



Functional Servicing Report

PURPOSE:

This document provides guidance for the preparation of a Functional Servicing Report, which may be required for the submission of an application under the *Planning Act*. All Functional Servicing Reports shall follow the guidelines referenced in this document.

A Functional Servicing Report is required to evaluate and determine the overall impact of proposed land use changes or development on the trunk and local municipal service capacities such as: water treatment plant, water distribution systems and pressure zones, pump stations, wastewater treatment plants, trunk sewers, topography, grading, and stormwater management facilities. A Functional Servicing Report should include sufficient details for City staff to determine the financial and infrastructure implications of servicing the proposed development. The submission should include reports, plans (e.g. engineering, drainage area, etc.), computer modeling results and design calculations relating to the designs and upgrades of municipal services.

The Report may also be utilized by City staff to evaluate the financial and infrastructure implications of the proposed land use change or development.

A Functional Servicing Report is submitted in conjunction with development applications and typically required as part of the following development application types:

- Official Plan Amendment;
- Zoning By-law Amendment;
- Draft Plan of Subdivision;
- Site Plan Control; and,
- Consent to Sever.

PREPARED BY:

The Functional Servicing Report must be prepared by a consultant registered as a Professional Engineer in the province of Ontario. The consultant must affix their stamp and seal and specifically identify the engineer who prepared the work. The consultant is expected to be experienced in civil/water resources.

CONTENTS:

The applicant is encouraged to discuss the need, scope and the proposed servicing concepts and design assumptions with City staff prior to preparing the report. Typically, a record of pre-consultation is included in the Functional Servicing Report.

A Functional Servicing Report is prepared to evaluate and to determine the overall impact of proposed land use changes or development on the trunk and local municipal service capacities such as water treatment plant, water distribution systems and pressure zones, pump stations, wastewater treatment plants, trunk sewers, topography, grading and stormwater management facilities. In addition, the Report should include demand and sizing details for any proposed infrastructure.

The Functional Servicing Report should be based on established municipal engineering design principles, applicable guidelines (E.g., Ministry of the Environment, Conservation and Parks), regulations and by-laws and existing infrastructure information available from the City.

The Functional Servicing Report is typically submitted in conjunction with a detailed Stormwater Management Report and/or and Environmental Impact Study (EIS). The FSR should summarize and discuss the findings from the various supporting reports and studies, i.e. Storm Water Management Report, Environmental Impact Statement, Watermain Hydraulic analysis, Sanitary Capacity Analysis, etc. A Functional Servicing Report can be considered Preliminary or Final depending upon the type of land use application and engineering submission it accompanies.

The Functional Servicing Report should examine the existing sanitary and storm sewer capacity and illustrate how the proposed project will conform to the proposed servicing and stormwater management strategies. The Report must incorporate comments provided at the formal consultation stage. The Report should identify any necessary improvements to municipal servicing infrastructure required to support the proposed land use / development. Furthermore, the Report shall also demonstrate that the downstream infrastructure including watermain, sanitary and stormwater management system, are not negatively impacted due to the proposed development (i.e. does not cause upstream or downstream conditions to exceed City design criteria).

Prior to submission of the Report by the applicant/consultant must request a meeting with the City to discuss the boundary conditions and the limits of the downstream capacity analysis that are required to complete the analysis. The Report should clearly indicate whether the proposed development will exceed the current and/or approved future density.

The Report should identify and discuss any deficiencies with regards to the development's ability to meet municipal standards and requirements. Any deviation from the municipal standards will require approval from City staff even if specified in the

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Report or engineering drawings. Absent approval from City staff for deviation, the City standards will govern.

A Functional Servicing Report is based on established municipal engineering design principles, applicable guidelines, regulations and by-laws, as well as information available from the City. Section A.7.4 of the City Comprehensive Development Guidelines provides some guidance.

The level of information required with the FSR will vary depending on the specific application and size of development. Typically, a Functional Servicing Report is required to address the following components:

- Grading Design and Impacts;
- Geotechnical / Hydrogeological / Soil Management Recommendations;
- Sanitary Sewer System and Demands;
- Storm Drainage System;
- Stormwater Management;
- Watermain Distribution System and Demands;
- Roadways;
- On-Street Parking Requirements;
- Compliance with Previous Studies (e.g., Water and Wastewater Master Plan, etc.);
- Utility Design and Impacts;
- Phasing of Development;
- Construction Staging; and,
- Financial Implications and Cost Sharing.

Plans showing:

- Development Concept(s);
- Existing and Proposed Grading;
- Erosion and Sediment Control;
- Water Servicing;
- Wastewater Servicing;
- Storm Drainage Area Plan and Stormwater Management Details;
- Existing and Proposed Utilities;
- Easements labeled with descriptive details and identification number or agreement number; and,
- Development Constraint Limits (including setbacks and regulated areas).

Descriptions of:

- Existing Site Conditions and Grading Impacts;
- Water Servicing Demands, Capacities and Hydraulic Analysis;
- Wastewater Demands, Capacities and Analysis;
- Storm and Sanitary Sewer Sizing and Design;
- Storm Drainage;

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- Stormwater Management Criteria and Controls;
- Erosion and Sediment Controls and Monitoring;
- Development Phasing and Staging;
- Applicable Items Listed under Section 5.0 and 5.1 below; and,
- Recommendations and Conclusions.

OTHER INFORMATION:

The following are resources which aid in preparation of a Functional Servicing Report:

- City of Hamilton – Comprehensive Development Guidelines and Financial Policies Manual
- City of Hamilton – Complete Street Guidelines
- City of Hamilton – Site Plan Guidelines
- City of Hamilton – Storm Drainage Policy
- City of Hamilton – Watermain Fire Flow Requirement Design Guidelines Policy (2019)
- Ministry of the Environment, Conservation and Parks (MECP) (formerly Ministry of Environment) – Design Guidelines for Drinking-Water Systems (2008)
- Ontario Building Code (OBC)
- Applicable Standards from the Province of Ontario, Conservation Authority, and the City of Hamilton
- Conservation Authority Regulation Mapping and Policies
- Conservation Halton Policies and Guidelines for the Administration of Part VI of the Conservation Authorities Act and Ontario Regulation 41/24 and Land Use Planning Policy Document (last amended June 21, 2024, or as may be further amended [Policies and Guidelines - Conservation Halton](#)).

REVIEWED BY:

Development Planning, Planning and Economic Development Department
Development Approvals, Planning and Economic Development Department
The Conservation Authority with regulatory authority over the subject lands, namely:

- Hamilton Conservation Authority
- Conservation Halton
- Niagara Peninsula Conservation Authority
- Grand River Conservation Authority

Typically, the Functional Servicing Report is circulated for review by other agencies. As such, the Proponent is responsible for obtaining any other permits and approvals from some or all of the following agencies:

- Conservation Authorities (Hamilton, Grand River, Niagara Peninsula, or Halton);
- Ontario Ministry of Transportation;
- Ontario Ministry of the Environment, Conservation and Parks;
- Ontario Ministry of Natural Resources;

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- Niagara Escarpment Commission;
- Federal Department of Fisheries and Oceans; and,
- Environment Canada (Federal)
- Utilities (Gas, Hydro, Telephone, Street Lighting, Cable/TV/Internet)
- Permission and Agreement to Construct within a Municipal Easement.

CONTACT:

Development Planning, Planning and Economic Development Department:
pdgeninq@hamilton.ca

Development Approvals, Planning and Economic Development Department
deveng@hamilton.ca

Hamilton Conservation Authority
nature@conservationhamilton.ca

Conservation Halton
envserv@hrca.on.ca

Niagara Peninsula Conservation Authority
planninginfo@npca.ca

Grand River Conservation Authority
grca@grandriver.ca

APPENDICES ATTACHED:

Functional Servicing Report – Summary Checklist
Functional Servicing Report – Standard Format for Table of Contents



FUNCTIONAL SERVICING REPORT – SUMMARY CHECKLIST

The form is to be completed by the Professional that prepared the Functional Servicing Report.

Use of the form by the City of Hamilton is not to be construed as verification of engineering/scientific content.

Refer to the Terms of Reference for the Functional Servicing Report:

[Link to Terms of Reference](#)

IF ANY OF THE REQUIREMENTS LISTED BELOW HAVE NOT BEEN INCLUDED IN THE FUNCTIONAL SERVICING REPORT, THE STUDY WILL BE CONSIDERED INCOMPLETE.

Study Information		Page # & Section # of Report	Report Includes this Information City Staff (Check)
Site Address			
Property Owner			
Project Description			
Land Use			
Date Prepared:			
Prepared By:			

Summary of Key Information:

Study Information		Page # & Section # of Report	Report Includes this Information City Staff (Check)
1. Is this a Preliminary or Final Report?			
2. Have the subject lands been clearly identified?			
3. Has a Location Plan been included? Does the Location Plan clearly identify the property limits, owner(s), adjacent land uses and/or Owner(s)?			



Study Information		Page # & Section # of Report	Report Includes this Information City Staff (Check)
4. Have references to documents or policies that govern the development been included in the FSR?			
5. Have any relevant Master Servicing Plans been discussed or referenced?			
6. Has a record of consultation with City of Hamilton regarding site specific issues and constraints been included?			
7. Does the FSR discuss geotechnical, hydrogeological issues?			
8. Has a Topographic survey of the subject land been recently completed by a qualified professional?			
9. Has a grading plan been completed for proposed conditions? Does the FSR include discussion of any grading impacts?			
10. Has a storm drainage plan been completed for existing and proposed conditions?			
11. Do all drawings that include elevations reference the vertical and horizontal datum, and the source of the information.			
12. Does the FSR include discussion of storm servicing details, impacts and analysis?			
13. Has a detailed and standalone Stormwater Management Report been completed? If yes, does the FSR include a summary and include the Stormwater Management Report in an appendix? If no, does the FSR included the detailed Stormwater Management Information?			
14. Has a water servicing plan been completed? Does the FSR include discussion of water servicing details, impacts and analysis?			



Study Information		Page # & Section # of Report	Report Includes this Information City Staff (Check)
15. Has a Watermain Hydraulic Analysis Report (WHAR) been completed for the proposed development? Does the FSR include details of the WHAR?			
16. Has an existing and proposed sanitary drainage plan been completed? Does the FSR include discussion of sanitary servicing details, impacts and analysis?			
17. Does the FSR discuss temporary groundwater dewatering quantities and quality? Has a capacity assessment been provided for receiving system? Please note that the City does not permit permanent dewatering. Please refer to the requirements of the sewer use by-law 14-090.			
18. Does the FSR include details with respect to existing and proposed utilities?			
19. Has an Erosion and Sediment Control Plan been prepared? Does the FSR include discussion of Erosion and Sediment Control Details?			
20. Does the FSR include details with respect to the phasing and staging of development?			
21. Does the FSR identify additional permits or approvals that may be required from various agencies?			
22. Does the FSR provide conclusions and recommendations specific to the adequate provision of municipal services for the subject lands including municipal water, sanitary and storm servicing?			
23. For final FSR's, does the FSR identify specific Draft Plan Conditions that are intended to be addressed within the report?			



Study Information		Page # & Section # of Report	Report Includes this Information City Staff (Check)
24. Has the report been sealed by a licensed Professional Engineer?			
25. Has an easement drawing and agreement been prepared?			
26. Has the report delineated the following limits, in accordance with the zoning compliance: - Floodline Limit - Natural / Natural Heritage Systems (NHS) Hazard Limit - Shoreline Protection Setback			
27. Has the Conservation Authority (CA) regulation limit been confirmed with the CA?			
28. Have the stormwater management models been provided with the report?			

Qualified Professional who completed this report summary:

Name: _____

Email: _____

Phone: _____

Date: _____

Signature and Stamp: _____

Guideline for Applicants completing the Summary Checklist for Functional Servicing Report

Site Address: Provide municipal address, or lot and concession.

Owner: Provide company name if applicable and name of key contact person.

Project Description: provide brief description – e.g. 20 Ha residential subdivision.

Land Use: e.g. Residential, industrial, commercial/ mixed use residential and commercial.

Prepared By: provide name of consulting firm that completed the study.

