

Office Use Only

Permit Number _____
 Date issued _____
 Expiration Date _____
 File Number _____

**Permit Application for Part 91
 Soil Erosion and Sedimentation Control
 Chapter 154 Codified Ord. & Fee Schedule
 Chapter 157 Codified Ord. Zoning Ord.
 Single Lot Grading Permit**

Office Use Only

Fee _____
 Cash/Check _____
 Received By _____

1. Applicant (Please check if applicant is the landowner or designated agent)

Name <input type="checkbox"/> Landowner <input type="checkbox"/> Designated Agent			
Address			
City	State	Zip	Telephone

2. Location

Section	Town	Range	Township	City/Village	County
Subdivision	Lot No.	Tax ID Number	Street Address		

3. Proposed Earth Change

Project Type: Residential Industrial Multi-family Land Balancing

Describe Project:	Size of earth change (acres or sq. ft.)
Name of and distance to nearest lake, stream, or drain	Date of start
	Date of completion

4. Soil Erosion and sedimentation Control Plan (Refer to Rule 323.1703)

Note: 2 complete sets of plans must be attached for other than single family residential homes.

Estimated cost of erosion and sediment control	Plan preparers name and telephone number
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5. Parties Responsible for earth change

Name of landowner (if not provided above)		Address		
City	State	Zip	Telephone + area code	
Name of individual "On Site" responsible for earth change		Company name		
Address	City	State	Zip	Telephone

6. Performance Deposit (If required by the permitting agency)

Amount Required \$ _____	<input type="checkbox"/> Cash	<input type="checkbox"/> Certified Check	<input type="checkbox"/> Irrevocable Letter of Credit	<input type="checkbox"/> Surety Bond
Name of Surety Company				
Address	City	State	Zip	Telephone

7. At the time of restoration, if the contractor will not be completing the site, this permit must be transferred by the responsible party with payment of a transfer fee.

I (we) affirm that the above information is accurate and that I (we) will conduct the above described earth change in accordance with Part 91, Soil Erosion and Sedimentation Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, applicable local ordinances, and the documents accompanying this application.		
Landowners Signature	Print Name	Date
Designated Agent's Signature	Print Name	Date

Designated Agent must have a written statement from the landowner authorizing him/her to secure a permit in the landowners name.

City of Burton

Soil Erosion and Sedimentation Control Plan Submittal Checklist

The following information shall be provided with all SESC plans submitted to this office:

1. ____ Legal description and/or survey of site.
2. ____ A vicinity sketch to scale of 1 inch = 200 feet, indicating the site location, as well as the adjacent properties within 500 feet of the site boundaries.
2. ____ A SESC site plan (scale of not more than 1" =100', or scale agreeable with the director) of the property with the items below clearly labeled: (Residential submitted on letter or legal paper)
 - A. ____ Name, address, and telephone number of owner, developer, and petitioner
 - B. ____ A time schedule indicating the anticipated starting and completion dates of the development sequence and the time exposure of each area prior to the completion of effective erosion and sediment control measures.
 - C. ____ Project Name, Location, proximity to Waters of the State (lake, stream, drain, wetlands) and the 100-year floodplain contour for those waters.
 - D. ____ A certified Statement of quantity of excavation and soil type of fill involved.
 - E. ____ Existing and proposed topography at a maximum of 5-foot contours intervals.
 - F. ____ Location of any structure of natural feature on the site.
 - G. ____ Location of any structure of natural feature on the land adjacent other site and within 50 feet of the boundary line. .
 - H. ____ Description and location of ALL temporary and permanent soil erosion measures, with measures clearly drafted and labeled with the Mich. Unified Keying System.
 - I. ____ A program proposal for continued maintenance of all permanent soil erosion control facilities which remain after project completion, including the designation of the person responsible for the maintenance. Maintenance responsibilities shall become part of any sales or exchange agreement for the land on which the permanent soil erosion control measures are located.
 - J. ____ Location of any proposed additional structures or development on the site.
 - K. ____ Elevations, dimensions, location, extent and slope of all proposed earth change.
 - L. ____ The estimated total cost of required controls

- M. _____ Plans of all drainage provisions, retaining walls, cribbing, planting, anti-erosion devices, or other protective devices to be constructed in connection with, or as part of, the proposed work, together with a map showing the drainage area of the land tributary to the site and the estimated runoff of the area served by any drains
- N. _____ Other information or data as may be required by the Director, such as a soil investigation report which shall include, but not be limited to, data regarding the nature, distribution, and supporting ability of existing soils and rock on the site.

3. _____ A completed Soil Erosion and Sedimentation Control application.
4. _____ A completed construction and maintenance schedule (included in packet)
5. _____ A copy of any state require permits for completing earthwork within the boundaries of a state regulated wetland and/or floodplain.
6. _____ Include master deed, parcel plan or record map for land division that has been recorded with-in the last two years.

I hereby certify that the above information has been provided with the submitted plans.

