

**CHAPTER 27**

**EARTH REMOVAL, SAND AND GRAVEL MINING AND RELATED  
PROCESSING OPERATIONS**

**SECTION 27.01 EARTH REMOVAL, SAND AND GRAVEL MINING AND RELATED PROCESSING OR RECYCLING OPERATIONS.** Prior to the approval by the Planning Commission of a special use permit for earth removal, quarrying, sand or gravel processing and related mineral recycling or extraction businesses in any area of the Township, the commission must be satisfied that the following conditions and limitation are, or shall be, strictly complied with. In addition all other requirements contained in the Township zoning ordinance or in any other Township ordinance controlling such operation shall be complied with.

**SECTION 27.02 EXEMPTIONS AND PARTIAL WAIVERS.** These provisions do not apply to construction, grading or excavation operations that do not involve the removal of material from a site.

These provisions to not apply to earth removal or mining operations (where material is carried off site) that are conducted by land owners for the purposes of preparing their land for cultivation, drainage projects or in preparation of building sites, provided that:

- (a) No area is created which fills with water, unless it is a farm watering pond, drainage project or private recreational pond with bank gradients of no more than one (1) foot vertical to three (3) feet horizontal.
- (b) Operations are not commercial in nature and do not involve on-site processing such as crushing, washing or grinding.
- (c) The area of the mining and removal operation limited to a maximum of approximately one (1) acre in size or in the case of field grading, drainage projects or building site development, to an area roughly equivalent in size to the cultivated area, drainage project or development site and is therefore considered minor in size and scope.
- (d) The duration of operation is limited to a continuous twelve (12) month period of time.
- (e) The reclamation requirements of Section 27.11 shall still apply.

Any operation found to exceed the above limits will be considered in violation of this ordinance and will be required to receive a special use permit under this Chapter and Chapter 17

**SECTION 27.03 LOCATION AND ACCESS.** No earth removal, mining or processing/recycling operation shall be permitted within areas predominated by existing residential development unless it is first shown by evidence and facts presented by the applicant and confirmed by the Planning Commission that severe negative consequences to the resident's health, safety and welfare from the impacts of noise, dust, vibration, traffic and adverse hydrologic or geologic conditions created by the operation will be avoided.

- (a) When possible, the driveway or haul road used to obtain ingress and egress access to the operation shall be situated on a primary road, as defined by the Allegan County Road Commission, or on a road which already carries measurable amounts of commercial truck or agricultural related traffic. The Planning Commission may require the applicant/operator to construct and/or improve a private road to accommodate the truck travel necessitated by the operations as a condition to such operations, and for the purpose of routing traffic away from residences or residential areas and preventing the breaking up of existing roads which are not "all weather" roads.
- (b) The first three hundred (300) feet of road or drive used to access the site from the public right of way shall be paved with a hard surface paving material and maintained in a dust controlled condition.

**SECTION 27.04 SETBACKS.** In accordance with the following provisions, sufficient setbacks shall be provided from all property lines and public highways to assure adequate isolation, screening and lateral support for adjacent property.

- (a) No excavation operation shall be permitted closer than one hundred (100) feet to interior boundary lines of the property except that the Planning Commission may allow a reduction or eliminate a setback if the excavation is limited to the stripping of top soil and /or if no practical benefit to the adjoining property is achieved by maintaining the setback. All setback reductions must be in accordance with an operation and reclamation plan approved by the Commission and adequate screening and lateral support shall be maintained at all times.
- (b) No excavation operation is permitted within one hundred (100) feet of an adjoining public right-of-way except for the lowering of land adjoining the rights-of-way to the grade level of the rights-of-way. For purposes of public safety and nuisance control the timing (phasing) of the clearing and/or lowering of the land adjacent to the right of way may be regulated by the Commission.
- (c) Materials screening, crushing and processing plants and all accessory structures shall be located a minimum of two hundred (200) feet from interior property lines and adjoining public rights-of-way. Where practicable, they shall be located at a lower level than the surrounding terrain to lessen visual and noise impact. Where practicable the foregoing shall also apply to stockpiling and loading areas and to the staging of transportation equipment.
- (d) No excavation operation shall be located within one hundred (100) feet of a natural stream, waterway or wetland. No mining operations shall interfere with the established flow of surface waters to the detriment or damage of adjoining public or private properties.

