

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 4126-BVXKHR  
Issue Date: January 27, 2022

Housing York Inc.  
194 Eagle St  
Newmarket, ON L3Y 1J6

Site Location: Blue Door Shelters  
18838 Yonge St  
Town of East Gwillimbury, ON L9N 0L5

*You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:*

the replacement of existing sewage Works for the treatment and subsurface disposal of domestic sewage using a Level 4 on-site sewage treatment and disposal system with a rated capacity of 27,360 litres per day, to service the Blue Door Shelter site located at 18838 Yonge Street, in the Town of East Gwillimbury, Regional Municipality of York, consisting of the following:

Treatment and Conveyance Tanks:

- One (1) 22,750 L dual-compartment pre-cast concrete septic tank serving Leeder Place, Porter Place and the proposed building, equipped with an effluent filter with the effluent being directed to an equalization tank;
- One (1) 30,000 L single-compartment equalization tank equipped with a high-level alarm and two (2) submersible, alternating effluent pumps, pumping sewage via a 50-mm diameter PVC forcemain into the sludge storage tank. Based on a maximum daily sewage flow of 27,360 L/day, the effluent will be pumped into the sludge storage chamber at a rate of 1,140 L/hour;
- One (1) 19,300 L two-compartment concrete tank, with the first compartment for sludge storage (13,100 L) followed by a second compartment for primary clarification (6,200 L) discharging by gravity to Bioreactor #1;

- One (1) iQ.MBBR Tertiary Sewage Treatment Plant designed to provide treatment up to a daily design flow rate of 27,360 L/day balanced over a 24 hour period, comprised of one (1) 21,600 L three-compartment concrete Bioreactors #1 and #2, and secondary clarification tank, housing a 7,900 L Bioreactor #1 tank, a 7,700 L Bioreactor #2 tank, and a 6,000 L secondary clarification tank; the bioreactor tanks (Bioreactor #1 and Bioreactor #2) containing a combined volume of approximately 5.6 m<sup>3</sup> of specifically designed plastic carrier media (Kaldnes media), fitted with fourteen (14) fine bubble diffusers, discharging by gravity to the effluent pump tank;
- One (1) existing 22,700 L single-compartment concrete effluent pump tank, complete with an audible/visual high-level alarm and equipped with four (4) 1/2 hp on demand submersible effluent pumps (Hydromatic SHEF45M1 or equivalent), pumping via two (2) 50 mm diameter forcemains, at a rate of approximately 1,010 L/dose to each cell (2,020 L/dose total), to one of two (2) distribution boxes located within the raised Type A leaching beds.

#### Leaching Bed:

- One (1) raised Type A dispersal bed located at the south-eastern portion of the site; receiving treated effluent from the effluent pump tank; consisting of two (2) cells, each containing a minimum 300 mm deep x 14.0 m wide x 20 m long (280 m<sup>2</sup> stone area per cell, 560 m<sup>2</sup> total) clear stone layer (meeting OBC specifications) protected with a permeable geotextile fabric with 14 runs at 19 m each (266 m per cell, 532 m total) of 75 mm diameter perforated distribution pipes installed 1.0 m apart, centre to centre. Both cells overlay a sand area of 3,099 m<sup>2</sup> (58.0 m x 46.8 m) consisting of a layer of sand with a minimum thickness of 300 mm and a percolation rate of 6 to 8 min/cm complete with a sand mantle extending a minimum of 15 m beyond the stone layer.

including all other mechanical system, electrical system, instrumentation and control system, piping, pumps, valves and appurtenances essential for the proper, safe and reliable operation of the Works in accordance with this Approval, in the context of process performance and general principles of wastewater engineering only;

all in accordance with the submitted supporting documents listed in Schedule A.

