I. INTRODUCTION

Regulatory speed limits should be established only when and where they will promote efficient traffic flow and/or improve safety in order to be readily accepted by the public on a voluntary basis.

The twin goals of the Speed Limit Traffic Control Program are to provide appropriate speed limits on all highways over which the Department of Transportation exercises regulatory authority, and, to prevent the setting of inappropriate speed limits on state highways by those local authorities who can legally limit speed on state highways with state approval (See Directive A09-250-1, Ordinances). Accordingly, speed limits shall be established only after an engineering and traffic investigation has been made in accordance with established traffic engineering practices.

II. ORGANIZATIONAL RESPONSIBILITY

Traffic Engineering and Highway Safety Division
Traffic Operations Bureau
Traffic Operations Section
Regional Traffic Engineer
Regional Traffic Operations Section

III. PRIMARY RESPONSIBILITY

The Traffic Operations Bureau will be primarily responsible for interpretation of this Directive and for providing assurance that the information therein is current.

Note: Page 4 of 26 corrected on February 15, 2005
Section V, Paragraphs C, D & E were omitted in the original August 4, 2003 version
IV. AUTHORITY

A. General Department authority to establish speed limits is derived from the following sections of the *Vehicle and Traffic Law*:

1. Section 1620(a). State highways and highways on Indian Reservations.
2. Section 1622. County roads and town highways.
3. Section 1623. On the grounds of state departments, institutions of the State University of New York, state hospitals and other state institutions.

B. Department authority to establish or limit speed limits under special situations is derived from the following sections of the *Vehicle and Traffic Law*.

1. Section 1620(b). Minimum speed limits on controlled-access state highways.
2. Section 1620(c). Bridges and elevated structures on state highways.
3. Section 1624(a). Limitation on local speed limits.
4. Section 1625(a). Traffic regulations on restricted highways.
5. Section 1626. Rest and parking areas and scenic overlooks along state highways.

C. Certain local authorities are also authorized to establish speed limits on state highways; thus, in these situations, dual jurisdiction exists. Regulations established by such authorities are subject to state approval under Section 1684 of the *Vehicle and Traffic Law*. These local authorities, and the sections of the *Vehicle and Traffic Law* authorizing establishment of such speed limits are:

1. Section 1643. Cities and villages.
2. Section 1644. Special speed limits on bridges and other elevated structures in cities and villages.

Note: These two sections do not apply to controlled-access state highways outside of New York City, in accordance with Section 1645 of the *Vehicle and Traffic Law*.

3. Section 1662-a. Suburban towns and towns having a population exceeding 50,000

Note: This section does not apply to controlled-access state highways, in accordance with Section 1664 of the *Vehicle and Traffic Law*.

Dual jurisdiction can also exist on certain local highways where both the Department and local municipalities are authorized to establish speed limits on local highways. In these
cases, the Department will normally defer to the local jurisdiction.

4. Section 1652. Special speed limits on bridges and other elevated structures. (located on County roads)

5. Section 1663. Special speed limits on bridges and other elevated structures. (located on Town highways)

D. Related sections of the Vehicle and Traffic Law establishing statutory conditions pertinent to speed limits include the following:

1. Section 1180. Basic rule and maximum limits. The statutory maximum speed limit on all highways is 55 miles per hour.

2. Section 1180-a. Maximum speed limits. These restrictions resulted from the Emergency Highway Energy Conservation Act (1973), which required New York State to modify its speed law to make 55 miles per hour the maximum legal speed for all classes of vehicles. No speed limit may be maintained or created in excess of 55 miles per hour, nor which is not uniformly applicable to all types of motor vehicles. However, since 1995, the Legislature has on a case by case basis, enacted legislation which authorizes the Commissioner of Transportation and/or the Thruway Authority to establish a maximum speed limit of 65 miles per hour on certain rural freeways and interstate look-a-likes.

3. Section 1181. Minimum speed regulations.

4. Section 1182. Speed contests and races.

Note: Speed limits are applicable to all vehicles. Authority to enact differential speed limits, applicable only to trucks, buses or specific classes or types of vehicles does not exist in the Vehicle and Traffic Law.

E. Section 362 of the Education Law gives the Board of Trustees of the State University of New York authority to establish speed limits on the grounds of state universities.
V. **POLICIES OF THE TRAFFIC ENGINEERING & HIGHWAY SAFETY DIVISION**

A. Speed limits on state highways in cities and villages are established by local ordinances unless the local authority prefers establishment by state order. School speed limits are usually established by state order except where dual jurisdiction exist (e.g. State highway whereby a village has established a speed limit by local ordinance subject to the limitations Section 1624 and 1684 of the V&T). State orders are also issued where such local authorities refuse to establish realistic limits. State orders may also be issued as an expedient to establish appropriate speed limits pending future enactment of local ordinances for them.

B. Section 1622 gives the Department authority to establish speed limits on county roads and town highways in all towns upon receipt of the necessary joint request (TE 9 or TE 10). Section 1662-a, gives suburban towns and towns of over 50,000 population authority to establish speed limits on all roads in the town, including state highways. Although dual jurisdiction exists in these latter cases, it is the Department's policy that speed limits shall be established on town and county roads in such towns by either the Department or the town, but not both. Speed limits on state highways (in suburban towns) are established only by state order.