**SECTION 27.05 SIGHT BARRIERS AND SCREENING.** Sight barriers shall be provided along all boundaries of the site which lack natural screening conditions. Unless otherwise approved, site barriers shall consist of one or more of the following:

- (a) Earth berms constructed to a height of five (5) feet above the mean elevation of the centerline of the adjacent public highway or six (6) feet above the general level of terrain along interior property lines, as the case may be. Unless specifically authorized by the

Planning Commission, berms shall have slopes that are not in excess of one foot vertical to three feet horizontal and shall be contoured and capable of being planted with grass and mowed. If used as a base for the planting of trees, the composition and contours of the berms shall be shown to be capable of supporting hearty evergreen trees, without irrigation.

- (b) Plantings of at least two rows evergreen trees parallel to the boundaries of the property, of sufficient height and spacing to provide effective sight barriers at the time of planting. Plantings shall be watered and cared for to assure long term survival. Dead or diseased plantings shall be replaced as necessary to maintain the effectiveness of the screen.
- (c) Masonry walls or attractive solid fences made of uniform new materials, constructed to a height of not less than six (6) feet and maintained in good repair.

#### **SECTION 27.06 NOISE AND VIBRATION**

- (a) Noise and vibration shall be controlled to minimize their effect upon adjacent properties by the utilization of modern equipment designed to accomplish such minimization and by the proper use of berms, walls and planting screens. All equipment shall be maintained and operated in such a manner so as to eliminate, as far as practicable, excessive noise and vibrations which are not necessary in the operation of such equipment.
- (b) To further minimize the effects of noise and vibration, the hours of operation shall be controlled as indicated in Section 27.09

#### **SECTION 27.07 DUST AND EMISSIONS.**

- (a) Air pollution in the form of dust, dirt and vehicle emissions shall be kept to a minimum by the use of modern equipment and methods of operation designed to avoid any excessive dust, dirt or hydro-carbon emissions injurious or substantially annoying to the occupants of adjoining property.
- (b) Interior haul roads used in the operations shall at a minimum have their surface treated to minimize any such nuisance (Ref. Section 27.03). To further minimize the effects of dust and the tracking of material onto the public roadway, the Planning Commission may as applicable require the periodic application of water or chemical dust control agents on unpaved public street segments accessing the site and or the installation and use of a truck undercarriage wash facility prior to trucks exiting onto a paved public street.
- (c) Operations shall be curtailed during periods of sustained high winds or wind gusts that are capable of carrying visible dust plumes onto adjacent property that is adversely sensitive to dust pollution.

#### **SECTION 27.08 SECURITY AND SAFETY**

- (a) The perimeter of the mining site will be conspicuously and adequately posted with signs at not less than 100 unless otherwise increased by the Planning Commission foot increments. The signs shall indicate the danger or dangers of trespassing in the area.
- (b) Above the active face of the extraction area, including submerged areas and all unreclaimed slopes exceeding 1 foot vertical to 1 feet horizontal an orange construction safety fence will be placed as a final caution and physical barrier to trespassers. This

fence shall be portable and shall be periodically relocated so to remain no closer than fifty feet and no further than 100 feet from the active pit and un-reclaimed slope area.

- (c) A lockable gate shall be maintained to guard the entrance the mining area.
- (d) In addition to safety fencing that is required in areas of active operation, the Planning Commission may for good cause shown, require the installation of a security fence completely around all or any portion of the operation. When required, the security fence shall at a minimum consist of a “farm type” rectangular grid pattern woven wire fence having a minimum height of four feet. The use of barbed or electrically charged wire is prohibited.

#### **SECTION 27.09 HOURS OF OPERATION.**

- (a) Unless otherwise restricted by the Planning Commission as a condition necessary to minimize the adverse effects of the operation, site access by large vehicles or equipment and the repair and servicing of equipment shall be limited to the daylight period between 6:30 a.m. and dusk, Monday through Friday and 7:00 a.m. and 12:00 noon on Saturday.
- (b) Unless otherwise restricted by the Planning Commission as a condition necessary to minimize the adverse effects of the operation, all mining operations, including extraction, processing, washing and internal stockpiling materials and all site grading and truck loading shall be limited to the hours of 7:00 a.m. through 6:00 p.m. Monday through Friday, and 6:30 a.m. and 1:00 p.m. on Saturday.
- (c) No activities on the property shall occur on Sunday with the exception of emergency repair activity required to facilitate the commencement of operations on the following Monday morning.
- (d) The limitation of operations on legal holidays shall be the same as the limitations applicable to Sundays.
- (e) If the site is to be open to outside operators and contractors, signs shall be posted which clearly depicts the hours of operation. The sign shall further state that no dumping is allowed and shall contain the name and telephone number of the operator. The contact shall be made available 24 hours a day seven days a week.
- (f) The operator shall post and otherwise inform truckers and equipment operators that violation of the hours of operation and speed limit or the operation of trucks and equipment in an unsafe manner or other manner that causes undue noise, dust or other nuisance, may be cause for revoking the privilege of utilizing the operation.

