MASS HIGHWAY

Number: E-93-007

Date: 10-26-93

ENGINEERING DIRECTIVE

OBSOLETE

Chief Engineer

2/13/06

REVISED SCHEDULE OF R.O.W. AND UTILITY SUBMISSIONS, AND PROJECT SCHEDULING REQUIREMENTS FOR ALL CONSULTANT BASED DESIGNS

The following revisions to the R.O. W. and Utility submission schedules, and requirement to prepare approved project work schedules supersede all information previously issued in policy statements, notices, and manuals. These requirements apply to all projects designed by Consultants. These procedures are to be implemented immediately on all projects.

The changes in the schedule of R.O.W. and Utility submittals are necessary to complete the R.O.W. and Utility requirements prior to project advertising. Policy revisions which apply to R.O.W. and Utility submissions are as follows:

1. Initial R.O.W. submissions shall be made within two (2) weeks following the Department's 25% review of a project. In the event there is no formal 25% review, initial R.O.W. submissions shall be made within two (2) weeks of finalization of horizontal and vertical project geometry. The initial R.O.W. submission shall consist of the 25% plans, and shall include the names of all abutters, and for all abutting properties, the locations of all sidelines intersecting the Highway Layout. Preliminary R.O.W. plans will be submitted based on the approved project schedule described hereafter.

2. Initial Utility submissions shall be made at the same time as the R.O.W. submission described above.

3. Updated R.O.W. submissions shall be made as appropriate, and within two (2) weeks following the Department's 75% review of the project. In the event there is no formal 75% review, updated R.O.W. submissions shall be made when the plans are sufficiently complete to begin writing the Special Provisions and calculating quantities.

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MASS HIGHWAY

Number: E-93-011

Date: 12-29-93

ENGINEERING DIRECTIVE

Chief Engineer

OBSOLETE 2/13/06

EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION LANDSCAPE RESTORATION POLICY

Introduction

The design process for transportation construction projects includes careful consideration of environmental conditions in order to minimize impacts on the landscape. However, some disturbance--including removal of trees, shrubs, groundcover, and other landscape features--is unavoidable, whereupon mitigation becomes necessary. From a regulatory standpoint, the National Environmental Policy Act (NEPA) and the Massachusetts Environmental Policy Act (MEPA) require mitigation beyond certain impact thresholds. From the standpoint of ecological or aesthetic impact, however, such thresholds do not necessarily prevent projects from having a substantial effect.

A plan for restoring both the ecological qualities and the visual character of the landscape should be incorporated into each construction project. This plan should be based on careful analysis of the affected area and its context. Damage to natural areas associated with highway projects can often be mitigated through careful attention to grading, plant selection and location. The visual impacts, which are exacerbated by the highly visible nature of roadway projects, can also be reduced by efforts to replace lost material and enhance the views of and from the highway.

The benefits of restoration are significant. The recovery of damaged landscapes is in keeping with state and federal policies to protect and enhance the roadside environment. Highway rights-of-way constitute a large amount of state land, some of it quite unique or quite valuable in terms of plant community and wildlife habitat. In addition, the restoration of visual quality will better integrate roadways into the landscape, improve public perception of highway projects, and help preserve and enhance the overall quality of the highway environment.

Distribution: B Please post: _____ Do not post: X

MASS HIGHWAY

Number: E-98-003

Date: 5/5/98

ENGINEERING DIRECTIVE

CHIEF ENGINEER

OBSOLETE 2/13/06

IN RESPONSE TO MGL CH 87 ACTS OF 1996
BICYCLE AND PEDESTRIAN ACCOMMODATION

THIS DIRECTIVE SUPERSEDES E-98-002 AND IS EFFECTIVE IMMEDIATELY.

