

VERMONT AGENCY OF TRANSPORTATION

**APPROVED MATERIAL SOURCE
– RECYCLED MATERIAL AGGREGATES**

Guidance Document

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Purpose:

This guide defines the process the Agency will employ to approve recycled material aggregate sources for use on Agency projects. Approval of a recycled material aggregate source does not imply acceptance of any materials originating from that source.

Definition of an Approved Recycled Material Aggregate Source:

A recycled material aggregate source is approved for use on Agency projects when the Agency has determined that the source is capable of producing materials that are in conformance with the requirements detailed in the current edition of the Vermont Agency of Transportation's Standard Specifications for Construction.

Approved Products List (APL):

The Approved Products List (APL) is a list of products and material sources that the Agency has approved for use on Agency projects. This list will indicate each material specification the recycled material aggregate source has been approved to supply. This list will be amended as necessary to add new sources to the list as they become approved. Expiration dates included on the list are determined by the Agency and account for the level of risk in regard to the source and the material. The APL will be published on the VTrans Materials section webpage:

<https://vtrans.vermont.gov/highway/construct-material/test-cert/certification/approved-products-and-advanced-certifications>

Recycled Material Aggregate Source Approval Process:

The following details the steps needed for a recycled material aggregate source to become approved. There are two categories under which the source may be addressed: New or Existing. The process to get approved is the same for each, however the requirements and timeframe for approval may differ. The Agency will determine under which category (new or existing) a source falls based on the available data for the source in question, as follows:

New Source: No historical data from past project use and source is not on current list

Existing Source: Source has historical data from past project use and/or the source is currently on the list

Submittal Process:

1. Producer (owner/operator of source) completes the 'VTrans Recycled Material Aggregate Source Approval Request Form' located on the VTrans Materials section webpage (link above).
2. Producer provides VTrans with completed request form and one of the following:
 - a. Test results from a third-party laboratory meeting the requirements of the Agency's Qualified Laboratory Program. Test results must be received by VTrans a minimum of 2 weeks prior to proposed material use. Test results required to be submitted are as shown in Table 1 in Appendix A. Test results must be dated as specified in Appendix A. The Producer must retain a split sample of the tested material during the evaluation period.

- b. A representative sample(s) for testing. The sample(s) shall meet sampling size requirements as specified in AASHTO R-90 and shown in Table 2 in Appendix B and shall be provided a minimum of 90 days prior to proposed material use for new and existing sources.

See Table 1 in Appendix A for test results required for recycled material aggregate source approval. The test results required for approval are dependent on the material specification as found in the current edition of the VTrans Standard Specifications for Construction. Use the Table 1 guidance when filling out the request form.

3. Submit the ‘VTrans Recycled Material Aggregate Source Approval Request Form’ and accompanying test results or sample to:

VTrans Central Laboratory
2178 Airport Rd., Unit B
Berlin VT, 05641
(802) 828-2561
Hours: Mon – Fri, 7:00 AM – 3:30 PM
AOT.MaterialsCertifications@vermont.gov

Approval Process

1. Test results are evaluated by VTrans for conformance with the applicable sections of the current edition of the Standard Specifications for Construction. If test results are conforming, then the source is approved and added to the APL for the material specifications for which it was evaluated.
2. Once approved and placed on the APL, each approved source will receive an expiration date (month/year). For an existing source, the expiration date will be updated, and a notification of approval sent. For new and existing sources, the notice of approval will come via email to the contact information provided on the request form.

Responsibilities:

VTrans; Responsible for implementing, maintaining, and updating the APL as well as responding to customer questions/inquiries.

Recycled Material Aggregate Producer; Responsible for ensuring that all pertinent information needed to be considered for recycled materials aggregate source approval is provided to VTrans in the timeframes requested. Producers that wish to stay current on the APL shall be responsible for knowing their source(s) expiration date(s) and following these guidelines for reapproval.

Contractors; Responsible to provide to the State only recycled material aggregates from sources that are listed on the APL and to utilize these materials only as allowed in the current edition of the Vermont Agency of Transportation’s Standard Specifications for Construction.

APPENDIX A

Table 1: Tests Applicable for Recycled Material Aggregate Sources

| | Processed Glass Aggregate | Reclaimed Concrete Aggregate |
|---|---------------------------------|------------------------------------|
| Sieve Analysis AASHTO T 27 | X | X |
| Flat & Elongated ASTM D 4791 | X | |
| Deleterious Content AASHTO M 318 Appendix X3* | X | |
| No. 200 Sieve Washing AASHTO T 11 | | X |
| Particle Size AASHTO T 88 | | X |
| Liquid Limit AASHTO T 89 | | X |
| Plasticity Index AASHTO T 90 | | X |
| LA Abrasion AASHTO T 96 | | X |
| Sand Equivalent AASHTO T 176 | | X |

* Or suitable alternative test method.

Note: All test results shall be dated no more than 1 year from time of submission.

APPENDIX B

Table 2. Sample Size Requirements

| Size of Aggregate Field Sample (AASHTO R-90) | |
|---|---|
| Nominal Maximum Size of Aggregate in. (mm) | Approximate Minimum Mass of Field Sample lb (kg) |
| #4 (4.75 mm) or < | 25 lbs. (10 kg) |
| 3/8 in. (9.5 mm) | 25 lbs. (10 kg) |
| 1/2 in. (12.5 mm) | 35 lbs. (15 kg) |
| 3/4 in. (19.0 mm) | 55 lbs. (25 kg) |
| 1 in. (25.0 mm) | 110 lbs. (50 kg) |
| 1 1/2 in. (37.50 mm) | 165 lbs. (75 kg) |
| 2 in. (50 mm) or > | 220 lbs. (100 kg) |