C. If the Department previously exercised control in a town now governed under Section 1662-a, and the town desires that the Department continue to exercise control, then the Department is obligated to make the necessary speed studies and enact the necessary Orders. If the town chooses to exercise control, the state may continue to make speed studies via the Community Assistance Program, but is not obligated to do so. If the Department exercises control in a town governed under Section 1662-a, the town must abide by the Department's determination and the order issued. In the event the Department is unable to resolve a disagreement over the speed limit it desires to establish, the Department should request the town to take over all speed limits and re-establish them under Section 1662-a.

D. Section 1623 gives the Department authority to establish speed limits on the grounds of state universities upon the receipt of an application from the board of trustees of the State University of New York. State universities are also authorized to establish speed limits on their grounds under Section 362 of the Education law. However, to avoid dual jurisdiction, it is both the board of trustees of the State University of New York and the Department's policy to establish all speed limits on the grounds of state universities under Section 1623 of the Vehicle and Traffic Law.

E. Speed zones should not be established less than 1300' long (1/4 mile), except for buffer zones. Speed limits less than 2600' long (1/2 mile) should not be established between successive zones having numerical value(s) lower than the 85-percentile speed within the 1/2 mile zone. In such cases, the speed limit in the intervening zone shall be established at the numerical value of one or the other of the adjacent zones, or portions of the 1/2 mile assigned to the other zones if their limits are different.
VI. SPEED ZONE EVALUATION CONSIDERATIONS

A. Linear Limits. A linear limit is one which applies only on a specific highway. By state law, no such limit may be less than 25 miles per hour.

1. Where a speed limit below 55 miles per hour is warranted, the appropriate numerical value must be realistic in terms of prevailing (existing) traffic speeds. The consensus of traffic engineers throughout the country indicates that the appropriate value for a speed limit will almost always be that indicated by the 85th percentile traffic speed (to the nearest 5 miles per hour). Other limits may be established in exceptional cases, providing they are supported by good reasoning which firmly indicates that conditions are unusual and that the 85th percentile speed is not applicable in the particular instance (i.e. does not reflect the reasonable and prudent motorist). Such variations from the 85th percentile speed limit should, themselves, be limited in accordance with the ensuing discussion.

In the majority of cases, the 85th percentile speed is the appropriate speed limit. It assumes that motorists properly adjust their speed while encountering different roadside development and highway geometrics and the adjustment is reflected in the 85th percentile speed. However, in some instances, the motorist may not be aware or may not adjust to a particular safety concern related to non-motorists on a roadway. In order to give additional consideration to non-motorists, the roadway development and highway geometric information may be gathered along with other factors.

2. Prior to the issuance of this Directive, the Department took a two step approach towards the establishment of a speed zone and the subsequent setting of an appropriate speed limit. Under that procedure, data regarding the Highway Development Index (HDI) and the Highway Geometric Factor (HGF) were collected. The individual measures of HDI and HGF can indicate the relative level of roadside development and highway geometrics. A high HDI means that there is significant roadside development which may constrain the operating speeds of traffic. A high HGF would indicate adverse highway geometrics. This information was then used to determine if a speed zone was warranted. If the speed zone was warranted, then the appropriate speed limit was established based on speed checks to determine the 85th percentile speed.

Under the present methodology, the creation of a speed zone no longer needs to be justified as it did previously. Instead, the Department, upon request, will establish a speed zone if the speed checks do not indicate that the statutory 55 MPH is appropriate. As an example, a resident lives along a sparsely settled, rural state highway with the statutory 55 MPH speed limit posted. The resident submits a letter to the Department seeking a lower speed limit. Past practice would first require the justification of the establishment of a speed zone through an evaluation of the HDI and HGF. If the factors produced a result that met the warrant for approval, then the next step of determining the appropriate speed limit would be pursued. The current practice makes the collection of the HDI and HGF optional and eliminates the justification of a speed zone.
While the procedure makes the collection of the HDI and HGF data optional, the data collection is recommended in certain instances. If a speed zone is pre-existing and the current study is simply a re-evaluation to determine if the speed limit should be modified, it is not necessary to re-collect HDI and HGF data unless significant change involving the site has been brought to the Department’s attention. However, peculiarities may deem that other considerations may need to be addressed and collecting the necessary data for the HDI and HGF may be helpful in providing a full picture of the characteristics of the highway section involved; especially if the site has not been previously evaluated.

3. Conduct speed checks. Use radar to determine the 85th percentile speed or conduct several test drives to determine the appropriate speed limit; or

4. If the HDI and HGF are “high”, and/or other factors suggest need, engineering judgement may be used to appropriately adjust the speed value obtained from the 85th percentile speed data. A speed limit below that associated with the 85th percentile speed should satisfy the following conditions:

   a. It should not be lower than 3 miles per hour below the upper limit of the 10 mile pace unless documentation is provided to justify an exception.

   b. It should not place more than one-third of the traffic in technical speed violation (not lower than the 67th percentile speed) unless documentation is provided to justify an exception.

In rare instances, circumstances may dictate a need to go below the 67th percentile speed. If this is to occur, consideration should be given to implementing a speed limit below the 67th percentile speed only in conjunction with a stringent enforcement plan by area enforcement agencies.

For speed limits established below the 67th percentile speed, a before & after study to determine the operating speeds on the highway should be considered. If after one year of implementation, it is determined that the new speed limit is less than the 67th percentile speed, then consideration may be given to investigate other alternatives such as traffic calming and/or other geometric improvements in order to bring the overall operating speed in compliance with the posted speed limit. If these measures are deemed inappropriate or non-feasible, then re-establishing the speed limit using the 85th percentile speed may also be considered.

