DRAINAGE PLAN CHECKLIST

No site plan or building shall be approved or any other permit issued unless the Owner has provided that the storm water runoff is within the capacities as provided for within the Administrative Guidelines for Storm Water Management, Shiawassee County, Michigan.

In order for the Owner, Developer, or Builder to be in compliance with the guidelines he/she shall submit to the Shiawassee County Drain Commissioner for review by the Drain Commissioner’s designee, two complete sets of the site drainage and grading plan and two copies of the calculations for allowable discharge and on-site storage requirements, as prepared by a Registered Professional Engineer or Architect.

Each of the following items shall be included on the plan:

____________________  Total acres of site.
____________________  Total acres of watershed draining through the site outlet.
____________________  Drainage district lines including sub-district lines contributing to individual storm sewers and rear lot drainage systems.
____________________  Location of site including dimension to nearest intersection road or section line.
____________________  Existing ground elevations at maximum 50 foot centers, including shots on perimeter of site and 50 foot beyond (suggested, may not be required on all sites).
____________________  Elevations of ground, edge of pavement, and buildings within 50 foot of site.
____________________  Top of curb, gutter, ditch line, and centerline of road elevation at maximum 50 foot intervals.
____________________  Existing storm catch basins, manholes, sewers, and culverts showing rim and invert elevation(s).
____________________  Proposed elevations showing parking lot grades and control and building elevations.
____________________  Lawn/landscape areas.
____________________  Location, size, length, slope, and type of proposed storm sewer and rear lot drains.
____________________  Rim and invert elevation(s) of proposed manholes and catch basins, including rear lot drainage.
____________________  Location of on-site storage showing contour line for top of storage elevation.
____________________  Cross Sections, dimensions, and/or details defining the shape of proposed detention or retention basins in non-paved areas.
____________________  Existing and proposed contours at 1’ intervals
DRAINAGE PLAN - CHECKLIST (Continued)

__________________________  Name of and distance to nearest lake, river, drain, or stream

__________________________  Printout of the NRCS Web Soil Survey for the site

__________________________  Soil Borings (if retention proposed)

__________________________  Drawing to be at 100 scale or better

Each of the following items shall be included in the submitted calculations:

__________________________  Drainage District size in acres and impervious factor.

__________________________  Calculation of maximum allowable discharge (using Design Pond Design Calculation spreadsheet).

__________________________  Calculation of on-site storage required.

__________________________  Calculation of storage volume provided.

__________________________  Calculation of size of restrictor.

__________________________  Hydrologic & Hydraulic Calculations for sizing storm sewer systems which will be maintained by a public agency.

__________________________  Hydrologic and Hydraulic calculations showing there will be no adverse impacts upstream or downstream of the proposed development.

__________________________  The sizes and locations of immediately upstream and immediately downstream culverts serving the major drainage routes flowing into and out of the development site. Any significant off-site and on-site drainage outlet restrictions other than culverts should be noted on the drainage map.

__________________________  A maintenance agreement, in form and substance acceptable to the County, for ensuring maintenance of any privately owned storm water runoff facilities. The maintenance agreement shall include the developer’s written commitment to provide routine, emergency, and long-term maintenance of the facilities and, in the event that the facilities are not maintained in accordance with the approved drainage plan, the agreement shall authorize the County to maintain any on-site storm water run-off facility as reasonably necessary, at the developer’s expense.

__________________________  The name of the engineering firm and the registered professional engineer that designed the drainage plan and that will inspect final construction of the storm water run-off facilities.

Beyond the Shiawassee County requirements, the Developer must submit applications for permit with all agencies that regulate storm water within the area of development. These may include Michigan Department of Transportation, Michigan Department of Environmental Quality, Shiawassee County Road Commission, local agencies with zoning ordinances and Shiawassee County Permits Office.