#### Existing Works to be decommissioned:

- One (1) existing dual-compartment pre-cast concrete septic tank serving Leeder Place and the existing Porter Place addition, with a capacity of 13,500 L and equipped with an effluent filter with the effluent being directed to a balancing tank;
- One (1) existing dual-compartment pre-cast concrete septic tank serving the former Lakeview Place and Porter Place, with a capacity of 9,000 L and equipped with an effluent filter with the effluent being directed to a balancing tank;

- One (1) single-compartment balancing tank having a capacity of 13,500 L and equipped with a high level alarm and one (1) submersible effluent pump rated at 6.75 L/sec at a total dynamic head (TDH) of 4.25 m, pumping the sewage to four (4) proprietary tertiary treatment units;
- four (4) proprietary modules of tertiary wastewater treatment units (based on extended aeration/activated sludge process) in pre-cast concrete tanks (aeration and clarification with filter) below ground, each module rated at 5,700 L/day and provided with patented bio-kinetic filter system, individual air blowers with the effluent draining by gravity to a 22,500 L pump tank;
- a raised leaching bed consisting of two (2) cells with a combined surface area of 2280 square metres and overall dimensions of approximately 38 m by 60 m, comprising:
  - two (2) cells (each cell with dimensions: 19 m x 60 m), each containing: a 900 mm deep imported sand layer (T = 10 min/cm for sand fill) overlain by a 300 mm deep layer of clean gravel screened to 19 mm in size, and 15 runs of 15 m long of 75 mm diameter distribution piping;
  - a minimum 300 mm deep sand mantle extending 35 m beyond the last run of pipes in the direction of groundwater flow;
  - biodegradable paper on the surface of the clean gravel trench layer;
  - a minimum of 300 mm of native sand overlying the clear gravel, overlain by 75 mm of top soil;
  - seeding or sodding on top of the bed and side slopes;
  - drainage swales around the perimeter of the bed directing drainage away from the bed;
- two (2) raised leaching beds with each bed consisting of two (2) cells and each bed with a combined surface area of 1444 square metres and overall dimensions of approximately 38 m by 38 m, comprising:
  - two (2) cells (each cell with dimensions: 19 m x 38 m), each cell containing: a 900 mm deep imported sand layer (T = 10 min/cm for sand fill) overlain by a 300 mm deep layer of clean gravel screened to 19 mm in size, and 5 runs of 25 m long of 75 mm diameter distribution piping;
  - a 300 mm deep sand mantle extending 18 m beyond the last run of pipes in the direction of groundwater flow;
  - biodegradable paper on the surface of the clean gravel trench layer;
  - a minimum of 300 mm of native sand overlying the clear gravel, overlain by 150 mm of top soil;

*For the purpose of this environmental compliance approval, the following definitions apply:*

1. "Annual Average Daily Influent Flow" means the cumulative total sewage flow of Influent to the Sewage Treatment Plant during a calendar year divided by the number of days during which sewage was flowing to the Sewage Treatment Plant that year;
2. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;
3. "BOD5" (also known as TBOD5) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demands;
4. "CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
5. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;
6. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;
7. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19;
8. "Equivalent Equipment" means alternate piece(s) of equipment that meets the design requirements and performance specifications of the piece(s) of equipment to be substituted;
9. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
10. "Final Effluent" means effluent that is discharged to the environment through the approved effluent disposal facilities, that are required to meet the compliance limits stipulated in the Approval for the Sewage Treatment Plant at the Final Effluent sampling point(s);
11. "Grab Sample" means an individual sample of at least 1000 millilitres collected in an appropriate container at a randomly selected time over a period of time not exceeding 15 minutes;
12. "Influent" means flows to the Sewage Treatment Plant from the collection system
13. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act*, R.S.O. 1990, c. P.28;
14. "Limited Operational Flexibility" (LOF) means the conditions that the Owner shall follow in order to undertake any modification that is pre-authorized as part of this Approval;
15. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;

16. "Monthly Average Effluent Concentration" is the mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month;
17. "Normal Operating Condition" means the condition when all unit process(es), excluding Preliminary Treatment System, in a treatment train is operating within its design capacity;
18. "Operating Authority" means the Owner, person or the entity that is authorized by the Owner for the management, operation, maintenance, or alteration of the Works in accordance with this Approval;
19. "Owner" means any person that is responsible for the establishment of the Works being approved by this Approval, and includes Owner's Legal Name and its successors and assigns;
20. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40;
21. "Preliminary Treatment System" means all facilities in the Sewage Treatment Plant associated with screening and grit removal;
22. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
23. "Rated Capacity" means the Annual Average Daily Influent Flow for which the Sewage Treatment Plant is designed to handle;
24. "Sewage Treatment Plant" means all the facilities related to sewage treatment within the sewage treatment plant site excluding the Final Effluent disposal facilities;
25. "Single Sample Result" means the test result of a parameter in the effluent discharged on any day, as measured by a probe, analyzer or in a composite or grab sample, as required;
26. "Works" means the approved sewage works, and includes Proposed Works, Existing Works and modifications made under Limited Operational Flexibility.

