



LEXINGTON

## Lexington-Fayette Urban County Government

Lexington, Kentucky  
Horse Capital of the World

Division of Procurement

Date of Issue: April 8, 2025

### INVITATION TO BID # 56-2025 Striping and Markings for Roadways, Parking, and SUP

**Bid Opening Date:** April 22, 2025

**Bid Opening Time:** 10:00 AM

**Address:** All bids must be submitted on line at <https://lexingtonky.ionwave.net/>

**Type of Bid:** Price Contract - \*purchase orders over 50k may require a performance & payment bond\*

**Pre Bid Meeting:** N/A

**Pre Bid Time:** N/A

**Address:** N/A

Sealed bids will ONLY be received online at <https://lexingtonky.ionwave.net/> until **2:00 PM**, prevailing local time on **04/22/2025**. Bids must be submitted/uploaded by the above-mentioned date and time.

Bids are to include all shipping, handling and associated fees to the point of delivery (unless otherwise specified in the bid documents below) located at: Lexington, Kentucky.

<input checked="" type="checkbox"/> Bid Specifications Met _____ <i>attached to bid proposal submitted.</i>	<b>Check One:</b> _____ Exceptions to Bid Specifications. <i>Exceptions shall be itemized and</i>	<b>Proposed Delivery:</b> <u>10</u> days after acceptance of bid.
<b>Procurement Card Usage</b> —The Lexington-Fayette Urban County Government may be using Procurement Cards to purchase goods and services and also to make payments. Will you accept Procurement Cards? _____ Yes _____ No		

**To expedite award, the forms in this document should be completed and uploaded with your bid.**

Submitted by:

M&M Services Co., Inc.  
Firm Name

229 Midland Trail  
Address

Mt. Sterling KY, 40353  
City, State & Zip

**Bid must be signed:**

[Signature] Project Manager  
Signature of Authorized Company Representative – Title

Jon Wilson  
Representative's Name (Typed or printed)

859-499-3201 859-499-3221  
Area Code - Phone - Extension Fax #

jon@mm ServicesKY.com  
E-Mail Address

**The Affidavit in this bid must be completed before your firm can be considered for award of this contract.**

**AFFIDAVIT**

Comes the Affiant, Jon Wilson, and after being first duly sworn under penalty of perjury as follows:

1. His/her name is Jon Wilson and he/she is the individual submitting the bid or is the authorized representative of M&M Services Co., Inc. the entity submitting the bid (hereinafter referred to as "Bidder")
2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
4. Bidder has authorized the Division of Procurement to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5. Bidder has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Bidder will not violate any provision of the campaign finance laws of the Commonwealth.
6. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."
7. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Further, Affiant sayeth naught.

for Paul

STATE OF

Kentucky

COUNTY OF

Montgomery

The foregoing instrument was subscribed, sworn to and acknowledged before me

by Jon Wilson on this the 22nd day  
of April, 2025

My Commission expires: 10-26-2028

Rhonda Carol Green  
NOTARY PUBLIC, STATE AT LARGE



**Please refer to Section II. Bid Conditions, Item "U" prior to completing this form.**

## **I. GREEN PROCUREMENT**

### **A. ENERGY**

The Lexington-Fayette Urban County Government is committed to protecting our environment and being fiscally responsible to our citizens.

The Lexington-Fayette Urban County Government mandates the use of Energy Star compliant products if they are available in the marketplace (go to [www.Energystar.gov](http://www.Energystar.gov)). If these products are available, but not submitted in your pricing, your bid will be rejected as non-compliant.

ENERGY STAR is a government program that offers businesses and consumers energy-efficient solutions, making it easy to save money while protecting the environment for future generations.

#### **Key Benefits**

These products use 25 to 50% less energy  
Reduced energy costs without compromising quality or performance  
Reduced air pollution because fewer fossil fuels are burned  
Significant return on investment  
Extended product life and decreased maintenance

### **B. GREEN SEAL CERTIFIED PRODUCTS**

The Lexington-Fayette Urban County Government is also committed to using other environmentally friendly products that do not negatively impact our environment. Green Seal is a non-profit organization devoted to environmental standard setting, product certification, and public education.

Go to [www.Greenseal.org](http://www.Greenseal.org) to find available certified products. These products will have a reduced impact on the environment and on human health. The products to be used must be pre-approved by the LFUCG prior to commencement of any work in any LFUCG facility. If a Green Seal product is not available, the LFUCG must provide a signed waiver to use an alternate product. Please provide information on the Green Seal products being used with your bid response.

### **C. GREEN COMMUNITY**

**The Lexington-Fayette Urban County Government (LFUCG) serves as a principal, along with the University of Kentucky and Fayette County Public Schools, in the Bluegrass Partnership for a Green Community. The Purchasing Team component of the Partnership collaborates on economy of scale purchasing that promotes and enhances environmental initiatives. Specifically, when applicable, each principal is interested in obtaining best value products and/or services which promote environment initiatives via solicitations and awards from the other principals.**

**If your company is the successful bidder on this Invitation For Bid, do you agree to extend the same product/service pricing to the other principals of the Bluegrass Partnership for a Green Community (i.e. University of Kentucky and Fayette County Schools) if requested?**

Yes ☒ No ☐

### **D. COOPERATIVE CONTRACT**

**If your company is the successful bidder on this Invitation For Bid, do you agree to extend the same product/service pricing to the other government entities if requested?**

Yes ☒ No ☐

## **II. Bid Conditions**

- A. No bid may be withdrawn for a period of sixty (60) days after the date and time set for opening.
- B. No bid may be altered after the date and time set for opening. In the case of obvious errors, the Division of Procurement may permit the withdrawal of a bid. The decision as to whether a bid may be withdrawn shall be that of the Division of Procurement.
- C. Acceptance of this proposal shall be enactment of an Ordinance by the Urban County Council.
- D. The bidder agrees that the Urban County Government reserves the right to reject any and all bids for either fiscal or technical reasons, and to award each part of the bid separately, all parts to one vendor or all parts to multiple vendors.
- E. Minor exceptions may not eliminate the bidder. The decision as to whether any exception is minor shall be entirely that of the head of the requisitioning Department or Division and the Director of the Division of Procurement. The Urban County Government may waive technicalities and informalities where such waiver would best serve the interests of the Urban County Government.
- F. Manufacturer's catalogue numbers, trade names, etc., where shown herein are for descriptive purposes and are to guide the bidder in interpreting the standard of quality, design, and performance desired, and shall not be construed to exclude proposals based on furnishing other types of materials and/or services. However, any substitution or departure proposed by the bidder must be clearly noted and described; otherwise, it will be assumed that the bidder intends to supply items specifically mentioned in this Invitation for Bids.
- G. The Urban County Government may require demonstrations of the materials proposed herein prior to acceptance of this proposal.
- H. Bids must be submitted on this form and must be signed by the bidder or his authorized representative. Unsigned bids will not be considered.
- I. Bids must be submitted prior to the date and time indicated for opening. Bids submitted after this time will not be considered.
- J. All bids mailed must be submitted in the Ion Wave online portal at <https://lexingtonky.ionwave.net/>
- K. Bidder is requested to show both unit prices and lot prices. In the event of error, the unit price shall prevail.
- L. A certified check or Bid Bond in the amount of XX percent of the bid price must be attached hereto. This check must be made payable to the Lexington-Fayette Urban County Government, and will be returned when the material and/or services specified herein have been delivered in accordance with specifications. In the event of failure to perform within the time period set forth in this bid, it is agreed the certified check may be cashed and the funds retained by the Lexington-Fayette Urban County Government as liquidated damages. Checks of unsuccessful bidders will be returned when the bid has been awarded.
- M. The delivery dates specified by bidder may be a factor in the determination of the successful bidder.
- N. Tabulations of bids received may be mailed to bidders. Bidders requesting tabulations must enclose a stamped, self-addressed envelope with the bid.
- O. The Lexington-Fayette Urban County Government is exempt from Kentucky Sales Tax and Federal Excise Tax on materials purchased from this bid invitation. Materials purchased by the bidder for construction projects are not tax exempt and are the sole responsibility of the bidder.
- P. All material furnished hereunder must be in full compliance with OSHA regulations.
- Q. If more than one bid is offered by one party, or by any person or persons representing a party, all such bids shall be rejected.
- R. Signature on the face of this bid by the Bidder or his authorized representative shall be construed as acceptance of and compliance with all terms and conditions contained herein.



S. The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, religion, sex (including pregnancy, sexual orientation or gender identity), national origin, disability, age, genetic information, political affiliation, or veteran status, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices.

T. The Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any county, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin;

(2) The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age or national origin;

(3) The contractor will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the non-discrimination clauses required by this section; and

(4) The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses.

The Act further provides:

KRS 45.610. Hiring minorities - Information required

(1) For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetable.

(2) Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.

KRS 45.620. Action against contractor - Hiring of minority contractor or subcontractor

(1) If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.

(2) If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 to 45.640.

(3) The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.

KRS 45.630 Termination of existing employee not required, when

*Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that that employee was employed prior to the date of the contract.*

**KRS 45.640 Minimum skills**

*Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.*

It is recommended that all of the provisions above quoted to be included as special conditions in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his work-force in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.

- U. Any party, firm or individual submitting a proposal pursuant to this invitation must be in compliance with the requirements of the Lexington-Fayette Urban County Government regarding taxes and fees before they can be considered for award of this invitation and must maintain a "current" status with regard to those taxes and fees throughout the term of the contract. The contractor must be in compliance with Chapter 13 from the Code of Ordinances of the Lexington-Fayette Urban County Government. The contractor must be in compliance with Ordinance 35-2000 pursuant to contractor registration with the Division of Building Inspection. If applicable, said business must have a Fayette County business license.

Pursuant to KRS 45A.343 and KRS 45A.345, the contractor shall

- (1) *Reveal any final determination of a violation by the contractor within the previous five year period pursuant to KRS Chapters 136 (corporation and utility taxes), 139 (sales and use taxes), 141 (income taxes), 337 (wages and hours), 338 (occupational safety and health of employees), 341 (unemployment and compensation) and 342 (labor and human rights) that apply to the contractor; and*
- (2) *Be in continuous compliance with the above-mentioned KRS provisions that apply to the contractor for the duration of the contract.*

A contractor's failure to reveal the above or to comply with such provisions for the duration of the contract shall be grounds for cancellation of the contract and disqualification of the contractor from eligibility for future contracts for a period of two (2) years.

- V. Vendors who respond to this invitation have the right to file a notice of contention associated with the bid process or to file a notice of appeal of the recommendation made by the Director of Procurement resulting from this invitation.

Notice of contention with the bid process must be filed within 3 business days of the bid/proposal opening by (1) sending a written notice, including sufficient documentation to support contention, to the Director of the Division of Procurement or (2) submitting a written request for a meeting with the Director of Procurement to explain his/her contention with the bid process. After consulting with the Commissioner of Finance the Chief Administrative Officer and reviewing the documentation and/or hearing the vendor, the Director of Procurement shall promptly respond in writing findings as to the compliance with bid processes. If, based on this review, a bid process irregularity is deemed to have occurred the Director of Procurement will consult with the Commissioner of Finance, the Chief Administrative Officer and the Department of Law as to the appropriate remedy.

Notice of appeal of a bid recommendation must be filed within 3 business days of the bid recommendation by (1) sending a written notice, including sufficient documentation to support appeal, to the Director, Division of Procurement or (2) submitting a written request for a meeting with the Director of Procurement to explain his appeal. After reviewing the documentation and/or hearing the vendor and consulting with the Commissioner of Finance and the Chief Administrative Officer, the Director of Procurement shall in writing, affirm or withdraw the recommendation.

### **III. Procurement Contract Bid Conditions**

- A. The terms of this agreement shall be for 2 year(s) from the date of acceptance of this contract by the Lexington-Fayette Urban County Government. This agreement may be automatically extended for an additional **(2)-1** year(s) renewal. This contract may be canceled by either party thirty (30) days after delivery by canceling party of written notice of intent to cancel to the other contracting party.
- B. Price Changes **(Space Checked Applies)**
  - (XX)1. Prices quoted in response to the Invitation shall be firm prices for the first 180 days of the Procurement Contract. After 180 days, prices may be subject to revision and such changes shall be based on general industry changes. There shall be no more than one price change per 180 days thereafter. Revision may be either increases or decreases and may be requested by either party. Requests for price changes shall be received in writing at least thirty (30) days prior to the effective date and are subject to written acceptance before becoming effective. Proof of the validity of a request for revision shall be responsibility of the requesting party. The Lexington-Fayette Urban County Government shall receive the benefit of any decline that the seller shall offer his other accounts.
  - () 2. No provision for price change is made herein. Prices are to be firm for the term of this contract.
  - () 3. See bid specifications.
- C. If any contract item is not available from the vendor, the Lexington-Fayette Urban County Government, at its option, may permit the item to be back-ordered or may procure the item on the open market.
- D. All invoices must bear reference to the Lexington-Fayette Urban County Government Purchasing document numbers which are being billed.
- E. This contract may be canceled by the Lexington-Fayette Urban County Government if it is determined that the Bidder has failed to perform under the terms of this agreement, such cancellation to be effective upon receipt of written notice of cancellation by the Bidder.
- F. No substitutions for articles specified herein may be made without prior approval of the Division of Procurement.

