*Page TC8-1, Between lines 32 & 33*



*Page 8A-1, Section 8A.01, Between lines 10 & 11*

When railroad vehicles operate along streets and highways in mixed traffic with automotive vehicles, engineering judgement should be used to apply the traffic controls and associated standards and guidelines for highway-light rail transit vehicle mixed use operation presented in Part 10 as they are applicable to the railroad situation.

*Page 8A-1, Section 8A.01, Between lines 15 & 16*

The Indiana Department of Transportation (INDOT) has the regulatory authority (by Indiana Code) to order installation of active warning devices at any crossing. However, local agencies also have the authority (by Indiana Code) to install or upgrade the warning devices at crossings by entering into agreements with railroads by mutual consent without INDOT intervention or regulatory approval. Local agencies also have the authority to install stop signs at crossings by adopting a stop sign ordinance just as they would for stop signs at any other highway intersection. While highway agencies are typically responsible for determining the need and type of warning devices at highway-rail crossings, nothing precludes a railroad from initiating a request for such a study. Further, railroad input may be needed to complete such a study, and their cooperation and participation is needed for any installation beyond standard crossbucks.

*Page 8A-4, Section 8A.02, Line 7*

~~involving both~~ by the highway agency ~~and~~ or regulatory authority with input from the railroad company as needed. See Section 8A.01 for additional guidance.

*Page 8A-4, Section 8A.03, After line 29*

**When blank out signs are used, the message shall be white letters or symbols formed by illuminating dots or areas on a black background. The red prohibition circle with slash shall be formed with red dots or areas on the black background. No message or part of the message shall be visible when the blank out sign is not activated.**

*Page 8A-5, Section 8A.03, Line 8*

should be ~~used~~ considered for use.

*Page 8B-1, Section 8B.01, Between Lines 6 & 7*

Indiana Code requires the railroad company to install and maintain the Highway-Rail Grade Crossing (Crossbuck) Signs and Number of Tracks Signs.

*Page 8B-1, Section 8B.02, Line23*

**Where physically feasible and visible to approaching traffic, ~~T~~the Crossbuck sign shall be installed on the right side of the highway on each**

*Page 8B-3, Section 8B.02, Line 5*

**the front and back of the support from near the Crossbuck sign or Number of Tracks**

*Page 8B-3, Section 8B.02, Lines 11 through 13*
The lateral clearance for the nearest edge of the Crossbuck sign should be approximately 1.8 m (6 ft) from the edge of the shoulder, or approximately 3.7 m (12 ft) from the edge of the traveled way in rural areas, and approximately 0.6 m (2 ft) from the face of the curb in urban areas.

*Page 8B-5, Section 8B.04, Lines 2 through 13*
~~Option:~~

~~When authorized by law or regulation, a supplemental sign (R15-3) with a white background bearing the word EXEMPT may be used below the Crossbuck sign or Number of Tracks sign, if present, at the highway-rail grade crossing, and a supplemental sign (W10-1a) with a yellow background bearing the work EXEMPT may be used below the Highway-Rail Advance Warning sign.~~

~~Support:~~

~~These supplemental signs inform drivers of vehicles carrying passengers for hire, school buses carrying students, or vehicles carrying hazardous materials that a stop is not required at certain designated highway-rail grade crossings, except when a train, locomotive, or other railroad equipment is approaching or occupying the highway-rail grade crossing, or the driver's view is blocked.~~

This sign shall not be used in Indiana unless specifically permitted by statute.

*Page 8B-5, Section 8B.04, Lines 17 through 19 (Sign depiction with sign designations)*
The "EXEMPT" sign and sign designation "R15-3" and "W10-1a" are being deleted by reference.

*Page 8B-6, Section 8B.05, Line 6*
existing turning movements toward the highway-rail grade crossing should be ~~prohibited~~ considered for prohibition

*Page 8B-6, Section 8B.05, line 9*
An activated blank-out or changeable message sign and/or appropriate traffic signal indication or other

*Page 8B-6, Section 8B.05, Between lines 14 & 15*
Support:
Section 10C.06 provides information about blank-out turn prohibition signs.