5. A speed limit higher than the 85th percentile speed may be practical where conditions do not justify the 85th percentile limit, but where unusual conditions and/or an erratic speed pattern indicates some posted limit would be useful. (Care must obviously be exercised that such “higher than normal” speed limit is not, in itself, an unreasonable and excessive speed.) Therefore, as a guide, it is suggested that a speed limit above that indicated by the 85th percentile traffic speed be not more than 5 miles per hour above the upper limit of the 10 mile pace.
6. Minimum speed limits are permissible, but not encouraged, on expressways where slow speeds consistently impede the normal and reasonable flow of traffic. A problem should be demonstrated before this type limit is adopted. A minimum speed limit is generally established at 15 miles per hour below the maximum speed limit.

7. A linear speed limit desired on a newly constructed state highway which passes through an established local or city area speed zone shall be exempt from the area speed limit and should be treated independently unless specifically made part of the area speed zone.

8. Requests are sometimes made to establish lower linear speed limits based on significant pedestrian and/or bicycle activity. A lower speed limit does not guarantee lower operating speeds. Studies have shown that the compliance level is best achieved on a voluntary basis when the speed limit is set at approximately the 85th percentile speed. Otherwise, constant and vigilant enforcement is required to achieve compliance at a speed limit deemed too low by the vast majority of motorists.

With this knowledge, it is important that the motorist be made aware of the presence of pedestrians and bicyclists that may be walking along or crossing the highway. To accomplish this, the following list of enhancements has been established in order to assist the engineer in selecting appropriate measures which may increase motorist awareness and pedestrian/bicyclist safety. Based on engineering judgement, these countermeasures can be considered either as an alternative, or as a supplement, to a linear speed zone created based on pedestrian/bicyclist activity.

a. Sidewalks or wide shoulders for pedestrians.

b. Bicycle lanes or wide shoulders for bicyclists. Share the Road may be the law, but the safety of motorists and bicyclists is best served when the two modes of travel have separate lanes.

c. High visibility crosswalks where justified.


e. Brush cutting and tree trimming to improve visibility.

f. Right of Way control via traffic signal improvements.

B. Area Limits. An area limit is one which applies to all highways within a specified area (city, village, town, housing subdivision, institution grounds, etc.), except those specifically excluded. By state law, no such limit may be less than 30 miles per hour.

1. The appropriate speed limit for an area regulation is generally 30 miles per hour. A speed limit higher than 30 miles per hour may be appropriate as an area regulation where relatively long major streets with good highway and traffic characteristics indicate a 30 mile per hour speed limit would be unrealistic.
2. Area speed limits will, in general, be established in “developed areas” where traffic is essentially only that which is locally generated. Whether or not a particular location constitutes such an area is primarily a subjective determination, based upon the experience and judgement of the field personnel. It should be noted, however, that denials based on “rural characteristics” or “insufficient development” are difficult to support if appearances are to the contrary.

3. Requests for area speed zones should be granted where, and to the degree that, investigation indicates an area type regulation would be reasonable and warranted in terms of physical characteristics and development of the area involved. Efforts to dissuade local officials in particular cases may be made if some factor, or factors, peculiar to the case, indicates an area speed limit may not be completely justified. However, if the local demand is sustained, and the regulation would not be unreasonable or unwarranted in terms of actual development and physical characteristics of the area, an area speed zone should be established.

4. Streets within a developed community can be placed in three general categories. For area speed zone evaluation these are identified as through streets, major streets and minor streets.

a. A through street is one which passes completely through the area and which carries some traffic other than that generated in the area.

b. Major street designates those streets which, with respect to the area street pattern, serve as main arteries in providing access to and from various sections of the community. While traffic on a major street would be only that generated by the area in question, a significant portion of that traffic would be other than that generated by the marginal development on that street.

c. A minor street is defined as one basically serving only its own residents. A minor street would be one not likely used by a motorist traveling between a point on some other area street and an area entrance or exit.

5. Through streets should generally not be included in the area speed restriction. Traffic characteristics of such streets usually favor linear type regulation of a limit higher than the area restriction where speed control is considered desirable and is determined to be reasonable and realistic. In some instances, it may be expedient to include a highway which would logically be classed as a through street in an area zone. Such inclusion, however, should result from justification that the speed limit involved is appropriate in terms of the speed pattern for that highway.

6. The appropriate speed limit for an area regulation should be determined with respect to major streets within the area. While minor streets would likely be more numerous, and possibly have greater aggregate length, major streets are of greater significance with respect to the area traffic pattern and are usually the source of local concern. Minor streets are generally of less significance, since they carry little traffic and often involve conditions which effectively limit speed.
C. **School Speed Limits.** School speed limit signs shall be used to inform motorists of part-time linear speed regulations established in the vicinity of primary and secondary schools (including public and private) and at licensed child care facilities that are provided in an institutional setting. The *Vehicle and Traffic Law* establishes the times when school speed limits may be in effect and it defines the maximum length of a school speed zone.

On September 24, 2003, several changes to the *Vehicle & Traffic Law* will take effect. The two areas of concern involve the hours of operation of a school speed limit and the physical limits of a school speed zone.

