SURVEY OF HIGHWAY CONSTRUCTION MATERIALS

IN THE TOWN OF WOLCOTT, LAMOILLE COUNTY, VERMONT

prepared by

Engineering Geology Section, Materials Division

Vermont Department of Highways

in cooperation with

United States Department of Transportation

Federal Highway Administration

Montpelier, Vermont

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Acknowledgements

The work of this Project was greatly implemented by the cooperation and assistance of many groups and individuals. The following were particularly helpful in carrying out the Project's objectives.

1. Various departments and individuals of the Vermont State Department of Highways, notably the Planning and Mapping Division and the Highway Testing Laboratory.
2. Professor D. P. Stewart of Miami University, Oxford, Ohio.
3. Professor C. G. Doll, Vermont State Geologist, University of Vermont, Burlington, Vermont.
4. Unites States Department of Commerce, Bureau of Public Roads.

History

The Materials Survey Project was formed in 1957 by the Vermont State Department of Highways with the assistance of the Unites States Bureau of Public Roads. Its prime objective was to compile an inventory of highway construction materials in the State of Vermont. Prior to the efforts of the personnel of the Survey as described in this and other reports, searches for highway construction materials were conducted only as the immediate situation required. Thus only limited areas are surveyed, and no overall picture of material resources was available. Highway contractors or resident engineers are usually required to locate the materials for their respective projects and have samples tested by the Highway Testing Laboratory. The additional cost of exploration for construction materials is passed onto the State in the form of higher construction costs. The Materials Survey Project was established to minimize or eliminate this factor by enabling the State and its contractors to proceed with information

on materials sources available beforehand. Prior knowledge of locations of suitable material is an important factor in planning future highways.

The sources of construction materials are located by this Project through ground reconnaissance study of maps and aerial photographs, and geological and physiographic interpretation. Maps, data sheets, and work sheets for reporting the findings of the Project were designed with their intended use in mind. These maps and data sheets were devised to furnish information of particular use to the contractor or oonstruction man. For maximum benefit, the maps, data sheets, and this report should be studied simultaneously.

Inclosures

Included in this folder are two surface-geology maps, one defining the location of tests conducted on bedrock sources, the other defining the location of tests conducted on granular materials. These maps are derived from 15-minute or 7½-minute quadrangles of the United States Geological Survey enlarged or reduced to 1:31250 or 1" = 2604'. Delineated on the Bedrock Map are the various rock types of the area. This information was obtained from numerous sources: Vermont Geological Survey Bulletins, Vermont State Geologist Reports, United States Geological Survey Bedrock Maps, and the Centennial Geological Map of Vermont, as well as other references.

The granular materials map depicts areas covered by various types of glacial deposits (outwash, moraines, kames, kame terraces, eskers, etc.) by which potential sources of gravel and sand may be recognized. This information was obtained primarily from a survey conducted by Professor D. P. Stewart of Miami University, Oxford, Ohio, who had been mapping the glacial features of Vermont during the summer months since 1956. Further information was

obtained from the Soil Survey (Reconnaissance) of Vermont conducted by the Bureau of Chemistry and Soils of the United States Department of Agriculture, and from Vermont Geological Survey Bulletins, United States Geological Survey Quadrangles, aerial photographs, and other sources. On both maps of the areas tested are represented by Identification Numbers. Several tests are usually conducted in each area represented by an Identification Number, the number of such tests being more or less arbitrarily determined either by the character of the material or by the topography.

Also included in this folder are data sheets for both the Bedrock and Granular Materials Survey, which contain detailed information for each test conducted by the Project as well as information obtained from other sources, and including an active card file compiled by the Highway Testing Laboratory. The latter information was gathered over a period of years by many persons, and consequently lacks the organized approach and detail required for effective use. The information on the cards varies widely in completeness. Transfer of information from the cards to the data sheets was made without elaboration or verification. When possible, the locations of the deposits listed in the card files have also been plotted on the maps; however, some cards in the file were not used because the information on the location of the deposit was incomplete or unidentifiable. Caution should be exercised wherever this information appears incomplete. This Project does not assume responsibility for the information taken from the card files.

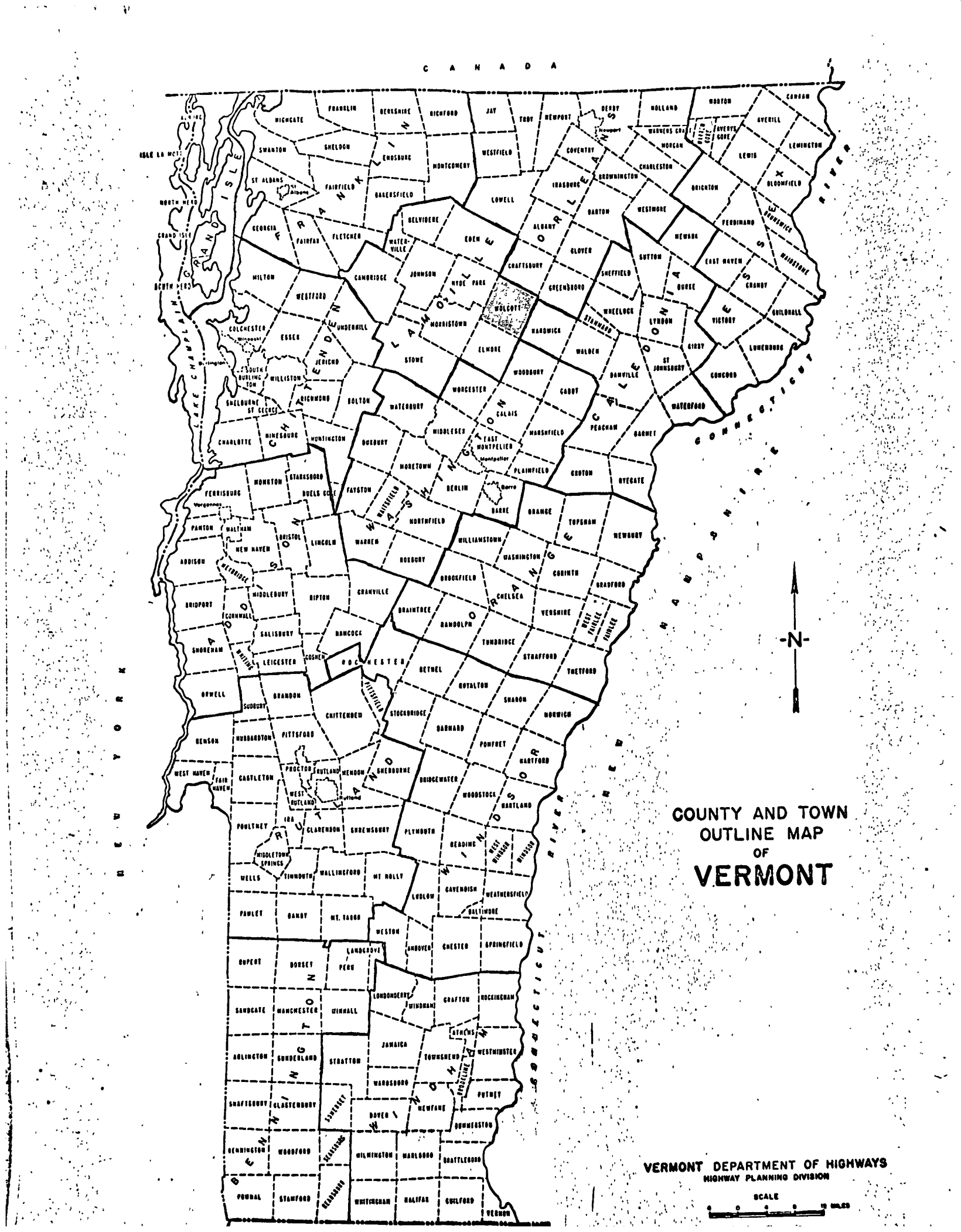
Work sheets contain more detailed information on each test and a detailed sketch of each Identification Number Area. The work sheets and laboratory reports are on file in the office headquarters of this Project.

