

Section 3.5 Extraction of Earth Resources

A. Definitions

“Character of the area” refers to the distinctive traits, qualities or attributes, appearance and essential nature, pattern of uses, sense of community, and the factors which give it identity within the same area or nearby, including but not limited to the area within sight and/or sound.

“Commercial” means a use or activity whose byproducts are available for sale to the public and is carried on for profit by the owner, lessee.

“Earth extraction, Major” means the commercial or non-commercial extraction and processing of earth resources such as topsoil, sand, and gravel, which may include some on-site preparation activities such as screening and crushing.

“Earth extraction, Minor” means the infrequent, low-impact removal of topsoil, sand, or gravel from a site that requires no on-site preparation or processing. For the purposes of this ordinance, minor earth extraction shall be limited to no more than 45 cubic yards per day and no more than 3 truck trips per day.

“Extension” means continuation of a preexisting operation onto an adjacent parcel of land, or any substantial increase in the rate of extraction, or substantial change in the type of operation, or of traffic or equipment associated with a preexisting operation. A substantial change is one that could have an adverse effect on the character of the area, natural resource values, or infrastructure.

“Heavy Industry” is a use engaged in the basic processing and manufacturing of materials or products predominately from extracted or raw materials, or a use engaged in storage of, or manufacturing processes using flammable, explosive, and radioactive materials, pesticides and herbicides, or storage or manufacturing processes that potentially involve hazardous or commonly recognized offensive conditions. Examples of heavy industry include quarrying or mining operations.

“Nuisance” is a legal term referring to any land use whose associated activities are incompatible with surrounding land uses and the character of the area, or an activity that annoys or seriously disturbs other property owners making it discomforting and unpleasant to use their own property, or may devalue that property monetarily.

“Quarrying, Major” means the systematic, long-term excavation from an open pit or mine for commercial purposes from which rock or minerals are extracted by digging, cutting or blasting. Facilities such as offices, heavy equipment, machinery and stockpiles of materials are kept on site. Major Quarrying is not permitted within the Town of Moretown.

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“Quarrying, Minor” means the excavation of rock or minerals by digging, cutting or blasting. For the purposes of this ordinance, minor quarry shall imply a limited time frame of 12 consecutive months in a 10-year time period for the quarrying activity. Minor quarrying shall also be limited to no more than cubic 45 yards per day and no more than 3 truck trips per day.

“Undue adverse impact” is an unfavorable, opposed, or hostile consequence for the physical, natural, social, or economic environment, which is more than necessary – exceeding what is appropriate or normal.

B. Exemptions

1. Blasting which is customarily incidental to a permitted or conditional construction activity and does not exceed 4 weeks in duration.
2. Earth extraction which is customarily incidental to permitted or conditional construction activity.
3. Municipal road maintenance activities.
4. Earth Extraction that is incidental to the waste management business of the Moretown Landfill, Inc. is exempt under this bylaw.

C. Minor Earth Extraction

Any new or extended minor earth extraction operation shall be permitted in all zoning districts except the Village District, subject to conditional use review in accordance with Section 5.2 and findings that the proposed activity meets the following definitions, standards and conditions.

1. Application Requirements

In addition to application requirements under Section 6.2 and 5.1, the applicant shall submit two (2) copies of an acceptable erosion control and site restoration plan to ensure that upon completion of the excavation operations the abandoned site will be left in a safe, attractive, and useful condition. Plans shall include the following information:

- a. Existing grades, drainage and depth to water table;
- b. The extent and magnitude of the proposed operation, including hours of operation, routes of transportation, amount of material to be removed, and a timetable for completion of the operation;
- c. Finished grades and proposed vegetation and trees at the conclusion of the operation.

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- d. Plans shall be in accordance with other applicable local or state provisions or requirements (i.e. wetlands).

