewable energy

2020 Planned Activities

- Operations Office Area Reconfiguration
- Remove 1st floor linoleum; polish, stain and seal concrete
- Locker Room Expansion Planning & Design

	2020	2021	2022	2023	2024	2025
Borrowing						
Other	141,000	141,000	155,000	163,000	171,000	178,000
TOTAL	141,000	141,000	155,000	163,000	171,000	178,000

WARNING SIRENS

Program Description

- This program is for upgrades and expansion to the City's emergency warning sirens. The goal of this program is to maintain the alert system provided by the network of warning sirens.

Program Priority

- Citywide Element: Effective Government
- Strategy: Improve accessibility to government agencies and services

2020 Planned Activities

- None

	2020	2021	2022	2023	2024	2025
Borrowing			60,000		30,000	
Other						
TOTAL			60,000		30,000	

WASTE OIL COLLECTION SITES

Program Description

- This program is for replacing the City's four Waste Oil collection sites. The goal of this program is to maintain compliance and isolate any illicit dumping of polychlorinated biphenyl (PCB) contaminated waste oil. Funding in 2021 is for construction of a new collection site at the Glenway Golf Course. Funding in 2023 is for replacement of the waste oil site at the City of Madison Monona Golf Course.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Improve lake and stream water quality

2020 Planned Activities

- None

	2020	2021	2022	2023	2024	2025
Borrowing						
Other		125,000		135,000		
TOTAL		125,000		135,000		

SEWER UTILITY 2020 CAPITAL IMPROVEMENT PLAN

ROBERT PHILLIPS, CITY ENGINEER



SUMMARY

2020 CIP Highlights

Top Priority continues to be Trenchless Sewer Rehabilitation- 7 miles of sewer main per year- the most cost effective and environmental friendly approach to upgrade a sewer main to modern standards. Carbon emissions from trenchless are 70 to 80% lower than conventional open cut sewer replacement.

Budget includes funding to rehabilitate five (5) lift stations over the next 5 years

Impact Fee Program: Northeast Neighborhood Sanitary Sewer Impact Fee Gaston Road Extension- Project allows Development to 1,280 Acre basin on Madison's northeast side to develop. There is a pending development at intersection Commercial Ave. and Reiner Road.

Major Changes from 2019

The biggest change to the 2020 budget is that the City is budgeting for five (5) lift station replacements as separate projects over the next 5 years.

This work is separate from the Lift Station Rehabilitation program which funds maintenance of the City lift stations.

Three (3) of the Lift Stations selected for replacement are currently located in the Town of Madison which will be attached to the City of Madison in 2022.

Impact Fee has a \$2,082,000 increase for 2020 from what was included in the 2019 Capital Budget. Cost Increase is due to shifting impact fee projects.

BADGER LIFT STATION REPLACEMENT/ REHABILITATION

Project Description

- This project is for the replacement or rehabilitation of the Badger lift station. The goal of this project is to maintain the sewer network operations. Madison Metropolitan Sewerage District (MMSD) has recommended this lift station as the City's top priority in 2022.

Project Priority

- Citywide Element: Effective Government
- Strategy: Does not meet a strategy

Total Budget

\$440,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing				360,000		
Other			40,000	40,000		
TOTAL			40,000	400,000		

HARPER LIFT STATION REPLACEMENT

Project Description

- This project is for replacing the Harper lift station. The goal of the project is to maintain the sewer network operations. The station has been identified by the Madison Metropolitan Sewerage District (MMSD) to require repairs and the replacement. This lift station was built in 1962 and has reached the end of its service life.

Project Priority

- Citywide Element: Effective Government
- Strategy: Does not meet a strategy

Total Budget

\$500,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing	450,000					
Other	50,000					
TOTAL	500,000					

LAKE FOREST LIFT STATION REPLACEMENT/ REHABILITATION

Project Description

- This project is for replacing the Lake Forest Lift Station. The goal of the project is to maintain the sewer network operations. The facility is currently within the Town of Madison but is anticipated to be acquired by the City of Madison during the future attachment.

Project Priority

- Citywide Element: Effective Government
- Strategy: Does not meet a strategy

Total Budget

\$440,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing					360,000	
Other				40,000	40,000	
TOTAL				40,000	400,000	

LIFT STATION REHABILITATIONS

Program Description

- This program is for repairing the Sewer Utility's 29 wastewater lift stations and force mains. The goal of this program is to maintain system reliability and to reduce the number of back-ups or emergency incidents. The City will own and maintain 32 lift stations by October 2022 when the Town of Madison is dissolved.

