

MINIMUM SITE PLAN & PRELIMINARY PLAT STANDARDS

GENESEE COUNTY, MICHIGAN



7th EDITION

FORWARD

In an effort to expedite the processing of site plans and preliminary plats, the following minimum standards have been formulated by the Genesee County Drain Commissioner's-Division of Water and Waste Services (GCDC-WWS). Please read and follow these carefully, as there have been significant changes in the standards. PLEASE NOTE: GCDC-WWS approvals are valid for one year. After one year, the project will be subject to start the review process from the beginning.

A. PLAN SUBMISSION

The submission to GCDC-WWS shall include the following items:

- a. Completed Site Plan/Preliminary Plat Checklist.
- b. One 24" x 36" Site Plan or Preliminary Plat, signed and sealed by a professional engineer, surveyor, or architect, as applicable, licensed in the State of Michigan. One PDF version of the plans shall also be submitted once plans are ready for approval.
- c. All easements properly signed and recorded at the Genesee County Register of Deeds. The easement should be returned to this office once it has been recorded at the Register of Deeds. These easements and any conditions on shall appear on the plans.
- d. Plans are reviewed within 30 days of being received.

B. GENERAL

The basic format for site plan/preliminary plat must include:

1. Cover Sheet.
 2. Note Sheet(s).
 3. Site Plan/Preliminary Plat Sheet(s).
 4. Sanitary Sewer and/or Watermain Standard Details.
 5. General Notes Sheet.
 6. Soil Erosion/ Sedimentation Control Details.
- Please make sure ALL UTILITIES are shown in the plan view.
 - The minimum scale for the detailed construction drawings shall be 1"=50' horizontal.
 - All plans shall be submitted to all utility companies, any affected municipality, etc.

C. COVER SHEET

A cover sheet shall be supplied for all public utility projects. The cover sheet shall, at a minimum, contain the following basic information:

- a. Project Name along with the Municipality, County name, and section number clearly shown.
- b. Location map with layout sketch of project. (Larger projects may require a separate layout sheet).
- c. Properly signed, sealed, and dated by a professional engineer, surveyor, or architect, as applicable.
- d. Developer's name, address, and phone number.
- e. Sheet index.
- f. Legal property description.
- g. Legend.
- h. Listing of Plan Distribution with contact person and date plans submitted to utility

- i. Total Disturbed Area and statement whether NPDES storm water permit is or is not required.
- j. 811 "Call Before You Dig Alert"
- k. (Place **BOLDLY** on the cover sheet). **Note: This project has been designed implementing the latest GCDC-WWS Design Specifications. Carefully review the notes, details, and design prior to submitting a bid. Full compliance with the new standards will be required.**
- l. A statement whether or not existing utilities were exposed for verification of location and elevations.

D. MINIMUM ITEMS TO BE INCLUDED ON THE PLANS:

In general, all sanitary sewer and watermains shall be designed in accordance with the Recommended Standards for Water Works & Wastewater Facilities (10 State Standards) and the GCDC-WWS Standard Specifications and Details. The following items should be found on the plans:

- a. Title of project, legend, location map, scale, and north arrow.
- b. Plan view of proposed development or plat, including existing and future phases.
- c. The plan size shall be 24" x 36". One PDF version of the plans shall also be submitted prior to final approval.
- d. The minimum scale shall be 1"= 50'.
- e. Roadways, ROW size, lot numbers, future building numbers, parcel ID numbers, street address for site, street address for surrounding buildings, and lot configuration.
- f. The location, size and elevation of all existing utilities, structures, etc.
- g. For public watermain and sanitary sewer, the plan view shall depict the size of the main, the type of construction material, and if service leads are to be installed as a part of the project they shall be shown on the plan.
- h. The minimum width for easements shall be as follows: sanitary sewer 20' and watermain 15'.
- i. The utility shall be centered within the easement.
- j. Where fire sprinkling is to be incorporated, the standard GCDC-WWS standard detail for check valve and bypass meter shall be shown on the plan.

E. STANDARD NOTES FOR PRELIMINARY PLATS & SITE PLANS

To obtain preliminary plat or site plan approval from GCDC-WWS, the following 10 Standard Notes must be shown. All site plans and preliminary plats shall have written approval of GCDC-WWS regarding sanitary sewers and water supply prior to review by the local municipalities planning board. **NOTE:** A listing of these notes will not meet the GCDC-WWS conditions for approval; the application of each note must be explained on the site plan.