2. Standards

In granting approval, the Development Review Board shall consider and impose conditions with respect to the following standards:

- a. In any new operation, the area excavated at any one time shall not exceed 1 acre (43,560 square feet). Smaller areas may be designated if necessary to protect the character of the area where the operation is located.
- b. The days and hours of operation shall be limited to 8am – 5pm Monday through Friday so as to ensure reasonable quiet and compatibility with other uses in the area.
- c. The removal of all material shall be conducted so as to result in the improvement of the land, having due regard to the contours in the vicinity, such as leveling slopes and removing hills. The digging or creating of pits or steep slopes shall not be permitted, unless provision is made to regrade such pit and reduce such slopes
- d. No stockpile shall exceed 20 feet in height. No excavation, alteration or removal of vegetation shall be made within 50 feet of the property line of the subject parcel, 200 feet from an existing dwelling and 100 feet from an existing public right-of-way, except at the conclusion of operations if required in order to improve the overall grading or restoration. In all cases an undisturbed buffer shall be maintained around all property lines. With regard to property line setbacks only, the DRB has the discretion to reduce setback distances if it determines that such a reduction in distance will not have an undue adverse affect on abutting landowners and on the character of the area.
- e. Removal shall not result in a cover of less than three feet of native, undisturbed material over any water table, such water table elevation to be established at a seasonally high level.
- f. All surface drainage affected by removal operation shall be controlled by the owner to prevent erosion debris and other loose material from filling any drainage course, street, or private property, and shall not result in any changes or increased impacts to off site conditions.
- g. The restoration plan shall assure the following:

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- i. As much as practical during the active earth extraction operation, and within one year of the stoppage of active earth extraction, the site shall be reclaimed.
- ii. The removal operation site shall be graded smooth and restored to a “natural” or prior landform configuration. Cut slopes and soil banks shall not be allowed to remain.
- iii. The entire area shall be covered with not less than four (4) inches of good, arable topsoil, and shall have a minimum of ten (10) percent organic material except that no greater depth of topsoil or percentage of organic material shall be required than that originally existed on the property prior to commencement of operations.
- iv. The operation shall establish on the regraded areas, and all other lands affected, a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the area of the land to be affected and capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area; except, that introduced species may be used in the revegetation process where desirable and necessary to achieve the post-mining land use and to prevent erosion. Numbers and sizes of plantings should be included in the overall submission.
- v. Upon failure of the permit holder, or the permit holder's successors or assigns, to complete the reclamation of the site as required above, the Town may take such actions as may be necessary to complete the work, and may enter onto the property for such purposes. The Town's reasonable cost of completing these requirements shall be a lien on the property and may be foreclosed by the Town in the same manner as provided for the foreclosure of mortgages.
- h. All operations shall be conducted in a safe manner, especially with respect to hazards to persons, damage to adjacent lands or improvements and wells, and damage to any street by slides, sinking or collapse of supporting soil adjacent to an excavation.
- i. Access ways and on-site roads shall be maintained in a dust-free condition. The owner or operator shall take adequate measures within the site to ensure that trucks, exiting the site on roadways, shall not discharge earth materials or debris on public roadways.

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- j. The proposed activity shall not have an undue adverse impact on neighboring properties or the character of the area by reason of noise, dust, vibration, traffic hazards, scenic values or natural beauty of the area, historic sites or irreplaceable resources, or creation of a nuisance.
- k. The premises shall be neat and orderly, free from junk, trash or unnecessary debris.
- l. Additional conditions shall be imposed by the Development Review Board as appropriate for the specific site.

3. Surety Requirement

A performance bond, escrow account, or other surety acceptable to the Select Board, may be required to ensure site reclamation upon completion of minor excavation projects.

D. Major Earth Extraction

Any new or extended major earth extraction operation shall be permitted in all zoning districts, except the Village District, subject to conditional use review in accordance with Section 5.2 and findings that the proposed activity meets the following definitions, standards and conditions.