Project design engineers shall use sound engineering practice in making reasonable provisions to accommodate bicycles and pedestrians in project designs. This generally includes assuring continuous paths of travel with smooth surfaces without obstructions or impediments. ***This Directive must be addressed on all projects at the 25% design level.***

Benchmark for Bicycle Accommodation

The Massachusetts Highway Department benchmark for reasonable bicycle accommodation is to provide a continuous usable paved shoulder adjacent to the outside travel lane in each direction on roadways where bicycles are legally permitted. The desirable width of the outside travel lane plus the paved usable shoulder (curb lane) is at least 5.0 meters (plus 0.5 meter "guardrail" offset). When this width cannot be reasonably accommodated, the minimum width of the outside travel lane plus the paved usable shoulder (curb lane) for the accommodation of bicycles is 4.5 meters (plus 0.5 meter "guardrail" offset). For roadways with low speeds of less than 45 mph (85^{th} percentile speeds) combined with low volumes of less than 2000 AADT, the minimum roadway widths as defined in Chapter 8 of the Highway Design Manual may be used to conform with bicycle accommodation. ***Bicycle lanes and shoulder bikeways are encouraged and should be considered early in the design process.***

This Directive does not preclude the use of AASHTO design guidance for bicycle accommodation ***and also applies to full depth reconstruction projects funded through the Chapter 90 Program. This Directive does not apply to maintenance type projects (resurfacing, chip sealing, etc.) funded through the Chapter 90 Program.***

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MASSHIGHWAY

Number: E-99-004
Date: 05/12/99

ENGINEERING DIRECTIVE

Thomas A. Broadbent
CHIEF ENGINEER

OBSOLETE 2/13/06

STANDARD MYLAR SIZES FOR MASSHIGHWAY PROJECTS

Effective immediately, the standard sheet size for all MassHighway project mylars is an industry standard 24" x 36" (609.6 mm x 914.4 mm). The drawing area, as defined by the border and trim lines, will still be defined in metric dimensions. The following Highway Design Manual and Bridge Manual drawings (attached) have been revised to reflect these changes:

- Highway Design Manual Figure 2-12
  Sizes of Standard Tracings
- Bridge Manual Drawing Number 1.1.1
  Standard First Sheet, Construction Plans
- Bridge Manual Drawing Number 1.1.2
  Standard Subsequent Sheets, Construction Plans
- Bridge Manual Drawing Number 1.2.1
  Standard First Sheet, Sketch Plans

Designers should make every effort to prepare all new drawings in accordance with the new standards. However, active design projects which have been substantially completed in accordance with the previous mylar size standards may continue to be prepared in this fashion at the discretion of the MassHighway Project Manager.

Mylar sheet sizes for each project must be uniform. Projects with non-uniform or non-standard (current or previous) mylar sheet sizes will not be accepted by MassHighway and will be returned to the designer.

This Directive does not apply to Layout Plans.

Attachements: Revised Drawings

Distribution: Engineering Listing **Please post:** _____ **Do not post** X

MASSHIGHWAY

Number: E-02-005

Date: 12/17/2002

ENGINEERING DIRECTIVE

Thomas F. Broderick
CHIEF ENGINEER

OBSOLETE 2/13/06

EARLY ENVIRONMENTAL COORDINATION FOR DESIGN PROJECTS

Purpose

This Engineering Directive establishes a standard procedure by which to identify initial project design parameters, initiate early coordination with the community to identify issues specific to the project, and define essential information to incorporate in 25% Design to initiate early environmental reviews.

Early Coordination

City/Town Designed Projects

- The MassHighway letter to Cities/Towns notifying them that their projects are approved for construction funding shall include a reference to this Engineering Directive and a statement that it is understood that the requirements of this Directive must be met in order to expedite project design acceptance and regulatory clearances.
- MassHighway will send a copy of the proposed scope of work and/or a locus plan showing project limits to Massachusetts Historical Commission to initiate early coordination.
- The designer should initiate early coordination with the local boards and commissions to review the project area and identify any specific issues or concerns.
- The designer should consult with MassHighway Cultural Resources Section for early coordination with the Tribal Historical Preservation Officer (THPO).

MassHighway Designed Projects

- For consultant designs, this Engineering Directive shall be incorporated directly or by reference into the design consultant's contract scope of work.
- The designer (MassHighway or its design consultant) should request the community to identify any concerns or issues in the project area.

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