

SPECIAL NOTES FOR ASHOKAN STATION TRAILHEAD

1. **PG Binder and Mix Design Level**

Requirements of this note apply to all Section 402 and Section 404 Asphalt (HMA and WMA) items in this contract, except for shim, permeable base, temporary pavements, and miscellaneous, which may use non-modified PG binders such as PG 64S-22 and PG 64H-22.

- A. PG Binder- Use polymer or Terminal Blend Crumb Rubber modified PG 64V-22 (Very High) meeting the requirements of AASHTO M 332, Standard Specification for Performance Graded Asphalt Binder using Multiple Stress Creep Recovery (MSCR), for the production of hot mix asphalt mixtures for this project. In addition, the binder grade must also meet the elastomeric properties as indicated by one of the following equations for $\%R_{3.2}$:

1. For $J_{nr3.2} \geq 0.1$, $\%R_{3.2} \geq 29.371 * J_{nr3.2}^{-0.2633}$
2. For $J_{nr3.2} < 0.1$, $\%R_{3.2} > 55$

Where

$R_{3.2}$ is % recovery at 3.2 kPa

$J_{nr3.2}$ is the average non-recoverable creep compliance at 3.2 kPa

When terminal blend CRM binder is used, the following shall apply:

- Crumb rubber particles shall be finer than #30 sieve size.
- The CRM PG binder shall be storage-stable and homogeneous.
- The Dynamic Shear Rheometer (DSR) shall be set at 2-mm gap.
- The CRM PG binder shall be 99% free of particles retained on the 600 μ m sieve as tested in accordance with Section 5.4 of M 332.

Use of polyphosphoric acid (PPA) to modify the PG binder properties is prohibited for mixtures under this contract. This prohibition also applies to the use of PPA as a crosslinking agent for polymer modification.

- B. Mix Design- The mixture designs must be developed in accordance with the criteria specified in the HMA items that are appropriate for the Mixture Design Level of 75 Gyration.

Note: The PG binder for this project will be modified with polymer or CRM additives to meet the requirements stated above. Handling of the HMA shall be discussed at pre-construction and pre-paving meetings.

2. **QA for Projects on the State or National Highway System**

For projects (or segments) on the State or National Highway System, NYSDOT will perform off-site QA and approval for materials as required by the *NYSDOT Standard Specifications; Construction and Materials* the same as it would for State-let projects.

- A. The Contractor understands and agrees the inspection and approval of materials to be used on this project will be performed by NYSDOT.

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- B. When the Contractor receives direction from NYSDOT regarding the approval/rejection of materials such as hot mix asphalt, Portland cement concrete, structural steel, concrete structural elements and/or components, the contractor understands the decision is final and will accept it as such.
 - C. The Contractor will not allow off-site materials subject to the inspection and approval of NYSDOT to be shipped to the project site prior to receiving authorization from NYSDOT.
 - D. As soon after award as practicable, and prior to the pre-construction conference, the contractor shall provide the following information to the Sponsor and NYSDOT Permit Engineer.
 - i. The name and address of each manufacturer of all materials and portions thereof requiring off-site quality assurance in accordance with NYSDOT's specifications to be used in this project.
 - ii. The name and address of each fabricator fabricating structural steel items or any portion thereof to be used in this project.
 - iii. The name and address of each fabricator manufacturing structural concrete items or any portion thereof to be used in this project.
 - E. The Contractor agrees that it and its subcontractors and suppliers will only acquire materials for this project through NYSDOT-approved manufacturing, batching and fabrication facilities.
3. **NYSDOT Highway Work Permit**
The Contractor shall meet the Highway Work Permit conditions (see Attachment K).
4. **NYSDEC Section 401 Water Quality Certification and Stream Disturbance Permit**
Ulster County will be obtaining a Section 401 Water Quality Certification Permit and an Article 15 Stream Disturbance Permit. The Contractor is required to meet the conditions set for in the permits.
5. **Contractor/Subcontractor SPDES Permit Certification**
This proposes to disturb more than an acre. According to the New York State Department of Environmental Conservation, construction activities involving soil disturbances of more than an acre require coverage under the State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-15-001. This permit authorizes stormwater discharges to surface waters of the State from construction activities associated with this project. A CONR5 SPDES Permit Certification form will be completed before construction begins.
6. **USACOE Nationwide Permits**
The Contractor must comply with the requirements of the USACOE Nationwide Permit 13 – Bank Stabilization, 42 – Recreational Facilities.