*Page 8B-6, Section 8B.06, Line 19*
The sign, if used, should be located on the right side of the highway or over the traffic lanes on the near or

*Page 8B-6, Section 8B.06, Line 25*
be placed on the near or far left side of the highway-rail grade crossing or over the traffic lanes to further improve

*Page 8B-7, Section 8B.07, Line 5*
, or where sight distance is restricted, and are without automatic traffic control devices.

*Page 8B-7, Section 8B.07, Lines 19 & 20*
the Crossbuck post with permission from the railroad or on a separate post at a point where the vehicle is to stop, or as near to that point as practical. Before installing a separate post on railroad property, railroad permission should be obtained.

*Page 8B-7, Section 8B.08, Line 26*
**Section 8B.08 TRACKS OUT OF SERVICE Sign (R8-9) and TRAIN TRAFFIC RESUMED – TRACKS IN SERVICE Sign (W10–Y12)**

*Page 8B-7, Section 8B.08, Between Lines 26 & 27*
Guidance:

Indiana Statute (Indiana Code-Title 8, Article 6, Chapter 15) stipulates that the Indiana Department of Transportation (INDOT) shall determine if a railroad grade crossing is abandoned or unused after receiving a request from the railroad or the road authority that has jurisdiction over the roadway. After the railroad grade crossing has been designated as an abandoned or unused railroad grade crossing, the crossing must be marked with TRACKS OUT OF SERVICE (R8 – 9) signs. These signs are to be installed by the road authority that has jurisdiction of the roadway over which the abandoned or unused railroad grade crossing exists. Thirty days prior to resuming operation over an abandoned or unused railroad grade crossing, the railroad is to provide INDOT and the road authority, having jurisdiction over the roadway, with written notification and request the TRACKS OUT OF SERVICE (R8 – 9) signs be removed. The railroad shall mark the railroad grade crossing, for six months, with the TRAIN TRAFFIC RESUMED – TRACKS IN SERVICE (W10 – Y12) signs.

*Page 8B-8, Section 8B.08, Between Lines6 & 7*
**If a highway – rail grade crossing is returned to service, the railroad shall mark the railroad grade crossing with the W10 – Y12 sign for a 6-month period. This sign shall be installed on the post used for mounting the Crossbuck signs, within 1 inch below the Crossbuck signs (R15–1, R15–2), or on a separate post such that the W10 – Y12 sign does not block, or theW10 – Y12 sign is not blocked by, the visual elements of any other railroad warning device .**

Option:

The governmental agency that has jurisdiction over the roadway that had an abandoned or unused railroad grade crossing and the railroad has resumed operation of the railroad grade crossing, may install an additional W10-Y12 sign, as a primary sign, beneath any of the other Highway-Rail Grade Crossing Advance Warning Signs (W10 Series), as deemed appropriate.

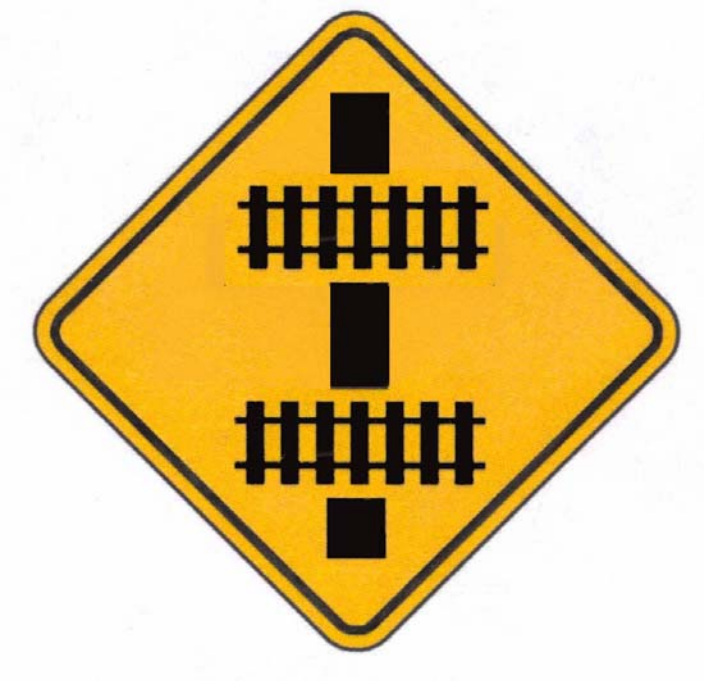
*Page 8B-8, Section 8B.09, Lines 12 through 14*
Location and placement should be decided ~~cooperatively~~ by the Railroad company ~~and the public or private highway agencies~~ based on specific site conditions. ~~However, t~~These signs are ~~typically located~~ installed by the railroad on the railroad right-of-way.

