

CUSTOMER CONNECTION GUIDE

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PURPOSE OF THE CUSTOMER CONNECTION GUIDE

The objective of the Customer Connection Guide for EPCOR Water and Drainage Services (EWSI) is to assist customers, developers, governments and contractors by guiding them through the necessary stages of:

- Obtaining water, sanitary and stormwater services for new construction and retrofit; and
- Disposing of wastewater, managing of surface water.

The Customer Connection Guide is applicable to all property owners and customers under the EPCOR Water Services Bylaw (Bylaw 19626) and EPCOR Wastewater & Drainage Services Bylaw (Bylaw 19627) Schedule 2, Article 2, Terms and Conditions.

EWSI Terms and Conditions set out various rights and responsibilities of EPCOR and its customers with respect to service. Where there are any differences between this Guide and the Terms and Conditions, the Terms and Conditions will govern and prevail.

EWSI may amend the Customer Connection Guide from time to time to reflect changes in the industry, EWSI's requirements or the changing needs of EWSI's customers.

The Customer Connection Guide and any amendments shall be effective as of the date posted to EPCOR.com.

While ESWI is committed to and will endeavor to comply with the Customer Connection Guide, the operations of EWSI are complex and dynamic. The Guide may not appropriately or exhaustively deal with every situation that arises. EWSI, acting reasonably, may deviate from the provisions of the Guide or take action not specifically authorized by these Terms and Conditions or by the Guide at ESWI's sole discretion.

CUSTOMER INQUIRES

Questions about EPCOR Water and Drainage service connections should be directed to:

Infill Water and Sewer Services
2000, 10423 – 101 St
Edmonton, AB T5H 0E8
Phone: 780-496-5444
Email: wass.drainage@epcor.com

NEW SERVICE CONNECTIONS

Only EPCOR crews and authorized contractors may install EPCOR water and sewer service lines within public property/utility right-of-way (URW).

If you require televising from the clean out of an existing home, call EPCOR at 780-412-4500 before demolition.

It is strongly recommended that EPCOR construct the public portion of the water and sewer services first to avoid delays and additional costs.

EPCOR cannot guarantee the locations, depth, or conditions of the water and sewer infrastructure, including services, within the URW.

All water and sewer service connections must comply with:

- Section 19.3 & 19.4 of City of Edmonton Design and Construction Standards, Volume 3, Drainage
- For service connections involving new water services in a common trench with a sewer line, refer to section 02514 of the City of Edmonton Design and Construction Standards, Volume 4, Water.
- Private water lines must comply with the requirements of the Alberta Safety Codes Act and the National Plumbing Code of Canada. It is the applicant's responsibility to ensure the service size is sufficient for its intended purpose.

APPLICATIONS

It is the applicant's responsibility to notify EPCOR if there are any changes to the private site service alignments or elevations at the property line. To determine if changes may be accommodated and/or additional charges apply, contact EPCOR IWASS prior to the start of construction of the EPCOR portion of the services.

Determine the appropriate water/sewer service size for the proposed development. EPCOR is available for assistance in determining the appropriate water service size, including fireline requirements;

ESTIMATES/INVOICES

Construction charges and any other specific agreement or offsite charges are subject to revision in thirty days. If thirty days have expired, contact EPCOR IWASS prior to sending payment to confirm any cost changes which may apply.

Failure to comply with the Customer Connection Guide will result in extra charges assessed for any changes required or EPCOR's services will be constructed at the property line to the exact locations and elevation accepted at the time of application

COST OF SERVICE

Service connection costs apply to all requests for new water and sewer services to be constructed by EPCOR crews off a city or EPCOR right-of-way. These costs are estimated according to the information provided in the application.

GST is not applicable to new service connections.

Construction scheduling of a new EPCOR service connection will not begin until an application and payment for the service is completed and until EPCOR is satisfied that the customer has complied with all the conditions outlined in both the Service Standards and Terms and Conditions. Payment can be made by EFT.

RESPONSIBILITIES OF EPCOR

Construct, at the customer's cost, the service line from EPCOR mainlines to the property line at the location agreed to during the application process. EPCOR will:

- Review all plans submitted;
- Request revision and re-submission of the plans until they meet all requirements; and
- Send approval letter outlining specific costs and servicing conditions, along with an approved site plan.

