TERM CONTRACTS

31. Approve Amendment #5 to IFB-3049-02/GMG – Term Contract for Roadway Markings and Striping Materials and Services, with Fausnight Stripe & Line, Inc., Longwood (Price Increase) (Term Contract).

IFB-3049-02/GMG provides for the supply and installation, maintenance and emergency striping of pavement throughout the County. Amendment #5 will provide for a price increase due to Manufacturer's increase. A market research was conducted and it was determined that the proposed price is in accordance with current market costs and below the cost offered through competitive process to other governmental entities. The comparison is included in the backup documents. The revised Exhibit A, Scope of Services and Price Schedule, will be effective through the renewal period, June 18, 2006 through June 17, 2007.

Public Works Department/Traffic Engineering Division and Fiscal Services/Purchasing and Contracts Division recommend the Board to approve the amendment and authorize the Purchasing and Contracts Manager to execute the amendment.

FIFTH AMENDMENT TO AGREEMENT FOR ROADWAY MARKINGS AND STRIPING SERVICES (IFB-3049-02/GMG)

THIS FIFTH AMENDMENT is made and entered into this _____ day of ______, 20_____, 20_____ and is to that certain Agreement made and entered into on the 18th day of June, 2002, as amended on November 13, 2003, December 16, 2004, March 1, 2005, and on April 27, 2005, between FAUSNIGHT STRIPE & LINE, INC. whose address is 910 Charles Street, Longwood, Florida 32750, hereinafter referred to as "CONTRACTOR," and SEMINOLE COUNTY, a political subdivision of the State of Florida, whose address is Seminole County Services Building, 1101 East First Street, Sanford, Florida 32771, hereinafter referred to as "COUNTY".

WITNESSETH:

WHEREAS, the CONTRACTOR and COUNTY entered into the above-referenced Agreement on June 18, 2002, as amended on November 13, 2003, December 16, 2004, March 1, 2005, and on April 27, 2005, for roadway markings and striping services; and

WHEREAS, the parties desire to amend the Agreement so as to enable both parties to continue to enjoy the mutual benefits it provides; and

WHEREAS, Section 21 of the Agreement provides that any amendments shall be valid only when expressed in writing and duly signed by the parties,

NOW, THEREFORE, in consideration of the mutual understandings and agreements contained herein, the parties agree to amend the Agreement as follows:

1. Exhibit "A", Scope of Services, is deleted in its entirety and replaced by Exhibit "A", attached hereto.

2. Except as herein modified, all terms and conditions of the Agreement shall remain in full force and effect for the term of the Agreement, as originally set forth in said Agreement.

1

3. The Purchasing Manager is hereby authorized to execute this Amendment on behalf of the County.

IN WITNESS WHEREOF, the parties hereto have executed this instrument for the purpose herein expressed.

ATTEST:

1 otau BARBARA BONACCI, Secretary

(CORPORATE SEAL)

un los By: PHILLIP FAUSNIGHT President 6/23/06 Date:

FAUSNIGHT STRIPE & LINE, INC.

SEMINOLE COUNTY, FLORIDA

By:

RAY HOOPER, Purchasing and Contracts Manager

Print Name

Witness

Witness

Date:___

As authorized by the BCC at their July 25, 2006 meeting.

BCC - 7/25/

Print Name

For the use and reliance of Seminole County only.

Approved as to form and legal sufficiency.