1. **School Speed Limit - Hours of Operation**

   The change provides greater flexibility in establishing the hours of operation of the school speed limit. Using proper signing in conjunction with flashing beacons, a school speed limit can now be implemented on weekends and/or at night. Prior to 1981, a school speed limit in New York was in effect if beacons were flashing and a "WHEN FLASHING" sign was included. This method of traffic control is a standard practice in many states and is found in Section 7B.11 of the *National MUTCD*. It will eventually be incorporated into NYCRR 17B. However, between 1981 and 2003, a flashing beacon had no legal, regulatory meaning when used in New York to alert motorists as to when a school speed limit was in effect.

   Section 1180(c) of the Vehicle & Traffic Law is modified to specify that no person shall drive in excess of a school speed limit during the following:

   - **School days at times indicated on the school zone speed limit sign**, provided, however, that such times shall be between the hours of seven o'clock A.M. and six o'clock P.M. or alternative times within such hours; or

   - A period when the beacons attached to the school zone speed limit sign are flashing and such sign is equipped with a notice that indicates that the school zone speed limit is in effect when such beacons are flashing, provided, however, that such beacons shall only flash during student activities at the school and up to thirty minutes immediately before and up to thirty minutes immediately after such student activities.

   There is no precise definition of **SCHOOL DAYS**. However, the Department’s Office of Legal Affairs issued a memorandum on November 17, 1997 regarding their opinion. The following are some excerpts from that opinion:

   ..... what is meant by the phrase “school days”. A review of the *Vehicle and Traffic Law* indicates that the phrase “school days” is not defined. The General Construction Law provides that a “day” is a calendar day. A 1915 opinion of the Attorney General indicates that the term “working days” excludes “Sundays and holidays”.
Based on the above, and in an effort to assign meaning to the law’s use of the words “school” and “day”, the use of the phrase “school days” in Section 1180(e) refers to weekdays (Monday through Friday when schools are in session) throughout the year. Since some schools are in session in the summer months and the school year may vary from school to school, the term “school days” may include certain days during the summer. Hard-pressed to explain why a “summer school day” is not a school day. The basic objective of the law, to provide for lower vehicle speeds near schools when students are likely to be around the school, applies throughout the year if school is formally in session.

Counsel’s Office of the State Police has (informally) indicated that the lower speed limit would not apply on school holidays and it is unclear whether it applies during the summer. Since the law is unclear, recommend that the Department not indicate any position on the applicability of the speed limit. Rather, since the school speed limit signs are in place throughout the year, we should let the sign “speak for itself” and should leave enforcement to the police on the scene.

There are numerous devices which may be used for posting school speed limits and several are shown in Section 279.5 of NYCRR 17B. They typically involve the use of a fixed message or variable/blank-out message type signs. Flashing beacon options are also available for use in conjunction with the sign. Supplementary regulatory signs stating the effective hours and days or “WHEN FLASHING” shall be mounted below the school speed limit sign. The illustrations (dated 03-31-2001) in Section 279.5(D) and (E) of NYCRR 17B do not show the supplementary signs. The following are possible configurations for posting school speed limits:

a. Standard School Speed Limit Sign Assembly - An R2-1 maximum speed limit sign (see section 212.3 of NYCRR 17B) with a W6-3 school sign (see section 236.2 of NYCRR 17B) mounted above the R2-1 sign. In addition, the sign assembly shall contain one of the following:

(1). An R7-4 supplementary regulatory sign (see section 217.1 of NYCRR 17B) mounted below the R2-1 sign and indicating the times the limit is in effect. The hours of operation can be the traditional 7 AM to 6 PM, or alternative times within such hours (e.g. 9 AM to 3 PM, 7 AM to 9 AM and 2 PM to 4 PM, etc.).

(2). An R7-4 supplementary regulatory sign (see section 217.1 of NYCRR 17B) mounted below the R2-1 sign and indicating the times the limit is in effect. The hours of operation can be the traditional 7 AM to 6 PM, or alternative times within such hours (e.g. 9 AM to 3 PM, 7 AM to 9 AM and 2 PM to 4 PM, etc.). Supplemental flashing beacons (see section 274.3 of NYCRR 17B) may be included and operated when the limit is in
effect.

(3). An R7-13 WHEN FLASHING supplementary regulatory sign (see section 217.1 of NYCRR 17B) mounted below the R2-1 sign. Mandatory flashing beacons (see section 274.3 of NYCRR 17B) are legal notice that the school speed limit is in effect when such beacons are flashing. However, beacons shall only flash during student activities at the school and up to 30 minutes immediately before and after such student activities.

b. Blank-Out Speed Limit Sign Assembly - Identical to the provisions of a Standard School Speed Limit Sign Assembly (see paragraph(a) and subparagraphs (1)(2) and (3) of this subdivision), except that it contains a blank-out message device which displays a numeric speed value when the limit is in effect and no message at other times. If the latter occurs, flashing beacons (see section 274.3 of NYCRR 17B), if provided, shall not be operational. These signs must be maintained to ensure that the speed limit is visible and the flashing beacons are operated continuously throughout the effective hours.

c. Variable Speed Limit Sign Assembly - An R2-1 maximum speed limit sign (see section 212.3 of NYCRR 17B) with a W6-3 school sign (see section 236.2 of NYCRR 17B) mounted above the R2-1 sign in addition to a variable message device which has the capability to display more than one numeric speed value. The sign assembly shall also contain an R7-13 WHEN FLASHING supplementary regulatory sign (see section 217.1 of NYCRR 17B) mounted below the R2-1 sign and mandatory flashing beacons (see section 274.3 of NYCRR 17B) that are operational when the limit is in effect. These signs must be maintained to ensure that the speed limit is visible and the flashing beacons are operated continuously throughout the effective hours.

