

EXTINGUISH THE TORCH MEETING SESSION ONE

FIN: 442901-8-52-01

Contract No.: E8R59

Project: Turnpike Mainline Shoulder Evacuation NB (MP 210-249)

Contractor: Ranger Construction Industries, Inc.

Project Acceptance Date: 7/24/2019

County: Osceola

MEETING AGENDA

1. Introductions

CEI Senior Project Engineer: Anu Shah, P.E., Mehta & Associates, Inc.
CEI Project Administrator: Sam Saleh, Mehta & Associates, Inc.
FTE Project Manager: Christopher NeSmith P.E., WSP USA
FTE Design Project Manager: Anil Sharma, P.E., HNTB
Engineer of Record: Karen M. Van Den Avont, P.E., Protean
Contractor Project Manager: Andrew McMurray, Ranger Construction

2. Project Scope of Work

3. Contract Time and Money

4. Supplemental Agreements and Work Orders – See Appendix A

5. Contractor's Notices of Intent to File Claims – No NOI's

6. Review and discussion of Lessons Learned incorporated into the Summary Report

a. What worked well

1. Coordination between the CEI and the contractor

b. Lessons Learned – what needed improvement

1. Mainline typical sections for new widening and shoulder should be constructed in one operation.
2. Transition approach distance for milling and resurfacing limits
3. MOT for phase III and phase IV, mill and resurface the inside travel lane and pave Friction Course (FC-5) both lanes.
4. Cross slope break between the travel lane and outside shoulder (2% to 6% break)

7. Feedback

LESSONS LEARNED

SUMMARY REPORT

CEI Consultant

Anu Shah, P.E., Senior Project Engineer

Sam Saleh, Project Administrator

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Christopher NeSmith, P.E., FTE Project Manager

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Engineer of Record

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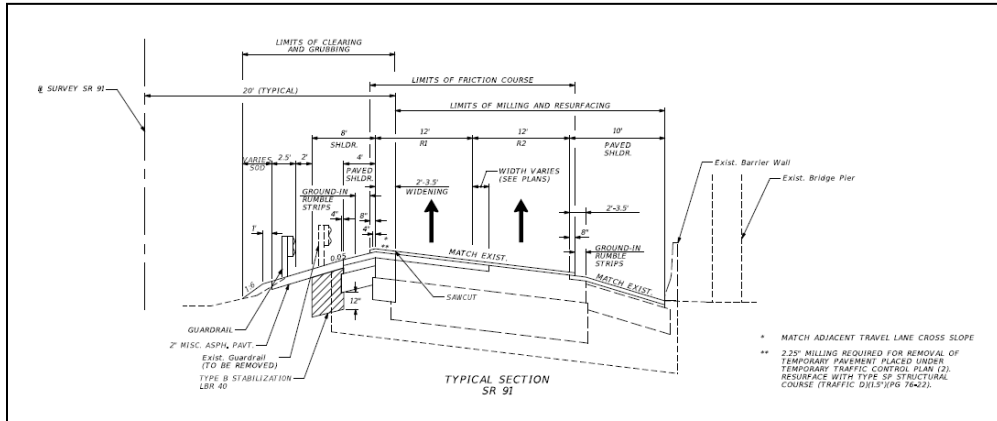
D. LESSONS LEARNED SUMMARY:

1. **Mainline vs Shoulder Typical Section** – Difficult to construct as separate typical sections
2. **Transition Approach Distance** – MOT did not account for required 100' tangent solid stripes
3. **Milling/Resurfacing Existing Lanes** – Able to avoid opening traffic on milled surface
4. **Outside Shoulder Rumble Strips** – Break in Shoulder would result in sub-standard rumble strips

1) Mainline and Shoulder typical sections should be constructed in one operation

Issue Summary:

Typical section shows different optional bases and structural course for the 2 to 3.5 foot widening and the 4 foot inside shoulder. It is very difficult to construct and compact the 2 to 3.5 foot widening with the small equipment (plate tamper) required to work in this narrow strip.