LOCATION

The town of Wolcott is situated in the eastern corner of Lamoille County in the north-central part of Vermont. It is bounded on the north by Craftsbury, on the east by Hardwick, on the south by Elmore, and on the west by Morristown and Hyde Park. (See County and Town Outline Map of Vermont on the following page.)

Wolcott lies within the Vermont Piedmont Physiographic Subdivision of the New England Upland. Topography is typically rugged with elevations from about 1,860 feet, at the summit of The Ledges in the northeastern corner of the town, to less than 660 feet where the Lamoille River crosses the Morristown town line.

Principal drainage is to the west via the Lamoille River, and its tributaries: the Wild Branch of the Lamoille River, Tamarack Brook, Wolcott Pond Brook, Elmore Pond Brook, Baldwin Brook and the Elmore Branch of the Lamoille River. Wapanacki Lake and Wolcott Pond, in the east-central part of town are the only significant bodies of water.


CANADA
NEW YORK
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ORLEANS
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CHITTENDEN
WASHINGTON
ORANGE
WINDSOR
WINDHAM
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N
COUNTY AND TOWN
OUTLINE MAP
OF
VERMONT
VERMONT DEPARTMENT OF HIGHWAYS
HIGHWAY PLANNING DIVISION
SCALE

SURVEY OF ROCK SOURCES

Procedure for Rock Survey

The routine employed by the project in a survey of possible sources of rock for highway construction is divided into two main stages; office and field investigations.

The office investigation is conducted primarily during the winter months and comprises the mapping and description of rock types as indicated in various reference sources. Many different sources of information are utilized, as indicated in the bibliography. These references differ considerably in dependability due to new developments and studies that have contributed to the obsolescense of a number of reports. In addition, the results of samples taken by other individuals are analyzed, and the location at which these samples were taken is mapped when possible. In other words, as complete a correlation as possible is made of all the information available concerning the geology of the area under consideration.

The field investigation is begun by making a cursory preliminary survey of the entire area. The information obtained in the preliminary survey, together with the information assimilated in the office investigation, is employed to determine the areas where testing and sampling will be concentrated. When a promising source has been determined by rock type, volume of material, accessibility, and adequate exposure and relief, chip samples are taken with a hammer across the strike or trend of the rock. The samples are submitted to the Material Testing Laboratory for abrasion testing both by the Deval Method (AASHO T-3) and the Los Angeles Method (AASHO T-96). It should be kept in mind that the samples taken by the chip method are often within the weathered zone of the outcrop and consequently may give a less satisfactory test result than fresh material deeper in the rock structure. When the material is uniform and acceptable abrasion tests result from the chip samples, the material source is included in this report as being satisfactory.

Discussion of Rock and Rock Sources

It should be noted that information on the Rock Materials Map is somewhat simplified. (For a more detailed description of the respective rock formations, see the Summary included in this report.) Complex metamorphic rocks comprise most of the lithology within Wolcott.

Occasionally, rocks belonging to the same formation and exhibiting similar characteristics (i.e. color, texture, etc.) may produce different abrasion results owing to different physical and chemical properties. Therefore, in no case should satisfactory test results of an area be construed to mean that the same formation, even in the same area, will not later produce unsatisfactory material. This is expecially true of metamorphic rocks.

Much of the town is mantled by dense woods or glacial drift. Phyllite, characteristically having a fissile cleavage which makes it a poor source of crushed rock, is the prevalent rock type in town. The survey found a quartzose zone in the Moretown member of the Missisquoi formation having minimal fissility, which is probably a quartz granulite or quartzite. The only sample taken in the town was from this zone of the Moretown member.

It was located on the west side of steep, long ledges north of Vermont Route 15, and east of the St. Johnsbury and Lamoille County Railroad tracks near the east edge of town. Rock meeting the abrasion requirements for Crushed Stone for Sub-base, Item 704.06, was obtained from this area. There is a large amount of material for development in the area. One other outcrop found in the Moretown member, about 0.7 mile north of Vermont Route 15 on the east side of Town Highway No. 14, was not sampled because of its proximity to houses and new construction.

The eastern part of town is underlain by the Cram Hill member of the Missisquoi formation which is made up of phyllites, shales, and some volcanic greenstone sills and dikes. There may be some outcrops in the northeast section of the town, but, they were inaccessible to this survey. Future investigation should

try to check The Ledges in the northeast corner of town, for usable rock.

The western corner of the town is underlain by the phyllite and schist of the Stowe formation, which, in other towns, has proven to have very poor abrasion characteristics, and thus was not sampled.

SURVEY OF SAND AND GRAVEL SOURCES

Procedure for Sand and Gravel Survey

The method employed by the project in a survey of possible sources of sand and gravel for highway construction is divided into two main stages; office and field investigations.

The office investigation is conducted primarily during the winter months and comprises the mapping of possible potentially productive areas as indicated from various references. Of these references, the survey of glacial deposits mapped by Professor Stewart proves to be valuable, particularly when used in conjunction with other references such as soil-type maps, aerial photographs, and United States Geological Survey quadrangles. The last two are used in the recognition and location of physiographic features indicating glacial deposits and in the study of drainage patterns. In addition, the locations of existing pits are mapped when known. The locations in which samples were taken by other individuals are noted and mapped when possible.

The field investigation is begun by making a cursory preliminary survey of the entire town. All pits and other areas which show physiographic features that give evidence of glacial or fluvial deposition are noted. These locations are later investigated by obtaining samples of pit faces and other exposed materials. Test pits, dug with a backhoe to a depth of approximately 11 feet, are also sampled. The samples are submitted to the Materials Testing Laboratory where they are tested for gradation and stone abrasion, the latter by the Deval Method (AASHO T-4), and the Los Angeles Method (AASHO T-96).

Discussion of Sand and Gravel Deposits

Granular materials in Wolcott suitable for highway and related construction purposes were emplaced by both glaciofluvial and glaciolacustrine processes. With the possible exception of deposition west of North Wolcott near the Hyde Park town line, these materials are confined to elevations below 1,200 feet. Above 1,200 feet, the glacial material is mostly till.

According to Stewart and MacClintock, glaciolacustrine deposition of sand, pebbly sand and beach gravel in Wolcott occurred when the ice margin of the continental glacier melted back to the vicinity of Johnson, forming a lake southeast of the ice at an elevation of 1,175 feet. Map Identification Numbers 1, 2, 3, 4, 6, and 11 represent test locations within these lake deposits.

Glaciofluvial kame deposition in Wolcott was sampled at Map Identification Numbers 5, 12, 13, 14, and 15. Kame terraces were sampled at Map Identification Numbers 7, 8, 9, and 10.

Map Identification Numbers which had material for Sub-base of Gravel, Item 704.05, are: 2, 5, 6, 8, 9, 10, 12 and 14; all but Numbers 5 and 6 were pits at the time of the survey.

Map Identification Number which had material acceptable for Sand Borrow and Cushion, Item 703.03, are: 3, 6, 7, 8, 9, 10, 11, 12, 13, 14; all but Number 6 were pits at the time of the survey.

SUMMARY OF ROCK FORMATIONS IN THE TOWN OF WOLCOTT

Cram Hill member of the Missisquoi formation - Pale greenish gray to black phyllite; grades locally into gray to black slate; felsic to mafic volcanic rocks.

Moretown member of the Missisquoi formation - Quartzite and quartz-plagioclase granulite in layers one-eighth to several inches thick, separated by pin-stripe partings that contain muscovite, chlorite, epidote, biotite, and locally garnet; also greenish quartz-sericite-chlorite phyllite and schist, and minor carbonaceous phyllite.

Stowe formation - Quartz-sericite (muscovite-paragonite) - chlorite phyllite and schist; porphyroblasts of albite, garnet, chloritoid, or kyanite are common locally; includes phyllitic graywacke north of Lamoille River. Schist contains abundant segregations of granular white quartz.

