ITEM #:	**13**
DATE:	**03-12-24**
DEPT:	**PW**

COUNCIL ACTION FORM

SUBJECT: **SIGNALIZED INTERSECTION TRAFFIC DETECTION SYSTEM PURCHASE**

BACKGROUND:

At its April 14, 2020 meeting, City Council approved single source purchases for GRIDSMART video detection systems from General Traffic Controls of Spencer, Iowa. The GRIDSMART system consists of a single 360-degree traffic camera that provides real time data on the vehicles such as volume, turning movements, traffic counts, and length-based classifications. GRIDSMART was selected after an evaluation process involving four separate video detection systems.

Through that initial Council approval and subsequent approvals, multiple GRIDSMART systems have been purchased. In 2023, the GRIDSMART processor was updated to a new model. **Upon the release of the new processor, staff became aware of multiple surrounding agencies that were having operational issues with the new system. Around the same timeframe, City staff received one new processor system and began having similar issues.** At that time no new systems were purchased and staff is currently working with GRIDSMART to deploy firmware updates to the malfunctioning system at which point the system will be monitored for longevity and reliability of the update.

While staff continued to watch for updates and solutions to the issues that were occurring, a re-evaluation of market alternatives to the GRIDSMART detection systems was initiated. Staff evaluated detection systems from three additional brands, including demonstration units where available:

- NoTraffic Video/Radar Detection System,
- Iteris Vantage Next Detection System, and
- Miovision TrafficLink Detection System.

The systems were evaluated on the following criteria: ease of installation, compatibility with existing traffic signal components, user interface for data management, and cost. **This evaluation led to staff selecting "NoTraffic Video/Radar Detection Systems" as the highest evaluated system at the lowest cost.**

For reference, an intersection can currently be fitted with a NoTraffic Video/Radar Detection System for $25,853, whereas the current Gridsmart cost for most larger intersections is $28,727. Below is a table of detection systems that are needed through FY 2024/25:

Fiscal Year	CIP Program / Budget	Location	Cost
2022/23	CyRide Route Pavement Improvements	Lincoln Way & Beedle / Marshall (2 Units)	$52,000
2023/24	US Highway 69 Improvements	4 Intersections along US HWY 69 (4 Units)	$103,412 - 50% DOT Reimbursement After Project
2023/24	Traffic System Capacity Improvements	Airport Road & Sam's Club / Danfoss	$26,000

2024/25	Traffic System Capacity Improvements	13th & Grand	$26,000
2024/25	Traffic Operating Budget	Traffic Inventory	$26,000
		Total	**$233,412**

NoTraffic operates through local dealers based on territory. As a result, General Traffic Controls of Spencer, Iowa is the only vendor in Iowa that can provide the product, which necessitates a single source purchase. **City policies require that a single source purchase in this amount be approved by the City Council. Each system will be charged to the appropriate project with funding approved in each respective CIP program.**

It should be emphasized that all previous purchases of past GRIDSMART models are operating as desired (problems were occurring with only the newest model) and the new NoTraffic equipment is compatible with the previous GRIDSMART installations.

ALTERNATIVES:

1. Approve the purchases of NoTraffic Video/Radar Detection Systems from General Traffic Controls, Spencer, Iowa in an amount not to exceed $233,412 as a single source provider.

2. Do not approve the purchase of traffic detection systems.

CITY MANAGER'S RECOMMENDED ACTION:

Staff has reviewed available options, selected the system best suited to the City's traffic signal network needs while providing the City the best value. Funding for these units has already been approved through the annual budget process. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.