- a. **EXTENSION OF PUBLIC UTILITIES:** All public sanitary sewer and/or watermain **SHALL** be extended to the furthest limits of the property, including corner lots, with the pipe size and material approved by GCDC-WWS. This is necessary for plan approval. For water service of 1" or less or a building on a corner lot, the requirements to extend the public watermain and/or sanitary sewer along both property lines will be reviewed. Final determination shall be made by GCDC-WWS.

- b. **WATERMAIN LOOPING:** All public watermains shall be looped whenever possible. The pipe size requirements shall be approved by GCDC-WWS.
- c. **INDUSTRIAL PRETREATMENT PROGRAM (IPP):** This permit is required for all commercial (non-residential) and industrial discharges. The OWNER shall obtain an Industrial Pretreatment Discharge Permit prior to the issuance of a Sewer Connection Permit. Industrial Discharge Permits are non-transferable. Changes in facility use will require a new Industrial Discharge Permit. For more information call the Anthony Ragnone Treatment Plant at (810) 232-7662.
- d. **SOIL EROSION:** The DEVELOPER and/or OWNER shall submit a detailed Soil Erosion and Sedimentation Control plan and obtain an Act 451 Part 91, Soil Erosion and Sedimentation Control permit. This includes the payment of fees and the providing of necessary bonds. **No earth changes or excavation shall be started prior to the issuance of this permit.** The DEVELOPER and/or OWNER shall protect all existing and proposed storm sewer facilities on and adjacent to the site during excavation and construction. All sediment shall be contained on site. Any silt in county drains, storm sewer, culverts, etc. as a result of this project, shall be removed by the DEVELOPER and/or OWNER at the cost of the DEVELOPER and/or OWNER.
- e. **FLOOD PLAIN OR WETLAND CONSTRUCTION:** The DEVELOPER and/or OWNER shall apply to EGLE for a permit for the alteration and/or occupation of a flood plain or floodway, as required under PA 451. Evidence of this permit may be required prior to plan approval by GCDC-WWS.
- f. **NPDES STORM WATER DISCHARGE PERMIT:** The owner of the property shall obtain a NPDES Storm Water Discharge permit for construction activities from EGLE as required under Public Act 451. The notice of coverage form shall be submitted through GCDC-WWS with the Soil Erosion Control permit application. All EGLE fees shall accompany the Notice of Coverage. Evidence of this permit may be required prior to plan approval by GCDC-WWS.
- g. **GENESEE COUNTY PERMIT TO CONSTRUCT A PUBLIC UTILITY:** After the approval of this preliminary plat or site plan, the DEVELOPER shall submit a detailed plan for construction of all public sanitary sewer and watermain. The plans must have GCDC-WWS approval, a S-permit issued, and approval from the EGLE prior to beginning construction.
- h. **GENESEE COUNTY ROAD COMMISSION PERMIT:** The DEVELOPER shall obtain a permit from the Genesee County Road Commission to perform work within the Genesee County Road Commission Right-of-Way. All fees for the permit, bonds and insurances are the responsibility of the developer.
- i. **MUNICIPALITY SANITARY SEWER AND WATER PERMIT:** Prior to the issuance of a building permit by the local municipality, the developer shall be required to obtain a sanitary sewer and/or water tap-in permit from the local municipality, if authorized, or GCDC-WWS.
- j. **STATE CONSTRUCTION PERMITS:** The sanitary sewer and watermain construction permits from the Michigan Department of Energy, Great Lakes and Environment shall be submitted to the EGLE after approval of GCDC-WWS. Construction shall not begin until these state permits are issued.

F. NOTES FOR SITE PLAN WITHOUT PUBLIC SANITARY SEWER AND/OR WATERMAIN

The following notes are to be used as applicable when submitting plans for review by GCDC-WWS. Use only those applicable, and adapt them for the specific project.