Program Priority

- Citywide Element: Effective Government
- Strategy: Does not meet a strategy

2020 Planned Activities

- Arbor Hills Lift Station Controls
- Waunona No. 3 (Woodley) Lift Station Controls
- Regent Lift Station Rehabilitation
- Lift Station Pump Rebuilds
- Misc Repairs

	2020	2021	2022	2023	2024	2025
Borrowing						
Other	333,000	206,000	174,000	216,000	173,000	156,000
TOTAL	333,000	206,000	174,000	216,000	173,000	156,000

MAYFLOWER LIFT STATION REPLACEMENT/ REHABILITATION

Project Description

- This project is for replacing the Mayflower Lift Station on Badger Road. The goal of the project is to maintain the sewer network operations. The facility is currently within the Town of Madison but is anticipated to be acquired by the City of Madison during the future attachment.

Project Priority

- Citywide Element: Effective Government
- Strategy: Does not meet a strategy

Total Budget

\$440,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing						360,000
Other					40,000	40,000
TOTAL					40,000	400,000

SEWER ACCESS IMPROVEMENTS

Program Description

- This program is for sewer maintenance access roads, trails, paths and easement acquisitions where access to sanitary sewer access structures is not already well established. The goal of this program is to provide City Operations crews with safe access to maintain the City's sanitary sewer system.

Program Priority

- Citywide Element: Effective Government
- Strategy: Does not meet a strategy

2020 Planned Activities

- World Dairy Access Path
- Dovetail Sanitary Access Path Phase 1

	2020	2021	2022	2023	2024	2025
Borrowing						
Other	130,000	220,000	130,000	130,000	130,000	135,000
TOTAL	130,000	220,000	130,000	130,000	130,000	135,000

SEWER IMPACT FEE DISTRICTS

Program Description

- This program is for the extension of sanitary sewer service to developing areas of the City requiring sewer infrastructure installation. The program is funded entirely by Impact Fees, and review for planned projects is conducted annually as dictated by demand for development.

Program Priority

- Citywide Element: Effective Government
- Strategy: Ensure new development occurs in locations that can be efficiently served to minimize costs on the community as a whole

2020 Planned Activities

- Northeast Neighborhood Gaston Road Extension

	2020	2021	2022	2023	2024	2025
Borrowing						
Other	3,082,000	1,000,000	1,200,000			
TOTAL	3,082,000	1,000,000	1,200,000			

SEWER RECONSTRUCTION

Program Description

- This program is for replacing sewers that have exceeded their useful life. The goal of this program is to alleviate emergency sewer repairs and back-ups by replacing the sewer infrastructure that is past its useful life. Coordination for the replacement of these sewers often gets completed with the Reconstruct Streets and Pavement Management programs within the Engineering-Major Streets budget. This program uses a case-by-case basis to evaluate the replacement of the sewers beneath streets.

Program Priority

- Citywide Element: Effective Government
- Strategy: Does not meet a strategy

2020 Planned Activities

- Rimrock Interceptor – Industrial Drive Extension
- Other Urgent Sewer Replacement Projects as Needed

	2020	2021	2022	2023	2024	2025
Borrowing	250,000	250,000	285,000	304,000	320,000	333,000
Other	370,000	100,000	115,000	96,000	80,000	83,000
TOTAL	620,000	350,000	400,000	400,000	400,000	416,000

TRENCHLESS SEWER REHABILITATION

Program Description

- This program is for rehabilitating failing sewers by lining the existing sewer mains using cameras and remote controlled tools. The goal of this program is to repair seven miles of sewer mains at selected locations based on need. This program prioritizes backyard sewer mains.

Program Priority

- Citywide Element: Effective Government
- Strategy: Does not meet a strategy

2020 Planned Activities

- Sewer Lining (Approx. 7 miles)

	2020	2021	2022	2023	2024	2025
Borrowing	1,250,000	1,250,000	1,280,000	1,280,000	1,280,000	1,330,000
Other	340,000	340,000	380,000	380,000	380,000	394,000
TOTAL	1,590,000	1,590,000	1,660,000	1,660,000	1,660,000	1,724,000

TRUAX LIFT STATION REPLACEMENT

Project Description

- This project is for replacing the Truax lift station. The scope of the project includes the lift station building structure, electrical system, and pumps. The facility was built in 1942 and has reached the end of its service life.

