

A Guideline for Building Permit Submission Details for Developments Exempt from Site Plan Control

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Table of Contents

1.0 Preface and Definitions	2
2.0 General Plan Drafting and Topographical Survey Details	3
3.0 Comprehensive Plot Plan	4
3.1 Comprehensive Plot Plan Information	4
3.2 Additional Design Details	5
4.0 Grading Plan	6
4.1 Additional Grading Design Details	6
4.2 Grading Plan Drafting Details	8
5.0 Servicing Plan	9
5.1 Additional Water Service Design Details	9
5.2 Additional Sewer Service Design Details	10
5.3 Servicing Drafting Details	10

1.0 **Preface and Definitions**

The following is a guide to inform the development community of requirements for complete building permit submission of Plot Plans, Grading Plans and Servicing Plans, where Site Plan Control is not required as per the Bylaw 210-220 (as amended).

For the purpose of this document, refer to the following definitions:

Should: Where should is used, the design detail is considered to be a best practice and the owner must make a reasonable attempt to satisfy the design detail.

Must/Shall: Where must or shall are used, the design detail is considered mandatory and must be satisfied.

Lot Grading Professional: An Engineer, Architect, Land Surveyor, Landscape Architect and /or company providing these services. The Lot Grading Professional must be approved by the City and have a valid Certificate of Authorization to practice in their profession in the Province of Ontario and valid professional liability insurance (i.e., errors and omissions insurance). Other individuals/companies meeting the above criteria/conditions may also qualify as a Lot Grading Professional.

Private Storm and Sanitary Sewers: As defined by the Ontario Building Code, generally meaning a sewer service located on private property, not within a building, that serves more than one building sewer; except for two semi-detached dwelling units or row house complex with 5 or fewer units.

Site: The entire property under development.

2.0 General Plan Drafting and Topographic Survey Details

- 1) The plans must be legible. All drawings shall be submitted with metric dimensions, to a standard metric scale (1:100, 1:200, 1:250, 1:300, 1:400, 1:500). Minimum scale to be 1:500.
- 2) Drawings should generally be submitted using ARCH D (24x36) sheet size.
Drawing size ARCH C (18 x 24) or ANSI B (11x17) may be accepted for smaller buildings less than 500m² where minimal grading and servicing information is required.
- 3) Drawings must be oriented to read in landscape view.
- 4) Existing conditions should appear faded in comparison to proposed work and use a text size of 1.6mm or 2.0mm on the final hard copy.
- 5) Proposed work should appear heavier than existing conditions and use a text size of at least 2.0mm for notes, elevations, and dimensions on the final hardcopy.
- 6) Drawings to include a key plan, indicating location of the site in respect to the City's street network.

The following information should be included on all submitted plans:

- ☐ note the date any topographic survey, used as a base for the plans, was completed and the name of the Lot Grading Professional responsible for the topographic survey information;
- ☐ name and address of firm preparing the plan;
- ☐ required professional seals;
- ☐ municipal address and/or Legal Description (Reference Plan, Lot, Concession and Registered Plan Lot Number) for the development;
- ☐ north arrow;
- ☐ symbol and line-type legend;
- ☐ title block and revision block with dates for each revision;
- ☐ identification of the proposed use of the site;
- ☐ location and description of all existing and proposed property boundaries, adjacent street names, easements, right of-way widening, and reserves within or adjacent to the subject lands;
- ☐ all main proposed features of the site (buildings, parking areas, driveways, above ground utilities, landscape areas, fencing and handrails, ditches, retaining walls, berms, trees, etc.);
- ☐ existing building structures and site details (driveways, sidewalks, utilities, surface types etc.) located within 6.0m of the site, wherever possible and with the permission of the adjacent landowners;
- ☐ all existing and proposed driveways, road shoulders, traffic markings, curbs, curb cuts/depression, sidewalks, and ramps on both sides of the adjacent street;

- ☐ all man-made or natural features (watercourse, swale, culvert, retaining wall, embankment, catch basin, rock faces etc.) on or adjacent to the site;
- ☐ location of high-water mark where applicable;
- ☐ existing utility services within the site, and on adjacent street, road allowance, boulevards and within 6.0m of the site, including all light standards and fixture locations, traffic signals, utility structures, hydro transformer boxes, vaults and Bell chambers, hydro/telephone/cable poles, guys and pedestals;
- ☐ location of all vehicle and pedestrian entrances to and from the building;
- ☐ sight triangles; and
- ☐ signs (municipal and private) and parking meters.

