

RAISE, ALIGN, AND SURFACE TRACK

**\*\*From Berlin STP 2935(1)  
Berlin NH STP 2938(1)  
Berlin NH STP 2947(1)**

- xx. DESCRIPTION. The work shall consist of raising, aligning, and surfacing track at the locations indicated in the Contract Documents or as directed by the Engineer.
- xx. MATERIALS. Tie plugs shall be new and shall meet the material requirements of the Specification entitled: Chapter 30, Section 3.1.5 Tie Plugs, AREMA Manual - current edition.

Track spikes or lag screws shall be new, of the size and type indicated in the Contract Documents, and shall meet the material requirements of the Specification entitled: Chapter 5, section 2.1 Soft-Steel Track Spikes and Lag Screws, AREMA Manual - current edition.

- xx. CONSTRUCTION REQUIREMENTS. The track section, when completed, shall be in conformance with FRA Standards for Class 3 Track as defined in 49 CFR 213 - TRACK SAFETY STANDARDS or as ordered by the Engineer.

The track shall be raised in 2" maximum nominal lifts unless otherwise approved by the Engineer.

- (a) Track Alignment. Track alignment, when completed, shall be in conformance with the following:

(1) The deviation of the mid-offset from a 62' line shall not be more than 3/4" for tangent track and 5/8" for curved track.

- (b) Track Surface. Track surface, when completed, shall be in conformance with the following:

(1) The runoff in any 31 feet at the end of a raise shall not be more than 3/4".

(2) The deviation from uniform profile on either rail at the mid-ordinate of a 62' line, shall not be more than 3/4".

(3) Deviations from designated elevation on curves, spirals, or tangents shall not be more than 1/2".

(4) Deviation from zero cross level at any point on tangent or from designated superelevation on curves between spirals shall not be more than 3/4".

(5) The difference in cross level between any two points less than 62' apart on tangents and curves between spirals shall not be more than 3/4".

- (c) Track Elevation. Superelevation and grade, when completed, shall conform to FRA Standards for Class 3 Track as defined in 49 CFR 213 - TRACK SAFETY STANDARDS.

(d) Track Surfacing Equipment.

- (1) All equipment to be used in the alignment and surfacing operation shall be a Harsco Mark IV Tamper, Jackson 6900 Tamper, Plassar American Continuous Action Tamper (CAT) or approved equal capable of automatic lift, level, and alignment of tangent and curved track, as well as turnouts.
- (2) All dressing of tracks and switches shall be completed by utilizing a ballast regulator to distribute the stone ballast in sufficient quantity for tamping track and restoring ballast section.

(e) General. Minimum track shoulders shall be 12".

Adequate ballast for tamping and dressing to the required ballast cross section shall be distributed in advance of the track surfacing. Work shall be performed so that track will maintain the alignment, surface, and elevation after tamping.

The Contractor shall avoid pulling sod, vegetation, and other foreign material onto the track structure or shoulders for the purpose of tamping or dressing the ballast sections. Any sod, vegetation, or foreign matter inadvertently pulled in shall be removed by the Contractor prior to tamping.

Upon completion, the track section shall have the tie plate bear fully on the ties and the rail base bear fully on the tie plate. Where tie plates do not exist (only if permitted in Contract Documents or as directed by the Engineer) the tie shall be tamped up tight and be in full contact with the base of the rail. No portion of the tie plate shoulder, stone, or any foreign material shall be permitted under the base of rail at these locations.

Any cross tie on which the tie plate is not tight against the rail base (Down Tie) shall have the cause corrected and shall be re-tamped until the tie plate is bearing firmly against the rail base.

All ties under a rail joint shall receive not less than two (2) separate insertions of Squeeze Type Vibratory tamper.

Surface and align track, and blend to industrial sidings, road crossings, turnouts, and fixed points to achieve horizontal and vertical alignment.

Any track spikes damaged or in the Engineer's opinion, not functioning as intended during the raising, aligning, and surfacing operations shall be repaired in the following manner:

- (1) Spikes shall be removed, and the resulting hole shall be plugged with a treated tie plug of a size sufficient to completely and tightly fill the hole. A new spike shall then be driven.

(2) Remove and replace with new ties and fasteners any ties or fasteners damaged during surfacing operations at no additional expense to the State.

(f) Ballast. Ballast shall be dressed with the stone flush with the top of tie and cribs shall be full.

xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Raise, Align, and Surface Track) to be measured for payment will be the number of meters (linear feet) of track raised, aligned, and surfaced in the complete and accepted work. Measurement will be taken along centerline of track.

xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Raise, Align, and Surface Track) will be paid for at the Contract unit price per meter (linear foot). Payment will be full compensation for furnishing all materials, labor, tools, equipment, and incidentals necessary to complete the work.

All loose joint bolts shall be tightened by mechanical means. Payment will be considered incidental to Special Provision (Raise, Align, and Surface Track).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.640 Special Provision (Raise, Align, and Surface Track)	Meter (Linear Foot)