

Traffic Engineering Instructions (TEI)

Distribution: Director of Highway Division, Chief of Contract Administration, Director of Maintenance, Director of Operations and Safety, Director of Support Services, Director of Policy, Planning and Intermodal Development, Director of Project Delivery, Director of Municipal Assistance, District Administrators, District Project Managers and Technicians, Highway Safety & Design Project Managers, Municipal Assistance Project Managers, Maintenance Administrator, Program Development Section Managers, Structures Project Managers, Consultant designers, Chief of Permitting Services, Public Utilities Companies, and Traffic Control Companies.

Approved:
APPROVED
By Joshua Schultz at 2:34 pm, Dec 18, 2018
 Date: _____
 Joshua Schultz, PE
 Director of Operations and Safety Bureau

Subject: TEMPORARY EMERGENCY PULL-OFF AREAS GUIDANCE

Administrative Information:

Effective Date:	TEI 18 - 607 shall be effective from the date of approval.
Superseded TEI:	Not applicable
Exceptions:	Not applicable.
Disposition of TEI Content:	The content of TEI 18 - 607 will be incorporated into future revisions to the Vermont Agency of Transportation Standard Drawings, Traffic Design Manual and/or other applicable design guidance documentation.

Purpose:

The purpose of this guidance is to provide basic guidance when designing for an emergency pull-off area when developing Temporary Traffic Control (TTC) plans for a work zone located on divided highway. It should be noted that this information is not all inclusive, and that each work site poses its own site-specific challenges. This document should be supplemented with the Vermont Work Zone Safety & Mobility Guidance Document and its Appendix A, as well as the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) and its latest revisions.

Implementation:

The content of TEI 18 - 607 is to be implemented beginning immediately for all work zones on the State Highway System that meet the criteria set forth in this Traffic Engineering Instruction.

Purpose

Work zones are often areas of constrained capacity and access. Minimizing and avoiding conditions that further constrain capacity can assist the movement of traffic flow. Pull-off areas can reduce the extent and duration of traffic congestion related to disabled vehicles and crashes blocking travel lanes within the work zone. They also provide refuge for law enforcement officers to issue citations safely.

General Information

Emergency pull-off areas are designated locations to serve as temporary refuges for disabled vehicles. Typically, they should be considered on interstate, expressway and freeway projects where construction activities result in the loss of one or both shoulders for a period of more than 14 days. A shoulder is considered lost where it is too narrow to accommodate a vehicle, or it is being utilized as a lane, or incorporated into the work zone.

Emergency pull-off areas should be located directly adjacent to the right side of the roadway at approximately one-half mile intervals spacing and spacing between pull-offs should not exceed one mile as site conditions allow. Their location should allow for the required minimum stopping sight distance to be met, including stopping sight distance on vertical and horizontal curves. Where feasible, select emergency pull-off area locations that avoid adverse impacts to environmentally sensitive areas, utilities, beam guide rail, grading, etc.

When paved shoulders having a width of 8 feet or more are closed, and pull-offs exist, road users should be advised of the location(s) of the areas where disabled vehicles can get off the traveled way.

The pull-off areas shall be delineated with delineators and posts, in accordance with State Standard Drawing T-40.

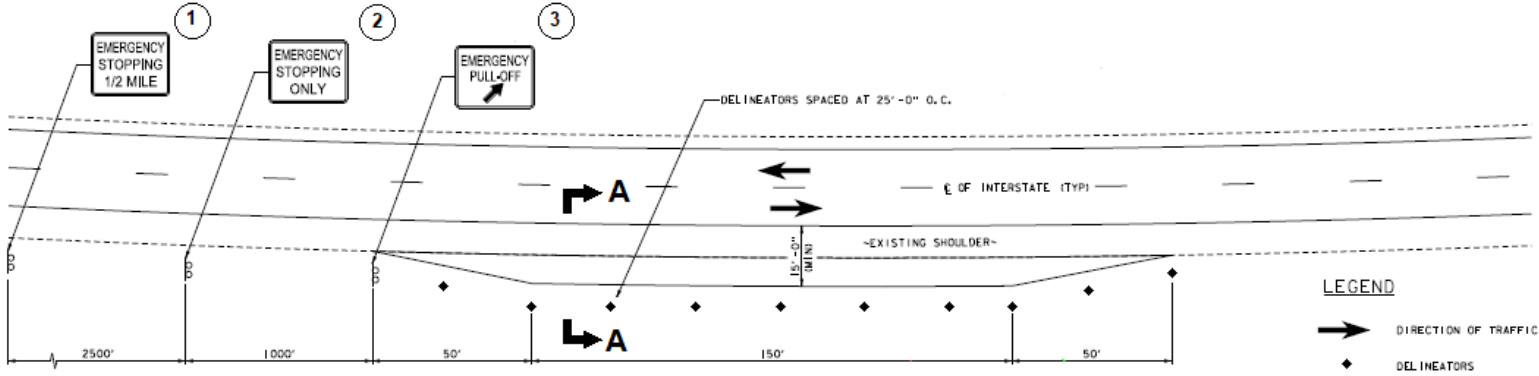
Spacing of pull-out areas for projects with activity areas up to 2.0 miles in length, should be installed every 0.5 to 0.75 miles. For work activity areas of 2.0 miles and greater in length pull-off areas should be installed every one mile.