*You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:*

## **TERMS AND CONDITIONS**

### **1. GENERAL PROVISIONS**

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

2. The Owner shall design, construct, operate and maintain the Works in accordance with the conditions of this Approval.
3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.

## **2. CHANGE OF OWNER AND OPERATING AUTHORITY**

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within thirty (30) days of the change occurring:
  - a. change of address of Owner;
  - b. change of Owner, including address of new owner;
  - c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Business Names Act, R.S.O. 1990, c. B.17* , as amended, shall be included in the notification;
  - d. change of name of the corporation where the Owner is or at any time becomes a corporation, and a copy of the most current information filed under the *Corporations Information Act, R.S.O. 1990, c. C.39* , as amended, shall be included in the notification.
2. The Owner shall notify the District Manager, in writing, of any of the following changes within thirty (30) days of the change occurring:
  - a. change of address of Operating Authority;
  - b. change of Operating Authority, including address of new Operating Authority.
3. In the event of any change in ownership of the Works, the Owner shall notify the succeeding owner in writing, of the existence of this Approval, and forward a copy of the notice to the District Manager.
4. The Owner shall ensure that all communications made pursuant to this condition refer to the environmental compliance approval number.

## **3. CONSTRUCTION OF PROPOSED WORKS / RECORD DRAWINGS**

1. All Proposed Works in this Approval shall be constructed and installed and must commence operation within five (5) years of issuance of this Approval, after which time the Approval ceases to apply in respect of any portions of the Works not in operation. In the event that the construction, installation and/or operation of any portion of the Proposed Works is anticipated to be delayed beyond the time period stipulated, the Owner shall submit to the Director an application to amend the Approval to extend this time period, at least six (6) months prior to the end of the period. The amendment application shall include the reason(s) for the delay and whether there is any design change(s).

2. Upon completion of construction of the Proposed Works, the Owner shall prepare and submit a written statement to the District Manager, certified by a Licensed Engineering Practitioner, that the Proposed Works is constructed in accordance with this Approval.
3. One (1) week prior to the commencement of the operation of the Proposed Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.
4. Within one (1) year of completion of construction of the Proposed Works, a set of record drawings of the Works shall be prepared or updated. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.
5. The Owner shall ensure that the treatment technologies are installed in accordance with the manufacturer's installation manual.
6. The Owner shall ensure that the Works are constructed such that minimum horizontal clearance distances as specified in the OBC are satisfied.
7. The Owner shall ensure that an imported soil that is required for construction of any subsurface disposal bed as per this Approval is tested and verified by the Licensed Engineering Practitioner for the percolation time (T) prior to delivering to the site location and the written records are kept at the site.

#### **4. DESIGN OBJECTIVES**

1. The Owner shall design and undertake everything practicable to operate the Sewage Treatment Plant in accordance with the following objectives:
  - a. Final Effluent parameters design objectives listed in the table(s) included in Schedule B.
  - b. Annual Average Daily Influent Flow is within the Rated Capacity of the Sewage Treatment Plant.

#### **5. OPERATION AND MAINTENANCE**

1. The Owner shall ensure that, at all times, the Works and the related equipment and appurtenances used to achieve compliance with this Approval are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate staffing and training, including training in all procedures and other requirements of this Approval and the OWRA and relevant regulations made under the OWRA, process controls and alarms and the use of process chemicals and other substances used in the Works.
2. The Owner shall prepare/update the operations manual for the Works within six (6) months of completion of construction of the Proposed Works, that includes, but not necessarily limited to, the following information:

