



DEPARTMENT OF PUBLIC WORKS
CITY HALL
869 PARK AVENUE
CRANSTON, RHODE ISLAND 02910

August 18, 2003

Mr. Vincent P. Pearce, Acting Director
Office of Transportation Operations
Federal Highway Administration
400 Seventh Street SW, HOTO
Washington, DC 20590

RE: Request for Permission to Experiment specific to our "School Zone Safety Initiative"

Dear Mr. Pearce;

The City of Cranston, Rhode Island is formally requesting permission to experiment with incorporating supplemental Fluorescent Yellow-Green waterborne pigment pavement markings into the "Standard" white crosswalk markings within our school zones. The intent of adding this supplemental non-standard color marking is to provide increased driver visibility/awareness within our school zones. You should recognize that we have informally discussed this issue with both your Ms. Guan Xu and Mr. Gabriel Brazaio of the Regional FHWA Office in Providence, RI on several occasions. Both parties explained that we needed to submit a formal request for permission to experiment and additionally indicated that the City is not alone in its efforts to experiment with this color. With the following supplied information we hope to formally obtain the same approval other safety conscientious communities have already received from your office.

- A. Statement of Problem: The City of Cranston is committed to promoting added driver awareness and pedestrian safety into our school zones. In the Spring of 2001 the City began its installation of the new fluorescent yellow-green crosswalk signage. We did this in response to complaints received from our crossing guards as well as some parents. The complaints were numerous and varied, but, generally drivers appeared to ignore or were not aware of crosswalk locations/activities until encountering them. While there are a very small number of actual vehicle/pedestrian conflicts experienced in the City school zones, the near misses appeared to be many. With our then, limited budget, we decided that the initial aforementioned signage installation would provide some help, but, a more intensive program would be required as funds became available. A generic School Zone Safety awareness program was decided upon and recently the funding became available to incorporate added

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traffic control devices into each school zone. Recognizing that the MUTCD has established Fluorescent Yellow-Green as the color to generally mean pedestrian warning, bicycle warning, school bus and school warning we ask for permission to allow it within our crosswalks accordingly. We anticipate that the supplemental devices and markings will promote a greater driver awareness and pedestrian safety through the conveyance of consistent traffic control information, in the school zone, to the general public.

B. Description of proposed changes: The City of Cranston proposes to incorporate supplemental Fluorescent Yellow-Green (FYG) waterborne pigment pavement markings within our "Standard" white transverse crosswalk markings located in our school zones. The idea to use this supplemental marking was developed after consideration of the "Option" listed under Section 3B.17 "Crosswalk Markings" and Section 1A.12 "Color Code" found in the Millennium Edition of the MUTCD. The proposed change deviates from the original aforementioned option in the sense that it incorporates the FYG color and adds a second set of transverse markings along with the diagonals allowed. The markings are intended to promote added driver awareness that they are still within the school zone by coordinating this supplemental FYG pavement marking color with the existing and future FYG School Zone signage. A written description of the crosswalk markings layout we are proposing for the "Experimental Program" is as follows:

1. A 10' wide crosswalk will be installed at each location using 12" wide "Standard" white transverse pavement markings. They will extend from curb-line to curb-line.
2. This leaves internally 8' of asphalt colored pavement where we would add the supplemental FYG striping.
3. Within this 8' wide space we would place two (2) 12" wide FYG transverse pavement markings running parallel with the "Standard" white markings. This would result in one (1) 12" wide "Standard" white and one (1) 12" wide FYG directly abutting each other, then a 6' width of asphalt colored space (internal to the crosswalk) and finally another 12" wide FYG and 12" wide "Standard" white transverse pavement marking.
4. This now results in a 4' wide asphalt colored pavement remaining internal to the crosswalk, between the newly installed pavement markings.

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5. Within the 4' wide, curb-to-curb space, we would then place 12" wide diagonal FYG pavement markings spaced 4' apart on center extending from one curb line to the other curb line.

C. Illustration: A diagram of the written description above has been provided for clarity purposes.

D. Supporting Data: Other than the discussion noted in B. Description of proposed changes: mentioned earlier, we can only add that we are aware of municipalities such as; Scottsdale, Arizona and Patterson, New Jersey as well as some 18 others requesting/receiving similar "experimentation program" approval based on the same intended program results. That would be driver awareness, pedestrian safety and added visibility.