**SECTION 27.10 SITE EXCAVATION STANDARDS** All excavation shall be to a level that is either not less than 5 feet above the average summer level of the ground water or to a water-producing depth of not less than 5 feet below the average summer level of the ground in the excavation. Until final restoration is accomplished, mined areas not submerged shall be graded (or back-filled with non-noxious, non- hazardous, non-flammable and non-combustible solids) to insure that the excavated area shall not collect stagnant water and not permit the same to remain therein.

#### **SECTION 27.11 SITE RECLAMATION STANDARDS**

- (a) If the reclamation plan provides for a permanent water area, upon completion of any phase of reclamation where a permanent water area is provided excavations shall be made to a water depth of at least ten (10) feet below the low water mark, for at least eighty percent (80%) of the entire water area. The water area shall be tested for water quality for body contact by the County Health Department prior to continuation of reclamation.
- (b) The surface area of all land not to be permanently submerged under water shall be graded and back filled as necessary so as to reduce peaks and depressions, and to produce a gently rolling surface that will minimize erosion due to rainfall, and which will produce a natural appearance in relation to the property in the area of the subject property.
- (c) Slopes shall be graded toward permanent water areas, if any, and to the pit floor in an operation without permanent water areas. The area shall not be graded to the exterior area of the property so as to create the potential of flooding on adjoining properties and roads. In no event shall a reclaimed slope have a grade in excess of a minimum ratio of one (1) foot vertical to three (3) feet horizontal. For permanent water areas, for a distance for not less than ten (10) feet nor more than fifty (50) feet, the submerged slopes shall be graded from the water's edge at a grade not in excess of a minimum ratio of one (1) foot vertical to six (6) feet horizontal.
- (d) Top soil of a quality equal to that occurring naturally in the area shall be replaced on excavated areas not covered by water, except where streets, beaches, or other planned improvements are to be completed within a one-year period. Where used, top soil shall be applied to a minimum depth of six (6) inches sufficient to support vegetation. Vegetation shall be reclaimed by the use of by appropriate seeding of perennial grasses and ground cover or planting of shrubs or trees in all parts of the reclaimed mining area not to be submerged under the water, or within twenty-five (25) feet of the shoreline of a permanent water area. Reclamation shall be implemented in a manner so as to prevent washout and erosion.
- (e) In the event that filling of a mined area is necessary to complete reclamation, the fill material shall not consist of /or contain any organic waste, hazardous waste, industrial waste, or sludge and sewage residues, whether or not compounded, mixed, combined, bound or contained within any other material through any chemical or physical process or a combination thereof, or in any other fashion, and, moreover, such fill material shall not contain any other material which will, or is likely to, impair or harm the air, water and natural resources, and public trust therein, and/or the public health and safety. Any solid waste regulated by Act 64 of the Public Acts of 1979 shall not be used for fill and/or reclamation material of a mined area.
- (f) Upon cessation of mining operations by abandonment or otherwise as determined by the Planning Commission, the operator, within a reasonable period of time not to exceed 12 months thereafter, shall remove all plant structures, foundations, buildings, stockpiles and equipment, provided that buildings and structures which have a function under the reclamation plan and which can be lawfully used under the requirements of the zoning district in which they will be located under such plan may be retained.
- (g) Reclamation and rehabilitation of mined areas shall be accomplished as soon as practicable following the mining or excavation of an area. Rehabilitation and reclamation

shall be commenced immediately upon the termination of the mining or excavation operations in any area consisting of one half acre or more unless part of a larger operation where the Planning Commission has specified the timing and sequencing of reclamation. Substantial completion of reclamation and rehabilitation shall be effected within one year after termination of mining or excavation activity. Inactivity for one 12-month consecutive period shall constitute justification for the Planning Commission to evaluate the operation for the purpose of determining whether the operator has terminated mining activity.

- (h) A performance bond, irrevocable letter of credit or cash may be required to be furnished to the Township Clerk in an amount as determined by the Planning Commission. The performance guarantee shall be used to guarantee rehabilitation and reclamation of mining the operation. The Planning Commission shall base its decision on whether to require the posting of a bond, letter of credit or cash and the amount of bond, credit or cash to be posted, on the size and extent of the mining operation. Any financing guarantee shall be reviewed annually on or about the anniversary date of the excavation permit for adjustment and compliance with the foregoing requirements by the zoning inspector of the Township and the Township Planning Commission.