MINIMUM REQUIREMENTS

- No contractor or private developer may operate any EPCOR valves. Only an EPCOR employee or authorized agent shall remove, operate or maintain EPCOR infrastructure. EPCOR will take corrective action in the event any unauthorized use of the service connection or water services and facilities occurs.
- EPCOR must be notified of any conflicting information found in the field. Contact IWASS at 780-496-5444.
- Services identified by EPCOR IWASS as being abandoned may not be used for development.
- A minimum of 2% slope for sanitary service from the property line to the crown of the public sewer main with at least 2.4m in depth (cover) at the property line.
- A Minimum of 1% slope for storm services from the property line to the crown of the public sewer main with at least 2.4m in depth (cover) at the property line.
- Water services must be between 2.4m and 2.75m below finished grade at the property line.
- Private on-site water and sewer systems must not cross from one separately titled property to another separately titled property regardless of who owns the properties.
- Lots zoned for semi-detached or multi-family residential land use, where construction of side-by-side units are anticipated, one water, one sanitary and if required, one storm service line shall be provided for each unit directly off EPCOR sewer mains.

- Private storm sewer systems are required by all commercial, industrial, institutional and multi-family developments (3-plex and larger).
- All developments with outdoor loading docks, wash areas, or trash compactor areas must drain to the sanitary sewer system. Developments are restricted to draining a maximum of 250 m² of the outdoor area to the sanitary system.
- Each new or existing storm and/or sanitary service being utilized for a commercial, retail or industrial development must have a suitable sampling manhole/flow monitoring point located on private property and within 3m of the property line. Exemptions are residential only properties, premises or religious assembly, community leagues and elementary schools.
- Services entering the proposed property from the URW must have minimum lateral separation of 3m from any power/telephone poles, vaults, transformers and switching cubicles located on the UTW. A clearance of 2m is required from street catch basins, gas services lines and other utilities.
- Any private water and/or sewer system, building or structure which encroaches or crosses through an EPCOR easement requires the approval of EPCOR.

GENERAL NOTES

DIGGING

- The owner/contractor must dig and locate any existing water and sewer services at the property line in order to verify the location and determine the suitability as to the elevation and condition of the pipe.
- If services are installed in a common trench, the maximum width of the common trench cannot be greater than 1m at the property line of the lot being serviced.

ABANDONMENT

- Any unused sewer service(s) must be cut and capped at the property line by the owner/developer in order to prevent infiltration and soil from entering the public sewer system. The public portion of these services will be considered abandoned and not suitable for future use.
- Any existing lead (Pb) water service lines to the property line does not meet current standards and cannot be re-used for new developments. These must be abandoned back to the main by EPCOR. Contact IWASS for more information regarding the abandonment process.

COMMISSIONING

- All new or renewed private water service lines 40 mm in diameter or larger must be flushed and disinfected before EPCOR can turn the water on for construction use and/or public consumption. Contact EPCOR Trouble at 780-412-4500 for details and to turn water on for flushing, testing and then off again.
- Proof of satisfactory bacteriological test results for the exact service location must be certified, signed and stamped by the owner's Consulting Engineer or Professional Technologist. The test results must then be sent to EPCOR by email to mdispatch@epcor.com
- The owner/contractor is responsible for expenses related to all flushing, disinfecting and testing.

PRIVATE SERVICES IN PLACE BEFORE PUBLIC SERVICES

It is strongly recommended that EPCOR install the public portions of the services first, but if the private service line is installed on private property prior to construction of the EPCOR Service(s):

- The private service line must be installed within 0.75 metres horizontally of the alignments agreed to at the time of application; and
- The customer shall construct the private service 300 mm on the City side of the property line and be responsible for adequately protecting the open end of the pipe to prevent the entry of foreign material.
- Additional fees may apply if you install the private portion of the service(s) first.

SERVICE CONNECTIONS

The private portion of the services shall be connected to the service stubs left at the property line by EPCOR. If an applicant does not adhere to this requirement, EPCOR may refuse to make the final connections(s) at the property line or may, with permission, agree to connect based on the following conditions:

- Private service stub(s) must be extended to the property line and clearly marked with 2" x 4" stake(s);
- The private service line must be installed in the horizontally of the alignments agreed to at the time of application to a maximum of 0.75 metre deviation;
- Sewer services will be constructed to a maximum depth of 3 metres at the property line if the mainline in the public road right of way or URW will allow;
- All sewer inverts and/or depths at the property line of the lot being serviced must not vary from the accepted elevations/depths at the time of application
- The private drainage system must not have any standing water at the time of EPCOR construction. Prior to EPCOR mobilization, the applicant will be responsible for pumping the private system including all costs and resulting delays.
- Work area must be clear of any hoarding, trailers, refuse containers/bins, fencing. EPCOR construction crews will not mobilize until the work area is clear.
- If an applicant requests a new water service to a property which does not have access to an existing water main, EPCOR may refuse to construct the new service, or approve the service applications with conditions. Without limitation, the conditions may include:
 - The applicant shall pay all costs to extend the existing water main;
 - The applicant shall pay all construction costs, repair and maintenance of the service line, notwithstanding anything contrary in the Terms and Conditions.
 - The service shall meet specifications determined by EPCOR

TYPES OF SERVICE CONNECTIONS

SINGLE FAMILY AND SEMI-DETACHED SERVICING

It is strongly recommended that EPCOR construct the public portion of the water and sewer services first to avoid delays and additional costs.

