



Waterfront Advisory Committee

Stanley H. Kellerhouse Municipal Building
One Van Wyck Street
Croton-on-Hudson, NY 10520-2501

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ANN GALLELLI

Members
LEN SIMON
STUART GREENBAUM
Attorney

LINDA WHITEHEAD

Village Engineer
DANIEL O'CONNOR, P.E.

Secretary
KAREN STAPLEOTN

TO: Mayor Brian Pugh and the Village Board of Trustees

FROM: Ann Gallelli, Chairman of the Waterfront Advisory Committee

SUBJECT: Request by NYS Department of State for comments regarding the consistency of NYSDOT's pursuing federal funding to seal cracks and mastic contract to extend the service life and rideability of local roads throughout the region with Croton on Hudson LWRP

DATE: January 14, 2022

On January 12th, 2022, the Waterfront Advisory Committee (WAC) reviewed the above-referenced referral for consistency with the Village's Local Waterfront Revitalization Program (LWRP). Based on the review of the application documents, the WAC made a recommendation of consistency with the LWRP. The vote was 3-0.

The WAC evaluated this application for consistency in accordance with the LWRP policy standards and conditions set forth in section 225-6(J) of the Village Code, which are further explained and described in Section III of the LWRP. The WAC members reviewed the policies in the LWRP and believe that the policies listed below are applicable to this application.

The policies the WAC believes are relevant are as follows:

POLICY 7B: Materials that can degrade water quality and degrade or destroy the ecological system of the Croton River and Bay significant fish and wildlife habitat and the Haverstraw Bay significant fish and wildlife habitat shall not be disposed of or allowed to drain in, or on land within, the area of influence in the significant fish and wildlife habitats.

POLICY 7G: Such activities must not cause degradation of water quality or impact identified significant fish and wildlife habitats.

POLICY 8: Protect fish and wildlife resources in the coastal area from the introduction of hazardous wastes and other pollutants which bio-accumulate in the food chain or which cause significant sub lethal or lethal effect on those resources.

POLICY 30B: Storage and disposal of all materials shall be monitored by the state to assure there will be no discharge or leaching of materials into coastal waters.

POLICY 37: Best Management Practices will be utilized to minimize the non-point discharge of excess nutrients, organic and eroded soils into coastal waters.

The NYSDOT in their correspondence stated that no mastic work is proposed in the Village only crack sealing work will occur.

The WAC discussed that the crack sealing process will generate a minor amount of debris from the routing and cleaning out the pavement crack with compressed air prior to the hot asphalt crack sealing material being applied. This debris will be blown off the pavement into the vegetation of

the shoulder or median. It is recommended that the contractor limit any debris from entering catch basins which would result in transport of the debris into waterbodies including the Hudson River.

The contractor will also have containers and/or tanks of the crack sealing material stored on site during the crack sealing work. It is recommended that the contractor have a spill response plan to address any potential spillage of the material.

A email from the NYSDOT and information on the crack sealing material and installation specification are attached.

The WAC believes that the proposed application will not have any potentially significant adverse impacts on coastal resources and is consistent with the LWRP policy standards and conditions. Because there are no expected adverse impacts on coastal resources, there is no reason to consider alternative actions or mitigation measures.

It is for the reasons contained in this memorandum that the WAC issues its recommendation of consistency.

Dan O'Connor

From: Helsley, Aileen (DOT) <Aileen.Helsley@dot.ny.gov>
Sent: Tuesday, January 11, 2022 2:03 PM
To: Dan O'Connor
Cc: Karen Stapleton; Bryan Healy; Ann Gallelli; Valckenaere, Erich (DOT)
Subject: RE: Crack sealing and mastic contract - LWRP Consistency Review

CAUTION: External sender.

Dan,

I confirmed with the engineer that the proposed project will only crack seal in your village. For this work, the contractor first routers out the crack then uses heated or high pressure air to blow out any pavement material prior to applying the crack sealing material. We do not remove any existing crack seal material from the roadway.

The link for the crack sealing contract specification for your reference: Routing, Cleaning and Sealing Primary Cracks:
<https://www.dot.ny.gov/spec-repository-us/412.76030008.pdf>

The Approved List of acceptable products for this item can be found here:
<https://www.dot.ny.gov/divisions/engineering/technical-services/technical-services-repository/alme/pages/500-1.html> Typically, our contractors use Crafcro, Inc. products, generally Derry, but they can choose from any on the list.

