



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

July 26, 2018

SUBJECT: Route FAU 2582 (Plum Grove Road)
Section 14-00115-00-PV (Schaumburg)
Cook County
Contract No. 61E29
Item 065
August 3, 2018 Letting
Addendum B

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Revised pages 104, 105 and 106 and added pages 105A, 105B and 105C to the Special Provisions

Prime contractors must utilize the enclosed material when preparing their bid and must include any changes to the Schedule of Prices in their bid.

Very truly yours,

Jack A. Elston, P.E.
Bureau Chief
Engineer of Design and Environment

A handwritten signature in cursive script, reading "Ted B. Walschleger P.E.", with a small "P.E." to the right.

By: Ted B. Walschleger, P.E.
Engineer of Project Management

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All finished mulch areas shall be left smooth and level to maintain uniform surface and appearance.

After the mulch placement, any debris or piles of material shall be immediately removed from the right of way, including raking excess mulch out of turf areas.

Method of Measurement. MULCH placement will be measured in place and the area computed in square yards. WEED BARRIER FABRIC placement will be measured in place and the area computed in square yards.

Basis of Payment. This work will be paid for at the contract unit price per square yard for MULCH and WEED BARRIER FABRIC.

PAVEMENT MARKING, SPECIAL:

DESCRIPTION: This work shall include furnishing and installing interconnected preformed thermoplastic pavement markings per Section 780 and as described herein.

MATERIALS: The material must be a resilient preformed thermoplastic product which contains a minimum of thirty percent (30%) intermixed anti-skid/anti-slip elements and where the top surface contains anti-skid/anti-slip elements. These anti-skid/anti-slip elements must have a minimum hardness of 8 (Mohs scale) and meet the following gradation:

Size Gradation		Intermix		Drop - On	
US Mesh	µm	Retained, %	Passing, %	Retained, %	Passing, %
10	2000	0 - 10%	90 - 100%		
12	1700	5 - 25%	75 - 95%		
14	1400	15 - 50%	50 - 85%		
16	1180	15 - 50%	50 - 85%	0 - 5%	95 - 100%
18	1000	10 - 30%	70 - 90%	0 - 10%	90 - 100%
20	850	0 - 5%	95 - 100%	5 - 25%	75 - 95%
25	710	0 - 2%	98 - 100%	15 - 50%	50 - 85%
30	600			15 - 50%	50 - 85%
35	500			5 - 25%	75 - 95%
40	425			0 - 10%	90 - 100%

The material must be resistant to the detrimental effects of motor fuels, antifreeze, lubricants, hydraulic fluids, and other motor vehicle fluids.

The material shall be capable of being applied on bituminous and/or portland cement concrete pavements primarily by the use of an infrared heater supplied by the material manufacturer. A handheld propane heat torch supplied by the material manufacturer may be used in isolated areas. The use of a compactor or similar equipment shall not be necessary. The material must be able to be applied to asphalt and concrete surfaces without preheating the application surface to a specific temperature. The material must be capable of being affixed to green concrete (concrete that has set but not appreciably hardened). The material shall not require the portland cement concrete application areas to be cured or dried out.

The material must be capable of conforming to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures. It shall not be necessary to use a grid template or to make pattern grooves or other indentations in the asphalt or concrete surface prior to applying the material. It shall not be necessary to inlay the material in grooves or indentations. It shall not be necessary to heat the pavement or application surface to a specific temperature

The material is typically supplied in segments measuring 24 in. by 24 in. The material must be factory assembled and interconnected with a compatible material, so that it is unnecessary to assemble the individual “brick” pieces at the jobsite. Certain 24 in. by 24 in. material segments may be rotated to create additional pattern options using standard parts.

Interchangeable, patterned borders shall be available in either 8 in. or 12 in. wide by 24 in. long sizes, to allow flexibility in design options using standard parts.

The material must be able to be applied in temperatures down to 45°F (7.2°C) without any special storage, preheating or treatment of the material before application.

The material must be able to be applied to asphalt and concrete surfaces without using a grid template and without forming a pattern in the pavement substrate. Heating indicators must be evenly distributed on the surface of the material in order to ensure correct application. The material must cover the entire application area and be flush across the surface. Once applied, no part of the pavement surface should be visible in the application area.

Material must be composed of an ester modified rosin impervious to degradation by motor fuels, lubricants, etc. in conjunction with aggregates, pigments, binders, and anti-skid/anti-slip elements. Pigments and anti-skid/anti-slip elements must be uniformly distributed throughout the material. 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, being non-reflective, and potentially being of a color different from white or yellow.

