

ITEM 4.8

CITY MANAGER'S REPORT JULY 11, 2022 CITY COUNCIL REGULAR MEETING

ITEM: CREATE CAPITAL IMPROVEMENT PROJECT PS 23-01 CITY-WIDE TRAFFIC SYSTEMS AND SAFETY UPGRADES PROJECT, AND APPROVE RELATED BUDGET AMENDMENT

RECOMMENDATION: Adopt Resolution Creating CIP PS 23-01 City-Wide Traffic Systems and Safety Upgrades Project, and Approve Related Budget Amendment

SUMMARY:

Staff is proposing the creation of Capital Improvement Project (CIP) PS 23-01 City-Wide Traffic Systems and Safety Upgrades Project for various upgrades that will maintain and improve the reliability, safety and function of various traffic control devices in the City. These upgrades will include the replacement of obsolete traffic controllers, installation of video & radar detection systems, communication upgrades, and safety upgrades including guard rails, signs, striping and bicycle facilities.

Staff is requesting that City Council approve the creation of CIP PS 23-01 City-Wide Traffic Systems and Safety Upgrades Project to maintain and improve the City's traffic infrastructure. Staff also requesting that City Council approve the related budget amendment of \$312,000.

BACKGROUND:

The number of vehicles traveling through and around the City has increased with the population as development progresses, emphasizing the importance of traffic reliability, safety and function. Staff is proposing the creation of CIP PS 23-01 City-Wide Traffic Systems and Safety Upgrades Project for various upgrades and improvements to the City's traffic infrastructure.

Of the City's 19 traffic signals, 12 are currently operated by the McCain Model 170 traffic signal controller, which has been discontinued and is no longer supported by the manufacturer. City Standards currently require the installation of the McCain Model 2070E traffic signal controller, which the remaining seven (7) of the total 19 traffic signals currently utilize. To maintain the reliability and safety of our traffic signals, the 12 traffic signals that are operated by Model 170 controllers need to be upgraded to Model 2070E controllers at a rough cost of \$30,000 per intersection. Staff recommends replacing four Model 170 controllers with Model 2070E controllers per year for the next three years at the cost of \$120,000 per year.

With the traffic signal controller upgrade, the technology of the detection system should be upgraded as well. The 12 intersections eligible for the Model 2070E upgrade utilize inductive loops as the vehicle detection system.

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The current City Standard for new traffic signals requires installing the Iteris Next Vector detection system (Iteris). Iteris uses a combination of video and radar to not only detect vehicles but also provide the City with data such as vehicle speeds, counts, types and pedestrian and bicycle counts. This data will help the City optimize traffic flow through our most congested corridors and improve safety with features like dilemma zone extension and red light run hold. In addition, this system detects, identifies and provides a green light for bicycles. Staff proposes to upgrade four intersections with Iteris Next Vector per year for the next three years at the cost of \$112,000 per year.

The connection of traffic signals to the City's network is critical to monitoring the operation and function of each signal. 7 out of the City's 19 traffic signals are not currently connected to the network therefore, staff proposes upgrades for a fiber optic connection to each of the intersections at an approximate cost of \$30,000 per year for the next three years.

Staff proposes prioritizing the traffic signal upgrades based on intersection traffic in the order shown in Table 1 below.

Table 1 – Traffic Signal Upgrade Priority

Intersection	Fiscal Year for Upgrade	Upgrade Needed		
		<i>2070E Controller</i>	<i>Iteris Detection</i>	<i>Fiber Optic</i>
Louise Avenue & Harlan Road	FY 22/23	√	√	
Louise Avenue & Cambridge Drive	FY 22/23	√	√	
Louise Avenue & Fifth Street	FY 22/23	√	√	
Louise Avenue & McKinley Avenue	FY 22/23	√	√	
Golden Valley Parkway & River Islands Parkway	FY 23/24	√	√	
Golden Valley Parkway & Marketplace Drive	FY 23/24	√	√	√
Golden Valley Parkway & Somerville Street	FY 23/24	√	√	√

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Golden Valley Parkway & Towne Centre Drive	FY 23/24	✓	✓	✓
Lathrop Road & Harlan Road	FY 24/25	✓	✓	✓
Lathrop Road & Fifth Street/Woodfield Drive	FY 24/25	✓	✓	✓
Harlan Road & Crossroads Business Park	FY 24/25	✓	✓	✓
Harlan Road & J Street	FY 24/25	✓	✓	✓

Traffic safety improvements such as signs, striping, guardrails, bicycle facilities, lighting and education are also critical as the City’s population increases. Often, these improvements are installed as a response to an incident and to prevent future incidents; therefore, staff is proposing an additional budget of \$50,000 per year.

REASON FOR RECOMMENDATION:

Creation of CIP PS 23-01 City-Wide Traffic Systems and Safety Upgrades Project is needed to maintain and improve the reliability, safety and function of various traffic control devices in the City. These improvements will ensure that the City’s traffic infrastructure keeps pace with the increasing population.