Count AC/1pk 6/10/06 ifb-3049 5am

2

The sum on the stick the sum					
Thermoplastic Items	Original Cost	Revised Cost			
		6/18/06-6/17/07			
4" Yellow Stripe	\$0.15	\$0.17			
4" White Stripe	\$0.16	\$0.18			
6" White Stripe	\$0.45	\$0.50			
6" Yellow Stripe	\$0.42	\$0.47			
4" Blue Stripe	\$0.60	\$0.63			
8" White Stripe	\$0.70	\$0.78			
12" White Stripe	\$1.30	\$0.78 \$1.40			
18" Yellow Stripe	\$1.26	\$1.40 \$1.41			
18" White Stripe					
24" White Stripe	\$1.26	\$1.41			
"No Parking or Standing	\$1.28	\$1.45			
Fire Lane", 18" Height	¢00.00	¢00.00			
Symbol-Single Arrow	\$80.00	\$90.00			
Symbol-Combination Arrow	\$34.50	\$39.00			
	\$36.00	\$40.50			
Symbol-Handicap	\$35.00	\$39.50			
Message - Misc., 4 to 6 Letters	\$45.00	\$51.00			
Message - Railroad Crossing	\$45.00	\$51.00			
Message - School	\$100.00	\$113.00			
Message - Only	\$30.00	\$34.00			
Message - Merge	\$30.00	\$34.00			
Message Stop	\$30.00	\$34.00			
Paint Items	Original Cost	Revised Cost			
	-	6/18/06-6/17/07			
4" Yellow Stripe	\$0.06	\$0.07			
4" White Stripe	\$0.08	\$0.09			
6" White Stripe	\$0.11	\$0.13			
6" Yellow Stripe	\$0.11	\$0.13			
4" Blue Stripe	¢0.00				
	\$0.20	\$0.21			
8" White Stripe	\$0.13	\$0.21 \$0.15			
8" White Stripe 12" White Stripe	\$0.13 \$0.25	\$0.15 \$0.29			
8" White Stripe 12" White Stripe 18" Yellow Stripe	\$0.13 \$0.25 \$0.30	\$0.15			
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe	\$0.13 \$0.25 \$0.30 \$0.30	\$0.15 \$0.29			
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe	\$0.13 \$0.25 \$0.30	\$0.15 \$0.29 \$0.34		•	
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe "No Parking or Standing	\$0.13 \$0.25 \$0.30 \$0.30	\$0.15 \$0.29 \$0.34 \$0.34			
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe	\$0.13 \$0.25 \$0.30 \$0.30	\$0.15 \$0.29 \$0.34 \$0.34			
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe "No Parking or Standing Fire Lane", 18" Height Symbol-Single Arrow	\$0.13 \$0.25 \$0.30 \$0.30 \$0.35	\$0.15 \$0.29 \$0.34 \$0.34 \$0.40 \$23.00			
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe "No Parking or Standing Fire Lane", 18" Height Symbol-Single Arrow Symbol-Combination Arrow	\$0.13 \$0.25 \$0.30 \$0.30 \$0.35 \$20.00	\$0.15 \$0.29 \$0.34 \$0,34 \$0.40			
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe "No Parking or Standing Fire Lane", 18" Height Symbol-Single Arrow Symbol-Combination Arrow Symbol-Handicap	\$0.13 \$0.25 \$0.30 \$0.30 \$0.35 \$20.00 \$8.00	\$0.15 \$0.29 \$0.34 \$0.34 \$0.40 \$23.00 \$9.00			
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe "No Parking or Standing Fire Lane", 18" Height Symbol-Single Arrow Symbol-Combination Arrow	\$0.13 \$0.25 \$0.30 \$0.30 \$0.35 \$20.00 \$8.00 \$10.00	\$0.15 \$0.29 \$0.34 \$0.34 \$0.40 \$23.00 \$9.00 \$11.25			
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe "No Parking or Standing Fire Lane", 18" Height Symbol-Single Arrow Symbol-Combination Arrow Symbol-Handicap	\$0.13 \$0.25 \$0.30 \$0.35 \$20.00 \$8.00 \$10.00 \$12.00	\$0.15 \$0.29 \$0.34 \$0.34 \$0.40 \$23.00 \$9.00 \$11.25 \$13.30 \$16.50			
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe "No Parking or Standing Fire Lane", 18" Height Symbol-Single Arrow Symbol-Combination Arrow Symbol-Handicap Message - Misc., 4 to 6 Letters	\$0.13 \$0.25 \$0.30 \$0.35 \$20.00 \$8.00 \$10.00 \$12.00 \$15.00	\$0.15 \$0.29 \$0.34 \$0.34 \$0.40 \$23.00 \$9.00 \$11.25 \$13.30 \$16.50 \$11.30			
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe "No Parking or Standing Fire Lane", 18" Height Symbol-Single Arrow Symbol-Combination Arrow Symbol-Handicap Message - Misc., 4 to 6 Letters Message - Railroad Crossing	\$0.13 \$0.25 \$0.30 \$0.35 \$20.00 \$8.00 \$10.00 \$15.00 \$10.00 \$10.00	\$0.15 \$0.29 \$0.34 \$0.34 \$0.40 \$23.00 \$9.00 \$11.25 \$13.30 \$16.50 \$11.30 \$11.30		•	
8" White Stripe 12" White Stripe 18" Yellow Stripe 18" White Stripe 24" White Stripe "No Parking or Standing Fire Lane", 18" Height Symbol-Single Arrow Symbol-Combination Arrow Symbol-Combination Arrow Symbol-Handicap Message - Misc., 4 to 6 Letters Message - Railroad Crossing Message - School	\$0.13 \$0.25 \$0.30 \$0.30 \$0.35 \$20.00 \$8.00 \$10.00 \$12.00 \$15.00 \$10.00	\$0.15 \$0.29 \$0.34 \$0.34 \$0.40 \$23.00 \$9.00 \$11.25 \$13.30 \$16.50 \$11.30			

association stripe and lane will install a

SIMSCHER 320 WARRANCE RICE

as locations are nequested via Porchase Orders on Semmole County Roadway, Vantings Contrata, No. (IFP-3049

Surfaces shall be prepared as follows set

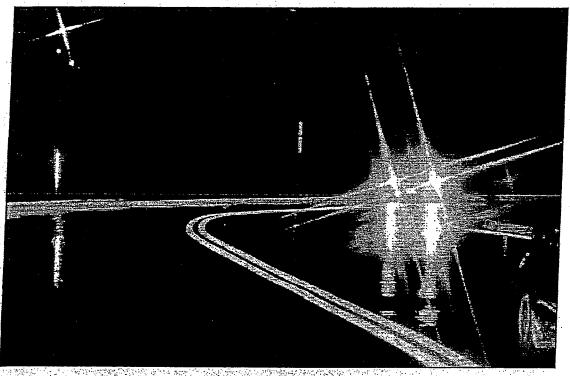
- An area dry and clean of any loose debris.
- When the surface is not conducive for installation of the Wet-Reflective Tape, Fausnight shall notify Traffic Engineering for approval of grinding (or other measures) when deemed necessary to insure proper adhesion. Cost for grinding is as indicated in Roadway Markings Contract No.: IFP-3049.
- The installed cost is \$3.00 per LF.
- Anticipated quantity to be installed annually:24,000 LF \$72,000.00

Prepared by: Terry Owens 4-5-05



StamarkTM

Wet Reflective Pavement Marking Tape Series 820



Keep roadways from disappearing in the rain

Highly reflective, wet or dry Easily applied to new and existing road surfaces Provides continuous delineation, day and night Roadway may be open to traffic immediately

3M Traffic Safety Systems

Highway statistics reveal a nighttime accident rate that is more than three times the daytime rate

According to the National Highway Traffic Safety Administration, midnight to 3:00 am on Saturdays and Sundays proved to be the deadliest 3-hour periods throughout 2002, with a reported 1,281 and 1,235 fatal crashes, respectively. And while collisions with fixed objects and non-collisions accounted for only 18 percent of all crashes, they accounted for 44 percent of all fatal crashes. Reduced visibility plays a major role in these types of crashes. Retroreflective traffic control devices are designed to help offset the lack of visual cues in the nighttime driving environment. Implementing this retroreflective technology can put us on the road to safer driving conditions at night and in low lighting conditions.