- a. Sanitary sewer saddle taps shall be made by GCDC-WWS personnel. The developer shall obtain the required municipality sanitary sewer permit or the S construction permit, and pay GCDC-WWS the required fee for a saddle tap.
- b. The CONTRACTOR shall verify the sanitary sewer depth and be responsible for providing adequate slope of sewer toward the mainline sewer in strict accordance with GCDC-WWS Standard Details and Specifications.
- c. Sanitary service leads shall be encased in 6AA crushed limestone (A1) in accordance with GCDC-WWS Standard Details and Specifications.
- d. Water service connection and curb box shall be installed in accordance with GCDC-WWS Standard Details and Specifications.
- e. All water service leads shall be "K" copper. The minimum size shall be ¾".
- f. All watermain pressure taps and cut in valves 4" and larger shall be constructed with cast iron tapping sleeves and within a manhole structure per GCDC-WWS Standard Details and Specifications.
- g. Sand fill under any floor slab, walks, paved areas, etc. shall be minimum MDOT Class II sand backfill (A5). Fill sand shall not have moisture content greater than 15%. The sand shall be compacted to 95% of material the unit weight by modified proctor.
- h. All existing utilities serving the property shall be properly terminated in compliance with local and/or county regulations. Remove all trees, including root structures, except those specifically noted to remain, and those on property lines. Do not clear site prior to coordinating with the OWNER and the landscaping plan to determine all trees to remain.
- i. For any demolition work, please see demolition notes attached herewith.
- j. Verify exact location of underground utilities prior to beginning construction.
- k. CONTRACTOR is to adjust any utility element meant to be flush with grade (clean out, valve boxes, manholes, catch basins, inlets, etc.) that is affected by site work or grade changes, whether specifically noted on plans or not. The CONTRACTOR shall obtain any necessary permits for adjustment at the CONTRACTOR's expense.
- l. The water supply for all commercial and industrial buildings shall be equipped with a backflow prevention device in accordance with building codes. An approval of methods must be acquired from GCDC-WWS.
- m. All on site water service shall meet the requirements of GCDC-WWS Standard Details and Specifications.
- n. The CONTRACTOR shall notify MISS DIG (811) three (3) working days prior to starting any excavation with power equipment.
- o. The CONTRACTOR shall comply with all local, county, state, and local regulations for all work that takes place on the site.
- p. The CONTRACTOR/DEVELOPER shall pay for and obtain all permits required by federal, state, local, or private agencies and pay all charges for inspection and testing.
- q. The CONTRACTOR shall be responsible for cleaning up the premises, and upon completion of the project, leave the site in an acceptable condition as determined by the ENGINEER or OWNER.

- r. Commercial buildings shall use a 6" sanitary riser from the main to the structure. The service riser shall connect to the mainline and not at a manhole.
- s. For commercial establishments that generate grit or grease, an external grease interceptor shall be provided. Show the detail on the plans with appropriate notes. The domestic sewage shall be designed to bypass the grease/grit trap.
- t. The minimum slope for a commercial lead is 1' of fall per 100 feet of pipe. Show the invert at the structure and the slope to the property line.
- u. All sanitary sewer leads/laterals shall be SDR-26 PVC with cleanouts spaced every 90 feet.
- v. Each parcel of land shall have individual leads/laterals.

G. GREASE INTERCEPTORS

- a. **Introduction.** The Sewer Use Ordinance (Section 5.15) requires all commercial establishments engaged in the preparation and sale of food, or produce amounts of grease that have the potential to cause partial or full blockage of the sewer, to install and maintain an *adequately sized* grease interceptor outside the building. Examples of businesses in this category are (but not limited to): restaurants, fast food restaurants, cafes, lunch counters, bars, coffee shops, kitchens in hotels, bakeries, dairies, ice cream shops, grocery stores with delis and any business that has a cafeteria (hospitals, country clubs, industries, etc.) or as determined necessary by the POTW Manager. Failure to install an interceptor is a noncompliance of the Sewer Use Ordinance and therefore, unlawful.
- b. **Applicability.** These requirements apply to all commercial food service establishments, including those that are undergoing:
 - i. new construction;
 - ii. remodeling to accommodate expansion or upgrades as defined in the current Michigan Plumbing Code;
 - iii. change of use or occupancy;
 - iv. facilities experiencing difficulty in achieving compliance with maintenance and/or wastewater discharge limitations.
- c. **Sizing Requirements.** GCDC-WWS requires the submittal of a schematic of the interceptor, sizing calculations (or a minimum of 1500 gallons without calculations), and a maintenance program outline that includes a cleaning/inspection schedule for the interceptor. GCDC-WWS requires a site plan to be submitted that details the location, capacity, and related specifics of any proposed grease interceptors.