GLOSSARY OF SELECTED GEOLOGIC TERMS

ALBITE - The sodium end member of the plagioclase feldspar group, light-colored and found in alkali rocks.

BIOTITE - The mineral commonly known as black mica.

BLOCK - A large angular rock fragment showing little or no modification by transporting agencies. May be nearly in place or transported superglacially or by gravity or other agencies.

CARBONACEOUS - Containing carbon.

CHLORITE - A general designation for a group of hydrous silicates of magnesium and iron, with or without aluminum, so named because of their green color.

CHLORITOID - A brittle member of the mica mineral group.

CLEAVAGE - A tendency to split or cleave along definite, smooth, parallel, closely spaced planes. As applied to rocks, cleavage is the property of splitting into thin parallel sheets.

DIKE - A sheet-like body of igneous rock that fills a fissure in older rocks which it entered while in a molten condition. Varies from less than an inch in width and a few yards in length to thousands of feet in width and many miles in length. May radiate in groups from a center or occur singly and isolated from other igneous bodies.

EPIDOTE - A mineral, calcium aluminum iron silicate that usually occurs in rocks as formless grains and masses. The color is usually some shade of green, pistachio-green or yellowish-green being the most characteristic.

FELSIC - A mnemonic term derived from the names of the light-colored minerals: FE for feldspar, L for lenads or feldspathoids, and S for silica, and applied to these minerals and to rocks composed predominantly of one or more of them.

FISSILE - The tendency possessed by some rocks to split into thin sheets along either bedding planes or cleavage planes induced by fracture or flowage.

GLACIO-FLUVIAL - A term used to denote formation by or relation to streams within, upon or emerging from glacial ice.

GRANULITE - According to the current usage of the term in Europe, a granulite is a quartz-feldspar rock of high metamorphic grade, poor or lacking in mica, and characterized structurally by a single regular plane of schistosity, which is easily visible to the eye. The schistosity is determined mainly by parallel orientation of flat lenses of coarse-grained quartz set in a quartzose matrix of smaller equidimensional grains. The term has appeared in older literature with a variety of other meanings and should not be used without explanation.

GRAYWACKE - An old rock name loosely applied. Most writers now apply it to a dark-colored, hard sandstone consisting of angular grains of quartz, feldspar, and rock fragments embedded in a fine, compact matrix composed of micas, clay minerals, and chlorite.

GREENSTONE - A field name for rocks that have been so metamorphosed or otherwise so altered that they assumed a distinctive color owing to the presence of chlorite, epidote, or actinolite.

KAME - A conical hill of stratified drift, deposited at a glacial terminus by glacial streams flowing in or on the ice.

KAME TERRACE - Stratified sands and gravels deposited by streams between a glacier and an adjacent valley wall.

KYANITE - An aluminum silicate mineral usually occurring in blue thin-bladed crystals and crystalline aggregates.

MAFIC - A term applied to dark igneous rocks consisting predominantly of iron-magnesium minerals such as hornblende.

MUSCOVITE - An important member of the mica group of minerals, known also as white mica, potash mica, or isinglass.

PARAGONITE - A mica, similar in appearance and composition to muscovite but containing sodium instead of potassium.

PHYLLITE - A fine-grained, foliated metamorphic rock intermediate between the mica schists and slates into which it may grade. The foliation is made possible by the development of a large amount of potash mica, sericite, which also gives the rock a distinctive silvery appearance.

PIEDMONT - An area lying at the foot of mountains.

PLAGIOCLASE - The group of common rock-forming feldspar minerals of the albite-anorthite isomorphous series.

PORPHYROBLASTS - Large crystals which have grown in place within the fine-grained groundmass of a metamorphic rock. They have been formed by action of heat, pressure and infiltrating solutions occurring later than the rock in which they form.

QUARTZITE - A firm, compact rock composed of grains of quartz so firmly united that fracture takes place across the grains instead of around them.

SCHIST - A crystalline rock with a secondary foliation or lamination based on parallelism of platy or needle-like grains. The name refers to the tendency to split along the foliation.

SERICITE - A mineral similar to, if not identical with, muscovite mica. It occurs in small flakes and scales in metamorphic rocks such as sericite schists and sericite gneisses.

SILL - A tabular body of igneous rock which has been injected between layers or foliations of rock. Sills have relatively great lateral extent compared to thickness.

TALUS - An accumulated heap of rock fragments derived from, and lying at the base of, a cliff or very steep slope. The fragments may be large or small; the aggregate heap usually has a form determined by gravity and the angle of rest of the material involved. The term should not be used for any loose, fragmental rock lying on a slope, but is restricted to occurrences where there is a projecting mass or cliff from which the fragments were obviously derived.

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PARTIAL SPECIFICATIONS FOR HIGHWAY CONSTRUCTION MATERIALS

Listed below are partial specifications for Highway Construction Materials items that will supercede the items currently in effect on July 1, 1971. The new items are included as an appendix to this report since the suitability of materials for construction is referred to the new items in many instances.

DIVISION 700 - MATERIALS

Section 703, Soils and Borrow Materials

703.03 Sand Borrow and Cushion

Sand Borrow shall consist of material reasonably free from silt, loam, clay, or organic matter. It shall be obtained from approved sources and shall meet the requirements of the following table:

Table 703.03A - Gradation Requirements

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Total Sample	Sand Portion
2"	100	
1½"	90-100	
½"	70-100	
No. 4	60-100	100
No. 100		0-30
No. 200		0-12

703.05 Granular Borrow

Granular Borrow shall be obtained from approved sources, consisting of satisfactorily graded, free draining, hard, durable stone and coarse sand reasonably free from loam, silt, clay, and organic material.

The Granular Borrow shall meet the requirements of the following table:

Table 703.05A - Gradation Requirements

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Total Sample	Sand Portion
No. 4	20-100	100
No. 200		0-15

The maximum size stone particles of the Granular Borrow shall not exceed 2/3 of the thickness of the layer being spread.

Section 704, Aggregate

704.05 Gravel for Sub-base

Gravel for Sub-base shall consist of material reasonably free from silt, loam, clay, or organic matter. It shall be obtained from approved sources and shall meet the following requirements:

(a) Grading

The gravel shall meet the requirements of the following table:

Table 704.05A - Gradation Requirements

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Total Sample	Sand Portion
No. 4	(20-60)	100
No. 100		0-10
No. 200		0- 8

The stone portion of the gravel shall be uniformly graded from coarse to fine, and the maximum size stone particles shall not exceed 2/3 the thickness of the layer being placed.

(b) Percent of Wear

The percent of wear of the gravel shall be not more than 25 when tested in accordance with AASHO T 4, or more than 40 when tested in accordance with AASHO T 96.

704.06 Crushed Stone for Sub-base

Crushed Stone for Sub-base shall consist of clean, hard, crushed stone, uniformly graded, reasonably free from dirt, deleterious material, pieces which are structurally weak and shall meet the following requirements:

(a) Source

This material shall be obtained from approved sources and the area from which this material is obtained shall be stripped and cleaned before blasting.

(b) Grading

This material shall meet the requirements of the following table:

Table 704.06A - Gradation Requirements

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
	Total Sample
4½"	100
4"	90-100
1½"	25- 50
No. 4	0- 15

(c) Percent of Wear

The percent of wear of the parent rock shall be not more than 8 when tested in accordance with AASHO T 3, or the crushed stone a percent of wear of not more than 40 when tested in accordance with AASHO T 96.

(d) Thin and Elongated Pieces

Not more than 30 percent, by weight, of thin and elongated peices will be permitted.

Thin and elongated pieces will be determined on the material coarser than the No. 4 sieve.

(e) Filler

The filler shall be obtained from approved sources and shall meet the requirements as set up for Sand Cushion, Subsection 703.03.

(f) Leveling Material

The leveling material shall be obtained from approved sources and may be either crushed gravel or stone screening produced by the crushing process. The material shall consist of hard durable particles, reasonably free from silt, loam, clay or organic matter.

