

Approved by NCUTCD Council January 12, 2008

CHAPTER 5A. GENERAL

Section 5A.01 Function Approved by Council 1/12/08

Support:

At some locations on low-volume roads, the use of traffic control devices might be needed to provide the road user limited, but essential, information regarding regulation, guidance, and warning.

Other Parts of this Manual contain **criteria provisions edited to increase consistency** applicable to all low-volume roads; however, Part 5 specifically supplements and references the **criteria provisions edited to increase consistency** for traffic control devices commonly used on low-volume roads.

Standard:

A low-volume road shall be defined for this Part of the Manual as follows:

- A. A low-volume road shall be a facility lying outside of built-up areas of Cities, towns, and communities, and it shall have a traffic volume of less than 400 AADT.**
- B. A low-volume road shall not be a freeway, an expressway, an interchange ramp, a freeway service road, ~~or~~ a road on a designated State highway system, or a residential street in a neighborhood. In terms of highway classification, it shall be a variation of a conventional road or a special purpose road as defined in Section 2A.01.**
- C. A low-volume road shall be classified as either paved or unpaved.**

Support:

Low-volume roads typically include farm-to-market, recreational, resource management and development, and local roads in rural areas.

Guidance:

The needs of unfamiliar road users for occasional, recreational, and commercial transportation purposes should be considered.

Section 5A.02 Application Approved by Council 1/12/08

Support:

It is possible, in many cases, to provide essential information to road users on low-volume roads with a limited number of traffic control devices. The focus might be on devices that:

- A. Warn of conditions not normally encountered,
- B. Prohibit unsafe movements, or
- C. Provide minimal destination guidance.

~~As with other roads, the application of traffic control devices on low-volume roads is based on engineering judgment or studies.~~

Standard:

The **criteria provisions edited to increase consistency** contained in Part 5 shall not prohibit the installation or the full application of traffic control devices on a low-volume road where conditions justify their use.

Guidance:

Additional traffic control devices and ~~criteria provisions~~ **edited to increase consistency** contained in other Parts of the Manual should be considered for use on low-volume roads.

Section 5A.03 Design **Approved by Council 1/12/08**

Standard:

Traffic control devices for use on low-volume roads shall be designed in accordance with the ~~criteria provisions~~ **edited to increase consistency** contained in Part 5, and where required, in other applicable Parts of this Manual.

The typical sizes for signs **and plaques** installed on low-volume roads shall be as shown in Table 5A-1. The ~~minimum-sign~~ sizes **in the minimum column** shall only be used on low-volume roads where the 85th-percentile speed or posted speed limit is less than 60 km/h (35 mph). **Table 5A-1 Not Approved. See Recommendations attached.**

Guidance:

~~The oversized sign~~ sizes **in the oversized column** should be used where engineering judgment indicates a need based on high vehicle operating speeds, driver expectancy, traffic operations, or roadway conditions.

Option:

Signs and plaques larger than those shown in Table 5A-1 may be used (see Section 2A.11).

Standard:

All signs shall be retroreflective or illuminated to show the same shape and similar color both day and night, unless specifically stated otherwise in other applicable Parts of this Manual. The requirements for sign illumination shall not be considered to be satisfied by street, highway, or strobe lighting.

All markings shall be visible at night and shall be retroreflective unless ambient illumination provides adequate visibility of the markings.

Section 5A.04 Placement **Approved by Council 1/12/08**

Standard:

The traffic control devices used on low-volume roads shall be placed and positioned ~~in accordance with the criteria provisions edited to increase consistency contained in Part 5 and, where necessary,~~ in accordance with the lateral, longitudinal, and vertical placement ~~criteria provisions~~ **edited to increase consistency** contained in Part 2 and other applicable Sections of this Manual **except as noted below.**

Reason for Change: These revisions were made to improve wording.

Guidance:

The placement of warning signs should ~~conform to~~ **comply with** the guidance contained in Section 2C.05 and other applicable Sections of this Manual.