- Pigments:
 - White: The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected.
 - Red, Blue, and Yellow: The material shall be manufactured with sufficient pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected. The pigment system must not contain heavy metals nor any carcinogen, as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.
 - Other Colors: The pigment system must not contain heavy metals nor any carcinogen, as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

- Heating indicators: The top surface of the material shall have regularly spaced indents. These indents shall act as a visual cue during application that the material has reached a molten state allowing for satisfactory adhesion and proper embedment of anti-skid/anti-slip elements, and a post-application visual cue that the application procedures have been followed.
- Skid Resistance: The surface of the preformed thermoplastic material shall contain factory applied anti-skid material with a minimum hardness of 8 (Mohs scale). Upon application the material shall provide a minimum skid resistance value of 60 BPN when tested according to ASTM E 303.
- Slip Resistance: The surface of the preformed thermoplastic material shall contain factory applied anti-skid material with a minimum hardness of 8 (Mohs scale). Upon application the material shall provide a minimum static friction of coefficient of 0.6 when tested according to ASTM C 1028 (wet and dry), and a minimum static coefficient of friction of 0.6 when tested according to ASTM D 2047.
- Thickness: The material must be supplied at a minimum thickness of 125 mil (3.18mm).
- 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.
- Interconnected: The material must consist of interconnected individual pieces of preformed thermoplastic pavement marking material, which through a variety of colors and patterns, make up the desired design. The individual pieces in each material segment, typically 24 in. (61cm) by 24 in. (61cm), must be factory assembled and interconnected with a compatible material so that in the field it is not necessary to assemble the individual pieces within a material segment. Multiple patterned border segment options shall be available in the material in either 8 in. (20cm) or 12 in. (30cm) wide by 24 in. (61cm) long sizes.

Manufacturing control and ISO certification: The manufacturer must be ISO 9001:2008 certified for design, development and manufacturing of preformed thermoplastic, and provide proof of current certification.

Application: Manufacturer Certified Applicator Requirement: The material shall be supplied and applied only by an applicator certified by the material manufacturer. The applicator shall provide proof of current certification before commencing work. The Certified Applicator shall follow the

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material manufacturer's current published application procedures.

Asphalt: The material shall be applied primarily by using an infrared heater supplied by the material manufacturer. A handheld propane heat torch supplied by the material manufacturer may be used in isolated areas. The material must be able to be applied at ambient and road temperatures down to 45°F (7.2°C) without any preheating of the pavement to a specific temperature. A sealer specified and supplied by the material manufacturer must be applied to the substrate prior to material application to ensure proper adhesion, and to provide bond reinforcement for larger volumes of material. The sealer must be supplied by the material manufacturer in 300/600ml cartridges along with sealer application supplies. A thermometer shall not be required during the application process. The pavement shall be clean, dry and free of debris. The supplier must provide current application instructions to the Certified Applicator.

Portland Cement Concrete: The same application procedure shall be used as described under Section 4.2.

The specified pattern for installation shall be Ennis-Flint TrafficPatterns, Herringbone pattern, Brick Red color, with Grey grout. Outside edge consists of Soldier course brick pattern of the same color, also with Grey grout. A 6" White color preformed thermoplastic stripe of the same specified material shall be placed outside of the patterned installation, separated by a 6" gap as shown on the plans.

Acceptable manufacturers include:

Ennis-Flint
115 Todd Court
Thomasville, NC 27360
Office: 800-331-8118
<http://www.ennisflintamericas.com>

WARRANTY: Manufacturer must provide warranty that material will maintain a depth of at least 50% of the original installed depth and width, and that the color will be maintained with normal use for period of two (2) years. The warranty period will begin on the date of Final Acceptance of the work. Contractor shall provide Owner with a hard copy of warrantee.

MEASUREMENT: The quantity to be paid will be the area in square feet of PAVEMENT MARKING, SPECIAL, measured in place, completed and accepted. No deduction will be made for the area(s) occupied by manholes, inlets, drainage structures, or by any public utility appurtenances within the asphalt area. Asphalt or concrete materials placed prior to treatment will be paid separately under the appropriate pay items.

BASIS OF PAYMENT: This work will be paid for at the contract unit price per square foot for PAVEMENT MARKING, SPECIAL which price will be payment in full for completing the work as described herein including and surface materials including colors, sealers, and/or resins.

FENCE REMOVAL:

This work shall be done in accordance with Section 501 of the Standard Specifications except as modified herein.

501.04 Complete Removal of Structures. Add the following to the end of this Article:

“Removal of existing fence shall include any posts, foundations, paneling, wires, or other items that make up or are attached to the fence.”

501.06 Method of Measurement. Add the following to the end of this Article:

“Removal of existing fence will be measured for payment in place, in feet (meters) along the base of the fence.”

501.07 Basis of Payment. Add the following to the end of this Article:

“Removal of fence will be paid for at the contract unit price per FOOT (meter) for FENCE REMOVAL.”

TEMPORARY DRAINAGE SYSTEM NO. 1:

Description. This work shall consist of furnishing all formwork, material, pipe, structures, frames & grates/lids, equipment and labor to install and remove a temporary drainage system as specified on the plans and as needed based on the Contractor’s temporary drainage system design. The contractor is responsible for providing positive drainage and maintaining all existing drainage outlets. This design is to be performed by the Contractor.

The temporary drainage system shall remain in place and operate until the permanent drainage