**FY2023 Contract Seal Coat Guidelines**

* **Selection guidance on the aggregate grade of seal coat will be as follows:**

The type of bituminous material and grade of liquid asphalt is selected by the contractor. Differing aggregate qualities are available and specified according to the roadway traffic as shown in the tables below:

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| **Two Way Traffic** |
| **Seal Coat Grade** | **ADT** |
| C | < 750 and any shoulders |
| B1 & B2 | < 1,700 |
| A1 | < 3,500 |
| A2 | < 8,500 |

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| **Divided Highways** |
| **Seal Coat Grade** | **ADT** |
| B1 & B2 | < 3,500 |
| A1 | < 14,000 |
| A2 | < 17,000 |

Grades A1 and B1 are coarse (3/8”) aggregate seals and should be used on pavement surfaces with minor distresses. Grades A2 and B2 are fine (1/4”) aggregate seals and should be used on pavement surfaces with little to no distresses. Higher grades (grades associated with higher ADT) maybe substituted for lower grades.

A seal coat placed on a porous surface such as an aggregate base should receive a prime coat. If a prime coat is used, the appropriate pay item must be added to the project.

* The JSP template is located in [EPG 409 Seal Coat Program](http://epg.modot.mo.gov/index.php?title=Category:409_Seal_Coat). The DBE Program Requirements should not be included with Seal Coat Projects. Additionally, the Contractor QC JSP’s should be included with Seal Coat Projects.
* Major surface irregularities should be corrected by maintenance forces at least two weeks prior to the Notice to Proceed date by placing cold or hot mix.
* Proper design of a seal coat consists of determining the proper rate of application for the bituminous material and cover aggregate. Contact the District Pavement Specialist for the target emulsion application rate to place on typicals, and to determine quantities.

**MoDOT Pavement Marking:**

The district will need to coordinate with the striping crews to have the stripe completed within 14 days after the seal coat is completed. Pavement marking quantities need to be removed from Summary of Quantities Sheet 1 of 1, and remove Traffic Control Sheet 5 of 5 from the template plan sheets. Any route that currently has existing edgeline, will need to include quantities for Temporary Pavement Markers for the edgeline in addition to the centerline marking. If used, intersection marking should be coordinated with District Traffic.

**Contractor Pavement Marking:**

Contractor striping should be performed after a minimum 7-day cure time after placement of the seal coat. The contractor is required to provide temporary pavement marking for both the centerline and any edgelines. No pay item is included for temporary pavement marking when contractor striping is provided.

* **Contract Time:** The contract time will need to be specified in the *Contract Liquidated Damages* JSP. The general rule is two (2) calendar days for every one (1) working day with a minimum of 30 calendar days unless the district has justification for a tighter time frame due to impacts to the traveling public. Calendar days for each route should be included in the PS&E submittal. For contracts that have multiple projects, specify calendar days by either the number of calendar days per project or the sum of calendar days for the entire contact.

Recommended Completion Date: September 1, 2023

Recommended Completion Date if let after March 31, 2023: September 1, 2024

For projects with a 2024 completion date, Seal Coat Completion of Work JSP (JSP-15-08) must be included in the JSPs. Additionally, the RE will be responsible to advise maintenance staff of the contractor proposed completion date in order to address any impacts to maintenance activities performed in effort to prepare the route for the contract treatment.

* **Bridges**: Bridges should be excepted unless prior written approval is obtained from the Bridge Division and submitted with the transmittal package. If included, bridge slab drains should be plugged. Existing guardrail at bridge ends and box culverts may need to be replaced, review EPG 606.1 Guardrail for replacement guidance. When replacing guardrail at existing bridge end connections that do not conform to the current standards, they should be considered for replacement or modification, consult the Bridge Division Liaison Engineer.
* **CMS Boards:** Include two (2) CMS boards (contractor furnished, without communication) in each contract. If there are multiple Seal Coat projects within a contract, include payment for the CMS boards in one project and include a JSP that states payment for the CMS boards shall include their use on (list all applicable Job numbers here).
* **Pay Items: - Add additional bid items as needed.**

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| ***CONTRACTOR STRIPING***  |
| **Item No.** | **Description** |
| 4091048 | Emulsified Asphalt, Seal Coat |
| 40940XX | Seal Coat Aggregate, Grade A1, A2, B1, B2, or C |
| 6161005 | Construction Signs |
| 6181000 | Mobilization |
| 6206000C | 4 In White Standard Waterborne Pavement Marking Paint, Type P Beads |
| 6206001C | 4 In. Yellow Standard Waterborne Pavement Marking Paint, Type P Beads |
| 6161098A | Changeable Message Sign Without Communication Interface, Contractor Furnished, Contractor Retained |

* **Plan sheet templates are located in ProjectWise in CADD seed files:**

SEAL\_COAT\_01\_Title\_05\_2023

SEAL\_COAT\_02\_Typical\_2023

SEAL\_COAT\_03\_Quantities\_2023

SEAL\_COAT\_04\_TC\_1\_2023

SEAL\_COAT\_05\_TC\_2\_2023

SEAL\_COAT\_06\_TC\_3\_2023

SEAL\_COAT\_07\_TC\_4\_2023

SEAL\_COAT\_08\_TC\_5\_2023

The AADT of the routes should be listed in the left top corner of the Title sheet. This information is used by the Project Reviewer to set the liquidated damages and is also beneficial to the contractor to be aware of the amount of traffic on the route.