

**CITY COUNCIL
COMMUNICATION:**

ITEM _____

**OFFICE OF THE CITY MANAGER
CITY OF DES MOINES, IOWA**

99-342

SYNOPSIS -

AGENDA:

JULY 26, 1999

The 3M Company (St. Paul, Minnesota-Bret Anderson, State of Iowa representative) has developed a new liquid compound for use as a durable pavement marking, and is offering it for experimental use. It is recommended that this product be installed on Army Post Road from SE 14th Street east to the East Corporate Limits (SE 36th Street), and be evaluated for potential future use on other City streets. The 3M Company is the sole source provider of this liquid compound.

SUBJECT:

EXPERIMENTAL
APPLICATION OF
3M BRAND
PAVEMENT
MARKING

FISCAL IMPACT -

This project is included in the 1999-2000/2004-05 Capital Improvements Program (CIP), page 289, Account No. 380048, Durable Pavement Markings. The estimated cost for this installation is \$18,000, based on \$0.50 per lineal foot of four-inch-wide line successfully installed, as measured by the City following installation.

TYPE:

RESOLUTION
ORDINANCE
RECEIVE/FILE

RECOMMENDATION -

SUBMITTED BY:

FLOYD BENTZ, P.E.
CITY ENGINEER

Approval.

BACKGROUND -

The 1999-2000/2004-05 CIP includes a project entitled "Durable Pavement Markings," page 289, Account No. 380048. This project provides for installation of a variety of durable pavement markings on Des Moines streets. These durable pavement markings are intended to provide year-round pavement markings with a useful life of four to eight years. The Traffic and Transportation Division has installed and evaluated different materials under this program, and continues to look for a product that will provide the optimum performance at the

lowest cost.

The 3M Company has been a worldwide leader in the manufacture of traffic control products for many years, and the City has used a number of these 3M products very successfully. The most durable, highest performing pavement marking product available is a 3M preformed tape that is installed in a groove in the pavement, but it is also the most expensive product to install. The City has also installed other manufacturer's products, such as thermoplastic and epoxy paints, which are less expensive but also less durable and lower performing than the pavement marking tape.

The 3M Company has developed a new liquid compound for use as a durable pavement marking, and is offering it for experimental use. This product is available only through 3M, including the only truck equipped to apply this liquid compound. 3M will be installing this product in Iowa in Sioux City and in Iowa City during the last week of July, and will be available to also install markings in Des Moines.

The Traffic and Transportation Division has determined an excellent location for installing this product for use and evaluation. Army Post Road from SE 14th Street east to SE 36th Street has recently been transferred from the Iowa Department of Transportation (IDOT) to City jurisdiction upon the completion of Relocated US 65 to Highway 65/69. This roadway was developed to rural design standards, with open ditch drainage instead of curbs, and the section east of Indianola Avenue is largely undeveloped and does not have street lights. Because of the lack of streetlights and no curbs, motorists rely more heavily on the pavement markings, including edge lines, than on many other City streets that have curbs and streetlights. In addition, the City's paint equipment is designed primarily to paint urban streets, and is not as well suited to paint roadways with a rural type design.

High performance markings on this roadway would be valuable to motorists, and would provide a good comparison to epoxy paint that was installed as part of the intersection safety project at Indianola Avenue. The estimated quantity of markings to be installed on this section of Army Post Road includes approximately 25,500 feet of white edge lines and 10,500 feet of yellow center line. Based on a unit cost of \$0.50 per foot, the estimated cost for this material is \$18,000. 3M Company will furnish the liquid compound, the application truck, and a

factory technician; the City will provide a paint truck operator and following traffic control vehicles. 3M Company will be paid the unit cost for the actual amount of markings installed, as measured by the City.

It is recommended that the City Council approve the installation of these experimental markings by 3M Company, as a sole source provider, so they can be evaluated for potential future use on other City streets.