

# TREBO BROOK STONE CULVERT REPLACEMENT

TOWN OF CHESTER, VERMONT



*Stone Faced Culvert*



*Stone Village Project Area*

The existing 2.5' wide by 5.5' high laid up stone culvert crossing under Route 103 in the Chester Stone Village was deteriorated and in danger of collapsing. The sewer and water mains crossing the structure were vulnerable to damage in the event the culvert failed.

The culvert was replaced with a 100 ft long precast box culvert with a 10' wide by 6' high opening. The hydraulic capacity was significantly increased to pass the 50 year flood flow from Trebo Brook.

The project was funded under the VTrans Town Highway Structures program, which provided grant funding for 90% of the total project costs.

The culvert was constructed while maintaining one lane traffic throughout the project and shifting the travel lanes within the Route 103 road right-of-way.

## KEY FEATURES:

- Construction challenges included accommodating Route 103 heavy truck traffic without a detour route.
- Culvert location in Chester's Historic Stone Village required stone facing on the wingwalls and headwalls to meet Historic Preservation requirements.
- Replacement design incorporated a concrete box constructed with bed retention sills to hold native gravels to allow fish passage.