

# NEW JERSEY DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL REQUIREMENTS<sup>i</sup>

## Introduction

The New Jersey Department of Transportation (NJDOT) maintains a Qualified Product List (QPL) for MSE (mechanically stabilized earth) Wall Systems and for Prefabricated Modular Wall Systems. These lists are available on the NJDOT website, at <https://www.state.nj.us/transportation/eng/materials/>.

NJDOT have Materials Approval Procedures (MAP) developed for materials that are required to be on the QPL prior to use. A standardized MAP was adopted for each type of material as the approval process is specific for each type of material. The Procedure for Approval of Mechanically Stabilized Earth (MS) Retaining Wall Systems is document MAP 116. The Procedure for Approval of Prefabricated Modular Retaining Wall Systems is document MAP 115. A vendor should request, in writing, the approval of their wall system. The wall system supplier must submit, with this request, supporting documentation that addresses all of the items on the applicable (MAP 115 or MAP 116) checklist. Both of the checklists are organized into four parts: Part One – Materials; Part Two – Design; Part Three – Construction; and Part Four – Performance.

Most of the submittal items listed in both NJDOT MAP 115 and MAP 116 are contained in an IDEA report. However, there are some additional requested items, which are not listed (or specifically noted) on the IDEA protocols (<https://www.geoinstitute.org/special-projects/idea>). A retaining wall supplier with an IDEA report should supplement their IDEA report with the additional, specific items that NJDOT requires, as listed below. The items are presented with the NJDOT Checklist item number.

Information items that are identical to, and therefore redundant to, IDEA protocol listed items are not listed in this supplemental requirements report. However, items under a topic that the agency requests which are, or may be, more specific or detailed than the IDEA protocol are listed. The wall system supplier submittal may address this in their supplemental information or, if fully addressed in their IDEA submittal, refer to their IDEA report.

NJDOT should contact the IDEA webmaster and update this report if/when their policies, etc. change. This supplemental requirements report is readily updateable, and a revision number and new date should be noted when updated.

## Supplement Items

### MSE Walls per MAP 116

- Written request for approval of the MSE Retaining Wall System. Include the name, address, and contact information for the manufacturer; and the name of the MSE Retaining Wall System.

- The following supplemental items, as listed and numbered in MAP 116 – Procedure for Approval of MSE Retaining Wall Systems:

#### Under Part One: Materials

1.5 Leveling Pad – list type(s) used (i.e., cast-in-place, precast, and/or granular) and detail(s)

1.9 Connection to Appurtenances – list and provide details

#### Under Part Two: Design

2.1 AASHTO LRFD Provisions - Identify design assumptions and procedures with specific references (e.g., design code sections) for seismic design.

2.4 Drawings – Provide representative drawings showing all standard details, along with any alternate details, for appurtenance connection details.

#### Under Part Three: Construction

3.3 List any Contractor or Subcontractor prequalification requirements.

#### Under Part Four: Performance

4.1 Project Performance History – Provide a well-documented history of performance (with photos, where available), including:

- projects experiencing maximum measured settlement (total and differential) measurements of lateral movement/tilt
- maintenance history

#### Prefabricated Modular Walls per MAP 115

- Written request for approval of the Prefabricated Modular Retaining Wall System. Include the name, address, and contact information for the manufacturer; and the name of the Prefabricated Modular Retaining Wall System.
- The following supplemental items, as listed and numbered in MAP 115 – Procedure for Approval of MSE Retaining Wall Systems:

#### Under Part One: Materials

1.2 Leveling Pad – list type(s) used (i.e., cast-in-place, precast, and/or granular) and detail(s)

1.6 Connection to Appurtenances – list and provide details

#### Under Part Two: Design

2.1 AASHTO LRFD Provisions - Identify design assumptions and procedures with specific references (e.g., design code sections) for seismic design.

2.4 Drawings – Provide representative drawings showing all standard details, along with any alternate details, for appurtenance connection details.

## Under Part Three: Construction

3.3 List any Contractor or Subcontractor prequalification requirements.

## Under Part Four: Performance

4.1 Project Performance History – Provide a well-documented history of performance (with photos, where available), including:

- projects experiencing maximum measured settlement (total and differential) measurements of lateral movement/tilt
- maintenance history

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<sup>i</sup> Report Ver 1, August 2021.