## EQUAL OPPORTUNITY AGREEMENT

### Standard Title VI Assurance

The Lexington Fayette-Urban County Government, (hereinafter referred to as the "Recipient") hereby agrees that as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78Stat.252, 42 U.S.C. 2000d-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, (49 CFR, Part 21) Nondiscrimination in Federally Assisted Program of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") and other pertinent directives, no person in the United States shall, on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the U.S. Department of Transportation, including the Federal Highway Administration, and hereby gives assurance that will promptly take any necessary measures to effectuate this agreement. This assurance is required by subsection 21.7(a) (1) of the Regulations.

### The Law

- Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
- Section 503 of the Rehabilitation Act of 1973 states: *The Contractor will not discriminate against any employee or applicant for employment because of physical or mental disability.*
- Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.
- Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states: *The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.*

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

### Bidders

*I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, veteran status, disability and age.*

Signature

M.E.M. Services Co. Inc.

Name of Business



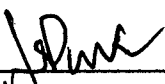
## **GENERAL PROVISIONS OF BID CONTRACT**

By signing the below, bidder acknowledges that it understands and agrees with the following provisions related to its bid response and the provision of any goods or services to LFUCG upon selection by LFUCG pursuant to the bid request:

1. Bidder shall comply with all Federal, State & Local regulations concerning this type of service or good. All applicable state laws, ordinances and resolutions (including but not limited to Section 2-33 (Discrimination due to sexual orientation or gender identity) and Chapter 13 (Licenses and Regulations) of the Lexington-Fayette Urban County Government Code of Ordinances, and Resolution No. 484-17 (Minority, Women, and Veteran-Owned Businesses)) and the regulations of all authorities having jurisdiction over the project shall apply to the contract, and shall be deemed to be incorporated herein by reference.
2. Failure to submit ALL forms and information required by LFUCG may be grounds for disqualification.
3. Addenda: All addenda and IonWave Q&A, if any, must be considered by the bidder in making its response, and such addenda shall be made a part of the requirements of the bid contract. Before submitting a bid response, it is incumbent upon bidder to be informed as to whether any addenda have been issued, and the failure of the bidder to cover any such addenda may result in disqualification of that response.
4. Bid Reservations: LFUCG reserves the right to reject any or all bid responses, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.
5. Liability: LFUCG is not responsible for any cost incurred by bidder in the preparation of its response.
6. Changes/Alterations: Bidder may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the bid response, and received by LFUCG prior to the scheduled closing time for receipt of bids, will be accepted. The bid response when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked "modifications of bid response".
7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from any bidder.
8. Bribery Clause: By his/her signature on its response, bidder certifies that no employee of his/hers, any affiliate or subcontractor, has bribed or attempted to bribe an officer or employee of the LFUCG.
9. Additional Information: While not necessary, the bidder may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the bid response. Additional documentation shall not serve as a substitute for other documentation which is required by the LFUCG to be submitted with the bid response.
10. Ambiguity, Conflict or other Errors: If a bidder discovers any ambiguity, conflict, discrepancy, omission or other error in the bid request of LFUCG, it shall immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.
11. Agreement to Bid Terms: In submitting its bid response, the bidder agrees that it has carefully examined the specifications and all provisions relating to LFUCG's bid request, including but not limited to the bid contract. By submission of its bid response, bidder states that it understands the meaning, intent and requirements of LFUCG's bid request and agrees to the same. The successful bidder shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to bidder shall be authorized for services, expenses, or goods reasonably covered under these provisions that the bidder omits from its bid response.
12. Cancellation: LFUCG may unilaterally terminate the bid contract with the selected bidder(s) at any time, with or without cause, by providing at least thirty (30) days advance written notice unless a different advance written notice

period is negotiated prior to contract approval. Payment for services or goods received prior to termination shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.

13. **Assignment of Contract:** The selected bidder(s) shall not assign or subcontract any portion of the bid contract with LFUCG without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.
14. **No Waiver:** No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this bid proposal or bid contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.
15. **Authority to do Business:** Each bidder must be authorized to do business under the laws of the Commonwealth of Kentucky and must be in good standing and have full legal capacity to provide the goods or services specified in the bid proposal. Each bidder must have all necessary right and lawful authority to submit the bid response and enter into the bid contract for the full term hereof including any necessary corporate or other action authorizing the bidder to submit the bid response and enter into this bid contract. If requested, the bidder will provide LFUCG with a copy of a corporate resolution authorizing this action and/or a letter from an attorney confirming that the proposer is authorized to do business in the Commonwealth of Kentucky. All bid responses must be signed by a duly authorized officer, agent or employee of the bidder.
16. **Governing Law:** This bid request and bid contract shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this matter, the bidder agrees that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division and that the bidder expressly consents to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to these matters or any rights or obligations arising thereunder.
17. **Ability to Meet Obligations:** Bidder affirmatively states that there are no actions, suits or proceedings of any kind pending against bidder or, to the knowledge of the bidder, threatened against the bidder before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of bidder to perform its obligations under this bid response or bid contract, or which question the legality, validity or enforceability hereof or thereof.
18. **Price Discrepancy:** When applicable, in case of price discrepancy, unit bid price written in words will prevail followed by unit price written in numbers then total amount bid per line item.
19. Bidder understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Bidder is an independent contractor at all times related to the bid response or bid contract.
20. Contractor [or Vendor or Vendor's Employees] will not appropriate or make use of the Lexington-Fayette Urban County Government (LFUCG) name or any of its trade or service marks or property (including but not limited to any logo or seal), in any promotion, endorsement, advertisement, testimonial or similar use without the prior written consent of the government. If such consent is granted LFUCG reserves the unilateral right, in its sole discretion, to immediately terminate and revoke such use for any reason whatsoever. Contractor agrees that it shall cease and desist from any unauthorized use immediately upon being notified by LFUCG.
21. If any term or provision of this bid contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.

  
\_\_\_\_\_  
Signature

4-22-25  
Date

# WORKFORCE ANALYSIS FORM

Name of Organization: M&M Services Co. Inc.

Categories	Total	White (Not Hispanic or Latino)		Hispanic or Latino		Black or African- American (Not Hispanic or Latino)		Native Hawaiian and Other Pacific Islander (Not Hispanic or Latino)		Asian (Not Hispanic or Latino)		American Indian or Alaskan Native (not Hispanic or Latino)		Two or more races (Not Hispanic or Latino)		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Administrators	3	2	1													2	1
Professionals	2	1	1													1	1
Superintendents																	
Supervisors																	
Foremen	12	11				1										12	
Technicians	33	32				1										33	
Protective Service																	
Para-Professionals																	
Office/Clerical	1		1														1
Skilled Craft																	
Service/Maintenance	5	5														5	
Total:																	

Prepared by: Diana Green Project Manager Date: 4, 22, 25  
(Name and Title) Revised 2015-Dec-15

**DIRECTOR, DIVISION OF PROCUREMENT  
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT  
200 EAST MAIN STREET  
LEXINGTON, KENTUCKY 40507**

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE  
EQUAL EMPLOYMENT OPPORTUNITIES AND DBE CONTRACT PARTICIPATION**

The Lexington-Fayette Urban County Government has a Certified Minority and Women Business Enterprise seventeen percent (17%) minimum goal including minimum subgoals of five percent (5%) for Minority Business Enterprises (MBE) and a subgoal of twelve percent (12%) for Women Business Enterprises (WBE); a three (3%) minimum goal for Certified Veteran-Owned Small Businesses and/or Certified Service- Disabled Veteran Owned Businesses; and a goal of utilizing Disadvantaged Business Enterprises (DBE), where applicable, for government contracts.

For assistance in locating certified DBEs, MBEs, WBEs, VOSBs and/or VOSBs, contact Sherita Miller at 859/258-3320 or by writing the address listed below:

Sherita Miller, MPA, CPSD  
Minority Business Enterprise Liaison  
Division of Procurement  
Lexington-Fayette Urban County Government  
200 East Main Street  
Lexington, Kentucky 40507  
[smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov)  
859-258-3323



# LEXINGTON

## MINORITY BUSINESS ENTERPRISE PROGRAM

Sherita Miller, MPA, CPSD  
Minority Business Enterprise Liaison  
Division of Procurement  
Lexington-Fayette Urban County Government  
200 East Main Street  
Lexington, KY 40507  
[smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov)  
859-258-3323

**OUR MISSION:** The mission of the Minority Business Enterprise Program (MBEP) is to facilitate the full participation of minority and women owned businesses in the procurement process and to promote economic inclusion as a business imperative essential to the long- term economic viability of Lexington-Fayette Urban County Government.

To that end the urban county council adopted and implemented Resolution 272-2024 – a Certified Minority and Women Business Enterprise seventeen percent (17%) minimum goal including minimum subgoals of five percent (5%) for Minority Business Enterprises (MBE) and a subgoal of twelve percent (12%) for Women Business Enterprises (WBE); a three (3%) minimum goal for Certified Veteran-Owned Small Businesses and/or Certified Service- Disabled Veteran Owned Businesses; and a goal of utilizing Disadvantaged Business Enterprises (DBE), where applicable, for government contracts.

The resolution states the following definitions shall be used for the purposes of reaching these goals:

***Certified Disadvantaged Business Enterprise (DBE)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a person(s) who is socially and economically disadvantaged as define by 49 CFR subpart 26.

***Certified Minority Business Enterprise (MBE)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by an ethnic minority (i.e. Black American, Asian American, Hispanic American, Native American)

***Certified Women Business Enterprise (WBE)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a woman.

***Certified Veteran-Owned Small Business (VOSB)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines or Coast Guard.

***Certified Service -Disabled Veteran Owned Small Business (SDVOSB)*** – a business in which at least fifty-one percent (51%) is owned, managed and controlled by a disabled veteran who served on active duty with the U.S. Army, Air Force, Navy, Marines or Coast Guard.

The term “Certified” shall mean the business is appropriately certified, licensed, verified, or validated by an organization or entity recognized by the Division of Procurement as having the appropriate credentials to make a determination as to the status of the business.



The following certifications are recognized and accepted by the MBEP:

Kentucky Transportation Cabinet (KYTC), Disadvantaged Business Enterprise (DBE)  
Kentucky Minority and Women Business Enterprise (MWBE)  
Women's Business Enterprise National Council (WBENC)  
National Women Business Owners Corporation (NWBOC)  
National Minority Supplier Development Council (NMSDC)  
Tri-State Minority Supplier Development Council (TSMSC)  
U.S. Small Business Administration Veteran Small Business Certification (VetCert)  
Kentucky Service- Disabled Veteran Owned Small Business (SDVOSB)

To comply with Resolution 272-2024, prime contractors, minority and women business enterprises, veteran owned small businesses, and service-disabled veteran owned small businesses must complete monthly contract compliance audits in the Diverse Business Management Compliance system, <https://lexingtonky.diversitycompliance.com/>

A list of organizations that certify and/or maintain lists of certified businesses (i.e. DBE, MBE, WBE, VOSB and/or SDVOSB) is available upon request by emailing, Sherita Miller, [smiller@lexingtonky.gov](mailto:smiller@lexingtonky.gov).



# LEXINGTON

## LFUCG MWDBE PARTICIPATION FORM

Bid/RFP/Quote Reference # 56-2025

The MWDBE and/or veteran subcontractors listed have agreed to participate on this Bid/RFP/Quote. If any substitution is made or the total value of the work is changed prior to or after the job is in progress, it is understood that those substitutions must be submitted to the Division of Procurement for approval immediately. **Failure to submit a completed form may cause rejection of the bid.**

MWBE Company, Name, Address, Phone, Email	DBE/MBE WBE/VOSB/SDVOSB	Work to be Performed	Total Dollar Value of the Work	% Value of Total Contract
1.				
2.	N/A			
3.				
4.				

The undersigned company representative submits the above list of MDWBE and veteran firms to be used in accomplishing the work contained in this Bid/RFP/Quote. Any misrepresentation may result in the termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

M&M Services Co. Inc.

Company

4-22-25

Date

[Signature]

Company Representative

Project Manager

Title



# LEXINGTON

## LFUCG MWDBE SUBSTITUTION FORM

Bid/RFP/Quote Reference # 56-2025

The substituted MWDBE and/or veteran subcontractors listed below have agreed to participate on this Bid/RFP/Quote. These substitutions were made prior to or after the job was in progress. These substitutions were made for reasons stated below and are now being submitted to the Division of Procurement for approval. By the authorized signature of a representative of our company, we understand that this information will be entered into our file for this project. **Note: Form required if a subcontractor is being substituted on a contract.**

SUBSTITUTED DBE/MBE/WBE/VOSB Company Name, Address, Phone, Email	DBE/MBE/WBE/VOSB/SDVOSB Formally Contracted/ Name, Address, Phone, Email	Work to Be Performed	Reason for the Substitution	Total Dollar Value of the Work	% Value of Total Contract
1.					
2.	N/A				
3.					
4.					

