Record Drawings	Section 3

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Record Drawings Section 3

3.01 **Scope**

This section pertains to the submission of off-site record drawings of the following services: drains, sewers, water, gas, roads, curbs, sidewalks, street lights, underground power, telephone and cable, culverts, bridges and other miscellaneous permanent structures.

Record drawings are the final record of what has actually been installed. They are necessary as a base to plan and design future projects as well as to maintain and repair the works. Record drawings shall contain the same degree of detail as outlined in Section 2.0 of this manual. They shall be corrected upon construction completion to detail all works that were constructed, removed or abandoned.

Record drawings are required within 30 days after issuance of substantial completion.

Service record cards for all lots are required as part of the record drawing submission. A separate service record card for each individual lot is required. Service record cards are to indicate clearly and accurately the location, depth and size of each City utility connection both at property line and at the City main. The City project number is required on all cards.

3.02 Procedure for Submission of Record Drawings

The Consultant is required to assemble all drawings from subconsultants and Contractors. The Consultant must ensure that all revisions, addenda, clarifications and change orders are included in the final record drawings.

The Consultant shall submit one complete set of sealed paper prints for approval. Once received, the City will review the submission for completeness. The City will then send the Consultant one red-lined set of paper prints, marked either 'approved' or 'resubmit with the following additional information'. If there are numerous amendments, the Consultant shall resubmit one set of revised drawings.

Once the submission is approved, the Consultant shall submit one complete set of sealed paper prints.

Two electronic submissions are required as well, one in AutoCAD (.dwg) format and one in Adobe Acrobat (.pdf) format. The Consultant shall clearly note the following on each page of the electronic submissions:

Original record drawings signed and sealed by: (engineer of record) on (date of signature).

3.03 General Requirements

3.03.1 Record drawings shall include the following signed, sealed and dated statement by the Consultant:

"I certify that the following services: (listed by name) were reviewed on site during construction and, to the best of my knowledge, were installed in accordance with the accepted design drawings, change orders, municipal specifications and standard drawings, as shown on this drawing."

- 3.03.2 All references to 'proposed' shall be removed and the design notes altered to read in the past tense. The revision table shall be completed indicating the drawings are record drawings.
- 3.03.3 Line work for all works shown on the drawings shall retain thicker line density (as for proposed works) for ease of determining the extent of works covered by the drawings. Line work for private on site works is to be faded and proposed construction for future works shall be removed from the drawings.
- 3.03.4 All works and services (roads, water, storm drains and sanitary) shall be included on all drawings. Line work for works and services that is not relevant to the drawing shall be faded so relevant works and services stand out (e.g. line work for road and water is included, but faded, on a storm and sanitary plan).
- 3.03.5 Revised storm drainage and sanitary sewer calculations will be included to reflect any changes during construction.
- 3.03.6 Lot dimensions and legal descriptions, including legal descriptions of restrictive covenants, easements and right-of-ways shall be clearly marked and referenced on all drawings.

3.04 Additional Required Details

The following details shall be included on the record drawings.

3.04.1 Storm Drainage and Sanitary Sewer

- a) Locations of rock cuts and hardpan that required blasting and depth of the rock excavation;
- b) The invert elevation at both the inlet and outlet of manholes, as well as the rim elevation;
- c) Coordinate table with manhole locations;
- d) Locations of catch basin leads at the main by chainage from the centre of the downstream manhole;
- e) Locations of house connections at property line showing distance from the nearest corner iron pin;
- f) Ground and invert elevations of sewer and drain house connections at the property line or right-of-way boundary;
- g) Offsets of mains from property line or road centreline.

3.04.2 Roads and Water

- a) Locations of all domestic water services at property line, tied to the corner iron pin;
- b) Locations of rock cuts and maximum depth of rock excavation;
- c) Locations of fire hydrants tied to the main valve and to the corner iron pin;
- d) Coordinate table with hydrant locations;
- e) Locations of valves, bends, junctions and appurtenances tied to the corner iron pin;
- f) Offsets of mains from property line or road centreline.

3.04.3 <u>Hydro, Telephone, Cablevision and Gas</u>

- a) Locations of rock cuts and maximum depth of rock excavation;
- b) Locations of valves, service connections and other surface appurtenances including junction boxes and transformers, tied to corner iron pins;
- c) Locations and cross-sections of conduit banks and conductors;
- b) Locations of all poles, pilasters and anchors.

3.04.4 Bridges

- a) Location of structures;
- b) Elevation of deck.

3.04.5 <u>Streetlighting and Traffic Appurtenances</u>

- a) Locations of underground wiring and junction boxes;
- b) Locations of relays, photoelectric controllers and circuiting;
- c) Connection points to BC Hydro and meter locations;
- d) Coordinate table with streetlight locations.