

CITY OF KENTWOOD ENGINEERING SITE PLAN REVIEW CHECKLIST

The following information shall be included with and as part of the site plan submitted for review. The site plan submittal will not be reviewed without the Site Plan Application, \$400 fee, and this checklist is completed for the initial review. Responses to site plan review letters shall include 2 sets of revised civil plans and a letter addressing each comment in the review letter unless otherwise stated in the review letter.

REQUIRED SITE PLAN DATA	Com plete	N/A	Notes
A. All Sheets			
All sheets shall be drawn to an engineer's scale of not less than 1 inch = 50 feet for a site less than 3 acres, or 1 inch = 100 feet for a site of 3 acres or more. Sheet size shall be 24 x 36 inches. For large developments shown in sections on multiple sheets, an overall composite sheet shall be included.			
Title block with sheet number/title; name, address and telephone number of the applicant and firm or individual who prepared the plans; and date(s) of submission and any revisions (month, day, year)			
Scale and north arrow			
All plan sheets sealed by a licensed professional engineer			
B. Project and Site Data			
Written project description, including proposed use, building(s) and site improvements			
Location map with north-point, showing surrounding land, and streets within a quarter mile			
Legal and common description of property			
Net acreage (minus rights-of-way) and total acreage			
C. Site Analysis			
Survey of existing lot lines, building lines, structures, parking areas and other improvements on the site and within 100 feet of the site			
Location of existing drainage courses, floodplains, lakes and streams, and wetlands with elevations			
Surface drainage flows including high points, low points and swales			
All existing easements			
Existing roadways and driveways within 100 feet of the site			
Existing sidewalks and non-motorized pathways			
D. Site Plan Details			
Proposed lot lines, lot dimensions, property lines and setback dimensions			
Building, structure, parking and driveway improvements			
Proposed easements			
Location of dumpster enclosure with a detail			
Location of private utilities			

Required Site Plan Data	Complete	N/A	Notes
E. Access, Parking, and Circulation			
Dimensions, curve radii and centerlines of existing and proposed access points, roads and road rights-of-way or access easements			
Cross section details of proposed roads, driveways, parking lots, sidewalks and non-motorized paths illustrating materials and thickness			
Dimensions of acceleration, deceleration, and passing lanes			
Dimensions of parking spaces, islands, circulation aisles and loading zones			
Calculations for required number of parking and loading spaces			
Designation of fire lanes			
Driveways within the ROW shall be concrete and 6" thick			
Location of existing and proposed sidewalks/pathways within the site or right-of-way			
Sidewalks are 7' wide adjacent to parking or bumper blocks are provided			
F. Soil Erosion and Sedimentation Control			
Details or a legend of SESC protection measures are shown on the plans			
A schedule of when SESC protection measures will be implemented during construction is shown on the plans			
Wetlands have been delineated on the plan or a statement that no wetlands exist on the site			
The 100 year floodplain elevation is shown on the plan or a statement that it does not exist on this site			
Limits of earth disturbance are clearly shown on the plan with a bold line			
All ex. and prop. catch basins within disturbance have silt sacks proposed			
Slopes disturbed of 1:4 and steeper have mulch blanket proposed			
City of Kentwood standard SESC notes are listed on the plan			
G. Stormwater Detention			
Location and size of existing and proposed detention pond. Capacity of detention pond shall be listed on the plans and meet 0.1 acre* ³ ft per acre of the entire site. Detention is not required for existing sites smaller than 1 acre.			
Stormwater detention ponds - including grading, side slopes (max 1:4), depth, high water elevation, volume calculations by the vertical foot, and outfall location and sizing			
Stormwater detention calculations included with submittal showing volume of pond by incremental foot			
Pond bottom slopes at 2% minimum and has low flow drainage swale with geotextile fabric and riprap			
Spillway is sized for 10 year storm and constructed of concrete with details and calculations provided – minimum restrictor pipe size is 4" to prevent clogging and excessive maintenance			
Pond outlet is a minimum of 50' from a stream, drain, creek, or property line, and 50' of geotextile fabric and riprap have been placed to return to natural flow			
A minimum of 1' of freeboard is provided over the high water elevation			
Pond inlet is sloped and sized to achieve a velocity between 2.5 to 5 ft/s			
Release rate is 0.33 cfs/acre			
H. Utilities			
Location and size of sanitary sewers, laterals, and cleanouts existing and proposed			
Location and size of existing and proposed water mains, water services, fire suppression lines, backflow preventers, and fire hydrants			
Coordination with City of Grand Rapids staff for fees, easements, and approvals for utilities owned and maintained by GR			

I. Storm Sewers/Grading	Com plete	N/A	Notes
All paved or impervious areas drain to an internal storm sewer system			
The proposed grading does not shed any additional water onto adjacent property without first being detained			
A tributary area map and calculations are provided to verify the capacity of the proposed and existing storm pipes to carry a 10 year storm event for commercial sites, or 5 year storm for industrial and residential developments. Calculations are sealed by a PE, have an initial Tc of 10 mins, and velocity in pipes is at least 2.5 ft/s but less than 10 ft/s. Intensity for 10 year storm shall be 5in/hr, and 4.6in/hr for 5 year storm per Kentwood Standards.			
Drainage structures are numbered, have 2' sumps, and all inverts listed			
Location, size, material, length, and slope of all existing and proposed storm sewers shown on the plan			
Proposed grading is clearly defined with drainage arrows – existing and proposed contours are shown			
J. Permits			
Any work within the public ROW requires a permit application, fee, and bond			
Any soil disturbance within 500' of a lake, river, stream, or storm sewer facility requires a SESC permit application, fee, and bond			
Any proposed storm sewer and detention on the site requires a fee and bond			
Other permits as necessary (MDOT, KCRC, KCDC, MDEQ, NPDES)			

The information listed above is the basic information required for most site plans. Additional information will be required for residential developments. Additional information may be required on a case by case basis for industrial or commercial developments. City Engineering, Planning, and Fire Department staff are happy to meet with designers in the early design phase to clarify any site development concerns. Contact the Planning Department at (616) 554-0707 if you are interested in setting up a pre-design meeting. If any variances are needed for a project, the Planning Department must be contacted to set up a Planning Commission review.

The Engineering Department can be reached at (616) 554-0739 with questions. Kentwood engineering standards, permit applications, and bond forms can be found on the City of Kentwood website at www.ci.kentwood.mi.us