The undersigned acknowledges that any misrepresentation may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and false claims.

M&M Services Co. Inc.  
Company

4-22-25  
Date

[Signature]  
Company Representative  
Project Manager  
Title





## DOCUMENTATION REQUIRED FOR GOOD FAITH EFFORTS AND OUTREACH PLANS

As affirmed in Resolution Number 272-2024, the Urban County Council has adopted an annual aspirational goal of utilizing at least seventeen percent (17%) of public funds spend from certain discretionary agreements with certified Minority Business Enterprises (MBEs) and certified Woman Business Enterprises (WBEs); utilizing at least three percent (3%) of public funds from certain discretionary agreements with Certified Veteran-Owned Small Business and Certified Service-Disabled Veteran-Owned Small Businesses (VOSBs); and utilizing Disadvantaged Business Enterprises (DBEs) where applicable. Bidders should make every effort to achieve these goals.

Therefore, as an element of the responsiveness of the bid, all Bidders are required to submit documentation of their good faith and outreach efforts to ensure all businesses, including small and disadvantaged businesses such as minority-, woman-, and veteran-owned businesses, have an equal opportunity to compete for and participate in the performance of any subcontracts resulting from this procurement. Examples of good faith and outreach efforts that satisfy this requirement to encourage the participation of, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs include:

1. Advertised opportunities to participate in the contract in at least two (2) publications of general circulation media; trade and professional association publications; small and minority business or trade publications; and publications or trades targeting minority, women, and disadvantaged businesses not less than fifteen (15) days prior to the deadline for submission of bids to allow, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs to participate.
2. Attended LFUCG Procurement Economic Inclusion Outreach event(s) within the past year to meet new small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs to partner with on LFUCG contracts and procurements.
3. Attended pre-bid/pre-proposal meetings that were scheduled by LFUCG to inform small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs of subcontracting opportunities.
4. Sponsored Economic Inclusion event to provide networking opportunities for prime contractors and small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs.
5. Requested a list of certified small, DBE, MBE, WBE, VOSB and/or SDVOSB subcontractors or suppliers from LFUCG and showed evidence of contacting the companies on the list(s).
6. Contacted organizations that work with small, DBE, MBE, WBE, and VOSB companies for assistance in finding certified DBEs, MBEs, WBEs, VOSB and/or SDVOSBs to work on this project. Those contacted and their responses must be a part of the bidder's outreach efforts documentation.
7. Sent written notices, by certified mail, email, or facsimile, to qualified, certified small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs soliciting their participation in the contract not less than seven (7) days prior to the deadline for submission of bids to allow them to participate effectively.
8. Followed up initial solicitations by contacting small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs via tailored communications to determine their level of interest.

9. Provided the interested small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs with adequate and timely information about the plans, specifications, and requirements of the contract.
10. Selected portions of the work to be performed by small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs in order to increase the likelihood of subcontracting participation. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate small, DBE, MBE, WBE, VOSB and/or SDVOSB participation, even when the prime contractor may otherwise perform these work items with its own workforce.
11. Negotiated in good faith with interested small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs, not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection must be so noted in writing with a description as to why an agreement could not be reached.
12. Included documentation of quotations received from interested small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs that were not used due to uncompetitive pricing or were rejected as unacceptable and/or copies of responses from firms indicating that they would not be submitting a bid.
  - a. Bidder has to submit sound reasons why the quotations were considered unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered a sound reason for rejecting a small business', DBE's MBE's, WBE's, VOSB's and/or SDVOSB's quote. Nothing in this provision shall be construed to require the bidder to accept unreasonable quotes in order to satisfy the participation goals.
13. Made an effort to offer assistance to or refer interested small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs to obtain the necessary equipment, supplies, materials, insurance and/or bonding to satisfy the work requirements of the bid proposal.
14. Made efforts to expand the search for small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs beyond the usual geographic boundaries.
15. Other – any other evidence that the bidder submits that may demonstrate that the bidder has made reasonable efforts to include small, DBE, MBE, WBE, VOSB and/or SDVOSB participation.

Bidder must document, with specificity, each of the efforts it made to include small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs as subcontractors in the procurement, including the date on which each effort was made, the medium through which each effort was made, and the outcome of each effort.

**Note:** Failure to submit the documentation requested in this section may be cause for rejection of bid. Bidders may include any other documentation deemed relevant to this requirement which is subject to review by the MBE Liaison. Documentation of Good Faith and Outreach Efforts must be submitted with the Bid, regardless of the proposed level of small, DBE, MBE, WBE, VOSB and/or SDVOSB participation in the procurement. If the Good Faith and Outreach Effort documentation is not submitted with the bid response, the bid may be rejected.

#### OUTREACH EFFORTS EVALUATION

Outreach efforts demonstrated by the bidder or respondent will be evaluated on a pass/fail basis.



# ATTACHMENT A – SMALL AND DISADVANTAGED, MINORITY-, WOMEN-, AND VETERAN-OWNED BUSINESS OUTREACH PLAN

Proposer Name:

Project Name:

Contact Name:

Email:

Date:

Project Number:

Telephone:

The mission of the Minority Business Enterprise Program is to facilitate the full participation of disadvantaged businesses, minority-, women-, veteran-, and service-disabled veteran-owned businesses in the procurement process and to promote economic inclusion as a business imperative essential to the long-term economic viability of Lexington-Fayette Urban County Government.

To that end, small and disadvantaged businesses, including minority-, woman-, veteran-, and service-disabled veteran-owned businesses, must have an equal opportunity to be utilized in the performance of contracts with public funds spent from certain discretionary agreements. By submitting its offer, Bidder/Proposer certifies that it has taken, and if there are further opportunities will take, reasonable steps to ensure that small and disadvantaged businesses, including minority-, woman-, veteran-, and service-disabled veteran-owned businesses, are provided an equal opportunity to compete for and participate in the performance of any subcontracts resulting from this procurement.

The information submitted in response to this clause will not be considered in any scored evaluation. Failure to submit this form may cause the bid or proposal to be rejected.

Is the Bidder/ Proposer a certified firm? Yes ☐ No ☒

If yes, indicate all certification type(s):

DBE ☐

MBE ☐

WBE ☐

SBE ☐

VOSB/SDVOSB ☐

and supply a copy of the certificate and/or certification letter if not currently listed on the city's Minority Business Enterprise Program's (MBEP) certified list.

1. Include a list of firms that Bidder/ Proposer has had a contractual relationship with within the last two years that are minority-owned, woman-owned, veteran-owned or small businesses, regardless of their certification status.

Bar Tie  
NWK

Click or tap here to enter text.

2. Does Bidder/Proposer foresee any subcontracting opportunities for this procurement?

Yes ☐

No ☒

If no, please explain why in the field below. Do not complete the rest of this form and submit this first page with your bid and/or proposal. *We will be performing all work items ourself.*

If yes, please complete the following pages and submit all pages with your bid and/or proposal.

**Describe the steps Bidder/Proposer took to solicit small and disadvantaged businesses, including MBEs, WBEs, VOSBs, and SDVOSBs, for subcontracting opportunities for this procurement.**

**3. Check the good faith and outreach efforts the Bidder/Proposer used to encourage the participation of small and disadvantaged businesses including, MBEs, WBEs, VOSBs and SDVOSBs:**

- ☒ Bidder placed advertisements in search of prospective small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs for the solicitation.
- ☒ Bidder attended LFUCG Procurement Economic Inclusion Outreach event(s) within the past year.
- ☒ Bidder attended pre-bid and/or pre-proposal meetings for this solicitation.
- ☒ Bidder sponsored an Economic Inclusion Outreach event.
- ☒ Bidder requested a list of certified small, DBE, MBE, WBE, VOSB and/or SDVOSB subcontractors or suppliers from LFUCG.
- ☒ Bidder contacted organizations that work with small, DBE, MBE, WBE, VOSB and/or SDVOSB companies.
- ☒ Bidder sent written notices to certified small, DBE, MBE, WBE, VOSB and SDVOSB businesses.
- ☒ Bidder followed up to initial solicitations with interested small, DBE, MBE, WBE, VOSB and/or SDVOSB.
- ☒ Bidder provided small, DBE, MBE, WBE, VOSB and/or SDVOSB businesses interested in performing the solicited work with prompt access to the plans, specifications, scope of work, and requirements of the solicitation.
- ☒ Bidder made efforts to segment portions of the work to be performed by small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs, including dividing sub-bid/partnership opportunities into economically feasible units/parcels, to facilitate participation.



- ☒ Bidder negotiated in good faith with interested small, DBE, MBE, WBE, VOSB and/or SDVOSB businesses.
- ☒ Bidder provided adequate rationale for rejecting any small business', DBEs, MBEs, WBEs, VOSBs or SDVOSBs for lack of qualifications.
- ☒ Bidder offered assistance in obtaining bonding, insurance, financial, equipment, or other resources to small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs, in an effort to assist them in meeting project requirements.
- ☒ Bidder made efforts to expand the search for small businesses, DBEs MBEs, WBEs, VOSBs and/or SDVOSBs beyond the usual geographic boundaries.
- ☒ Bidder made other reasonable efforts to include small businesses, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs participation.

**4. Bidder/Proposer must include documentation, including the date each effort was made, the medium through which each effort was made, and the outcome of each effort with this form, regardless of the level of small, DBE, MBE, WBE, VOSB and/or SDVOSB participation. Examples of required documentation include copies of email communications, copies of newspaper advertisements, or copies of quotations received from interested small businesses, DBEs, MBEs, WBEs, VOSBs or SDVOSBs.**

We are completing all work ourself. N/A

**For detailed information regarding outreach efforts that satisfy the MBE Program's requirements, please see "Documentation Required for Good Faith Efforts and Outreach Plans" page.**

**Note: The Bidder/Proposer must be willing to report the identity of each subcontractor and the value of each subcontract to MBEP if awarded a contract from this procurement.**

**Failure to submit the documentation requested may be cause for rejection of the bid. Bidders may include any other documentation deemed relevant to this requirement, which is subject to review by the MBE Liaison. Documentation of Good Faith and Outreach Efforts must be submitted with the bid, regardless of the proposed level of SBEs, DBEs, MBEs, WBEs, VOSBs and/or SDVOSBs participation in the procurement. If the Good Faith and Outreach Effort Form and associated documentation is not submitted with the bid response, the bid may be rejected.**

The undersigned acknowledges that all information is accurate. Any misrepresentations may result in termination of the contract and/or be subject to applicable Federal and State laws concerning false statements and claims.

M&M Services Co., Inc.  
Company  
4-22-25  
Date

J. P. [Signature]  
Company Representative  
Project Manager  
Title

## **SPECIFICATIONS**

### **Paint Pavement Markings**

#### **1. Scope**

This is a request for bids for a Unit Price Contract for Roadway Pavement, Shared Use Paths, and Parking Lot Markings. The quantities listed on the bid sheet are annual estimates based on historical quantities. Those quantities are listed as a reference and are not a guarantee of future annual quantities.

Bidders are not required to bid on all line items. LFUCG reserves the right to review to accept or reject submitted bids on a line-by-line basis.

This section covers requirements for Painted Markings to be furnished and applied by the Contractor.

Special marking, such as crosswalks, arrows, bike symbols, railroad crossing, etc. are required unless otherwise specified.

All work covered under this advertisement shall comply with Kentucky Transportation Cabinet's Standard Specifications for Road and Bridge Construction, Edition of 2019

<https://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

#### **2. Materials**

Materials for striping will be paint with glass beads.

The paint must generally comply with specifications for Type III Chlorinated Rubber-Alkyd type paint, as described in Federal Specification TT-P-115E, with the following exceptions:

- (1) The weight per gallon must exceed 12.00 lbs.
- (2) Drying time must not exceed one minute to touch or five minutes to no pick up when applied at 120 degrees F.
- (3) The viscosity at 77 degrees F must be 75- 90 Krebs Units
- (4) The percent of pigment by weight must be 45-55 percent material noted below, in excess of the minimum weight in pounds per gallon of paint:

	<u>White</u>	<u>Yellow</u>
Titanium Dioxide	1.00	0.25



Magnesium Silicate	2.20	2.20
Zinc Oxide	0.25	0.25
Calcium Carbonate	2.20	2.00
Chrome Yellow	0.00	1.00

- (5) Composition of the vehicle must include a portion of the following materials noted below, in excess of the minimum weight of pounds per gallon of paint:

	<u>White</u>	<u>Yellow</u>
Alkyd Resin Solution	1.00	0.25
Chlorinated Rubber	1.00	1.00
Chlorinated Paraffin	0.75	0.75

Methyl Ethyl Ketone	0.25	0.25
Xylene	0.30	0.30

- (6) The vehicle must include trace amounts, not to exceed 0.01 pounds per gallon of paint, of lead dryer, cobalt drier and anti-skinning agent.
- (7) All bids should include documentation of actual chemical composition and reference to governmental agencies and specifications whereby the materials bid are successfully being used. The Lexington- Fayette Urban County Government (LFUCG) reserves the right to reject delivered materials if a laboratory examination determines that the composition does not conform to the documentation included with the bid.

