

4.01 EROSION AND SEDIMENT CONTROL PLAN

Submittal requirements for Erosion and Sediment Control Plans are summarized below. The City Engineer may waive a portion of these submittal requirements where such information is not necessary to demonstrate compliance with the ordinance.

A. Responsible Party and Legal Description

1. Name, address, and telephone number for the following or their designees: landowner; developer; project engineer for practice design and certification; person(s) responsible for installation of stormwater management practices; and person(s) responsible for maintenance of stormwater management practices prior to the transfer, if any, of maintenance responsibility to another party. Responsible party must provide the city with Name(s) of person(s) that can be contacted, seven days a week, that will have responsibility to ensure compliance with erosion and sediment control plan
2. A site location map and proper legal description of the property proposed to be developed, referenced to the US Public Land Survey system or to block and lot numbers within a recorded land subdivision plat.

B. Predevelopment Site Conditions Mapping

1. A USGS Quadrangle and other appropriate map at an appropriate scale for the size of development at a maximum scale of 1 inch = 100 feet showing the project location and nearby regional water resources potentially impacted by the project.
2. A copy of the applicable Soils Survey Map showing predominant soil types and hydrologic soil groups and/or soil borings if required by the City Engineer.
3. Mapping or description of existing cover type and condition including existing utilities, structures, streets, highways, paving, etc.
4. A predeveloped conditions site map including the following information described below. Mapping shall include enough of the contiguous properties to show runoff patterns onto, through, and from the site.
 - a. Existing topographic contours of the site at a contour interval not to exceed 2 feet.
 - b. Property lines, site boundaries, and adjacent lands.
 - c. Existing flow paths and direction across the site.

- d. Outlet locations identifying where stormwater drainage leaves the property.
- e. Drainage basin divides and subdivides to all outlet locations where stormwater drainage leaves the property.
- f. Existing drainage structures on and adjacent to the site.
- g. Watercourses that may affect or be affected by runoff from the site.
- h. Lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site.
- i. Limits of the 100-year floodplain.
- j. Vegetative cover.
- k. Restricted development areas.
- l. Flood fringe and floodway.

C. Proposed Site Grading and Erosion Control Plan

A Site Grading and Erosion Control Plan shall be provided that includes the following items. The plan shall be at an appropriate scale for the size of the development.

- 1. Boundaries of the construction site.
- 2. Drainage patterns and approximate slopes anticipated after major grading activities.
- 3. Areas of soil disturbance.
- 4. Location of major structural and nonstructural controls identified in the plan.
 - a. Location of areas where stabilization practices will be employed.
 - b. Areas which will be vegetated following construction.
- 5. Extent of wetland acreage on the site and locations where stormwater is discharged to a surface water or wetland.
- 6. Delineation procedure for restriction development areas.
- 7. Location and dimensions of all temporary stock piles.

D. Calculations

Calculations shall be provided including computer modeling input and output files, as needed, to demonstrate compliance with ordinance performance standards. All major assumptions used in developing input parameters shall be clearly stated. The drainage basin areas used in making the calculations shall be clearly cross-referenced to the required map(s).

E. Narrative

A narrative description of the proposed Erosion and Sediment Control Plan shall be provided, including the following:

1. Name of the immediate named receiving water from the United States Geological Service 7.5 minute series topographic maps, as well as locations of all surface waters and wetlands within 1 mile of the construction site.
2. A description of the site and the nature of the construction activity.
3. A sequence of construction of the development site, including stripping and clearing; rough grading; construction of utilities, infrastructure, and buildings; and final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.
4. Estimates of the total area of the site and the total area of the site that is expected to be disturbed by construction activities.
5. Estimates, including calculations, if any, of the runoff coefficient of the site before and after construction activities are completed.
6. A description of appropriate controls and measures that will be performed at the site to prevent pollutants from reaching waters of the state. The plan shall clearly describe the appropriate control measures for each major activity and the timing during the construction process that the measures will be implemented. The description of erosion controls shall include, when appropriate, the following minimum requirements:
 - a. Description of interim and permanent stabilization practices, including a practice implementation schedule. Site plans shall ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized.

- b. Description of structural practices to divert flow away from exposed soils, store flows, or otherwise limit runoff and the discharge of pollutants from the site. Unless otherwise specifically approved in writing by the City of Onalaska, structural measures shall be installed on upland soils.
- c. Descriptions of any other practices proposed to meet requirements of the ordinance and prevent erosion from the site.
- d. Provisions for maintenance of the construction site erosion control measures during land disturbing activity or final vegetation.

4.02 STORMWATER MANAGEMENT PLAN SUBMITTAL REQUIREMENTS

Submittal requirements for Stormwater Management Plans are summarized below. The City Engineer may waive a portion of these submittal requirements where such information is not necessary to demonstrate compliance with the ordinance.

