Recycled Glass in Highway Construction

NICK VAN DEN BERG, P.E. – MATERIALS MANAGER



Processed Glass Aggregate – Overview

Agency of Transportation - Nick Van Den Berg, P.E., Materials Manager

Glass Recycling

- Challenge
- ➤ Universal Recycling Law Act 148

Processed Glass Aggregate (PGA)

- History with VTrans
- National Standards
- Regional Standards

Processed Glass Aggregate – Opportunity

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Unbound Aggregates

- Engineering properties
- Economy

Utilization

- Availability of resources
- Cost of materials
- Past practice

2016-2021 VTrans Unbound Aggregate Quantities

Item Name		Total Quantity Bid
SAND BORROW	CY	156,214
SUBBASE OF GRAVEL	CY	5,455
SUBBASE OF CRUSHED GRAVEL, COARSE GRADED	CY	4,993
SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	12,137
SUBBASE OF DENSE GRADED CRUSHED STONE	CY	324,943
Grand Total		503,742

Processed Glass Aggregate – Initiatives

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VTrans

- Specification updates
- Material Acceptance Program updates
- UVM Research
 - 'Evaluation of processed glass aggregate for utilization in transportation projects as a sand borrow'
 - Funded through the Transportation Infrastructure Durability Center
 - Last Technical Advisory Committee meeting; January 24, 2022
 - Phase 1 completion date; August 31, 2022
- > Partnerships