- a. operating procedures for the Works under Normal Operating Conditions;
  - b. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
  - c. repair and maintenance programs, including the frequency of repair and maintenance for the Works;
  - d. procedures for the inspection and calibration of monitoring equipment;
  - e. operating procedures for the Works to handle situations outside Normal Operating Conditions and emergency situations such as a structural, mechanical or electrical failure, or an unforeseen flow condition;
  - f. a spill prevention and contingency plan, consisting of procedures and contingency plans, including notification to the District Manager, to reduce the risk of spills of pollutants and prevent, eliminate or ameliorate any adverse effects that result or may result from spills of pollutants;
  - g. procedures for receiving, responding and recording public complaints, including recording any followup actions taken.
3. The Owner shall maintain an up to date operations manual and make the manual readily accessible for reference at the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.
  4. The Owner shall maintain a logbook to record the results of all inspections, repair and maintenance undertaken, calibrations, monitoring and spill response or contingency measures undertaken and shall make the logbook available for inspection by Ministry staff. The logbook shall include the following:
    - a. the name of the operator making the entry; and
    - b. the date and results of each inspection, repair, maintenance, calibration, monitoring, spill response and contingency measure.
  5. The Owner shall, upon the construction, prepare and make available for inspection by Ministry staff, a maintenance agreement with the manufacturer for the treatment process/technology. The maintenance agreement must be retained at the site and kept current for the operational life of the Works.
  6. The Owner shall ensure that grass-cutting is maintained regularly over the subsurface disposal bed(s), and that adequate steps are taken to ensure that the area of the underground works is protected from vehicle traffic.
  7. The Owner shall visually inspect the general area where sewage works are located for break-out once every month during the operating season.



8. In the event a break-out is observed from a subsurface disposal bed, the Owner shall do the following:
  - a. sewage discharge to that subsurface disposal system shall be discontinued;
  - b. the incident shall be **immediately** reported verbally to the Spills Action Centre (SAC) at (416) 325-3000 or 1-800-268-6060;
  - c. submit a written report to the District Manager within **one (1) week** of the break-out;
  - d. access to the break-out area shall be restricted until remedial actions are complete;
  - e. during the time remedial actions are taking place the sewage generated at the site shall not be allowed to discharge to the environment; and
  - f. sewage generated at the site shall be safely collected and disposed of through a licensed waste hauler to an approved sewage disposal site.
9. The Owner shall ensure that the septic tanks be inspected at least twice per year by a qualified person, and the sewage sludge accumulated in the septic tanks be periodically withdrawn at the frequency required to maintain efficiency of the treatment system. The effluent filters in septic tanks shall be cleaned out at least once every six (6) months, when the tank is pumped out, or as determined by the Operating Agency, whichever comes first.
10. The Owner shall ensure that the Operating Agency possesses the level of training and experience sufficient to allow safe and environmentally sound operation of the Works.
11. The Owner shall have a valid written agreement with a hauler who is in possession of a Waste Management Systems Approval, for the treatment and disposal of the sludge generated from the Works, at all times during operation of the Works
12. The Owner shall ensure that flow of treated effluent discharged into the subsurface sewage system does not exceed 27,360 litres per day.
13. Upon request, the Owner shall make the Inspection Reports available to Ministry staff.

## 6. MONITORING AND RECORDING

1. The Owner shall, upon commencement of operation of the Works, carry out a scheduled monitoring program of collecting samples at the required sampling points, at the frequency specified or higher, by means of the specified sample type and analyzed for each parameter listed in the tables under the monitoring program included in Schedule C and record all results, as follows:
  - a. all samples and measurements are to be taken at a time and in a location characteristic of the quality and quantity of the sewage stream over the time period being monitored.

- b. definitions and preparation requirements for each sample type are included in document referenced in Paragraph 2.b.
  - c. definitions for frequency:
    - i. Daily means once every day;
    - ii. Monthly means once every month;
    - iii. Quarterly means once every three months;
2. The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following documents and all analysis shall be conducted by a laboratory accredited to the ISO/IEC:17025 standard or as directed by the District Manager:
- a. the Ministry's Procedure F-10-1, "Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended;
  - b. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;
  - c. the publication "Standard Methods for the Examination of Water and Wastewater", as amended; and
  - d. for any parameters not mentioned in the documents referenced in Paragraphs 3.a, 3.b and 3.c, the written approval of the District Manager shall be obtained prior to sampling.
3. The Owner shall monitor and record the flow rate and daily quantity using flow measuring devices or other methods of measurement as approved below calibrated to an accuracy within plus or minus 15 per cent (+/- 15%) of the actual flowrate of the following:
- a. Influent flow to the Sewage Treatment Plant by continuous flow measuring devices and instrumentations/pumping rates
  - b. Final Effluent discharged from the Sewage Treatment Plant by continuous flow measuring devices and instrumentations/pumping rates
4. The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