Option:

A lateral offset of not less than 0.6 m (2 ft) from the roadway edge to the roadside edge of a sign may be used where roadside features such as terrain, shrubbery, and/or trees prevent lateral placement in accordance with Section 2A.19.

Standard:

If located within a clear zone, ~~ground-~~ **post-mounted** **edited to increase consistency** sign supports shall be yielding, breakaway, or shielded with a longitudinal barrier or crash cushion as required in Section 2A.19.

CHAPTER 5B. REGULATORY SIGNS

Section 5B.01 Introduction Approved by Council 1/12/08

Support:

The purpose of a regulatory sign is to inform highway users of traffic laws or regulations, and to indicate the applicability of legal requirements that would not otherwise be apparent.

The ~~criteria~~ provisions edited to increase consistency for regulatory signs are contained in Chapter 2B and in other Sections of this Manual. ~~Criteria~~ Provisions edited to increase consistency for regulatory signs that are specific to low-volume roads are contained in this Chapter.

Section 5B.02 STOP and YIELD Signs (R1-1 and R1-2) No Change

Guidance:

STOP (R1-1) and YIELD (R1-2) signs (see Figure 5B-1) should be considered for use on low-volume roads where engineering judgment or study, consistent with the provisions of Sections 2B.04 to 2B.10, indicates that either of the following conditions applies:

- A. An intersection of a less-important road with a main road where application of the normal right-of-way rule might not be readily apparent.
- B. An intersection that has restricted sight distance for the prevailing vehicle speeds.

Section 5B.03 Speed Limit Signs (R2 Series) Approved by Council 1/12/08

Standard:

If used, Speed Limit (R2 series) signs (see Figure 5B-1) shall display the speed limit established by law, ordinance, regulation, or as adopted by the authorized agency following an engineering study. The displayed speed limits ~~shown~~ edited to increase consistency shall be in multiples of 10 km/h or 5 mph.

Speed limits shall be established in accordance with Section 2B.13.

Option:

Speed limit signs may be used on low-volume roads that carry traffic from, onto, or adjacent to higher-volume roads that have posted speed limits.

Section 5B.04 Traffic Movement and Prohibition Signs (R3, R4, R5, R6, R9, R10, R11, R12, R13, and R14 Series) Approved by Council 1/12/08

Support:

The regulatory signs (see Figure 5B-1) in these series inform road users of required, permitted, or prohibited traffic movements involving turn, alignment, exclusion, and pedestrians.

Standard:

If used, signs for traffic prohibitions or restrictions shall be placed in advance of the prohibition or restriction so that traffic can use an alternate route or turn around.

Guidance:

Signs should be used on low-volume roads to indicate traffic prohibitions and restrictions such as road closures and weight restrictions.

~~Option~~ Support:

These signs ~~may~~ might be useful on a low-volume road near and at the intersections or the connections with a higher class of road, and where the regulatory message is essential for ~~reasonably safe~~ transition from the low-volume road to the higher-class facility ~~and~~ or vice versa.

Section 5B.05 Parking Signs (R8 Series) No Change

Option:

Parking signs (see Figure 5B-2) may be installed selectively on low-volume roads with due consideration of enforcement.

Section 5B.06 Other Regulatory Signs Approved by Council 1/12/08

Standard:

Other regulatory signs used on low-volume roads that are not discussed in Part 5 shall ~~conform~~ comply with the ~~criteria~~ provisions edited to increase consistency contained in other Parts of this Manual.

CHAPTER 5C. WARNING SIGNS

Section 5C.01 Introduction Approved by Council 1/12/08

Support:

The purpose of a warning sign is to provide advance warning to the road user of unexpected conditions on or adjacent to the roadway that might not be readily apparent.

The ~~criteria~~ provisions edited to increase consistency for warning signs are contained in Chapter 2C and in other Sections of this Manual. ~~Criteria Provisions~~ edited to increase consistency for warning signs that are specific to low-volume roads are contained in this Chapter.

Section 5C.02 Horizontal Alignment Signs (W1-1 through W1-8) Approved by Council 1/12/08

Support:

Horizontal Alignment signs (see [Sections 2C.06 through 2C.12](#) and Figure 5C-1) include turn, curve, reverse turn, reverse curve, winding road, large arrow, and chevron alignment signs.