This material shall meet the requirements of the following table:

Table 704.06B - Gradation Requirements

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves Total Sample
1"	100
3/4"	90-100
1/2"	50- 90
No. 4	30- 70
No. 100	0- 20
No. 200	0- 10

704.07 Crushed Gravel for Sub-base

Crushed Gravel for Sub-base shall consist of material reasonably free from silt, loam, clay or organic matter. It shall be obtained from approved sources and shall meet the following requirements:

(a) Grading

The crushed gravel shall be uniformly graded from coarse to fine and shall meet the requirements of the following table:

Table 704.07A - Gradation Requirements

Grading	Sieve Designation	Percentage by Weight Passing Square Mesh Sieves Total Sample	Sand Portion
	4"	100	
Coarse	No. 4	25- 50	100
	No. 100		0- 20
	No. 200		0- 12
	2"	100	
	1½"	90-100	
Fine	No. 4	30- 60	100
	No. 100		0- 20
	No. 200		0- 12

(b) Percent of Wear

The percent of wear of the parent gravel shall be not more than 20 when tested in accordance with AASHO T 4, or the crushed gravel a percent of wear of not more than 35 when tested in accordance with AASHO T 96.

(c) Fractured Faces

At least 30 percent, by weight, of the stone content shall have at least one fractured face.

Fractured faces will be determined on the material coarser than the No. 4 sieve.

704.09 Dense Graded Crushed Stone for Sub-base

Dense Graded Crushed Stone for Sub-base shall consist of clean, hard, crushed stone, uniformly graded, reasonably free from dirt, deleterious material and pieces which are structurally weak, and shall meet the following requirements:

(a) Source

This material shall be obtained from approved sources and the area from which this material is obtained shall be stripped and cleaned before blasting.

(b) Grading

This material shall meet the requirements of the following table:

Table 704.09A - Gradation Requirements

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves Total Sample
3½"	100
3"	90-100
2"	75-100
1"	50- 80
½"	30- 60
No. 4	15- 40
No. 200	0- 10

(c) Percent of Wear

The percent of wear of the parent rock shall be not more than 8 when tested in accordance with AASHO T 3, or the crushed stone a percent of wear of not more than 40 when tested in accordance with AASHO T 96.

(d) Thin and Elongated Pieces

Not more than 30 percent, by weight, of thin or elongated pieces will be permitted.

Thin and elongated pieces will be determined on the material coarser than the No. 4 sieve.

704.10 Gravel Backfill for Slope Stabilization

Gravel Backfill for Slope Stabilization shall be obtained from approved sources, consisting of satisfactorily graded, free draining, hard, durable stone and coarse sand reasonably free from loam, silt, clay, and organic material.

The gravel backfill shall meet the requirements of the following table:

Table 704.10A - Gradation Requirements

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Total Sample	Sand Portion
No. 4	20-50	100
No. 100		0- 20
No. 200		0- 10

The stone portion of the gravel backfill shall be uniformly graded from coarse to fine, and the maximum size stone particles shall not exceed 2/3 the thickness of the layer being placed.

704.11 Granular Backfill for Structures

Granular Backfill for Structures shall be obtained from approved sources, consisting of satisfactorily graded, free draining granular material reasonably free from loam, silt, clay, and organic material.

The granular backfill shall meet the requirements of the following table:

Table 704.11A - Gradation Requirements

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves	
	Total Sample	Sand Portion
3"	100	
2½"	90-100	
No. 4	50-100	100
No. 100		0- 18
No. 200		0- 8

WOLCOTT GRANULAR DATA SHEET NO. 1

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
1	1	1973	2-4	0-2	No	87	--	75	54	2	2	---	Gran. Borrow (Gravel)	Owner - R. Davis Area is an open field in pasture west of State Aid Highway No. 1 with access road 1.16 miles north of Town Highway No. 8 junction. Field had standing water on it, in spite of 25° slope. Test No. 1 was above steep bank, about 450' from highway. Material was: 2'-4', sandy gravel. Bottom was clay-silt and water table at 4'.
2	1	1973	1-5	0-1	Yes	92	90	72	58	10	3	23.7%	Gravel	Owner - Arthur Bailey Area is a pit (110'x60') in a field west of Town Highway No. 8 with access road 0.50 mile south of Town Highway No. 41 junction. Pit had wet floor and low (4'-6') faces. Test No. 1 was in northwest face of pit. Material was: 1'-5', silty sandy gravel; bottoms in silty sand. Only one test was allowed by owner.
3	1	1973	0.5-6	0-0.5	Yes	---	100	82	69	3	2	---	Sand	Owner - Bill Dexter Area is a small (35'x50') pit in the woods southeast of the junction of Town Highway No. 19 with Town Highway No. 18.

WOLCOTT GRANULAR DATA SHEET NO. 2

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
	2	1973	0.5-11	0-0.5	Yes	100	73	60	47	7	2	---	Gran. Borrow (Gravel)	Test No. 1 was in the south face of the pit. Material was: 0.5'-6', pebbly sand; bottom of the 7-foot face was sand. Test No. 2 was in bush-covered extension 30' south of Test No. 1. Material was: 0'-0.5', overburden; 0.5'-11', fine gravel.
4	—	1973	----	-----	Yes	----------		NOT		SAMPLED	----------			Owner - Frank O. Fredericks (formerly: Barrows Pit) Area is overgrown pit (160'x60') with smoothed over faces. It is east of Town Highway No. 30 about 0.05 mile south of Town Highway No. 31 junction. No permission to sample was obtained.
5	1	1973	0.5-8	0-0.5	No	85	78	63	51	8	5	22.4%	Gravel	Owner - Benoit Leriche Area is a field in pasture north-east of Vermont Route 15; access is 0.23 mile northwest of State Aid Highway No. 2 junction. Field contains a short, steep ridge. Test No. 1 was in tractor path about 200' from the highway. Material was: 0.5'-4', gravel; 4'-8', fine gravel; 8'-10', fine sand with silt traces (not sampled).

WOLCOTT GRANULAR DATA SHEET NO. 3

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Existing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
	2	1973	0.5-7	0-0.5	No	---	100	91	79	36	17	---	-----	Test No. 2 was near top of ridge, 240' northwest of Test No. 1, and 30' southeast of fence. Material was: 0.5'-1.5', fine sand; 1.5'-7', sandy silt with boulders.
6	1	1973	0.5-9	0-0.5	No	---	100	92	77	8	5	---	Sand	Owner - John Reed Area is a 12-acre field and adjacent logging roads at the southeast corner of a 300 to 500-acre woodland property northeast of Vermont Route 15 and west of the Wolcott sanitary land fill. Access is via State Aid Highway No. 2 about 150' northeast of its junction with Vermont Route 15. The best location for a pit would be in the field. Test No. 1 was at northeast edge of field, 220' northwest of John Reed property line. Material was: 0.5'-4', fine gravel; 4'-9', sand, bottom in same.
	2	1973	2.5-9	0-2.5	No	78	71	48	34	50	32	24.2%	----	Test No. 2 was at edge of field, 330' northwest of Test No. 1. Material was: 2.5'-4', silty gravel; 4'-8', gravel; 8'-8.5', silty gravel; 8.5'-9', gravel.
	3	1973	1-9	0-1	No	82	77	52	41	8	5	15.4%	Gravel	Test No. 3 was at edge of field, 285' northwest of Test No. 2. Material was: 1'-4', fine gravel; 4'-6', sand; 6'-7.5', gravel; 7.5'-8', sand; 8'-9', fine gravel.

WOLCOTT GRANULAR DATA SHEET NO. 4

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
	4	1973	1.5-10	0-1.5	No	92	89	68	50	26	15	24.4%	Gran. Borrow (Gravel)	Test No. 4 was at edge of field, 315' northwest of Test No. 3. Material was: 1.5'-5', fine gravel; 5'-7', sand; 7'-8', sandy gravel; 8'-10', fine sand.
	5	1973	1-10	0-1	No	---	100	90	79	63	38	---	----	Test No. 5 was at edge of field, 330' west of Test No. 4. Material was: 1'-3', gravelly silt; 3'-10', sandy silt.
	6	1973	1.5-10	0-1.5	No	---	100	97	92	17	6	---	Sand	Test No. 6 was at edge of field, 135' southwest of Test No. 5. Material was: 1.5'-10', fine sand.
	7	1973	1-11	0-1	No	89	87	69	49	9	6	20.8%	Gravel	Test No. 7 was at edge of field, 285' southeast of Test No. 6. Material was: 1'-6', fine gravel; 6'-11', sandy gravel.
	8	1973	1-11	0-1	No	83	73	50	32	12	9	15.8%	Gran. Borrow (Gravel)	Test No. 8 was at edge of field, 420' southwest of Test No. 7. Material was: 1'-11', gravel.
	9	1973	1-10	0-1	No	89	82	63	45	14	10	20.3%	Gran. Borrow (Gravel)	Test No. 9 was at edge of field, 290' southeast of Test No. 8. Material was: 1'-10', gravel.
	10	1973	1.5-10	0-1.5	No	---	88	63	49	6	4	23.7%	Gravel	Test No. 10 was at edge of field, 300' southeast of Test No. 9. Material was 1.5'-10', gravel.
	11	1973	1-7	0-1	No	100	95	87	79	15	8	---	Sand	Test No. 11 was near logging road in woods, 320' northeast of Test No.2. Material was: 1'-5', sand; bottom, clay.

WOLCOTT GRANULAR DATA SHEET NO. 5

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Existing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
	12	1973	1-7	0-1	No	100	95	87	79	15	8	---	Sand	Test No. 12 was at edge of clearing in woods south of sugar house ruins, 450' northeast of Test No. 11. Material was: 1'-7', gravelly sand; bottom, clay.
	13	1973	1-6	0-1	No	100	95	93	89	47	43	---	----	Test No. 13 was near logging road in woods, 640' east of Test No. 12. Material was: 1'-6', silty fine sand.
	14	1973	1-9	0-1	No	---	100	97	91	5	3	---	Sand	Test No. 14 was in clearing, 390' south of Test No. 13. Material was: 1'-9', pebbly sand.
	15	1973	1-9	0-1	No	---	100	87	73	3	2	---	Sand	Test No. 15 was in clearing, 340' norhteast of Test No. 14. Material was: 1'-9', pebbly sand.
	16	1973	0.5-5	0-0.5	No	---	90	69	52	13	9	27.6%	Gran. Borrow (Gravel)	Test No. 16 was in woods, 100' northeast of Test No. 3. Material was: 0.5'-5', gravel; bottom, silt.
	17	1973	0.5-5	0-0.5	No	---	100	94	90	82	58	---	----	Test No. 17 was in clearing on access road, about 600' northwest of Test No. 16. Material was: 0.5'-5', sandy silt.
7	1	1973	5-12	0-1.5	Yes	---	100	99	98	4	3	---	Sand	Owner - C. F. Reed Area is a small (20'x20') pit in a woods north of road to Little League Ball Field, and west of Town Highway No. 15 about 1.19 miles south of its junction with State Aid Highway No. 1.

WOLCOTT GRANULAR DATA SHEET NO. 6

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
														Test No. 1 was in northeast face of pit. Material from 5'-12' was a well-graded sand.
8	1	1973	3-12	0-1	Yes	78	68	44	31	10	6	22.0%	Gravel	Owner - C. F. Reed Area is a large pit complex, reached by access road about 0.07 mile west of Town Highway No. 15, and about 0.32 mile north of Vermont Route 15. Test No. 1 was in west face. Material was: 3'-12', coarse gravel; bottom, fine gravel.
	2	1973	1-7	----	Yes	100	94	81	67	7	3	---	Sand	Test No. 2 was in northwest face. Material was: 1'-7', fine gravel; bottom, sand.
	3	1973	1-10	----	Yes	100	99	80	65	4	2	---	Sand	Test No. 3 was in lower west face, east of Test No. 1. Material was; 1'-10', fine sandy gravel; bottom, sandy fine gravel.
	4	1973	0-10	----	Yes	---	--	100	96	21	10	---	Sand	Test No. 4 was in lower north face. Material was: 0-10', stratified gravelly sand; bottom, fine sand.
	5	1973	1-15	0-1	Yes	100	94	80	64	6	4	23.0%	Gravel	Test No. 5 was in north face. Material was: 1'-15', fine sandy gravel; bottom, sand.
	6	1973	0-7	----	Yes	95	91	66	39	18	10	5.2%	Gran. Borrow (Gravel)	Test No. 6 was in lower northeast face. Material was: 0-7', gravel; bottom, fine gravel.

WOLCOTT GRANULAR DATA SHEET NO. 7

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Existing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
	7	1973	1-8	0-1	Yes	94	90	70	52	16	12	---	Gran. Borrow (Gravel)	Test No. 7 was in east face of pit. Material was: 1'-8', silty gravel; bottom, same.
	8	1973	1-5	---	Yes	---	100	93	85	50	11	---	Gran. Borrow (Gravel)	Test No. 8 was in lower southeast face. Materail was: 1'-5', fine sand; bottom, same.
	9	1973	5-14	0-0.5	Yes	81	65	40	26	10	7	16.1%	Gravel	Test No. 9 was in southwest face. Material was: 5'-14', gravel; bottom, sand.
	10	1973	0-10	---	Yes	---	--	--	100	12	2	---	Sand	Test No. 10 was in floor, about 300' N. 15°E. of Test No. 9. Material was: 0-1.5', gravel; 1.5'-5', sand; 5'-9', fine sand; bottom, fine sand.
	11	1973	0-11	---	Yes	---	--	--	100	46	18	---	----	Test No. 11 was in floor, about 20' northwest of Test No. 8. Material was: 0-5', fine sand; 5'-6', clay; 6'-11', fine sand; bottom, fine sand.
	12A	1973	0-4	---	Yes	92	86	60	35	8	4	11.6%	Gravel	Test No. 12A was in floor, about 210' northwest of Test No. 11. Material was: 0-2', pebbly gravel; 2'-4', gravel; bottom, fine sand.
	12B	1973	4-11	---	Yes	---	--	--	100	44	7	---	Gran. Borrow (Sand)	Test No. 12B was below Test No. 12A. Material was: 4'-11', fine sand; bottom, same.
	13A	1973	0-4	---	Yes	100	93	85	67	4	3	---	Sand	Test No. 13A was in floor about 60' northeast of Test No. 1. Material was 0-4', pebbly sand; bottom, fine gravel.

WOLCOTT GRANULAR DATA SHEET NO. 8

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
	13B	1973	4-11	---	Yes	94	84	57	30	5	4	12.4%	Gravel	Test No. 13B was below Test No. 13A. Material was: 4'-11', fine gravel; bottom, same.
	14	1973	0-11	---	Yes	---	100	99	99	40	12	---	Gran, Borrow (Sand)	Test No. 14 was in floor, about 100' east of Test No. 4. Material was: 0-11', fine sand and silt; bottom, silty sand.
	15A	1973	0-5	---	Yes	90	80	63	49	14	5	14.6%	Gravel	Test No. 15A was in floor, about 65' south of Test No. 6. Material was: 0-5', gravel; botton, fine sand
	15B	1973	5-11	---	Yes	---	--	--	100	13	3	---	Sand	Test No. 15B was below Test No. 15A. Material was: 5'-11', fine sand; bottom, same.
	16	1973	1-11	0-1	Yes	---	--	--	100	37	5	---	Gran. Borrow (Sand)	Test No. 16 was in floor, about 100' southwest of Test No. 7. Material was: 0-1', gravel; 1'-11', fine sand; bottom, fine sand.
	17	1973	1.5-11	0-1.5	No	74	68	37	33	57	44	16.2%	---	Test No. 17 was in field, about 250' south of Test No. 10. Material was: 1.5'-5', sandy gravel; 5'-7', coarse gravel; 7'-11', coarse sandy gravel.
	18	1973	1-11	0-1	No	66	52	38	31	31	16	16.5%	---	Test No. 18 was in field, about 150' south of Test No. 9. Material was: 1'-7', fine sand and coarse gravel; 7'-11', sandy coarse gravel.
	19	1973	1-10	0-1	No	73	60	40	30	26	15	27.1%	Gran. Borrow (Gravel)	Test No. 19 was in field, about 180' west of Test No. 9. Material was: 1'-10', sandy coarse gravel; bottom, same.

WOLCOTT GRANULAR DATA SHEET NO. 9

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Existing Pit	Sieve Analysis % Passing 2"	1½"	½"	#4	#100	#200	Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
	20	1973	1-11	0-1	No	65	61	45	32	16	12	25.4%	Gran. Borrow (Gravel)	Test No. 20 was in field, 300' northwest of Test No. 19. Material was: 1'-7', sandy gravel; 7'-11', coarse gravel.
	21	1973	1-11	0-1	No	77	71	48	32	13	8	23.1%	Gravel	Test No. 21 was in field, about 300' northwest of Test No. 20. Material was: 1'-11', gravel; bottom, same.
	22A	1973	1-6	0-1	No	55	48	35	26	21	14	23.6%	Gran. Borrow (Gravel)	Test No. 22A was in field, 250' northwest of Test No. 21. Material was: 1'-3', sandy gravel; 3'-6', uniform stony gravel; bottom, sand.
	22B	1973	6-11	---	No	---	100	96	91	5	3	---	Sand	Test No. 22B was in field, below Test No. 22A. Material was: 6'-11', pebbly sand; bottom, same.
	23	1973	1-11	0-1	No	90	84	59	48	9	6	24.6%	Gravel	Test No. 23 was in field, about 250' northwest of Test No. 22A. Material was: 1'-11', gravel; bottom, gravel.
9	1	1973	0-10	---	Yes	85	62	46	32	16	10	10.8%	Gran. Borrow (Gravel)	Owner - Madeline I. Davis Area is a field with inactive pit, northeast of Vermont Route 15. Access road is 0.38 mile southeast of Town Highway No. 6 junction. Boulders and stripping piles are present. Test No. 1 was dug in pit floor, 30' south of pit entrance. Material was: 0-4', coarse gravel; 4'-5', uniform 1" stone; 5'-8', coarse gravel 8'-9', uniform size stone, 9'-10', coarse gravel; bottom, same.

WOLCOTT GRANULAR DATA SHEET NO. 10

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Existing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
	2	1973	2-10	0-2	No	---	83	56	31	19	13	24.2%	Gran. Borrow (Gravel)	Test No. 2 was in field, 250' west of Test No. 1. Material was: 2'-5' coarse gravel; 5'-10'; bottom, same.
	3	1973	1-10	0-1	No	81	73	61	47	9	7	24.1%	Gravel	Test No. 3 was in field, 225' north of Test No. 2. Material was: 1'-10', fine gravel; bottom, same.
	4	1973	1.5-10	0-1.5	No	---	81	56	40	13	8	29.8%	Gran. Borrow (Gravel)	Test No. 4 was in field, 225' east of Test No. 3. Material was: 1.5-6.5', gravel; 6.5-10', sandy gravel; bottom, same.
	5	1973	4-11	0-4	No	100	77	77	77	5	3	---	Sand	Test No. 5 was in field, 150' north of Test No.4. Material was: 4'-5', fine gravel; 5'-11', sand; bottom, same.
	6	1973	2-11	0-2	No	87	74	54	40	11	7	18.3%	Gravel	Test No. 6 was in field, 340' south east of Test No. 5. Material was: 2'-8', gravel; 8'-11', fine gravel.
	7	1973	1-9	0-1	No	84	74	53	34	11	7	24.2%	Gravel	Test No. 7 was in field, 150' southeast of Test No. 1. Material was: 1'-9', fine to medium gravel, bottom, medium gravel.
	8	1973	1-11	0-1	Yes	---	100	97	97	36	11	---	Gran. Borrow (Sand)	Test No. 8 was within the trace of a very old pit, about 150' southeast of Test No. 7. Material was: 1'-2.5', fine sand; 2.5'-5', silt; 5'-6', fine sand; 6'-7', silt; 7'-10', fine sand; 10'-11', silt.

WOLCOTT GRANULAR DATA SHEET NO. 11

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
10	1	1972	5-10	0-1	Yes	96	93	80	61	17	9	---	Gran. Borrow (Sand)	Owner - Dr. David U. Walker Area contains two inactive pit faces near some Christmas tree plantings northeast of the junction of Town Highway No. 28 with Vermont Route 15 in Wolcott Village. Test No. 1 was in the west face, about 0.13 mile by access road from Town Highway No. 28. Material was: 5'-7', fine gravel; 7'-8', clay silt; 8'-10', fine gravel; bottom, same.
	2	1972	1-9	0-1	No	85	76	53	38	15	11	22.3%	Gran. Borrow (Gravel)	Test No. 2 was in field 105' west of Test No. 1. Material was: 1'-9', sandy gravel; possible bedrock at bottom.
	3	1973	1-9	0-1	Yes	93	87	68	55	12	8	---	Gravel Grading only	Test No. 3 was near east face, 740' northeast of Test No. 1. Material was: 1'-9', sandy gravel; bottom, same.
	4	1973	1-9	0-1	No	87	76	66	57	6	4	27.1%	Gran. Borrow (Gravel)	Test No. 4 was in field, 370' north of Test No. 3. Material was: 1'-8', sandy gravel; 8'-9', pebbly sand; bottom, same.
	5	1973	3.5-11	0-3.5	No	---	--	100	100	4	2	---	Sand	Test No. 5 was in field, 570' east of Test No. 4. Material was: 3.5'-11', sand; bottom, same.
	6	1973	1-11	0-1	No	63	53	43	34	17	8	---	Gravel Grading	Test No. 6 was in field, 265' east of Test No. 3. Material was: 1'-11', sandy gravel; bottom, same.

WOLCOTT GRANULAR DATA SHEET NO. 12

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Existing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
11	1	1973	1-10	0-1	Yes	---	--	100	99	4	1	---	Sand	Owner - John Brown Area is a field with two small pits southwest of Vermont Route 15, about 0.67 mile southeast of Town Highway No. 34 junction. All of extension may not be owned by John Brown. Test No. 1 was in possible extension, 10' east of south pit face. Material was: 1'-10', fine sand; bottom, same.
	2	1973	1.5-11	0-1.5	No	---	--	100	96	31	11	---	Gran. Borrow (Sand)	Test No. 2 was on ridge in field, 375' southeast of Test No. 1. Material was: 1.5'-9', fine sand; 9'-11', sand; bottom, same.
	3	1973	1-9	0-1	No	---	--	--	100	7	3	---	Sand	Test No. 3 was in field, 325' southeast of Test No. 2. Material was: 1'-9', fine sand; bottom, same.
12	1	1973	1-9	0-1	Yes	---	--	100	99	24	9	---	Sand	Owner - Clarence Ward Area is a pit in field south of Vermont Route 15, about 0.95 mile southeast of the junction with Town Highway No. 34. Test No. 1 was in northeast face of pit. Material was: 1'-9', stratified sand beds; bottom, fine sand.

WOLCOTT GRANULAR DATA SHEET NO. 13

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Existing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
	2	1973	0.5-8	0-0.5	Yes	100	97	73	56	7	3	18.8%	Gravel	Test No. 2 was in southeast face of pit. Material was: 0.5'-8', fine sandy gravel; bottom, silty gravel.
	3	1973	0-7	---	Yes	49	38	22	17	59	40	23.4%	----	Test No. 3 was 75' south of northern-most face. Material was: 0-7', very coarse, silty-sandy gravel; bottom, possibly bedrock.
	4	1973	0-10	---	Yes	100	85	81	78	9	5	---	Sand	Test No. 4 was 150' east of Test No. 3. Material was: 0'-7', sand; 7'-8.5', gravel; 8.5'-10', sand; bottom, sand.
	5	1973	0-11	---	Yes	---	--	--	100	5	2	---	Sand	Test No. 5 was in possible extension, 90' south of Test No. 4. Material is: 0-11', sand; bottom, sand.
13	1	1973	1-10	0-1	Yes	100	94	81	68	16	6	---	Sand	Owner - Don Williams Area is a pit in woods northeast of Vermont Route 15 about 1.1 miles east of junction with Town Highway No. 36. Pit truncates southeast end of a stump-covered ridge. Test No. 1 was in northeast face. Material was: 1'-10', pebbly sand; bottom, coarse sand.
	2	1973	3-11	0-3	Yes	100	92	69	53	9	4	---	Gran. Borrow (Gravel)	Test No. 2 was on top of ridge, 75' northwest of face. Material was: 3'-11', gravelly sand; bottom, sand.

WOLCOTT GRANULAR DATA SHEET NO. 14

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Existing Pit	Sieve Analysis % Passing 2"	1½"	½"	#4	#100	#200	Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
	3	1973	1-11	0-1	No	100	96	92	84	6	4	---	Sand	Test No. 3 was on northwest slope of ridge, about 180' from Test No. 2. Material was: 1'-11', pebbly sand; bottom, same.
14	1	1973	1-7	0-1	Yes	74	72	54	43	12	8	18.8%	Gravel	Owner - Don Williams Area is reached by woods road about 0.23 mile south of Map Identification Number 13. Wooded ridge is truncated on southeast end by 35' long face. Test No. 1 was in face. Material was: 1'-7', gravel; bottom, sand.
	2	1973	1-9	0-1	No	---	100	99	96	8	4	---	Sand	Test No. 2 was in woods, 150' north of face. Material was: 1'-9', horizontal sand beds; bottom, sand.
	3	1973	1-9	0-1	No	---	--	100	99	20	15	---	Gran. Borrow (Sand)	Test No. 3 was in woods, about 340' east of Test No. 2. Material was: 1'-5', silt and sand; 5'-9', sand; bottom, sand.
15	1	1973	1-14	0-1	Yes	100	84	79	71	20	13	---	Gran. Borrow (Sand)	Owner - Don Williams Area is a face, northeast of owner's garage, that is located northeast of Vermont Route 15 about 2.33 miles east of Town Highway No. 14 junction.

WOLCOTT GRANULAR DATA SHEET NO. 15

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing						Abrasion AASHO T-4-35	Passes VHD Spec.	Remarks
						2"	1½"	½"	#4	#100	#200			
														Test No. 1 was in north face. Material was: 1'-14', horizontal pebbly sand beds; bottom, fine sand.
16	1	1973	1-6	0-1	Yes	100	90	84	79	75	35	---	---	Owner - Leon Whitcomb Area is a partly overgrown field east of State Aid No. 3. About 200' south of Town Highway No. 34 is access to an inactive pit that truncates knoll in field. Test No. 1 was in the east face of the pit. Material was: 1'-6', silty fine sand; bottom, silt.
17	1	1973	3-20	0-1	Yes	95	88	49	29	17	11	13.3%	Gran. Borrow (Gravel)	Owner - J. and L. Realty Corp. Area is a field southwest of Vermont Route 15. Access to field is about 0.11 mile east of Town Highway No. 34. Side of bank west of dry brook was sampled about 400' south of highway. Material was: 3'-20', gravel; bottom, gravel or fine gravel.

TABLE I
SUPPLEMENT

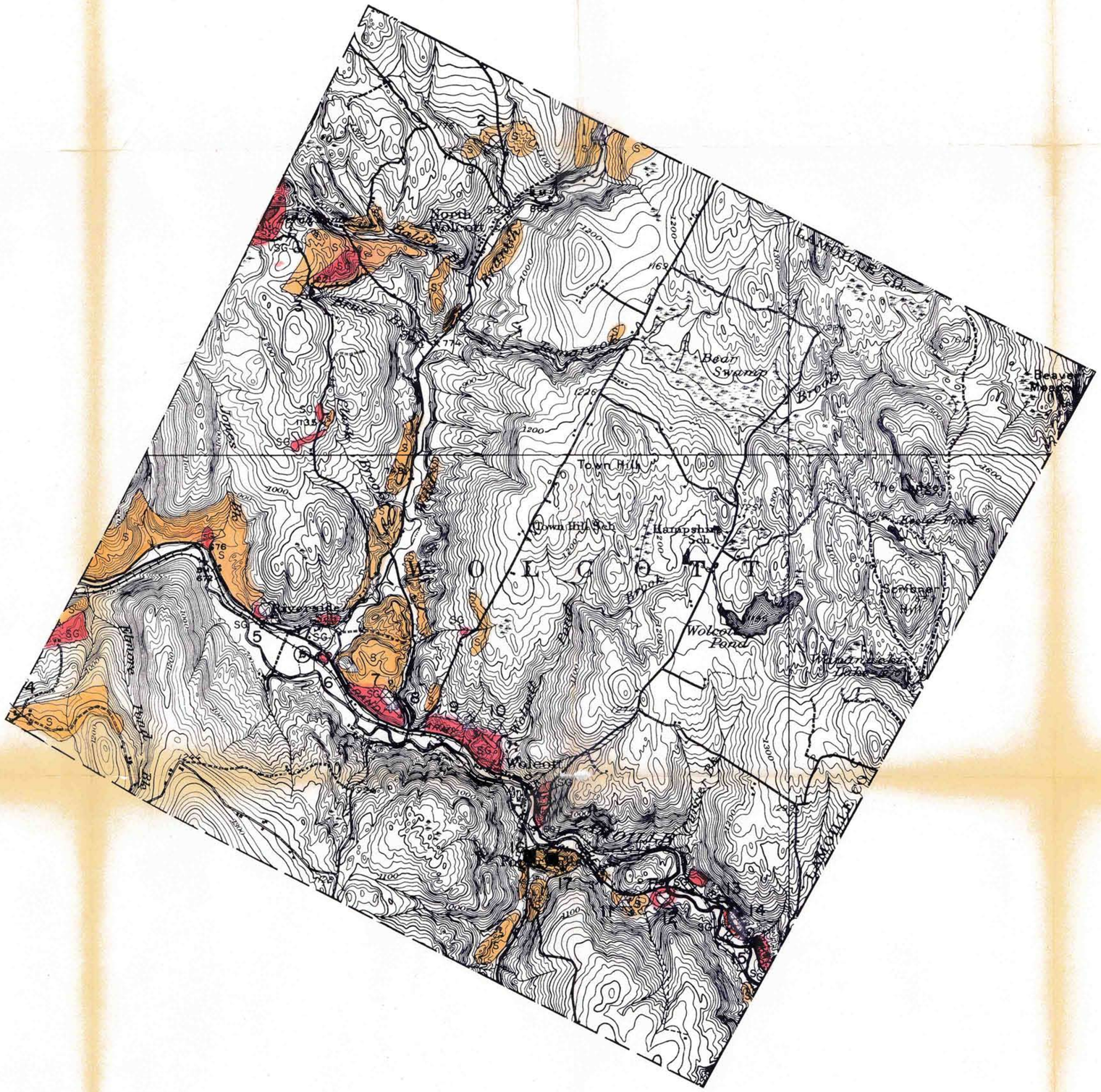
WOLCOTT PROPERTY OWNERS - GRANULAR	MAP IDENTIFICATION NUMBER
Bailey, Arthur	2
Brown, John	11
Davis, Madeline I.	9
Davis, Ronald	1
Dexter, Bill	3
Fredericks, Frank O.	4
J. and L. Realty Corp.	17
Leriche, Benoit	5
Reed, C. F.	7, 8
Reed, John	6
Walker, David U., Dr.	10
Ward, Clarence	12
Whitcomb, Leon	16
Williams, Don	13, 14, 15