Please feel free to reach out if you have any further questions.

Aileen

Aileen Helsley

Maintenance Environmental Coordinator

New York State Department of Transportation, Hudson Valley Region
4 Burnett Boulevard, Poughkeepsie, NY 12603
(845) 437-3334 | Aileen.Helsley@dot.ny.gov
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**Department of
Transportation**

From: Dan O'Connor <doconnor@crotononhudson-ny.gov>
Sent: Thursday, January 06, 2022 3:02 PM
To: Helsley, Aileen (DOT) <Aileen.Helsley@dot.ny.gov>
Cc: Karen Stapleton <kstapleton@crotononhudson-ny.gov>; bhealy@crotononhudson-ny.gov; agallelli@crotononhudson-ny.gov
Subject: Crack sealing and mastic contract - LWRP Consistency Review

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Aileen:

The Village of Croton-on-Hudson is reviewing the project documentation and will be providing comments back to the NYSDOS regarding consistency with the LWRP.

As discussed on the phone can the DOT provide information on the product used for crack sealing and mastic work.

Also, can the DOT provide information on how debris from the crack sealing and mastic work is handled, specifically from a litter and water quality impact stand point.

The Village review committee is scheduled to meet on Wednesday, 1/12 at 4:30.

Thank you,

Dan



Daniel O'Connor, P.E.
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"The best results are achieved through the cooperative efforts of different disciplines, all aimed at the same objective." -Andrew Grove.

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**ITEM 412.76030008 - ROUTING, CLEANING AND SEALING PRIMARY CRACKS,
WORKING CRACKS AND JOINTS USING HOT APPLIED
SEALANT IN HOT MIX ASPHALT PAVEMENT**

DESCRIPTION:

Rout, clean then seal primary cracks and working cracks and joints using hot applied sealant along the entire length of the crack or joint, at locations shown in the contract documents or where directed by the Engineer

MATERIALS:

Deliver the sealant in the manufacturer's original sealed containers legibly marked with the following information:

- Manufacturer's name.
- Trade name of sealant.
- Manufacturer's batch or lot number.
- Sealer only: ASTM D6690, Type II.
- Minimum application temperature.
- Maximum (or Safe) heating temperature.

Provide the Engineer with a copy of the manufacturer's recommendations pertaining to heating and application of the sealant as well as the material MSDS, prior to commencing.

Crack Sealant Requirements. Appearing on the Approved List for Joint Materials, Pavement /Highway Joint Sealants (ASTM D 6690, TYPE II) (705-02).

CONSTRUCTION DETAILS:

General. Complete all pavement repairs contained in the contract documents (if any) bordering pavement cracks and joints prior to commencing work.

Working cracks and primary cracks shall be routed, cleaned then sealed.

Primary cracks are defined as cracks 1/8 inch to 1.0 inch in width with less than 25% of their lengths having secondary cracking.

Working cracks and joints are cracks and joints that are transverse or longitudinal, subject to horizontal and/or vertical movements greater than 0.1 inches. Transverse cracks and joints are working cracks/joints.

A transverse crack is defined as a crack longer than 1/2 the lane width, and less than 10° (ten degrees) off the perpendicular of the centerline.

Secondary crack is defined as a crack having a width less than 1/8 inch.

The following cracks should not be routed or sealed unless directed to by the Engineer:

- Secondary cracks
- Multiple nearby cracks which have **raveled**
- Multiple cracks that include broken asphalt
- Multiple longitudinal cracks in each wheel path

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Furnish all equipment that is necessary for routing, cleaning, and sealing the pavement cracks and joints. Use equipment meeting the description and/or performance requirements described herein and approved by the Engineer.

Install suitable traps or devices on the compressed air equipment to prevent moisture and oil from contaminating the primary crack surfaces. The air compressor shall provide a minimum 100 psi at the nozzle tip. Maintain these devices and see that they are functioning properly.

Protect the public from potentially objectionable and/or hazardous airborne debris.