Option:

Horizontal Alignment signs may be used where engineering judgment indicates a need to inform the road user of a change in the horizontal alignment of the roadway.

Section 5C.03 Intersection Warning Signs (W2-1 through W2-5) Approved by Council 1/12/08

Support:

Intersection signs (see Figure 5C-1) include the crossroad, side road, T-symbol, and Y-symbol signs.

Option:

Intersection signs may be used where engineering judgment indicates a need to inform the road user in advance of an intersection.

ADD PLAQUE STATING "XXX FEET AHEAD" TO FIGURE 5C-2

Section 5C.04 Stop Ahead and Yield Ahead Signs (W3-1, W3-2) Approved by Council 1/12/08

Standard:

A Stop Ahead (W3-1) sign (see Figure 5C-2) shall be used where a STOP sign is not visible for a sufficient distance to permit the road user to bring the vehicle to a stop at the STOP sign.

A Yield Ahead (W3-2) sign (see Figure 5C-2) shall be used where a YIELD sign is not visible for a sufficient distance to permit the road user to bring the vehicle to a stop, if necessary, at the YIELD sign.

~~Option:~~

~~Word message (W3-1a and W3-2a) signs may be used as alternates to symbol signs.~~

Section 5C.05 NARROW BRIDGE Sign (W5-2) No Change

Option:

The NARROW BRIDGE (W5-2) sign (see Figure 5C-2) may be used on an approach to a bridge or culvert that has a clear width less than that of the approach roadway.

Section 5C.06 ONE LANE BRIDGE Sign (W5-3) No Change

Guidance:

A ONE LANE BRIDGE (W5-3) sign (see Figure 5C-2) should be used on low-volume two-way roadways in advance of any bridge or culvert:

- A. Having a clear roadway width of less than 4.9 m (16 ft), or
- B. Having a clear roadway width of less than 5.5 m (18 ft) when commercial vehicles constitute a high proportion of the traffic, or
- C. Having a clear roadway width of 5.5 m (18 ft) or less where the approach sight distance is limited on the approach to the structure.

Option:

Roadway alignment and additional warning may be provided on the approach to a bridge or culvert by the use of object markers and/or delineators.

Section 5C.07 Hill Sign (W7-1) Approved by Council 1/12/08

Option:

An engineering study of vehicles and road characteristics, such as percent grade and length of grade, may be conducted to determine hill signing requirements.

~~The use of the Hill (W7-1) sign (see Figure 5C-2) on low-volume roads may be confined to roads where commercial or recreational vehicles are anticipated.~~

~~Word messages (W7-1a) may be used as alternates to symbols.~~

Section 5C.08 PAVEMENT ENDS Sign (W8-3) No Change

Option:

A PAVEMENT ENDS (W8-3) sign (see Figure 5C-2) may be used to warn road users where a paved surface changes to a gravel or earth road surface.

Section 5C.09 Vehicular Traffic and Nonvehicular Signs (W11 Series and W8-6) Approved by Council 1/12/08

Guidance:

Vehicular Traffic signs (see Figure 5C-2) should be used to alert road users to frequent unexpected entries into the roadway by trucks, bicyclists, farm vehicles, fire trucks, and other vehicles. Such signs should be used only at locations where the road user's sight distance is restricted or the activity would be unexpected.

Option:

Nonvehicular signs (see Figure 5C-2) may be used to alert the road user to frequent unexpected entries into the roadway by pedestrian, large animal, and other crossing activities that ~~may~~ might cause potential conflicts.

Standard:

When non-vehicular signs are used at a crossing, the sign shall be supplemented with a diagonal arrow (W16-7P) plaque (see Figure 5C-2), showing the location of the crossing.

Reason for Change: Added Standard to be consistent with Part 2C.