### **3. Application of Striping**

- (1) Paint shall be applied at a rate of not less than 16.5 gallons per mile of solid 4-inch line and 24.8 gallons per mile of solid 6-inch line. Glass beads shall be applied at a rate of not less than 5 pounds per gallon of paint.
- (2) The 4-inch lines shall have clean edges and shall not be less than 4-inches or more than 6-inches. The 6-inch lines shall have clean edges and shall not be less than 6-inches or more than 8-inches in width. These tolerances may not apply when deviations are caused by undulation in the pavement surface.
- (3) The skip lines shall have a stripe-to-gap ratio of 10-foot paint stripe to a 30-foot gap. The length of the stripe shall not be less than 10-foot nor more than 10 feet 6 inches. The stripe gap cycle shall not be less than 39 feet 6 inches nor longer than 40 feet 6 inches.

### **4. Application Equipment**

- (1) The striper used for the markings must be self-propelled and capable of heating the paint to provide uniform flow and enhance quick drying of the paint. This striper must have a guide boom or optical pointer in order to attain smooth and straight lines. The equipment must use air pressure or pump pressure to maintain proper paint pressure at all times. The equipment shall be capable of applying a single line or parallel lines of the specified width and in any combination of a skip line and a solid line in one pass.
- (2) The equipment shall be equipped with a paint cutoff device to provide clean, square marking ends of the paint lines.

### **5. Paint Marking Removal**

When called for in the contract or otherwise as directed by the Engineer, removal of existing paint pavement markings shall be accomplished by the Contractor using equipment and methods specifically approved by the Engineer. Marking removal shall not be by the "painting out" with black paint method nor shall it result in excessive scarring of the pavement. No more than 1/8 inch depth of scarred pavement will be allowed. At least 90 percent of all markings shall be removed.

As directed by the Engineer, the Contractor shall be responsible for sweeping or otherwise adequately cleaning up debris after completion of markings required to be removed by the Engineer because they are improperly located or otherwise incorrect or improper. Unless permitted otherwise by the Engineer, where old markings are removed, the new markings must be applied the same day as the old markings are removed. Whenever grinding, scraping, sandblasting, or other operations are performed, the work shall be conducted in such manner that the finished pavement surface is not damaged or left in a pattern that will mislead or misdirect motorists. When these operations are completed, the pavement markings shall be cleaned to remove residue and debris resulting from the cleaning work.

Where cleaning and/or removal of pavement objectionable material is being performed within ten (10) feet of a lane occupied by traffic, the residue removal shall be by method(s) approved by the Engineer.

Any damage to the pavement or pavement joint materials caused by pavement marking removal shall be repaired by the Contractor at no cost to the LFUCG by methods acceptable to the Engineer.

The removal of pavement markings will be measured and paid for at the contract price as shown in the Bid Documents.

No direct payment will be made for the removal of existing pavement markings which have not been authorized by the Engineer.

#### **6. Timelines**

- (1) All assigned work shall be completed within 30 calendar days of notice to proceed from LFUCG. Allowance for unacceptable weather or working conditions will be allowed if/when requested.
- (2) Invoices shall be submitted within 30 days of completion and acceptance of work by LFUCG.
  - Invoices shall clearly identify the specific scope of work being invoiced to allow for LFUCG tracking and auditing purposes.

**SPECIFICATIONS**  
**Thermoplastic Pavement Marking**  
**White or Yellow**

**1. DESCRIPTION**

This specification covers a reflectorized pavement striping material of the type that is applied to a road surface in a molten state with premixed glass beads by spray or extrusion means, with a supplemental surface application of glass spheres. When applied properly and at the designated thickness and width the stripe shall, upon cooling, be reflectorized and be able to resist deformation by traffic. The applied material shall be impervious to degradation by motor oil, diesel fuel, grease deposits and ice-preventative chemicals.

**2. MATERIAL REQUIREMENTS**

The thermoplastic pavement marking materials used in this contract shall meet the following specifications. This specification covers reflectorized oil and grease impervious thermoplastic road marking materials which are (1) hot extrusion applied with a surface application of glass spheres and (2) heat fused applied. The properly applied markings shall be reflectorized and able to durably resist degradation and deformation by traffic.

The thermoplastic materials shall be homogenously composed of pigment, filler, resins, and glass reflectorizing spheres, and shall be available in both yellow and white.

Composition: The pigment, beads and filler shall be uniformly dispersed in the resin. The materials shall be free from all skins, dirt, and foreign objects and shall comply with requirements according to Table 1. Only new materials shall be acceptable for use on this project.

**TABLE 1**

<b>COMPONENT</b>	<b>WHITE</b>	<b>YELLOW</b>
Binder (see note A )	18.0% min	18.0% min
Glass Beads (AAASHTO M247 Type D )	30.0 – 40.0%	30.0 – 40.0%
Titanium Dioxide	10.0% min	—
Yellow Pigments (see note B)	—	2.0% min
Calcium Carbonate	42.0% max	50.0% max

**Note A:** The alkyd binder shall consist of a mixture of synthetic resins (at least one of which is solid at room temperature) and a high boiling point plasticizer. At least one third of binder

composition shall be solid maleic modified glycerol ester resin and shall be no less than 8% of the entire material formulation. The alkyd binder shall not contain petroleum based hydrocarbon resins.

**Note B:** The percentage of yellow pigment can be reduced if lead pigments are eliminated from the formulation.

**Temperature** - The molten material temperature shall be between 400 and 440 F unless otherwise recommended by the manufacturer, and approved by the Engineer.

**Primer** - A primer shall be used if thermoplastic is applied to Portland cement concrete. Any primer used shall be compatible with the thermoplastic material.

**Thickness** - The pavement markings shall yield a solid thickness range of 80 to 95 mils above the roadway surface across the middle two-thirds of the line width.

**Glass Beads** - Glass beads shall be uniformly applied to the surface of the molten thermoplastic at the minimum rate of 7 to 9 lb/ 100 ft<sup>2</sup>.

**Color** - The color of the dry markings shall match Federal Standard 595 (13538 – yellow or 17886– white). The Contractor shall supply the specified color chips for the Engineer's use to visually determine that the thermoplastic material matches the specified color.

**Retro reflectance** - The millicandel/lux/square meter values taken anytime within the first 30 days shall conform to the following:

#### **RETROREFLECTANCE**

<b>COLOR</b>	<b>RETROREFLECTIVITY</b>	<b>CORRECTIVE ACTION</b>
White	equal to or greater than 250	None
Yellow	equal to or greater than 150	
White	less than 250	Necessary corrective actions, including grinding if necessary, and re-tracing.
Yellow	less than 150	

The "Drop-On" glass beads shall conform to AASHTO specifications M-247-81 except as follows:  
The glass beads shall have the following gradation:

<b>US Sieve Number</b>	<b>Percent Passing</b>
20	100
30	75-95
50	15-35
80	0-5
100	0



The "Drop-On" glass beads shall be smooth, clear and free from air inclusions. The beads shall have a minimum refractive index of 1.50 and shall be a minimum of 80% true spheres overall, and minimum 70% true spheres on each sieve. The beads shall be moisture proof coated and shall meet the requirements of AASHTO M-247-81 Section 4.4.2 to insure optimum embedment of 60-65 percent (60-65%) in various thermoplastic traffic marking systems. The material shall set to bear traffic in not more than 2 minutes when the air temperature is 50 degrees F and not more than 10 minutes when the air temperature is 90 degrees F.

**Bond Strength** – After heating the thermoplastic material for four hours at 425 degrees F the bond strength to Portland Cement Concrete shall exceed 180 psi (1.24 Mpa Method ASTM D4796-88)

**Cracking Resistance** – For at least 90 days after application the materials shall show no cracks other than with substrate cracking.

**Smear and Softening Resistance** – During the life of the materials, the applied markings shall not smear or soften apart from substrate movement.

### **3. QUALITY ASSURANCE**

**Methods of Sampling and Testing:** The LFUCG reserves the right to require the contractor to perform any quality assurance testing necessary to determine compliance with these specifications. Testing required shall be by industry standard and shall be the responsibility of the contractor and performed at no cost to the LFUCG.

The Contractor shall obtain and provide to the Engineer, as part of the material submittal package, a written material specification compliance certification from the thermoplastic manufacturer, stating that the material being used on this contract meets the materials specifications in the Contract.

### **4. APPLICATION REQUIREMENTS**

The molten applied thermoplastic material shall readily screed/extrude at temperatures between 400 degrees F and 440 degrees F from the approved equipment to produce a line which shall be continuous and uniform in shape having sharp dimensions.

The application of additional glass beads by drop-on methods shall be at a minimum rate of 8 lbs. per 100 sq ft of marking. Ambient and surface temperatures shall be at least 50 degrees F and rising at the time of application.

#### **Method of Application:**

The Contractor shall furnish and install machine-applied extruded and/or sprayed hot thermoplastic with glass spheres (pre mixed and drop-on) in the proper ratio to immediately produce a highly reflective marking as described elsewhere in these specifications, in accordance with the details in this contract and the following provisions.

#### **Surface Preparation:**

In order to insure maximum possible adhesion, the pavement surface upon which the pavement markings are to be placed shall be properly cleaned from grease, oil, mud, dust, dirt, grass, loose gravel, and other deleterious material prior to the application of the Thermoplastic pavement markings, and/or primer/sealer. Cleaning is required on all surfaces which are to receive new pavement markings, and shall be considered incidental to the application of the markings.

#### **Primer-Sealer:**

It shall be the responsibility of the contractor to recommend to the Engineer and obtain the Engineer's concurrence as to whether primer-sealer is required on a given pavement in order to meet the material manufacturer's warranty conditions. Generally, on all Portland Cement concrete pavement surfaces and aged asphalt-concrete pavements having less than eighty percent (80%) bituminous concrete, primer-sealer shall be applied to the area where the thermoplastic pavement markings are to be placed. Also, the Engineer reserves the right to direct the Contractor to apply primer/sealer for any given markings.

The primer/sealer shall be that recommended by the manufacturer of the thermoplastic material, and approved by the Engineer. The material shall form a continuous film which shall dry rapidly and adhere to the pavement. The material shall not discolor nor cause any noticeable change in the appearance of the pavement outside the of the finished pavement markings. All solvents shall have evaporated from the primer/sealer prior to the application of the molten thermoplastic materials. A sample of the primer/sealer and the recommended method of application must be submitted to the Engineer, and shall have been approved by the Engineer and the manufacturer of the material before application.

The Engineer has the authority to require the Contractor to apply the primer/sealer using a separate vehicle which may require additional traffic control.

Payment for application of primer/sealer and any additional traffic control will be incidental to the marking item.

## **5. REMOVAL OF EXISTING PLASTIC MARKINGS**

When called for in the contract or otherwise as directed by the Engineer, removal of existing plastic pavement markings shall be accomplished by the Contractor using equipment and methods specifically approved by the Engineer. Marking removal shall not be by the "painting out" with black paint method nor shall it result in excessive scarring of the pavement. No more than 1/8 inch depth of scarred pavement will be allowed. At least 90 percent of all markings shall be removed.

As directed by the Engineer, the Contractor shall be responsible for sweeping or otherwise adequately cleaning up debris after completion of markings required to be removed by the Engineer because they are improperly located or otherwise incorrect or improper. Unless permitted otherwise by the Engineer, where old markings are removed, the new markings must be applied the same day as the old markings are removed. Whenever grinding, scraping, sandblasting, or other operations are performed, the work shall be conducted in such manner that the finished pavement surface is not damaged or left in a pattern that will mislead or misdirect motorists. When these operations are completed, the pavement markings shall be cleaned to remove residue and debris resulting from the cleaning work.

Where cleaning and/or removal of pavement objectionable material is being performed within ten (10) feet of a lane occupied by traffic, the residue removal shall be by method(s) approved by the Engineer.

Any damage to the pavement or pavement joint materials caused by pavement marking removal shall be repaired by the Contractor at no cost to the LFUCG by methods acceptable to the Engineer.

The removal of pavement markings will be measured and paid for at the contract price as shown in the Bid Documents.

No direct payment will be made for the removal of existing pavement markings which have not been authorized by the Engineer.