E. Statement Certifying the Device is Not Patented or Copyrighted: We have attached a statement from Franklin Paints, Inc. certifying that the FYG waterborne pigment pavement marking paint used is not patented or copyrighted. Further, the paint is in compliance with FHWA "1952-D" paint specifications and a copy of that specification is attached.

F. Time Period and Location (s): The time frame requested for experimentation is September 3, 2003 and continue for a period of at least one year. All 26 school zones in the City of Cranston will have the proposed supplemental markings within the "Standard" white transverse crosswalk markings.

G. Evaluation Plan: Our Public Safety and Engineering divisions will share in the collection of data. The information will be tabulated and submitted to the FHWA's Office of Transportation (FHWA) as required. We will collect data such as; vehicle speeds (some zones), pedestrian volumes, driver/pedestrian behavior, weather conditions, times of day and years along with other pertinent data that we are able to obtain. All data collected will be during school arrival and dismissal times. You should note that most of these zones incorporate the use of crossing guards and the FYG advanced & site specific crosswalk signage with applicable wording and arrows where necessary. Further, some of these zones will be receiving flashing beacons, active school zone signage (3M product) or some other variation of approved traffic control devices for school zones. The crossing guards will be asked to share their opinions as to pre and post installation so that we may provide some historic data as well as new. We will survey parents to ascertain their impression of

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both the crosswalk supplemental color and the added traffic control devices. The collection of data will be performed at varied sites with different variables so that we may gauge the impact to sites based on those variables. We are also working with our State University in an attempt to provide research students to evaluate psychological impacts and provide insight as to other possible ways to make these zones safer for pedestrians. This aspect is in the infancy stage and has garnered positive interest from the professors that would be involved. Further, we will coordinate with the Cranston Police Department about any comments they may have or receive on the program.

- H. Agreement to restore sites: If at anytime during this experiment the FHWA, the City of Cranston, the State or our Police Department feel that the crosswalk or zones are unsafe, the City will immediately begin modifying the crosswalks with Standard white markings (covering over the FYG) and terminate the experimental markings portion of the program in a timely manner.
- I. Agreement to provide semiannual and final report results: The City of Cranston agrees to provide the FHWA with semiannual progress reports for the duration of the experiment. We further agree to provide a copy of the final report containing the results of the experiment to the FHWA within three (3) months of completion. The City understands that the FHWA has the right to terminate the approval of the experiment if reports are not provided in accordance with this submission schedule.

Thank you for your consideration in this important matter. Should have any questions on this request for "permission to experiment" or other matters related to the "School Zone Safety Initiative" program, contact me at (401) 780-3204 or dferguson@cranstonri.org.

