

# TRANSPORTATION 2021 CAPITAL IMPROVEMENT PLAN

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## SUMMARY

Three existing project were combined into the BRT budget to provide efficiencies and better competitiveness for BRT grant.

- Base BRT budget

- Metro Buses 2022-2024

- Satellite facility

BRT monies were moved to 2022 to address FTA requirement that monies be committed prior to reaching a Project Funding Agreement

## 2020 CAPITAL BUDGET

Project	Budget	Total	Federal	Local Borrowing
BRT System *	Trans	\$ 128 M	\$ 96 M	\$ 32 M
Maintenance Facility	Metro	\$ 16 M		\$ 16 M
4 Years Bus Replacement	Metro	\$ 32 M	\$ 12 M	\$ 20 M
<b>Total</b>		<b>\$ 176 M</b>	<b>\$ 108 M</b>	<b>\$ 68 M</b>

25% non-CIG Match for BRT  
 Low probability of obtaining a  
 Small Starts funding  
 agreement

## PROPOSED 2021 CAPITAL IMPROVEMENT PLAN SUMMARY - BRT

Project		Total	Federal	Local Borrowing
BRT System	Trans	\$ 160 M	\$ 107 M	\$ 53 M
Maintenance Facility	Trans			
4 Years Bus Replacement	Trans			
<b>Total</b>		<b>\$ 160 M</b>	<b>\$ 107 M</b>	<b>\$ 53 M</b>

- Planned bus replacements replaced with new BRT buses as part of BRT project
- Bus facility improvements included as part of the BRT project

**50% non-CIG Match for BRT**  
**High probability of obtaining a Small Starts funding agreement**

## BRT PROJECT COMBINATION

Overall project costs reduced by \$16 million

Local borrowing reduced by \$15 million

Small Starts request reduced from 75% to 50% - *greatly* increasing likelihood of Small Starts funding

Part of this made possible by directing \$26 million of existing non-Small Starts federal funding for buses and bus facilities towards the BRT project

# BUS RAPID TRANSIT

## Program Description

Implement BRT system to increase capacity of the Metro system while decreasing ride times.

## Project Priority - 1

### § Citywide Element:

Land Use and Transportation

### § Strategy:

2. Implement Bus Rapid Transit

Total Budget

\$157.2 million\*

Prior Appropriation

\$7 million+

\*\$160 million with 2020 appropriation and \$2.8 million in debt service levy payments

+Project increase due to combining Metro Bus Purchases and Satellite Facility with BRT

	2021	2022	2023	2024
Borrowing	2,000,000	38,350,317		
Federal		105,813,105		
Other Gov		50,000		
TIF Proceed		4,000,000		
<b>TOTAL</b>	<b>\$2,000,000</b>	<b>\$148,213,422</b>		

# COMPLETE GREEN STREETS

## Second Phase Complete Street Study

Develop a single decision-making framework aligning several city initiatives, including Complete Streets, [Green Streets](#), [Tree Canopy](#), and [Distributed Green Infrastructure](#)

## Project Priority - 2

### § Citywide Element:

Land Use and Transportation

### § Strategy:

L&T 8. Expand City’s Pedestrian and Bicycle Network

G&R 2. Improve Lake and Stream Water

G&R 6. Urban Tree Canopy

Total Budget

\$300,000

Prior Appropriation

\$160,000

\*\$160 million with 2020 appropriation

+Project increase due to combining Metro Bus Purchases and Satellite Facility with BRT

	2021	2022	2023	2024
Borrowing	140,000			
TOTAL	140,000			

# METRO 2021 CAPITAL IMPROVEMENT PLAN

JUSTIN STUEHRENBURG, TRANSIT GENERAL MANAGER





# SUMMARY

## 2021 CIP Highlights

Continued renovation of 1101 E. Washington with 2021 construction on maintenance/mechanics workspace

Contract for an updated comprehensive transit technology system

## Major Changes from 2020

Metro Satellite Bus Facility project was moved to the Bus Rapid Transit (BRT) project within Transportation

Diesel Transit Coach 2021 to 2024 Program funding moved to Transportation BRT project budget to purchase BRT buses

Facilities Repair and Improvement work at 1101 E. Washington and transfer point concrete work will not occur in 2022 but will resume in 2023

Transit Technology System project separated from the Transit System Upgrades program and budget increased by approximately \$6m based on cost estimates from peer agency projects

# TRANSIT TECHNOLOGY SYSTEM

## Project Description

§ Purchase updated technological components used for real-time fleet telematics communications, and ridership data. This includes on-bus systems such as dispatch communications, fare collection, and real-time fleet information. The comprehensive system will also include related systems and software to store data and improve areas such as scheduling and fleet maintenance. This project along with \$4M budget was separated from the transit upgrades program.