Surveys conducted by researchers and state DOTs have shown that one of the basic needs of drivers is to have pavement markings that are visible in wet and rainy conditions. 3M has developed advanced technologies and high performance materials to meet this and other rising needs on today's highways.

Nighttime and inclement weather can create the most challenging driving environment

We have all experienced the distress and uncertainty of driving along the highway on a dark, rainy night - the distracting glare from headlights bouncing off the wet road surface, the difficulty of seeing the pavement markings that tell us where the road is going. There is no denying it, navigating the highway during rainfall is a challenge for even the best drivers. The bottom line - we need to make roads safer.

3M wet reflective technology - performance you can count on

3M innovation is at work to help make driving safer in all conditions. 3MTM StamarkTM Wet Reflective Tape Series 820 utilizes specially designed optics to provide wet and dry performance. Unlike other durable markings, Series 820 tape appears as bright in the rain as it does when dry to provide positive guidance around the clock, in wet and dry conditions. Series 820 tape is a durable, conformable pavement marking intended for longitudinal line applications on all road surfaces.

Engineered for superior reflective performance, Series 820 tape provides drivers with highly visible markings they can rely on. At night in dry conditions, Series 820 tape appears brighter than conventional markings. In rain, when conventional pavement markings disappear, Series 820 tape continues to perform. Whether it rains for 10 minutes or 10 hours, Series 820 tape remains just as bright.

Features	Benefits
Enclosed lens optics	Enhances driver safety and comfort. Driver sees a clearly defined line in all weather conditions.
Economical alternate to steel snowplowable castings	Provides motorist safety, all weather visibility and cost savings over steel castings.
Composite fail construction	Series 820 tape will stay where you place it.
All weather visibility 🛏	Conventional pavement markings disappear in wet weather. 3M advanced technologies and high performance materials enhance motorists safety in confusing work zones.
3M proven quality performance	From technical advancements to customer service and support, 3M stands behind every product we sell.

Lead the way to safer roadways

Look to 3M to help you lead the way to safer roads. For more than 60 years we have developed and used 3M technologies to produce products that make roads safer. And we go the extra mile to give you the service you need to make your applications successful. 3M offers a full range of pavement marking products and training to help you with your applications. For more information on our durable pavement marking products and services, please contact your 3M Traffic Safety Systems Division sales representative or call 1-800-553-1380. In Canada, please call 1-800-265-1840.

Traffic Safety Systems Division

3M Center, Building 225-5S-08 P.O. Box 33225 St. Paul, MN 55133-3225 www.3M.com/tss 3M Canada Company

P.O. Box 5757 London, Ontario N6A 4TI 1.800.3MHELPS



Winner of 2003 "Top Rollout" award from *Better Roads* magazine.

3M Merico, S.A. de C.V.

Av. Santa Fe No. 55 Col. Santa Fe, Del. Alvaro Obregon Mexico, D.F. 01210 B 10% Past-consumer waste paper

© 5/2004, 3M IPC. All rights reserved. 75-0300-9619-4

Stamark[™] Wet Reflective Pavement Marking Tape

Series 820

Market Test Product Bulletin 820

February 2004

Replaces MT PB 820 dated May 2003

Description

3MTM StamarkTM Wet Reflective Tape Series 820 is highly reflective under both wet and dry conditions. Series 820 tape is a conformable marking material intended for longitudinal line applications as an overlay marking on concrete and asphalt surfaces in locations where traffic is generally free rolling with low to moderate encroachment. In snow removal areas, Series 820 tape is intended to be installed in a minimum 80 mil groove. Series 820 tape is an economical alternative to steel snow plowable castings addressing high initial maintenace cost, damaged snowplow blades and overall safety issues with steel castings.

Series 820 tape utilizes specially designed optics to provide dry and wet reflective performance. The tape is reinforced by a structured medium and pre-coated with a pressure sensitive adhesive (PSA) for easy, rapid application following the instructions included in Information Folder 5.7 – Pavement Surface Preparation and Application Techniques for 3MTM StamarkTM Tapes and Information Folder 5.18 – Guidelines for Pavement Marking Applications in Grooved Pavment Surfaces and Information Folder 820 – Application Procedures for 3MTM StamarkTM Wet Reflective Tape Series 820.

Properties

A. Product Features and Advantages

- Highly retroreflective, wet or dry.
- Reflective glass beads protected against traffic wear through a polymeric layer.
- Easy to apply by hand or by machine.
- Durable and conformable.
- Skid resistant.
- Coated with pressure sensitive adhesive (PSA).
- Polyurethane topcoat for durability.
- · Provides continuous delineation, day or night.
- Available in white and yellow.
- Roadway may be open to traffic immediately.

B. Reflectance

Series 820 tape has the following initial minimum retroreflectance values under wet or dry conditions. Values are measured under dry conditions in accordance with ASTM D 4061. Values are measured under wet conditions in accordance with ASTM E 2176 or ASTM E 2177 using a portable reflectometer. Wet retroreflectance values measured under a "condition of continuous wetting" (simulated rain) will be in accordance with the testing procedure of ASTM E 2176. Wet retroreflectance values measured under a "condition of wetness" will be in accordance with the testing procedure of ASTM E 2177. Visually, the retroreflective performance shall be similar whether the material is wet or dry. The photometric quantity measured is the coefficient of retroreflected luminance (R_L), and is provided on the next page.