3.0 Comprehensive Plot Plan

The submission of a Comprehensive Plot Plan is required at time of Building Permit Application for all developments exempt from Site Plan Control. All information on the plan must be in conformance with the City of Greater Sudbury Zoning By-law, Ontario Building Code, and any other applicable bylaws and design standards. All information within the Municipal Right-of-Way must be in conformance with the CGS Design Criteria, Supplemental Standards and Drawings. In addition, the following design details and drawing information should also be presented:

3.1 Comprehensive Plot Plan Information:

- ☐ use of all existing and proposed buildings, the number of storeys, building areas (if more than one use, provide allocated areas for each use), numeric identification of all building blocks, and the number of dwelling units;
- ☐ overall dimensions (in metric) of all property boundaries, all buildings, and structures (including retaining walls), existing or proposed, on the site and all setbacks sufficient to show the position of buildings and structures in relation to site boundaries;
- ☐ zoning of adjacent properties;
- ☐ identification of regulated hazards (flood plains, wetlands, water courses, etc.), and provide setbacks to all limits of development;
- ☐ location, design, and construction details of refuse storage area, including required screening and method of collection;
- ☐ location of all outdoor storage and enclosure details;
- ☐ layout of parking area and dimensions of parking spaces, barrier-free parking spaces, loading spaces, aisles, driveways, ramps, fire routes;

- ☐ identification of parking area type (open, underground, garage);
- ☐ location of required fire access routes;
- ☐ location and dimension of all vehicle entrances, including width, turning radii and sight triangles;
- ☐ labelled existing and proposed surface treatment (grass, paved, gravel etc.);
- ☐ dimension of abutting road right-of-way width including the location and width of traffic islands, sidewalks, etc.;
- ☐ location of hydro poles, light standards, fire hydrants etc. along the right-of-way;
- ☐ location and type of bicycle racks and method of securing to the ground;
- ☐ location, height, and description of all existing and proposed retaining walls, fences, walls, and planting strips to provide buffer screening; and
- ☐ provision of a completed Site Statistic Table.

3.2 Additional Design Details:

- 1) Vehicles are required to enter and exit the site in a forward motion. Vehicle turning path templates may be required to ensure adequate turning radius and hammer heads are provided.
- 2) Developments should be designed for the ease of pedestrians both on and off-site and encourage the separation of pedestrians and automobiles. Developments should be convenient to and accessible by persons with physical limitations and disabilities.
- 3) At minimum the first 15m of the driveway entrance must be paved from the traveled portion of the adjacent road.
- 4) A sightline analysis may be required where an entrance is proposed along a vertical or horizontal curve in the road.
- 5) Further entrance requirements related with locations, width, slope, and maintenance may be found in the Use of Private Entrance Bylaw (2011-220).
- 6) Entrances must be designed in accordance with the appropriate GSSD or OPSD based on the type of adjacent road cross section and development being proposed.
- 7) Unused entrances must be abandoned, and the boulevard restored to City Standards.
- 8) Bike racks should be in a highly visible location within 15m of the main entrance and must be securely fastened to an immovable object.

- 9) Waste Management staff may be contacted directly regarding options for waste collection from multiple dwellings. Larger refuse storage areas including those with traditional front-end containers should be screened on all sides with a fence and gate. In-ground storage systems or smaller collection boxes to temporarily store garbage/recycling until collection day do not require screening.
- 10) Trees are encouraged within the landscape buffer along a public road, spaced 6.0m apart, and must be offset sufficiently from any services with appropriate root shields installed. The following trees are recommended for planting in areas that have high exposure to soil salt and aerosol salt.
 - a. Chokecherry
 - b. Japanese Tree Lilac
 - c. tree form Pea shrubs
 - d. Ohio Buckeye
 - e. Blue Spruce
 - f. Honey Locust
- 11) Where a continuous hedgerow forms the screening device in a planting strip, hedge species must be a minimum of 1.0m in height and be planted at minimum 600mm on centre or as recommended by a horticulturist.

4.0 Grading Plan

Grading information may be included on the Comprehensive Plot Plan or Servicing Plan for smaller sites. Where a separate Grading Plan is provided, and grading information is indicated on multiple plans, the grades indicated on the Grading Plan will take precedence. Other grading information should be accurately coordinated or removed. All information on the Grading Plan must be in conformance with the City of Greater Sudbury Lot Grading Policy, Ontario Building Code, CGS Stormwater Management Guide, and any other applicable by-laws. In addition, the following design details and drawing information should also be presented:

4.1 Grading Design Details:

- 1) All retaining walls greater than 1.0m in height must comply with the Ontario Building Code and the Zoning By-law and will require a Building Permit submission with Engineered design.
- 2) All slopes greater than 2:1 and greater than 1.0m in height shall include a pedestrian guard, designed in accordance with the structural requirements of the Ontario Building Code, fastened securely along the top of the slope. Where pedestrian access to the high part of the slope is not easily accessible, a 1.8m (6ft) high chain link fence may be used in place of a pedestrian guard.