Option:

A W7-3aP, W16-2P, or W16-9P supplemental plaque (see Figure 5C-2), with the legend NEXT XX km (~~NEXT XX~~ MILES), XX METERS (~~XX~~ FEET), or AHEAD may be installed below a Vehicular Traffic or Nonvehicular sign (see Sections 2C.51 and 2C.52).

Guidance:

If the activity is seasonal or temporary, the sign should be removed or covered when the crossing activity does not exist.

Section 5C.10 Advisory Speed Plaque (W13-1P) No Change

Option:

An Advisory Speed (W13-1P) plaque (see Figure 5C-1) may be mounted below a warning sign when the condition requires a reduced speed.

Section 5C.11 DEAD END or NO OUTLET Signs (W14-1, W14-1a, W14-2, W14-2a) No Change

Option:

The DEAD END (W14-1) and NO OUTLET (W14-2) signs (see Figure 5C-2) and the DEAD END (W14-1a) and NO OUTLET (W14-2a) signs (see Figure 2C-5) may be used to warn road users of a road that has no outlet or that terminates in a dead end or cul-de-sac.

Guidance:

If used, these signs should be placed at a location that gives drivers of large commercial or recreational vehicles an opportunity to select a different route or turn around.

Section 5C.12 NO TRAFFIC SIGNS Sign (W18-1) Approved by Council 1/12/08

Option:

A W18-1 warning sign (see Figure 5C-2) with the legend NO TRAFFIC SIGNS may be used only on unpaved, low-volume roads to advise users that no signs are installed along the distance of the road. If used, the sign may be installed at the point where road users would enter the low-volume road or where, based on engineering judgment, the road user ~~may~~ might need this information.

A W7-3aP, W16-2P, or W16-9P supplemental plaque (see Figure 5C-2) with the legend NEXT XX km (~~NEXT XX~~ MILES), XX METERS (~~XX~~ FEET), or AHEAD may be installed below the W18-1 sign when appropriate.

Section 5C.13 Other Warning Signs Approved by Council 1/12/08

Standard:

Other warning signs used on low-volume roads that are not discussed in Part 5, but are in this Manual, shall ~~conform~~ comply with the ~~criteria~~ provisions edited to increase consistency contained in other Parts of this Manual. Warning signs that are not specified in this Manual shall ~~conform to~~ comply with the ~~criteria~~ provisions edited to increase consistency in Sections 2C.02 and 2C.03.

Section ~~5E.05~~ 5C.14 Object Markers and Barricades relocated Approved by Council 1/12/08

Support:

The purpose of object markers is to mark obstructions located within or adjacent to the roadway, such as bridge abutments, drainage structures, and other physical objects.

Guidance:

The end of a low-volume road should be marked with an end-of-roadway marker in ~~conformance~~ compliance with Section 2L.04.

Option:

A Type ~~HH~~ 3 Barricade may be used where engineering studies or judgment indicates a need for a more visible end-of-roadway treatment (see Section 2L.05).

Standard:

Barricades used on low-volume roads shall comply with the provisions contained in Chapter 2L, this Manual.

Reason for Change: Editorial to reflect appropriate Chapter.

CHAPTER 5D. GUIDE SIGNS

Section 5D.01 Introduction Approved by Council 1/12/08

Support:

The purpose of a guide sign is to inform road users regarding positions, directions, destinations, and routes.

The ~~criteria provisions~~ **edited to increase consistency** for guide signs, in general, are contained in Chapters 2D through 2K and in other Sections of this Manual. ~~Criteria Provisions~~ **edited to increase consistency** for guide signs that are specific to low-volume roads are contained in this Chapter.

Guidance:

The familiarity of the road users with the road should be considered in determining the need for guide signs on low-volume roads.

Support:

Low-volume roads generally do not require guide signs to the extent that they are needed on higher classes of roads. Because guide signs are typically only beneficial as a navigational aid for road users who are unfamiliar with a low-volume road, guide signs might not be needed on low-volume roads that serve only local traffic.

Guidance:

If used, destination names should be as specific and descriptive as possible. Destinations such as campgrounds, ranger stations, recreational areas, and the like should be clearly indicated so that they are not interpreted to be communities or locations with road user services.

