

# NEW MEXICO DEPARTMENT OF TRANSPORTATION



**AD 241  
7/30/15**

## **Pavement Drop-Off Guidelines for Construction Zones**

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**Tom Church, Cabinet Secretary**

Supersedes Administrative Directive No. 241 dated August 1, 2010

- AUTHORITY:**           **1.00**   23 CFR Part 630, Subpart K; NMSA (1978) Sections 66-7-101, 67-3-6, 67-3-8, and 67-11-2; 18.27.2 NMAC; Sub-section 414.3.2 of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction; Subpart 9.5.2 of the American Association of State Highway and Transportation Officials (“AASHTO”) Roadside Design Guide (current edition); and the Manual on Uniform Traffic Control Devices (“MUTCD”) (current edition)
- PURPOSE:**           **2.00**   To provide guidelines for addressing pavement drop-offs that may occur in construction zones.
- DEFINITIONS:**       **3.00**   “Buffer Zone” (or “Buffer Space”) means the lateral and/or longitudinal area that separates road user flow from the work space or an unsafe area, and might provide some recovery space for an errant vehicle.
- 3.01**   “Clear Zone” (or “Recovery Area”) means the unobstructed, traversable area provided beyond the edge of the through traveled way for the recovery of errant vehicles. The clear zone includes shoulders, bike lanes, and auxiliary lanes, except those auxiliary lanes that function like through lanes.
- 3.01a** “Construction Clear Zone” means the unobstructed, relatively flat area impacted by construction that extends outward from the edge of the traveled way, and because of the limited horizontal clearance available and heightened awareness of motorists through construction zones, the clear-zone requirements are less than those for non-construction conditions; generally requiring engineering judgment, making limited to no adjustment

for horizontal curves, and depending on site conditions, may feasibly provide only operational clearance.

- 3.02 “Construction Zone” means the area within the right of way from the first traffic control sign announcing the road work to the last sign announcing the end of road work within which the contractor or Department shall perform construction activities.
- 3.03 “Highway” means generally, a public way for purposes of vehicular or pedestrian travel.
- 3.04 “Pavement Drop-off” is defined as a section of roadway where the longitudinal edge of the travel line is not flush with the adjacent existing surface.
- 3.05 “Positive Protection Devices” mean those devices that contain and/or redirect vehicles and meet the crashworthiness evaluation criteria as pursuant to 23 CFR Part 630, Subpart K.
- 3.06 “Right-of-Way” (or “ROW”) means generally, land or property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.
- 3.07 “Roadway” means the portion of a highway, including shoulders, for vehicular use.
- 3.08 “Traffic Control Plan” (or “Temporary Traffic Control Plan” or “TCP”) means a documented plan that describes temporary traffic control (“TTC”) measures to be used for facilitating road users through a construction zone, work zone or incident area.
- 3.09 “Traveled Way” (or “Traffic Lane”) means the portion of a roadway for the movement of vehicles, exclusive of shoulders.

**DIRECTIVE:**

- 4.00 **Pavement Drop-off Guidelines for Construction Zones.** This administrative directive (“AD”) sets forth pavement drop-off guidelines for construction zones and shall be followed for all highway projects involving construction zones and in the development of traffic control plans for all highway projects involving construction zones. These guidelines shall be followed in compliance with the current editions of AASHTO Roadside Design Guide and MUTCD, as applicable, and including, but not limited to, application of positive protection devices, exposure control measures, and other traffic control measures.
- 4.01 **Pavement Drop-off for Activities within the Travel Lane, such as Milling or Overlay Operations.**
  - 4.01a A maximum 1.5 inch vertical drop-off between adjacent surfaces may be allowed at the centerline, or lane lines without treatment.
  - 4.01b When the vertical drop-off is greater than 1.5 inches, a fillet with a slope of 6:1 or flatter shall be provided during non-working hours. The work shall be scheduled to

result in not more than one day operation of exposed longitudinal joint between adjacent surfaces.