If the variable message component displays another numeric speed that is not part of a school speed limit, provisions shall be made to provide a variable message device for the W6-3 school sign (see section 236.2 of NYCRR 17B) and the SCHOOL message shall not be illuminated at those times.

If no numerical speed is displayed, then the school speed limit is not in effect and the mandatory flashing beacons (see section 274.3 of NYCRR 17B) shall not be operational.

d. An R2-7 or R2-8 school speed limit sign. Each of these devices is essentially a combination of an R2-1 sign with blank-out numeral, a W6-3 sign, an R7-4 or R7-13 sign, and flashing beacons. The R2-7 sign is for roadside use, and the R2-8 sign is for overhead use. A roadside sign is not required where an R2-8 sign is used.
2. School Speed Zone - Length

Section 1180(c) of the Vehicle & Traffic Law is also modified to specify the following:

No such maximum speed limit shall be established at less than 25 MPH, except that school speed limits may be established at not less than 15 MPH, for a distance not to exceed one thousand three hundred twenty feet, on a highway passing a school building, entrance or exit of a school abutting on the highway.

This establishes the maximum length of a school speed zone as 1320 feet (0.25 miles). Each individual school may be accorded one school speed zone per abutted highway. In cases where schools are in close proximity, the overlapping zones may result in one long, continuous zone exceeding 1320 feet. In no instance shall the modified zone exceed a total length as specified in the following equation:

Total length of a contiguous school speed zone = (# of schools with a school speed zone) * (1320 ft)

In accordance with Section 7B.11 of the National MUTCD:

The reduced speed zone should begin at a point either 200 feet from the crosswalk, or 300 feet from the school property line, whichever is encountered first as traffic approaches the school.

Longitudinal distances may be slightly adjusted to fit field conditions. The minimum distance of a school speed limit should be 400 feet (the approximate equivalent of a city block).

The law now provides greater flexibility in establishing the physical limits of the school speed zone. Under the previous law, school speed limits were sometimes ineffective because the crosswalk was located outside the legal boundaries of the zone (i.e. more than 300 feet pass the perpendicular extension of the school building). Now judgement can be exercised in the proper placement of the zones to maximize the safety of pedestrians crossing at the school.

3. Criteria for Establishing a School Speed Zone

A school speed limit is primarily used to enhance the safety of children who must walk/bicycle to a school/child care facility or cross the street at a school/child care facility. If all or most of the students are provided transportation to the school/child care facility, the need for a school speed limit is diminished. However, this does not preclude the establishment of a school speed limit if there are other safety reasons related to students walking/bicycling along or across the roadway in the immediate vicinity of the school.
a. A school speed limit may be established on a highway at the following facilities under the given conditions:

(1). School with one or more grades under grade 12

(a). Some of the students walk or bicycle to or from school; or the school and related facilities (e.g. classrooms, cafeteria, gymnasium, playground, athletic fields, parking lots, etc.) are separated by a highway and require the students to cross the highway on foot to access the facilities; and

(b). The school and jurisdiction responsible for the highway provides written documentation of their support for a school speed limit.

(2). Child Care Facility

(a). The child care facility is licensed and provided in an institutional setting; and

(b). Some of the children walk or bicycle to or from the facility; or the child care center and related facilities (e.g. classrooms, cafeteria, gymnasium, playground, athletic fields, parking lots, etc.) are separated by a highway and require the children to cross the highway on foot to access the facilities; and

(c). The child care facility and jurisdiction responsible for the highway provides written documentation of their support for a school speed limit.

b. When a school speed limit is established and if students must cross a highway at a school or child care facility, the following conditions should be met:

(1). The school speed zone contains a marked crosswalk.

(2). The crosswalk is supervised by an adult crossing guard.

(3). There is no traffic control signal, pedestrian overpass, or bridge suitable for pedestrian use within the designated school speed zone.

c. The numerical value of a school speed limit should be approximately ten miles per hour below the normally prevailing 85th percentile speed on the highway; or approximate the 85th percentile speed within the zone during school crossing periods. The Vehicle and Traffic Law prohibits school speed limits less than 15 miles per hour.
4. School Pedestrian Enhancements

While Section 212.4 of NYCRR 17B states that “A school speed limit may be established on a highway at the following facilities under the given conditions:”, there may be circumstances where the guidelines for a school speed limit are met, but other traffic control mitigation is more appropriate for the given conditions. Prior to approving a school speed limit, alternative countermeasures should be considered.

A school speed limit does not guarantee lower operating speeds. Studies have shown that the compliance level for school speed limits is at its best when the prevailing speed is already low (25 to 30 MPH). As the prevailing speed increases (40 to 55 MPH range), school speed limits in the 15 to 25 MPH range will receive very little compliance. With this knowledge, it is important that the motorist be made aware of the presence of students that may be walking/bicycling along or crossing the highway at a school.

a. The following hierarchy of school pedestrian enhancements has been established in order to assist the engineer in selecting appropriate measures which may increase motorist awareness. Based on engineering judgement, these countermeasures can be considered either as an alternative, or in addition, to a school speed zone.

(1). Install a School Child (W6-1) and a School Crossing sign (W6-1 and W9-27 combination) as necessary to warn of crossing locations, or roadway sections, regularly used by substantial numbers of pedestrian (or bicycling) school children traveling to and from school.

