



PLEASE PRINT

PDE - 3030 - 10

Department of Planning, Development and Engineering

INSTITUTIONAL DEVELOPMENT CHECKLIST

DESCRIPTION

SECTION 1

The following Checklist outlines all of the information necessary to be provided with your Institutional Development Application. **Institution** means a Building or part thereof used for non-commercial purposes by a non-profit society for promoting a social, educational, cultural, religious or philanthropic objective and, without restricting the scope of this definition, may include homes for the aged, mentally, physically or socially handicapped persons, convalescent homes, nursing homes, sanatoria, or hospitals, churches, schools and universities. A separate application, fee(s), and drawings must be submitted for any development requiring a Building Permit.

APPLICATION AND FEE

SECTION 2

Completed By Applicant	Office Use Only	
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Application with property owner's signature and the proposed zone.

Application fee. (Please see following link for fee schedule:

<http://www.stjohs.ca/living-st-johs/city-services/planning-and-development/fee-schedule>)

1.0 SITE / SERVICING PLAN CHECKLIST (This plan may be submitted as two separate drawings, if required)

SECTION 3

1.1 DRAFTING

ISO A1 drawing (594mm wide x 841mm long).

Scale 1:200 or 1:250 horizontal. Indicating the north arrow.

Include *Sheet, Project, Engineering Consultant, and Developer* information fields.

Stamp and signature of Professional Engineer registered in Province of NL.

Include *Revisions, Notes, Legend, Drawing No., Drawn By, and Checked By* information fields.

1.2 TOPOGRAPHIC

Plot and label existing and proposed property lines. Plot construction boundary.

Plot existing and proposed easements, right-of-ways, and encroachments.

Indicate location, width and length of each easement, right-of-way, and encroachment.

Indicate easement type and Registry of Deeds registration number.

Plot and label all watercourses and bodies of water. Indicate erosion/sediment control measures.

Plot and label all wetlands, floodplains and associated buffers.

Plot and label existing contours at 1m intervals.

Plot location and elevations at top and bottom of any existing or proposed retaining walls at regular intervals of approximately every 2-3 metres.

Plot abutting properties and indicate ownership and Registry of Deeds registration number.

Indicate existing and proposed elevations at corners of property boundary, proposed lot, existing and proposed buildings/structures.

Indicate proposed elevations for all parking areas along periphery and at high points and low points. An adequate number of elevations must be provided in order to establish drainage patterns.

Indicate the location of any garbage bins.

Indicate proposed elevations along proposed roadways at centerline and curb/edge of asphalt at regular intervals of approximately every 10 metres.

Indicate proposed snow storage areas.

1.3 INFRASTRUCTURE

1.3.1 WATER SUPPLY

Indicate all reinstatement required after servicing and site work have been completed.

Water mains (existing and proposed) - indicate location, diameter (mm), material, and pressure class.

Water main service laterals (existing and proposed) - indicate location, diameter (mm), material, and type.

Water main valves and tees (existing and proposed) - indicate location, and diameter (mm).

Hydrants (existing and proposed) - indicate location, diameter (mm), and manufacturer. Private hydrants required within 45m of a Siamese connection for a sprinkler system.

Hydrant valves (existing and proposed) - indicate location, diameter (mm).

Water meter (existing and proposed) - indicate location, and type.

Premise isolation (existing and proposed) - indicate location, and type.

Air release valves (existing and proposed) - indicate location, diameter (mm), and type.

PRV chamber (existing and proposed) - indicate location.

Water supply pump station (existing and proposed) - indicate location.

1.3.2 SANITARY SEWER

Sanitary sewer mains (existing and proposed) - indicate location, diameter (mm), material, inverts, slope, length, DR ratio and directional arrows.

Sanitary sewer manholes (existing and proposed) - indicate location, diameter (mm), top elevation and manhole label.

Sanitary sewer service lateral (existing and proposed) - indicate location, diameter (mm), material, inverts, slope, length and DR ratio.