Grease Interceptor sizing shall be accomplished as follows:

- i. Sizing according to the formulas in Section D below.
- ii. Where sizing formulas result in a determination of a grease trap less than 750 gallons in capacity, this minimum size is recommended for all restaurant applications. Under no circumstances should exterior grease interceptors less than 500 gallons be utilized.
- d. **Interceptor Sizing Formulas.** It is the responsibility of the generator and their contractors to ensure compliance with GCDC-WWS discharge limitations. For the

purpose of plan review, a general assessment will be performed using the following formulas.

Method A: EPA Method #1 for FSEs with fixed seating

$$\text{Size (gal)} = D \times \text{GL} \times \text{SF} \times (\text{HR}/2) \times \text{LF}$$

Where D = Number of Seats in Dining area

GL = Gallons of wastewater per meal (typically 5)

SF = Storage capacity factor

1.7: for single service kitchens

2.5: for fully equipped commercial kitchens

HR = Number of daily operational hours

LF = Loading Factor

1.25: locations adjacent to interstate freeways

1.00: other freeways; recreational areas

0.80: main highways

0.50: other highways

Method B: EPA Method #2 for Catering, Hospitals, Room Service, Nursing Homes, & Other Commercial Kitchens with Varied Seating Capacity

$$\text{Size (gal)} = D \times \text{GL} \times \text{SF} \times 2.5 \times \text{LF}$$

Where M = Number of meals served per day

GL = Gallons of wastewater per meal (typically 4.5)

SF = Storage capacity factor

1.7: Minimum or

2.5: On-site disposal

LF = Loading Factor

1.25: facility discharges, garbage disposal, and dishwashing waste

1.00: w/o disposal

0.75: w/o dishwashing

0.50: w/o disposal & dishwashing

Method C: Alternative Method Supplied by Professional Engineer or Master Plumber

A. Must include all calculations with specific site on submitted plans.

B. Plans must be sealed and submitted by a Michigan Licensed Professional Engineer.

C. Must show all calculations.

D. Must be submitted to GCDC-WWS for review and approval prior to installation.

E. Failure to include all of the above will default in use of EPA size criteria.

e. **Construction and Maintenance Responsibilities.** The interceptor shall be equipped with an influence and effluent tee.

All interceptors shall be maintained to ensure proper operation. At a minimum, interceptor shall be cleaned at least once every 90 days. Interceptors must be cleaned

whenever the combined thickness of the floating greases and settled solids is equal to, or greater than, 25% of the total liquid depth in the interceptor.

When cleaned, an interceptor must be completely pumped out, all solids removed, solidified grease scraped from the interior and the structure and all internal plumbing inspected for damage and corrosion. The interceptor shall be refilled with water prior to being placed back into operation.

No user may use an additive of any type for the interceptor without the approval of the Plant Manager. The Plant Manager will adopt procedures for the approval of additives. No vendor may sell, attempt to sell, or otherwise distribute any additive without prior approval of the additive by the Plant Manager.

Interceptors located in roadways or parking lots should be traffic rated.

New construction of multi-tenant spaces requires installation of two separate sewer lines in the building. One line will be for sanitary sewage and the other for process waters (grease line). The process line will be brought outside each tenant space. This way if an interceptor is required, the plumbing is already segregated.

H. DEMOLITION

- a. Prior to beginning any of this work, the contractor shall notify GCDC-WWS at (810) 732-7870 and fill out the necessary forms or permits. The contractor shall cut and seal the existing sanitary lead at the property line and shall disconnect the existing water service lead at the curb box shut-off valve on the house side of the valve.
- b. All demolition work shall conform to all local codes and ordinances. All demolition operations shall comply with MIOSHA regulations insofar as they apply to the required work. A Soil Erosion and Sedimentation Control Permit will be required prior to demolition.
- c. The contractor shall remove and clear all trees, brush, fences, buildings, curb, and asphalt as shown on the plans or as directed by the Engineer.
- d. All demolition material shall be properly removed from the site and disposed of in a legally designated disposal area. No on-site burning will be allowed without proper permission. Permits and fees for disposal of demolition material shall be obtained and paid for by the contractor.
- e. The contractor shall demolish and remove any items remaining from the existing building, in its entirety, including walls, foundations and footings. All building drains and utility leads shall be located and properly plugged. Utility lead work shall be coordinated with the appropriate utility company.
- f. Backfill excavated areas with clean granular fill compacted to 95% of the material unit weight by modified proctor.
- g. At the conclusion of the demolition operations, the entire work area shall be left in a clean condition. All protective devices and barriers shall be removed.