**4.02 Pavement Drop-off for Areas Adjacent to the Existing Travel Lane with Buffer Zones Less than 6 feet in Width.** For travel lane widths within construction work zones of 11 feet or more:

**4.02a** A slope of 3:1 or flatter shall be constructed whenever possible, however, a maximum 3 inch drop-off will be allowed without any special treatment, provided that vertical panels or other delineation devices shall be provided to delineate the drop-off.

**4.02b** Drop-offs greater than 3 inches that are exposed to traffic during non-working hours shall be protected by a fillet (3:1 or flatter slopes) with delineation drums, vertical panels, or other delineation devices. If fillet of less than 3:1 slope is not achievable, positive barrier protection, e.g., concrete wall barrier or an approved equivalent, shall be used.

**4.03 Pavement Drop-off for Areas Adjacent to Existing Travel Lane with Buffer Zones that are 6 feet or more in Width.**

**4.03a** A slope of 3:1 or flatter shall be constructed whenever possible.

**4.03b** In those instances where a 3:1 or flatter slope is not possible, the following shall apply:

**4.03b(1)** For drop-offs less than 1 foot, vertical panels or other delineation devices shall be used.

**4.03b(2)** For drop-offs in excess of 1 foot, Type "B" drums at a spacing approved by the District Traffic Engineer or design team shall be used.

**4.04 Pavement Drop-offs for Point Drop-offs, such as Drop Inlets and CBC Ends.** When this type of drop-off is present, every effort shall be made to place the appropriate permanent nature, such as guardrail or inlet grates, as soon as possible. The following temporary measures shall apply:

**4.04a** For drop-offs located 6 feet or more from the travel lane, Type "B" drums shall be used to delineate the hazard.

**4.04b** For drop-offs located less than 6 feet from the travel lane, positive barrier protection, e.g., concrete wall barrier or an approved equivalent, shall be used, provided that Type "B" drums may be used if the drop-off will be exposed for less than 24 hours.

**4.05 Exceptions.** During the development of a traffic control plan of a project, the drop-offs shall be reviewed along with the required traffic control. If the criteria set forth in Sections 4.01 through

4.04 above cannot be obtained through reasonable and prudent design practices, or otherwise the traffic control plan calls for pavement drop-offs, buffer zones or other circumstances not referenced above, an exception may be granted, provided it is documented and:

**4.05a** During the design phase of a project, the design team, with the Project Development Engineer (“PDE”) as the lead member (or District Technical Support Engineer for District lead projects), shall discuss the situation and provide a recommended course of action. The PDE (or District Technical Support Engineer) shall initiate action for this to be processed as a design exception in accordance with the Department’s current Infrastructure Design Directive (“IDD”) (Design Exception & Design Variance Procedures).

**4.05b** During the construction phase of a project, the project manager (“PM”) shall contact the Assistant District Engineer (“ADE”) and District Traffic Engineer (“TE”) for guidance when the guideline criteria cannot be met. The ADE and TE shall provide a recommended course of action, along with a change order to the appropriate Bureau, if required.

**PROCEDURES:**            **5.00    Implementing Exceptions for Pavement Drop-off Guidelines for Construction Zones.**

**5.00a** During the design phase, processing exceptions to the Department’s Pavement Drop-off Guidelines for Construction Zones shall be done in accordance with the current version of the Department’s IDD (Design Exception & Design Variance Procedures).

**5.00b** During the construction phase of a project, processing exceptions to the Department’s Pavement Drop-off Guidelines for Construction Zones shall be done in accordance with the current version of the Department’s IDD (Design Exception & Design Variance Procedures).

**CROSS REFERENCE:**            **6.00    Subpart 9.5.2 of the AASHTO Roadsign Design Guide (current edition); MUTCD (current edition); and IDD (Design Exception & Design Variances Procedures) (current edition)**

**FORMS:**                    **7.00    Form A-1090, Authorization to Proceed with Work Pending Submission of Contract Change Order.**