## **7. LIMITED OPERATIONAL FLEXIBILITY**

- 1. The Owner may make pre-authorized modifications to the Sewage Treatment Plant in Works in accordance with the document "Limited Operational Flexibility - Protocol for Pre-Authorized Modifications to Private Sewage Works" (Schedule D), as amended, subject to the following:

- a. the modifications will not involve the addition of any new treatment process or the removal of an existing treatment process, including chemical systems, from the liquid or solids treatment trains as originally designed and approved.
  - b. the scope and technical aspects of the modifications are in line with those delineated in Schedule D and conform with the Ministry's publication "Design Guidelines for Sewage Works 2008", as amended, Ministry's regulations, policies, guidelines, and industry engineering standards;
  - c. the modifications shall not negatively impact on the performance of any process or equipment in the Works or result in deterioration in the Final Effluent quality;
  - d. where the pre-authorized modification requires notification, a "Notice of Modifications to Sewage Works" (Schedule D), as amended shall be completed with declarations from a Licensed Engineering Practitioner and the Owner and retained on-site prior to the scheduled implementation date. All supporting information including technical memorandum, engineering plans and specifications, as applicable and appropriate to support the declarations that the modifications conform with LOF shall remain on-site for future inspection.
2. The following modifications are not pre-authorized under Limited Operational Flexibility:
- a. Modifications that involve addition or extension of process structures, tankages or channels;
  - b. Modifications that involve relocation of the Final Effluent outfall or any other discharge location or that may require reassessment of the impact to the receiver or environment;
  - c. Modifications that involve addition of or change in technology of a treatment process or that may involve reassessment of the treatment train process design;
  - d. Modifications that require changes to be made to the emergency response, spill prevention and contingency plan; or
  - e. Modifications that are required pursuant to an order issued by the Ministry.

## **8. REPORTING**

1. The Owner shall, within fifteen (15) days of occurrence of a spill within the meaning of Part X of the EPA, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation, in addition to fulfilling the requirements under the EPA and O. Reg. 675/98 "Classification and Exemption of Spills and Reporting of Discharges".
2. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

3. The Owner shall prepare performance reports on a calendar year basis and submit to the District Manager by March 31 of the calendar year following the period being reported upon. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:
  - a. a summary and interpretation of all Influent monitoring data, and a review of the historical trend of the sewage characteristics and flow rates;
  - b. a summary and interpretation of all flow data and results achieved in not exceeding the maximum daily flow discharged into the subsurface disposal system;
  - c. a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives in this Approval, including an overview of the success and adequacy of the Works;
  - d. a summary of all operating issues encountered and corrective actions taken;
  - e. a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;
  - f. a summary of any effluent quality assurance or control measures undertaken;
  - g. a summary of the calibration and maintenance carried out on all Influent and Final Effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment as required in this Approval or recommended by the manufacturer;
  - h. a summary of efforts made to achieve the design objectives in this Approval, including an assessment of the issues and recommendations for pro-active actions when any of the design objectives is not achieved more than 50% of the time in a year or there is an increasing trend in deterioration of Final Effluent quality;
  - i. a tabulation of the volume of sludge generated, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the sludge was disposed
  - j. a summary of any complaints received and any steps taken to address the complaints;
  - k. a summary of all other situations outside Normal Operating Conditions and spills within the meaning of Part X of EPA and abnormal discharge events;
  - l. a summary of all Notice of Modifications to Sewage Works completed under Paragraph 1.d. of Condition 7, including a report on status of implementation of all modification;
  - m. any changes or updates to the schedule for the completion of construction and commissioning operation of major process(es) / equipment groups in the Proposed Works;
  - n. any other information the District Manager requires from time to time.

## **Schedule A**

1. Environmental Compliance Approval Application submitted by Kristy Gibson, P.Eng., Project Engineer, WSP Canada Inc., dated October 7, 2014 and received October 9, 2014.
2. Design Letter titled "Environmental Compliance Approval - Amendment Application Existing Certificate of Approval #0885-6SQKHF Blue Door Shelter 18838 Yonge Street, East Gwillimbury, Regional Municipality of York Project 111-52966-00" dated September 30, 2014 and prepared by WSP Canada Inc.
3. Application for Approval of Municipal and Private Sewage Works, dated July 26, 2006, and design brief and other supporting documents prepared and submitted by Jagger Hims Limited.
4. Application for Approval of Municipal and Private Sewage Works, dated September 24, 2002, and design brief and other supporting documents prepared and submitted by Jagger Hims Limited.
5. Application for Environmental Compliance Approval submitted and signed by Katherine Chislett, Commissioner, Community and Health Services - Housing York Inc., dated August 28, 2020 and received on September 4, 2020 and revised January 21, 2022, and all supporting documentation and information;
6. Report "Blue Door Shelters- MECP ECA Amendment Report", dated August 12, 2020 and revised August 12, 2021, including calculations and engineering drawings, prepared by WSP Canada Inc.

## Schedule B

### Final Effluent Design Objectives

#### Concentration Objectives

<b>Final Effluent Parameter</b>	<b>Averaging Calculator</b>	<b>Objective</b> (milligrams per litre unless otherwise indicated)
CBOD5	Monthly Average Effluent Concentration	10 mg/L
Total Suspended Solids	Monthly Average Effluent Concentration	10 mg/L
pH	Single Sample Result	6.5 - 8.5 inclusive

## Schedule C

### Monitoring Program

**Influent** - Influent sampling point (Flow Equalization Tank)

Parameters	Sample Type	Minimum Frequency
BOD5	Grab	Quarterly
Total Suspended Solids	Grab	Quarterly
pH	Grab	Quarterly
Alkalinity	Grab	Quarterly

**Final Effluent** - Final Effluent sampling point (Effluent Pump Tank)

Parameters	Sample Type	Minimum Frequency
CBOD5	Grab	Monthly
Total Suspended Solids	Grab	Monthly
pH	Grab	Monthly
Alkalinity	Grab	Monthly

## **Schedule D**

### **Limited Operational Flexibility**

#### **Protocol for Pre-Authorized Modifications to Private Sewage Works**

##### **1. General**

1. Pre-authorized modifications are permitted only where Limited Operational Flexibility has already been granted in the Approval and only permitted to be made at the pumping stations and sewage treatment plant in the Works, subject to the conditions of the Approval.
2. Where there is a conflict between the types and scope of pre-authorized modifications listed in this document, and the Approval where Limited Operational Flexibility has been granted, the Approval shall take precedence.
3. The Owner shall consult the District Manager on any proposed modifications that may fall within the scope and intention of the Limited Operational Flexibility but is not listed explicitly or included as an example in this document.
4. The Owner shall ensure that any pre-authorized modifications will not:
  - a. adversely affect the hydraulic profile of the Sewage Treatment Plant or the performance of any upstream or downstream processes, both in terms of hydraulics and treatment performance;
  - b. result in a reduction in the required Peak Flow Rate of the treatment process or equipment as originally designed.

##### **2. Modifications that do not require pre-authorization:**

1. Sewage works that are exempt from Ministry approval requirements;
2. Modifications to the electrical system, instrumentation and control system.

##### **3. Pre-authorized modifications that do not require preparation of “Notice of Modification to Sewage Works”**

1. Normal or emergency maintenance activities, such as repairs, renovations, refurbishments and replacements with Equivalent Equipment, or other improvements to an existing approved piece of equipment of a treatment process do not require pre-authorization. Examples of these activities are:
  - a. Repairing a piece of equipment and putting it back into operation, including replacement of minor components such as belts, gear boxes, seals, bearings;



- b. Repairing a piece of equipment by replacing a major component of the equipment such as motor, with the same make and model or another with the same or very close power rating but the capacity of the pump or blower will still be essentially the same as originally designed and approved;
  - c. Replacing the entire piece of equipment with Equivalent Equipment.
2. Improvements to equipment efficiency or treatment process control do not require pre-authorization. Examples of these activities are:
- a. Adding variable frequency drive to pumps;
  - b. Adding on-line analyzer, dissolved oxygen probe, ORP probe, flow measurement or other process control device.