*Page 8B-9, Section 8B.10, Line 6*
considered for ~~installed~~ installation to face~~ing~~ road users approaching the highway-rail grade crossing.

*Page 8B-9, Section 8B.13, Line 26*
sign may be mounted, by the railroad, as a supplemental plaque on the Crossbuck (R15-1) sign post, or as a

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

*Page 8B-10, Section 8B.13, Add Signs W10-Y12, W10-Y11c, W10-Y11d, and W10-Y11e to this page. The new sign depictions are referenced in the added text to section 8B.08 and section 8B.15.*



**W10-Y11c**


**W10-Y12**


**W10-Y11d**


**W10-Y11e**

*Page 8B-11, Section 8B.14, Line 4*
for long wheelbase vehicles or for trailers with low ground clearance and an engineering study determines the need and feasibility, the Low Ground

*Page 8B-12, Section 8B.15, Between lines 12 & 13*
Guidance:

A Tracks Storage Space (W10-Y11c) sign supplemented by a word message tracks storage distance (W10-Y11d) sign should be used where there is a highway-rail grade crossing in close proximity to the highway-rail grade crossing and an engineering study determines that adequate space is not available to store a design vehicle(s) between the train dynamic envelopes.

The Tracks Storage Space (W10-Y11c and W10-Y11d) signs should be mounted in advance of the first highway-rail grade crossing at an appropriate location to advise drivers of the space available for vehicle storage between the second set of tracks and the highway-rail first grade crossing.

Option:

The Tracks Storage Space sign, W10-Y11e, may be mounted beyond the first highway-rail grade crossing just prior to the second set of tracks to remind drivers of the storage space between the tracks.

*Page 8B-12, Section 8B.16, Line 15*
**All highway-rail grade crossing markings shall be retroreflectorized white except appropriate yellow longitudinal markings. All**

*Page 8B-12, Section 8B.16, Line 27*
**warning and control, but may be installed if so desired.**

*Page 8B-12, Section 8B.16, Between lines 28 & 29*
In multilane sections where the center lane is for bi-directional left turns, the bi-directional lane should be terminated by creating an island or median prior to the railroad crossing for both directions of travel (similar to the method depicted in figure 3B-4 with the railroad centered in the buffer zone) or by marking the lane as a one way left turn lane.

*Page 8B-13, Figure 8B-2, Lines 3 through 5 (on the right half of the Figure)* remove the top right note: ~~A three-lane roadway should be marked with a centerline for two-lane approach on the approach to a crossing.~~

*Page 8B-15, add a new section, After line 23*

**Section 8B.19 Buzz Strips**

Option:

When justified by an engineering study, one or more sets (consisting of 6 closely spaced 200 mm (8 in.) wide transverse white thermoplastic pavement stripes up to 6 mm (¼ in) high) may be placed in advance of the highway-rail grade crossing pavement markings to provide visual and aural alert before the advance warning devices. If highway-rail grade crossing pavement markings are not required at a location, buzz strips may be installed as an alert for the signs and other active or passive warning devices.

*Page 8C-1, Section 8C.01, Line 6*

operation is conducted at night, where ~~train speeds are low and~~ highway-rail grade crossings are

*Page 8D-1, Section 8D.01, Line 17*

**(see Page i for the address). If there is a confict in meaning between the UVC and the Indiana Code, the Indiana Code shall prevail.**

*Page8D-1, Section 8D.01, Line 24*

**to the lowest point of the signal unit or its horizontal support structure.**

*Page 8D-3, Section 8D.02, Line 29*

**When used, ~~F~~ flashing-light signals shall be placed to the right of approaching highway traffic**

*Page 8D-3, Section 8D.02, Line 32*

**such location would adversely affect signal visibility. Where physical conditions do not permit signals to be placed to the right of approaching highway traffic, signals over the approach lane(s) may be used.**

*Page 8D-4, Section 8D.02, Between Lines 15 & 16*

Option:

Additional flashing-light signals may be placed over the roadway or to the left of the roadway.