#### **SECTION 27.12 SUBMISSION OF OPERATIONAL AND RECLAMATION PLANS**

No earth removal, quarrying, gravel processing, mining and related mineral extraction operation shall be allowed or commenced until a plan has been submitted and approved showing the manner in which compliance with the requirements of this ordinance will be secured and maintained by the applicant. Such plans shall include, among other things, the following:

- (a) A contour map of the tract of land involved in the operations, including dimensions of the land, access to abutting public streets and whether or not the roads are "all weather" roads, and additional roads, if any, to be constructed, and the location and nature of the land uses and improvements on adjoining property. The contours, location and nature of abutting improvements shall extend 300 feet onto all adjoining property.
- (b) The number of acres and the location of the entire operation contemplated and all phases and sequences of the mining operation to be operated.
- (c) The type of mining or processing proposed to be conducted and the nature of the equipment to be used.
- (d) The location of principal processing equipment, if any and the distance of any proposed excavation, mining, stockpiling or processing from the boundaries of the site
- (e) Soil tests shall be made internally to the operation and around the perimeter of the excavation site. In the event excavation or activities are to be conducted closer than one hundred fifty (150) feet from the boundaries of the site, said soil tests must disclose conditions satisfactory for lateral support of adjacent premises as determined by the an engineer acceptable to the Township.
- (f) A plan showing the final grades and elevations to be established following the completion of the mining operations, including the proposed uses then contemplated for the land, future lakes and roads and other features that may show the bona fide nature of

the reclamation and rehabilitation plans and the fact that the land will not be devastated and rendered unusable by the mining activities.

### **SECTION 27.13 PUBLIC HEARING.**

After receiving an application for the grant of a special use permit for an earth removal, quarrying, gravel processing, mining, and related mineral extraction business accompanied by the required plans and specifications and permit fees, the Planning Commission shall hold a public hearing upon such application in the same manner preceded by the same notice as set forth in Section 31.01 of this Ordinance.

### **SECTION 27.14 REVIEW CRITERIA**

Following the hearing, said Planning Commission shall grant or deny the application and set forth its reasons for its decision. The decision shall be based upon A general and balanced consideration of the following:

- (a) The most advantageous use of the property in question including plans to reclaim the land in manner that will be compatible the surrounding land and the Master Land Use plan for the township.
- (b) The character of the area in question and its peculiar suitability, if any, for particular uses.
- (c) Conservation of property values, and the general and appropriate trend and character of development in the immediate area.
- (d) The protection and preservation of the general health, safety and welfare of the township
- (e) The scarcity or value of the minerals sought to be mined as compared with the effect of the proposed operations upon the adjacent community.
- (f) Whether or not the operations were previously in existence prior to the adoption of the text provision concerning the same and the extent and character of the previous operations.

### **SECTION 27.15 DECISIONS AND PERMITS**

- (a) In making any decision, the Planning Commission shall have the authority to impose such additional conditions and safeguards, as it deems necessary for the protection of the health, safety and general welfare of the neighborhood and of the adjoining residents and property owners.
- (b) The Planning Commission shall review all permits annually and the Planning Commission may limit the length of time that the special use permit is to be effective. It shall be empowered to renew or extend a special use permit where all standards and conditions are complied with and may revoke or refuse to renew the same where non-compliance exists. As part of its annual review the Planning Commission shall consider the adequacy of any posted surety ( letter of credit) for the operation and shall require that the amount is adjusted as necessary to ensure proper reclamation and closure.
- (c) In addition to annual review, the Planning Commission may provide for the periodic field inspections of the proposed operations to ascertain compliance with the conditions and limitations imposed upon the same.

- (d) After expiration of any initial permit period, the Planning Commission may renew the permit for such additional time as may be necessary in the event the removal of material to the extent indicated in the approval operation plan is not completed. The process for extension shall be the same as outlined for the review and authorization of the initial Special Use Permit.
- (e) No revocation or failure to renew or extend a permit shall release the applicant from the duty of rehabilitation and reclamation of said mined or disturbed area.
- (f) No permit shall be revoked or not renewed until the operator has been given written notice of any violation forming the basis of such revocation or denial or renewal and not less than 30 days have elapsed to correct the said violation.
- (g) The operator shall be required to pay an annual fee to cover the cost of inspections and additional meetings of the Planning Commission as may be established by the Township Board.
- (h) The Commission may upon request of the applicant, or on its own initiative, modify the requirements of this permit upon such findings of need and justification and upon a formal Special Use Permit amendment being made under the same procedures used for adopting the initial permit.