**4. Pre-Authorized Modifications that require preparation of “Notice of Modification to Sewage Works”**

1. Pumping Stations

- a. Replacement or realignment of existing sewers including manholes, valves, gates, weirs and associated appurtenances provided that the modifications will not add new influent source(s) or result in an increase in flow from existing sources as originally approved.
- b. Extension or partition of wetwell to increase retention time for emergency response and improve station maintenance and pump operation;
- c. Replacement or installation of inlet screens to the wetwell;
- d. Replacement or installation of flowmeters;
- e. Replacement, reconfiguration and modifications to pump suctions and discharge pipings including valve, gates, motors, variable frequency drives and associated appurtenances to maintain firm pumping capacity or modulate the pump rate provided that the modifications will not result in a reduction in the firm pumping capacity or discharge head or an increase in the peak pumping rate of the pumping station as originally designed;
- f. Replacement or realignment of existing forcemain(s) including valves, gates, and associated appurtenances provided that the modifications will not reduce the flow capacity or increase the total dynamic head and transient in the forcemain.

## 2. Sewage Treatment Plant

### 1. Sewers and appurtenances

- a. Replacement or realignment of existing sewers (including pipes and channels), including manholes, valves, gates, weirs and associated appurtenances within the a sewage treatment plant, provided that the modifications will not add new influent source(s) or result in an increase in flow from existing sources as originally approved and that the modifications will remove hydraulic bottlenecks or improve the conveyance of sewage into and through the Works.

### 2. Flow Distribution Chambers/Splitters

- a. Replacement or modification of existing flow distribution chamber/splitters or construction of new flow distribution chamber/splitters, including replacements or installation of sluice gates, weirs, valves for distribution of flows to the downstream process trains, provided that the modifications will not result in a change in flow distribution ratio to the downstream process trains as originally designed.

### 3. Preliminary Treatment System

- a. Replacement of existing screens and grit removal units with equipment of the same or higher process performance technology, including where necessary replacement or upgrading of existing screenings dewatering washing compactors, hydrocyclones, grit classifiers, grit pumps, air blowers conveyor system, disposal bins and other ancillary equipment to the screening and grit removal processes.
- b. Replacement of channel aeration systems, including air blowers, air supply main, air headers, air laterals, air distribution grids and diffusers.

### 4. Primary Treatment System

- a. Replacement of existing sludge removal mechanism, including sludge chamber;
- b. Replacement of scum removal mechanism, including scum chamber;
- c. Replacement of primary sludge pumps, scum pumps, provided that:the modifications will not result in a reduction in the firm pumping capacity or discharge head that the primary sludge pump(s) and scum pump(s) are originally designed to handle.

### 5. Secondary Treatment System

#### 1. Biological Treatment

- a. Replacement of aeration system including air blowers, air supply main, air headers, air laterals, air distribution grids and diffusers, provided that the modifications will not result in a reduction in the firm capacity or discharge pressure that the blowers are originally designed to supply or in

the net oxygen transferred to the wastewater required for biological treatment as originally required.

## 2. Secondary Sedimentation

- a. Replacement of sludge removal mechanism, including sludge chamber;
- b. Replacement of scum removal mechanism, including scum chamber;
- c. Replacement of return activated sludge pump(s), waste activated sludge pump(s), scum pump(s), provided that the modifications will not result in a reduction in the firm pumping capacity or discharge head that the activated sludge pump(s) and scum pump(s) are originally designed to handle.

## 6. Standby Power System

1. Replacement or installation of standby power system, including feed from alternate power grid, emergency power generator, fuel supply and storage systems, provided that the existing standby power generation capacity is not reduced.

## 3. Final Effluent Disposal Facilities

- a. Replacement or realignment of the Final Effluent channel, sewer or forcemain, including manholes, valves and appurtenances from the end of the treatment train to the discharge outfall section, provided that the sewer conveys only effluent discharged from the Sewage Treatment Plant and that the replacement or re-aligned sewer has similar dimensions and performance criteria and is in the same or approximately the same location and that the hydraulic capacity will not be reduced.