Option:

Guide signs may be used at intersections to provide information for road users returning to a higher class of roads.

CHAPTER 5E. MARKINGS

Section 5E.01 Introduction Approved by Council 1/12/08

Support:

The purpose of markings on highways is to provide guidance and information for road users regarding roadway conditions and restrictions.

The ~~criteria~~ provisions edited to increase consistency for markings, delineators, and object markers, in general, are contained in Part 3 and in other Sections of this Manual. ~~Criteria~~ Provisions edited to increase consistency for markings that are specific to low-volume roads are contained in this Chapter.

Section 5E.02 ~~Centerline~~ Center Line Markings Approved by Council 1/12/08

Standard:

Where ~~centerline~~ center line markings are installed, no-passing zone markings in conformance with Section 3B.02 shall also be installed.

Guidance:

~~Centerline~~ Center line markings should be used on paved low-volume roads where engineering judgment or an engineering study indicates a need for them.

Section 5E.03 Edge Line Markings Approved by Council 1/12/08

Support:

The purpose of edge line markings is to delineate the left-~~hand~~ edited to increase clarity or right-~~hand~~ edited to increase clarity edge of the roadway.

Guidance:

Edge line markings should be considered for use on paved low-volume roads based on engineering judgment or an engineering study.

Option:

Edge line markings may be placed on highways with or without ~~centerline~~ center line markings.

Edge line markings may be placed on paved low-volume roads for roadway features such as horizontal curves, narrow bridges, pavement width transitions, curvilinear alignment, and at other locations based on engineering judgment or an engineering study.

Section 5E.04 Delineators Approved by Council 1/12/08

Support:

The purpose of delineators is to enhance driver safety where it is desirable to call attention to a changed or changing condition such as abrupt roadway narrowing or curvature.

Option:

Delineators may be used on low-volume roads based on engineering judgment, such as for curves, T-intersections, and abrupt changes in the roadway width. In addition, they may be used to mark the location of driveways or other minor roads entering the low-volume road.

Section 5E.05 was relocated to become Section 5C.14

Section ~~5E.06~~ 5E.05 Other Markings Approved by Council 1/12/08

Standard:

Other markings, such as stop lines, crosswalks, pavement legends, ~~barriades,~~ channelizing devices, and islands, used on low-volume roads shall ~~conform~~ comply with the ~~criteria~~ provisions edited to increase consistency contained in this Manual.

CHAPTER 5F. TRAFFIC CONTROL FOR HIGHWAY-RAIL GRADE CROSSINGS

Section 5F.01 Introduction Approved by Council 1/12/08

Support:

The ~~criteria provisions~~ edited to increase consistency for highway-rail grade crossing traffic control devices are contained in Part 8 and in other Sections of this Manual.

Traffic control for highway-rail grade crossings includes all signs, signals, markings, illumination, and other warning devices and their supports along roadways either approaching or at highway-rail grade crossings. The purpose function of this traffic control is to ~~permit~~ promote the reasonably safe and a safer and more efficient operation of both rail and ~~road~~ highway traffic ~~and to minimize the crash rates~~ at highway-rail grade crossings.

Reason For Change: Revised to be consistent with Section 1A.01.

Section 5F.02 Highway-Rail Grade Crossing (Crossbuck) Sign and Number of Tracks Plaque (R15-1, R15-2P)

Approved by Council 1/12/08

Standard:

The Highway-Rail Grade Crossing (Crossbuck) (R15-1) sign (see Figure 5F-1) shall be used at all highway-rail grade crossings. For all low-volume roads, Crossbuck signs shall be used on the right-hand edited to increase clarity side of each approach. If there are two or more tracks, the supplemental Number of Tracks (R15-2P) ~~sign~~ plaque (see Figure 5F-1) shall display the number of tracks and shall be installed below the Crossbuck sign.

A strip of retroreflective white material not less than 50 mm (2 in) in width shall be used on the back of each blade of each Crossbuck sign for the length of each blade, at all highway-rail grade crossings, except those where Crossbuck signs have been installed back-to-back.