- A. Routing Cracks and Joints.** Rout cracks and joints with a router to provide at least a 1 inch wide by 1/2 inch deep vertical-edged reservoir with minimal spalls at its edges then clean routed reservoir, then clean and seal. Transverse cracks and joints shall be routed 1 foot into shoulder areas.
- B. Sealant Melting.** Use a melter recommended by the material manufacturer and meeting the requirements of this specification.

Melter Requirements:

- Double boiler filled with a heat-transfer medium between the inner and outer shells. Do not use direct fire heating.
- Capable of maintaining the application temperature.
- Equipped with positive temperature controls
- Equipped and with a mechanical agitator to ensure a homogeneous blend of the sealant.
- Equipped with separate thermometers to indicate the temperature of the heat transfer medium and the sealant material in the hopper.

Maintain the sealant within $\pm 10^{\circ}\text{F}$ of the pouring temperature indicated on the material packaging.

Check the discharge temperature of the sealer with a non-contact infrared thermometer. Discharge the sealant at a temperature between the manufacturer's recommended pouring and safe heating temperatures as indicated on the material packaging. Submit an alternate method for measuring the discharge temperature to the Engineer for approval if desired.

Do not use sealant heated beyond the manufacturer's safe heating temperature.

Equip the discharge hose with a thermostatically controlled heating apparatus or insulate it to maintain the proper sealant pouring temperature. Holster the discharge hose to the melter if it is not thermostatically heat controlled. Circulate the sealant from the discharge hose and the melter to maintain the proper sealant pouring temperature.

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If the manufacturer's recommendations allow the sealant to be reheated or heated in excess of six hours, recharge the melter with fresh material amounting to at least 20 percent of the volume of the material remaining in the melter.

C. Cleaning and Preparation:

Use a high-pressure air lance or hot air lance to thoroughly clean and dry area for sealant. Clean off all dust, dirt, foreign material, sand and any other extraneous materials immediately prior to sealing.

Do not burn, scorch or ignite the adjoining pavement when preparing area for sealant.

D. Sealing.

Sealing is to be done when ambient air temperature and pavement temperatures at or above 40°F.

Seal the routed reservoirs by placing the applicator wand in or directly over the recess and carefully discharging the sealant. Strike-off the sealant flush with the pavement surface using a squeegee or sealing shoe pressed firmly against the pavement.

Sealant application should produce a thin film meeting the following requirements:

Sealant thickness on the pavement surface: 1/16 inch thick maximum

Total width of the sealant on surface: 2 inch maximum

If the sealant sinks into the reservoir more than 3/8 inch below the pavement surface, clean it with high pressure air and seal it to meet the specified thin film amount.

Properly routed and sealed, cracks and joints shall be watertight.

E. Finishing:

A low pressure, light spray of water may be used to accelerate cooling of the sealant. Blotting the sealant with fine aggregate is not allowed.

Do not allow traffic on the sealed areas until the seal has cured so as not to track. Clean sealed areas which have been damaged from traffic with high pressure air and reseal them to meet the specified thin film amount, at no additional cost to the State.

Remove and dispose of material applied in excess of the specified thickness over the pavement surface or any material that has not bonded to both sides of the reservoir or around the repair.

Replace pavement markings, in kind, that become covered and/or obliterated more than 25% of their width with sealant. Replace with the appropriate items in accordance to §640 ReflectORIZED Pavement Markings at no additional cost to the State.

METHOD OF MEASUREMENT:

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The Engineer will measure the number of lane miles of pavement that has been routed, cleaned and sealed in accordance with this specification. The cost to rout, clean and seal cracks and joints in shoulders and tapers are included in the adjacent travel lane. Full width ramps and turn lanes are considered separate travel lanes.

BASIS OF PAYMENT:

The unit price bid shall include the cost of furnishing all labor, materials, and equipment necessary to satisfactorily complete the work.

DESCRIPTION DEERY 102 is a hot applied, single component, elastically modified composition of asphalt cement, virgin synthetic polymer, premium rubber, and other modifiers. The sealant contains no solvent, is pre-reacted and conforms to the requirements of **ASTM D6690 Type II, ASTM D3405, AASHTO M324 Type II and AASHTO M301**. It also exceeds the requirements of ASTM D6690 (AASHTO M324) Type I (formerly ASTM D1190, AASHTO M173) and Federal Specification SS-S-164. Material is tested for low temperature performance at -20°F (-29°C) using 50% extension. VOC=0 g/l.