If new water and/or sewer services are required for your development, you must provide IWASS with a servicing plan and a copy of a utility locate sheet from Alberta One Call identifying existing utilities in the area at the time of application. In addition to the location of existing utilities within City property, the servicing plan must also include (but is not limited to) the following:

- The location of all proposed water and/or sewer services required for your development along with the distance to the nearest property line of the lot being serviced;
- The required depth (3.0 M) being the standard depth if mainline depth allows or invert elevation at property line, supplied by the developer/owner in geodetic datum, for all proposed sewer services;
- Ground elevations in geodetic datum at the point of service at the property line;
- The servicing plan must demonstrate acceptable lateral separation between all proposed water and/or sewer services and the other existing utilities which may be affected, including power poles, streetlights, pedestals and gas lines; and
- The location of all city owned trees adjacent to your development.
- Each self-contained unit of a side-by-side duplex must have separate EPCOR service lines.
- A water service within private property cannot be used to service another separately titled property, regardless of who owns the property.
- New services proposed within 5m of a city tree will require approval from the City of Edmonton Building and Parks Operations Branch. You must provide documentation that approval has been granted.

NOTE: If any of the above information is not received, service payment cannot be accepted, and construction scheduling will not proceed.

MULTI-FAMILY DEVELOPMENT SERVICING

It is strongly recommended that EPCOR construct the public portion of the water and sewer services first to avoid delays and additional costs.

The applicant must provide: a site mechanical and lot grading plan in PDF format directly to EPCOR, as well as the other details listed in the EPCOR IWASS plan Submission checklist. These plans of the on-site private water and drainage systems shall include (but are not limited to):

- Signature and Seal of a Professional Engineer of Alberta
- Address and legal description of the parcel(s) of land to be serviced;
- Size, location and invert elevation for each of the new sewer services at the property line;
- Indication of existing water and sewer services to be reused or to be abandoned;

- Design for backflow protection, if applicable, to prevent contamination of the waterworks system;
- Water pressure and flow requirements for a service line 200 mm or greater, or when requesting a service connection the same size as the water main; and
- Design and calculations for stormwater management, if applicable.

[EPCOR IWASS Plan Submission checklist](#)

COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL SERVICING

It is strongly recommended that EPCOR construct the public portion of the water and sewer services first to avoid delays and additional costs.

The applicant must provide: a site mechanical and a lot grading plan in PDF format, as well as the other details listed in the EPCOR IWASS Plan Submission checklist. These plans of the on-site private drainage system shall include (but are not limited to):

- Signature and Seal of a Professional Engineer of Alberta
- Address and legal description of the parcel(s) of land to be serviced;
- Size, location and invert elevation for each of the new sewer services at the property line;
- Indication of existing water and sewer services to be reused or to be abandoned;
- Design for backflow protection, if applicable, to prevent contamination of the waterworks system;
- Water pressure and flow requirements for a service line 200 mm or greater, or when requesting a service connection the same size as the water main; and
- Design and calculations for stormwater management, if applicable.

WATER AND SEWER SERVICE TO AN UNSERVICED BUILDING ON A SERVICED LOT

A customer may, at their expense, provide water and/or sewer services to a new or previously un-serviced building (e.g., garage, workshop) on a serviced lot in one of two ways: a new service connection or the extension of the existing private service line.

New Service Connection

The customer may apply for a new water and/or sewer service connection to an existing EPCOR main as described in “New Service Connections”. A new water service connection will require a new meter and meter setting.

Each building must have its own water meter and its own address and a separate account with EPCOR. Customers will receive a new bill associated with the new service.

The building must be adequately heated to prevent damage to the water meter caused by freezing.

Each water service must supply its own private plumbing network which must not be connected on private property.

Extension of Existing Water Service:

The customer may extend an existing private service line after the water meter to provide service to the new building. The water consumption for all the buildings on the lot will be measured through one meter and billed together through a single EPCOR account.

The customer shall not connect to a private service line before the water meter under any circumstances.