Name of Party Preparing Checklist: _____

Signature: _____ Date: _____

TABLE 4. EXAMPLE SEEDING MIXTURES FOR INTRODUCED SPECIES

Mix #	Common Name	Natural Drainage Class Suitability	Suitable Uses	Rate Ld/ Acre
1	Creeping red fescue	WD, MWD	A, C/F, WW	40
2	Creeping red fescue White clover, red clover, or alfalfa	WD, MWD	C/F	30 4
3	Smooth bromegrass Creeping red fescue White clover, red clover, of alfalfa	WD, MWD	C/F	15 15 4
4	Smooth bromegrass alfalfa	WD, MWD	C/F, WW	30 4
5	Smooth bromegrass Creeping red fescue	WD, MWD	C/F, WW	20 20
6	Kentucky bluegrass Creeping red fescue	MWD	A, C/F	20 20
7	Creeping red fescue Tall fescue	MWD	C/F, WW	20 20
8	Creeping red fescue Creeping bentgrass	MWD, SPD	A, C/F	40 1
9	Smooth bromegrass Tall fescue	MWD, SPD	C/F, WW	20 20
10	Smooth bromegrass Timothy Red clover	MWD, SPD	C/F, WW	15 4 4
11	Smooth bromegrass Creeping red fescue Kentucky bluegrass Birdfoot trefoil	MWD, SPD	C/F, WW	10 10 10 4
12	Tall fescue Creeping bentgrass	SPD, PD	C/F, WW	40 1
13	Tall fescue Alslike clover or birdfoot trefoil	SPD, PD	C/F, WW	20 8
14	Redtop Timothy Alsike clover or birdfoot trefoil	SPD, PD	C/F	2 5 2
15	Tall fescue Smooth bromegrass Creeping bentgrass Birdfoot trefoil	SPD, PD	C/F, WW	12 12 1 6
16	Tall fescue Redtop	SPD, PD, VPD	C/F, WW	20 2

Table 4 continued on the following page: notes are found at the bottom of the table

TABLE 4. EXAMPLE SEEDING MIXTURES FOR INTRODUCED SPECIES (CONTINUED)

17	Redtop Alsike clover or birdfoot trefoil	PD, VPD	C/F	4 2
18	Creeping red fescue Kentucky bluegrass Redtop Timothy Alsike clover	See Notes 1	C/F	8 8 1 2 3
19	Creeping red fescue Redtop Tall fescue Smooth bromegrass Alsike clover or birdfoot trefoil White clover, red clover, or alfalfa	See Notes 1	C/F, WW	6 1 6 6 3 3

Notes:

Five pounds of annual or perennial ryegrass may be added to any mixture if quick cover is desired.

1. These mixtures are suitable for large or linear projects where several soil types may be encountered but a single seed mixture is desired for the entire project.

TABLE 6. EXAMPLE SEEDING MIXTURES FOR INTRODUCED SPECIES

Common Name	Scientific Name	Seeding Rate lbs/acre	Drainage Class Suitability	Notes
American beachgrass	<i>Ammophila Breviligulata</i>		Dunes, WD sands	1
"Tioga" deertounge	<i>Panicum clandestinum</i>	15	WD, MWD	2,3
Little bluestem	<i>Schizachynum scoparius</i>	12	WD, MWD	2
Big bluestem	<i>Andropogon gerardii</i>	15	WD, MWD, SPD	2
Switch grass	<i>Panicum virgatum</i>	10	WD, MWD, SPD	2
Indian grass	<i>Sorghastrum nutans</i>	10	WD, MWD, SPD	2

Notes:

1. Beachgrass is planted vegetatively: see text
2. Warm season grasses
3. Suitable for sand and gravel pit and mine reclamation

A great variety of native species are available: consult suppliers for cultural information

Key for information in Tables 4, 6 and 7

Abbreviations for Soil Natural Drainage Classes:

WD = Well Drained MWD = Moderately Well Drained
 SPD = Somewhat Poorly Drained PD = Poorly Drained VPD = Very Poorly Drained

Abbreviations for Suitable Uses (table 4)

A = Sites maintained as a lawn C/F = Cut and fill, slopes, ditch banks
 WW = areas subject to periodic storm water flow such as grassed waterways, ditch bottoms, diversions

Species shown in bold face may be invasive and should not be planted where they can escapes into sensitive natural areas.

TABLE 7. SELECTED TREES AND SHRUBS FOR EROSION CONTROL

Common Name	Scientific Name	Drainage Class Suitability	Notes
Evergreen Trees			
Jack pine	<i>Pinus banksiana</i>	WD, MWD, SPD	
Red pine	<i>Pinus resinosa</i>	WD, MWD	
White pine	<i>Pinus strobus</i>	MWD, SPD	
Norway Spruce	<i>Picea Abies</i>	WD, MWD	1
Deciduous Trees			
Quaking aspen	<i>Populus tremuloides</i>	WD, MWD, SPD	
Bigtooth aspen	<i>Populus grandidentata</i>	WD, MWD	
Hybrid poplar	<i>Populus spp.</i>	WD, MWD, SPD	1
Red maple	<i>Acer rubrum</i>	ADAPTABLE	
Silver maple	<i>Acer saccharinum</i>	MWD, SPD, PD	
Hawthorn	<i>Crataegus spp.</i>	Varies by species	3
Black willow	<i>Salix nigra</i>	SPD, PD, VPD	
With the exception of hawthorn the trees listed above are fast growing and selected for their potential use in windbreaks			
Shrubs			
Northern bayberry	<i>Myrica pensylvanica</i>	WD, MWD	1, 2
Fragrant sumac	<i>Rhus aromatica</i>	WD, MWD	2
Staghorn sumac	<i>Rhus typhina</i>	WD, MWD	
Gray dogwood	<i>Cornus foemina (racemosa)</i>	WD, MWD, SPD	
Red-osier dogwood	<i>Cornus stolonifera</i>	SPD, PD, VPD	
Cranberry-bush viburnum	<i>Viburnum opulus (trilobum)</i>	SPD, PD, VPD	
Shrub willows	<i>Salix spp.</i>	SPD, PD, VPD	
Blackberry / raspberry	<i>Rubus spp.</i>	Varies by species	3

The shrubs listed above are selected for vigorous and extensive root growth. Willows are particularly useful for stream bank stabilization; they will sprout from cuttings or branch bundles if moisture is adequate.

Notes:

1. These species are not native to Michigan
2. These species may not be cold hardy in the Northern Lower or Upper Peninsula
3. Thorny species useful for excluding humans where foot traffic may create erosion sites.