This page contains an image of the form entitled "Notice of Modification to Sewage Works". A digital copy can be obtained from the District Manager.



Ministry of the Environment, Conservation and Parks

**Notice of Modification to Sewage Works**

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA ON-SITE PRIOR TO THE SCHEDULED IMPLEMENTATION DATE.

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility		
<i>(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)</i>		
ECA Number	Issuance Date (mm/dd/yy)	Notice number (if applicable)
ECA Owner		Municipality

Part 2: Description of the modifications as part of the Limited Operational Flexibility
<i>(Attach a detailed description of the sewage works)</i>
<p>Description shall include:</p> <ol style="list-style-type: none"> <li>1. A detail description of the modifications and/or operations to the sewage works (e.g. sewage work component, location, size, equipment type/model, material, process name, etc.)</li> <li>2. Confirmation that the anticipated environmental effects are negligible.</li> <li>3. List of updated versions of, or amendments to, all relevant technical documents that are affected by the modifications as applicable, i.e. submission of documentation is not required, but the listing of updated documents is (design brief, drawings, emergency plan, etc.)</li> </ol>

Part 3 – Declaration by Professional Engineer	
<p>I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:</p> <ol style="list-style-type: none"> <li>1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;</li> <li>2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;</li> <li>3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.</li> </ol> <p>I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate</p>	
Name (Print)	PEIO License Number
Signature	Date (mm/dd/yy)
Name of Employer	

Part 4 – Declaration by Owner	
<p>I hereby declare that:</p> <ol style="list-style-type: none"> <li>1. I am authorized by the Owner to complete this Declaration;</li> <li>2. The Owner consents to the modification; and</li> <li>3. This modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA.</li> <li>4. The Owner has fulfilled all applicable requirements of the <i>Environmental Assessment Act</i>.</li> </ol> <p>I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate</p>	
Name of Owner Representative (Print)	Owner representative's title (Print)
Owner Representative's Signature	Date (mm/dd/yy)

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition 1 regarding general provisions is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted.
2. Condition 2 regarding change of Owner and Operating Authority is included to ensure that the Ministry records are kept accurate and current with respect to ownership and Operating Authority of the Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the

Works in compliance with it.

3. Condition 3 regarding construction of Proposed Works/record drawings is included to ensure that the Works are constructed in a timely manner so that standards applicable at the time of Approval of the Works are still applicable at the time of construction to ensure the ongoing protection of the environment, and that prior to the commencement of construction of the portion of the Works that are approved in principle only, the Director will have the opportunity to review detailed design drawings, specifications and an engineer's report containing detailed design calculations for that portion of the Works, to determine capability to comply with the Ministry's requirements stipulated in the terms and conditions of the Approval, and also ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.
4. Condition 4 regarding design objectives is imposed to establish non-enforceable design objectives to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.
5. Condition 5 regarding operation and maintenance is included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented. As well, the inclusion of a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the Works.
6. Condition 6 regarding monitoring and recording is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives and compliance limits.
7. Condition 7 regarding Limited Operational Flexibility is included to ensure that the Works are constructed, maintained and operated in accordance with the Approval, and that any pre-approved modification will not negatively impact on the performance of the Works.
8. Condition 8 regarding reporting is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for this Approval.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s)  
1772-9USNRR issued on May 1, 2015**

*In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:*

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

*Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.*

*The Notice should also include:*

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

*And the Notice should be signed and dated by the appellant.*

*This Notice must be served upon:*

The Secretary\*  
Environmental Review Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5

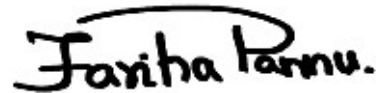
AND

The Director appointed for the purposes of Part II.1 of  
the Environmental Protection Act  
Ministry of the Environment, Conservation and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or [www.ert.gov.on.ca](http://www.ert.gov.on.ca)**

*The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.*

DATED AT TORONTO this 27th day of January, 2022



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Fariha Pannu, P.Eng.  
Director  
appointed for the purposes of Part II.1 of the  
*Environmental Protection Act*

MS/

c: District Manager, MECP York-Durham  
Imad Aouli, WSP Canada Inc.