:	White	Yellow
Entrance Angle	88.76°	88.76°
Observation Angle	1.05°	1.05°
Retroreflected Luminance	750	450

English RL: Millicandelas per square foot per foot-candle $[(mcd \cdot ft^2) \cdot fc^{-1}]$.

Metric R_L: Millicandelas per square meter per lux $[(mcd \cdot m^2) \cdot lx^{-1}]$.

Note: Entrance Angle 88.76° and Observation Angle 1.05° represent a simulated driver viewing geometry at a 30 meter distance.

C. Color

The preformed markings consist of white or vellow.

D. Skid Resistance

The surface of the Series 820 tape provides a minimum initial average skid resistance value of 50 BPN when tested according to ASTM E 303.

E. Application

3M[™] Stamark[™] Surface Preparation Adhesive P-50 is applied to a clean, dry road surface prior to Series 820 tape application. P-50 should be used for all applications except new surfaces according to Information Folder 5.7. The newly marked area can be opened to traffic immediately after tamping with an RTC tamper cart.

All applications of Series 820 tape should be installed using the instructions in this Product Bulletin and the appropriate section of Information Folder 5.7, 5.18 and Information Folder 820.

General Application Conditions:

- Temperature Guidelines:
 - Air Temperature:
 - Minimum 60°F (16°C) and rising.
 - Surface Temperature: Minimum 70°F (21°C) and rising.
- Overnight Air Temperature: Minimum 40°F (5°C) the night before tape application.
- 3MTM StamarkTM Surface Preparation Adhesive P-50 is recommended for all applications except on new asphalt surfaces (0-3 days old).
- Payement surface must be clean and dry.
- Butt splices must be used. Do not overlap tape ends.

- Do not apply tape on longitudinal seams or joints.
- Refer to the appropriate section of Information Folder 5.7.
- Overlay applications of Series 820 tape must be installed within the seasonal start and end dates as indicated in the 3M Climate Guide for 3M[™] Stamark[™] Pavement Marking Tapes.

General Performance Considerations

3M[™] Stamark[™] Wet Reflective Tape Series 820 is designed to provide excellent reflectivity under both wet and dry conditions. Actual performance will be dependent on pavement and atmospheric conditions at the time of application, application method, traffic and exposure conditions.

The user should test for conformance to their requirements before making large scale applications.

3M makes no generalized effective performance claims or material replacement provisions. Snowplow damage, abrasion, or heavy wear may significantly reduce expected effective performance. Our experience has shown that properly installed Series 820 tape is a highly effective traffic control device.

Health and Safety Information

Read all health hazard, precautionary, and first aid statements found in the Material Safety Data Sheet (MSDS), and/or product label of chemicals prior to handling or use. When using a pavement preparation adhesive with this product, refer to the appropriate MSDS for information about the volatile organic compound (VOC) content of the adhesive. Consult local regulations and authorities for possible restrictions on product VOC content and/or VOC emissions.

Storage

 $3M^{TM}$ StamarkTM tapes should be stored in a cool, dry indoor area and used within one year of receipt.

Literature Reference

- IF 5.2 Information Folder for: 3M[™] Highway Tape Applicator (HTA).
- IF 5.7 Information Folder for: Pavement Surface Preparation and Application Techniques for 3M[™] Stamark[™] Pavement Tapes.
- IF 5.15 Information Folder for: Motorized Manual Highway Tape Applicator (MHTA and MMHTA-18).
- IF 5.17 Information Folder for: Instructions for Using 3M[™] Stamark[™] Surface Preparation Adhesive P-50.
- IF 5.18 Guidelines for Pavement Marking Applications in Grooved Pavement Surfaces - 3M[™] Stamark[™] Pavement Marking Tapes and 3M[™] Stamark[™] Liquid Pavement Markings
- IF 820 Application Procedures for 3M[™] Stamark[™] Wet Reflective Tape Series 820

For additional information, contact 3M Traffic Safety Systems Division at 1-800-553-1380 in the U.S. or 1-800-265-1840 in Canada; select technical service for pavement markings. Visit us on the Internet at www.3M.com/tss.

3M assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where reference is made in literature to a commercially available product, made by another manufacturer, it shall be the user's responsibility to ascertain the precautionary measures for its use outlined by the manufacturer.

Important Notice

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, or conditions express or implied. Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct, special or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for his/her intended use, and user assumes all risk and liability whatsoever in connection therewith.

Statements or recommendations not contained herein shall have no force or effect unless in an agreement signed by officers of seller and manufacturer.

3M and Stamark are trademarks of 3M. Used under license in Canada.

31

Traffic Safety Systems Division 3M Center, Building 225-55-08 PO. Box 33225 St. Paul, MN 55133-3225 www.3M.com/tss

3M Canada Company EO. Box 5757 London, Ontario N6A 4T1 3M México, S.A. de C.V. Av. Santa Fe No. 55 Col. Santa Fe, Del. Alvaro Obregón México, D.F. 01210