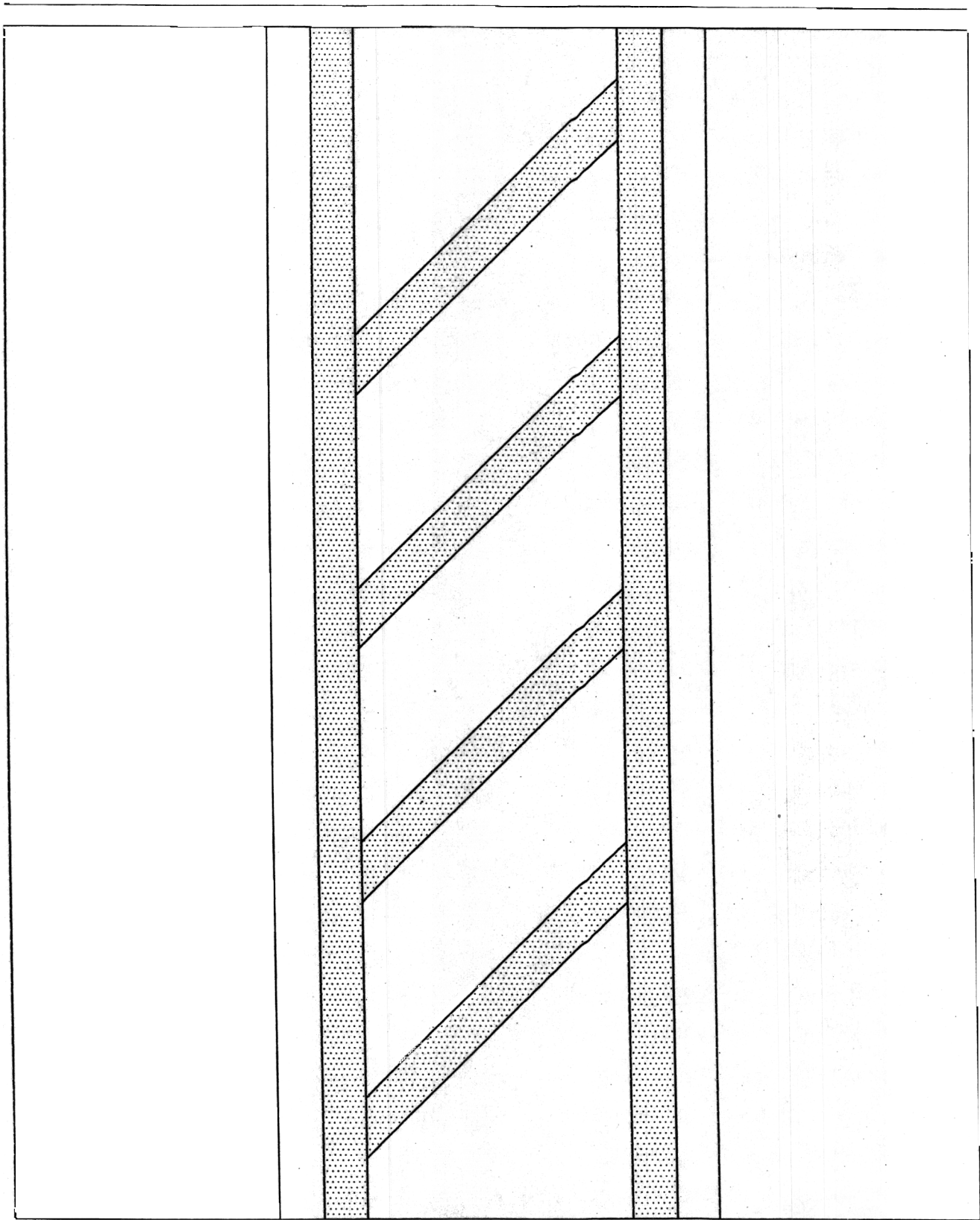
Sincerely,


David A. Ferguson
Public Safety Manager/Traffic Engineer

DAF/dbe

Attachments

Cc: Grimes, Schiappa, Alston, Capaldi (RIDOT), Garliauskas (FHWA – Prov., RI), Guan Xu (FHWA – Washington, DC) all w/o attach.





THE TRAFFIC PAINT MANUFACTURER

DISTRIBUTORS OF PAVEMENT MARKING EQUIPMENT & SUPPLIES

"AS DURABLE AS THE HILLS OF OLD NEW ENGLAND"

August 18, 2003

City of Cranston
Traffic Department
Street Division

Re Yellow-Green Traffic Paint

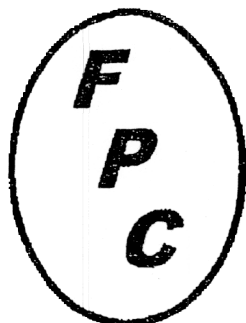
Dear Sirs:

In regard to your "Request For Experimentation" for Franklin Paint Co., Inc. yellow-green traffic paint please be advised that the yellow-green high visibility traffic paint is not patented or copyrighted & neither has been applied for. The product is the standard 2014 Fast Dry, 1952D with yellow-green pigment added to meet your color requirements.

Please call our toll free # if any further information or documentation is required.

Sincerely:

George Brophy
Sales Manager
Franklin Paint Co., Inc
800 486 0304
george@franklinpaint.com



Product Data: Hydrophast Waterborne Traffic Paint

"As Durable as the Hills of Old New England."

Description: Hydrophast* is a very fast drying, 100% acrylic waterbased paint. It conforms to 1952D Type I (normal conditions) & Type II (adverse conditions) specifications as well as current V.O.C. regulations. For use on bituminous, portland cement and concrete pavements, as well as various sealcoat applications.

Application: Hydrophast is formulated for use with either airless or conventional air atomized spray equipment. See equipment manufacturer's recommendations. To improve spraying, paint may be heated to an optimum temperature of 110 degrees F, but is to never exceed 160 degrees. Surfaces should be clean and dry. Do not apply when air or surface temperatures are below 50 degrees F or when relative humidity exceeds 85%. Concrete sealers should be removed prior to application.

