



LIVINGSTON COUNTY DRAIN COMMISSIONER SOIL EROSION AND SEDIMENTATION CONTROL DIVISION

Under the Provisions of Part 91 of Act 451, As Amended

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www.co.livingston.mi.us/Drain

Welcome,

The following is a compiled list of requirements that will be necessary for you to bring into this office for the purpose of making application for a Soil Erosion and Sedimentation Control Permit (Grading Permit). The Commercial Soil Erosion Permit Application Packet you picked up at our office included these items. You will need to read the information sheets and complete these forms. All items will need to be completed at the time they are submitted to our office. All of the documents are on our website if you need them. *PLEASE NOTE: Livingston County has enacted a Soil Erosion and Sediment Control Ordinance that is more restrictive than Part 91 of Act 451, as Amended.*

Welcome/Requirement Letter

Commercial Soil Erosion Permit Application

Grading and Sedimentation Control Bond Form

Letter of Credit Form

MDNRE - NOC: Notice of Coverage Application, Renewal & Termination Forms

Information: Part 91 of Act 451, As Amended

Completion Criteria for Commercial Permit*

**(This form is required to initiate bond return.)*

Right of Entry Form

Please Note:

This is only a preliminary review of your plans for soil erosion controls, not a review of the proposed drainage system. A review letter from a licensed civil engineer is required **prior** to permit issuance, as described herein. You may request our office to perform such a review. Alternately, if the proposed drainage facilities are to be privately maintained, the local municipality's engineer may provide such a letter.

If this project exceeds the five (5) acre minimum of disturbed soils and requires a National Pollution Discharge Elimination Systems Permit/Notice of Coverage, permittee is required to provide LCDC/SESC Enforcement Divisions with copies of all correspondence from the designated certified storm water operator throughout the duration of the project.

Silt Fence Requirements

As of January 1, 2000, it will be required that all commercial projects constructed in Livingston County, without exception, shall install 36-inch silt fence. ***This shall be depicted at each location on all prints submitted for application of the grading permit.***

Stabilization

As of May 1, 2000, it is required that temporary stabilization of the entire site be completed. This shall be done with seed and stabilized with straw and a tackifier. After this process is completed, an approval from the Livingston County Drain Commissioner's Office must be obtained prior to the issuance of any single family dwelling permits for the development.

Hydro seeding is not acceptable for slopes exceeding 1%. In such cases, stabilization shall be done with seed and straw mulch with tackifier.

Commercial Soil Erosion Permit Packet must be submitted completely before being accepted. Soil Erosion Permit Required Items:

- **Application Form:**
Must be completely filled out and signed by both Landowner and Applicant.
- **Application Fee:** Permit application fee of **\$325.00***, payable to the Livingston County Drain Commissioner's Office (L.C.D.C). This fee can be submitted with the Inspection Fee on one check, if you prefer, for a total of \$617.50 (\$325.00 application fee + \$292.50 ninety day inspection fee = **\$617.50***).
- **Daily Inspection Fees:** A Daily Inspection fee, set by the Livingston County Board of Commissioners, of **\$3.25** per day is charged for each day of the project. The Daily Inspection fee is not charged for weekends, holidays, or the winter months of December thru March if earthwork is not conducted during those months. A minimum amount of **\$292.50*** is required for the first 90 days of Daily Inspection fees. The fee period ends, when it is determined that the applicant has met all requirements of Part 91, the local ordinance, the permit and plans, and the final inspection has been performed by this office. *Any and all additional days will be calculated and invoiced following a final inspection.* The invoice must be paid (along with submission of any required documentation) prior to the release of the performance bond.

**Please note: Fees are subject to change. Please verify the current rates with our office.*

- **Performance Bond:** The L.C.D.C. Bond form in this packet is required. The amount is computed at \$.05 per square foot of all disturbed area.

✓ Soil Erosion Bonds submitted by Contractors will not be accepted.

✓ Bonds must be obtained and submitted by the Landowner/s or Easement Owner

This office will accept one of the following bonds:

1. **Surety Bond** (original copy) from an insurance company licensed to do business in the State of Michigan. Must be issued on a current L.C.D.C. Bond Form.
2. **Certified check or money order** payable to the Livingston County Drain Commission (or L.C.D.C.).
3. **Letter of Credit Form** – Must be on our attached form printed on the bank's letterhead, and original signatures are required.

Prior to returning the bond or letter of credit, communication with the inspector is necessary.