1. **Is this a Preliminary or Final Report?** List whether the report is preliminary or final.
2. **Have the subject lands been clearly identified?** List whether the report includes legal and physical description of the subject lands.
3. **Has a Location Plan been included? Does the Location Plan clearly identify the property limits, owner(s), adjacent land uses and/or Owner(s)?** List whether the report includes a Location Plan.
4. **Have references to documents or policies that govern the development been included in the FSR?** List in the FSR any relevant planning and/or engineering documents and policies that govern the development.
5. **Have any relevant Master Servicing Plans been discussed or referenced?** List in the FSR, any relevant servicing studies.
6. **Has a record of consultation with City of Hamilton regarding site specific issues and constraints been included?** List whether any consultation has been held with the City and include reference in the FSR.
7. **Does the FSR discuss geotechnical, hydrogeological issues?** Confirm whether the FSR includes geotechnical and hydrogeological considerations. Yes/No.
8. **Has a Topographic survey of the subject land been recently completed by a qualified professional ?** Confirm if a topographic survey has been completed.
9. **Has a grading plan been completed for proposed conditions?** Does the FSR include discussion of any grading impacts? The FSR should include a grading plan and discussion of grading impacts.
10. **Has a storm drainage plan been completed for existing and proposed conditions?** Confirm whether a storm drainage plan has been prepared.

11. **Has a detailed and standalone Stormwater Management Report been completed? If yes, does the FSR include a summary? If no, does the FSR include the detailed Stormwater Management Information?** Confirm whether there is a standalone SWM report and if so, is it summarized in the FSR? If there is no standalone SWM Report, does the FSR include detailed and adequate SWM information?
12. **Has a water servicing plan been completed? Does the FSR include discussion of water servicing details, impacts and analysis?** Confirm that a water servicing plan has been included in the FSR.
13. **Has a Watermain Hydraulic Analysis Report (WHAR) been completed for the proposed development? Does the FSR include details of the WHAR?** Confirm whether a WHAR has been completed.
14. **Has an existing and proposed sanitary drainage plan been completed? Does the FSR include discussion of sanitary servicing details, impacts and analysis?** Confirm whether the FSR includes sanitary servicing analysis and details.
15. **Does the FSR discuss short term and long term groundwater dewatering quantities and quality? Is groundwater maintained on-site or proposed for discharge to sewer? Has a capacity assessment been provided for receiving system?** Provide discussion within the FSR with respect to groundwater containment, management and disposal.
16. **Does the FSR include details with respect to existing and proposed utilities?** Provide discussion within the FSR to demonstrate that utilities can be provided for the proposed development.
17. **Has an Erosion and Sediment Control Plan been prepared? Does the FSR include discussion of Erosion and Sediment Control Details?** Provide discussion within the FSR of ESC details and issues.
18. **Does the FSR include details with respect to the phasing and staging of development?** Provide discussion within the FSR with respect to phasing and staging of development.
19. **Does the FSR identify additional permits or approvals that may be required from various agencies?** Provide a section in the FSR that identifies approval requirements.
20. **Does the FSR provide conclusions and recommendations specific to the adequate provision of municipal services for the subject lands including municipal water, sanitary and storm servicing?** Provide clear conclusions and recommendations with respect to provision of municipal services.

21. **For final FSR's, does the FSR identify specific draft plan conditions that are intended to be addressed within the report?** List any Draft Plan Conditions that the FSR is intended to address.

22. **Has the report been sealed by a licensed Professional Engineer? Confirm that the FSR has been sealed.** Yes/no.

DRAFT

Standard Format for Table of Contents Functional Servicing Report

Title:

- Project Name
- Type of Report
- Project Location
- Prepared for: Client
- Prepared by: Company name
- Date of Original Report
- Date of Revised report (if applicable)

Table of Contents:

1.0 Introduction

1.1 Overview

- General description of the development and plans.
- Description of location, site area, property owner(s).
- Include a figure showing the location of the site.
- Description of larger development (if phased and/or applicable).
- Purpose of the study (**Why is it required**).
- Type of application that triggered a requirement for the study (**When is it required**).

1.2 Background Information

- Describe existing conditions related to the type of study.
- History of a relevant Master Plan or any studies (if applicable).
- Is this a preliminary report? If final, was a Preliminary Analysis conducted? Speak to the history of the development or job itself.
- Discuss any relevant historical changes and/or upgrades that may have implications.

1.3 Geotechnical Investigation/Hydrogeological Investigation (if applicable)

- Provide reference to the accompanying Geotechnical and/or Hydrogeological Investigations.
- Discuss any relevant information on existing ground water table (seasonal high groundwater elevations, groundwater contours), native soil classification, and infiltration rate of native soil.
- Discuss any recommendations or concerns that are expressed in the Geotechnical and/or Hydrogeological Investigation that could impact the overall functional servicing design.

2.0 Existing & Proposed Site Conditions and Grading Impacts

- Discuss existing site conditions, servicing and topography.
- For drawings showing elevations, reference the horizontal and vertical datum and source of the information.
- Include development constraint boundaries on all site drawings.
- Discuss proposed municipal roadways and typical cross sections.

3.0 Water Servicing

- Discuss water servicing demands, capacities and Hydraulic Analysis.
- Discuss required and available fire flow issues.

4.0 Wastewater Servicing

- Describe the existing and proposed sanitary sewer and wastewater system.
- Discuss wastewater demands, capacities, densities and analysis.
- Discuss approved land use densities (proposed vs. approved).
- Describe the temporary groundwater de-watering impacts (if proposing discharge to sanitary is proposed).

5.0 Stormwater Management & Storm Sewers

5.1 Stormwater Management Criteria

- Describe the stormwater management criteria for quantity, quality, flooding and erosion control. Confirm how the criteria was established.
- If stormwater management criteria was provided by a City of Hamilton staff and/or Conservation Authority, provide correspondence in appendix and distinguish where correspondence can be found in this section.

5.2 Proposed Stormwater Management Controls

- Discuss what is proposed on the subject lands.
- Describe the outlet(s) and receiving system.
- Discuss the proposed drainage pattern and compare to the existing drainage pattern. Provide details on the overland flow route.
- Show key locations where pre and post development flow rates are compared.
- Discuss if the existing on-site stormwater management controls are to remain or to be removed (if applicable).
- Discuss if any existing watercourses or natural hazards on site are to be altered due to the new development and why; include discussion of ownership and Operation & Maintenance responsibilities.
- Discuss how external drainage is being handled (if applicable).
- Provide catchment area figure of existing and proposed drainage conditions for the subject lands. Figure to include catchment areas, respective runoff coefficients and catchment IDs. Provide corresponding Table that includes hydrologic parameters for each catchment.
- Provide description of each catchment area (e.g. Allocated drainage area, controlled or uncontrolled, desired outlet, and outlet constraints).
- Describe water quality, quantity and water balance controls.
- Provide plans, sections, and details of stormwater management controls.

5.3 Storm Sewer Design

- Discuss minor system storm design and major system design.
- Discuss hydraulic design, including connections to the municipal system.
- Describe the temporary groundwater de-watering impacts (if proposing discharge to storm is being proposed).

6.0 Erosion & Sediment Controls & Monitoring

- Preliminary erosion and sediment control plan describing existing site conditions, erosion potential, down gradient risk assessment, and anticipated erosion and sediment controls, including staging.
- Discuss proposed maintenance and monitoring of ESC controls.

7.0 Other Considerations/Impacts

- Discuss development phasing and staging of construction.
- Discuss financial impacts and financial contribution from City.
- Discuss utility information (bell, cable, gas, fibre, hydro, etc).
- Discuss hydrogeological issues and impacts to groundwater, settlements, etc.
- Discuss Easements.

8.0 Conclusions and Recommendations

- Reiterate and summarize results and conclusions from previous sections.
- Does the functional servicing design meeting applicable criteria, policies and guidelines?
- Is sufficient capacity available to service the subject lands?
- Discuss any relevant recommendations.
- Certification by a Professional Engineer.

Figures

- 1.1 Location Plan
- 2.1 Sanitary Drainage Plan
- 2.2 Water Servicing Plan
- 2.3 Storm Drainage Plans
- 2.4 Easements

Tables (as needed)

- 2.1 Drainage Area Parameters (ex. and proposed)
- 2.2 Peak Stormwater Flows (allowable vs proposed)
- 2.2 Water Demands
- 2.3 Sanitary Demands

Appendices (Supporting information as necessary, typical examples provided below)

- Appendix A Background Information, Draft Plan, Site Plan, Road Cross Section
- Appendix B Sanitary Sewer Servicing Design including supporting calculations
- Appendix C Water Design Information
- Appendix D Storm Sewer Servicing Design including supporting calculations
- Appendix E Stormwater Management Design Information
- Appendix F City/Conservation Correspondence

Project Summary Sheet

Include the Summary Checklist for FSR.

Drawings

- Development Concept(s), Site Plan(s)
- Existing and Proposed Grading Plans
- Erosion & Sediment Control Plans
- Water Servicing Plans
- Wastewater Servicing & Drainage Plans
- Storm Drainage and Stormwater Management Details & Plans
- Existing and Proposed Utility Plans