New asphalt surfaces vary widely in the length of time required for curing before painting. One to two weeks is usually adequate. For waterborne paints, it is recommended, if there is any doubt if asphalt has cured sufficiently, to inconspicuously place a test stripe to determine if asphalt has cured. While Hydrophast will not bleed on most asphalt surfaces, shrinkage of paint while curing can cause asphalt to lift or crack. If it is necessary to paint new asphalt, apply two thin coats approximately 7-8 mils wet. Allow 24 hours between coats.

Thinning & Cleaning: **Thinning** is not normally required. If thinning is desirable, use clean water, not to exceed one pint per 5-gallon pail. Adding water will lengthen dry time. Wet paint may be cleaned with water. Dry paint is very difficult to remove. **Never mix waterborne and alkyd traffic paints! The result will be a congealed mess.**

***Hydrophast is a registered trademark of Franklin Paint.**

	2014White	2018 Premium	2015Yellow
Coverage/gal.(15mil;4"line)	300'	300'	300'
Dry time (minutes) lab	8	6.5	8
Hiding(contrast ration)	96	97	96
Viscosity(K.U.)	78-95	78-95	78-95
Weight/gallon	14.1	14.2	13.8
Directional reflectance	92	92	52
VOC's(pounds/gallon)	.78	.85	.78
Total solids (weight)	77	78	77
Non-volatile vehicle	43% min	43% min	43% min
Vehicle type	100% acrylic	next generation 100% Acrylic (more durable)	100% acrylic

Franklin Paint Company, Inc.
259 Cottage Street
Franklin, MA 02038

1-800-486-0304
fax: 508-528-8152
www.franklinpaint.com

CITY OF ORLANDO
TRAFFIC OPERATIONS

FACSIMILE TRANSMITTAL SHEET

TO: Ernie Huckaby	FROM: Sheryl Bradley, Traffic Analyst III
COMPANY: US DOT FHWA	DATE: 3/30/2005
FAX NUMBER: 202-366-3225	TOTAL NO. OF PAGES INCLUDING COVER: 4
	SENDER'S TELEPHONE NUMBER: 407-246-2100
RE: Request for Test	YOUR REFERENCE NUMBER:

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

NOTES/COMMENTS:

Please review and respond at your earliest convenience.

Thanks!

Sheryl Bradley, Traffic Analyst III
(School Safety Project Coordinator)



CITY OF ORLANDO

March 30, 2005

Ernie Huckaby
U.S. DOT, FHWA
400 7th Street SW, HOTO-1
Washington, DC 20590

RE: Request for Permission to Experiment with Strong, Yellow-Green Pavement Markings for School Crossing

Mr. Huckaby:

We are writing to request permission to experiment with a new system designed to increase the visibility of school crossings, slow down traffic through these areas, and reduce the frequency of crosswalk intrusions by motorists when children are present. A large number of children are struck in crosswalks each year. Children under the age of 10 are especially at risk as they have:

- A smaller size, making it difficult for them to see vehicles and for drivers to see them;
- Only one-third the peripheral vision of adults;
- Difficulty in locating the source of sounds.

Locally, we have also had several incidents of our School Crossing Guards being struck while in the crosswalks.

We are proposing a pilot program to improve pedestrian, teacher, and student safety around the Orange County Public Schools.

