



Appendix F
Engineering Services Memo

Memorandum

To: Dilys Huang, Development Planner

Date: March 13, 2024

From: Christian Medurecan, Engineering Technologist

File: PRJ-007694
DRF00203

Subject: WORKS AND SERVICES REQUIREMENTS FOR 1135 SALTER STREET – REZ00198, DP000828, DVP00677, OCP00032

We are responding to your Development Application resubmission as referenced above dated January 3, 2024 for the proposed 45 Unit Townhouse Development.

Provided the applicant is successful in obtaining a Development Permit, the Engineering Department requirements include but may not necessarily be limited to the following:

1. The developer is required to submit a subdivision application and follow the subdivision processes. For more information on the requirements, see our webpage at <https://www.newwestcity.ca/subdivision-process#subdivision-process>.
2. The developer shall, at a minimum, familiarize themselves with the following documents and plans:
 - 2.1. Master Transportation Plan
 - 2.2. Active Transportation Network Plan
 - 2.3. Official Community Plan (OCP)
 - 2.4. Zoning Bylaw No. 6680, 2001
 - 2.5. Subdivision and Development Control Bylaw No. 7142, 2007
 - 2.6. Erosion & Sediment Control Bylaw No. 7754, 2016
 - 2.7. Tree Protection and Regulation Bylaw No. 7799, 2016
 - 2.8. Street and Traffic Bylaw No. 7664, 2015
3. Submission of an application for subdivision for the additional Lot (Park Land) accompanied by a BC Land Surveyor's Proposed Subdivision and Topographic Survey Plan. The Subdivision Application Form can be found on the City's Website under 'Subdivision Process' or at the Engineering Front Counter at City Hall.

Terms and conditions by which the Park Land would be turned over to the City, these include but are not limited to the following:

- 3.1. Site shall be delivered at "existing or natural grade" meaning the pre-development site grade unless otherwise agreed upon by the Director of Parks & Recreation
- 3.2. All site grading and drainage plans to be reviewed and approved by the City to ensure there are no future erosion and sediment risks
- 3.3. Site shall be delivered as a clean site free of all construction debris or encumbrances to develop a neighborhood park (i.e. above or below grade infrastructure or utilities)
- 3.4. Site shall be delivered with a minimum of 300mm of imported topsoil and seeded lawn mix (per specifications provided by the Parks & Recreation Department)
- 3.5. Provision of storm, sanitary, water and electrical service connections
- 3.6. Provision of geotechnical, hydrological and/or environmental reports concerning the property

4. The property is located within a designated floodplain area and no areas suitable for habitation may be constructed with the bottom of a wooden floor system or top of concrete pad elevation lower than elevation 3.53 meters Geodetic Survey of Canada Datum the “Flood Construction Level” (FCL). Prior to subdivision approval you will need to have obtained a **fill permit** and completed the placement of fill. The completion of the fill placement would be signified by a letter from a qualified Professional Geotechnical Engineer certifying that the site fill placement has been completed such that the homes can be built at the designated FCL and the lots can be safely used for the intended townhouse / multiunit residential use. There may be additional requirements identified at the time of development permit and building permit application stages and you should discuss any plans for new construction with the Planning and Building divisions of the Climate Action, Planning and Development Department.
5. A Geotechnical Engineering Report is required from a qualified geotechnical engineer to satisfy potential differential settlement problems for all roads, sidewalks, underground utilities and other required off-site servicing improvements. The report shall also address any anticipated short and long term settlement and potential differential settlement issues. At the completion of the site preparation your geotechnical engineer will be required to certify the off-site works and services have been built in accordance with the design drawings, the Master Municipal Specifications and the Subdivision and Development Control Bylaw and are expected to perform within the design tolerances for the designated design life of the infrastructure
6. All site drainage works shall be designed and constructed in accordance with the City’s Erosion and Sediment Control Bylaw 7754, 2016. The developer shall retain a qualified professional to ensure that the design and implementation of the erosion and sediment controls meets the requirements outlined in the Bylaw.
7. Onsite storm sewer water management will be required to limit the post development flow to pre-development flow. The onsite works shall be designed in accordance with the City’s *Subdivision & Development Control Bylaw* and *Integrated Storm Water Management Plan*.
8. A Stormwater Management Plan (SWMP) detailing the proposed storm drainage servicing for the development and the impact on the downstream system is required and shall be in accordance with the City’s Design Criteria. Detention and Retention facilities shall be designed to meet the rainwater management targets of the City’s *Integrated Stormwater Management Plan (ISMP)*.
9. All existing trees are to be protected in accordance with the City’s Tree Protection and Regulation Bylaw No. 7799, 2016 and any trees identified for removal will need to have a permit approved and in place prior to removal.
10. Provision of easement, dedications and statutory rights-of-way that may be required to meet the capacity, functionality and design objectives for all modes of travel of the City including access to the proposed development. To be confirmed through a complete review of a full application with required technical information, studies and analysis. At a minimum, the City will be requiring, but not necessarily limited to the following:
 - 10.1. Dedication along the easterly property line (approximately 10.0m wide)
 - 10.2. Dedication along the northerly property line (approximately 16.5m wide)
 - 10.3. 3.0m x 3.0m truncation at the corner of the North-South Road and Basran Avenue
 - 10.4. 3.0m x 3.0m truncation at the corner of the North-South Road and Salter Street
 - 10.5. 3.0m x 3.0m truncation at the corner of Basran Avenue and the West property line

- 10.6. Statutory Right of Way along the North/South pathway at the west property line for 'Public Access'
 - 10.7. Statutory Right of Way along the East/West pathway at the south property line for 'Public Access'
 - 10.8. Statutory Right of Way along the East/West midblock pathway for 'Public Access'
11. All construction to be in accordance with the most current MMCD (Platinum Edition), City of New Westminster Subdivision and Development Control Bylaw No. 7142, 2007, Design Criteria and Supplementary Specifications unless specified elsewhere.

WORKS AND SERVICES – OFF-SITE

12. Under the City of New Westminster Subdivision and Development Control Bylaw No. 7142, 2007 and amendments thereto, the developer for the above noted property is also required to enter into a Works and Services Agreement with the City addressing off-site servicing requirements prior to issuance of a building permit. The off-site services shall include, but are not necessarily limited to the following:

ROADWORKS

The subject site is bounded by Salter Street to the south. According to the City's Master Transportation Plan (MTP) Salter Street is classified as a neighborhood collector road.

Salter Street

- 12.1. Reconstruction of the Salter Street frontage completed with new sidewalk, curb and gutter, trees, landscaping (including drainage and irrigation), traffic calming measures, street lighting, underground electrical and telecommunication servicing. Salter Street shall be reconstructed up to road centerline based on the following minimums:
- Reconstruction of the existing road structure shall be based on the analysis of a Benkelman Beam Test, or other approved method, carried out on the existing road which is to be upgraded. If the test results are proven satisfactory, the minimum requirement shall be a mill and overlay.
 - 1.8m wide unobstructed sidewalk
 - 2.0m wide landscaped front boulevard
 - Raised cross-walk
 - Speed hump

Proposed North/South Road

- 12.2. Construction of half (10.0m wide) of the ultimate (20.0m wide) North/South Road frontage completed with new sidewalk, curb and gutter, trees, landscaping (including drainage and irrigation), traffic calming measures, street lighting, underground electrical and telecommunication servicing. Half of the ultimate North/South Road shall be constructed based on the following minimums:
- 1.8m wide unobstructed sidewalk
 - 2.0m wide landscaped front boulevard
 - 3.0m wide travel lanes (each direction)

- 3 (three) speed humps

Basran Avenue

- 12.3. Construction of the Basran Avenue frontage complete with new sidewalk, curb and gutter, trees, landscaping (including drainage and irrigation), street lighting, underground electrical and telecommunication servicing, Basran Avenue shall be constructed in its entirety based on the following minimums:

- 1.8m wide unobstructed sidewalks (both sides)
- 2.0m wide landscaped front boulevards (both sides)
- 0.5m wide landscaped back boulevard (south side)
- 3.0m wide travel lanes (each direction)
- 2.4m wide parking lane (south side)
- 1 (one) speed hump

Vehicular Site Access

- 12.4. All vehicle access requirement should meet City Bylaws specifications

UNDERGROUND UTILITIES

Sanitary

- 12.5. Provision of adequate sanitary sewer mains to service the development complete with manholes and a single service connection with a manhole or inspection chamber at property line. Sanitary mains shall be constructed along all proposed frontages. Size and location to be determined by the Developer's consulting engineer and approved by the City.

Storm

- 12.6. Provision of adequate storm sewer mains to service the development complete with manholes, catch basins and a single service connection with a manhole or inspection chamber at property line. Storm mains shall be constructed along all proposed frontages. Size and location to be determined by the Developer's consulting engineering and approved by the City.

Water

- 12.7. Provision of adequate water mains to service the development for fire and domestic demands complete with fire hydrants and a single service connection with a suitable water meter with back flow prevention. Water mains shall be constructed along all proposed frontages with an Automatic Flushing Device installed at the end of the water main on Basran Avenue for water quality and redundancy purposes. Size and location to be determined by the Developer's consulting engineer and approved by the City.

Electrical, Telecommunication and Gas

- 12.8. All costs associated with the design and conversion of the existing overhead electrical and telecommunication utilities on the roadways adjacent to the site with an underground

system for the development. Please contact Marc Rutishauser in the City Electrical Operations Department at (604) 527-4533 for electrical servicing details. Contact Telus and Shaw directly for telecommunication servicing details.

- 12.9. City communication conduit shall be provided in accordance with the City's intelligent City Design requirements as it pertains to the Fiber Optic Network and Street Lighting Design. Please contact Phil Kotyk, Fiber Network Operations Manager at (604) 527-4641 for City communication servicing details.
- 12.10. All costs associated with the design and construction of gas servicing for the development. Please contact Fortis BC directly for servicing details.
- 12.11. All third party utility construction drawings shall include the Civil Design Drawings base plan and must be submitted to the City's Engineering Services Division for review and approval. The developer's consulting engineering shall ensure that the design of all third party utilities, including New Westminster Electrical, have been coordinated with the Civil Design Drawings. Coordination of the drawings must be completed prior to issuance of the Works and Services Agreement.

STREET LIGHTING

- 12.12. Roadway lighting for all street frontages shall be provided and upgraded for safety and to produce accurate and comfortable night time visibility using energy efficient lighting such as LED. Design of roadway lighting shall be in accordance with the City of New Westminster Design Criteria Section 6 and the MMCD (Platinum Edition) Design Guidelines Section 6.0 Roadway Lighting (for LED).

BOULEVARD TREES

- 12.13. The boulevards shall be prepared for boulevard trees complete with a 900mm, New Westminster Planting Blend or approved equal, growing medium for the full width of the boulevard, including drainage and irrigation. Boulevard landscaping and irrigation shall be provided in suitable locations to the satisfaction of the Parks Department. For further information, please contact Sylvain Martel, Senior Arborist at (604) 527-4625.
 - 12.14. Boulevard trees will be selected, purchased, installed and maintained by the Parks Department.
13. The preparation of detailed design drawings by a qualified Professional Engineer for the off-site works and services to the satisfaction of the City and in accordance with the City's Design Criteria, Supplemental Specification and Detail Drawings, and Master Municipal Construction Documents. The engineering design drawings for the proposed works may include the following plans:
 - Road works
 - Storm drainage collection facilities
 - Sanitary sewer collection facilities
 - Water distribution facilities
 - Street lighting
 - Street trees, landscaping
 - Topographical and lot grading plans

- Erosion and sediment control plans
 - Electrical power supply and distribution facilities
 - Telecommunication facilities
 - Gas facilities
14. Under the Works and Services Agreement with the City the developer must address the following requirements:
- 14.1. Employment and retention of a Professional Engineer to prepare and seal the design drawings; to provide a Resident Engineer for inspection of all design and construction related problems; to prepare, certify and seal “As-Constructed” drawings, including landscape & irrigation drawings and to certify that all materials supplied and works performed conform to City standards as contained within the Subdivision and Development Control Bylaw and/or the Master Municipal Construction Documents.
- 14.2. The developer will be required to post a security deposit for 120% of the estimated construction cost of the offsite servicing works including GST. The security deposit shall be in the form of an Irrevocable Letter of Credit or cash deposit. The security deposit will be reduced once the off-site works are completed to the satisfaction of the City less a 10% holdback. Upon issuance of a Certificate of Completion by the City, the 10% security deposit will be held for a two year maintenance period.
15. The following payments and deposits shall be paid at the time of execution of the Works and Services Agreement:
- 15.1. Payment to cover the cost of preparing the Works and Services Agreement, currently **\$2,067.00** plus tax.
- 15.2. Payment of **four percent (4%)** of the estimated construction costs to cover engineering and administrative costs incurred by the City.
- 15.3. Under the Works and Services Agreement, the developer will be required to pay a deposit **\$5,000.00** to cover any charges for emergency works and signage.
- 15.4. Payment of a flat fee in the amount of **\$955.00** per tree for the selected, purchased, installed, and maintained by the Parks Department.
- 15.5. Signing of a latecomer waiver clause.
16. Submission of any easement or right of way documents required by the City in relation to the proposed development.
17. The following charges shall be paid at the time of Building Permit Issuance:
- 17.1. Payment of applicable Greater Vancouver Sewerage & Drainage District (GVS&DD) Development Cost Charges in accordance with Bylaw 187, 1996 and amendments.
- 17.2. Payment of applicable New Westminster Development Cost Charges in accordance with Bylaw 7311, 2009 and amendments.

- 17.3. Payment of applicable School Site Acquisition charges in accordance with School District #40 Capital Bylaw No. 2008-1.
- 17.4. Payment of applicable Regional Transportation Development Cost Charges in accordance with Bylaw No. 124-2018.
- 17.5. Payment of applicable Greater Vancouver Water District Development Cost Charges in accordance with Bylaw 257, 2022 and amendments.

Should you have any further questions, please contact the undersigned at 604-636-4463 or cmedurecan@newwestcity.ca.

Regards,



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Engineering Technologist

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