



City of Richmond Project No.: _____ Date: _____

Engineering Consultant: _____

* Check the **Yes** for conformity, **No** for non-conformity, or **Not Applicable (N/A)** box for each item below and attach to **EACH** submission set. If you have answered **No** for any item, provide an explanation at the bottom of the page. All drawings must conform to the latest version of City of Richmond Drafting Standards. All designs must conform to the latest version of the City of Richmond Engineering Design Specifications, Supplementary Specifications and Detail Drawings and associated version of the Master Municipal Construction Documents (MMCD), and other specifications as noted below.

1. General

Yes No N/A

1.1 I have only uploaded the plans which required corrections as per the changemarks.

Check Not Applicable (N/A) for First Submission only. For all subsequent submissions, if corrections are made to the plans, which did not have changemarks, check NO and complete table below.

SUBMISSION SUMMARY REPORT

File Name	Detail of Corrections

Yes No N/A

1.2 I have uploaded all required supporting documents (complete the table below).

LIST OF SUPPORTING DOCUMENTS

File Name	Description

- 1.3 Geotechnical Report required/submitted.
- 1.4 All necessary approvals and permits received (i.e. other than City and Private Utility companies).
- 1.5 All requirements from the applicable rezoning/development permit/subdivision reflected on the drawings.
- 1.6 Address all comments from previous submission.
- 1.7 Context shown (e.g. other nearby existing/future driveways on both sides of the street, trees, poles, lights, etc.).
- 1.8 Inspector of Dikes approval: Attached Requested.
- 1.9 Separation dimensions between all utilities to City's Design Specifications and shown on all drawings.
- 1.10 Offset dimensions of all utility mainlines shown on all drawings.
- 1.11 Proposal to address conflicts between existing and proposed utilities are included.
- 1.12 Survey plan meets the requirements of the City of Richmond Engineering Design Specifications section 2.0.
- 1.13 Outline of proposed onsite structures shown on plan.
- 1.14 Driveway locations, service connection locations, minimum floor elevations, and tie-in elevations at the property line coordinated with the on-site works.
- 1.15 Trees to be retained per the rezoning / development permit considerations and arborist report are identified on the key plan and the tree protection zones shown.
- 1.16 Neighboring properties considered in the design, and to the extent possible, the works have been designed to have minimum impact on the neighbors. Any potential impact has been flagged on the drawing.
- 1.17 Each property capable of being serviced is provided with one water, storm, and sanitary service connection.
- 1.18 All Required Right of Ways are clearly shown on the applicable drawings including the Key Plan. The developer has been informed to submit legal plans for all City Right of Ways to the City for the preparation and execution of the agreements once the location, dimension, etc. is accepted. The legal plans and executed agreements to be registered concurrently by the developer at LTO prior to City approval of the drawings.
- 1.19 The drawings conform to the specifications and detail drawings listed on page 1.

2. Transportation

	Yes	No	N/A	
2.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Confirmation that all roadworks elements are as per those defined in the approved Rezoning/Development permit offsite requirements
2.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Geometric Design elements (design speed, lane width, horizontal curvature, cross slopes, crown, tapers, etc.) in accordance with appropriate guides/standards (e.g. Transportation Association of Canada, Regional Bike Plan, Provincial Cycling Design Guide, etc.).
2.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wheelchair/pedestrian ramps and upgrade to include tactile treatment as appropriate. Landing area behind ramps to have minimum width for circulation purposes.
2.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Driveways: width, location, spacing to other intersections/driveways, conflicts with other driveways (including across the street), letdown (not curb return), remove any existing driveways at developer's cost and back-filled with frontage improvements consistent with those identified for subject site.
2.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sidewalks: continuous, width, no obstructions including hydrants, utility poles placed within existing or proposed sidewalks, smooth transition (for mobility and visually impaired). Minimize meandering of sidewalk alignment by relocating all obstructions.
2.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sightlines: trees (may also impact landscaping plan), signs, mailbox, garbage storage, any physical obstructions at intersections, lanes and driveways. City Sightline Enforcement Bylaw is to be fully adhered to.
2.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Adequate turning radius/manoeuvring for fire trucks, garbage/recycling trucks, moving/delivery trucks, etc. Provide vehicle turning templates as part of the SA submission to demonstrate on-site vehicle turn-around as required.
2.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Include onsite layout illustrating onsite vehicular circulation to any proposed access and all adjacent utilities (e.g. fire hydrants).
2.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Meets all traffic and vehicular related bylaws (e.g. Bylaw 5870, Bylaw 7222).
2.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Road cross-sections adhere to City's standards for the appropriate road classification.
2.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Traffic calming measures included in design.
2.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Check for U/G and O/H utility conflicts in traffic signal design.
2.13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Traffic signal design drawings produced as per drafting standards for traffic signals (different than other City Drafting Standards).
2.14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Communications conduit/cable included in traffic signal design.
2.15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bicycle lanes designed to City standard and/or other published recognized industry guidelines/requirements
2.16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Review of existing bus stops and upgrade to accessible standards.
2.17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The following note is added to the Roads General Notes: <i>"Prior to construction, contractor must provide to Transportation Dept a construction parking & traffic management plan. Plan should include: location for parking for services, deliveries & workers; application for request for any lane closures (including dates, times & duration) & proper traffic controls as per Traffic Control Manual for Works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570."</i>
2.18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pavement Marking and traffic/parking signage plan attached where existing offsite roadway affected. The plan should show all existing and proposed pavement marking and signage to be retained, removed, and or added. Sign inventory to be included on the plan showing the sign symbol, number of signs, sign number, sign dimension, etc. proposed.

3. Roads

	Yes	No	N/A	
3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Latest General Notes are provided.
3.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Design Speeds for the appropriate road classification should be adhered to in the road design.
3.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Centre line gradient changes without vertical curve are within the limits for the appropriate class of the road.
3.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vertical and horizontal curves in accordance with TAC guidelines.
3.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All horizontal and vertical curve data shown on drawings.
3.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cross slopes are not less than 2% or greater than 4%.
3.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Superelevations as per appropriate TAC Standards.
3.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum gutter line gradients 0.36% for roads and 0.50% for cul-de-sacs.
3.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Maximum gutter line gradients 0.56% for flat arterial (section line) roads and 1.00% for cul-de-sacs.
3.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Change in the cross-fall slope for widened portions of the road not to exceed 2%.
3.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum Catch Basin top grating elevation is +0.84m geodetic.
3.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Driveway width as per latest version of the Driveway Regulation Bylaw.
3.13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Driveway grades not to exceed 8 % from the road edge to the front of the sidewalk and 5% for the landing area from the back of sidewalk to 3 meters into the site. The maximum grade of the remainder of the driveway on the private property may be up to 15% provided that vehicle will not “hang up” or “bottom out” and grade transitions are provided.
3.14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All new and existing driveways shown on drawings.
3.15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Elevations of proposed and existing works shown on drawing.
3.16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Grades of the road centre lines at the intersections are designed in accordance with the road classification. Road surface cross-fall between centre lines to be not less than 2 % for proper drainage.
3.17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pedestrian, bicycle, transit and vehicular concerns are addressed at the intersection.
3.18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Curb Return Radii conform to TAC and City Design Specifications.
3.19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The minimum road structure for any road classification should be in accordance with standard cross-sections or greater if determined by testing.
3.20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Overlay thickness for the existing pavement should be based on the approved method of deflection test carried out on the existing road to be upgraded.
3.21	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All joints between existing and new asphalt surfaces shall be lap joints.
3.22	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Road cross-sections to include ground lines on both sides of PL. Drainage problems on private property created by the road design to be addressed.
3.23	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Road Embankment/Retaining wall requirements determined and all related legal/encroachment issues resolved. Retaining wall cross-section to be included on the drawing.
3.24	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Where a barrier curb is specified it should be the wide base barrier curb.
3.25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sidewalk cross-fall grade should not be less than 2% and not more than 4%. Finished sidewalk back elevations should be shown at 10 m intervals (Existing road upgrades) and 15m intervals (New roads); and at low and high points.
3.26	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All new and existing utility issues addressed and resolved. Off-sets from property line are shown for each utility.
3.27	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum and maximum flares/tapers conform to City Design Specifications and shown on drawings.