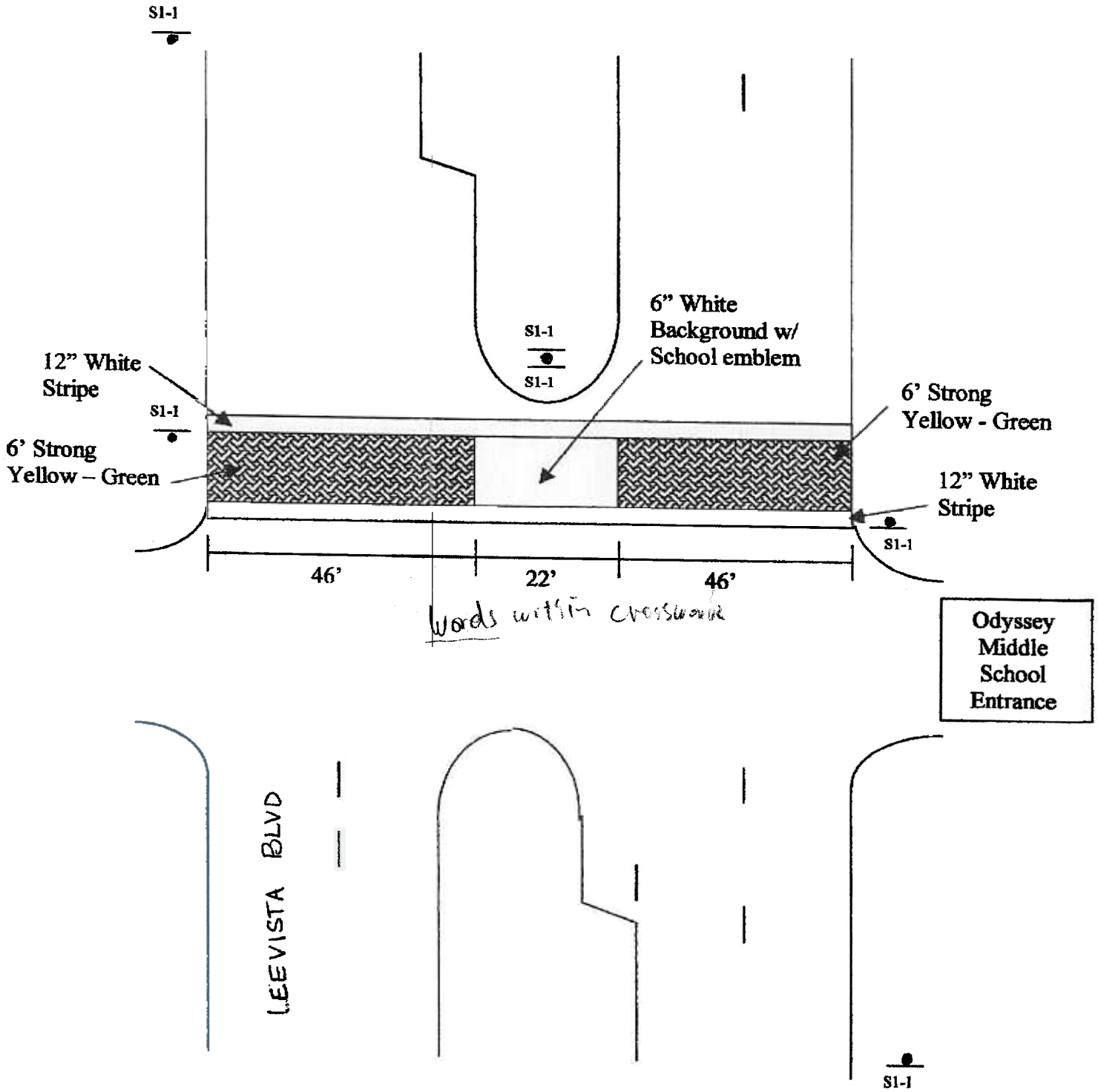
For this program, we propose to use a strong, yellow-green "SYG PREMARK ViziGRIP System" pre-formed thermoplastic marking during a 24-month program at a designated public school. Please see attached estimated material usage chart for the test location. The SYG PREMARK ViziGRIP System material will not replace the crosswalk markings, but rather will be used to supplement the traditional white markings. The contrast between the strong, yellow-green color and the white markings allows for better visibility during the day while the white material's high level of retroreflectivity provides better nighttime visibility. The SYG PREMARK ViziGRIP System has high skid resistance that reduces the chances of slipping for greater pedestrian safety as well as good retroreflectivity. We have discussed this application with the supplier, Flint Trading Inc., and they have agreed that this is an appropriate application of this product.

The program will be directed by the City of Orlando's Transportation Engineering Department and will be evaluated every 6 months with a final report being issued at the end of the 24-month program. It is our intention that, if the pilot program is successful, we will request that the MUTCD will be changed to permit the use of "strong yellow-green" markings in this application.

We hope you will provide prompt approval of experimental authority to use these markings in our community. Thank you for your consideration.

Sincerely,

Sheryl Bradley, Traffic Analyst III
(School Safety Project Coordinator)



City of Orlando
Traffic Operations

Material Usage Chart – Odyssey Middle School, Leevista Blvd.

Material	Length	Qty	Sq. Ft.
12" White Striping	114'	2	228
6' Strong Yellow-Green SYG PREMARK ViziGRIP	46'	2	552
6' White Background w/ School Emblem	22'	1	132