- **Construction Plans** : Two (2) sets of sealed plans depicting all soil erosion control measures.
- **Right of Entry:** The required Right of Entry letter is enclosed and must be signed by the Landowner and the Applicant and notarized. This is required for all applications.
- **File Reference:** An 8.5" x 11" reference sheet of the site depicting roads, wetlands, lakes, ponds, county drains, etc. (A 500' reference of all waterways, wetlands, etc. influence.)
- **Land Use Permit:** A Land Use Permit or statement of approval from municipality where work will occur is required. If the municipality does not claim jurisdiction over the proposed activity, evidence of this must be provided (e.g., a statement waiving the Land Use Permit requirement).
- **Drainage Review:** Drainage review letter from a State of Michigan registered Professional Engineer retained by the L. C. D. C. or local municipality stating that a

review of the drainage systems was performed and that said system was found to be in compliance with the requirements of the Design Criteria for Stormwater Management Systems for Livingston County.

Entering a County Drain: When necessary to connect to a Livingston County Drain, an inspection will be required to confirm that said connection has been conducted in accordance with the approved plans. A permit to connect must be obtained from the office of the Drain Commissioner prior to any construction activity. A permit fee* per instance and an inspection fee* per hour will be assessed. Inspection fees will be charged from portal to portal plus any additional office time to review plans and complete the inspection report.

**Fees are subject to change, check with LCDC for current fee schedules.*

Single Family Structure Construction: This commercial permit is valid for the mass earth movement, the installation of roads, drains, and utilities. It is not valid for any single-family dwellings. All single-family dwellings will be charged the current fees for residential permits/waivers.

Construction Plan and Soil Erosion Review: All items listed below are required to be clearly depicted on plans for review.

- Seal of a State of Michigan Registered Professional Engineer
- North Arrow
- Location Map: *showing project location and all water bodies and courses*
- Sheet Index
- Legend
- Legal Description of entire project
- Timing sequence
- Project Name
- Owner's Name
- Job Number
- Total amount of area to be disturbed
- Drainage Tributary Map

Also, a note on the plans clearly stating that the detention/retention/sedimentation ponds shall be excavated, top soiled, seeded, mulched, and tacked prior to the start of the massive earth disruption.

Soil Survey: Soil borings data indicating surficial soil types or information provided from the Livingston County soil survey. Data should be included with plans.

Overall Site and Grading Plan:

- Distance to any and all wetlands, lakes, county drains, etc.
- Predominant land features including critical areas, swales, wetlands, lakes, streams, county drains, steep slopes, buildings, roads, property lines, etc.
- Slope contours onsite and offsite.
- 36" Silt fence or straw bale location clearly indicated on plans.
- Limits of grading for the entire project.
- A maintenance schedule is needed for all soil erosion controls, both temporary and permanent. A maintenance schedule should be designed to reflect the preventable maintenance practices during the course of the project by the managers.

Storm Sewer Calculations: Storm sewer drainage calculations must be on the plans or accompanied as an attachment.

Top Soil and Soil Storage Areas: Location of topsoil storage areas. Topsoil and soil storage areas shall be seeded a mulched, or matted with straw, immediately after the stripping process to prevent wind and water erosion.

Slopes and Ditches

Onsite ditches shall be of the flat bottom type with a minimum width of two feet and a minimum of three (3) feet horizontal to one foot vertical side slopes, 3:1.

Side slopes in excess of three (3) feet horizontal to one (1) foot vertical shall not be used except with a mechanical device such as a retaining wall or terracing.

Ditches/swales with grades 3% and greater (and may be needed between 1% and 3% depending on the length of run and drainage area) will need stone flow checks to prevent scouring of the ditch bottoms. They may be used as a temporary measure and removed once sufficient stabilization has been established. *These shall be depicted on plans by the engineer.* Indicate flow checks on all slopes 3% and greater or where otherwise required.

Detention/Retention and Sedimentation Ponds:

New land developments within Livingston County shall be equipped with detention/retention facilities for storm water. This requirement shall apply to all projects for which plans have not been approved prior to January 1st, 1981, the date of acceptance of this policy by the Drain Commissioner.

- ✓ Inlets into detention ponds must not discharge at the same location as the outlet structure.
- ✓ Detention pond standpipe outlet detail. Detention pond outlet structure must be the Livingston County Drain Commissioner's standard detention pond outlet detailed.
- ✓ Standpipe structure must have a two-foot sump.
- ✓ Detention pond standpipe structure should be changed to show staggering of the holes at first flush, bank-full and 100-year storm elevations. This will provide for more effective filtering.
- ✓ A note should be placed on the plans stating that, prior to the completion of the project, the stone around the standpipe structure shall be refreshed with clean stone.
- ✓ Detail of detention/retention pond depicting percent of slope, spillway, and ultimate outlets from project are needed.
- ✓ For public systems, unless specifically waived by the Drain Commissioner, all detention/retention ponds with slopes of less than five (5) feet horizontal to one (1) foot vertical side slopes, 5:1, shall have a four-foot cyclone fence with a 12-foot access gate at the outer portion of the berm to allow for maintenance work to be done inside of the fence.
- ✓ Detention/retention and sedimentation ponds shall be excavated, top soiled, seeded, mulched, and tacked **prior to the start** of massive earth disruption. ***This must be called out and depicted on the plans.***
- ✓ Inlets into detention/retention ponds must be located within two (2) feet of the bottom floor of the pond.

