1. Temporary Shoring Railroad, Item SPV.0165.##

A Description

This special provision describes providing temporary shoring at locations alongside railroad tracks as shown in the plan and conforming to the shoring design requirements. Shoring plans are subject to CN Railroad approval.

B Materials

B.1 Shoring Design

Provide an effective shoring system capable of withstanding Coopers E-80 live load surcharge, and which is in compliance with OSHA and Federal Railroad Administration (FRA) requirements. For reference, see “Guidelines For Temporary Shoring” published by Union Pacific Railroad and The Burlington Northern and Santa Fe Railway (BNSF). A copy of these guidelines may be obtained from the department at the Railroads and Harbors Section, 4802 Sheboygan Avenue, Madison, Room 701. Where conflicts exist, the standard specifications, special provisions and plans shall supersede these guidelines.

Refer to standard spec 107.17(6) & (7) regarding the development and submittal of shop drawings, detailed plans, and computations for temporary construction near the Canadian National’s (CN) tracks. Include in the submitted drawings and plans, the proposed method of installing and removing the shoring not included in the contract plans. In all calculations, take into consideration railroad surcharge loading and design the shoring to meet Coopers E-80 live loading.

C Construction

The CN will coordinate train operations with the contractor to the extent possible, consistent with its operational requirements. The number and duration of work windows free of train operations available per day will vary depending on operational requirements. At the end of each window, leave the construction area in a condition that will allow for safe and normal train operations. Do not leave shoring extended above the top of rail within 12’-0” from the centerline of the nearest track. Train operations, available windows for work, and hours available for work within windows, are subject to change. Contact Terry Lee – Manager Public Projects, 1625 Depot Street, Stevens Point, WI 54481, Telephone (715) 345-2503 at least three working days in advance of construction operations that require implementation of the temporary shoring.

Provide, install and maintain adequate protection for people within the CN’s right-of-way. Cover, guard, and/or protect all excavations, holes, or trenches within the CN’s right-of-way when they are not being worked on. When leaving work site areas at night and over weekends, secure the areas and leave them in a condition that will ensure that railroad employees and other personnel, who may be working or passing through the area, are protected around excavations. Install handrails that are parallel to the track and not less than 9’-0” from the centerline of the nearest track. Handrails, fences, or other barrier methods must meet OSHA and FRA requirements. Backfill all excavations as soon as possible.

Upon completion of the need for the temporary shoring, remove the shoring or cut-off the shoring 4’-6” below the top of the adjacent rail. Backfill the space that is excavated, but not occupied by the new permanent construction, conforming to standard spec 206.3.13.

D Measurement

The department will measure Temporary Shoring Railroad by the square foot; the quantity to be paid for will be the sum of the areas of exposed faces of shoring constructed at the locations the plans show. Area will be determined from measurements taken in the plane of the exposed face of the shoring.

E Payment

The department will pay for the measured quantities at the contract unit price under the following bid item:

ITEM NUMBER DESCRIPTION UNIT

SPV.0165.## Temporary Shoring Railroad SF

Payment is full compensation for providing a verified design of the shoring; providing shop drawings and detailed plans; furnishing and hauling materials to each location; installing the shoring; maintaining the shoring as needed; removing the shoring; and for backfilling upon completion of the need for the shoring.

Temporary shoring not required by the plans and installed for the convenience of the contractor’s operations shall be considered incidental to work under this contract and will not be measured and paid for under this item.

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