



2025-07-28

Public

City of Ottawa
110 Laurier Avenue West
Ottawa, ON
K1P 1J1

Dear Sir/Madam:

**Subject: Functional Servicing and Stormwater Management Letter for Site Plan Application - 1900 Cyrville Road, Ottawa
Costco Wholesale Canada – Costco Gloucester Gas Bar**

On behalf of our client Costco Wholesale Canada Ltd, we are providing this letter to support the proposed fueling facility.

EXISTING CONDITIONS

The existing Costco Warehouse located at 1900 Cyrville Road was converted to a Business Centre Warehouse which opened to its members in 2021. In general, the site is primarily impervious, with grading directing rainfall towards on-site catchbasin structures. The site storm sewers discharge to the municipal storm network within the Cyrville Road right-of-way, with ultimate discharge to Green's Creek immediately south of the site.

Site domestic water is supplied by an existing connection to the 203mm municipal watermain within Cyrville Road. Similarly, site sanitary servicing is provided by an existing connection to the 250mm sanitary sewer main within Cyrville Road.

PROPOSED FUELING FACILITY CONCEPT AND LAYOUT

The north-eastern portion of the existing parking lot within the property is proposed to be modified to accommodate an on-site fueling facility. The proposed Site Plan (SP-16A) has been provided for layout reference. In general, the existing northern entrance off of Cyrville Road has been pushed further south, and there is an overall net reduction of 125 parking spaces to accommodate the gas bar layout. The revised entrance location requires a realignment of the Cyrville Road western sidewalk, as detailed in the supporting design drawings.

The proposed fueling facility is comprised of 3 rows of fuel dispensers on a concrete slab beneath a canopied roof. The fuel dispensers will service 6 vehicle stacking queues aligned from north to south through the facility. Three underground fuel storage tanks and two attendant enclosures are proposed for the facility. Additional requirements such as bollards, emergency shut-offs, transformers, line painting, and other items are as detailed per the Site Plan.



PROPOSED GRADING

The proposed grading for the fueling facility will relatively match existing conditions and conform to the Site's overall existing overland flow paths. The re-developed area will match into existing on-site pavement grades via clean saw-cuts. Landscaped areas along the north and eastern property extents have been graded to match existing elevations at the property line and minimize off-site direct runoff. Similarly, the new Site entrance has been graded with a high-point to minimize off-site direct runoff and appropriately tie into existing Cyrville Road, curbs, and sidewalk. Proposed grading for the realigned Cyrville Road sidewalk has been provided in conformance to City of Ottawa design standards. Refer to Site Grading Plan (SG1) for further information.

PROPOSED FUNCTIONAL SERVICING

Storm

The existing storm servicing in conflict with the proposed expansion will be removed and re-routed to match the existing downstream storm sewers. Spill retention measures including an Oil Water Separator (OWS) and Oil Grit Separator (OGS) have been proposed for the facility. As detailed in the following stormwater management section, as the site imperviousness remains consistent with pre-development conditions, no downstream replacement or upsizing of the storm network is required. Refer to Site Servicing Plan (SS1) for further information.

Sanitary

The proposed fueling facility does not require any additional sanitary services. The building's existing sanitary service connecting to the Cyrville Road sanitary sewer main will remain in place. Adequate utility clearance has been provided between the existing sanitary sewer and proposed utilities. Refer to Site Servicing Plan (SS1) for further information.

Water

The proposed fueling facility does not require domestic water service. A new 150mm fire service and hydrant is proposed branching off the existing 203mm private watermain on-site. Refer to Site Servicing Plan (SS1) for further information.

EXISTING STORMWATER MANAGEMENT SYSTEM

The existing Costco Business Centre Site located at 1900 Cyrville Road is not known to have any stormwater management controls implemented. As outlined in previous sections, rainfall is presently directed to on-site catchbasins, conveyed to the Cyrville Road 1350mm storm sewer, and discharged to Green's Creek immediately south of the Site. There are no known quantity controls designed to restrict the flows, nor quality controls to treat the flow prior to off-site discharge. The existing site is not known to have any drainage issues.



PROPOSED MINOR STORM SYSTEM

As noted previously, the proposed site work will remove any conflicting existing storm sewers, then install new services and reconnect as required. Refer to Site Servicing Plan (SS1) and Site Removal Plan (RM1) for further information.

The proposed fueling facility will function similar to the existing site design, with runoff from the paved areas directed to catchbasins / catchbasin maintenance holes. Landscaped areas have been graded to direct storm runoff to paved surfaces or via swale to catchbasin.

An overhead canopy will cover the fuel dispensing locations. Runoff collected from the canopy's roof drains will be conveyed via downspouts to a dedicated 150mm buried sewer line to the Site's main storm sewers. The primary attendant enclosure, exterior to the canopy, has similarly been provided with a dedicated roof drain connection to the main storm sewer. The proposed storm sewers have been sized to accommodate runoff resulting from up to the 5-year storm event. Refer to the storm sewer design sheet for additional information.

PROPOSED WATER QUALITY CONTROL

Runoff collected from the study area is conveyed to an adequately sized OGS (Stormceptor EF04 or equivalent) prior to reconnection to the existing Site storm sewer system. This is viewed as a large improvement to the conditions of the existing study area, as there are presently no quality control measures implemented.

PROPOSED WATER QUANTITY CONTROL

The overall study area, which includes the area altered by the proposed works, matches the existing quantities of impervious and landscaped areas. The pre-development runoff coefficient for the 1.104 hectare study area was calculated at 0.79 and the post-development runoff coefficient also 0.79. As such, the post-development storm runoff flows generated from the site are expected to match pre-development flows. As there are no known capacity concerns with the existing downstream storm infrastructure, the proposed site alterations are not anticipated to cause any adverse impacts. Therefore, no quantity control measures are proposed for the fueling facility. Refer to the stormwater management calculations, storm sewer design sheet, and the Drainage Area Plan (ST1) for additional information.

PROPOSED MAJOR STORM WATER SYSTEM

For major storm events exceeding the capacity of the minor storm system, stormwater will pond above each catchbasin up to a maximum depth of 0.20m before cascading along the overland flow route. The drainage will be conveyed overland south through the primary drive aisle, eastward towards the Cyrville Road right-of-way through the new southern Site entrance, with ultimate outlet southward to Green's Creek. Refer to the Site Grading Plan (SG1) for major overland flow route.

PROPOSED SPILL RETENTION MEASURES

In the event of a spill, the concrete fueling station slab beneath the canopy is graded south towards a concrete swale and dedicated catchbasin. Captured spills are directed to the Oil Water Separator (Echelon HSD22 or equivalent). Per section 4.6 of



the National Fire Code of Canada, the OWS has been adequately sized to control a flammable or combustible liquid spill of up to 1000L.

In the event of spills, the OWS 250mm outlet pipe is outfitted with a manual shut-off gate valve. Similarly, catchbasin 3 adjacent to the underground fuel storage tanks is designed with a manual shut-off gate valve. This is intended to halt flows entering the storm system in the event of a spill during storage tank refuelling operations.

If there are any questions on the information presented within this letter, please do not hesitate to contact the undersigned.

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