©3M 2004

Fanchight				Page 1 of 1
STRIPE & LINE INC.				
910 Charles Street	PHONE	FAX		DATE
Longwood, FL 32750				04/05/0
(407) 261-5446 * Fax (407) 261-5449 TO	JOB NAME/L Seminole Cou	.OCATION Inty-wide Roadv	ray Marking	Program
Seminole County Traffic Engineering		-		
Attention: Terry Owens			•	
We hereby submit specifications and estimates for:				
Item Description	Quantity	U/M Unit	Price	Amount
New Pay Items:				
3M Wet-Reflective Pavement Marking Tape Series 820 (White)		LF \$	3.00	
3M Wet-Reflective Pavement Marking Tape Series 820 (Yellow)		LF \$	3.00	
			-	
	•			
				· .
•				•
· · · · · · · · · · · · · · · · · · ·				
We Propose hereby to furnish material and labor - complete in accordance	ce with above specifi		n of:	·····
yment to be made as follows: N	et 30 Days	dollars	·	
nteriel is gueranteed to be as specified. All work to be completed in a workmanible marvar accord-		· · · · ·	······	1
	uthorized	111	,1	
executed only upon written orders, and will become an extra charge over and above the estimate. ${f S}$	gnature	Phillog 1	fauni	R .
	ote: This propos			
nd other necessary insurance. Our workers are hilly covered by Workman's Compensation Insurance. by ceptance of Proposal The above prices, specifications and conditions are s	us if not accept atisfactory and here	eo within 90 by accepted.	days.	·
are authorized to do the work as specified. Payment will be made as outlined above	9.	•		
e of Acceptance	Sic	gnature		

Fausnight Stripe and Line will install Red Preformed Thermoplastic Detectable Warnings with truncated domes in compliance with the latest ADAAC-Requirements for Detectable Warnings on handicapped ramps.

Surfaces shall be prepared as follows:

- Prepared with a broom finish
- NO curing compound shall be on the surface
- Cured for 30 days

• Where the surface is not conducive for installation of the Detectable Warning, Fausnight shall notify Traffic Engineering for approval of grinding as needed to insure proper adhesion. Cost for grinding is as indicated in Roadway Markings Contract No.: IFB-3049.

The installed cost is \$40.00 per square foot.

Anticipated quantity to be installed annually:125 locations - 1250 sq. ft. - \$50,000.00

Prepared by: Terry Owens 2-1-05

,Detectable Warning

SPECIFICATION

PREFORMED THERMOPLASTIC DETECTABLE WARNING MATERIAL

- 1.1. USE: A durable preformed detectable warning material suitable for use on pedestrian access routes, i.e. side walks, walking surfaces, curb ramps, ramps, blended transitions, and crosswalks. The material must be a resilient preformed thermoplastic product with uniformly distributed abrasives both on the surface and throughout the material to provide skid resistance. The material must be resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids etc. The material must be capable of being affixed to bituminous and/or Portland Cement Concrete pavements by the use of the heat of a propane torch.
- 1.2. All parts of the material must be pliable during the application process to be capable of fully conforming to access route contours and geometries.
- 1.3. All parts of the material must be able to be cut to match access route geometries (such as a radius) using a pair of heavy duty scissors only.
- 1.4. The material must be able to be applied in temperatures down to 45°F without any special storage.
- 1.5. The material must set up rapidly, permitting the access route to be re-opened to traffic maximum 20 minutes after application.
- 1.6. The material and adhesive shall have a combined thickness of maximum 0.25 in. (excluding the truncated domes).
- 1.7. The truncated dome pattern must extend to the edges of the material with half dome spacing between the outer edge of the material and the first row of domes.
- 1.8. The texture shall contrast with that of the surrounding surface.
- 1.9. The material shall have an integral color throughout the thickness of the detectable warning material (excluding the adhesive layer).
- 1.10. The material shall differ in sound and feel from adjacent platform surface in "sound-on-cane" and resiliency.

MANUFACTURING CONTROL AND ISO CERTIFICATION: The manufacturer must be ISO 9001:2000 certified and provide proof of current certification.

MATERIAL: Must be composed of ester modified rosins in conjunction with aggregates, pigments, and binders which have been factory produced as a finished product. The material must be impervious to degradation by motor fuels, lubricants etc. The truncated domes must be an integral part of the preformed thermoplastic material. All parts of the material must be a preformed thermoplastic material. The material shall consist of two preformed thermoplastic parts only: A domed preformed thermoplastic material and a preformed thermoplastic adhesive layer.

- 3.1. <u>Pigments and color:</u>
 - 3.1.1. <u>Yellow:</u> Sufficient yellow pigment shall be used to ensure a color in compliance with FHWA's Color Specifications for Pavement Markings (FHWA Docket No. FHWA-99-6190 as revised and corrected) daytime chromaticity limits. The yellow pigment must be of an organic nature only and contain no lead chromate or other heavy metals. The color pigment must be distributed throughout the thickness of the detectable warning material.

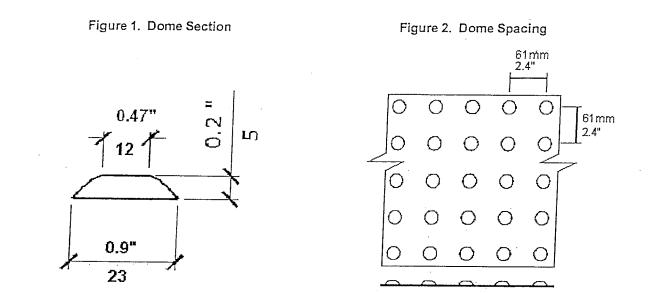
3.2.

2.

3.

<u>Geometry</u>: The detectable warning material should meet the dimensions shown in Figures 1 and 2. The tolerance on each dimension is in the $\pm 2\%$ to $\pm 4\%$ range.