Sanitary sewer pump station (existing and proposed) - indicate location.

Sanitary sewer forcemains (existing and proposed) - indicate location, diameter (mm), material, and pressure class.

Sanitary sewer oil separator (existing and proposed) - indicate location.

Sanitary sewer flow chamber (existing and proposed) - indicate location.

1.3.3 STORM SEWER

Storm sewer mains (existing and proposing) - indicate location, diameter (mm) material, inverts, slope, length, and directional arrows.

Storm sewer manholes (existing and proposed) - indicate location, diameter (mm), top elevation and manhole label.

Storm sewer service lateral (existing and proposed) - indicate location, diameter (mm), material, inverts, slope, length and DR ratio.

Storm sewer catch basins (existing and proposed) - indicate location, diameter (mm), top elevation, sump elevation and catch basin label.

Storm sewer pipes and catch basin leads from catch basins and ditch inlets (existing and proposed) indicate location, diameter (mm), material, inverts, slope, length, and DR ratio.

Storm sewer ditch inlets (existing and proposed) - indicate location, dimensions (mm), top elevation, grate slope, sump elevation and ditch inlet label.

Storm sewer headwalls (existing and proposed) - indicate location, top elevation, and headwall label.

Drainage ditch culverts (existing and proposed) - indicate location, diameter (mm), length, material, inverts, slope, and freeboard.

Drainage ditches (existing and proposed) - indicate location, slope, flow direction, details, and cross-sections.

Berms (existing and proposed) - indicate location, slope, flow direction, details, and cross-sections.

Stormwater detention ponds and underground structures (existing and proposed) – indicate location, type and label.

Stormwater detention outlet control and overflow devices (existing and proposed) – indicate location, dimensions (mm), invert elevation, type and label.

Weeping tile (proposed) - indicate location, diameter, and material

1.3.4 RIVERS - BRIDGES AND CULVERTS

Bridges (existing and proposed) - indicate location, type, dimensions (mm), invert elevation, deck elevation, freeboard, slope, and label.

Culverts (existing and proposed) - indicate location, type, dimensions (mm), invert elevation, deck elevation, freeboard, slope, and label.

1.3.5 UTILITIES

Utility poles and guy wire anchors (existing and proposed) - indicate location.

Underground conduit (existing and proposed) - indicate location and diameter.

Transformer pads (existing and proposed) - indicate location.

1.3.6 TRAFFIC

Underground electrical conduit (existing and proposed) - indicate location, diameter (mm), and material.

Poles (existing and proposed) - indicate location, type, and manufacturer.

Junction boxes (existing and proposed) - indicate location and manufacturer.

Controller pads (existing and proposed) - indicate location.

Inductive traffic loops (existing and proposed) - indicate location.

Bus laybys (existing and proposed) - indicate location.

Pedestrian crossings (existing and proposed) - indicate location.

Signs/billboards (existing and proposed) - indicate location and dimensions.

Canada Post super mailboxes (existing and proposed) - indicate location.

Parking areas (existing and proposed) - locate, number and dimension stalls; and aisle widths. Clearly indicate disability stalls and barrier free signs.

Loading bays (existing and proposed) - locate and dimension length, width, and overhead clearance.

Street lighting (existing and proposed) - indicate location.

Horizontal geometrics (existing and proposed) - indicate curb radii and access throat width.

Paraplegic ramps (existing and proposed) - indicate location.

Vehicle templating.

1.3.7 LANDSCAPING

Plot location of trees by symbol (each symbol unique top size and type).

Plot shrubbed areas.

Indicate trees and shrubs to be added, removed, and retained.

Indicate surface treatment of all soft surfaced landscaped areas (i.e. grass, plant cover). Indicate surface treatment of all hard surfaced landscaped areas (i.e. brick, decorative pavers, stamped concrete).

Label new landscaped areas and existing areas to be retained.

Indicate location, specific species, diameter, drip line, and height of any existing trees on public lands adjacent to the site.