- 3) All slopes greater than 2:1 and greater than 0.6m in height located adjacent to vehicular traffic shall include a vehicle guard, designed in accordance with the structural requirements of the Ontario Building Code, fastened securely along the top of the slope.
- 4) A barrier-free path of travel to all barrier-free building entrances, shall be provided from accessible parking stalls and along all exterior walkways that connect to the Municipal right-of-way.
- 5) Grading within the site along the Municipal right-of-way should accommodate an urban cross section within the right-of-way. (i.e., a 2-4% cross fall from the property line to the curb or future curb)
- 6) All new rock cuts greater than 2.0m in height must be designed and constructed to meet a Class B or Class C hazard rating with 100% rock fall debris retention based on the Ministry of Transportation publication "RHRON: Ontario Rockfall Hazard Rating System – Field Procedures Manual".
- 7) The clear zone width for the rock cut shall be measured from the edge of the traveled lane, sidewalk or Public Way whichever is closer. (Public Way means a sidewalk, street, highway, square or another open space to which the public has access, as of right or by invitation, expressed or implied.)
- 8) At the discretion of the Chief Building Official, rock faces may be required to be designed as a retaining wall where the rock face abuts adjacent properties or buildings. Rock faces must be designed to remain structurally stable for any intended use of the adjacent lands and may include compliance with OPSD 201.010 and/or the Roadside Design Manual (including Interceptor ditches, overburden removal, rock face slopes, etc.).
- 9) Rock faces must be setback from the property line to meet the minimum requirements of the zoning bylaw for structures, but may require additional setbacks so that freeze thaw cycles do not cause the rock face to undermine adjacent properties over time. Ensure any required fencing or interceptor ditches can be maintained from the owner's property and are located entirely on the owner's property, unless an agreement registered on title is entered into with the adjacent property owner outlining maintenance requirements, etc.
- 10) Where rock blasting must occur a rock blasting report, prepared by a Licensed Professional Engineer with a minimum of 5 years of rock blasting experience, must be provided to Building Services for review.
- 11) Rock faces must be at minimum 1.0m from the property line and must anticipate the potential of over blasting and how this may impact the adjacent properties.
- 12) Where new impervious surfaces (parking, building, etc.) are proposed, stormwater management (SWM) must be addressed as per the City's Stormwater Management Guide.

Refer to Section 2.15 of the SWM Guide for requirements for small sites.

[\(https://www.greatersudbury.ca/do-business/infrastructure-and-city-construction/engineering-services/technical-documents/design-standards-for-linear-construction/design-standards-for-linear-construction-by-category/design-criteria-for-sewage-works/swm-guide-2023-04-18draftcompletepdf/\)](https://www.greatersudbury.ca/do-business/infrastructure-and-city-construction/engineering-services/technical-documents/design-standards-for-linear-construction/design-standards-for-linear-construction-by-category/design-criteria-for-sewage-works/swm-guide-2023-04-18draftcompletepdf/).

- 13) The Lot Grading Professional must have regard for O.Reg. 406/19 On-Site and Excess Soil Management, when completing the lot grading plan.

4.2 Grading Plan Drafting Details:

In addition to the General Plan Details noted in Section 2.0, the following information should be included on the Grading Plan:

- ☐ all plans containing proposed grading information must be signed and sealed by a Lot Grading Professional;
- ☐ sufficient proposed and existing elevations at property line, back edge of sidewalk, top and bottom of curbs and retaining walls, road crown, site entrances and along the frontage of the property as required to show the design intent, ensure all drainage is retained within the site, and to reflect how the proposed grades match into the existing conditions;
- ☐ arrows indicating the direction and slope of surface drainage on all paved, granular, and grassed areas;
- ☐ proposed elevations at all building corners and all building access points, (ramps, entrances, loading bays, etc.);
- ☐ drainage swales with cross section details,
- ☐ roof downspout locations and direction of drainage;
- ☐ rim elevations on all catch basins and maintenance holes;
- ☐ wherever possible and with the permission of the adjacent landowners, existing elevations shown at 3.0m and 6.0m beyond the site limits;
- ☐ locations where rock removal is required;
- ☐ erosion protection measures;
- ☐ geodetic grades as well as finished ground floor and lowest opening elevations, including basement floor elevations for all buildings requiring servicing;
- ☐ slopes indicated as a percent or by ratio of Horizontal:Vertical;
- ☐ location and details of all proposed stormwater management controls/facilities, where required.