USE DEERY 102 is a moderate viscosity pavement preservation sealant intended for highway, street and aviation applications for sealing longitudinal and transverse joints and random cracks in Asphalt or Concrete pavements where a free flowing material is desirable. Properly installed, DEERY 102 is an effective barrier against damage from debris and moisture infiltration into cracks and joints within regions experiencing moderate high and low pavement temperatures.

HEATING and APPLICATION Sealant shall be heated in a hot-oil jacketed melter capable of constant mechanical agitation and equipped with a calibrated thermometer to monitor sealant temperature. Material shall be heated to and maintained at the Recommended Application Temperature during use. Material can be cooled and then reheated, but only if prolonged heating is avoided. Prolonged heating at or above Recommended Application Temperature may severely damage product. If overheating damage occurs, immediately drain machine completely and refill with new material. DEERY 102 is pre-reacted and can be applied immediately after heating to Recommended Application Temperature. With pavement temperature at 40°F (4°C) or higher, place material into clean, dry crack or prepared reservoir by means of a hand-held pour pot, wheeled push bander or wand applicator. Squeegee any excess sealant tight to pavement surface. Pavement may be warmed to 40°F (4°C) or higher with a Hot Air Lance. For more details on heating and application, refer to the **Installation Instructions- Hot Applied Sealant** sheet which is included with each pallet of product. Specific Gravity of DEERY 102 sealant is 1.26.

PROPERTIES of DEERY 102

When sampled and heated to maximum heating temperature in accordance with ASTM D5167:

		ASTM D6690 Type II and Deery 102 Spec. Limits
TEST	METHOD	
Cone Penetration @ 77°F (25°C)	ASTM D5329	90 maximum
Softening Point	ASTM D5329	80°C minimum
Bond @ -29°C, 50% ext., 12.5 mm sample	ASTM D5329	Pass 3 cycles
Resilience	ASTM D5329	60% minimum
Asphalt Compatibility	ASTM D5329	Pass
Recommended Application Temperature	ASTM D5167	380-400°F (193-204°C)*
Maximum Heating Temperature	ASTM D6690	400°F (204°C)
Flow @ 60°C, 5 h	ASTM D5329	3.0 mm maximum

*Temperature of product measured at pavement surface. Use highest Recommended Application Temperature in cool weather.

*Prolonged heating at or above Recommended Application Temperature may severely damage product.

PACKAGING Product is supplied in either cardboard boxes, or in meltable, boxless PLEXI-melt packaging. Both package types are labeled in accordance with OSHA, GHS, and specification requirements; are sold by net weight; are interlock stacked on 48 x 40 in. (122 x102 cm) 4-way pallets; can be stored outside; and are covered with a weather resistant pallet cover and 2 layers of UV protected stretch wrap.

- o **BOX** packaging consists of cardboard boxes containing approximately 30 lb. (13.6 kg) of product with 75 boxes per pallet, weighing approximately 2250 lb. (1020 kg). Boxes contain a quick melting release film for easy removal and are taped closed, without any staples.
- o **PLEXI-melt** packaging consists of 30 lb. (13.6 kg) blocks of product with 70 packages per pallet, weighing 2100 lb. (952 kg). To use, the pallet wrap is removed, and individual blocks are placed in the melter. There are no cardboard boxes or other cardboard components to open, empty, handle, or dispose of. PLEXI-melt packaging quickly melts into the product without affecting specification conformance.

PERFORMANCE Temperature fluctuations, site conditions, surface preparation, traffic, installation technique, material selection, shape factor and surface treatment compatibility influence the effectiveness and useful life of Pavement Preservation treatments. Consider and monitor each element for optimum results. Purchaser and end user should determine applicability for use in their specific conditions.