## **6. PRE-MARKING OF LINES**

When a line is required to be placed in the same location as an existing painted line, and existing painted markings not required to be removed are visible, they shall be retraced (i.e. new markings installed in exactly the same locations, patterns, and dimensions as the old markings). However, if the existing markings are to be removed or are not visible, or if new roadway surface has been placed before markings installation occurs, or if the contract requires a line to be installed where none currently exists, the Contractor will be required to pre-mark as directed by the Engineer and subsequently shall install the required markings in accordance with the requirement of other sections of the specifications.

The actual placement of the pavement markings at any such site shall not be performed until the pre-marking has been inspected and approved by the Engineer. Pre-marking is incidental to the pavement marking installation work and there will be no separate payment for pre-marking.

## **7. WARRANTIES**

The thermoplastic pavement marking materials and glass beads furnished under this contract shall assume the manufacturer's warranty for these materials and shall be guaranteed by the supplier against failure due to traffic oil degradation.

The contractor shall assume all costs arising from the use of patented materials, equipment, devices or processes used on or incorporated in the work and agrees to indemnify and hold harmless the LFUCG and its duly authorized representatives from all suits at law or action of every nature for, or on account of, the use of any patented materials equipment, devices or processes. Further, the material shall meet the requirements of this specification for a period of one year.

**SPECIFICATIONS**  
**RETROREFLECTIVE AND SKID RESISTANT BIKE LANE GREEN**  
**PREFORMED THERMOPLASTIC PAVEMENT MARKINGS**

1. **USE:** A durable, high skid resistant, retroreflective pavement marking material suitable for use as bike lane, bike path, roadway, intersection, airport, commercial or private pavement delineation and markings.
  - 1.1. The markings must be a resilient light green color thermoplastic product, the surface of which must contain glass beads and abrasives in an alternating pattern optimizing both skid resistance and retroreflectivity.
  - 1.2. The markings must be resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids etc.
  - 1.3. The material shall be capable of being affixed to bituminous and/or Portland cement concrete pavements by the use of the normal heat of a propane torch or infrared heater.
  - 1.4. The markings must be capable of conforming to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastic when heated with the torch.
  - 1.5. The markings shall not have minimum ambient and road temperature requirements for application, storage, or handling. When manufacturer's standard application procedures require the use of a 2-component sealer, the material shall be capable of being applied with a compatible 2-component sealer recommended by the manufacturer, at minimum ambient and surface temperatures of 45°F without any special storage, preheating or treatment of the material before application.
  - 1.6. If required, white, retroreflective and skid resistant preformed thermoplastic symbols and/or word legends may be incorporated into the light green retroreflective and skid resistant material background in an interconnected fashion, such that the two materials shall be factory assembled together and applied as a single layer.
2. **MANUFACTURING LOCATION, CONTROL AND ISO CERTIFICATION:** The marking material must be produced in the United States, and the manufacturer must be ISO 9001:2008 certified for design, development and manufacturing of preformed thermoplastic pavement markings, and provide proof of current certification.
3. **MATERIAL:** Must be composed of an ester modified rosin resistant to degradation by motor fuels, lubricants etc. in conjunction with aggregates, pigments, binders, abrasives, and glass beads which have been factory produced as a finished product and meets the requirements of the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways. The thermoplastic material conforms to AASHTO designation M249, with the exception of the relevant differences due to the material being supplied in a preformed state and being supplied in a color other than white or yellow.
  - 3.1. Graded Glass Beads:
    - 3.1.1. The material must contain a minimum of thirty percent (30%) intermixed graded glass beads by weight. The intermixed beads shall conform to AASHTO designation M247, with minimum 80% true spheres and minimum refractive index of 1.50.
    - 3.1.2. The material must have factory applied coated surface beads and abrasives in addition to the intermixed beads at a rate of 1/2 lb. (.23 kg) [ $\pm$  20%] per 11 sq. ft. (1 sq. m). The surface beads and abrasives must be applied in an alternating arrangement across the

surface of the material so that the surface is covered in what is best described as a “checkerboard” pattern of glass beads and abrasive materials. The abrasive material must have a minimum hardness of 9 (Mohs scale). The factory applied coated surface beads shall have a minimum of 80% true spheres, minimum refractive index of 1.50, and meet the following gradation:

Size Gradation		Retained, %	Passing, %
US Mesh	Um		
12	1700	0 - 2%	98 - 100%
14	1400	0 - 6%	94 - 100%
16	1180	1 - 21%	79 - 99%
18	1000	28 - 62%	38 - 72%
20	850	62 - 71%	29 - 38%
30	600	67 - 77%	23 - 33%
50	300	86 - 95%	5 - 14%
80	200	97 - 100%	0 - 3%

- 3.2. **Pigments: Light Green:** The material shall be manufactured with appropriate pigment to ensure that the resulting colors complies with the Light Green color as specified in the FHWA Memorandum dated April 15<sup>th</sup>, 2011: Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14).

3.2.1. Daytime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
x	y	x	y	x	y	x	y
0.230	0.754	0.266	0.500	0.367	0.500	0.444	0.555

3.2.2. Nighttime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
x	y	x	y	x	y	x	y
0.230	0.754	0.336	0.540	0.450	0.500	0.479	0.520

3.2.3. The pigment system must not contain heavy metals or any carcinogen, as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

- 3.3. **Heating indicators:** The top surface of the material (same side as the factory applied surface beads/abrasives) shall have regularly spaced indents. The closing of these indents during application, shall act as a visual cue that the material has reached a molten state allowing for satisfactory adhesion and proper bead and abrasives embedment, and as a post-application visual cue that the application procedures have been followed.
- 3.4. **Skid Resistance:** The surface of the preformed thermoplastic material shall contain factory applied non-skid material with a minimum hardness of 9 (Mohs scale). Upon application the material shall provide a minimum skid resistance value of 60 BPN when tested according to ASTM E 303.
- 3.5. **Thickness:** The material must be supplied at a minimum thickness of 90 mils (2.29 mm) or 125 mils (3.15 mm).
- 3.6. **Retroreflectivity:** The material, when applied in accordance with manufacturer’s guidelines, must demonstrate a uniform level of sufficient nighttime retroreflection when tested in accordance to ASTM E 1710. The applied material must have an initial minimum intensity reading of  $50 \text{ mcd} \cdot \text{m}^{-2} \cdot \text{lx}^{-1}$ , as measured with a Delta pavement marking retroreflectometer. Note: Initial retroreflection and skid resistance are affected by the amount of heat applied during installation. When ambient temperatures are such that greater amounts of heat are required for proper installation, initial retroreflection and skid resistance levels may be affected.



- 3.7. **Environmental Resistance:** The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.
- 3.8. **Abrasives:** The abrasives and surface beads must be applied in an alternating arrangement across the surface of the material so that the surface is covered in what is best described as a “checkerboard” pattern of glass beads and abrasive materials. The abrasive material must have a minimum hardness of 9 (Mohs scale).

**4. APPLICATION:**

- 4.1. **Asphalt:** The materials shall be applied using the propane torch or infrared heater method recommended by the manufacturer, without minimum requirements for ambient and road temperatures and without any preheating of the pavement to a specific temperature. The material must be able to be applied without the use of a thermometer. The pavement shall be clean, dry and free of debris. Supplier must enclose application instructions in English and Spanish with each box/package only pertaining to an application method that does not require preheating of the pavement to a specific temperature before application. When manufacturer’s standard application procedures require the use of 2-component sealer for large volumes of material, the compatible 2-component sealer supplied by the material manufacturer shall be applied to the substrate prior to material application, to ensure proper adhesion and provide bond reinforcement.
- 4.2. **Portland Concrete:** The same application procedure shall be used as described under Section 4.1. However, a compatible primer sealer shall be applied before application to assure proper adhesion.

5. **PACKAGING:** The preformed thermoplastic markings shall be placed in protective plastic film with cardboard stiffeners where necessary to prevent damage in transit. Linear material must be cut to a maximum of 3 ft. (.91 m) long pieces. Legends and symbols must also be supplied in flat pieces. The cartons in which packed shall be non-returnable, shall contain a minimum of 35% post-consumer recycled materials, shall not exceed 40 in. (1.02m) in length and 25 in. (.64 m) width, and shall be labeled for ease of identification. The weight of the individual carton must not exceed 70 lb. (32 kg). A protective film around the box must be applied in order to protect the material from rain or premature aging. When required, the 2-component sealer must be supplied by the material manufacturer in 300/600ml cartridges, along with 2-component sealer application supplies.

6. **TECHNICAL SERVICES:** The successful bidder shall provide technical services as required. Regionally-located manufacturer’s representative, employed directly by the manufacturer, can provide no-cost on-site training for proper application.

7. **Methyl Methacrylate (MMA) Resin (Square Feet)**

Contractor shall provide and apply MMA colored lane treatments to delineate bike lanes, bus lanes, and other multi-modal travel lanes.

Material used to create final product shall be a mixture of MMA pre-pigmented resins, hard wearing anti-skid aggregates and the catalyst. Anti-skid aggregates and color pigments are intermixed with the MMA material at the factory. The catalyst shall come in a liquid form and shall be used at a rate of 2.0% by weight.

Material shall be ready to use as delivered and will not require any thinning agent to be used.

A pneumatic spray machine shall be utilized for this application. A high speed, high torque drill with a mixing paddle will also be required.

The material must be stirred until it is homogenous using the high torque drill. The catalyst shall be mixed in with the material via the pneumatic spray machine.

Specific details regarding the application and usage of colored pavement markings can be found in Section 3H of the 2023 Edition of the Manual on Uniform Traffic Control Devices (MUTCD). All colors indicated in section 3H should be available to utilize with MMA resin. No unit price surcharges shall be administered for any color accepted in the MUTCD.

## **SPECIFICATION**

### **PlastiRoute™ SprayPlast**

#### **Intended Usage**

PlastiRoute™ SprayPlast combines state of the art methyl methacrylate resins with hardwearing anti-skid aggregates and high-quality color retention pigments to deliver a durable, highly visible and color stable lane markings while meeting the non-slip requirements for motorists, pedestrians, and cyclists. Additionally, MMA colored lane treatment shall be used to delineate bike lanes, bus lanes, and other multi-modal travel lanes.

#### **Product Composition**

Material used to create PlastiRoute™ SprayPlast shall be a mixture of MMA pre-pigmented resins, hard wearing anti-skid aggregates and the catalyst. Anti-skid aggregates and color pigments are intermixed with the MMA material at the factory.

The PlastiRoute™ SprayPlast catalyst shall come in a liquid form and shall be used at a rate of 2.0% by weight. Material shall be ready to use as delivered and will not require any thinning agent to be used.

Material shall be non-carcinogenic, non-mutagenic and shall not be a reproductive toxic material. In addition, material shall not be required to be classified as GHS-08.

#### **Application and Equipment Recommendations**

An pneumatic spray machine shall be utilized for this application. A high speed, high torque drill with a mixing paddle will also be required.

The material must be stirred until it is homogenous using the high torque drill. The catalyst shall be mixed in with the material via the pneumatic spray machine.

#### **Surface Requirements**

The surface shall be dry, clean, free of dust and debris, salt and grease or oil. Old markings that may interfere with the bond between the material and surface must be removed.

#### **Pigments**

Material shall be color stable and meet eCFR FHWA appendix to part 655, subpart F table 5, 5a, and 7. Other colors available by request.

#### **Bituminous Surfaces**

New bituminous surfaces should be at least 14 days old prior to application. If PlastiRoute™ SprayPlast is applied too early on fresh asphalt the cured marking can be peeled off with a soft black asphalt layer beneath. If there is any concern with the surface it is recommended to apply a test stripe and try to peel it off. Flux oils of new asphalt are detrimental to the bonding and may lead to discoloration. Since mechanical removal of these oils is not possible, wait a minimum of 14 days with traffic before installing PlastiRoute™ SprayPlast.

### **Non-Bituminous Surfaces**

Non-Bituminous surfaces should be aged 30 days prior to installation. If the concrete surface is treated with paraffin, wax, or silicate products it must be mechanically removed via grinding or shot blasting.

## **Compatibility**

Compatibility and color stability between OPTAMARK™ Preformed Thermoplastic and PlastiRoute™ SprayPlast make them uniquely designed to be used together seamlessly. OPTAMARK can be applied directly on top of the PlastiRoute™ SprayPlast as soon as the MMA has cured.

## **Packaging**

PlastiRoute™ SprayPlast shall be packaged in metal pails, containing approximately 5 gallons of material and weighing approximately 74 lbs.

## **Storage**

PlastiRoute™ SprayPlast must be stored in dry conditions and between 41 F and 86 F. If stored incorrectly, the outside of the buckets may rust. Do not use product if rust is present on the bucket.

## **Manufacturing Control and ISO Certification**

The manufacturer shall be ISO 9001:2015 certified for both Preformed Thermoplastic and Methyl Methacrylate and shall provide proof of current certification. The manufacturer must produce their own resin system.