1. Application Requirements

In addition to application requirements under Section 6.2 and 5.1, the applicant shall submit two (2) copies of an acceptable erosion control and site restoration plan to ensure that upon completion of the extraction operations the abandoned site will be left in a safe, attractive, and useful condition. Plans shall also include the following information:

- a. Existing grades and drainage, stockpiles and berms (including typical cross-sections);
- b. Structures, roadways, equipment, materials, fuel storage, water supply, sewage disposal, trees, landscaping, and screening;
- c. Area maps showing the general project location in the Town and the following features within 2,500 feet of the proposed operation: roads (including class 4 roads and legal trails), land uses and principal structures including public resources, designated scenic areas, and historic sites, surface waters, soils, and the location and depth of all water supplies.
- d. Project description, including details of:

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- i. each phase of excavation, stockpiling and the volumes involved, as applicable;
- ii. operations, including the nature, location and times of extraction, screening, crushing, and trucking: operation of other major equipment on the site, safety measures, dust, sedimentation and erosion controls, water table monitoring and site dewatering, truck routes to be used, as applicable;
- iii. the anticipated cost of site rehabilitation in accordance with these regulations.

The Development Review Board may reasonably require such additional information as it deems necessary to determine whether the new or extended excavation operation will be located and performed in accordance with these regulations.

2. Standards

In granting approval, the Development Review Board shall consider and impose conditions with respect to the following standards:

- a. The days and hours of operation shall be limited to 8am – 5pm Monday through Friday so as to ensure reasonable quiet and compatibility with other uses in the area.
- b. Isolation Distances and Setbacks
 - i. No part of any extraction area shall be within 300 feet of any of the following uses existing or approved: Any dwelling, private or public water supply or water line, public building, park, or other community or institutional facility.
 - ii. No part of any extraction area shall be within 150 feet of the property lines, or within 150 feet of any natural stream or pond.
 - iii. Stockpiling of excavated material shall not exceed 35 feet and shall not be within 150 feet of the property lines, or within 150 feet of any natural stream or pond.
 - iv. No truck access road to the property shall be within 50 feet of the property lines, except at the connection to the public road.
 - v. No stationary processing machinery shall be located within 300 feet of any property line.

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vi. With regard to property line setbacks only, the DRB has the discretion to reduce setback distances if it determines that such a reduction in distance will not have an undue adverse affect on abutting landowners and on the character of the area.

b. Maintenance Buffer

i. The land within 100 feet of the property line shall be maintained as a buffer or conservation area by the permit holder.

ii. There shall be no land development on this buffer except for truck access roads.

c. Dust Control

i. The owner/operator shall implement positive and effective dust control measures, which will meet the requirements in the State of Vermont Air Quality Regulations. This shall apply to all on-site operations as well as to all vehicular traffic leaving the site.

d. Traffic and Noise

i. The days and hours of operation shall be 8am – 5pm Monday through Friday so as to ensure reasonable quiet and compatibility with other uses in the area.

ii. No noise shall be permitted which is excessive at the property line or is incompatible with the reasonable use of the surrounding area. Excessive noise shall be considered a sound pressure level that exceeds 65 decibels at the property line on a regular or reoccurring basis.

iii The property shall be limited to one truck access to any public right-of-way and shall have a grade of 5% or less. An emergency or second limited use access may be provided.

iv. Access ways and on-site roads shall be maintained in a dust-free condition. The owner or operator shall take adequate measures within the site to ensure that trucks, exiting the site on roadways, shall not discharge earth materials or debris on public roadways.