*Page 8D-4, Section 8D.03, Line 30*

Where it is desired or ~~If it is~~ determined by an engineering study that one set of flashing lights on the cantilever

*Page 8D-5, Section 8D.04, Lines 13 & 14*

**the gate arm (in its normal upright position) shall be activated ~~immediately upon detection of the approaching~~ not less than 20 seconds before arrival of the train. Additional time may be needed where there are multiple tracks, skewed tracks, approach roadways that are not flat, or for design vehicles with unusual length or acceleration characteristics. The gate arm shall start its downward motion**

*Page 8D-6, Section 8D.04, Line 5*

Figure 8D-1). When in its upright position, the gate should not interfere with horizontal or vertical roadway clearance requirements.

*Page 8D-6, Section 8D.04, Line 12*

approach to a highway-rail grade crossing. On multiple lane roads, median islands may be required to allow installation of gates to extend across all approach lanes.

*Page 8D-6, Section 8D.04, Between lines 14 &15*

Where sufficient space is available, median islands should be at least 18 m (60 ft) in length.

*Page 8D-6, Section 8D.05, Line 31*

**the gate arms (in their normal upright positions) shall be activated ~~immediately~~**

*Page 8D-8, Section 8D.05, Line 1*

**~~upon detection of the approaching~~ not less than 20 seconds before arrival of the train. Additional time may be needed where there are multiple tracks, skewed tracks, approach roadways that are not flat, or for design vehicles with unusual length or acceleration characteristics. The gate arms for the approaching lanes**

*Page 8D-8, Section 8D.05, Line 13*

**~~Except as noted in the Option below, t~~ The exit lane gate arm mechanism shall be**

*Page 8D-8, Section 8D.05, Lines 24 through 26*

~~At locations where sufficient space is available~~ Where supported by an engineering study, exit gates should be set back from the track a distance that provides a safe zone long enough to accommodate at least one design vehicle between the exit gate and the nearest rail or an escape route should be provided.

*Page 8D-8, Section 8D.05, Lines 31 & 32*

~~Exit lane gate arms may fail in the down position if the highway-rail grade crossing is equipped with remote health (status) monitoring.~~

*Page 8D-9, Section 8D.06, Lines 13 through 17*

**any train~~, except as noted in the Option below~~.**

Option:

~~On tracks where all trains operate at less than 32 km/h (20mph) and where flagging is performed by an employee on the ground, a shorter signal operating time for the flashing light signals may be used.~~

*Page 8D-9, Section 8D.06, Line 18*

Additional warning time may be provided when determined by an engineering study considering factors including but not limited to multiple tracks, skewed tracks, approach roadway grade and profile, and the physical and operational characteristics of the design roadway vehicle.

*Page 8D-10, Section 8D.07, Lines 13 through 15*

Generally, ~~T~~the highway agency ~~with jurisdiction~~, or the regulatory agency ~~with statutory authority, if applicable, and the railroad company should jointly~~ determines the need for highway-rail grade crossing detection circuits to preempt traffic signals at nearby ~~preemption operation at highway-rail grade crossings adjacent to signalized~~ highway intersections. Further, the highway (or regulatory) agency generally determines the traffic signal preemption sequences and coordinates with the railroad company to obtain the desired preemption signal from the highway-rail crossing warning device control equipment. However, nothing precludes a railroad from initiating such a request to a highway or regulatory agency.

*Page 8D-10, Section 8D.07, Lines 21 to 23*

control signals located farther than 60 m (200 ft) from the highway-rail grade crossing~~.~~ when ~~F~~factors such as ~~to be considered should include~~ traffic volumes, vehicle mix, vehicle and train approach speeds, frequency of trains, and queue lengths indicate preemption may be beneficial to traffic.

*Page 8D-11, Section 8D.07, Line 15*

**sign or a blank out NO TURN ON RED sign activated by the preemption sequence shall be installed for the approach that crosses the railroad track.**