

**CITY OF SASKATOON
DESIGN AND DEVELOPMENT
STANDARDS MANUAL**

**SECTION THREE
CONSTRUCTION PRACTICES**

2018



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SECTION THREE – CONSTRUCTION PRACTICES

1 Objective

The following construction practices are intended to provide guidance for the safe and timely construction of the proposed subdivision.

2 Regulatory Requirements

The Proponent is responsible for being aware of the regulatory requirements governing construction practices in the COS, and for compliance with these requirements.

Regulatory and supporting documents that shall be referenced for land development include:

- [Standard Construction Specifications and Drawings: Roadways, Water, and Sewer](#), Transportation & Utilities Department, City of Saskatoon;
- [Standard Construction Specifications and Drawings: Parks](#), Transportation & Utilities Department, City of Saskatoon;
- [The Saskatchewan Employment Act](#), Province of Saskatchewan;
- [The Fisheries Act](#), Department of Fisheries and Oceans; and
- [The Navigation Protection Act](#), Transport Canada.

2.1 Project Control

Project control methods that shall be exercised throughout construction can be found in:

- The City of Saskatoon *Standard Construction Specifications and Drawings: Roadways, Water and Sewer*; and
- The *General Conditions*: refer to Section 00700 of a standard City of Saskatoon contract, especially the portions regarding traffic operations.

2.2 Schedule

An itemized construction schedule shall include start and completion dates for the following:

- Stripping of topsoil;
- Area grading;
- Installation of water and sewer mains;
- Installation of water and sewer service connections;
- Installation of catch basins;
- Installation of sidewalks;
- Preparation of sub grade
- Preparation of sub base;
- Preparation of base;
- Installation of utilities;
- Paving
- Street lighting; and
- Signing.

This schedule shall be submitted at least 28 calendar days before the commencement of any construction. All changes in schedule shall be communicated in writing.

3 Approval to Construct

No work may proceed without written approval. Approval to construct shall be granted, in part or in whole, based on compliance with the requirements that are outlined in the *Land Development Process* section of this manual, the submission of the appropriate detailed design documents, and the payment of the appropriate fees.

Written approval to construct will be granted within 28 days of submission of all the above information or reasons will be given for withholding approval. Approval may be accompanied by terms and conditions at the discretion of the Transportation & Utilities Department.

Following approval to construct, and prior to actual construction, the Proponent shall submit a list of contractors and a list of materials to the Construction & Design Division. The list of materials shall identify the manufacturer and, where applicable, the manufacturer's designation for the product.

4 Construction

The Proponent shall be responsible for all on-site activities during construction.

4.1 Certification

The Proponent shall ensure that all personnel on the construction site are appropriately trained and certified for the work that they are to perform.

4.2 Quality Control

Construction shall be supervised by adequate numbers of technically qualified and municipally experienced personnel. Minimum and special requirements shall be provided by the TU Department.

4.3 Safety

The Proponent shall implement and maintain safe construction practices, adhere to applicable safety requirements, and use warning and protective devices that are adequate to protect all persons and property.

- If an emergency arises, which in the opinion of the COS risks either the safety of the public or of the utilities system, the COS shall have the right to take such action, without notice, as is deemed necessary.
- The Proponent shall be advised of such action within a reasonable time and shall pay the cost of it.

4.4 Survey

Surveys shall comply with the level of precision as stated in the City of Saskatoon TU Department Survey Procedures (*Infrastructure Services Department Survey Manual*). Registered plans are available from the Transportation & Utilities Department or the Information Services Corporation (ISC).

4.4.1 Survey Monuments

The Proponent is responsible for the preservation of survey monuments.

4.5 Records and Reporting

Records shall be maintained to provide an accurate history of construction. Documents shall have content and detail to prove compliance with the City of Saskatoon *Standard Construction Specifications and Drawings: Roadways, Water and Sewer*. Inspection, survey, and geotechnical records shall be submitted in the form and with the frequency required by the TU Department.

4.6 Testing

The Proponent is responsible for arranging any tests necessary to ensure that all work is done in accordance with the City of Saskatoon *Standard Construction Specifications and Drawings: Roadways, Water and Sewer*.

The COS may undertake specialized testing beyond the standard requirements for the work.

- If deemed necessary, this testing may be completed at the sole cost of the Proponent.

5 Construction Completion

Construction completion is achieved when the work may be placed in safe and reliable operation. In order to receive a Construction Completion Certificate, the Proponent shall provide the following documentation:

- As-built plans and records, signed and sealed by a licensed Saskatchewan Professional Engineer, as proof of compliance with the COS requirements;
- Operations and maintenance manuals for any sewage pump stations; and
- A letter, signed by a licensed Saskatchewan Professional Engineer, certifying that the work has been inspected during and after construction and, in the opinion of the Proponent, the COS standards have been met.

5.1 Inspection

COS personnel will undertake a visual inspection, with the Proponent's engineer and the Proponent's contractor(s) present, following the submission of the above documentation.

Official final inspections will be required when the work is turned over to the COS. The format and method for these inspections will be specified by the COS Transportation & Utilities Department.

6 Maintenance Periods

All infrastructure constructed by the Proponent shall be the property of the COS immediately upon completion of construction. However, the Proponent shall be responsible for all repair and replacement from the date of the Construction Completion Certificate to the end of the maintenance periods that are outlined in the following table:

**Table 6-1
Maintenance Periods**

Infrastructure	Maintenance Period (years)
Water Distribution Mains	2
Sanitary Sewer Collection Mains	2
Storm Water Drainage Mains	2
Storm Water Storage Basins	2
Service Connections	2
Street Paving	2
Sidewalks and Curbs	2
Walkways	2
Interchanges	2
All Others	As determined for specific development

In the case of an emergency within the boundaries of the development (e.g. a broken water main or blocked sewer main) during the maintenance period, the COS may undertake emergency repair measures and charge the cost of the repairs to the Proponent.

7 Final Acceptance

The Proponent shall apply for a Certificate of Final Acceptance not less than 30 days prior to the end of the maintenance period. This application shall include:

- Documentation of all repairs done during the construction and maintenance period, including the location, nature of repair, cause of failure, and any other information pertinent to the repair.
- As-built records including original digital files, hard copies, connection drawings, and other information as required by the TU Department.
- Copies of approvals to operate issued by the appropriate governing agencies.

7.1 Final Inspection

Final inspection reports shall be completed no less than 60 days prior to the end of the warranty period.

7.2 Final As-Built Drawings

Final as-built drawings are to be submitted by February 1st of the year following a period of 2 years from the issuance of the Approval to Construct, if no Servicing Agreement is in place. If a Servicing Agreement is required, final As-built drawings are to be submitted within 3 years of the execution date of the Agreement.

- As-built drawings shall conform to the TU Department Drawing/CAD Standards.
- Drawings are to be to scale and the dimensions shown will be from field notes.
- Drawings shall be certified with a 'Record Drawing' or 'As-Built' stamp and shall be signed or initialled by a licensed Saskatchewan Professional Engineer.

The TU Department reserves the right to withhold approval of future design drawings unless all as-built drawings for previous construction have been submitted to the satisfaction of the COS.

7.3 Connection Records

Connection records shall be drawn to comply with the TU Department Drawing/CAD Standards. These records shall be submitted as soon as possible after water and sewer construction, and prior to lot sale, to accommodate connection of services.