Include specifications for Tree Protection Barrier of all existing public trees or trees adjacent public land as per the City of St. John's Tree Regulations.

2.0 GRADING PLAN CHECKLIST

SECTION 4

2.1 DRAFTING

Preferred drawing size is ISO A1 (594mm wide x 841mm long) but drawings as small as Legal Size (215mm wide x 315mm long) are acceptable for small developments.

Scale 1:500. Indicate north arrow.

Include *Sheet*, *Project Name*, *Engineering Consultant*, and *Developer* information fields.

Stamp and signature of Professional Engineer registered in the Province of NL

Include *Revisions/Issued*, *Notes*, *Legend*, *Drawing No.*, *Drawn By*, and *Checked By* information fields. -

2.2 TOPOGRAPHIC

Plot property boundary.

Plot two boundary vertices, in opposite corners of the property boundary, indicating the NAD83 northing and easting coordinates. The preference is a coordinate at the most northwestern vertex and a second coordinate at the most southeastern vertex of the property boundary.

Plot each lot, lot number, maximum building footprint allowed by Development Regulations, and driveway footprint.

For each lot indicate existing ground elevations.

For each lot indicate proposed finished elevations at: front and back of foundation walls; midpoint of side boundary and/or building footprint; lot corners; and elevation of main entrance threshold.

For each lot show drainage pattern arrows.

Indicate the ROW, width of asphalt, curb & gutter, sidewalk and street names (proposed as Street 'A', 'B', etc.).

Indicate proposed centerline elevations of road in minimum 20m intervals.

Indicate location and size of proposed service laterals and curb stop.

Indicate location of proposed Canada Post super mailboxes.

Indicate utility company easements and elevations along the easement boundaries.

Indicate elevations of any proposed retaining walls, berms, or drainage swales.

Indicate location of any existing/proposed floodplains, wetlands, buffers, and watercourses.

The steepest allowable side slope is a 2 (horizontal) to 1 (vertical) ratio.

3.0 SANITARY SEWER DRAINAGE AREA PLAN CHECKLIST

SECTION 5

3.1 DRAFTING

ISO A1 Drawing (594mm wide x 841mm long).

Scale 1:2500 or 1:1250 horizontal. Indicate north arrow.

Include *Sheet*, *Project*, *Engineering Consultant*, and *Developer* information fields.

Stamp and signature of Professional Engineer registered in Province of NL.

Include *Revisions*, *Notes*, *Legend*, *Drawing No.*, *Drawn By*, and *Checked By* information fields.

3.2 TOPOGRAPHIC

Plot two points, in opposite corners of the drainage area, indicating the NAD83 northing and easting coordinates. The preference is a coordinate at the most northwestern drainage area boundary and a second coordinate at the most southeastern drainage area boundary.

Plot any existing and proposed sanitary infrastructure (indicating size/diameter, direction of flow arrows and manhole labels), rivers, wetlands, floodplains, buffers, recreational areas, parks, and municipal boundaries (if applicable).

Plot any existing/proposed buildings, structures, lots (indicate lot numbers for proposed lots), parking areas, and roads (indicate existing or proposed street names).

Plot overall drainage area boundary along with all subbasins (indicating land uses, areas in hectares, and point of discharge into the existing/proposed system). Future and existing stages/phases must be clearly identified.

Plot most recent City contours at 1m intervals.

3.3 DELIVERABLES

Provide a PDF and three hardcopies of the sanitary sewer drainage area plan containing, as a minimum, the above noted items.

Provide a NAD83 georeferenced ArcGIS polygon shapefile of the overall drainage area boundary and any subbasins.

Provide an electronic Excel spreadsheet and a hardcopy of the same in PDF in the City's standard format containing formulae and supporting computations demonstrating that the proposed sewers have adequate capacity.

4.0 STORM SEWER DRAINAGE AREA PLAN CHECKLIST

SECTION 6

4.1 DRAFTING

ISO A1 Drawing (594mm wide x 841mm long).