(2) A flashing beacon may be installed in conjunction with a W6-1 sign. Section 1681(c) of the Vehicle & Traffic Law prohibits the providing, erecting or maintaining of traffic control signals or flashing signals at the entrances of schools and private property. As a result, Section V, Paragraph E of Directive A09-275-1 mandates that all flashing beacons, when used to supplement warning signs, are installed and maintained by the Department with the exception of those used with the School Series of Warning Signs and Signs for Private Entrances or Highway Crossings. In these latter situations, the flashing beacons are installed and maintained by and at the expense of either a private interest or local authority.

The Office of the State Comptroller issued Opinion #83-48 which states the following:

A school district may not purchase traffic control devices for installation on a state highway nor may it agree to do so on a cooperative basis with a town.

Flashing beacons on the School Series of Warning Signs will be approved if requested; no special justification is required.
(3). The Department may pay for the installation and maintenance of flashing beacons that are placed on non-School Series type signs. In some cases, the Department has installed intersection warning signs to alert motorists of the presence of a school driveway. Flashing beacons were then added to the sign assembly. Since the driveway intersection sign was not a School Series sign, the Department was responsible for the installation and maintenance cost. This option should only be used in rare occasions when # 2 is not a viable option and it is an appropriate solution from a traffic engineering viewpoint.

(4). In addition to the above, the installation of sidewalks, wide shoulders, and crosswalks can alleviate hazardous conditions. Adult crossing guards should be utilized wherever children are crossing at a school. The community should be encouraged to explore alternative sources of funding such as highway safety grants through their local Traffic Safety Boards and legislative member items from their elected Senator and Assemblyman.

D. Speed Limit Sign Beacons and School Speed Limit Sign Beacons. Speed limit sign beacons and school speed limit sign beacons are specific applications of flashing beacons. They consist of two flashing yellow indications supplementing a variable message or blank out speed limit sign which displays the numerical limit only when it is in effect. The speed limit sign beacon is used to display a linear speed limit when the speed limit is in effect only during certain periods. It may display only one speed limit or different speed limits at different times. The school speed limit sign beacon is normally inoperative. During times when the school speed limit is in effect, it shall display the numerical speed limit and flashing yellow indications. Operation of the beacon does not guarantee the safety of school children, since accidents may occur even at low speeds and complete obedience to speed limits is never assured. Installation of a school speed limit sign beacon should not result in a relaxation of other safety measures, such as education and training of the children in safe pedestrian habits or the supervision of crossing movements.

E. Countermeasure to Potentially Lower Operating Speeds. On highways adjacent to certain facilities such as campuses, plazas, and parks, lower operating speeds may be desirable because of the presence of pedestrian traffic. While area wide speed limits may be established at these types of facilities per Section 212.3 of NYCRR 17B, sometimes it is only necessary to provide a lower linear speed on a spot basis.

A lower operating speed may be encouraged by alternative means. The following hierarchy has been established in order to assist the engineer in determining appropriate measures which may lower the operating speed.

1. At a facility with a driveway entrance onto the highway, the following should be considered:

   a. Intersection warning signs (W2-1 through W2-11) per Section 232.1 of NYCRR 17B.
b. Driveway entrance sign (W5-16 and W5-17) per Section 235.10 of NYCRR 17B.

If the facility is a playground, then a Playground sign (W7-5) may be used in lieu of an Intersection warning sign and a Driveway entrance sign.

2. An advisory speed sign (W9-1) may be used in conjunction with a standard warning sign to indicate the maximum recommended speed for conditions such as curves, intersections, work zones, etc.

3. In addition to the warning signs, flashing beacons may be added to supplement the signs.

4. The implementation of a regulatory linear speed limit should be considered only if the above treatments are ineffective or not feasible. Studies have shown that imposing a reduced speed limit generally does not have any significant impact on operating speeds unless, continuous enforcement is upheld.
VII.  SPEED LIMITS IN HIGHWAY WORK ZONES

A.  This topic is well documented in a number of various sources. Therefore, rather than repeat the material which is undergoing revision and review at this time, this Directive will only specify where the relevant material can be found.

1.  EB 03-011  
    Signing Requirements for Reducing 65 MPH Speed Limits in Work Zones  
    March 20, 2003

This EB issues revisions to the guidance provided in an August 31, 1995 memo from T.C. Werner of the Traffic Engineering & Highway Safety Division to the Regional Traffic Engineers. The guidance details signing recommendations for reducing 65 MPH speed limits in work zones.

2.  Highway Design Manual, Chapter 16 (DRAFT)  
    March 11, 2003

This Chapter provides guidance for establishing and selecting appropriate work zone speed limits and is not intended to dictate rigid policy. Each Region should have a formal process for authorizing work zone speed limits in accordance with MAP 7.12-14.

