



# City of Grand Island

Tuesday, October 11, 2016

Council Session

## Item G-9

**#2016-248 - Approving Purchase of a New Mastic Applicator for the Streets Division of the Public Works Department**

Staff Contact: John Collins, P.E. - Public Works Director

# Council Agenda Memo

**From:** Shannon Callahan, Street Superintendent

**Meeting:** October 11, 2016

**Subject:** Approving Purchase of a New Mastic Applicator for the Streets Division of the Public Works Department

**Presenter(s):** John Collins PE, Public Works Director

## Background

The Streets Division of the Public Works Department has funds budget in the 2016-2017 fiscal year for a new Mastic Applicator. This machine is used to heat and apply mastic material (rubber w/aggregate) to repair wide cracks, potholes, and pavement imperfections. Streets rented a kettle and applied mastic for pothole and wide crack filling for the first time in FY 2015-2016.

Areas where the material was placed included North Broadwell near Eagle Scout Lake, Old Lincoln Hwy, and the Hwy 2/281 ramps. The pavement in these areas was being patched constantly over the past few winters; since the mastic was placed there has been no further need for patching of the same locations. This material has proven to be worth the time and expense compared to cold patch material.

Weather controls when mastic can be properly applied to the pavement and monthly rental is prohibitive if the weather does not cooperate therefore purchasing is the more cost effective alternative and will allow more material to be applied each year without additional equipment rental costs. \$11,450 was spent within the last calendar year on rental of the mastic applicator. Assuming the applicator has a useful life of 10 years, the average annual cost would be \$5,300.

## Discussion

The equipment specifications for a new Mastic Kettle awarded under State of Nebraska Contract No. 13691 OC to Logan Contractors Supply of Omaha, Nebraska meets all the requirements for the Streets Division (brochure attached). The purchase price of the new Mastic Applicator under the State of Nebraska Contract is \$50,652.00 plus an additional \$2,454.00 for needed options and delivery for a total purchase price of \$53,106.00.

## **Alternatives**

It appears that the Council has the following alternatives concerning the issue at hand.  
The Council may:

1. Move to approve
2. Refer the issue to a Committee
3. Postpone the issue to future date
4. Take no action on the issue

## **Recommendation**

City Administration recommends that the Council approve the purchase of a new heated rubberized asphalt crack sealing machine using the State of Nebraska Contract No. 13691 OC awarded to Logan Contractors Supply of Omaha, Nebraska for a purchase price of \$50,652.00 plus an additional \$2,454.00 for needed options and delivery for a total purchase price of \$53,106.00.

## **Sample Motion**

Move to approve the resolution

# PATCHER™

## Hot Mastic Sealant Melter



Skid-Mounted  
PATCHER I

Trailer-Mounted  
PATCHER II



### Crafco Innovation Makes Installing Mastic Sealant Easy

*Designed to melt and prepare  
hot mastic sealant like:*

- Crafco Mastic One™
- Crafco PolyPatch™
- Crafco TechCrete™
- Crafco Matrix 501/502® Asphaltic Plug Bridge Joint System
- Deery® Level & Go Repair Mastic®
- Deery® Asphaltic Plug Bridge Joint System®

And others

*The Crafco Patcher is an oil-jacketed melter specifically designed to melt mastic sealants. The Patcher features digital controls to assure that mastic temperatures are held within specifications at all times. The Patcher has angled and staggered agitation blades which provide superior material agitation and aggregate suspension for a consistent material blend. A 6:1 gear box delivers high torque to eliminate agitation stall when using high-density material. The Patcher is equipped with many safety features, including an automatic shut-off on the lid to prevent injuries during operation. With an array of options - like the heated swivel chute - placing mastic is fast and easy.*

**CRAFCO**®  
INC  
PRESERVATION PRODUCTS PAVEMENT

Delivering Confidence Through Innovation. Quality and Value Since 1976

# Patcher Features & Benefits



Digital controls for temperature accuracy



Dual lids allow for simultaneous loading and cleaning of the bucket



Staggered, angled agitation blades for thorough material blend and to sustain aggregate suspension