Prior to reopening the roadway to traffic, all temporary emergency pull-off areas signs shall be removed, and the roadway restored back to the project's final condition and shall have 2" of topsoil, seed and mulch over all disturbed areas.

Details of construction, materials, and workmanship shown within this document shall conform to the pertinent requirements of the current Roadside Design Guide, A Policy on Geometric Design of Highways and Street, Vermont Standard Specifications, applicable special provisions, and the current Manual on Uniform Traffic Control Devices and any of their revisions.

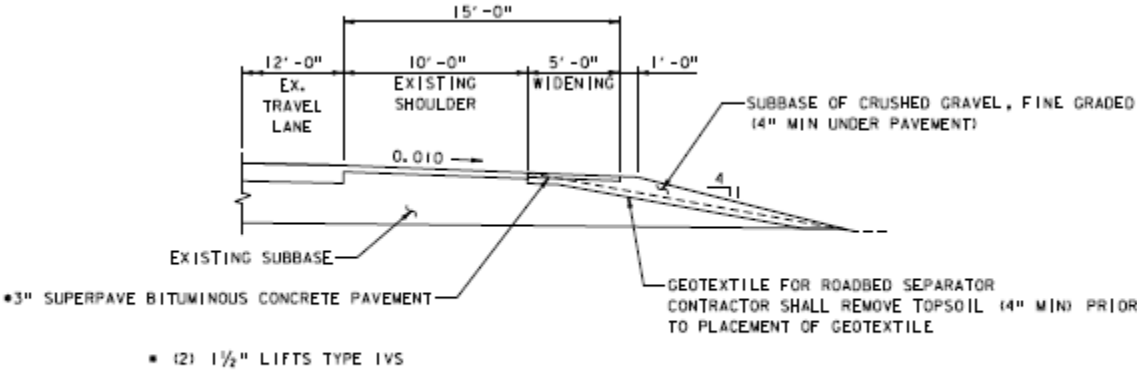
Each pull-off area shall be free from construction equipment, vehicles (including those belonging to the individual workers), and/or project materials.

Plan View



TEMPORARY EMERGENCY PULL-OFF FOR DIVIDED HIGHWAYS
NOT TO SCALE

Cross-Section



TEMPORARY EMERGENCY PULL-OFF SECTION A-A
NOT TO SCALE

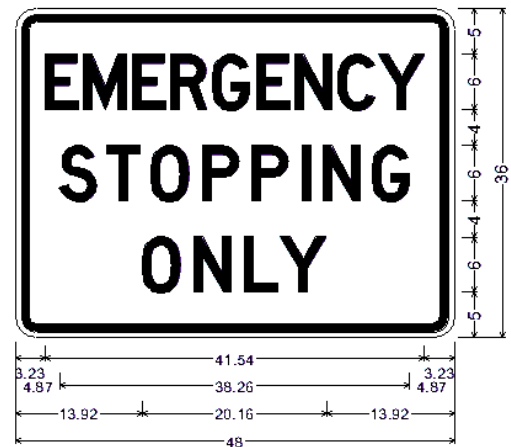
Sign Details for Temporary Emergency Pull-Off Area

1



2.25" Radius, 0.88" Border, 0.63" Indent, Black on White;
 "EMERGENCY" D 50% spacing; "STOPPING" D;
 "1/2 MILE" D;

2



2.25" Radius, 0.88" Border, 0.63" Indent, Black on White;
 "EMERGENCY" D 50% spacing; "STOPPING" D;
 "ONLY" D;

3



2.25" Radius, 0.88" Border, 0.63" Indent, Black on White;
 "EMERGENCY" D 50% spacing; "PULL-OFF" D;
 Standard Arrow Custom 22.88" X 12.13" 30°;