Information regarding work zone speed limits can be found in Chapter 16:

16.3.7.  Work Zone Speed Limits

  16.3.7.1.  Determination of the Need for Speed Reduction

  16.3.7.2.  Methods for Establishing Work Zone Speed Limits

  16.3.7.3.  Guidelines for Selecting the Appropriate Speed Limit

  16.3.7.4.  Maintaining Speed Limit Credibility

  16.3.7.5.  Location of Speed Reduction Signing

  16.3.7.6.  Location of FINES DOUBLED FOR SPEEDING IN WORK ZONES Signs

  16.3.7.7.  Selection of Speed Control Method

  16.3.7.8.  Enforcement of Speed Limits by Law Enforcement Agencies

  16.3.7.9.  Approving and Documenting Reduced Speed Limits
This EI is intended to provide guidance to designers and construction personnel to establish appropriate work zone speed limits as follows:

a. It reviews the principal sources of information available on the subject.

b. It discusses the Department's philosophy on work zone speed control.

c. It lists the three methods available for establishing speed limits, and the signing requirements for each.

d. It provides suggested guidelines for establishing and documenting work zone speed limits.

Some of the information provided in this EI has been revised and incorporated in Chapter 16 (Maintenance and Protection of Traffic in Highway Work Zones) of the Highway Design Manual - (DRAFT Version dated March 11, 2003).
VIII.  SPEED ZONE EVALUATION DATA FORMS

A. The Linear Speed Zone Evaluation Data Sheet (FORM TE 23), and the Highway Development Index and Highway Geometric Factor Determination Sheet FORM TE 24), should be used in speed zone cases involving consideration of a linear type regulation. When radar speed data is obtained, it is recorded on the Speed Data and Analysis Sheet (FORM TE 27).

B. The Linear Speed Zone Evaluation Data Sheet (FORM TE 23) is intended as an appropriate means of reporting highway and roadside conditions at or near the zone being studied. While the form must be adaptable to field use, FORM TE 23 is intended for presentation of data in a manner which permits formation of a reasonably accurate mental picture of the highway by a person reading the report. The zone of immediate concern can be easily identified on a well prepared line diagram, hence FORM TE 23 should extend beyond the zone in question, to assure that a full picture of the highway section involved is presented. Where physical characteristics of a highway change within the section being studied, and the changes are more than can be clearly indicated on FORM TE 23 or adequately described in the report, separate FORM TE 23 should be prepared for each portion.

C. The Highway Development Index (HDI) and Highway Geometric Factor (HGF) Determination Sheet (FORM TE 24) formerly provided a means for determining whether a particular speed zone is, or is not warranted. Its purpose now is to provide an overview of the roadside development and geometric factors which may have an impact on selecting an appropriate speed limit. If the HDI and HGF are “high”, and/or other factors suggest need, engineering judgement may be used to appropriately adjust the speed value obtained from the 85th percentile speed data. For those instances, the data collected in FORM TE 24 may be valuable in the mitigation process.

FORM TE 24 should be prepared to cover the portion of highway on which the recommendations are based. Separate FORM TE 24 should be prepared where a graduated zone is involved or physical characteristics change within a zone, since different speed limits should be justified for the highway sections to which they apply.

As stated in VI.A.2., if a speed zone is pre-existing and the current study is simply a re-evaluation to determine if the speed limit should be modified, it is not necessary to re-collect HDI and HGF data unless significant change involving the site has been brought to the Department's attention.

D. The School Speed Limit Posting Analysis Sheet (FORM TE 28) is used to determine whether conditions warrant posting a school speed limit and it should be used when a school speed zoning study is done.
IX. REGIONAL PARTICIPATION AND RESPONSIBILITY

A. Speed control investigations most frequently result from requests for new regulations or for changes in existing regulations. However, speed investigations may be initiated by the Regional Traffic Engineer or they may arise in conjunction with investigations initiated for other traffic control and safety purposes.

B. Requests for new or revised speed control are received from many sources (e.g. local officials, private citizens, legislators, etc.). They may come directly to the Regional Traffic Engineer or to the Division's Main Office. Requests to the Main Office are referred to the Regional Traffic Engineer for investigation.

C. An investigation shall be initiated if there has been none on the highway in question within the preceding three years or if existing data is questionable as to its current validity and/or adequacy.

The Troop Traffic Supervisors of the Division of State Police should be notified of the initiation of investigations and the Regional Traffic Engineer should work with the appropriate Troop Traffic Supervision in progressing cases as deemed mutually agreeable.

The Region is strongly encouraged to incorporate appropriate community outreach on a case by case basis in order to obtain as much relevant information as possible regarding the particular speed limit case. The information will then be taken into consideration during the decision making process. Community outreach is especially important in cases that are more complex and less straightforward.

D. On completion of the investigation, the Regional Traffic Engineer prepares a report containing all pertinent data and appropriate recommendations. If the Division of State Police is an active participant, then this report should include the Troop Traffic Supervisor's position on the recommendation and a copy of the report should be forwarded to the Troop Traffic Supervisor. Where a speed limit in a city or village is to be established by state order, the report must indicate the reasons for establishment by state order rather than local ordinance and the position of the municipal officials.

Speed limits must be realistic in terms of existing traffic speed. Reports recommending a certain linear speed limit shall include radar speed data to support the recommended limit. In situations where traffic volumes are too low to allow an appropriate sample of speeds to be collected, trial runs can be substituted for radar speed checks. Radar speed data may also be necessary where reports recommend a speed zone request be denied.

In cases where an order must be filed with the Secretary of State, or formal orders issued, FORM TE 3 will be prepared and submitted to the Main Office Traffic Operations Bureau which will obtain copies and the Director's Certification. The Traffic Operations Bureau Director signs the Certification for the Division Director on the third page of FORM TE 3 and forwards the forms to the Secretary of State for official filing.

In cases where a speed zone request is denied, all interested parties shall be notified of the
decision and supplied with an explanation of the denial.