GENERAL REQUIREMENTS FOR SERVICE CONNECTIONS

- Obtain the proposed or existing sewer service invert elevations at the property line prior to commencing construction to ensure that the bottom of the building foundations are above the available street sewer. This will allow the private sewer line to drain into EPCOR's sewer service by gravity;
- Where an excavation by the contractor creates disturbed ground, at or near the connection to EPCOR's Water service at the property line, the owner shall make adequate provision to prevent damage to the EPCOR Water service line due to settlement of the surrounding soil or private structure;
- Any party that proposes construction involving ground disturbance to a depth exceeding two metres within five metres of the boundary of lands containing ESWI facilities is required to enter into a Facility Proximity Agreement with EWSI, prior to performing the ground disturbance. The conditions of the agreement may, at EPCOR's sole discretion, include but are not limited to the following:
 - The EWSI facility must be isolated and drained. Active customers on the isolated main must be provided with temporary water service. Temporary servicing, and construction activity, may be limited to the months of May to October. The constructor will be responsible for all costs associated with de-commissioning, temporary servicing and re-commissioning the EWSI facility.
 - The water main is to be exposed by hydrovac at a minimum of two locations to confirm the existing location and the proposed clearances prior to any ground disturbance.
 - A requirement to contact the Asset Protection Inspector (587-590-4382) a minimum of two weeks in advance of the hydrovac exposure to arrange for the inspector to be on-site.
 - All service connections not required for the future building(s) must be formally abandoned at the main prior to excavation.
 - All appropriate measures must be taken to ensure the existing support around the water main is not disturbed by any of the construction activities. Any sloughing, settlement or undermining of the ground within five meters of an EWSI facility must be reported to EWSI. Any damage to the existing EWSI facility resulting from the construction, how so ever caused, will be repaired at the sole cost of the constructor.
 - The constructor must notify EWSI when the ground disturbance in proximity to the EWSI facility is complete so that the facility can be re-commissioned.
 - An indemnification in favour of EPCOR for any and all costs or liabilities arising from the constructions, including costs or liabilities arising in respect of any (A) water service interruption, defect or failure, (B) damage to any existing EWSI facility, (C) damage to

the property of third parties, (D) damage to a construction site, (E) delay of construction, other than as caused by any deliberate or negligent action of EPCOR.

Crossing and Proximity Agreements can be requested through the EPCOR Water Land Administrations group:

EPCOR Water Land Administration Group
780-412-3514 or 780-969-8781
Waterlandadmin@epcor.com

EPCOR SERVICES

RECORDS AND INFORMATION SEARCH

Record searches for compliance with Water, Drainage or Wastewater treatment bylaws are subject to a fee of \$116.92. Please email drainagerecordssearch@epcor.com and include the following information:

- Municipal address and legal description
- Customer address and contact information
- Customer file or project number; and
- Letter of authorization from the current property owner with clearly printed name and signature.

You will be invoiced for this service.

MAINLINE TELEVISIONING FOR SERVICE JUNCTION LOCATIONS

In the event a customer is unable to locate existing sewer service at the property line during re-development, CCTV of the sewer main may be performed. Fees associated with this service are typically calculated based on the [fee schedule](#) and time spent. There is a minimum charge out of two hours.

SERVICING AGREEMENTS

The engineering, design and construction of drainage sanitary and storm infrastructure may be completed under a Servicing Agreement through the City of Edmonton, Urban Form and Corporate Strategic Development Department, Subdivision and Development Coordination Section:

Edmonton Service Centre
2nd Floor, 10111 104 Avenue NW
Edmonton, AB T5J OJ4
780-442-5311

More information is available on the City of Edmonton website for [Servicing Agreement and Drawing Approval Process](#).

The design of the drainage infrastructure must be completed at the cost of the applicant. The design is subject to review and approval of EPCOR, other utilities and other City departments. The engineering drawings must be approved and stamped by a Professional Engineer.

Sanitary sewer and storm sewer mains may be constructed by a contractor of the applicant's choice. Inspection and commissioning is the responsibility of EPCOR. An EPCOR inspector must be present during sanitary and storm infrastructure construction.

Inspection services for commissioning of various substructure facilities are available upon request and include the following:

1. Large diameter pipe that are greater than 1200 mm
 - a. Pipe sections <1500 mm and <500 m in length
 - b. Pipe sections >1500 mm and <100 m in length
2. Stormwater management facility control structures that are automated. This includes structures with weir walls containing orifices and weir walls with manual gates
3. Stormceptors and Oil and Grit Separators
4. Substructure Manhole inspections where hazards exist due to confined space or depth

These services are provided at the applicant's cost and fees associated with this service are typically calculated based on the fee schedule and time spent. There is a minimum charge out of two hours.