A strip of retroreflective white material, not less than 50 mm (2 in) in width, shall be used on each support at passive highway-rail grade crossings for the full length of the front and back of the support from the Crossbuck sign or Number of Tracks ~~sign~~ plaque to within 0.6 m (2 ft) above the ~~edge of the roadway~~ ground, except on the side of those supports where a STOP (R1-1) or YIELD (R1-2) sign or flashing lights have been installed or on the back side of supports for Crossbuck signs installed on one-way streets.

Add the following Standard to be consistent with Part 8:

A YIELD (R-1-2) sign or STOP (R1-1) sign shall be installed at all passive highway rail grade crossings except where train crews always manually stop road users from entering the crossing.

A YIELD sign shall be the default traffic control device on all highway approaches to passive highway rail grade crossings unless an engineering study determines that a STOP sign is appropriate.

Section 5F.03 Highway-Rail Grade Crossing Advance Warning Signs (W10 Series) Approved by Council 1/12/08

Standard:

Except as noted in the Option, a Highway-Rail Grade Crossing Advance Warning (W10-1) sign (see Figure 5F-1) with a supplemental plaque describing the type of traffic

control at the highway-rail grade crossing shall be used on all low-volume roads in advance of every highway-rail grade crossing.

Option:

The Highway-Rail Grade Crossing Advance Warning sign may be omitted for highway-rail grade crossings that are flagged by train crews.

The W10-2, W10-3, and W10-4 signs (see Figure 5F-1) with a supplemental plaque describing the type of traffic control at the highway-rail grade crossing may be used on low-volume roads that run parallel to railroad tracks to warn road users making a turn that they will encounter a highway-rail grade crossing soon after making the turn.

Standard:

The supplemental plaque (see Figure 5F-1) shall be a No Signal (W10-10P) plaque where used in advance of a crossing that does not have active traffic control devices and shall be a SIGNAL AHEAD (W10-16P) plaque where used in advance of a crossing with active traffic control devices. The supplemental plaque shall be mounted directly below the W10-1 sign.

Section 5F.04 STOP and YIELD Signs (R1-1, R1-2) Approved by Council 1/12/08

Delete this Support Statement since this requirement was added in Section 5F.02 Above.

Support

Sections 8B.04 and 8B.05 contain information regarding the use of STOP (R1-1) signs or YIELD (R1-2) signs at highway-rail grade crossings that are not equipped with automatic traffic control devices.

~~Option:~~

~~STOP (R1-1) or YIELD (R1-2) signs may be used at low-volume highway-rail grade crossings, at the discretion of the responsible jurisdiction, for crossings without automatic traffic control devices, consistent with the provisions of Sections 2B.04 to 2B.10.~~

Standard:

The use and application of STOP (R1-1) signs or YIELD (R1-2) signs at highway-rail grade crossings that are not equipped with automatic traffic control devices on low-volume roads shall comply with the provisions of Sections 8B.04 and 8B.05.

A Stop Ahead (W3-1) sign or Yield Ahead (W3-2) sign shall be used in advance of a STOP or YIELD sign at a highway-rail grade crossing if the STOP or YIELD sign is not visible for a distance that enables the road user to bring the vehicle to a reasonably safe stop at in advance of the highway-rail grade crossing.

Reason for Change: The Standard for Stop Ahead and Yield Ahead was added to be consistent with Chapter 2C.

Section 5F.05 Pavement Markings Approved by Council 1/12/08

Guidance:

Pavement markings at highway-rail grade crossings should be used on paved low-volume roads, particularly if they are already deployed at most other highway-rail grade crossings within the immediate vicinity, or when the roadway has ~~centerline~~ center line markings.

Section 5F.06 Other Traffic Control Devices Approved by Council 1/12/08

Standard:

Other traffic control devices that are used at highway-rail grade crossings on low-volume roads, such as other signs, signals, and illumination that are not in this Chapter,

shall ~~conform~~ comply with the ~~criteria~~ provisions **edited to increase consistency** contained in Part 8 and other applicable Parts of this Manual.