Diesel-powered engine



Fuel-efficient and easy-accessible burner

## ✓ Fast Heat-Up Time

A large burner, extensive heating surface area and precision thermostatic controls allow more heat to get into the material. Depending on the specific mastic, Patchers can melt 1,500 lbs per hour, meaning that 200 gal (757 l) of mastic sealant will achieve 380F temperature and be ready to pour in 2 hours<sup>1</sup>. The new Patcher II is the fastest mastic sealant melter available!

## ✓ Mastic Application Made Easy

The 6:1 gear box delivers more high torque to both heat and mix the material and keep the aggregate suspended in the binder, providing an evenly mixed mastic sealant solution. The large lever makes the gate easy to operate and the weighted gate defaults to a shut position, keeping material and heat in the Patcher. The heated rear chute provides a smooth, even dispersing of mastic sealant and avoids the plug that was associated with other models.

## ✓ Designed with Ease-of-Use and Your Safety in Mind

Patchers are equipped with an automatic shut-off on the lid. The control box is positioned at face height. The burner location is optimal for easy access and maintenance. With the Patcher II, the lid can completely cover the bucket during cleaning, allowing both returning mastic and heat to remain inside the machine. This provides both melter efficiency and crew safety.



Side burner with tool holder



Optional heated swivel chute (On Patcher II models only)

	<b>PATCHER I</b> <i>Skid Mount</i>	<b>PATCHER II</b> <i>Trailer Mount</i>
Engine/Diesel	10hp Kohler	20hp Isuzu
Burner	240,000 BTU	245,000 BTU
Suspension	n/a	Dual, independent torsional system
Tires	n/a	225/75 R15

### Capacity

Material Vat	95 gal. (360 l)	200 gal. (757 l)
Heat Transfer Oil	17 gal. (64 l)	24 gal. (90 l)
Diesel Fuel	7 gal. (27 l)	26 gal. (98 l)
Hydraulic Oil	13 gal. (49 l)	15 gal. (57 l)

### Dimensions

Dry Weight	3,000 lbs. (1,361 kg)	5,000 lbs. (2,268 kg)
Length	107 in. (272 cm)	179 in. (455 cm)
Width	43 in. (110 cm)	74 in. (188 cm)
Height	55 in. (140 cm)	70 in. (178 cm)
Loading Height	43 in. (110 cm)	60 in. (153 cm)
Chute Height	11 in. (28 cm)	20 in. (51 cm)

## FEATURES

- Diesel-powered
- Digital temperature controls
- 6:1 gear box
- Easy clean-out
- Safety shut-off lid
- Curb-side controls
- Oil-jacketed, double boiler
- Designed for an array of materials

## OPTIONS

- Fire extinguisher
- Hand torch
- Heat lance
- Heated Swivel Chute
- Hitches
- Hot Mastic Applicator
- Light kits
- And more...

1. This is at an ambient temperature of 80°F (26.67°C)

RESOLUTION 2016 - 248

WHEREAS, the Streets Division of the Public Works Department for the City of Grand Island, budgeted for a new Mastic Applicator in the 2016/2017 fiscal year; and

WHEREAS, the State of Nebraska Contract No. 13573 OC meets all equipment specifications and all statutory bidding requirements; and

WHEREAS, the State of Nebraska awarded said contract to Logan Contractors Supply of Omaha, Nebraska.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that a purchase order and subsequent payment is authorized for a new Mastic Applicator in the amount of \$53,106.00 from Logan Contractors Supply of Omaha, Nebraska.

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Adopted by the City Council of the City of Grand Island, Nebraska, October 11, 2016.

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Jeremy L. Jensen, Mayor

Attest:

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RaNae Edwards, City Clerk

Approved as to Form	☐ _____
October 7, 2016	☐ City Attorney