**FY2024 Contract Leveling Course Guidelines**

This guidance is to supplement the EPG 402 requirements.

* **DOCUMENTATION AND SAFETY:** For CLC projects, no conceptual report is required; however, the core team should audit the corridor for safety deficiencies and document the findings. Isolated deficiencies that present an immediate threat potential should be remedied, either by the project or by maintenance forces. Guardrail should be addressed in accordance with the Guardrail Policy for both major and minor roads. If new guardrail is installed, MGS rail and MASH compliant ends are to be used. The remaining deficiencies may be deferred to be completed with in-house forces or included in a programmed future project. These remaining deficiencies must be documented; however, a design exception is not required. The documentation must be sufficient to demonstrate reasonable diligence on the part of the core team in upholding the system wide focus on safety.
* **PEDESTRIAN FACILITIES**: Pedestrian facilities are to be addressed in accordance with the Districts Transition Plan and applicable MoDOT policies. Complete the Bike/Pedestrian/VE/RR page in SIMS for all projects. Required adjustments to pedestrian facilities should be performed prior to or with the project.
* **ENTRANCES:** The entrance transition template is an example of how entrance details can be handled. Districts may address entrance transitions appropriately for the location, traffic volume or other mitigating circumstance, however practical applications are strongly encouraged.
* **IRREGULARITIES:** Include an appropriate amount of additional asphalt to account for surface irregularities. Irregularities can be estimated in various ways including field measurements of the pavement width, ruts and entrances dimensions, ARAN data, input from district construction staff and by consulting with the pavement team. Adding 150 tons/mile is a good rule of thumb for medium-rutted routes with a width of 20’ (for other widths, 23% is a good average). Adding 10% is a good rule of thumb for routes that are not rutted but have minor irregularities. Be cognizant of the fact that roadway width sometimes varies within a route, so additional tonnage may be needed to address this variance.
* **SURFACE PREPARATION:** The appropriate surface preparation should be discussed in detail by the core team. District Maintenance should patch all minor surface defects, potholes, centerline joint deterioration, and edge-line distortions prior to contractor operations. If Maintenance cannot perform surface preparations, pavement repair quantities should be identified in conjunction with Construction and added to contract in accordance with Sec 613. Class C partial depth asphalt pavement repair quantities should be included in the contract to address severely deteriorated surface defects and distortions. Class C asphalt repair may require quantities of aggregate base replacement at structurally failed sections with visible signs of subgrade failures. Keep in mind, contract asphalt repairs are extremely expensive, so completing this preparatory work in-house is the most cost-effective solution.
* **STRIPING: Striping is to be included in the contract.** The district will need to add striping log miles and quantities to the Summary of Quantity sheets. The district shall verify that the existing passing zones are correct. All incorrect zones shall be corrected in the log miles on Summary of Quantity sheets. The striping log mile sheets are preferred to be submitted with the PS&E documents. On major routes, plan sheets and pay items must be adjusted to accommodate the required 6-inch stripes. If contract striping is not included, the contract must include payment for TRPM’s and the district will need to coordinate with striping crews to have the permanent stripe down within 14 days after paving.
* **INTERSECTIONS AND LEFT TURN LANES:** Projects that do not include contractor striping may include all pavement marking normally made with durable intersection pavement marking to be performed by the contractor. If not included in the contract, the District must address these items with temporary pavement marking in the contract or by the use of District forces.
* **TRANSITIONS – Entrance and side road:** Transitions may be constructed by coldmilling or by tapering the overlay to zero (theoretical) thickness. The district will need to review their routes and determine the appropriate approach for each location within their project.
* **TRANSITIONS – Begin/End of Project and Exceptions:** Generally transitions should be constructed by coldmilling a taper of 1” to 25’ and placing the overlay at the intended thickness (Butt Joint). As some flexibility exists, the District will need to review the route and any exceptions to determine the appropriate adjustments for each location within their project.
* **BITUMINOUS CENTERLINE RUMBLE STRIPS:** New rumbles are not generally included in CLC projects, however Centerline Rumble Strips may be considered for locations that have experienced a significant cross-centerline accident history. Districts shall consult their pavement engineer when including new rumbles in CLC projects. Rumbles must be either fog sealed, slurry sealed or rejuvenating sealed prior to striping. When routes with existing rumbles are resurfaced under these guidelines, rumbles are to be replaced when impacted.
* **TRAFFIC CONTROL PLANS:** Pilot car shall be used on all projects constructed under traffic. Consideration should be given to use additional flaggers at heavily traveled side roads and entrances. If chosen, the locations shall be specified in the JSP ADDITIONAL FLAGGERS. Districts may consider road closures when appropriate.
* **LUMP SUM TEMPORARY TRAFFIC CONTROL JSP:** The Lump Sum Temporary Traffic Control JSP (JSP-22-01) may be used on CLC contracts.
* **EDGE DROP-OFF:** District Maintenance should address any edge drop-off issues prior to contractor operations. If Maintenance cannot address the edge drop-off before contract, then a quantity for 309-99.10 Permanent Aggregate Edge Treatment should be added to the contract. This will require to add NJSP1540 Permanent Aggregate Edge Treatment. Upon completion of the project, District maintenance forces shall address any edge drop-off. SAFETY EDGE is generally not constructed on CLC routes due to lack of roadbed width and narrow lanes (roadway must be 21’ wide or greater). See [EPG 450.9](https://epg.modot.org/index.php/Category%3A450_Bituminous_Pavement_Design#450.9_Safety_EdgeSM) for more information. If a SAFETY EDGE was constructed, District maintenance forces shall backfill the SAFETY EDGE with existing or added material.
* **BID ITEMS:** - Add additional bid items as needed.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |
| --- | --- |
|  |  |
| ***CONTRACTOR STRIPING***  |
| **Item No.** | **Description** |
| **4020520** | **Bituminous Pavement Mixture PG64-22 (Surface Leveling)** |
| **4071005** | **Tack Coat** |
| **6123000A** | **Truck or Trailer Mounted Attenuator (TMA)** |
| **6161005** | **Construction Signs** |
| **6161025** | **Channelizers (Trim Line)** |
| **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** |
| **6224010** | **Modified Cold Milling (Depth Transitions)** |

 |

* **QUALITY CONTROL FOR PLANT MIX BITUMINOUS SURFACE LEVELING:** This JSP is required on all projects. Any concerns with the use of this JSP should be discussed with your Construction and Materials Division representative.
* **CONTRACT LIQUIDATED DAMAGES:** This JSP will be required on all contracts to specify the contract time and liquidated damages. The JSP can be set up with both calendar days and an overall completion date to allow the contractor the flexibility to work the project into their schedule but restricts the contractor to the number of days once the contract work is started. The general rule of thumb is that there 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. For contracts that have multiple projects, specify the number of calendar days per each project. When multiple routes are grouped into a single project (i.e., Job Number), sum the number of calendar days for all routes and use that total for the project calendar days. Do not list the number of calendar days per each Location (route). Use the route with the highest ADT to determine the amount specified for Daily Road User Cost (i.e., liquidated damages).

**COMPLETION DATE:** November 1, 2024 (let before January 1, 2024)

 November 1, 2025 (let after January 1, 2024)

For projects with a 2024 completion date, the Winter Months Requirements JSP (JSP-15-07) must be included except for multiple location projects. 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.

* **BRIDGE EXCEPTIONS:** Bridges should be excepted unless prior written approval is obtained from the Bridge Division and submitted with the transmittal package. Guardrail placed at bridge ends and box culverts may need to be replaced, review EPG Section 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.
* **RAILROAD EXCEPTIONS:** All projects over, on or under railroad property constructed by MoDOT’s contractors require notification of the railroad no matter how minor the work may be, MO-RR is to be notified of these projects.Railroads should be excepted unless prior written approval is obtained from the Multimodal Operations Division and submitted with the transmittal package.
* **PAVING EXCEPTIONS:** Examine the pavement IRI and surface condition. Consider an exception if they are deemed acceptable.
* **PROJECT ESTIMATES:** The unit bid price should be obtained using the most recent history available from Bid Tabs Pro for each project location. If you have a large project or uncertainty regarding a unit price to use, please contact Danica Stovall-Taylor (573) 526-2923.
* **MULIPLE LOCATION (ROUTE) PROJECTS:** Projects identified by a single Job Number, and the project requires work to be performed on multiple locations (routes), these special requirements and allowances shall apply. A Location is generally identified in the contract or plans by Route and County but may be otherwise identified.

The contractor’s cost to provide the asphalt can vary significantly from one location to another based on the cost of hauling the material to the route. To address these concerns, the designer should separate the quantity of asphalt for each location and provide a total for that location on the Summary of Quantity Sheets. They should also provide a separate pay item for each location in its own Category that list the quantity of asphalt needed at that location. The separate pay item should be placed in Category 0002 thru 0009. If the project does not have separate locations, then the asphalt pay item should be put in Category 0001 – Roadway. A separate pay item for Tack for each location is not needed.

This also applies to other surface treatments, such as Seal Coat, Scrub Seal, Cape Seal, separate bid items for each location are needed for the other surface treatments. If a project requires multiple surface treatments, then a bid item will be needed for each treatment placed in the category for that location. For Seal Coat a bid item will be need for Emulsified Asphalt and one for Aggregate

Below is an example:



* **MULTIPLE CALENDAR YEARS**: Multiple Location Projects that allow work in multiple calendar years will need to include the Multi-Year, Multi-Location Project – Special Requirements JSP (NJSP-22-02). This JSP replaces the Winter Months Requirements JSP (JSP-15-07) used on a single route project that has a Completion Date in the next year.
* **SEED FILES:** Plan sheet templates are located in ProjectWise in CADD Seed Files.

CLC Template plan sheets:

001\_TITLE\_J#CLC\_I1.dgn

002\_TS\_01\_J#CLC\_I30.dgn

003\_QU\_01\_J#CLC(contractor\_striping)\_I1.dgn

004\_SS\_01\_J#\_I1.dgn

005\_TC\_01\_J#\_I1.dgn

006\_TC\_02\_J#\_I1.dgn

007\_TC\_03\_J#\_I1.dgn

008\_TC\_04\_J#\_I1.dgn

009\_TC\_05\_J#(contractor\_striping)\_I1.dgn

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.