WARRANTY Manufacturer warrants that these products meet applicable ASTM, AASHTO, Federal or State specifications at time of shipment. Techniques used for the preparation of the cracks and joints prior to sealing or filling are beyond our control as are the use and application of the products; therefore, manufacturer shall not be responsible for improperly applied or misused products. Remedies against manufacturer, as agreed to by manufacturer, are limited to replacing nonconforming product or refund (full or partial) of purchase price from manufacturer. All claims for breach of this warranty must be made within three (3) months of the date of use or twelve (12) months from the date of delivery by manufacturer, whichever is earlier. There shall be no other warranties expressed or implied. **For optimum performance, follow manufacturer recommendations for product installation.**

DEERY[®]

SEALANTS



PAVEMENT PRESERVATION PRODUCTS

When it comes to durable repairs, Deery's got the name.

DEERY Brand of Pavement Preservation Products include a broad range of superior quality ASTM, AASHTO, FAA, Federal and Specialty products for new construction and preventative maintenance of asphalt and concrete applications around the world.

DEERY's proprietary formulations include a full range of Crack Sealants and Fillers. Our brand name products include Super Stretch®, Level & Go®, Recessed Repair Mastic®, and Thermacrete®. Our FBJ-6297 Bridge Joint System® is suitable for joint replacement and new installation of expansion bridge joints, and has been noted for its ease, efficiency and outstanding results.

When the damage has progressed beyond the limits of sealing or filling, you need Deery Repair Mastic®. Mastics go down easy, wear long, and are smooth riding. Formulated to deliver a durable, load bearing patch, they've become a FAA top choice for jet aircraft runways. Deery Repair Mastic®...your best bet for a long wearing patch that outperforms traditional concrete or asphalt patching materials.

DEERY's own Bridge Joint System® is a better system for the new construction or repair of expansion bridge joints. Our exclusive material formulation and application procedure virtually eliminates rutting and migration, and produces a smooth riding, long lasting joint, that's ready for traffic as soon as the material cools.

Coverage Chart

For other Deery sealant options visit www.deeryamerican.com

Crack/Joint Width X Depth (inches)	Linear Feet per Gallon	Crack/Joint Width X Depth (inches)	Linear Feet per Gallon	Crack/Joint Width X Depth (inches)	Linear Feet per Gallon	Crack/Joint Width X Depth (inches)	Linear Feet per Gallon
1/8 X 1/8	1232.0	3/8 X 1/8	410.7	5/8 X 1/8	246.4	7/8 X 1/8	176.0
1/8 X 1/4	616	3/8 X 1/4	205.0	5/8 X 1/4	123.2	7/8 X 1/4	88.0
1/8 X 3/8	410.7	3/8 X 3/8	136.9	5/8 X 3/8	82.1	7/8 X 3/8	58.7
1/8 X 1/2	308.0	3/8 X 1/2	102.7	5/8 X 1/2	61.6	7/8 X 1/2	44.0
1/8 X 5/8	246.4	3/8 X 5/8	82.1	5/8 X 5/8	49.3	7/8 X 5/8	35.2
1/8 X 3/4	205.3	3/8 X 3/4	68.4	5/8 X 3/4	41.1	7/8 X 3/4	29.3
1/8 X 7/8	176.0	3/8 X 7/8	58.7	5/8 X 7/8	35.2	7/8 X 7/8	25.1
1/8 X 1	154.0	3/8 X 1	51.3	5/8 X 1	30.8	7/8 X 1	22.0
1/4 X 1/8	616.0	1/2 X 1/8	308.0	3/4 X 1/8	205.3	1 X 1/8	154.0
1/4 X 1/4	308.0	1/2 X 1/4	154.0	3/4 X 1/4	102.7	1 X 1/4	77.0
1/4 X 3/8	205.0	1/2 X 3/8	102.7	3/4 X 3/8	68.4	1 X 3/8	51.3
1/4 X 1/2	154.0	1/2 X 1/2	77.0	3/4 X 1/2	51.3	1 X 1/2	38.5
1/4 X 5/8	123.2	1/2 X 5/8	61.6	3/4 X 5/8	41.1	1 X 5/8	30.8
1/4 X 3/4	102.7	1/2 X 3/4	51.3	3/4 X 3/4	34.2	1 X 3/4	25.7
1/4 X 7/8	88.0	1/2 X 7/8	44.0	3/4 X 7/8	29.3	1 X 7/8	22.0
1/4 X 1	77.0	1/2 X 1	38.5	3/4 X 1	25.7	1 X 1	19.3

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