## **Manufacturer Experience**

Manufacturer must have a minimum 20 years of Methyl Methacrylate and Preformed Thermoplastic manufacturing experience.

## **Preferred Manufacturer PlastiRoute™ SprayPlast**

### **a. Intended Usage**

- b. PlastiRoute™ SprayPlast combines state of the art methyl methacrylate resins with hardwearing anti-skid aggregates and high-quality color retention pigments to deliver a durable, highly visible and color stable lane markings while meeting the non-slip requirements for motorists, pedestrians, and cyclists. Additionally, MMA colored lane treatment shall be used to delineate bike lanes, bus lanes, and other multi-modal travel lanes.

### **c. Product Composition**

- d. Material used to create PlastiRoute™ SprayPlast shall be a mixture of MMA pre-pigmented resins, hard wearing anti-skid aggregates and the catalyst. Anti-skid aggregates and color pigments are intermixed with the MMA material at the factory.
- e. The PlastiRoute™ SprayPlast catalyst shall come in a liquid form and shall be used at a rate of 2.0% by weight. Material shall be ready to use as delivered and will not require any thinning agent to be used.
- f. Material shall be non-carcinogenic, non-mutagenic and shall not be a reproductive toxic material. In addition, material shall not be required to be classified as GHS-08.
- g.

### **h. Application and Equipment Recommendations**

- i. An pneumatic spray machine shall be utilized for this application. A high speed, high torque drill with a mixing paddle will also be required.
- j. The material must be stirred until it is homogenous using the high torque drill. The catalyst shall be mixed in with the material via the pneumatic spray machine.

### **k. Surface Requirements**

- l. The surface shall be dry, clean, free of dust and debris, salt and grease or oil. Old markings that may interfere with the bond between the material and surface must be removed.

### **m. Pigments**

- n. Material shall be color stable and meet eCFR FHWA appendix to part 655, subpart F table 5, 5a, and 7. Other colors available by request.

### **o. Bituminous Surfaces**

- p. New bituminous surfaces should be at least 14 days old prior to application. If PlastiRoute™ SprayPlast is applied too early on fresh asphalt the cured marking can be peeled off with a soft black asphalt layer beneath. If there is any concern with the surface it is recommended to apply a test stripe and try to peel it off. Flux oils of new asphalt are detrimental to the bonding and may lead to discoloration. Since mechanical removal of these oils is not possible, wait a minimum of 14 days with traffic before installing PlastiRoute™ SprayPlast.

### **q. Non-Bituminous Surfaces**

- r. Non-Bituminous surfaces should be aged 30 days prior to installation. If the concrete surface is treated with paraffin, wax, or silicate products it must be mechanically removed via grinding or shot blasting.

### **s. Compatibility**

- t. Compatibility and color stability between OPTAMARK™ Preformed Thermoplastic and PlastiRoute™ SprayPlast make them uniquely designed to be used together seamlessly. OPTAMARK can be applied directly on top of the PlastiRoute™ SprayPlast as soon as the MMA has cured.

### **u. Packaging**

- v. PlastiRoute™ SprayPlast shall be packaged in metal pails, containing approximately 5 gallons of material and weighing approximately 74 lbs.

### **w. Storage**

- x. PlastiRoute™ SprayPlast must be stored in dry conditions and between 41 F and 86 F. If stored incorrectly, the outside of the buckets may rust. Do not use product if rust is present on the bucket.

## **2. Manufacturing Control and ISO Certification**

- a. The manufacturer shall be ISO 9001:2015 certified for both Preformed Thermoplastic and Methyl Methacrylate and shall provide proof of current certification. The manufacturer must produce their own resin system.



### **3. Manufacturer Experience**

- a. Manufacturer must have a minimum 20 years of Methyl Methacrylate and Preformed Thermoplastic manufacturing experience.

## **SPECIFICATIONS**

### **Integrated Multi-polymer Pavement Marking Material (HPS8)**

#### **1. Scope**

- 1.1. This specification covers a reflectorized engineered multi-polymer pavement marking material that can be applied to road surfaces, including Portland Cement Concrete (PCC) and aged asphalt without need of a primer/sealer. However, primer is recommended for use on concrete and aged asphalt surfaces when used in extended warranty projects. The material is 100% solids and can be applied by standard thermoplastic application equipment at thicknesses as low as 60 mil and up to 120 mil. The applied thickness will have a direct correlation to product durability as thicker markings will result in greater durability. Long-term retro reflectivity is obtained through the incorporation of both AASHTO Type 1 and Type 3 glass beads in the product. Upon cooling to normal pavement temperature, HPS 8 provides a very durable marking material for low and high volume traffic areas. In order to qualify as a pavement marking that can be applied to concrete surfaces without a sealer, the material must meet or exceed the requirements listed in Section 5.

#### **2. Referenced Documents**

##### **2.1. Federal Standards:**

- Federal Test Standard No. 5958
- AASHTO Standard Test Method M 249
- AASHTO Standard Test Method T 250
- ASTM Standard Test Method D 4796 (Bond Strength)
- ASTM Standard Test Method D 5420 (Impact Resistance)
- ASTM Standard Test Method D 4960 (Color)
- Others as referenced within specification

#### **3. Definitions**

##### **3.1. Retroreflective Optics:**

- 3.1.1. Glass Beads: Spherical glass manufactured for use with pavement marking materials to provide retroreflective properties to the marking, allowing them to be visible when viewed at night under automobile headlights.
  - 3.1.1.1. Small Glass Beads: Also referred to as standard glass beads. This can refer to a number of products of various sizes, but as defined in this document it refers to a glass bead product meeting the requirements of AASHTO M247 Type 1 or Type 2.
  - 3.1.1.2. Large Glass Beads: These glass beads meet the requirements of AASHTO M247 Type 3 or Type 4 as called for in the specification.
  - 3.1.1.3. High Refractive Index Glass Beads: These glass beads typically meet the requirements of AASHTO M247 Type 1 or Type 2 except the refractive index of the glass bead is between 1.70 and 1.95.
- 3.1.2. Composite Optics: A multi-component retroreflective particle comprised of a pigmented core (typically white or yellow combined with very small glass or ceramic beads having a refractive index of between 1.90 and 2.4)

#### **4. Materials**

- 4.1. The pavement marking material shall be homogeneously composed of pigments, resins, polymers

(adhesive constituent), glass reflectorizing spheres and other fillers.

- 4.2. The pavement marking material shall be available in white, yellow, and black from the same manufacturer. The manufacturer shall have the option of formulating the material according to manufacturer's own specifications. However, certain physical and chemical requirements specified in Section 4 must be met.

- 4.3. The material shall not exude fumes which are toxic, or injurious to persons or properties upon heating to application temperature.
- 4.4. Retroreflective Optics (Drop On): Initial retroreflectivity is achieved by the application of retroreflective optics at the time that the marking material is applied to the pavement. The choice of retroreflective optics used on the marking may be specified by the purchaser or shall be specified by the material manufacturer. The selection of the specific optics used will have a direct effect on the level of retroreflective performance of the installed marking. For some typical drop-on recommendations refer to the appendix.
- 4.5. Specific Gravity – The specific gravity of the white and yellow pavement marking material shall not exceed 2.15.

## 5. Requirements

- 5.1. Composition – The pigment, intermix reflectorizing spheres, and fillers shall be uniformly dispersed in the resin and polymer upon heating to application temperature. The material shall be free of dirt and foreign matter and must meet or exceed the compositional requirements given in Table 1.

TABLE 1. COMPOSITION (Percentage by Weight)

Test Component	White	Yellow (Heavy Metal Free)	Black
Glass Beads	48% min	48 % min	N/A
Pigment – TiO2	10% min	N/A	N/A
Organic Yellow	N/A	Federal Color	N/A
Resin/Polymer Content	21% - 26%	21% - 26%	21%-26%
Inert Fillers	16% - 21%	26% - 31%	N/A

*Note 1: Glass Beads (Intermix): The intermix glass beads shall be either uncoated or coated with an adhesion promoting coating. One half (50%) of the intermix beads shall meet the requirements of AASHTO M247 Type 1. The other half (50%) of the intermix beads shall meet the requirements of AASHTO M247 Type 3.*

*Note 2: Heavy metal free yellow and black pigment content shall be formulated at the manufactures discretion provided all other requirements are met.*

## 6. Application Properties

- 6.1. The multi-polymer pavement marking material shall readily spray and extrude at temperatures of 204 to 218 C (400 to 425 F), from approved equipment and produce lines of 60 – 125 mil thicknesses. Application temperatures shall not exceed 232 C (450 F). □ □
- 6.2. The material shall not exude fumes which are toxic, obnoxious or injurious to persons or property when it is heated during application.

## 7. Application, Sampling and Testing

### 7.1. Material Application Surfaces:

#### 7.1.1. Asphalt Road Surfaces:

- 7.1.1.1. Existing thermoplastic markings may be over laid with multi-polymer pavement marking providing that the existing markings are less than 30 mils thick, and are securely bonded to the substrate. If the markings are greater than 30 mils and securely bonded to the substrate, then it shall be ground to 30 mils, or removed completely if not securely bonded to the road.
- 7.1.1.2. Existing solvent-based paint may be over laid with multi-polymer pavement marking provided that more than 75% of the road surface is exposed, and there is no more than a single coat of paint on the remaining unexposed area. If more than one layer of paint exists, the paint is not securely anchored to the substrate, or there is less than 75% of the road surface exposed, then the paint must be thoroughly removed.

7.1.1.3. Existing waterborne paint may be overlaid with multi-polymer pavement marking provided that it is a single layer of paint not more than 10 mils in thickness with minimal drop on glass bead coverage. Waterborne paint markings that do not meet these criteria must be removed prior to the application of the multi-polymer pavement marking material.

7.1.1.4. Existing polyester, epoxy, or other type pavement marking paints must be completely removed from all road surfaces prior to the installation of multi-polymer pavement marking material.

**7.1.2. Concrete (PCC) Road Surfaces:**

7.1.2.1. All existing thermoplastic, polyester, epoxy, or other type pavement marking paints must be removed completely.

7.1.2.2. Surface Preparation and Curing Compound Removal- Clean and remove curing compound as necessary to insure that the markings adhere to the pavement. Obtain approval for all surface preparation methods prior to implementing.

7.1.2.3. Pavements shall be free of grease, oil, mud, dust, dirt, grass, loose gravel and other deleterious material, prior to applying pavement markings.

7.1.2.4. Prepare the pavement surface, including removal of curing compound, a minimum of 2" inch wider than the pavement markings to be placed, such that, an additional 1 inch of prepared area is on all sides of the pavement markings after they are applied.

7.1.2.5. Remove all curing compound and surface laitance from application area of Portland cement concrete pavements. Remove where pavement markings will be placed. Perform curing compound removal by shot blasting, sand blasting, or water blasting. Ensure that the surface is free of all residue, laitance and debris prior to applying the pavement marking.

7.1.2.6. When surface preparation and curing compound removal operations are completed, blow the pavement surface clean by compressed air to remove residue or debris.

7.1.2.7. Conduct all pavement surface preparation including curing compound removal in such a manner that the pavement or joint material is not damaged or left in a condition that will mislead or misdirect the motorist. Repair any damage caused to the pavement, or joint materials caused by surface preparation or the removal of curing compound by acceptable methods. Where pavement surface preparation results in obscuring existing pavement markings of a lane occupied by traffic, immediately remove the residue, including dust, by approved methods.

7.1.3. Primer Application—Although a primer is not required for this product on concrete pavements, it is recommended for use on concrete and aged, oxidized asphalt pavements when used in extended warranty projects. The primer shall be a two part epoxy primer recommended by the pavement marking manufacturer and shall be applied at the rate and in the manner specified. For concrete pavements the requirements spelled out in 7.1.2 shall be followed prior to the application of the primer and the pavement marking.

7.2. Material Application: Durability of road markings is directly related to the applied mil thickness of the multi-polymer pavement marking material. Therefore, in order to achieve the performance described herein, the subsequent requirements listed below must be followed:

7.2.1. Pavement Surface: The pavement surfaces where the multi-polymer pavement marking is to be applied must be clean and dry and at a minimum temperature of 50° F to 65° F and rising depending upon the application method being used (Screed extrude @ 50° F, Spray @ 55° F and Ribbon extrude @ 65° F). Even though the surface may appear dry, it is best to check for sub-surface moisture to improve bond and minimize moisture pops. Check by taping a one foot

square piece of clear plastic down on the roadway and observe for 30 minutes to see if moisture forms. One can also check by pouring some hot thermoplastic onto a piece of tar paper which is on top of the surface to be striped, wait 5 minutes, and see if moisture was drawn up onto the road surface under the tar paper. If moisture appears by either of these methods, we recommend you do not apply thermoplastic. When in doubt, always check adhesion.

7.2.2. Air Temperature: The minimum ambient air and wind chill temperature should be no less than 50°F and rising at the time of actual marking. The temperature should be verified at the start of each day's work and monitored accordingly throughout the day. Failure to comply with temperature specifications can lead to premature bond failure.