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v. The proposed transport for the operation shall not exceed the carrying capacity of the roadways and any damage to such roadways shall be repaired at the expense of the owner/operator.

vi. The proposed schedule and gross vehicle weight of transport vehicles shall be appropriate for the season of the year, the character of the area where the operation is located, and the neighborhood through which vehicles must pass.

e. Landscaping, Screening and Signs

i. Natural screening shall be provided and maintained so that no stockpiles of excavated material shall be visible from any existing or approved dwelling or public right-of-way within 300 feet as of the filing of the earth extraction application. No stockpile shall exceed 35 feet in height.

ii. The property's access road shall be hidden from view from existing or approved dwellings and public roads by natural topography, vegetated berm or evergreen trees, either existing or to be planted, at least every 10 feet on both sides of the road.

iii. An earthen berm of not less than six (6) feet in height and/or farm fence of not less than fifty-four (54) inches in height shall be maintained around potentially hazardous areas, including but not limited to the excavation site, storage and waste piles and fuel storage areas. Berms that will remain in place for one (1) year or longer shall be planted with grass, shrubs and trees and maintained as a visual and acoustical screen. They shall be designed so that they do not erode into the road or highway right-of-way or onto adjoining property. This provision can be waived if the applicant demonstrates adequate safety and buffering can be accomplished by other means or with conditions present on site.

iv. Signs shall be posted and maintained at frequent intervals around the site indicating danger and presence of the excavation site.

f. Terracing and Contouring

Terracing or contouring shall be used, as appropriate, so as to minimize hazards. In no case shall the slope exceed 20% (meaning 20 feet of vertical rise for every 100 feet of horizontal distance). No vertical face shall exceed in height that permitted by the U.S. Bureau of Mines.

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g. Closing-Out the Operation

i. As much as practical during the active earth extraction operation, and within one year of the stoppage of active earth extraction, the site shall be reclaimed.

ii. The removal operation site shall be graded smooth and restored to a “natural” or prior landform configuration. Cut slopes and soil banks shall not be allowed to remain. Provisions for restoring the “approximate original contour” of the land shall be made. Approximate original contour means that surface configuration achieved by backfilling and grading of the excavated area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to excavation and blends into and complements the drainage pattern of the surrounding terrain, with all highwalls and spoil piles eliminated.

iii. The entire area shall be covered with not less than four (4) inches of good, arable topsoil, and shall have a minimum of ten (10) percent organic material except that no greater depth of topsoil or percentage of organic material shall be required than that originally existed on the property prior to commencement of operations.

iv. The operation shall establish on the regraded areas, and all other lands affected, a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the area of the land to be affected and capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area; except, that introduced species may be used in the revegetation process where desirable and necessary to achieve the post-mining land use and to prevent erosion. Numbers and sizes of plantings shall be included in the overall submission.

v. The reclamation of the site shall be completed so that the land will be left in a safe, attractive and readily usable condition for the types of land uses allowable in the district.

vi. When earth extraction operations have been completed, then all buildings (other than those shown on the restoration plan), structures (except fences) and equipment shall be entirely removed from the property within one (1) year from the expiration date of the conditional use.

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vii. Upon failure of the permit holder, or the permit holder's successors or assigns, to complete the reclamation of the site as required above, the Town may take such actions as may be necessary to complete the work, and may enter onto the property for such purposes. The Town's reasonable cost of completing these requirements shall be a lien on the property, including the buffer, and may be foreclosed by the Town in the same manner as provided for the foreclosure of mortgages.

h. Surface and ground water

i. The proposed operation shall not have an undue adverse impact on surface and ground water.

ii. At all times, the owner or operator shall take adequate measures to ensure that contaminated surface water run-off shall not enter ponds or other areas of open standing water.

iii. As necessary, ground water quality shall be monitored and maintained on a regular basis in accordance with acceptable monitoring practices.

iv. If the extraction is wholly or partly from a streambed, it shall be carried out in such a manner that there shall be no obstruction or substantial change in normal flow, and at the conclusion of work in any section, there shall be no increase in erosion or flood hazards.

v. Removal shall not result in a cover of less than three feet of native, undisturbed material over any water table, such water table elevation to be established at a seasonally high level.

i. Premise and on-site facilities

i. At all times the premises shall be neat and orderly, free from junk, trash or unnecessary debris. Buildings shall be maintained in a sound condition, in good repair and appearance. Salvageable equipment stored in a non-operating condition shall be suitably screened or garaged.