## Project Priority

- § Citywide Element: Land Use and Transportation
- § Strategy: The goal is to integrate all bus hardware and software into a comprehensive transit technology system.

## 2021 Planned Projects

- § Contract for major system conversion

Total Budget

\$10,000,000

Prior Appropriation

\$0

	2021	2022	2023	2024	2025	2026
Borrowing	\$10,000,000					
Other						
<b>TOTAL</b>	<b>\$10,000,000</b>					

# TRANSIT SYSTEM UPGRADES

## Program Description

§ This program is for equipment and software enhancements.

## Program Priority

§ Citywide Element: Land Use and Transportation

§ Strategy: The program's goal is to improve the efficiency of Metro Transit's operations by updating the system tools used for the services provided.

## 2021 Planned Projects

§ Replacement of two support vehicles

	2021	2022	2023	2024	2025	2026
Borrowing	\$51,000	\$124,000	\$56,000	\$129,000	\$446,000	\$178,000
Other						
<b>TOTAL</b>	<b>\$51,000</b>	<b>\$124,000</b>	<b>\$56,000</b>	<b>\$129,000</b>	<b>\$446,000</b>	<b>\$178,000</b>

# FACILITIES REPAIR AND IMPROVEMENT

## 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

	2021	2022	2023	2024	2025	2026
Borrowing	10,805,000		10,540,000	40,000	40,000	40,000
Other						
<b>TOTAL</b>	<b>10,805,000</b>		<b>10,540,000</b>	<b>40,000</b>	<b>40,000</b>	<b>40,000</b>

## Program Priority

§ Citywide Element: Land Use and Transportation

§ Strategy: This program’s goal is to ensure that the Metro facility remains usable through at least 2040.

## 2021 Planned Projects

§ Continued renovation at 1101 East Washington Avenue facility with construction on maintenance/mechanics workspace

## TRANSIT COACHES (DIESEL)

### Program Description

§ Replacement of fixed route transit coaches annually so that an adequate number of safe and reliable vehicles is available for peak service.

### Program Priority

§ Citywide Element: Land Use and Transportation

§ Strategy: All transit coaches purchases through this program ensure a replacement fleet that meets both EPA Emissions Standards and Americans with Disabilities Act requirements.

### 2021 Planned Projects

§ Funding from 2021 to 2024 is shifted to the Transportation budget to acquire buses for the Bus Rapid Transit project.

	2021	2022	2023	2024	2025	2026
Borrowing					\$3,830,455	\$4,114,189
Other					\$4,611,545	\$4,749,811
TOTAL					\$8,442,000	\$8,864,000

# PARKING UTILITY 2021 CAPITAL IMPROVEMENT PLAN

SABRINA TOLLEY



# SUMMARY

## 2021 CIP Highlights

Vehicle Replacement Program increased by \$64,000 for new equipment, including a scissor lift for Wilson Street Garage (\$29,000).

## Major Changes from 2020

Lake Street Garage Replacement Project (\$22M) in 2023-2024 moved to the Horizon List.

# VEHICLE REPLACEMENT PROGRAM

## Program Description

This program funds the replacement of Parking Utility vehicles. The goal of the program is to replace vehicles on a ten year cycle, realizing savings on maintenance, repairs, and fuel.

## Program Priority

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

## 2021 Planned Projects

- § Replacement of three vehicles, snow blowers, one trailer, and one new scissor lift.

	2021	2022	2023	2024	2025	2026
Borrowing						
Other	\$203,000	\$54,000	\$88,000	\$37,000	\$88,000	\$36,000
TOTAL	\$203,000	\$54,000	\$88,000	\$37,000	\$88,000	\$36,000



# TRAFFIC ENGINEERING 2021 CAPITAL IMPROVEMENT PLAN

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



# SUMMARY

## 2021 CIP Highlights

TE is requesting approximately \$3 million in its 2021 Capital budget request.

Vision Zero has been converted from a one-time capital project to capital program with recurring expenses.

The request includes 4 new capital projects and significant upgrades to the Public Safety Radio Program and Vision Zero capital programs (below).