The Servicing Agreement outlines the responsibilities of the developer and the City; the scope of the project; warranty periods; and any fees or assessments that the applicant is required to pay. Additions and modifications to existing drainage infrastructure must adhere to the [City of Edmonton Design and Construction Standards](#). Fees will be charged in accordance with EPCOR Terms and Conditions.

WATER SERVICE DURING BUILDING CONSTRUCTION:

EPCOR Water may provide temporary water service to facilitate construction of a new development. This temporary water service is intended to facilitate building construction and testing for internal piping and plumbing systems. It is not intended for consumption or other potable water uses and shall not be used for irrigation purposes.

APPLICATION FOR WATER DURING CONSTRUCTION:

Water for construction is applied and paid for through the City of Edmonton, in conjunction with a Building Permit application, at:

Current Planning Service Centre Sustainable Development
5th Floor, 10250 – 101 Street Edmonton, AB T5J 3P4

Fees will be charged in accordance with EPCOR Water's Terms and Conditions. Estimated charges for temporary water service during construction can be provided by the Current Planning Service Centre.

ONSITE STORMWATER MANAGEMENT GUIDELINES - INDIVIDUAL PARCEL DEVELOPMENTS (BETWEEN 0.16 HECTRES (HA) AND 3.0HA)

Many Edmonton's sewers are presently flowing at capacity or are overloaded. This is mainly due to the continuing process of property redevelopment resulting in increased paved areas which generate higher runoff rates.

To ensure that the service level does not deteriorate further (standard service level requires the sewers to convey runoff from a storm with a five (5) year recurrence interval), EPCOR Drainage requires the control of peak post-development discharge rates for stormwater flows from new or re-developed properties into the sewer system for most areas of the City. Stormwater runoff control is required all lots greater than 0.16ha.

[Onsite Stormwater Management Guidelines](https://www.epcor.com/products-services/drainage/rates-terms-and-conditions/Documents/onsite-stormwater-management-guidelines.pdf)

<https://www.epcor.com/products-services/drainage/rates-terms-and-conditions/Documents/onsite-stormwater-management-guidelines.pdf>

EROSION AND SEDIMENTATION CONTROL (ESC)

ESC Guidelines and Field Manual helps prevent uncontrolled erosion and sedimentation, loss of topsoil, damage to adjacent land, and harm to aquatic and vegetative habitat. ESC Guidelines and Field Manual assist EPCOR Drainage Services personnel, City departments and staff, owners, developers, consultants, and contractors to meet ESC requirements for development and construction projects in Edmonton.

For more information on the Erosion and Sedimentation Control Guidelines and the accompanying Erosion and Sedimentation Control Field Manual, click on these links:

https://www.edmonton.ca/city_government/documents/PDF/ControlGuide.pdf

https://www.edmonton.ca/city_government/documents/PDF/FieldManual.pdf

LOW IMPACT DEVELOPMENT (LID)

LID Design Guideline is developed to reduce alteration of the natural water cycle due to land development, to mimic natural movement of water and to support preservation of natural landscape features. Low Impact Development Best Management Practices Design Guide provides an overview of LID Best Management Practices (BMPs) site planning guidance and design guidelines that can be used to integrate LID into land development, redevelopment, and retrofit projects.

The LID BMPs include rain gardens/bioretention, bioswales, green roofs, permeable pavement, box planters, naturalized drainage ways, and rainwater harvesting for reuse.

For more information, click on this link:

https://www.edmonton.ca/city_government/documents/PDF/LIDGuide.pdf

The LID Construction, Inspection, and Maintenance (CIM) Guide provides guidelines on tendering, construction, project acceptance inspection, warranty period maintenance, and ongoing inspection and maintenance of LID features. The LID CIM Guide is intended to inform individuals involved in all phases of LID construction and post-construction lifecycle and should be used together with LID BMPs Design Guide.

For more information, click on this link:

https://www.edmonton.ca/city_government/documents/LID%20CIM%20Guide.pdf

SAFE DISPOSAL OF CONCRETE AND CEMENT-BASED PRODUCTS: A GUIDE FOR BUSINESSES AND INDIVIDUALS

Washing cement or concrete products or dust can have devastating effect on natural environment including fish, insects and plants. To protect North Saskatchewan River and stormwater system and for guidance on how to contain and properly dispose of runoff from cement and concrete work:

<https://www.epcor.com/products-services/drainage/rates-terms-and-conditions/Documents/safe-disposal-of-concrete.pdf>