Rev07.19.04



Section of dome from a detectable warning. Drawing shows height, top and bottom dimensions in inches and mm

- 3.3. <u>Dimensions</u>: The detectable warning material shall be supplied as a kit that contains a domed preformed thermoplastic surface material and a preformed thermoplastic adhesive material. The manufacturer will supply the domed material and the adhesive material in sections that measure 12 in (30 cm) in width and 24 in (61 cm) in length.
- 3.4. <u>Hardness:</u> The hardness of the domed preformed thermoplastic material shall be above 90 Shore A when tested according to ASTM D 2240.
- 3.5. <u>Slip Resistance:</u> The static coefficient of friction shall be 0.8 or greater when measured on the top of the truncated domes and 0.8 or greater when measured between the domes as tested per ASTM C 1028-96 (dry).
- 3.6. <u>Environmental Resistance</u>: The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.
- 3.7. The material shall be solvent free and contain no hazardous chemicals.

APPLICATION:

4.

5.

6.

<u>Asphalt and Portland Cement Concrete:</u> The adhesive material must be able to be applied to both bituminous and nonbituminous surfaces without the use of a sealer. The domed preformed thermoplastic material must be able to fuse with the adhesive layer to create a durable bond. The materials shall be applied using the propane torch recommended by the manufacturer. The material must be able to be applied at ambient and substrate temperatures at 45°F and rising. The products must be applied according to the manufacturer's instructions. The pavement shall be clean, dry, free of debris, and fully cured. Supplier must enclose application instructions with each box/package.

PACKAGING: The preformed thermoplastic material shall be placed in a box with cardboard stiffeners and impact absorbers where necessary to prevent damage in transit. The adhesive material shall be placed on treated paper to ensure separation of individual sheets. The cartons in which packed shall be non-returnable, and be labeled for ease of identification.

TECHNICAL SERVICES: The successful bidder shall provide technical services as required.

Rev 07.19.04

	ausnight					Page 1 of 1
	STRIPE & LINE INC. arles Street		PHONE	FA	x	DATE
	od, FL 32750					02/01/0
(407) 20 TO	51-5446 * Fax (407) 261-5	449	JOB NAME/L		C 1	· · · ·
Seminole C	ounty			arning - Pre	formed Therm	oplastic
	,					
Attention	Terry Owens					
	nit specifications and estim	nates for:	······			
ltem	Des	scription	Quantity	U/M	Unit Price	Amount
	Furnish & Install Dete Flint - Top Mark - Pre Hot-Applied Material Red-Brick Color	formed Thermoplas	tic	SF \$	40.00	
	Minimum Order: \$1,5	500.00				
	Discounts:			Dr	ice Per SF	
	0% discount on orders	s between \$1,500.00) and \$4,000.00	\$	40.00i	
	5% discount on orders	s between \$4,001.00) and \$8,500.00	\$	38.00	
	8% discount on orders 10% discount on order	s between \$8,501.00	and \$12,000.00	\$ \$	36.80 36.00	
	Note:					·
	Note: 1. The minimum order several locations.	does not have to be	e at one location, but	can be a co	ombination of	
	1. The minimum order	does not have to be	e at one location, but	can be a co	ombination of	
	1. The minimum order	does not have to be	e at one location, but	can be a co	ombination of	
	1. The minimum order	does not have to be	e at one location, but	can be a co	ombination of	
	1. The minimum order	does not have to be	e at one location, but	can be a co	ombination of	
	1. The minimum order	does not have to be	e at one location, but	can be a co	ombination of	
	1. The minimum order	does not have to be	e at one location, but	can be a co	ombination of	• • •
	1. The minimum order	does not have to be	e at one location, but	can be a co	ombination of	
	1. The minimum order	does not have to be	e at one location, but	can be a co	ombination of	
Ve Propose	 The minimum order several locations. hereby to furnish material and 			cations, for the	a şum of:	
We Propose	 The minimum order several locations. hereby to furnish material and AS ABOVE 		rdance with above specific	cations, for the dollars	sum of:	
ment to be made	 The minimum order several locations. hereby to furnish material and AS ABOVE as follows: 	labor - complete in acco		cations, for the dollars	sum of:	
ment to be made	 The minimum order several locations. hereby to furnish material and AS ABOVE as follows: specified. All work to be completed in a work	labor - complete in acco	rdance with above specific Net 30 Days Pend	cations, for the dollars	sum of:	
Ment to be made erial is guaranteed to be as tandard practices. Any atte	 The minimum order several locations. hereby to furnish material and AS ABOVE as follows: specified. All work to be completed in a w ration or deviation from above specification 	labor - complete in acco rorkmanlike manner accord- ns involving extra costs	rdance with above specific Net 30 Days Pend Authorized	cations, for the dollars	sum of:	
ment to be made erial is guaranteed to be as landard practices. Any alle executed only upon written o	 The minimum order several locations. hereby to furnish material and AS ABOVE as follows: specified. All work to be completed in a w ration or deviation from above specificatio orders, and will become an extra charge or 	labor - complete in acco rorkmanlike manner accord- ns involving extra costs ver and above the estimate.	rdance with above specific Net 30 Days Pend Authorized Signature	cations, for the dollars ling Credit A	e sum of: Approval	4
ment to be made erial is guaranteed to be as landard practices. Any alte xecuted only upon written of ements contingent upon stri	 The minimum order several locations. hereby to furnish material and AS ABOVE as follows: specified. All work to be completed in a w ration or deviation from above specification 	labor - complete in acco forkmanlike manner accord- ns involving extra costs ver and above the estimate. ol. Owner to carry fire, tor-	rdance with above specific Net 30 Days Pend Authorized	cations, for the dollars ling Credit A	e sum of: Approval	<u> </u>