WOLCOTT ROCK DATA SHEET NO. 1

Ident. No.	Field Test No.	Year Field Tested	Rock Type	Existing Quarry	Method of Sampling	Abrasion AASHO T-3	Abrasion AASHO T-96	Remarks
1	1A	1973	Quartzite	No	Chip	3.4%	28.5%	Owner - Clarence Ward Area is a west-facing cliff northeast of St. J. & L. C. Railroad crossing on Vermont Route 15, and about 0.8 mile west of the Hardwick town line. Rock outcrops in ledges that are exposed for 750' along the highway east of the access road which parallels the scarp. Rock is quartzite, or quartz granulite of the Moretown member of the Missisquoi formation. Bedding strikes about due north and dips from vertical to 70° east. Foliation was noted. Samples were taken from large blocks of talus along base of cliff. This would be the best location for a quarry. Test No. 1A was sampled from about 0.18 mile north of the highway for 200' southwards.
	1B	1973	Quartzite	No	Chip	4.0%	31.5%	Test No. 1B was sampled from the south end of Test 1A for an additional 200' southwestwards. Rock generally breaks into blocks but, where thin-bedded, tends to break sharply angular.

TABLE II
SUPPLEMENT

WOLCOTT PROPERTY OWNERS - ROCK	MAP IDENTIFICATION NUMBER
Ward, Clarence	1



LEGEND

- ○ GRAVEL, ACCEPTABLE FOR SEC. 704.05 (gravel for sub-base)
- ● GRAVEL, DEPLETED OR NOT ACCEPTABLE FOR SEC. 704.05
- △ SAND, ACCEPTABLE FOR SEC. 703.03 (sand borrow and cushion)
- ▲ SAND, DEPLETED OR NOT ACCEPTABLE FOR SEC. 703.03
- □ GRANULAR BORROW, SEC. 703.05
- ■ MATERIAL NOT ACCEPTABLE FOR SEC. 703.05
- ⛏ EXISTING PIT
- SG SAND and GRAVEL DEPOSIT
- S SAND DEPOSIT
- 3 IDENTIFICATION NUMBER (refer to data sheets)

WOLCOTT

SCALE 1:31,250

1 0.5 0 1 MILE

CONTOUR INTERVAL 20 FEET

1973

GRANULAR MATERIALS MAP

BY

VERMONT DEPARTMENT OF HIGHWAYS

IN COOPERATION WITH

U.S. BUREAU OF PUBLIC ROADS

NOTE: BASED ON U.S.G.S. TOPOGRAPHIC MAPS

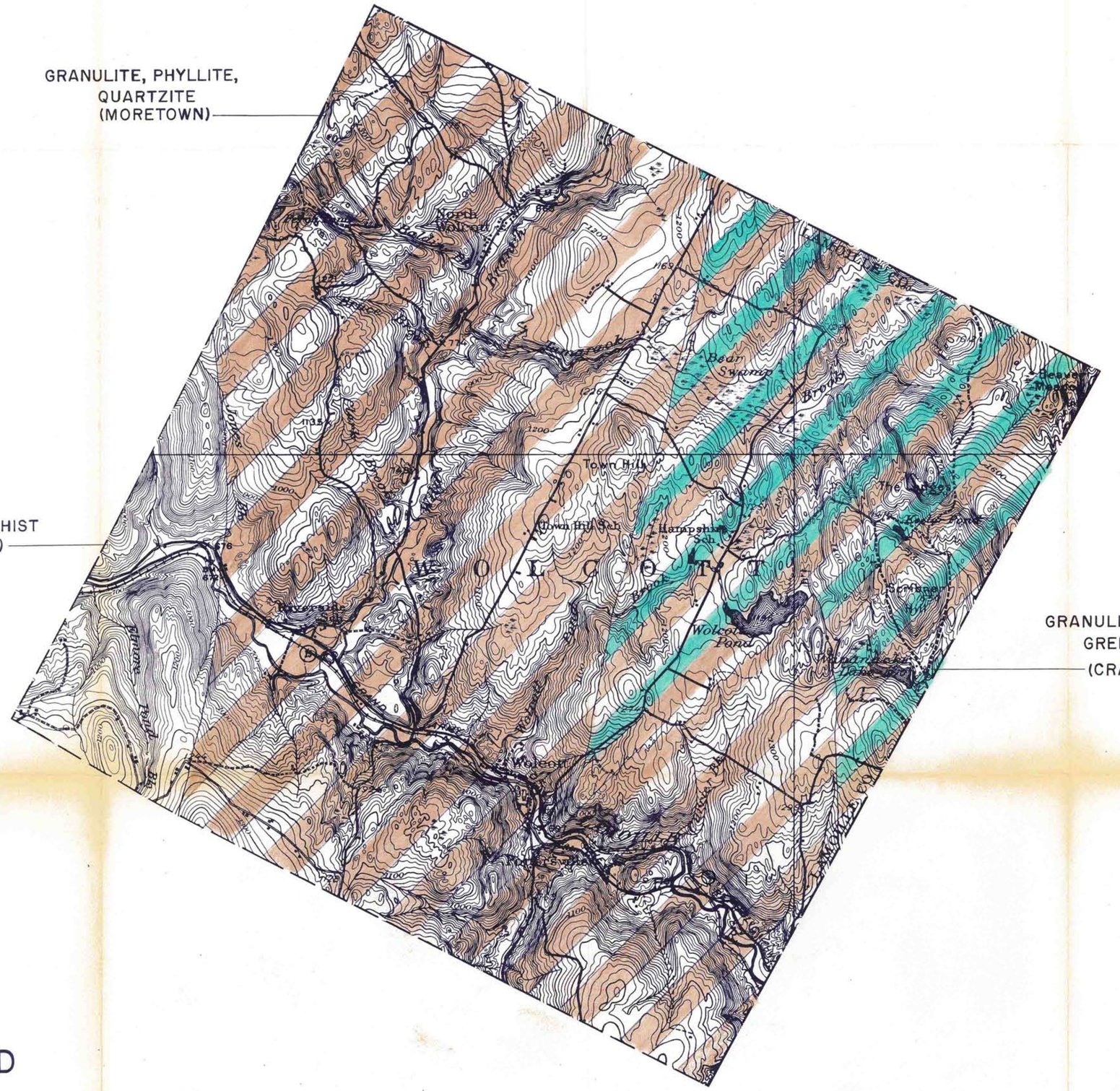
PLATE I

GRANULAR

LAMOILLE COUNTY VT. HWY. DISTRICT NO. 6

REVISIONS

DATE						
BY						



LEGEND

- ROCK, ACCEPTABLE FOR SEC. 704.06 (crushed stone for sub-base)
- ROCK, NOT ACCEPTABLE FOR SEC. 704.06
- EXISTING QUARRY
- GRANITE TO DIORITE (light to intermediate igneous rock)
- AMPHIBOLITE, GABBRO, DIABASE, METADIABASE, GREENSTONE, TRAP DIKES (basic or dark igneous rocks)
- PERIDOTITE, PYROXENITE, SERPENTINITE (ultra-basic igneous rocks)
- GNEISS
- QUARTZITE
- DOLOMITE
- MARBLE, LIMESTONE
- SCHISTS, SLATES, PHYLLITES, SHALES, CONGLOMERATES
- 3 IDENTIFICATION NUMBER (refer to data sheets)

WOLCOTT

SCALE 1:31,250

0.5 0 1 MILE

CONTOUR INTERVAL 20 FEET

1973

ROCK MATERIALS MAP

BY

VERMONT DEPARTMENT OF HIGHWAYS

IN COOPERATION WITH

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NOTE: BASED ON U.S.G.S. TOPOGRAPHIC MAPS

PLATE II

ROCK

LAMOILLE COUNTY VT. HWY. DISTRICT NO. 6

REVISIONS

DATE						
BY						