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j. General

i. In any new operation, the area excavated at any one time shall not exceed five (5) acres (or 217,800 square feet). Smaller areas may be designated if necessary to protect the character of the area where the operation is located.

ii. All operations shall be conducted in a safe manner, especially with respect to hazards to persons, damage to adjacent lands or improvements and wells, and damage to any street by slides, sinking or collapse of supporting soil adjacent to an excavation.

iii. The proposed activity shall not have an undue adverse impact on neighboring properties or the character of the area with regard to the following standards:

1. noise, dust, vibration, as defined in Section D.2.c. and D.2.d. above
2. traffic, traffic safety impacts, as defined in Section D.2.d. above.
3. scenic values, visual impact, Visually sensitive areas include but are not limited to ridgelines, mountain tops, vistas, steep slopes, shorelines or riverbanks, large open areas, public resources, or scenic road corridors. In addition, unique areas such as wetlands, waterfalls, and historic areas may be sensitive to aesthetic change. In such cases, visibility studies may be required by the Development Review Board to determine impact on visibility and aesthetic resources.
4. ecological function, natural resources, or
5. creation of a nuisance.

iv. Additional conditions may be imposed by the Development Review Board as appropriate for the specific site.

3. Escrow Agreement

a. The owner/operator, prior to commencing excavation, shall designate a bank having an office in the State of Vermont, as escrow agent for the Town and the permit holder, to receive funds on account of the anticipated cost of complying with subsection D.2.g of this Section, after the volume of material approved for excavation is removed. Such amount shall be paid over at least semi-annually, commencing six months from the date of the first excavation,

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based upon the amount of material removed in the preceding six-month period.

b. The Escrow agreement shall provide:

i. That the fund shall be invested in a savings account or certificate of deposit, at the owner/operators's option.

ii. That all interest shall be payable to the owner/operator.

iii. That the escrow agent shall account quarterly to the Town, and at such other more frequent intervals as the Town may require.

iv. That the fund shall be available to the owner/operator to reimburse it for the cost of complying with subsection D.g of this Section, or upon failure of the permit holder to so comply the fund shall be available to the Town to reimburse it for any costs it incurs in closing out the operation.

v. That any remaining amount shall be paid over to the owner/operator

c. If the owner/operator fails to make a payment into the escrow fund, as required herein, and such failure continues for thirty days from due date, then there shall be no excavation of materials until such default is cured. The applicant shall make available to the Town such records as the Town may reasonably request in order for it to determine compliance with this paragraph.

d. The Development Review Board shall re-evaluate, at their discretion, the anticipated cost of compliance with subsection D.2.g of this Section, after public hearing, and the payment to the escrow funds shall be adjusted accordingly.

e. At any time the owner/operator may withdraw any amount which is in the escrow account, upon filing with the Town a bond, issued by a good and sufficient bonding or surety company authorized to do business in Vermont, for the benefit of the Town, in an amount sufficient to cover the cost of implementing Section D.2.g, but not for more than the amount then in the escrow account, and being withdrawn. Similarly, in lieu of any deposit in the escrow account, the owner/operator may file a similar bond in the amount required to be deposited. If a bonding company should become insolvent, go out of business, or lose it's right to do business in Vermont, that shall be deemed a default under c. above and shall be remedied by a new bond or deposit before excavation is continued.

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E. Minor Quarrying

Any new or extended minor quarry operation shall be permitted in all zoning districts, except the Village District, subject to conditional use review in accordance with Section 5.2 and findings that the proposed activity meets the following definitions, standards and conditions.

