



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Design Memorandum No. 12-10 Technical Advisory

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TO: All Design, Operations, and District Personnel, and Consultants

FROM: /s/ David H. Boruff
David H. Boruff
Manager, Office of Traffic Administration
Technical Services Division

SUBJECT: Work-Site Speed Limit

REVISES: *Indiana Design Manual Section 83-2.03(01)*

EFFECTIVE: September 12, 2012 Letting

The Indiana Code now allows for the use of a work-site speed limit where workers are not present for motorist safety.

Different speed limits may apply based on whether the speed limit is within the work zone or if it is within a work site. The work-zone speed limit applies throughout the project as does a work-site speed limit authorized for continuous use to protect motorists. A work-site speed limit authorized for intermittent use to protect workers applies to a specific location within the work zone where work is actually occurring. The following provides guidance in the selection and implementation of a work-zone or work-site speed limit.

1. Work-Zone Speed Limit. The work-zone speed limit will be determined based on the construction-zone design speed, traffic volume, work type, geometrics, project length, etc. The work-zone speed limit should not exceed the construction-zone design speed through the construction area. *Indiana Design Manual Section 82-3.01* provides guidance on the selection of a construction-zone design speed. If the work-zone speed limit is different than the existing posted speed limit prior to the start of construction, an Official Action as discussed in *Indiana Design Manual Section 83-1.03* will be required.

2. Work-Site Speed Limit. Indiana Statutes permit INDOT to establish a work-site speed limit without an Official Action. They also stipulate that the work-site speed limit will be at least 10 mph below the original posted speed limit. An intermittent-work-site speed limit will be applicable only where and while work is actually in progress and workers are present, and is authorized by the district Traffic Engineer. The district Technical Services Director will authorize a work-site speed limit for continuous use. Additional signs for the normal speed limit should be specified to aid enforcement by properly defining the speed zones as follows:

- a. For a rural Interstate-route application, R2-1-B and R2-Y2-B signs for the normal speed limits should be placed approximately 500 ft downstream from the end of the work site.
- b. For another application, an R2-1 or R2-1-B sign for the normal speed limit should be placed 500 ft downstream from the end of the work site.

The additional signs for the normal speed limit may be omitted if existing such signs are located within sight distance. As an option, the R2-Y12 or R2-Y12-B “End Work Site Speed Limit” sign may also be provided alongside the sign for the normal speed limit at the end of the work site.

3. Sign Size and Assembly. A work-zone or work-site speed-limit-sign assembly should be placed according to the *MUTCD* and should be of a size specified for the facility. Each work-site assembly should include a “Worksite” plaque mounted above the regulatory sign.
4. Flashing Beacon. Each work-site speed-limit-sign assembly for intermittent use must incorporate strobe-type flashing beacons with one mounted at each upper corner of the regulatory sign. A “When Flashing” plaque must be placed below the sign. The beacons should be activated only while work is in progress and workers are present. The device provides for both workers’ and public safety without imposing unnecessary travel delays during non-working periods. Flashing beacons and the “When Flashing” plaque will not be incorporated with a continuous-use work-site speed limit.
5. Selection. *Indiana Design Manual* Figure 83-2B provides suggested work-zone and work-site speed limits for a freeway based on the type of facility and the proposed construction application.

6. Location and Spacing. In determining the location and spacing of signs, the following will apply.
 - a. Work-Zone Sign. The designer should coordinate with the district traffic engineer to determine the appropriate beginning and ending locations for the work-zone speed limit. A work-zone speed limit sign should be placed prior to the construction zone and after each interchange entrance ramp within the construction zone. The reduced speed zone should begin prior to an expected queue backup due to a lane closure, lane restriction, etc.
 - b. Work-Site Sign. The INDOT *Standard Specifications* provide the guidelines for determining the appropriate location for a work-site speed-limit-sign assembly.
7. Speed Limit Reduction Greater than 10 mph. The regulatory sign, R2-15b, “Reduced Speed XX Ahead” should not be specified. Instead, reduced-speed-limit warning sign XW3-5 or XW3-5a should be specified. The details are shown on INDOT *Standard Drawings* 801-TCDV-10 through -12, which appear on the Department website, at <http://www.in.gov/dot/div/contracts/standards/drawings/sep12/e/sep800.htm>. Only one of the sign designations should be specified for the entire project.
8. Divided Facility. An assembly should be placed on each side of each roadway.

Recurring Special Provision 801-C-228 should be called for if the pay item, Temporary Worksite Speed Limit Sign Assembly, is required. It is attached herewith.

DHB/alu
Attachment

801-C-228 TEMPORARY WORKSITE SPEED LIMIT SIGN ASSEMBLY

(Adopted 04-19-12)

The Standard Specifications are revised as follows:

SECTION 801, BEGIN LINE 719, DELETE AND INSERT AS FOLLOWS:

(c) Temporary Worksite Speed Limit Sign Assembly

This shall consist of furnishing and placing portable speed limit signs as shown on the plans or as directed in areas of work activity. *When used, the* worksite speed limit flashing strobe lights shall be activated when the worksite speed limit is in effect. This shall be only where and while work is actually in progress and workers are present. Each strobe light shall be visible through a range of 120° when viewed facing the sign and shall ~~have a minimum effective luminance of 2100 cd effective according to the manufacturer's literature, which shall be provided to the Engineer prior to use~~ *be visible from a distance of 750 ft.*

Wherever a permanent speed limit sign exists within the limits controlled by the worksite speed limit sign assemblies, additional worksite speed limit sign assemblies shall be placed ~~next to~~ *at* the permanent signs. ~~or~~ *The* permanent signs shall be covered *or removed during continuous worksite speed limit use.*

A worksite speed limit authorized for intermittent use shall only be activated when workers are present at the site. The intermittent worksite speed limit shall not only be used in the area of work. for the entire length of a roadway under construction unless there is actual work activity for the entire length of such roadway. It shall not be activated at the beginning of the day, for the entire day, if actual work is not being done all day in the work area. A worksite speed limit authorized for continuous use shall not include the flashing strobe lights nor the S4-4 "When Flashing" plaque.

The worksite speed zone signage shall be placed and maintained by the Contractor. The worksite speed limit will be ~~45 mph, or~~ *as shown on the plans or as directed by the Engineer and at least 10 mph* below the posted speed limit for the roadway under construction, ~~whichever is lower.~~

A worksite reduced speed advance warning sign assembly shall be placed in advance of the first worksite speed limit sign assembly when the reduction in speed limit is greater than ~~45~~ *10* mph.