**City of Fond du Lac**

**Engineering Division**

**Grading / Erosion Control / Stormwater Management**

**Plan Review Checklist**

 Date Submitted:

Name/Site Address:       Contact Person:

Parcel:       Firm:

Phone:       Email:

Property Owner:       Applicant:

Address:       Address:

Phone:       Fax:       Phone:       Fax:

**General Plan Layout**

| No. | Completed | Identified but Not Complete | Not Applicable | Item |
| --- | --- | --- | --- | --- |
| 1 | [ ]  | [ ]  | [ ]  | Drainage, grading and erosion control plans signed by a Wisconsin licensed professional engineer, professional land surveyor or architect (with graphic scale, legend, north arrow, etc.). |
| 2 | [ ]  | [ ]  | [ ]  | Elevation certification stamped and signed by a Wisconsin licensed professional engineer, professional land surveyor or architect:I hereby certify that the elevations shown on this drawing are a true and correct representation of the existing conditions as obtained by field survey on , 20 . . Name, Registration No. |
| 3 | [ ]  | [ ]  | [ ]  | Stormwater calculations signed by a licensed Wisconsin professional engineer. |
| 4 | [ ]  | [ ]  | [ ]  | Location map. |
| 5 | [ ]  | [ ]  | [ ]  | Owner and engineer contact information is provided. |
| 6 | [ ]  | [ ]  | [ ]  | Adjacent and surrounding streets labeled. |
| 7 | [ ]  | [ ]  | [ ]  | Benchmark(s) used for the site identified. All elevations on the plans shall correspond to the NAVD88 datum. |
| 8 | [ ]  | [ ]  | [ ]  | Property and right-of-way lines shown including project boundary bearings and dimensions. |
| 9 | [ ]  | [ ]  | [ ]  | Existing and proposed public and private easements for utility, drainage, or other purposes identified. |
| 10 | [ ]  | [ ]  | [ ]  | Existing and proposed improvements/features for the site and adjacent to the property shown (street, curb & gutter, right-of-way widths, sidewalks, existing and proposed utilities, vegetative cover, etc.) |
| 11 | [ ]  | [ ]  | [ ]  | Proposed storm sewer and sanitary sewer system information shown on the plans (i.e. rim elevations, invert elevations, pipe sizes, materials, and slopes, lateral locations, etc.) |
| 12 | [ ]  | [ ]  | [ ]  | Location and applicable details of pertinent features shown, such as: |
|  |  | [ ]  | Existing cover types; including tree locations. |
|  | [ ]  | Drive approach. |
|  | [ ]  | Proposed storm sewer manholes, catch basins, culvert/outlet pipe flared end sections, & drainage swale(s). |
|  |  | [ ]  | Riprap. |
|  |  | [ ]  | Proposed pavement and base course types and thicknesses. |
|  |  | [ ]  | Retaining wall. |
| 13 | [ ]  | [ ]  | [ ]  | Existing and proposed contours shown at 1' intervals; spot elevations sufficient to adequately portray drainage patterns on and adjacent to the parcel. |
| 14 | [ ]  | [ ]  | [ ]  | Minimum slope requirements met (1% on grass areas, 0.5% on asphalt areas, 0.4% on concrete areas). |
| 15 | [ ]  | [ ]  | [ ]  | Delineation of wetlands, floodplain, floodway, protective areas and other water features shown (if applicable). |
| 16 | [ ]  | [ ]  | [ ]  | Final stabilization measures proposed for all disturbed areas shown. |
| 17 | [ ]  | [ ]  | [ ]  | Flow direction arrows included, clearly indicating the direction of drainage. |
| 18 | [ ]  | [ ]  | [ ]  | Percent slope of all drainage swales shown (50' interval spot elev. helpful). |
| 19 | [ ]  | [ ]  | [ ]  | Total area of the site and area to be disturbed shown and listed. |
| 20 | [ ]  | [ ]  | [ ]  | Depth to groundwater (or bedrock) identified. |
| 21 | [ ]  | [ ]  | [ ]  | Permits required and applied for (provide approval): |
|   |  |  |  | [ ]  | WisDOT |
|   |  |  |  | [ ]  | WI DNR NOI |
|   |  |  |  | [ ]  | WI DNR Chapter 30 |
|   |  |  |  | [ ]  | County |
|   |  |  |  | [ ]  | Other        |
| 22 | [ ]  | [ ]  | [ ]  | Note on plans: Contractor shall obtain an excavation in the right of way permit from city engineering prior to performing any work within the right of way. |
| 23 | [ ]  | [ ]  | [ ]  | Note on plans: Contractor shall obtain a sidewalk permit from city engineering prior to placing any sidewalks within the public right of way. |
| 24 | [ ]  | [ ]  | [ ]  | Show parking stall dimensions, aisle widths and handicap stalls. Provide spot elevations at accessible routes, curb ramps, and accessible parking spaces and access aisles. |
| 25 | [ ]  | [ ]  | [ ]  | Pavement marking and permanent signing plan. |