1. Application Requirements

In addition to application requirements under Section 6.2 and 5.1, the applicant shall submit two (2) copies of an acceptable erosion control and site restoration plan to ensure that upon completion of the quarry operation the abandoned site will be left in a safe, attractive, and useful condition. Plans shall also include the following information:

- a. Existing grades and drainage, stockpiles and berms (including typical cross-sections);
- b. Structures, roadways, equipment, materials, fuel storage, water supply, sewage disposal, trees, landscaping, and screening;
- c. Area maps showing the general project location in the Town and the following features within 2,500 feet of the proposed operation: roads (including class 4 roads and legal trails), land uses and principal structures including public resources, designated scenic areas, and historic sites, surface waters, soils, and the location and depth of all water supplies.
- d. Project description, including details of:
 - i. each phase of mining, stockpiling and the volumes involved, as applicable;
 - ii. operations, including the nature, location and times of: blasting, drilling, crushing and operation of other major equipment on the site, safety measures, dust, sedimentation and erosion controls, water table monitoring and site dewatering, truck routes to be used, as applicable;
 - iii. the anticipated cost of site rehabilitation in accordance with these regulations.

The Development Review Board may reasonably require such additional information as it deems necessary to determine whether the new or extended quarry operation will be located and performed in accordance with these regulations.

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2. Standards

In granting approval, the Development Review Board shall consider and impose conditions with respect to the following standards:

- a. The days and hours of operation shall be limited to 8am – 5pm Monday through Friday so as to ensure reasonable quiet and compatibility with other uses in the area.
- b. Isolation Distances and Setbacks
 - i. No part of any quarried area shall be within 500 feet of any of the following uses existing or approved: Any dwelling, private or public water supply or water line, public building, park, or other community or institutional facility.
 - ii. No part of any quarried area shall be within 250 feet of the property lines, or within 250 feet of any natural stream or pond.
 - iii. Stockpiling of quarried material shall not exceed 35 feet and shall not be within 150 feet of the property lines, or within 150 feet of any natural stream or pond.
 - iv. No truck access road to the property shall be within 50 feet of the property lines, except at the connection to the public road.
 - v. No stationary processing machinery shall be located within 300 feet of any property line.
 - vi. With regard to property line setbacks only, the DRB has the discretion to reduce setback distances if it determines that such a reduction in distance will not have an undue adverse affect on abutting landowners and on the character of the area.
- c. Maintenance Buffer
 - i. The land within 100 feet of the property line shall be maintained as a buffer or conservation area by the permit holder.
 - ii. There shall be no land development on this buffer except for truck access roads.
- d. Vibration and Dust Control

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i. The vibration level resulting from any blasting or equipment operation shall not exceed 0.5 ips on frequencies of less than 40 HZ, nor 2.0 ips on frequencies of greater than 40 HZ, measured at any property line.

ii. The owner/operator shall implement positive and effective dust control measures, which will meet the requirements in the State of Vermont Air Quality Regulations. This shall apply to all on-site operations as well as to all vehicular traffic leaving the site.

e. Traffic and Noise

i. The days and hours of operation shall be 8am – 5pm Monday through Friday so as to ensure reasonable quiet and compatibility with other uses in the area.

ii. No Noise shall be permitted which is excessive at the property line or is incompatible with the reasonable use of the surrounding area. Excessive noise shall be considered a sound pressure level that exceeds 65 decibels at the property line on a regular or reoccurring basis. Noise levels shall not exceed an instantaneous maximum of 80 decibels at the property line.

iii. The property shall be limited to one truck access to any public right-of-way and shall have a grade of 5% or less. An emergency or second limited use access may be provided.

iv. Access ways and on-site roads shall be maintained in a dust-free condition. The owner or operator shall take adequate measures within the site to ensure that trucks, exiting the site on roadways, shall not discharge earth materials or debris on public roadways.

v. Any proposed transport for the operation shall not exceed the carrying capacity of the roadways and any damage to such roadways shall be repaired at the expense of the owner/operator.

vi. The proposed schedule and gross vehicle weight of transport vehicles shall be appropriate for the season of the year, the character of the area where the operation is located, and the neighborhood through which vehicles must pass.