## Major Changes from 2020

### *Projects added:*

Citywide LED Conversion: Project added to CIP to convert all remaining City maintained streetlights to LED (\$3.1m)

John Nolen Tunnel Lighting: Project added to CIP (\$1.0m)

Temporary Traffic Control & Lighting: Project added to CIP (\$100k)

### *Programs with significant increases:*

Vision Zero: Project converted a program (\$3.0m)

Public Safety Radio System: Funding added to purchase backup system in 2023 (\$950k)

# CITYWIDE LED CONVERSION

## Project Description

§ This project is to convert all remaining City maintained streetlights to LED. The goal is to reduce energy usage and costs. The project’s scope includes costs for the replacement of 6,000 non-LED streetlight fixtures. Completion of the project is estimated to save \$390,000 in electricity costs annually (not including debt service costs).

## Project Priority

Citywide Element: Green and Resilient

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

Total Budget:

3,100,000

Prior Appropriation

0

	2021	2022	2023	2024	2025	2026
Borrowing	850,000	750,000	1,500,000	0	0	0
Other	0	0	0	0	0	0
TOTAL	\$850,000	\$750,000	1,500,000	0	0	0

# JOHN NOLEN TUNNEL LIGHTING

## Project Description

- This project funds replacing the current tunnel lighting on John Nolen Drive under Monona Terrace. The goal of the project is to improve safety along the existing roadway by replacing the existing lighting that has been damaged by snow and stormwater runoff. The scope of the project includes the updated lighting infrastructure and installation costs. Funding to study this project was included in the 2020 capital budget. Construction of the project is scheduled for 2022.

Total Budget:

1,000,000

Prior Appropriation

0

	2021	2022	2023	2024	2025	2026
Borrowing	0	1,000,000	0	0	0	0
Other	0	0	0	0	0	0
TOTAL	0	\$1,000,000	00	0	0	0

## 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.

# PUBLIC SAFETY RADIO SYSTEM

## Program Description

§ This program is for digital emergency communication equipment. The program's goal is to build redundancy to ensure the continuation of operations in case of major disruptions. The program's scope is focused on purchasing equipment and the corresponding software to operate the equipment. Funding in 2023 will be used to purchase a backup system to safeguard against system interruptions.

## Program Priority

Citywide Element: Effective Government

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

## 2021 Planned Projects:

Replacement of service monitor. Major upgrade funded in 2023.

	2021	2022	2023	2024	2025	2026
Borrowing	50,000	50,000	1,000,000	50,000	50,000	50,000
Other	0	0	0	0	0	0
<b>TOTAL</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$1,000,000</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$50,000</b>

# STREET LIGHT INSTALLATION

## Program Description

§

lighting systems, including computer support; replacement or painting/refurbishing of older poles, fixtures, cable and other major street light equipment; and installation of new street lights. The program's goal is to provide adequate lighting on streets for motorists, pedestrians, and bicyclists.

Borrowing	170,000	175,000	175,000	175,000	180,000	180,000
Other	440,000	440,000	440,000	440,000	440,000	440,000
TOTAL	\$ 610,000	\$ 615,000	\$ 615,000	\$ 615,000	\$620,000	\$ 620,000

## 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

## 2021 Planned Projects

- § Replacing decorative deteriorating poles on State Street and Capitol Square.
- § Paint E Washington street light poles to preserve poles that are deteriorated and may have corroded.

# TEMPORARY TRAFFIC CONTROL & LIGHTING

## Project Description

§ This project will purchase equipment needed to test new traffic patterns and to support emergency responses. The project goal is to allow staff evaluation and public input on new traffic patterns before permanent installation. This project also seeks to provide greater safety during emergency situations. The scope of the project includes purchasing temporary curbs, barriers, transportation equipment, and portable light towers.

## Project Priority:

§ Citywide Element: Health and Safety

Total Budget:

100,000

Prior Appropriation

0

	2021	2022	2023	2024	2025	2026
Borrowing	100,000	0	0	0	0	0
Other	0	0	0	0	0	0
<b>TOTAL</b>	<b>\$100,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>





# TRAFFIC SIGNAL INSTALLATION

## Program Description

§

City's traffic signal network. The goal of the program is to provide energy efficient and dynamic traffic signals that are readily 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.

## 2021 Planned Projects

Packers and Aberg Traffic Signal

Controller Cabinet upgrades

	2021	2022	2023	2024	2025	2026
Borrowing	355,000	360,000	360,000	360,000	365,000	365,000
Other	470,000	470,000	470,000	470,000	470,000	470,000
<b>TOTAL</b>	<b>\$825,000</b>	<b>\$830,000</b>	<b>\$830,000</b>	<b>\$830,000</b>	<b>\$835,000</b>	<b>\$835,000</b>