5.0 Servicing Plan

Servicing information may be included on the Comprehensive Plot Plan or Grading Plan for smaller sites. All servicing information within the Municipal Right of Way must be in conformance with the City of Greater Sudbury Supplemental Design Criteria, Standard Drawings and Specifications, and all servicing information within the site must be in conformance with all applicable provincial regulations and guides, Ontario Building Code, the City's Sewer Use By-law (2010-188), and City's Water and Wastewater Systems By-law (2010-214) and the Backflow prevention bylaw (2017-217). In addition, the following design details and drawing information should also be presented:

5.1 Additional Water Service Design Details:

- 1) Only one water service connection to the municipal system is allowed per site/property.
- 2) Water services serving multiple buildings located on the same property, and water services 100mm or greater, must be designed by a Licensed Professional Engineer in according to MECP guidelines.
- 3) Generally, a live tap shall be made where service connections are two pipe sizes smaller than the main.
- 4) A single, or bulk water meter is required for all developments (residential, commercial, industrial). The water meter must be located on the domestic water service prior to splitting the flow to multiple buildings. The meter must be installed either in a water meter chamber or in a heated outbuilding easily accessible by City staff.
- 5) Blow-offs must be installed on all dead end watermains/services, or where a service is shared with multiple owners (condominium developments).
- 6) Ensure the length and size of the water service, relative to the demand, provides sufficient turnover time to maintain adequate residual chlorine levels.
- 7) Hydrant leads on site should not exceed 30m after the last domestic service connection.
- 8) Hydrants must be located in areas accessible directly from the required fire route and must not be blocked by fences, ditches, parked cars, loading areas or any other barrier that would impede access. A 1.5m clearance must be maintained around a hydrant at all times.
- 9) A request to model the available fire flow and domestic pressure at the adjacent municipal main may be requested through Development Engineering. The owner or their authorized representative must confirm sufficient capacity is available for the water services within the site.
- 10) Required fire flows, in municipally serviced areas must be based on Fire Underwriter's Survey Guidelines; and on the Ontario Fire Marshal Guidelines in unserviced areas.
- 11) Service connections and disconnections must be in accordance with City's Protocol for New Watermain, Water Service and Wastewater Connections. Existing unused services must be abandoned at the main.

- 12) Where existing services are proposed to be reused, an assessment of the service must be completed to ensure the service is suitable for reuse. Existing services with lead solder must not be reused and must be abandoned at the main.
- 13) Technical Services must be contacted (permits@greatersudbury.ca) prior to construction, to obtain a servicing work order.
- 14) Prior to completing any construction activity within 10m of a trunk watermain greater than 350mm diameter, the owner will contact the City's Technical Services department to obtain a full list of requirements (contingency plan, communication plan, etc.).

5.2 Additional Sewer Service Design Details:

- 1) Only one sanitary or storm service connection to the municipal system is allowed per site.
- 2) "Private Storm and Sanitary Sewers" shall be designed by a Licensed Professional Engineer as a main and must meet MECP guideline design requirements.
- 3) Sanitary test maintenance holes are required for all non-residential sites and multi-residential buildings and must be located entirely within the site.
- 4) Service connections 200mm or greater must be made with a maintenance hole located on the main.
- 5) Service connections and disconnections must be in accordance with City's Protocol for New Watermain, Water Service and Wastewater Connections. Existing unused services must be abandoned at the main.
- 6) Where existing services are proposed to be reused, an assessment of the service must be completed to ensure the service is structurally suitable for reuse. Existing clay pipes must not be reused and must be abandoned at the main.

5.3 Servicing Plan Drafting Details:

In addition to the General Plan Details noted in Section 2.0 the following information should be included on the Servicing Plan:

- ☐ all plans with new water services 100mm in diameter or larger, or with "private storm/sanitary sewer services" must be signed and sealed by a Professional Engineer Licensed in the Province of Ontario with a valid Certificate of Authorization;
- ☐ watermain services to the building to be shown with pipe material, diameters and obvert elevations at critical locations;
- ☐ details provided of any service connections to the City's infrastructure;
- ☐ location of all hydrants including dimensions to the proposed building;
- ☐ hydrant flange elevations and adjacent finished ground elevations shall be shown on all hydrants within or immediately adjacent to the site;

- ☐ well locations (where applicable);
- ☐ sanitary sewers and storm sewers labeled with the following: pipe material, diameter, slope, pipe bedding, and pipe inverts at all manholes, catch basins, points of connection to main, building face and at property line;
- ☐ identify and dimension catch basins, double catch basins, ditches, culverts, ditch inlets and ditch outlets, maintenance holes, hydrants, valves (boxes and chambers), fire department connections and service shutoffs (municipal curb stops to be located within the right of way, 0.3m from the property line);
- ☐ rim elevations of all maintenance holes and catch basins;
- ☐ location and details of all proposed stormwater management controls/facilities, where required;
- ☐ finished ground floor and basement floor elevations;
- ☐ septic system and field bed location (where applicable);
- ☐ drainage swales;