**Erosion Control Plan**

| No. | Completed | Identified but Not Complete | Not Applicable | Item |
| --- | --- | --- | --- | --- |
| 26 | [ ]  | [ ]  | [ ]  | Erosion and sediment control plan: |
|  |  |  |  | [ ]  | Narrative discussing the site, design, installation, and maintenance of applicable BMPs, inspection guidance, etc. |
|  |  |  |  | [ ]  | Note on plans indicating that the WI DNR Technical Standards shall be followed for the design, installation, and maintenance of all erosion and sediment control BMPs. |
|  |  |  |  | [ ]  | Sediment performance standard calculations and map. |
|  |  |  |  | [ ]  | Detailed construction sequence provided on the plans with approximate dates for the planned construction activities. Sequence shall discuss the timing of site stabilization. |
|  |  |  |  | [ ]  | Construction details provided for all applicable erosion and sediment control, dewatering, and concrete washout BMPs. |
|  |  |  |  | [ ]  | Location of trackout control practices. |
|  |  |  |  | [ ]  | Location of sediment control BMPs. |
|  |  |  |  | [ ]  | Location of required perimeter controls. |
|  |  |  |  | [ ]  | Location of anticipated disturbed areas and the required erosion control BMPs. |
|  |  |  |  | [ ]  | Location of anticipated fill areas and the required erosion control BMPs. |
|  |  |  |  | [ ]  | Location of anticipated soil stockpiles and the required erosion control BMPs. |
|  |  |  |  | [ ]  | For large projects, the anticipated phasing is provided. |
|  |  |  |  | [ ]  | Fertilizer and seed rates and recommendations for type of planting per growing season. |
|  |  |  | [ ]  | Notes on plans describing chemicals, cement, and building compounds and materials management. |
| 27 | [ ]  | [ ]  | [ ]  | Cost estimate for installation and maintenance of BMPs. |

**Post-Construction Stormwater Runoff Calculations and Hydrologic Plans**

| No. | Completed | Identified but Not Complete | Not Applicable | Item |
| --- | --- | --- | --- | --- |
| 28 | [ ]  | [ ]  | [ ]  | Narrative description: |
|  |  |  |  | [ ]  | Site location and description. |
|  |  |  |  | [ ]  | Existing and proposed conditions. |
|  |  |  |  | [ ]  | Water quality, peak discharge, infiltration, protective area, and fueling and vehicle maintenance area analysis and design for the site.  |
|  |  |  |  | [ ]  | Summary of calculations and results. |
| 29 | [ ]  | [ ]  | [ ]  | Hydrologic maps of the site showing predevelopment and post-development conditions (information shall include but is not limited to): |
|  |  |  |  | [ ]  | Topography of site and adjacent properties. |
|  |  |  |  | [ ]  | Watershed and sub-watershed delineations, including delineation of off-site areas tributary to the proposed site. |
|  |  |  |   | [ ]  | Soil types and hydrologic soil groups. |
|  |  |  |   | [ ]  | Downstream system capacity (ditches or storm sewers). |
|  |  |  |   | [ ]  | Site stormwater discharge location and name of receiving water. |
|  |  |  |   | [ ]  | Existing and proposed contours shown at 1' intervals. |
|  |   |  |   | [ ]  | Paths chosen for time of concentration (Tc). Indicate sheet, shallow concentrated, and channel flow paths. |
| 30 | [ ]  | [ ]  | [ ]  | Hydrologic and hydraulic calculations: |
|  |  |  |  | [ ]  | Average annual rainfall, design storms, and precipitation distribution in accordance with the City of Fond du Lac Code. |
|  |  |  |  | [ ]  | Drainage basin areas. |
|  |  |  |  | [ ]  | Land use and cover description. |
|  |  |  |  | [ ]  | Pre- and post-development runoff curve number calculations (weighted by cover type). |
|  |  |  |  | [ ]  | Time of concentration (Tc) calculations. |
|  |  |  |  | [ ]  | Peak flow calculations for existing and proposed (and pond outlet, if applicable) for 1, 2, 5, 10, and 100 year storm events. |
|  |  |  |  | [ ]  | Hydraulic calculations for proposed storm sewer or ditch design. Local discharge restrictions may apply based on available conveyance capacities. |
| 31 | [ ]  | [ ]  | [ ]  | Detention basin design, if applicable (other BMP design information shall be provided instead of for a detention basin, as appropriate): |
|  |  |  |  | [ ]  | Documentation that the detention facility shall safely attenuate peak discharges. |
|  |  |  |  | [ ]  | Confirmation that there are no limitations for wells, wellhead protection areas, etc. |
|  |  |  |  | [ ]  | Elevation-storage-outflow relationship for each detention basin. |
|  |  |  |  | [ ]  | Calculations/computer model analysis of hydrograph routing through the detention facility. |
|  |  |  |  | [ ]  | Hydraulic design (including calculations) of outlet structure(s)/pipe(s). |
|  |  |  |  | [ ]  | Proposed 100-year ponding elevation identified and labeled (on plans) for each detention basin. |
|  |  |  |  | [ ]  | Safely pass runoff in excess of the 100-year post-developed condition flow. Show pond overflow elevation(s) and details. |
|  |  |  |  | [ ]  | Cross-section(s) of proposed detention basin. |
|  |  |  |  | [ ]  | Documentation to show the BMP(s) to be in accordance with WDNR Technical Standards. |
| 32 | [ ]  | [ ]  | [ ]  | Pollutant removal (TSS and TP) and infiltration calculations. Include drainage basin areas and land uses. Or show tributary to regional treatment system. |
| 33 | [ ]  | [ ]  | [ ]  | Draft operation and maintenance (O&M) plan and draft long-term maintenance agreement. |
| 34 | [ ]  | [ ]  | [ ]  | Cost estimate for construction and maintenance of stormwater management BMPs. |

This checklist is intended as a guidance document for preparing private development plans within the community, and is not intended to be all-inclusive. It is intended to address the routine questions that commonly arise during the preparation of development plans. The applicant should review all applicable stormwater management regulations and codes.