**SECTION 27.16 LIABILITY INSURANCE.** Liability Insurance shall be a pre-condition to commencement of operations, and maintenance in full force and effect of insurance shall be a pre-condition to the right to continue operations. The applicant shall provide binders for personal injury and property damage insurance for the project to be carried by an insurance company licensed to do business in the State of Michigan during all times which any reclamation is left to be done, and during all times any machinery and/or equipment remains on the site, or any structures, equipment or improvements to be removed remain on the site, said insurance to contain a hold-harmless clause regarding liability of the Township during any reclamation phase.

**SECTION 27.17 REVIEW PROCEDURES AND ADDITIONAL REQUIRED INFORMATION.** Application for the issuance of a permit to operate a mining or soil removal operation under the standards of this Chapter shall be made under the provisions of this Chapter, and Chapter 17 Special Land Uses. While the site plan content requirements of Section 19.06 shall be relied upon as the minimum informational requirements for site plans required as part of the application, the plans shall be designed to specifically satisfy the informational needs outlined in Section 27.12 of this Chapter. In addition, unless specifically waived by the Planning Commission, the applicant shall provide the following support information and documentation prior to the Planning Commission reaching its decision.

- (a) Documentation of Type and Need for the Resource Material. The need for the material being excavated and/or processed shall be quantified and verified so that the Planning Commission can weigh the value of the material being made available against the potential negative impacts of the operation in the proposed location. The types of information shall include:
  - (1) A characterization of the expected service area of the mining operation.
  - (2) Soil borings and a narrative describing the type and quantity of material to be mined.



- (3) The location, ownership and size of existing mining operations that produce the same material within the same service area.
  - (4) Projections as to the volume of material that will be needed in the service area as compared to the volume available.
  - (5) A listing of known or existing “local” projects that will be in need of the material or 5 to 10 year projections based on past usage. If possible such estimates and projections should be supported by expert testimony or signed letters from third parties or published reports.
  - (6) Any expert or third party opinions as to the financial or other positive or negative impacts on the construction industry if the proposed operation is or is not allowed.
- (b) Existing and Projected Roadway Conditions and Traffic. A written and graphic characterization of the expected haul routes and the proposed access to the site. This shall include:
- (1) An identification of expected primary and secondary routes that truck traffic will use when traveling to and from the site.
  - (2) A characterization of the routes including:
    - a Types of surface.
    - b Number of lanes and typical roadway width.
    - c Typical roadway speeds or speed limits.
    - d Known or potential trouble spots for heavy truck traffic including street intersections, hills, and curves
    - e Number and location of homes, schools, bus stops, day care operations, churches and businesses along the routes within one mile of the operation.
  - (3) Existing traffic volumes along appropriate segments of the anticipated primary and secondary haul routes.
  - (4) Projected traffic increases by type and route.
  - (5) Characterization of projected truck traffic by size, type and weight of trucks and direction of travel, empty and full on average and extreme daily and average annual basis.
  - (6) Expert analysis and testimony in general as to the adequacy of the routes for truck traffic
  - (7) Identification of documented or potential problems such as, inadequate clear vision, roadway width, steep grades, surface condition, maintenance or land use and traffic conflicts
  - (8) Expert analysis and identification of potential solutions to identified or documented problems in the form of roadway improvement, extra maintenance, traffic control devices, use or speed limitations or combinations of the above
- (c) Characterization of the proposed operation and site access in relation to the public street and street right of way.

- (1) Indicate the proposed location of proposed access (driveway or driveways) and their width, type of surface and other design features such as surface, deceleration and acceleration tapers, culverts, etc.
- (2) Indicate minimum sight distances.
- (3) Accurately depict the roadway conditions and width within 500 feet of each access drive including right of way width, roadway elevation and roadway location within the right of way.
- (4) A written statement from the applicable highway officials as to whether the proposed access to the site will meet or exceed their standards and if extraction operations or other operations will be allowed to occur within the road right of way, if requested or proposed and under what types of limitations.

The above informational needs are in addition to the information required to address the evaluation of the proposal's on-site operational and reclamation components.

**SECTION 27.18 APPLICABILITY TO EXISTING SITES AND OPERATIONS.** A special use permit shall not be required for the continuation of an earth removal and mining operation already existing on the effective date of this ordinance, if it is determined that the operation has retained its legal non-conforming status in accordance with the provisions of Chapter 30. Such active, legal non-conforming operations, or portions thereof considered active, shall nonetheless be required to begin adhering to the operational and reclamation standards contained herein. The reactivation of inactive operations having lost their legal non-conforming status and all vertical, horizontal and processing expansions to existing active legal non-conforming operations shall require the issuance of a special use permit. No earth removal or mining site or portion thereof that has been inactive for a period of 12 months prior to the effective date of this ordinance shall be considered a legal non-conforming use.