Project Priority

- Citywide Element: Effective Government
- Strategy: Does not meet a strategy

Total Budget

\$1,160,000

Prior Appropriation

	2020	2021	2022	2023	2024	2025
Borrowing		1,000,000				
Other	60,000	100,000				
TOTAL	60,000	1,100,000				

STORMWATER UTILITY 2020 CAPITAL IMPROVEMENT PLAN

ROBERT PHILLIPS, CITY ENGINEER



SUMMARY

2020 CIP Highlights:

Significant investment into Citywide Flood Mitigation program for studies and infrastructure upgrades to increase resiliency for flooding

Continued investment in Stormwater Quality program for reduction in total suspended solids (TSS) and total phosphorus (TP) to meet our EPA permitting requirements and water quality goals.

Continued investment in green infrastructure initiatives such as the rain garden program and potential rain garden grant program.

Major Changes from 2019:

Increased funding for the Citywide Flood Mitigation program.

Funding was added as a place holder the 2020-2025 budgets that will be used for large scale public works improvement projects informed by the watershed studies.

Major Streets budget increased for the University Avenue Reconstruction project for regional flood mitigation efforts.

Starkweather Coagulant Treatment was moved to the Horizon List

CITYWIDE FLOOD MITIGATION

Program Description

- This program is for stormwater network improvements where flooding occurs during large rain events. The goal of the program is to eliminate flooding and protect property from damage.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Improve lake and stream water quality.

2020 Planned Activities

- South Street
- Hawks Landing North
- Old Sauk Trails Pond
- Land Acquisition-Hawks Landing for future regional basin

	2020	2021	2022	2023	2024	2025
Borrowing	1,591,000	4,015,000	250,000	1,550,000	75,000	3,160,000
Other	1,409,000	500,000	2,550,000	350,000	50,000	300,000
TOTAL	3,000,000	4,515,000	2,800,000	1,900,000	125,000	3,460,000

STORM SEWER SYSTEM IMPROVEMENTS

Program Description

- This program is for improvements to the storm sewer network. The goal of this program is to ensure a reliable storm sewer system for City residents.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Improve lake and stream water quality.

2020 Planned Activities

- Cured In Place Pipe (CIPP)
- South Street Storm Improvements
- Waterways Projects

	2020	2021	2022	2023	2024	2025
Borrowing	70,000	226,000	89,000	150,000	237,000	203,000
Other	405,000	235,000	200,000	250,000	150,000	200,000
TOTAL	475,000	461,000	289,000	400,000	387,000	403,000

STORMWATER QUALITY SYSTEM IMPROVEMENTS

Program Description

- This program is for stormwater quality improvement projects associated with the City's WDNR/EPA stormwater discharge permit. The goal of this program is to improve the quality of the stormwater and compliance with environmental guidelines and initiatives. Projects within the program are prioritized annually and include: greenway reconstructions, storm water pond improvements, shoreline restoration, and urban water quality projects. Smaller projects include rain gardens with street reconstruction and dredging.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Improve lake and stream water quality

2020 Planned Activities

- Greenway – Sauk Creek Phase 3 & 4
- Pond – Curtis/Coyote Pond
- Dredge – Wexford Pond and Greenway
- Pond – Sycamore Dry Pond Retrofit
- Rain Garden – Spring Harbor School

	2020	2021	2022	2023	2024	2025
Borrowing	1,975,000	2,623,000	1,605,000	1,280,000	665,000	1,248,000
Other	375,000	217,000	455,000	475,000	200,000	200,000
TOTAL	2,350,000	2,840,000	2,060,000	1,755,000	865,000	1,448,000

STREET CLEANING EQUIPMENT - STREETS

Program Description

- This program is for replacing existing street sweeping machines operated by the Streets Division. The City's street sweeping equipment life cycle is five years with interim maintenance. The goal of this program is to reduce the discharge of pollutants and solids to the lakes by removing material from the streets surface before it is mixed with stormwater runoff.

Program Priority

- Citywide Element: Green and Resilient
- Strategy: Improve lake and stream water quality

2020 Planned Activities

- Two street sweeping machines

	2020	2021	2022	2023	2024	2025
Borrowing						
Other	455,000	455,000	465,000	300,000	470,000	470,000
TOTAL	455,000	455,000	465,000	300,000	470,000	470,000