FISCAL IMPACT:

Staff requests City Council approve a budget amendment transferring \$312,000 from the Street Reserve Fund (1010) to the Streets CIP Fund (3310) as follows:

Increase Transfer Out

1010-9900-990-9010 \$312,000

Increase Transfer In

3310-9900-393-0000 PS 23-01 \$312,000

Increase Expenditures

3310-8000-420-75-00 (Labor) PS 23-01 \$30,000
 3310-8000-430-37-00 (Materials) PS 23-01 \$282,000

Decrease Reserve

1010-251-03-00 \$312,000


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BUDGET AMENDMENT

ATTACHMENTS:

- A. Resolution Creating CIP PS 23-01 City-Wide Traffic Systems and Safety Upgrades Project, and Approve Related Budget Amendment

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APPROVALS:



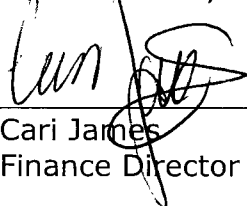
Brad Taylor
City Engineer

6/30/2022
Date



Tony Fernandes
Information Systems Director

6-29-2022
Date



Cari James
Finance Director

6/30/2022
Date



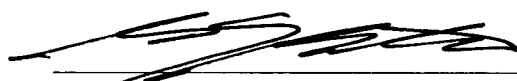
Michael King
Assistant City Manager

6-29-2022
Date



Salvador Navarrete
City Attorney

6-29-2022
Date



Stephen J. Salvatore
City Manager

7.5.22
Date

RESOLUTION NO. 22-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LATHROP RESOLUTION CREATING CIP PS 23-01 CITY-WIDE TRAFFIC SYSTEMS AND SAFETY UPGRADES PROJECT AND APPROVE RELATED BUDGET AMENDMENT

WHEREAS, the number of vehicles traveling through and around the City has increased with the population as development progresses, emphasizing the importance of traffic reliability, safety and function. Staff is proposing the creation of Capital Improvement Project (CIP) PS 23-01 City-Wide Traffic Systems and Safety Upgrades Project for various upgrades and improvements to the City’s traffic infrastructure; and

WHEREAS, of the City’s 19 traffic signals, 12 are currently operated by the McCain Model 170 traffic signal controller, which has been discontinued and is no longer supported by the manufacturer. Staff proposes to replace four Model 170 controllers with Model 2070E controllers per year for the next three years at the cost of \$120,000 per year; and

WHEREAS, with the traffic signal controllers upgrade, the technology of the detection system should be upgraded as well. The 12 intersections eligible for the Model 2070E upgrade utilize inductive loops as the vehicle detection system. The current City Standard for new traffic signals requires installing of the Iteris Next Vector detection system, which uses a combination of video and radar to not only detect vehicles but also provide the City with data such as vehicle speeds, counts, types and pedestrian and bicycle counts. Staff proposes to upgrade four intersections with Iteris Next Vector per year for the next three years at the cost of \$112,000 per year; and

WHEREAS, the connection of traffic signals to the City’s network is critical to monitor the operation and function of each signal. 7 out of the City’s 19 traffic signals are not currently connected to the network, and therefore staff proposes upgrades for a fiber optic connection to each of the intersections at an approximate cost of \$30,000 per year for the next three years; and

WHEREAS, Staff proposes prioritizing the traffic signal upgrades based on intersection traffic in the order shown in Table 1 below.

Table 1 – Traffic Signal Upgrade Priority

Intersection	Fiscal Year for Upgrade	Upgrade Needed		
		<i>2070E Controller</i>	<i>Iteris Detection</i>	<i>Fiber Optic</i>
Louise Avenue & Harlan Road	FY 22/23	√	√	
Louise Avenue & Cambridge Drive	FY 22/23	√	√	

Louise Avenue & Fifth Street	FY 22/23	✓	✓	
Louise Avenue & McKinley	FY 22/23	✓	✓	
Golden Valley Parkway & River Islands Parkway	FY 23/24	✓	✓	
Golden Valley Parkway & Marketplace Drive	FY 23/24	✓	✓	✓
Golden Valley Parkway & Somerville Street	FY 23/24	✓	✓	✓
Golden Valley Parkway & Towne Centre Drive	FY 23/24	✓	✓	✓
Lathrop Road & Harlan Road	FY 24/25	✓	✓	✓
Lathrop Road & Fifth Street/Woodfield Drive	FY 24/25	✓	✓	✓
Harlan Road & Crossroads Business Park	FY 24/25	✓	✓	✓
Harlan Road & J Street	FY 24/25	✓	✓	✓

; and

WHEREAS, traffic safety improvements such as signs, striping, guardrails, bicycle facilities, lighting and education are also critical as the City's population increases. Often, these improvements are installed as a response to an incident and to prevent future incidents, therefore staff is proposing an additional budget of \$50,000 per year.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Lathrop does hereby approve of the creation of CIP PS 23-01 City-Wide Traffic Systems and Safety Upgrades Project with a budget of \$312,000 per year for three years; and

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the City Council of the City of Lathrop hereby approves the budget amendment transferring \$312,000 from the Street Reserve Fund (1010) to the Streets CIP Fund (3310) as follows:

<u>Increase Transfer Out</u>		
1010-9900-990-9010		\$312,000
 <u>Increase Transfer In</u>		
3310-9900-393-0000	PS 23-01	\$312,000
 <u>Increase Expenditures</u>		
3310-8000-420-75-00 (Labor)	PS 23-01	\$30,000
3310-8000-430-37-00 (Materials)	PS 23-01	\$282,000
 <u>Decrease Reserve</u>		
1010-251-03-00		\$312,000

PASSED AND ADOPTED by the City Council of the City of Lathrop this 11th day of July 2022, by the following vote:

AYES:

NOES:

ABSTAIN:

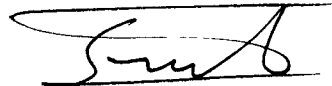
ABSENT:

Sonny Dhaliwal, Mayor

ATTEST:

Teresa Vargas, City Clerk

APPROVED AS TO FORM:



Salvador Navarrete, City Attorney

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