f. Landscaping, Screening and Signs

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- i. Natural screening shall be provided and maintained so that no stockpiles of excavated material shall be visible from any existing or approved dwelling or public right-of-way within 100 feet as of the filing of the quarry application. No stockpile shall exceed 35 feet in height.
- ii. The property's access road shall be hidden from view from existing or approved dwellings and public roads by natural topography, vegetated berm or evergreen trees, either existing or to be planted, at least every 10 feet on both sides of the road.
- iii. An earthen berm of not less than six (6) feet in height and/or farm fence of not less than fifty-four (54) inches in height, of such a design so as to allow the free flow of wildlife, but to discourage trespassing of humans and farm animals shall be maintained around potentially hazardous areas, including but not limited to the excavation site, storage and waste piles and fuel storage areas. Berms that will remain in place for one (1) year or longer shall be planted with grass, shrubs and trees and maintained as a visual and acoustical screen. They shall be designed so that they do not erode into the road or highway right-of-way or onto adjoining property. This provision can be waived if the applicant demonstrates adequate safety and buffering can be accomplished by other means or with conditions present on site.
- iv. Signs shall be posted and maintained at frequent intervals around the site indicating danger and presence of the quarry site.

g. Terracing and Contouring

Terracing or contouring shall be used, as appropriate, so as to minimize hazards. In no case shall the slope exceed 20% (meaning 20 feet of vertical rise for every 100 feet of horizontal distance). No vertical face shall exceed in height that permitted by the U.S. Bureau of Mines.

h. Closing-Out the Operation

- i. As much as practical during the active quarry operation, and within one year of the stoppage of active quarrying, the site shall be reclaimed.
- ii. The removal operation site shall be graded smooth and restored to a "natural" or prior landform configuration. Cut slopes and soil banks shall not be allowed to remain. Provisions for restoring the "approximate original contour" of the land shall be made.

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Approximate original contour means that surface configuration achieved by backfilling and grading of the mined area so that the reclaimed area, including any terracing or access roads, closely resembles the general surface configuration of the land prior to mining and blends into and complements the drainage pattern of the surrounding terrain, with all highwalls and spoil piles eliminated.

iii. The entire area shall be covered with not less than four (4) inches of good, arable topsoil, and shall have a minimum of ten (10) percent organic material except that no greater depth of topsoil or percentage of organic material shall be required than that originally existed on the property prior to commencement of operations.

iv. The operation shall establish on the regraded areas, and all other lands affected, a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the area of the land to be affected and capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area; except, that introduced species may be used in the revegetation process where desirable and necessary to achieve the post-mining land use and to prevent erosion. Numbers and sizes of plantings shall be included in the overall submission.

v. The reclamation of the site shall be completed so that the land will be left in a safe, attractive and readily usable condition for the types of land uses allowable in the district.

vi. When quarry operations have been completed, then all buildings (other than those shown on the restoration plan), structures (except fences) and equipment shall be entirely removed from the property within one (1) year from the expiration date of the conditional use.

vii. Upon failure of the permit holder, or the permit holder's successors or assigns, to complete the reclamation of the site as required above, the Town may take such actions as may be necessary to complete the work, and may enter onto the property for such purposes. The Town's reasonable cost of completing these requirements shall be a lien on the property, including the buffer, and may be foreclosed by the Town in the same manner as provided for the foreclosure of mortgages.