Detention Pond Spillway:

The plans should identify the forebay and emergency spillway locations. Riprap proposed in the construction of the emergency spillway must be placed over keyed-in geo-fabric blanket.

Drainage Easements

All onsite and off-site drainage easements shall be clearly shown on plans.

Catch Basin/Open-pipe Inlet Protection

Sedimentation protection for catch-basin inlets; silt sacks are the preferred choice in the winter months, because they are less likely to be disturbed by the process of snow plowing.

Open-pipe, inlet protection must be provided with straw bales, stone, or geo-fabric.

Outlet Protection

- ✓ It is necessary to include the pipe size and pipe slope to determine the proper amount and size of riprap. This information must be depicted on the plans at each outlet location.
- ✓ A minimum of 10 yards of rip-rap with a median diameter of six (6) inches shall be used on all end sections. Additional quantities of riprap may be required by the inspector during plan review, depending on outlet characteristics. All riprap must be placed over keyed-in geo-fabric and detailed as such on plans.
- ✓ All storm drains 15 inches in diameter or larger shall have animal guards installed to prevent entrance to the system
- ✓ Storm drain outlets that do not empty into the retention/detention pond shall have a temporary 5' x 10' x 3' sump installed at the termination of the storm sewer. Upon completion of the stabilization work the sump area shall be filled and riprapped with cobblestone over keyed-in filter fabric. Silt traps shall be inspected after each storm.
- ✓ Splash blocks should be installed at Stormwater outlets and depicted as such on the plans.

Tracking onto public roadway

It is required that each development have an ingress/egress of crushed stone to restrict tracking of material onto the public roadway. All commercial construction sites require a minimum 75-foot tracking mat shown at ingress/egress. Each development may have different circumstances.

Stabilization standards - R 323.1709 Earth Change Requirements

Rule 1709. 1.) A person shall design, construct, and complete in such a manner which shall limit the exposed area of any disturbed land for the shortest possible period of time as determined by the county local enforcing agency.

Rule 1709. 5.) A person shall complete permanent soil erosion control measures for all slopes, channels, ditches or any disturbed land area within five (5) calendar days after final grading or the final earth change has been completed. If it is not possible to permanently stabilize a disturbed area after an earth change activity ceases, then a person shall maintain temporary soil erosion and sedimentation control measures until permanent soil erosion control measures are in place and the area is stabilized.

It is required that temporary stabilization of the entire site be completed and approval from the Livingston County Drain Commissioner's Office must be obtained prior to the issuance of single family dwelling permits.

Seeding, Fertilizer, and Mulch Bare Ground Ratio

This information is provided as minimum guide for acceptable application rates. Actual amounts depending on soil conditions and site topography shall be detailed in the construction plans.

Topsoil 3 inches in depth
Grass Seed 210 pounds per acre
Fertilizer 150 pounds per acre

Straw Mulch 3 inches in depth, 1.5 to 2 tons per acre. All mulching must have tie down (asphalt tackifier, net binding, etc.).

Hydro-seeding

Hydro-seeding is not acceptable for slopes exceeding 1%. In such cases, stabilization shall be done with seed and straw mulch with a tackifier.

Stabilization-Commercial Building Projects Only

Common areas shall be called out of plans, in accordance with Part 17 prescribed by R323.1709 and R 323.1710, pursuant to Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act (Previously known as P.A. 347 of 1972) of Act 347, Public Acts of 1972, as amended. Indicating areas to be stabilized after 15 days of grade work, areas to be outlined are as follows: detention/retention drainage easements, utility easements, boulevards, etc.

Details

All items below must be detailed on the plans.

- Detention pond standpipe outlet detail.
- Detention/retention pond depicting slope percentage, spillway and ultimate outlets from project.
- Riprap and geo-fabric placement
- 36" silt fence, straw bales, and diversion berms.
- Storm structure protection
- Emergency spillway
- Animal guards
- Detail of stabilization blankets, mulch fertilizer, and seeding (i.e. type, size, and installation procedure)
- Detail of tracking mat