A. Responsible Party and Legal Description

The stormwater management plan required under Ordinance 6-5-7 should contain, at a minimum, the following information:

1. Name, address, and telephone number for the following or their designees: landowner; developer; project engineer for practice design and certification; person(s) responsible for installation of stormwater management practices; and person(s) responsible for maintenance of stormwater management practices prior to the transfer, if any, of maintenance responsibility to another party.
2. A proper legal description of the property proposed to be developed, referenced to the U.S. Public Land Survey system or to block and lot numbers within a recorded land subdivision plat.

B. Predevelopment Site Conditions Mapping

1. A USGS Quadrangle or other appropriate map at an appropriate scale for the size of the development at a maximum scale of 1 inch = 100 feet showing the project location and nearby regional water resources potentially impacted by the project.
2. A copy of the applicable Soils Survey Map showing predominant soil types and hydrologic soil groups.
3. Mapping or description of existing cover type and condition.

4. A predeveloped conditions site map including the following information described below. Mapping shall include enough of the contiguous properties to show runoff patterns onto, through, and from the site:
 - a. Existing topographic contours of the site at a contour interval not to exceed 2 feet.
 - b. Property lines.
 - c. Existing flow paths and direction across the site.
 - d. Outlet locations identifying where stormwater drainage leaves the property.
 - e. Drainage basin divides and subdivides to all outlet locations where stormwater drainage leaves the property.
 - f. Existing drainage structures on and adjacent to the site.
 - g. Watercourses that may affect or be affected by runoff from the site.
 - h. Lakes, streams, wetlands, channels, ditches, and other watercourses on and immediately adjacent to the site.
 - i. Limits of the 100-year floodplain.
 - j. Location of wells and wellhead protection areas covering the project area and delineated pursuant to s. NR 811.16, Wis. Adm. Code.

C. Postdevelopment Site Conditions Mapping

1. Proposed pervious areas including vegetative cover type and condition.
2. Proposed impervious surfaces including all buildings, structures, and pavement.
3. Proposed topographic contours of the site at a scale not to exceed 1 foot.
4. Proposed drainage network including enough of the contiguous properties to show runoff patterns onto, through, and from the site; locations and dimensions of drainage easements.
5. Locations of maintenance easements specified in the maintenance agreement.

6. Flow path and direction for all stormwater conveyance sections.
7. Location and type of all stormwater management conveyance and treatment practices, including the on-site and off-site tributary drainage area.
8. Location and type of conveyance system that will carry runoff from the drainage and treatment practices to the nearest adequate outlet such as a curbed street, storm drain, or natural drainageway.
9. Proposed drainage divides and subdivides identified to each outlet location where stormwater will discharge from the proposed development site.

D. Detailed Drawings

Detailed drawings including cross sections and profiles of all permanent stormwater conveyance and treatment practices.

E. Calculations

Calculations, including computer modeling input and output files, as needed to demonstrate compliance with ordinance performance standards. All major assumptions used in developing input parameters shall be clearly stated. The drainage basin areas used in making the calculations shall be clearly cross-referenced to the required map(s).

F. Narrative

A narrative including, at a minimum, the following:

1. A description of methodologies and major assumptions used in developing hydrologic and hydraulic analyses.
2. A summary of analysis results and conclusions that shall include the following:
 - a. Tables summarizing predeveloped and postdeveloped hydrologic parameters for each drainage basin. Tables shall include subbasin areas, runoff curve numbers, impervious areas, and times of concentration for predeveloped and postdeveloped conditions.
 - b. Tables summarizing peak discharge rates for the 2-year, 10-year, 25-year, and 100-year storm events for predeveloped, post-developed without practices, and postdeveloped with practices conditions.

3. Explanation of the provisions to preserve and use natural topography and land cover features to minimize changes in peak flow runoff rates and volumes to surface waters and wetlands.
4. Explanation of any restrictions on stormwater management measures in the development area imposed by wellhead protection plans and ordinances.
5. Results of investigations of soils and groundwater required for the placement and design of stormwater management measures.
6. A description and installation schedule for the stormwater management practices needed to meet the performance standards in S.06.
7. A maintenance plan developed for the life of each stormwater management practice including the required maintenance activities and maintenance activity schedule.
8. Cost estimates for the construction, operation, and maintenance of each stormwater management practice.
9. Other information requested in writing by the City of Onalaska to determine compliance of the proposed stormwater management measures with the provisions of this ordinance.

G. Certification of Site Investigations, Plans, Designs, Computations, and Drawings

All site investigations, plans, designs, computations, and drawings shall be certified by a Wisconsin-licensed professional engineer to be prepared in accordance with accepted engineering practice and requirements of the ordinance.