Resolution:

During construction, to expedite the construction and to achieve better quality, the widening and shoulders were constructed with same typical section (same as widening) at MP 241.94, MP 243.56 and MP 244.87. This required 104.8 tons of additional TLD Poly, 334.2 tons of additional TLB and 202.0 tons of additional TLD (over-runs).

Cost Impact: \$20,861.30 (change to typical) - \$ 87,210.00 (deletion of barrier wall & crash cushion)

Net Cost Impact: - \$ 66,348.87

No Time Impact



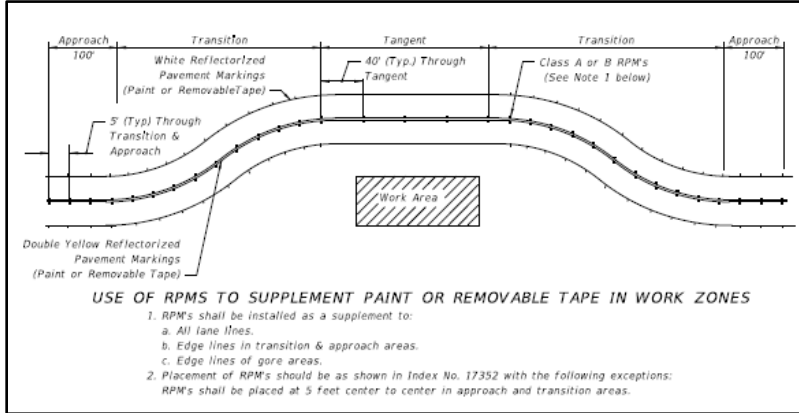
Lesson learned / Recommendation:

The EOR should consider same typical section for widening & shoulder, when total width of construction is less than 8'.

2) Transition approach distance for milling and resurfacing limits

Issue Summary:

MOT plans did not account for transition approach distance of 100' to be included with milling and resurfacing.



Resolution:

Extended the milling limits 100' at MP 229.37, MP 241.94, MP 243.56 and MP 244.87 to remove the strips outside MOT plan limits. This required additional 756 SY of 3/4" mill and 31.2 tons of additional FC-5 (over-runs).

Cost Impact: \$6,691.80

No Time Impact



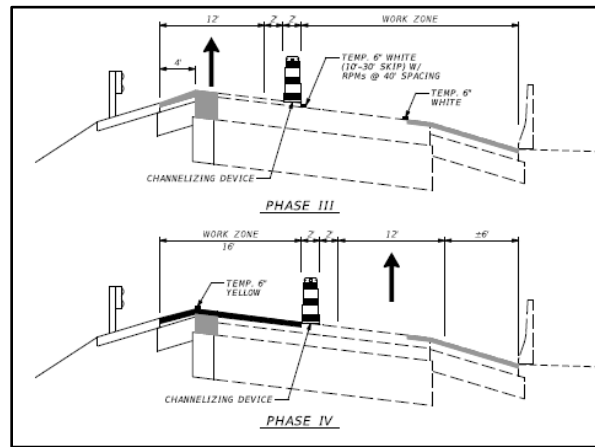
Lesson learned / Recommendation:

Milling and resurfacing limits should include transition approach distance as per Standard Plans.

3) Milling and resurfacing of existing travel lanes

Issue Summary:

The traffic control plan called for milling the existing friction course on the outside travel lane in phase III. Then mill and resurface the inside travel lane (structure course) in Phase IV. Phase V called for placement of friction course on both travel lanes. Milling the friction course in the outside lane would have left a milled surface until Phase V. Even though Special Provision Section 327 allowed traffic on the milled surface for up to 3 calendar days, FTE and the CEI were concerned that weather would likely impact the work on the inside lane (which had to be milled and resurfaced with structure course and friction course), resulting in traffic being kept on the milled surface for more than 3 days.