E. Authority to promulgate decisions regarding the establishment or modification of speed regulations is delegated to the Regional Traffic Engineer, except for cases initiated by or involving the Commissioner's Office. In the latter instances, a report containing copies of all pertinent data sheets and/or narrative information shall be submitted to the Division's Main Office for review. The Main Office shall make the final decision on the proper means to conclude the study and the Commissioner's Office shall notify all interested parties.
HANDLING A TYPICAL CASE

Responsibility
Regional Traffic Engineer

Action
1. Receives request from private individuals, public officials or the Main Office for a new speed zone or revision to an existing zone.

   Sends letter of acknowledgment to:

   a. Individual requesting speed limit, if the request pertains to a state highway; or

   b. County superintendent of highways, with a copy to the town board if it is a proper joint request from a town board and county superintendent of highways pertaining to a county road or town highway and proceeds to Step # 2.

   If request pertains to county road or town highway and is not in the form of the joint request required by Section 1622 of the Vehicle and Traffic law, the requester is advised of that requirement. The person is usually furnished a copy of the TOWN RESOLUTION FOR LINEAR SPEED (FORM TE 9) to present to the local authorities with a request that they initiate action to obtain the regulation sought. When the required joint request is received, proceeds as above.

2. Conducts required field investigation with the State Police Troop Traffic Supervisor afforded the opportunity to participate in the study. It is recommended that regions keep the State Police Traffic Supervisors advised of pending investigations by sending them copies of requests, acknowledgments and reports as necessary. State Police participation is encouraged but not required. Prepares a report including all pertinent information, recommendations and statement indicating whether or not the State Police Troop Traffic Supervisor (if
participating in the study) agrees with those recommendations.

3. Determines proper course of action. (Assumes participation by the State Police Troop Traffic Supervisor).
   a. If not in accord with recommendations of the State Police Troop Traffic Supervisor, resolves differences (usually by telephone) and arranges for a supplemental field report (if necessary) and proceeds to Step # 5; or
   b. If differences cannot be resolved, obtain decision from the Traffic Operations Bureau (Step # 4).

Traffic Operations Bureau 4. Receives report and makes determination as to the proper conclusion of the study, after first attempting to resolve the differences. If differences cannot be resolved, informs Regional Traffic Engineer of the Bureau’s decision.

Regional Traffic Engineer 5. Acts on decision.
   a. If speed limit is justified, completes forms pertaining to issuance of any orders involved, inserting in the Regional “MASTER” copy of the Official Compilation of Codes, Rules and Regulations of the State of New York, Title 15(B) Chapter III, Speed Regulations, the correct section subdivision and paragraph references.
   b. If the decision is a denial, informs requester and any other interested parties including reasons for the decision.

6. Notifies appropriate field personnel of any decision which would affect field operations.

7. Sends Pages 3 and 4 of NOTICE OF
ORDER (FORM TE 3) to Main Office for Division Director's certification.

Traffic Operations Bureau

8. Traffic Operations Bureau Director is delegated to sign the CERTIFICATION (page 3 of FORM TE 3) in place of the Division Director.

9. Forwards order to the Secretary of State for official filing.

10. When the Secretary of State returns stamped copy of the order with filing date, advises Regional Traffic Engineer by returning the fourth page of FORM TE 3.

Regional Traffic Engineer

11. Receives stamped and filed copy of order from the Traffic Operations Bureau and advises the original requester of the study and other interested parties who may have subsequently expressed interest.

12. Has order implemented.

   a. If the case involves issuance of orders pertaining to a state highway and involving installation or revision of speed limit signs, sends copies of Pages 1 and 2 of FORM TE 3 to Resident Engineer.

   b. If the case involves issuance of orders pertaining to a county road or a town highway, provides town board and county superintendent of highways with copy of order.

      (Installation or revision of speed limit signs is the responsibility of the appropriate local government agency.)

   c. If the case involves issuance of orders pertaining to the posting of speed limits on the grounds of state departments, institutions of the university, state hospitals and other state institutions, provides appropriate
state official with copy of the order. Installation and maintenance of speed limit signs is the responsibility of the appropriate state department, institution, etc.

d. If the case involves issuance of orders pertaining to a state highway and the installation of School Speed Limits, sends copies of Pages 1 and 2 of FORM TE 3 to Resident Engineer (except where locals request School Speed Limit Beacons).

e. If the case involves issuance of orders pertaining to a state highway and the installation of School Speed Limit Beacons, provides town board and county superintendent of highways with copies of Pages 1 and 2 of FORM TE 3. (A Highway Work Permit must be obtained by the appropriate local government agency for the installation, maintenance and operation of School Speed Limit Beacons.)

Resident Engineer

13. Installs or revises signing in accord with formal order (FORM TE 3), then completes and forwards the NOTICE OF ACTION TAKEN (Page 2 of TE 3) to the Regional Traffic Engineer.

Local Official

14. Same as for # 13, when School Speed Limit Beacons are involved.

Regional Traffic Engineer

15. Receives NOTICE OF ACTION TAKEN (Page 2 of TE 3) from appropriate source in Steps # 13 and # 14 and places in Regional files.
XI. **RELATED FORMS**

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XII. **RELATED PROCEDURES**

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XIII. **DISTRIBUTION**

Directive Manual, Traffic Engineering & Highway Safety Division

XIV. **CONTACT PERSON**

Questions regarding this Traffic Engineering Directive (TED) can be directed to:

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