PHO Charles Street Longwood, FL 32750 (407) 261-5446 * Fax (407) 261-5449 PHONE FAX TO Seminole County JOB NAME/LOCATION Detectable Warring - Preformed Thermop Attention Terry Owens We hereby submit specifications and estimates for: Item Quantity U/M Furnish & Install Detectable Warning System SF \$ 40.00 Flint - Top Mark - Preformed Thermoplastic Hot-Applied Material - Includes Surface Preparation Red-Brick Color SF \$ 40.00 Minimum Order: \$1,500.00 Discounts: 0% discount on orders between \$1,500.00 and \$4,000.00 5% discount on orders between \$5,501.00 and \$12,000.00 10% discount on orders between \$1,500.00 and \$12,000.00 10% discount on orders over \$12,001.00 We Propose hereby to furnish material and laber - complete in accordance with above specifications, for the sum of: AS ABOVE AS ABOVE Oldars	usnight	Page 1 of 1
To Seminole County Detectable Warning - Preformed Thermoples Attention Terry Owens We hereby submit specifications and estimates for: item Quantity U/M Unit Price Furnish & Install Detectable Warning System SF \$ 40.00 Flint - Top Mark - Preformed Thermoplestic Hot-Applied Material - Includes Surface Preparation Red-Brick Color Minimum Order: \$1,500.00 Discounts: 0% discount on orders between \$1,500.00 and \$4,000.00 S% discount on orders between \$1,500.00 and \$12,000.00 S% discount on orders over \$12,001.00 10% discount on orders over \$12,001.00 We Propose hereby to furnish material and labor - complete in accordance with above specifications, for the sum of: AS ABOVE Abolars Payment to be made as follows: Net 30 Days Pending Credit Approval.	STRIPE I LINE INC. s Street FL 32750	DATE 01/16/0
We hereby submit specifications and estimates for: Item Quantity U/M Unit Price Furnish & Install Detectable Warning System SF \$ 40.00 Flint - Top Mark - Preformed Thermoplastic Hot-Applied Material - Includes Surface Preparation SF \$ 40.00 Red-Brick Color Minimum Order: \$1,500.00 Siscounts: 0% discount on orders between \$1,500.00 and \$4,000.00 5% discount on orders between \$4,001.00 and \$8,500.00 8% discount on orders between \$2,501.00 and \$12,000.00 10% discount on orders over \$12,001.00 10% discount on orders over \$12,001.00 10% discount on orders over \$12,001.00 \$10% discount on orders over \$12,001.00	Detectable Warning - Preform	med Thermoplastic
Item Description Quantity U/M Unit Price Furnish & Install Detectable Warning System SF \$ 40.00 Flint - Top Mark - Preformed Thermoplastic Hot-Applied Material - Includes Surface Preparation SF \$ 40.00 Hot-Applied Material - Includes Surface Preparation Red-Brick Color Minimum Order: \$1,500.00 Discounts: 0% discount on orders between \$1,500.00 and \$4,000.00 5% discount on orders between \$4,001.00 and \$8,500.00 8% discount on orders over \$12,001.00 10% discount on orders over \$12,001.00 10% discount on orders over \$12,001.00 10% discount on orders over \$12,001.00 10% discount on orders over \$12,001.00	Terry Owens	
We Propose hereby to furnish material and labor - complete in accordance with above specifications, for the sum of: AS ABOVE Other Store	pecifications and estimates for:	
We Propose hereby to furnish material and labor - complete in accordance with above specifications, for the sum of: AS ABOVE dollars	Description Quantity U/M Un	it Price Amount
Discounts: 0% discount on orders between \$1,500.00 and \$4,000.00 5% discount on orders between \$4,001.00 and \$8,500.00 8% discount on orders between \$8,501.00 and \$12,000.00 10% discount on orders over \$12,001.00 10% discount on orders over \$12,001.00 We Propose hereby to furnish material and labor - complete in accordance with above specifications, for the sum of: AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval	Flint - Top Mark - Preformed Thermoplastic Hot-Applied Material - Includes Surface Preparation	40.00
We Propose hereby to furnish material and labor - complete in accordance with above specifications, for the sum of: AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval	Minimum Order: \$1,500.00	
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval	0% discount on orders between \$1,500.00 and \$4,000.00 5% discount on orders between \$4,001.00 and \$8,500.00 8% discount on orders between \$8,501.00 and \$12,000.00	
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		
AS ABOVE dollars Payment to be made as follows: Net 30 Days Pending Credit Approval		n of:
net de Bays renaing dreait Approvar		1
I material is guaranted to be as specified. All work to be completed in a workmanike manner accord	ABOVE dollars	
g to standard practices. Any ateration or deviation from above specifications involving extra costs Authorized Phillip Fausnicht extra costs Phillip Fausnic	6 ABOVE dollars follows: Net 30 Days Pending Credit Appr	roval
agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tor- Note: This proposal may be withdrawn	ABOVE dollars follows: Net 30 Days Pending Credit Appr red. All work to be completed in a workmanlike manner accord- or deviation from above specifications involving extra costs Authorized Phillip Fausnic	Organity signed by Philip Faurigh Chic Chi = Philip Faurigh, C = US, O = Fauright Shiphe & Une, Inc. - Restort: In the subset of Sis document
do and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance. by US if not accepted within 90 days	6 ABOVE dollars follows: Net 30 Days Pending Credit Appr ied. All work to be completed in a workmantlike manner accord- or deviation from above specifications involving extra costs Authorized and will become an extra charge over and above the estimate. Signature coidents or delays beyond our control. Owner to carry fire, for- Note: This proposal may be withd	Digutity signat by Philip Franciph C C C C A = Philip Franciph C Strips 4 Line. Inc. Assance I am The sub-or of Sid document Own: 0003.116 TQ: (2004 - 5000 December 2005.116 TQ: (2005 - 5000
Acceptance of Proposal The above prices, specifications and conditions are satisfactory and hereby accepted.	6 ABOVE dollars follows: Net 30 Days Pending Credit Appr ied. All work to be completed in a workmantlike manner accord- or deviation from above specifications involving extra costs Authorized and will become an extra charge over and above the estimate. Signature coidents or delays beyond our control. Owner to carry fire, tor- workers are fully covered by Workman's Compersation Insurance. Note: This proposal may be withd	Diguistry signed by Philip Faunciph Ont CM = Philip Faunciph C = U.S. O = Faunciph Show & Una Inc. Balan 2005.01.16 12:10:05 -0500 FaWN