CHAPTER 5G. TEMPORARY TRAFFIC CONTROL ZONES

Section 5G.01 Introduction Approved by Council 1/12/08

Guidance:

The safety of road users, including pedestrians and bicyclists, as well as personnel in work zones, should be an integral and high priority element of every project in the planning, design, maintenance, and construction phases. Part 6 should be reviewed for additional criteria, specific details, and more complex temporary traffic control zone requirements. The following principles should be applied to temporary traffic control zones:

- A. Traffic movement should be disrupted as little as possible.
- B. Road users should be guided in a clear and positive manner while approaching and within construction, maintenance, and utility work areas.
- C. Routine inspection and maintenance of traffic control elements should be performed both day and night.
- D. Both the contracting agency and the contractor should assign at least one person on each project to have day-to-day responsibility for assuring that the traffic control elements are operating effectively and any needed operational changes are brought to the attention of their supervisors.

Traffic control in temporary traffic control zones should be designed on the assumption that road users will only reduce their speeds if they clearly perceive a need to do so, and then only in small increments of speed. Temporary traffic control zones should not present a surprise to the road user. Frequent and/or abrupt changes in geometrics and other features should be avoided. Transitions should be well delineated and long enough to accommodate driving conditions at the speeds vehicles are realistically expected to travel.

A temporary traffic control plan (see Section 6C.01) should be used for a temporary traffic control zone on a low-volume road to specify particular traffic control devices and features, or to reference typical drawings such as those contained in Part 6.

Support:

Applications of speed reduction countermeasures and enforcement can be effective in reducing traffic speeds in temporary traffic control zones.

Section 5G.02 Applications Approved by Council 1/12/08

Guidance:

Planned work phasing and sequencing should be the basis for the use of traffic control devices for temporary traffic control zones. Part 6 should be consulted for specific traffic control requirements and examples where construction or maintenance work is planned.

~~Option~~ Support:

Maintenance activities ~~may~~ might not require extensive temporary traffic control if the traffic volumes and speeds are low.

Option:

The traffic applications shown in Figures 6I-1, 6I-10, 6I-11, 6I-13, 6I-15, ~~and~~ 6I-16, and 6I-18 of Part 6 are among those that may be used on low-volume roads. Revise these Figures to 6H-1, 6H-10, 6H-11, 6H-13, 6H-15, 6H-16 and 6H-18 at the request of the Temporary Traffic Control Committee at the 1/12/08 Council meeting and approval.

For temporary traffic control zones on low-volume roads that require flaggers, a single flagger may be adequate if the flagger is visible to approaching traffic from all appropriate directions.

Standard:

The advance placement of traffic control devices shown in the typical applications shall be in accordance with Table 6H-3, Rural Road Types.

Option:

For low-volume roadways, with speeds of 30 miles per hour or less, the advance placement distance and distance between signs may be reduced to not less than 100 feet.

Reason for Change: The Standard and Option was added at the request of the TTC Committee to clarify the shorter spacing permitted on low speed, low volume, rural roads.

Section 5G.03 Channelization Devices Approved by Council 1/12/08

Standard:

Channelization devices for nighttime use shall have the same retroreflective requirements as specified for higher-volume roadways.

Option:

To alert, guide, and direct road users ~~reasonably safely~~ through temporary traffic control zones on low-volume roads, tapers may be used to move a road user out of the traffic lane and around the work space using the spacing of devices that is described in Section 6F.60.

Section 5G.04 Markings Approved by Council 1/12/08

Guidance:

Pavement markings should be considered for temporary traffic control zones on paved low-volume roads, especially roads that had existing pavement markings or that have a surfaced detour or temporary roadway.

Option:

Interim pavement markings may be omitted in a temporary traffic control zone ~~may if they are~~ not ~~be~~ needed based on the criteria for these markings in Section 6F.75.

Section 5G.05 Other Traffic Control Devices Approved by Council 1/12/08

Standard:

Other traffic control devices, such as other signs, signals, and illumination that are used on low-volume roads in temporary traffic control zones, but are not described in Part 5, shall ~~conform~~ comply with the ~~criteria~~ provisions edited to increase consistency contained in other Parts of this Manual.

