



**GRADING & DRAINAGE PERMIT
SOIL EROSION AND SEDIMENTATION CONTROL PERMIT**

PROGRAM OVERVIEW

Chapter 8 Building and Building Regulations, Article XIII Grading and Drainage and Article XV Soil Erosion and Sedimentation Control

In order to receive a building permit, an applicant must submit four (4) sets of Grading & Drainage/Soil Erosion and Sedimentation Control Plans signed and sealed by a licensed engineer or surveyor, and complete a Permit Application and pay permit fees to the Development Services Department. Permits are to be applied for by landowners **ONLY**; contractors wishing to apply for a permit must submit a *Designated Agent Form* signed by the landowner. The signed form authorizes the contractor to apply for and obtain a permit.

FEES:

Soil Erosion and Sedimentation Control Fees

Type of Improvement/ Request	Fee	Re-Inspection Fee
Residential Earth Moving Project	\$150.00	\$75.00 per failed inspection
New Single Family Home	\$150.00	\$75.00 per failed inspection
Permit Transfer Fee	\$100.00 per transfer	N/A
Permit Renewal Fee ¹	\$50.00 per year	N/A
Commercial Project (Planning Commission Site Plan Approval Required)		
0-2 acres	\$500.00	\$75.00 per failed inspection
2-5 acres	\$750.00	\$75.00 per failed inspection
5 or more acres	\$750.00 plus \$100.00 for every gross site acre over 5 acres	\$75.00 per failed inspection

Permit Renewal Fee¹ – An applicant may pay a one year permit renewal fee at the time of initial application if he/she believes the project will take longer than one year. Partial refunds will not be provided should a project be completed prior to the expiration of a permit or renewed permit. Permanent site stabilization is the final deterrent for a completed project.

Grading & Drainage Fees

Type of Improvement/Request	Fee	Re-Inspection Fee
Residential Earth Moving Project	\$150.00	\$75.00 per failed inspection
New Single Family Home	\$150.00	\$75.00 per failed inspection
Additional Plan Review(s)	\$100.00 per additional plan review/revision	N/A

**A typical single family residential home requiring a Grading and Drainage Permit and Soil Erosion and Sedimentation Control Permit would cost \$300 for a one-year permit or \$350 for a two year permit.*

SITE PLAN REQUIREMENTS:

The following items **must** be shown on the Grading & Drainage and Soil Erosion and Sedimentation Control plan(s):

1. A scale of not less than one inch equals thirty feet (1" = 30'). Scales of one inch equals twenty feet (1" = 20') are preferred.
2. Date, north arrow and scale.
3. The dimensions of all lot and property lines, showing the relationship of the subject property to abutting properties.
4. The location of all existing and proposed structures on the subject property and all existing structures within fifty (50) feet of the subject property.
5. The location of all existing and proposed drives, parking areas and easements on the property.
6. The location and widths of right-of-way of all abutting streets, and any driveway locations across abutting public streets.
7. The location of freestanding signs and lighting structures.
8. The proposed location and dimensions of any pedestrian sidewalks.
9. Existing ground elevations on a 25-foot by 25-foot grid or by contours at two-foot intervals or other such topographic information satisfactory to the Township Development Services Department. Include existing ground elevations on adjacent land within fifty (50) feet of the subject property and existing building, drive and parking lot elevations, and elevations of any adjacent unusual surface conditions.

10. The name, address and telephone number of the engineer responsible for the preparation of the grading and soil erosion control plan.
11. Bench mark description and location used for the development, based on United States Geological Survey datum.
12. Proposed brick ledge, finished grade, first floor, basement floor, garage floor and walkout elevations must be shown.
13. All required zoning setbacks shown and properly labeled.
14. All official Township wetlands, watercourses, 100-year floodplains and woodlands as accurately depicted on the official Township maps, including buffer zones, all of which are subject to field verification after application, and all other natural features on the property, including tree lines, etc.
15. The proposed method of rear yard drainage.
16. All existing and proposed ground grades in tenths of a foot.
17. General direction of the rear yard drainage and swales indicated with arrows.
18. If engineered septic is to be constructed, submit engineered septic plan that shows proposed grading.
19. Additional grades shown under special conditions required by the Township Development Services Department.
20. The location of existing and/or proposed buildings or structures on the property clearly shown, including the dimensions to front, side and rear property lines. The dimensions from each proposed building or structure to any adjoining building or structure on or within fifty (50) feet of any proposed buildings must be shown.
21. Such other information concerning the lot or adjoining lots as may be essential for determining whether the provisions of this article are being observed.
22. The location of all utility leads (water, sanitary and sump pump).
23. All proposed retaining walls shall be shown on the grading and soil erosion plan. Calculations by a registered civil engineer shall accompany all retaining walls of thirty (30) inches or greater in height.
24. Retaining walls that are forty-two (42) inches or greater in height and are adjacent to driveways, walkways, patios and other such structures shall include a safety railing

that is at least thirty-six (36) in height with a four (4) inch maximum width between spindles per Michigan Building Code regulations. All other retaining walls that do not have the above mentioned conditions may not require a safety rail unless deemed appropriate.