Scale 1:2500 or 1:1250 horizontal. Indicate north arrow.

Include *Sheet, Project, Engineering Consultant, and Developer* information fields.

Stamp and signature of Professional Engineer registered in Province of NL.

Include *Revisions, Notes, Legend, Drawing No., Drawn By, and Checked By* information fields.

4.2 TOPOGRAPHIC

Plot two points, in opposite corners of the drainage area, indicating the NAD83 northing and easting coordinates. The preference is a coordinate at the most northwestern drainage area boundary and a second coordinate at the most southeastern drainage area boundary.

Plot any existing and proposed storm infrastructure (indicating size/diameter, direction of flow arrows and manhole labels), rivers, wetlands, floodplains, buffers, recreational areas, parks, and municipal boundaries (if applicable).

Plot any existing/proposed buildings, structures, lots (indicate lot numbers for proposed lots), parking areas, and roads (indicate existing or proposed street names).

Plot overall drainage area boundary along with all subbasins (indicating land uses, areas in hectares, and point of discharge into the existing/proposed system). Future and existing stages/phases must be clearly identified.

Plot most recent City contours at 1m intervals.

4.3 DELIVERABLES

Provide a PDF and three hardcopies of the storm sewer drainage area plan containing, as a minimum, the above noted items.

Provide a NAD83 georeferenced ArcGIS polygon shapefile of the overall drainage area boundary and any subbasins.

Provide an electronic Excel spreadsheet and a hardcopy of the same in PDF in the City's standard format containing formulae and supporting computations demonstrating that the proposed sewers have adequate capacity.

5.0 XPSWMM STORMWATER DETENTION CHECKLIST

SECTION 7

The following items must be submitted to the City for review when stormwater detention is required for a particular development (all information must be georeferenced to the City's NAD83 coordinate system):

PDFs of all pre-development and post-development drainage areas used in modeling which denote all proposed infrastructure, existing infrastructure in the immediate area, overall drainage area, subcatchments, watercourses, and contours. Note: infrastructure is defined as streets and driveways, buildings, manholes, catch basins, ditch inlets, headwalls, bridges, culverts, open channels, etc.

ArcGIS polygon shape files containing the pre-development and post-development drainage areas with subcatchments. There must two fields included in the shapefiles attribute table containing:

- i. the area, in hectares, and
- ii. the percent impervious for each subcatchment.

An ArcGIS polygon shapefile for the proposed buildings.

An ArcGIS polygon shapefile for the proposed streets, parking areas and driveways.

The area of the street/parking areas must include the curb, gutter, and sidewalk.

An ArcGIS point shapefile containing a 1m elevation grid of the proposed development containing, but not limited to: lot grading elevations, street elevations (centerline, gutter, top of curb, back of sidewalk), side sloping, etc. Note: elevations should not be provided within the footprint of any proposed buildings.

PDFs of all construction drawings including: plan & profile drawings for the proposed infrastructure; detail drawings of the proposed detention facility, outlet control devices, and emergency overflow; and an overall plan indicating the proposed development in its entirety indicating adjacent infrastructure/structures in close proximity.

A fully functioning electronic XPSWMM model, or models, with all associated model files and supporting computations for all scenarios used to size and design the storm sewer infrastructure and detention facility.

A summary report in PDF providing:

- i. a tabular summary for each post-development scenario of the post-development peak flows into and out of the detention facility, the corresponding pre-development flow, the maximum elevation of the water surface within the facility, and the flow through the emergency overflow;
- ii. if nodal storage is used then a table must be included containing the design Elevation (m)-Storage Area(ha) curve for the detention facility; and
- iii. the recommended maximum storage detention volume and elevation required for the facility.

Please mail completed form to:

Department of Planning, Development and Engineering
City of St. John's
P.O. Box 908
St. John's, NL A1C 5M2

For more information, please call: 576-6192