Support:

Some of the signs that might be applicable in a temporary traffic control zone on a low-volume road are shown in Figure 5G-1.

ADD 3 SIGNS TO FIGURE 5G-1: ROUGH ROAD (W8-8), ONE LANE ROAD 1000 FT (W20-4), ROAD CLOSED 1000 FT (W20-3).

Section 5H: Traffic Controls for School Areas

Approved by Council 1/12/08

Section 5H.01 Introduction

Support:

The criteria for school traffic control devices contained in Part 7, Traffic Control Devices for Schools, includes all signs, signals, markings, crossing supervision, and other warning devices and their support along low volume roads.

Standard:

Sign sizes for schools on low volume roads shall be in accordance with Table 7B-1, Minimum Sign Sizes or Greater, and in conformance with Section 7B.01.

Reason for Change: Section 5H.01 added to cover traffic control for schools where a low volume road may exist adjacent to the school.

-The following Changes should be made to the Figures

Figure 5B-1. Regulatory Signs and Plaques on Low Volume Roads

Retain, “ROAD CLOSED TO THRU TRAFFIC” (R11-4) added by FHWA

Do we want to retain the Do Not Pass symbol and Plaque?

Delete Metric Speed Limit (R2-1M) sign and Metric Weight Limit (R12-1M) sign – These signs are neither covered in Part 5 text nor Table 5B-1 and it is not likely that the sign would be used by local jurisdictions on Low Volume Roads

Figure 5B-2 . No Changes

Figure 5B-3 Horizontal Alignment and Intersection Warning Signs and Plaques on Low Volume Roads

FHWA added Intersection Warning signs W2-2 and W2-3. Both signs are acceptable addition.

Figure 5C-2. Other Warning Signs and Plaques on Low Volume Roads

FHWA revised W11-1 and W11-2 from Black on Yellow to Black on Strong Yellow Green – Okay

FHWA added Pedestrian/Bicycle (W11-15) Warning sign that is still under discussion.

FHWA added animal crossing signs W11-16, W11-17, W11-18, W11-19, W11-20, W11-21, W11-22 that are probably not needed on a low volume rural road.

FHWA added Tractor (W11-5a) Snowmobile (W11-6) , Equestrian (W11-7) and Horse Drawn Carriage (W11-14). These symbols have previously been tested and approved. Okay to include.

FHWA added Dead End (W14-1a) and No Outlet (W14-2) plaques that are covered in text. Okay

FHWA added NO PASSING ZONE (W14-3) sign that is used with pavement markings which are not likely to be used on Low Volume Rural Roadways. Delete this sign.

Add Diagonal Down Arrow (W16-7P) plaque called for in Section 5C.09.

Add End of Road Markers, OM4-1, OM4-2 and OM4-3 called for in Section 5C.14.

Delete Metric Advisory Speed (W13-1PM) sign – This sign is neither covered in Part 5 text nor Table 5A-1 and it is not likely that local jurisdictions would use the sign on Low Volume Roads

Figure 5F-1. Highway-Rail Grade Crossing Signs and Plaques for Low Volume Roads

FHWA added NO SIGNAL (W10-10P) and SIGNAL AHEAD (W10-16P) plaques as covered in Section 5F.03.

Should the Railroad Crossbuck be revised to show a Crossbuck with a YIELD and STOP sign as shown in Figure 8B-1.

Figure 5G-1 Temporary Traffic Control Signs and Plaques on Low Volume Roads

Revise ROAD WORK 1500 FT to ROAD WORK AHEAD as shown in Typical 6H-1.

Add following signs: ROUGH ROAD (W8-8), ROAD CLOSED 1000 FT (W20-3), ONE LANE ROAD 1000 FT (W20-4), LOOSE GRAVEL (W8-7) ROAD FLOODED (W8-20) and UTILITY WORK AHEAD (W21-7)

Revised Table 5A-1 is attached showing the revised and sign sizes for the Table. This Table has not been approved by Council.