7.2.3. Application Thickness: All minimum application thicknesses shall be measured above the plane of the road surface and include the multi-polymer pavement marking material only. Drop-on retroreflective optics shall not be included in the measurement, or if so, then appropriate allowances shall be made for the added mil thickness. Recommended application thicknesses are as follows for inlaid or non-snowplowable installations:

*New construction with anticipated service life of 8 - 12 years*

Longitudinal Edge Lines	100 mils
Longitudinal Skip Lines	100 mils

*Refurbishment / maintenance with anticipated service life of less than 3 - 5 years*

Longitudinal Edge Lines	60 - 90 mils
Longitudinal Skip Lines	60 - 90 mils

*For non-inlaid snowplow areas the service life of the markings will be reduced based on the level of snow removal activities.*

7.2.4. Drop on Retroreflective Optics Application:

The choice of retroreflective optics applied to the multi polymer pavement marking material will have a direct correlation on the initial retroreflective performance of the applied markings. Regardless of the choice of optics used, the application shall result in the embedment of the optic in the pavement marking at 50 – 65% below the surface of the pavement marking. All drop on retroreflective optics shall have a coating with both adhesion and moisture resistant properties and shall be approved for use by the manufacturer of the pavement marking. For additional information refer to the Appendix.

7.3. Inspection:

Success of the project depends upon the proper continuous inspection of the installation process by authorized LFUCG personnel. Failure to properly monitor and record compliance with the manufacturer's recommended procedures, or specification application requirements can lead to a substandard installation.

The multi-polymer pavement marking material supplied by the manufacturer shall be manufactured in accordance with the specifications described herein. A verifiable material certification report showing detailed analysis and compliance shall be provided by the material manufacturer, and submitted to the LFUCG Inspecting Engineer by the contractor performing the installation work, and made part of the Inspecting Engineer's project file.

## **8. Limitations:**

8.1. Apply a test strip to determine if surface is dry enough if there has been rain in the last 24 hours.

8.1.1. Do not apply if hot material shows moisture bubbles.

8.2. Do not heat HPS-8 above 450°F.

8.3. Do not apply when road and ambient temperatures are below 50°F.



8.4. Do not apply when dew point is within 5 degrees of the ambient temperatures.

8.5. Material at application is hot – wear personal protective equipment as described in MSDS

## **9. Storage Life**

The material shall maintain the requirements of this specification for a minimum period of one year. When properly stored the multi-polymer pavement marking material must melt uniformly with no evidence of skins or unmelted particles for this one year time period. Any material failing to do so shall be replaced by the manufacturer at their expense. Proper storage includes inside or covered storage to protect from moisture, and temperatures below 120oF. Outside storage for short intervals is acceptable as long as the material is kept dry.

## **10. Packaging and Markings**

The multi-polymer pavement marking material shall be sold in one ton increments (2000 pounds). The material shall be packaged in suitable containers to which it will not adhere during shipment and storage. The container of the multi-polymer pavement marking material shall weigh approximately 50 lb. (23kg). Each container shall designate user information, manufacturer's name and address, batch number and date of manufacture. Each batch manufactured shall have its own separate number. The label shall carry appropriate user warnings and instructions.

## SPECIFICATIONS

### Inlaid Pavement Markers

#### 1. MATERIALS

- a. **Markers.** Provide reflective lenses with depth control breakaway positioning tabs. Before furnishing the markers, provide to the Engineer the manufacturer's current recommendations for adhesives and installation procedures. Use one brand and design throughout the project. Use markers meeting the specifications in the table below.

SPECIFICATIONS FOR HOUSING AND REFLECTOR	
Material:	Polycarbonate Plastic
Weight:	Housing 2.00 oz.
	Reflector 2.00oz.
Housing Size:	5.00" x 3.00" x 0.70" high
Specific Intensity of Reflectivity at 0.2° Observation Angle	
White:	3.0 at 0°entrance angle
	1.2 at 20°entrance angle
Yellow:	60% of white values
Red:	25% of white values

- b. **Adhesives.** Use adhesives that conform to the manufacturer's recommendations.

#### 2. CONSTRUCTION

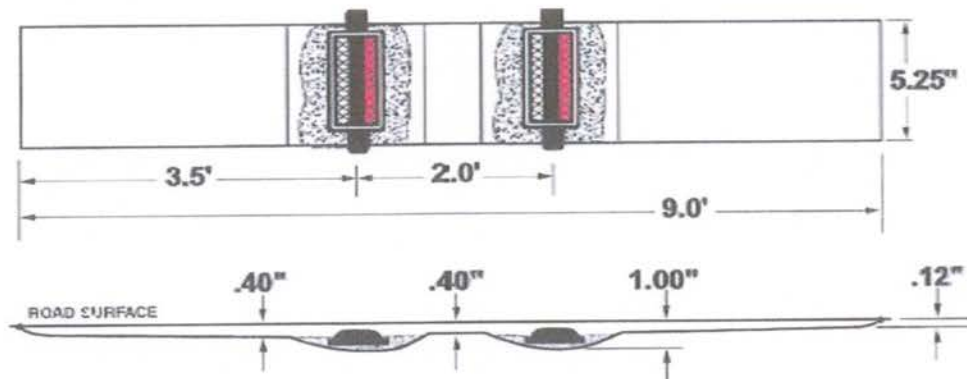
- a. **Installation.** Install Inlaid Pavement Markers (IPMs) in recessed grooves cut into the final course of asphalt pavement according to the manufacturer's recommendations. Do not cut the grooves until the pavement has cured sufficiently to prevent tearing or raveling. Cut installation grooves using diamond blades on saws that accurately control groove dimensions. Remove all dirt, grease, oil, loose or unsound layers, and any other material from the marker area which would reduce the bond of the adhesive. Maintain pavement surfaces in a clean condition until placing markers.

Prepare the pavement surfaces, and install the markers in the recessed groove according to the drawing below. Use an approved snowplowable epoxy adhesive. Ensure that the adhesive bed area is equal to the bottom area of the marker, and apply adhesive in sufficient quantity to force excess out around the entire perimeter of the marker. Use materials, equipment, and

construction procedures that ensure proper adhesion of the markers to the pavement surface according to the manufacturer's recommendations. Remove all excess adhesive from in front of the reflective faces. If any adhesive or foreign matter cannot be removed from the reflective faces, or if any marker fails to properly adhere to the pavement surface, remove and replace the marker at no additional cost to the LFUCG.



- b. **Location and Spacing.** Install the markers in the pattern for high reflectivity with two (2) IPMs per groove. Locate and space markers as shown in the current standard drawings (note: use Inlaid Pavement Markers wherever Type V Pavement Markers are called for). Do not install markers on bridge decks. Do not install a marker on top of a pavement joint or crack. Offset the recessed groove a minimum of 2 inches from any longitudinal pavement joint or crack and at least one inch from the painted stripe, ensuring that the finished line of markers is straight with minimal lateral deviation. Give preference to maintaining the 2-inch offset between recessed groove and joint as opposed to keeping the line of markers straight.



Place inlaid markers as much in line with existing pavement striping as possible. Place markers installed along an edge line or channelizing line so that the near edge of the plastic housing is no more than one inch from the near edge of the line. Place markers installed along a lane line between and in line with the dashes. Do not place markers over the lines except where the lines deviate visibly from their correct alignment, and then only after obtaining the Engineer's prior approval of the location.

If conflicts between recessed groove placement in relation to pavement joint and striping cannot be resolved, obtain the Engineer's approval to eliminate the marker or revise the alignment.

### **3. MEASUREMENT**

- a. Inlaid Pavement Markers** The LFUCG will make payment for the completed and accepted quantity of completely installed “inlaid pavement markers” at the Contract unit price, each. A system of (1) groove and two (2) markers shall be paid as one “INLAID PAVENEMENT MARKER”. The bid item “INLAND PAVEMENT MARKER” shall be used regardless of the color and type of lenses required.

## **SPECIFICATIONS**

### **Raised Pavement Marker**

#### **1. MATERIALS**

- a. Markers.** Use a KYTC Type 5 iron casting with a KYTC Type 4 mono or bi-directional lens.
- b. Adhesive.** Conform to the manufacturer's recommendations.

#### **2. CONSTRUCTION** Before installing the markers, furnish the manufacturer's current recommendations for adhesives and installation procedures to the Engineer.

Use one brand and design throughout the project.

The Engineer will specify either mono-directional or bi-directional markers and the lens color.

Remove all excess adhesive from in front of the reflective faces.

If any adhesive or foreign matter cannot be removed from the reflective faces, or if any marker fails to properly adhere to the pavement surface, remove and replace the marker.

- a. KYTC Type V Markers.** Install KYTC Type V Markers in slots cut into the pavement according to the manufacturer's recommendations. Do not cut the slots until the pavement has cured sufficiently to prevent tearing or raveling. Prepare the pavement surfaces, and install the markers according to the manufacturer's recommendations and the following requirements. Remove all dirt, grease, oil, loose or unsound layers, and any other materials from the marker area which would reduce the bond of the adhesive. Maintain pavement surfaces in a clean condition until placing markers. Use materials, equipment, and construction procedures that ensure proper adhesion of the markers to the pavement surface.

- b. Location and Spacing.** Install markers as specified by the Engineer. Do not install on bridge decks.

Under no circumstances install a marker on top of a pavement joint or crack.

Offset markers a minimum of 2 inches from any longitudinal pavement joint or crack and at least one inch from the painted stripe, ensuring that the finished line of markers is straight with minimal lateral deviation. Preference should be given to maintaining the 2-inch offset between marker and joint as opposed to keeping the line of markers straight. If conflicts between marker placement in relation to pavement joint and striping cannot be resolved, markers may be eliminated with the Engineer's approval.

Place KYTC Type V markers as much in line with existing pavement striping as possible. For facilities with double yellow centerlines, place the markers between the 2 lines provided the minimum 2-inch gap requirement between the marker and the longitudinal pavement joint or crack is not violated. For instances when the double yellow centerline may bound the longitudinal



pavement joint or crack, use judgement to determine which side of the painted stripe would be suitable for marker installation. Place markers installed along an edgeline or channelizing line so that the near edge of the casting is no more than one inch from the near edge of the line. Place markers install along a lane line or dashed yellow centerline between and in line with the dashes. Do not place markers over the lines except where the lines deviate visibly from there correct alignment, and then only when the Engineer approves the location.

## **SPECIFICATIONS**

### **Crosswalk sign-in-lane**

Contractor will supply and install In-Street Pedestrian Crosswalk signs at locations as directed by the LFUCG.

Signs shall meet MUTCD specifications.

The signs shall be 12" x 36" florescent yellow green diamond grade reflective sheeting with 10" x 24" white 3M High intensity sheeting insert. The signs shall be mounted on a white post and panel with an anti-twist reactive spring assembly that rebounds to upright when struck and is installed on an 8" x 8" Black Surface Mount Fixed Base, Suggested supplier Impact Recovery Systems 4955 Stout Drive, San Antonio TX 78219 or an approved equal.

### **Lane Delineator Post**

Contractor will supply and install 42" Lane Delineator Post at locations as directed by the LFUCG.

Post shall meet MUTCD specifications.

The post shall be 3" x 42" round top with two (2) 3" bands of retro-reflective sheeting. The post shall be equipped with an anti-twist reactive spring assembly that rebounds to upright when struck and is installed on an 8" x 8" Black Surface Mount Fixed Base, Suggested supplier Impact Recovery Systems 4955 Stout Drive, San Antonio TX 78219 or an approved equal.

### **Lane Delineator City Post**

Contractor will supply and install 28" or 36" Lane Delineator City Post at locations as directed by the LFUCG.

Post shall meet MUTCD specifications.

### **Lane Delineator- -PEXCO FG300 Continuous Curb System (no substitutions – match existing LFUCG equipment)**

Contractor will supply and install longitudinal channelizer system of interlocking raised units with vertical post as directed by the LFUCG. Vertical posts shall be Type FG300UR.

Materials must be accepted by the FHWA

Pay item is per Foot rounded up to the next higher unit count. Each unit consists of (1) 38" interstate grade, polyurethane curb affixed to the pavement with (6) anchor bolts, and (1) vertical post. (1) end cap base with (4) anchor bolts w/(1) vertical post is required per continuous curb system installation.

### **Lane Delineator- -PEXCO FG300 Modular Curb System (no substitutions – match existing**

**LFUCG equipment)**

Contractor will supply and install modular units with vertical posts as directed by the LFUCG.

Materials must be accepted by the FHWA

Pay item is per Each consisting of (1) FG300 Turnpike Curb, (1) FG300 EFX Post, and (4) anchor bolts.

**Lane Delineator- -PEXCO FG300 Flexible Post (no substitutions – match existing LFUCG equipment)**

Contractor will supply and install units with vertical posts as directed by the LFUCG.