Resolution:

During construction, the contractor did not mill the friction course in the outside lane (Phase III) until after the inside travel lanes were resurfaced with structure and friction. This allowed the traffic to shift to final configuration as the FC-5 was placed and traffic was never placed onto a milled surface.

No Cost Impact
No Time Impact



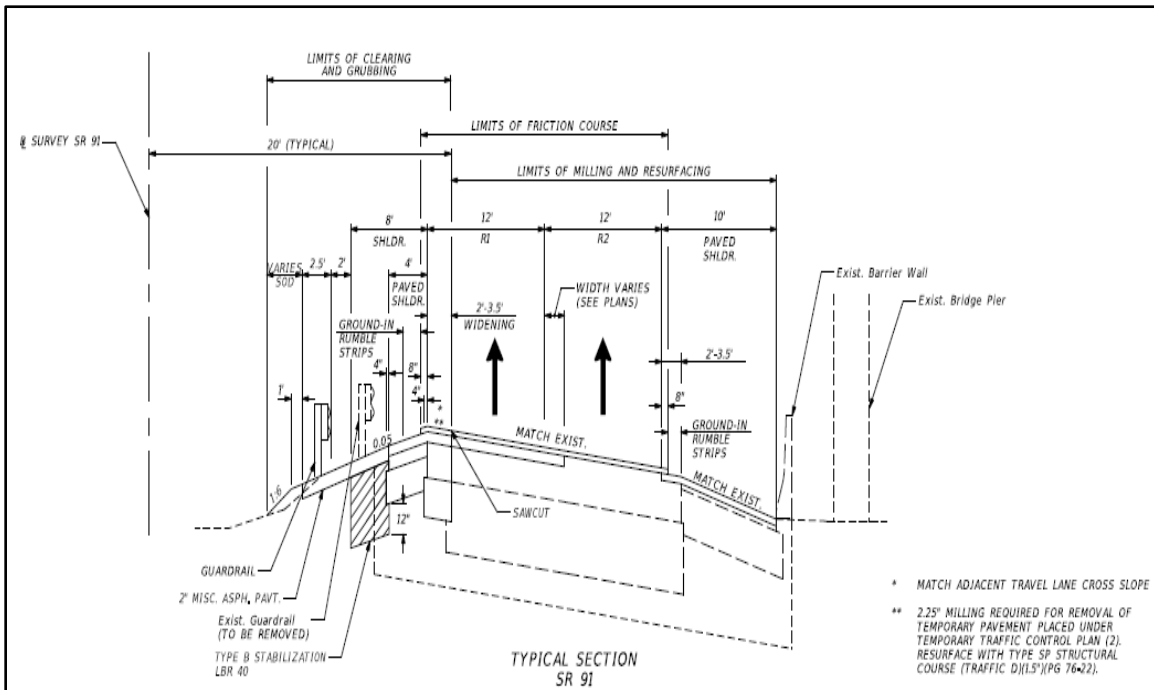
Lesson Learned / Recommendations:

The EOR should avoid leaving milled surface and should call out placement of friction course same night of milling.

4) Outside shoulder rumble strips

Issue Summary:

Per plan, the cross-slope break between the original travel lane and original shoulder (2% to 6% break) was to remain at the original location with permanent traffic shifted to the left, away from that break. This would have required the rumble strips to cross the shoulder break. The rumble strip would not have met design criteria if it had been placed in the shoulder break.



Resolution:

During construction, the Contractor did not provide the break in the outside shoulder as depicted on the typical section. The resulting shoulder cross slope was 5.7% instead of the original 6% but no longer included the break.

- No Cost Impact
- No Time Impact

Lesson Learned / Recommendations:

Typical section should show the shoulder break (2 % to 6%) at 10' between the mainline and the outside shoulder to avoid rumble strips to cross into the shoulder break.