File: Detectable Warning - Flint (Seminole).xls



SEMINOLE COUNTY TRAFFIC ENGINEERING AUXILIARY LANES AND STRIPING SPECIFICATIONS

COMPLIANCE TO SPECIFICATIONS

If taking exception to specifications, detail the differences between the proposed item and the specified item. Also explain what impact nay be anticipated in performance of the item. These explanations must be on company letterhead, and attached to your bid. The County will determine if exceptions are acceptable. Failure to comply may result in disqualification of your bid.

1. To insure complete understanding of standards, phases of construction and review of plans, all contractors are required (upon equest) to show proof of certification of person/persons at the supervisory level that have successfully completed the I.M.S.A. International Municipal Signal Association) "Safety in the Work Zone" (pre-requisite) and a minimum Signs and Markings Level II completion of the A.T.S.S.A. (American Traffic Safety Services Association) "Construction Work Zone Supervisor" Course, or a combination of both.

All markings are to conform to the most current Seminole County Standards, and issue of "Florida Department of Transportation Standard Specifications for Road and Bridge Construction" along with the most current issue of "Florida's Roadway and Traffic Design Standards Handbook". In addition, this document conforms with a Policy of Geometric Design of Highways and Streets 1984 (A.A.S.H.T.O.) Standards, the "Manual of Uniform Minimum Standards for Design, Construction and Maintenance", and "The Planning Guidelines for Transportation".

2. All traffic control signs and striping must be illustrated and located on final engineering plans on one (1) sheet in accordance with Seminole County Code, Chapter 250.23 which incorporates the MUTCD and the Seminole County Traffic Standards.

3. When a transition is striped through a curve, a standard 6/10' skip cycle will be required.

4. Three (3) week "cure time" on asphalt required prior to final markings installation. Exceptions will require prior approval from

5. No markings are to be installed prior to field approval of layout lines by Seminole County Traffic Engineer or his designee.

6. Centerline and edge line to extend fifteen feet (15') beyond transition point downstream and fifteen feet (15') prior to transition

7. Hash mark spacing to be thirty feet (30') from center to center unless otherwise specified.

8. Arrow spacing to conform with Roadway and Traffic Design Standard Index No. 17346 drawing 2 of 8 (with each additional 75'

9. Changes in existing markings in some cases will also be required as per Seminole County Traffic Engineer or his designee.

10. During all construction and installation of markings the work zone shall be signed in accordance with the "Manual Uniform

11. When a lane closure is permitted, with prior consent of Seminole County Traffic Engineer, on a road with a classification of minor collector or above, hours of operation will be limited to between 9:00 a.m. and 4:00 p.m.

12. It is the responsibility of the contractor to clear debris, dirt, grass, etc. from the edgeline prior to edgeline markings installation.

13. Temporary Tape shall be installed per Seminole County standards.

14. Certification of Tests: The producer of the compound described in this Section shall furnish upon request to the Department three (3) copies of certified test reports showing results of all tests specified herein, and shall certify that the material meets all requirements of this Section. Final acceptance, however, will be based on test results of samples obtained after delivery of the compound.

EXCEPTION TO STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION

REFLECTIVE PAVEMENT MARKERS

DESCRIPTION

The work specified in this Section consists of furnishing and installing reflectorized pavement markers and removing pavement markers at locations designated in the plans or by work order request. The work shall be done in accordance with these specifications and the details shown in the plans or work order request.

<u>TYPE</u>

The markers shall be STIMSONITE 911 E of the following type (only):

- 1. Amber bi-directional reflective face
- 2. Amber mono-directional reflective face
- 3. Red/Colorless bi-directional reflective face
- 4. Colorless mono-directional reflective face
- 5. Blue

Manufacturers specifications apply.

ADHESIVE

Seminole County requires Method 3.

- 1. Bituminous (as pre-section 706-2.4.2 of the FDOT Standard Specifications for Road and Bridge Construction 2000 or latest revision..
- 2. Epoxy Resin (2 part mixture) manufacturers specifications apply.
- 3. Thermoplastic using the puddle method for RPM installation with like color thermoplastic.

Method 1 and 2 may be used with prior approval by Traffic Engineer.

PROJECT MATERIAL AND WORKMANSHIP

A. <u>Temporary Striping</u> - All striping shall be in paint or Temporary Tape of acceptable quality. The temporary striping shall be installed in accordance with the latest Federal, State and County standards in compliance with the requirements of the MUTCD, latest edition, the Florida Department of Transportation Standard Specification, the latest edition, and Seminole County Standards.

B. <u>Permanent Striping</u> - All permanent striping, material shall be painted, thermoplastic, or cold plastic, as specified in the purchase order. The material used shall meet the latest Federal, State and Seminole County standards as specified in this contract. All work shall be performed in accordance with the requirements of the MUTCD, latest edition, the Florida Department of Transportation standards, latest edition, and Seminole County Standards.

BID PREPARATION

It is anticipated that thermoplastic will be used approximately 75% of the time. Paint will be used approximately 20% of the time and Cold Plastic approximately 5% of the time.