25. The location of all temporary soil erosion control measures to be installed and maintained until installation of permanent soil erosion control measures. The plan must show temporary soil erosion control measures at the street, and at all other property lines with an elevation below proposed or existing grades.
26. The location of a required gravel access drive onto the lot.
27. A description of the soils on the subject property.
28. For attached side entry garages, the minimum width of the driveway shall be twenty-two (22) feet, measured at the face of the garage. All driveways shall be a minimum of two (2) feet from the side property line to allow for a drainage swale.

Driveway grade requirements are as follows:
 - Side entrance slab/pavement area – Minimum 2% slope, Maximum 4% slope.
 - Slope down to road – Minimum 2% slope, Maximum 10% slope
 - Reverse drive slop – Minimum 2% slope, Maximum 7% slope.
29. Design of any rain garden or bio-swale proposed for the collection of surface drainage. Design should include a cross-section and landscape and planting details.
30. If a master grading plan exists for the site, than the proposed grades and drainage patterns must be consistent with the grades and drainage patterns shown on the master grading plan.

PRE-CONSTRUCTION:

After Grading & Drainage and Soil Erosion and Sedimentation Control (SESC) plan approval, an on-site SESC inspection is required. IT IS THE RESPONSIBILITY OF THE APPLICANT TO SET UP THE INSPECTION WITH THE DEVELOPMENT SERVICES DEPARTMENT. A building permit will not be issued without this approval.

FOUNDATION CERTIFICATION:

After placement of the foundation and backfilling, a **WRITTEN FOUNDATION CERTIFICATION** completed, signed and sealed by a licensed engineer or surveyor shall be submitted to the Development Services Department. This certification shall state that the proposed brick ledge elevations and horizontal placement of the foundation are properly set and conform to the approved grading and soil erosion plan. New drawings are not required unless special conditions exist. This certification shall also state that the

surveyor has properly staked the garage and all other foundations in accordance with the approved grading plan. ***No rough framing shall be placed without receipt of this certification and approval of the grading inspector.***

AS-BUILT PLANS:

AS-BUILT plans and an as-built certification form, signed and sealed by a licensed engineer or surveyor shall be submitted 72 working hours prior to request for a final grading inspection to the Development Services Department. The plans must be marked AS-BUILT and show garage foundation, all brick ledge elevations, setbacks, finished grade and lot corner elevations, centerline of drainage swales. The as-built plans must be received and approved by the Engineering Inspector prior to scheduling of the final grade inspection.

FINAL INSPECTIONS:

After the building is completed and final site grading is complete, a ***FINAL GRADING & DRAINAGE INSPECTION*** will be required by the Development Services Department. This inspection is scheduled through the Development Services Department. ***No Certificate of Occupancy will be issued prior to approval of site grading.***

In general, the final grading and drainage should incorporate the following:

1. The final grade must not be subject to erosion.
2. Temporary soil erosion measures must be in place.
3. Drainage is adequately discharged off site.
4. No upstream drainage is restricted.
5. The developed portion of the site drains without standing water.
6. All utility structures (manhole, hydrant, D-valve box, etc.) must be at grade level.
7. Grading shall meet abutting property line elevations. Exceptions to this may be made subject to approval by the Development Services Director or his designee.
8. All sump pumps that do not discharge to an established wetlands, low lying woodlands or surface water drainage course must be directly connected to an underground storm drain.
9. Grades at lot corners shall be equal to existing ground grades. Onsite grading to contain all surface water may be required, as determined by the Township Engineer. Rear to front yard drainage shall be used unless topography prohibits.
10. The side yard swale elevation between structures should be a minimum of 1.5 feet below the lower adjacent building or structure grade. No water shall flow off site of developed property to adjacent property without drainage easements from downstream property owners.
11. Property should be cleared of debris, raked and ready for sod/seed.

12. Street trees must be installed. This is a part of the Township plat approval ordinance, *we cannot waive the requirement.*

Upon approval of final grade and drainage inspection through the Development Services Department, a **FINAL SESC/ENVIRONMENTAL INSPECTION** is required. This inspection is scheduled through the Development Services Department. ***No Certificate of Occupancy will be issued prior to approval of the final SESC/Environmental Inspection.***

No Final soil erosion and sedimentation control approval will be granted without permanent stabilization of the disturbed areas and a final grading and drainage approval, if applicable. When seasonal weather conditions do not permit permanent stabilization of the disturbed areas, then a conditional soil erosion and sedimentation control approval may be granted by the Development Services Director for up to six (6) months. During this time, all temporary soil erosion & sedimentation control measures must be installed as approved upon inspection (**there will be no waiver for weather conditions**). A deposit of cash or a letter of credit in the amount of the remaining work needed to permanently stabilize the site must be submitted as well. A final soil erosion and sedimentation control approval will always require a final grading and drainage inspection even if a final grading and drainage approval was previously granted.

PERMIT TRANSFER:

If the property subject to a permit is proposed to be transferred, the transferor shall notify the transferee of the permit in writing on a permit transfer form. The transfer form informs the transferee of the requirements of the permit. The transfer form will also include a copy of the permit. The transferor and transferee both sign the notice, and the transferor shall submit the signed notice to the Development Services Department before the property is transferred or a certificate of occupancy is issued. The Township charges a fee of \$100 for the transfer of a permit.

For questions, visit our website or call.

<http://www.wbtwp.com>
248-451-4824

Township hours are Monday through Friday, 8:00 AM - 4:30 PM.