Materials must be accepted by the FHWA.

Pay item is per Each consisting of (1) FG300 heavy-duty, colored base, (1) FG300 UR Post, and (4) anchor bolts.

**Lane Delineator- -Qwick Kurb**

Contractor will supply and install longitudinal channelizer system of interlocking raised units with vertical markers as directed by the LFUCG.

Materials must be accepted by the FHWA.

Each installation will require the following items to be installed. One (1) L61 Male End Cap, One (1) L62 Female End Cap, Separator Units (number needed will be the project length divided by 40”), 43” Vertical Marker Post (number needed will be the project length divided by 6.7”) plus necessary installation hardware Suggested supplier: MGI 102 Washington St. Fairland, IN 46126 Phone: 317-835-9134 or an approved equal.

**Modular Median**

Contractor will supply and install Redipave Modular Median units configured to form protective medians within the roadway. Installation must adhere to the specifications and procedures available from the manufacturer, PPP, Inc. Perimeter units are tapered and will typically have a yellow or white stripe.

Pay item is per Square Yard. Each LFUCG order shall be 12 SY or more per installation.

**Bid 56-2025 Striping and Markings for Roadways, Parking, and SUP**

Unit Price Contract - quantities provided for your purposes only.

Please log in to your Ionwave account to submit pricing on the line items tab.

<b>Item #</b>	<b>Item description</b>	<b>Unit</b>	<b>*Qty.</b>
1	Paint 4' Letter/Number	EA	100
2	Paint 8' Letter/Number	EA	100
3	Paint Railroad "R" 6' 6"	EA	5
4	Paint Permanent 16" for Railroad	LF	25
5	Paint Stright Arrow	EA	15
6	Paint Curved Arrow	EA	15
7	Paint Combination Arrow	EA	10
8	Paint Lane Drop Symbol	EA	5
9	Paint Yield Symbol (24" Base, 36" Height)	EA	5
10	Paint Handi-Cap Symbol	EA	5
11	Paint 3-Way Combination Arrow	EA	5
12	Paint Curve & U-Turn Combination Arrow	EA	5
13	Paint U-Turn Arrow	EA	5

<b>Item #</b>	<b>Item description</b>	<b>Unit</b>	<b>*Qty.</b>
14	Paint Arrow - Fish Hook	EA	5
15	Paint Elongated Curve Arrow (12'x 3')	EA	5
16	Paint Bike Symbol (Bicycle Rider - Helmeted-3' 4" x 6')	EA	10
17	Paint Shared Lane Marking - Bike Sharrow	EA	10
18	Paint Area Shading - White	SQFT	100
19	Paint Area Shading - Yellow	SQFT	100
20	Paint Temporary Pavement Striping - 4 inch - White	LF	5000
21	Paint Temporary Pavement Striping - 4 inch - Yellow	LF	2500
22	Paint Temporary Pavement Striping - 6 inch - White	LF	1250
23	Paint Temporary Pavement Striping - 6 inch - Yellow	LF	1250
24	Paint Permanent Pavement Striping - 4 inch - White	LF	5000
25	Paint Permanent Pavement Striping - 4 inch - Yellow	LF	2500
26	Paint Permanent Pavement Striping - 6 inch - White	LF	1250

<b>Item #</b>	<b>Item description</b>	<b>Unit</b>	<b>*Qty.</b>
27	Paint Permanent Pavement Striping - 6 inch - Yellow	LF	1250
28	Remove Painted Pavement Striping > 1' Wide	SQFT	250
29	Remove Painted Pavement Striping < 1' Wide	LF	250
30	Spray Thermo Permanent Pavement Striping - 4 inch - White	LF	2000
31	Spray Thremo Permanent Pavement Striping - 4 inch - Yellow	LF	500
32	Spray Thermo Permanent Pavement Striping - 6 inch - White	LF	500
33	Spray Thermo Permanent Pavement Striping - 6 inch - Yellow	LF	250

<b>Item #</b>	<b>Item description</b>	<b>Unit</b>	<b>*Qty.</b>
34	Remove Spray Thermo > 1' Wide	SQFT	250
35	Remove Spray Thermo <1' Wide	LF	250
36	Thermo 4' Letter/Number	EA	100
37	Thermo 8' Letter/Number	EA	100
38	Thermo Railroad R	EA	5
39	Thermo Stright Arrow	EA	13
40	Thermo Curved Arrow	EA	13
41	Thermo Combination Arrow	EA	10
42	Thermo Lane Drop Symbol	EA	5
43	Thermo Yield Symbol (24" Base, 36" Height)	EA	5
44	Thermo Handi-Cap Symbol	EA	5
45	Thermo 3-Way Combination Arrow	EA	5
46	Thermo Curve & U-Turn Combination Arrow	EA	5



<b>Item #</b>	<b>Item description</b>	<b>Unit</b>	<b>*Qty.</b>
47	Thermo U-Turn Arrow	EA	5
48	Thermo - Fish Hook	EA	5
49	Thermo Elongated Curve Arrow (12'x 3')	EA	5
50	Thermo Bike Symbol (Bicycle Rider - Helmeted-3' 4" x 6')	EA	10
51	Thermo Shared Lane Marking - Bike Sharrow	EA	10
52	Thermo 4' Width	LF	100
53	Thermo 4" Width Dashed	LF	100
54	Thermo 6" Width	LF	100
55	Thermo 6" Width Dashed	LF	100
56	Thermo 8" Width Dashed	LF	75
57	Thermo 12" Width	LF	100
58	Thermo 16" Width	LF	100
59	Thermo 24" Width	LF	100

<b>Item #</b>	<b>Item description</b>	<b>Unit</b>	<b>*Qty.</b>
60	Thermo Area shading - Yellow	SQFT	75
61	Thermo Area Shading - White	SQFT	75
62	Thermo Area Shading - Green	SQFT	75
63	Thermo Bike Sharrow PANEL - Green - 10' Height	EA	10
64	Thermo Bike Rider Panel - Green - 4' x 20'	EA	10
65	Thermo 4' Letter/Number for use on PCCP	EA	50
66	Thermo 8' Letter/Number for use on PCCP	EA	50
67	Thermo Railroad "R" 6' 6" for use on PCCP	EA	5
68	Thermo Straight Arrow for use on PCCP	EA	10
69	Thermo Curved Arrow for use on PCCP	EA	10
70	Thermo Combination Arrow for use on PCCP	EA	10
71	Thermo Lane Drop Symbol for use on PCCP	EA	5
72	Thermo Yield Symbol (24" Base, 36" Height) for use on PCCP	EA	5
73	Thermo Handi-Cap Symbol for use on PCCP	EA	5
74	Thermo 3-Way Combination Arrow for use on PCCP	EA	5
75	Thermo Curve U-Turn Combination Arrow for use on PCCP	EA	5
76	Thermo U-Turn Arrow for use on PCCP	EA	5
77	Thermo - Fish Hook for use on PCCP	EA	55
78	Thermo Elongated Curve Arrow (12'x3') for use on PCCP	EA	5
79	Thermo Bike Symbol (Bicycle Rider - Helmeted - 3' 4" x 6') for use on PCCP	EA	5
80	Thermo Shared Lane Marking - Bike Sharrow for use on PCCP	EA	5
81	Thermo Bike Lane Straight Arrow for use on PCCP	EA	5
82	Thermo 4' Width for use on PCCP	LF	300
83	Thermo 4" Width Dashed for use on PCCP	LF	300
84	Thermo 6" Width for use on PCCP	LF	100
85	Thermo 6" Width Dashed for use on PCCP	LF	100
86	Thermo 8" Width Dashed for use on PCCP	LF	100
87	Thermo 12" Width for use on PCCP	LF	100
88	Thermo 16" Width for use on PCCP	LF	100
89	Thermo 24" Width for use on PCCP	LF	100
90	Thermo Truck Applied 4" Width - White - for use on PCCP	LF	100
91	Thermo Truck Applied 6" Width - White - for use on PCCP	LF	100
92	Thermo Truck Applied 4" Width - Yellow - for use on PCCP	LF	100
93	Thermo Truck Applied 6" Width - Yellow - for use on PCCP	LF	100
94	Thermo Truck Applied 4" Width -White	LF	100
95	Thermo Truck Applied 6" Width -White	LF	100
96	Thermo Truck Applied 4" Width -Yellow	LF	100
97	Thermo Truck Applied 6" Width -Yellow	LF	100
98	Thermo Area shading - Yellow for use on PCCP	SQFT	100
99	Thermo Area Shading - White for use on PCCP	SQFT	100
100	Thermo Area Shading - Green for use on PCCP	SQFT	100
101	Thermo Bike Lane Straight Arrow for use on PCCP	EA	5
102	Remove Thermoplastic > 1' Wide	SQFT	500

### Item description

Item #		Unit	*Qty.
103	Remove Thermoplastic > 1' Wide	LF	500
104	HPS-8 Permanent Pavement Striping - 4 inch - White	LF	1500
105	HPS-8 Permanent Pavement Striping - 4 inch - Imbedded - White	LF	1500
106	HPS-8 Permanent Pavement Striping - 4 inch - Yellow	LF	750
107	HPS-8 Permanent Pavement Striping - 4 inch - Imbedded - Yellow	LF	750
108	HPS-8 Permanent Pavement Striping - 6 inch - White	LF	750
109	HPS-8 Permanent Pavement Striping - 6 inch - Imbedded - White	LF	750
110	HPS-8 Permanent Pavement Striping - 6 inch - Yellow	LF	750
111	HPS-8 Permanent Pavement Striping - 6 inch - Imbedded - Yellow	LF	750
112	HPS-8 Remove Integrated Multipolymer	LF	750
113	Crosswalk sign-in-lane	EA	15
114	Lane delineator post	EA	250
115	Rumble strips	LF	500
116	Rumble strips - transverse	LF	500
117	Delineator - City Post 28"	EA	250
118	Delineator - City Post 36"	EA	150
119	Delineator - Qwick Kurb	LF	800
120	Pavement Marker - inlaid	EA	250
121	Pavement Marker-surface KYTC Type 5	EA	250

## **RISK MANAGEMENT PROVISIONS INSURANCE AND INDEMNIFICATION**

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### **INDEMNIFICATION AND HOLD HARMLESS PROVISION**

- (1) It is understood and agreed by the parties that Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- (2) CONTRACTOR shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by CONTRACTOR's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the CONTRACTOR; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (3) In the event LFUCG is alleged to be liable based upon the above, CONTRACTOR shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.
- (4) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.
- (5) LFUCG is a political subdivision of the Commonwealth of Kentucky. CONTRACTOR acknowledges and agrees that LFUCG is unable to provide indemnity or otherwise save, hold harmless, or defend the CONTRACTOR in any manner.

### **FINANCIAL RESPONSIBILITY**

BIDDER/CONTRACTOR understands and agrees that it shall, prior to final acceptance of its bid and the commencement of any work, demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions.

### **INSURANCE REQUIREMENTS**

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF YOU FAIL

TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

**Required Insurance Coverage**

BIDDER/CONTRACTOR shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to LFUCG in order to protect LFUCG against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONTRACTOR. The cost of such insurance shall be included in any bid:

<b><u>Coverage</u></b>	<b><u>Limits</u></b>
General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	combined single, \$1 million per occurrence
Worker's Compensation	Statutory
Employer's Liability	\$500,000.00

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky (DOI). LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.
- c. The General Liability Policy shall include a Products and Completed Operations endorsement or Premises and Operations Liability endorsement unless deemed not to apply by LFUCG.
- d. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- e. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

**Renewals**

After insurance has been approved by LFUCG, evidence of renewal of an expiring policy must be submitted to LFUCG, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

### Deductibles and Self-Insured Programs

**IF YOU INTEND TO SUBMIT A SELF-INSURANCE PLAN IT MUST BE FORWARDED TO LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE.** Self-insurance

programs, deductibles, and self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of BIDDER/CONTRACTOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage. If BIDDER/CONTRACTOR satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, BIDDER/CONTRACTOR agrees to provide Lexington-Fayette Urban County Government, Division of Risk Management, the following data prior to the final acceptance of bid and the commencement of any work:

- a. Latest audited financial statement, including auditor's notes.
- b. Any records of any self-insured trust fund plan or policy and related accounting statements.
- c. Actuarial funding reports or retained losses.
- d. Risk Management Manual or a description of the self-insurance and risk management program.
- e. A claim loss run summary for the previous five (5) years.
- f. Self-Insured Associations will be considered.

### Safety and Loss Control

CONTRACTOR shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and LFUCG.

### Verification of Coverage

BIDDER/CONTRACTOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

### Right to Review, Audit and Inspect

CONTRACTOR understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to insure compliance with these Insurance Requirements.

### DEFAULT

BIDDER/CONTRACTOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as available,

including but not limited to purchasing insurance and charging BIDDER/CONTRACTOR for any such insurance premiums purchased, or suspending or terminating the work.

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