ATTACHMENT 2

Log No.: _____

Date: _____

GENESEE COUNTY DRAIN COMMISSIONER'S OFFICE

DIVISION OF WATER AND WASTE SERVICES

PRELIMINARY PLAT/SITE PLAN SUBMITTAL CHECK LIST 8TH EDITION

PROJECT NAME: _____

PARCEL AND/OR PARCEL #S: _____

THE FOLLOWING INFORMATION SHALL BE INCLUDED WITH, OR APPEAR ON ALL PLANS SUBMITTED TO THIS OFFICE:

Please note that if any of the following information is not applicable to the development being submitted, so state with reason.

- \$250 site plan review fee. Checks shall be payable to "The Genesee County Drain Commissioner".
- A copy of this Site Plan/Preliminary Plat Checklist, signed and dated.
- Transmittal Sheet.
- Letter signed and sealed from a professional engineer stating there is adequate sanitary sewer capacity for this development to the interceptor which shall include all calculations and flow maps. (Wholesale communities only)
- Authorization to Review letter from the local municipality
- Tax map of area with appropriate property highlighted. Tax map shall also show the surrounding area, including both sides of the road and can be obtained from the Genesee County Department of Equalization.
- Sheet size of 24" x 36" (If a different sheet size is proposed, this office must be contacted prior to submitting plans.)
- Legend
- Minimum scale shall be 1" = 50'
- GCDC-WWS 10 standard notes
- GCDC-WWS demolition notes

- GCDC-WWS standard notes and details sheets
 - All existing (water, sanitary sewer, and storm water) utilities shown on the plans and labeled with their size (rims, inverts), elevation and material. Please also label any utilities in other areas where conflicts may arise.
 - Recorded easements. Minimum width for easements shall be Sanitary Sewer = 20' and Watermain = 15'. The utility shall be entered in the easement.
 - Architectural floor plan and plumbing plan sheets have been provided for calculation of all applicable tap-in and/or CCIF fees.
 - Plan view of the proposed development or plat, including existing and future phases.
 - Roadways, ROW size, lot numbers, future building numbers, parcel ID numbers, street address for site, street address for surrounding buildings, and lot configuration
 - Plans have been submitted to GCDC-SWM (Surface Water Management) for storm and/or Surface Water review (if applicable).
- Does this project cross municipal boundaries? YES NO
- If YES, are Franchise agreements in place that allow utility connection?
 YES NO

COVER SHEET

The cover sheet shall, at a minimum, contained the following basic information:

- Project name, address, scale, and north arrow
- Location map with layout sketch of project
- County, municipality, and section number
- Plans signed and sealed by a professional engineer, surveyor, or an architect.
- Developer's name, address, and phone number
- Sheet Index
- Legal description
- Plan distribution list including contact names and dates submitted to utility
- Total disturbed area and a statement clarifying whether an NPDES permit is or it not required
- 811 "Call Before You Dig" Alert
- Contractor Alert Statement (**in bold**). See Section C Item K of the site plan standards.

A statement clarifying whether or not existing utilities were exposed for verification of location and elevations.

APPLICATIONS

The following applications shall be submitted with the site plan:

IPP permit application for all non-residential buildings (includes churches, schools, etc.)
Applications can be downloaded from www.gdcwsw.com

SESC permit application, plans, and appropriate fees

I hereby certify that the abovementioned items have been provided with the submitted plans.

Name of Party Preparing Checklist: _____

E-mail of Party Preparing Checklist: _____

Signature: _____ **Date:** _____

OFFICE USE ONLY

This application review packet will be reviewed for completeness within 5 business days of being received. If the application review packet is found to be incomplete it will be returned in its entirety to the entity that made the submission.

Dated Received: _____

Is this application complete? YES NO

Dated Verified: _____

Project Engineer Detailed Review:

Sign: _____ **Date:** _____

Note: It is necessary to submit only one set of plans for review and approval of sanitary sewer and watermain and only one set of plans for SESC review and permitting.

REVIEWER COMMENTS: