# Guardrail Grading Requirements JSP-17-02B

**DRAFTER’S NOTES: THIS JSP IS FOR USE ON PROJECTS THAT REQUIRE GRADING FOR GUARDRAIL AND END TREATMENT REPLACEMENTS.**

**THE CORE TEAM SHOULD CONSIDER THE FOLLOWING WHEN USING THIS JSP:**

1. **ON PROJECTS WITH MULTIPLE LANES, SHOULD THE PROJECT BE DESIGNED TO ALLOW THE LANE ADJACENT TO THE GUARDRAIL/END TREATMENTS, TO REMAIN CLOSED DURING NON-WORKING HOURS? IF SO, THE PLANS SHOULD BE SET UP FOR A 24/7 LANE CLOSURE WITH ADDITIONAL PAY ITEMS (i.e. TEMPORARY CONCRETE BARRIER).**
2. **SHOULD THE GUARDRAIL/END TREATMENT REPLACEMENT BE DESIGNSED TO PROVIDE POSITIVE PROTECTION FOR A LANE CLOSURE? IF SO, THE PLANS SHOULD INCLUDE ADDITIONAL PAY ITEMS (i.e. TEMPORARY CONCRETE BARRIER).**
3. **SHOULD THE PROJECT BE DESIGNED TO PROVIDE THAT INDIVIDUAL SECTIONS OF GUARDRAIL ARE REMOVED/REPLACED UNDER A 24/7 OPERATION? IF SO, THE PLANS COULD INCLUDE AN INCENTIVE/DISINCENTIVE TO COMPLETE THE WORK IN A TIMELY MANNER.**
4. **CONSIDER PAYING FOR ADDITIONAL CHANNELIZING DEVICES TO BETTER DELINEATE ACTIVE WORK AREA AND POSITIVELY GUIDE DRIVERS THROUGH THE WORK ZONE.**
5. **WILL BRIDGE RAIL MODIFICATIONS (OR OTHER MODIFICATIONS) IMPACT THE AMOUNT OF TIME NON-BREAKAWAY OBSTACLES ARE EXPOSED? IF SO, CONSIDER USING 24/7 LANE CLOSURES AND THE USE OF TEMPORARY CONCRETE BARRIER (DEPENDING ON ADT, ETC.).**

**DOES THE AMOUNT OF GRADING AND HIGH EMBANKMENTS REQUIRE THE MAXIMUM LENGTH OF GUARDRAIL REMOVAL TO BE SHORTENED? IF SO, THE SEVEN DAY MAXIMUM MAY NOT WORK AND THE ACTIVIE WORK ZONE AREAS MAY NEED TO BE REEVALUATED.**

**1.0 Description.** Guardrail installation and grading shall be in accordance with Missouri Standard Specifications for Highway Construction, Missouri Standard Plans for Highway Construction, and as described herein.

**2.0 Construction Requirements.** When guardrail and/or end treatment removal and replacement requires grading of the shoulder and/or slopes, Section 606.3.1(b), (c), and 606.3.1.1 of the Missouri Standard Specifications shall be waived and the following shall apply:

a) Along roadways and shoulders, remove no more guardrail than can be reconstructed within seven (7) calendar days, including weekends and holidays. The seven day counting period shall start when the first piece of safety hardware is removed.

b) The active work zone area that encompasses the guardrail and/or end treatment reconstruction, shall not exceed one (1) mile in length. The contractor shall be required to provide and maintain approved channelizing devices adjacent to the reconstruction area.

c) Only one-side of the roadway shall be worked on at the same time. Divided facilities shall be limited to work on one-side of each direction at the same time.

d) When the removal of any existing safety hardware device exposes non-breakaway obstacles, the reconstruction of the safety hardware device protecting the obstacle shall be replaced within 48 hours of removal or an approved temporary crashworthy device shall be provided, installed and maintained at the contractor’s expense until the non-breakaway obstacle is permanently protected. The 48 hour counting period shall start when the first piece of safety hardware is removed.

e) Areas where guardrail and/or end treatments have been removed, but not yet replaced, shall be delineated in accordance with plans or as directed by the Engineer.

**3.0 Non-Compliance.** Non-compliance with this provision shall result in the immediate suspension of work in accordance with Sec 105.1.2. No work, including but not limited to additional guardrail removal and grading, shall be allowed to proceed except for work necessary to restore guardrail installation.

**4.0 Basis of Payment.** No direct payment will be made for compliance with this provision. Guardrail items, grading, and temporary traffic control devices will be paid for as provided in the contract.