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i. Surface and Ground Water

- i. The proposed operation shall not have an undue adverse impact on surface and ground water.
- ii. At all times, the owner or operator shall take adequate measures to ensure that contaminated surface water run-off shall not enter ponds or other areas of open standing water.
- iii. Ground water quality shall be monitored and maintained on a regular basis in accordance with acceptable monitoring practices.
- iv. If the quarry is wholly or partly from a streambed, it shall be carried out in such a manner that there shall be no obstruction or substantial change in normal flow, and at the conclusion of work in any section, there shall be no increase in erosion or flood hazards.
- v. Removal shall not result in a cover of less than three feet of native, undisturbed material over any water table, such water table elevation to be established at a seasonally high level.

j. Premise and on-site facilities

- i. The premises shall be neat and orderly, free from junk, trash or unnecessary debris. Buildings shall be maintained in a sound condition, in good repair and appearance. Salvageable equipment stored in a non-operating condition shall be suitably screened or garaged.

k. General

- i. In any new operation, the area excavated at any one time shall not exceed one (1) acre (or 43,560 square feet). Smaller areas may be designated if necessary to protect the character of the area where the operation is located.
- ii. All operations shall be conducted in a safe manner, especially with respect to hazards to persons, damage to adjacent lands or improvements and wells, and damage to any street by slides, sinking or collapse of supporting soil adjacent to a quarry.
- iii. The proposed activity shall not have an undue adverse impact on neighboring properties or the character of the area with regard to the following standards:

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1. noise, dust, vibration, as defined in Section E.2.d. and E.2.e. above
2. traffic, traffic safety impacts, as defined in Section E.2.e. above.
3. scenic values, visual impact, Visually sensitive areas include but are not limited to ridgelines, mountain tops, vistas, steep slopes, shorelines or riverbanks, large open areas, public resources, or scenic road corridors. In addition, unique areas such as wetlands, waterfalls, and historic areas may be sensitive to aesthetic change. In such cases, visibility studies may be required by the Development Review Board to determine impact on visibility and aesthetic resources.
4. ecological function, natural resources, or
5. creation of a nuisance.

iv. Additional conditions shall be imposed by the Development Review Board as appropriate for the specific site.

3. Escrow Agreement

a. The owner/operator, prior to commencing excavation, shall designate a bank having an office in the State of Vermont, as escrow agent for the Town and the permit holder, to receive funds on account of the anticipated cost of complying with subsection E.2.h of this Section, after the volume of material approved for excavation is removed. Such amount shall be paid over at least semi-annually, commencing six months from the date of the first excavation, based upon the amount of material removed in the preceding six-month period.

b. The Escrow agreement shall provide:

i. That the fund shall be invested in a savings account or certificate of deposit, at the owner/operators's option.

ii. That all interest shall be payable to the owner/operator.

iii. That the escrow agent shall account quarterly to the Town, and at such other more frequent intervals as the Town may require.

iv. That the fund shall be available to the owner/operator to reimburse it for the cost of complying with subsection E. 2.h of this Section, or upon failure of the permit holder to so comply the fund shall be available to the Town to reimburse it for any costs it incurs in closing out the operation.

Section 3.5 Extraction of Earth Resources

- v. That any remaining amount shall be paid over to the owner/operator

- c. If the owner/operator fails to make a payment into the escrow fund, as required herein, and such failure continues for thirty days from due date, then there shall be no excavation of materials until such default is cured. The applicant shall make available to the Town such records as the Town may reasonably request in order for it to determine compliance with this paragraph.

- d. If applicable, the anticipated cost of compliance with subsection E. 2.h of this Section shall be re-evaluated by the Development Review Board, after public hearing, and the payment to the escrow funds shall be adjusted accordingly.

- e. At any time the owner/operator may withdraw any amount which is in the escrow account, upon filing with the Town a bond, issued by a good and sufficient bonding or surety company authorized to do business in Vermont, for the benefit of the Town, in an amount sufficient to cover the cost of implementing Section E. 2.h, but not for more than the amount then in the escrow account, and being withdrawn. Similarly, in lieu of any deposit in the escrow account, the owner/operator may file a similar bond in the amount required to be deposited. If a bonding company should become insolvent, go out of business, or lose it's right to do business in Vermont, that shall be deemed a default under c. above and shall be remedied by a new bond or deposit before excavation is continued.