	Yes	No	N/A	
3.28	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pavement restoration shown on drawings per the Roadway Restoration Regulation Bylaw No. 7869, G-5-SD, and any other applicable specifications.
3.29	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Table included on the drawing summarizing the road classification of each road and whether bylaw 7869 applies.
3.30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Road names and addresses shown for context.
3.31	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cross-sections provided for all roads where there are proposed works, and all relevant features shown such as existing and proposed below-ground utilities, Hydro poles, street lights, fire hydrants, etc.
3.32	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Walkways to be designed in accordance with City requirements. Walkway drainage to be provided.
3.33	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All pertinent Right of Ways clear of permanent structures & foundations and shown on drawings.
3.34	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Railway Crossing issues resolved and appropriate permits received.
3.35	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If a non-standard detail is referred to in the design, the detail is included on the drawing.
3.36	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Benkleman Beam testing completed.
3.37	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reflectorized No-post Barricades at road and lane ends shown on drawings.
3.38	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Full and even 10 metre stationing and 0+00 shown on drawings.
3.39	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If non-standards drawing detail is referred to in the design, the detail should be included on the drawing.

4. Drainage System

	Yes	No	N/A	
4.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Latest General Notes are included.
4.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Storm Water Management Plan including City approved ultimate catchment (approved prior to 1 st submission) for the proposed works, upstream catchments where necessary and downstream connections to the existing system should be provided. Manholes must be numbered and pipe sizes indicated on plans.
4.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Runoff Analysis to be based on the latest Design Criteria parameters.
4.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hydrology & Hydraulic Design calculations to latest City Design criteria submitted and shown on drawings.
4.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	As per Item 4.3 above, impacts to existing drainage systems should be resolved. The capacity of the existing system downstream of the connection point should be verified based on the existing flows increase.
4.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location of Storm Sewers proposed with consideration for future upgrades and the servicing requirements of future upstream and downstream developments.
4.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum Grades and Pipe Sizes for storm sewer mains and storm sewer connections must conform to the City Specifications.
4.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum Depth of Cover maintained.
4.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manhole size, rim elevations, inverts and spacing conforms to the City requirements.
4.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Erosion and Sediment Control provided.
4.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Catch basin spacing, minimum top grating elevations, lead sizing in accordance with City requirements.
4.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tie-ins to existing/future storm systems shown on the drawings.
4.13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vertical and horizontal clearances as per engineering design specifications.
4.14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All proposed mains and service connections given a profile. All existing and proposed utility crossings shown on the profile.

	Yes	No	N/A	
4.15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lane Drainage tie-ins to existing storm systems are via a manhole.
4.16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inspection Chambers located within the City ROW. Finished top lid elevations to be shown on the drawing and stub to the property provided. Existing storm sewer connections relocated to the property line where necessary complete with the adjustment of the lid elevation and provision of the stub. Negative drainage impact on the adjacent lots resolved.
4.17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Surcharged sewers avoided as per City Design Specifications. If it is not practical to avoid surcharged conditions, Design Storm HGL shall be shown on the profile. The HGL starting point shall be crown of the nearest major conveyance system unless the development is within the 'Flood Plain Exemption Boundary' where the starting HGL shall be 0.90 metres.
4.18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Minimum floor elevations shown on the drawings for each proposed building. Minimum floor elevations to comply with the Flood Plain Designation and Protection Bylaw No. 8204 and the requirements specified in the development's associated rezoning/development permit(s)/building permit(s)/etc.
4.19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inlet and outlet structures provided where necessary. Inlet structures completed with safety grillage or trash screen.
4.20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All items given a chainage referenced to the road centreline.
4.21	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All crossings of proposed and existing utilities indicated on plan view, and shown on the profile.
4.22	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All existing storm systems capped with manufactured cap at the extents of the development's external works and plugged at the existing main by trenchless method if available. All to be shown on the drawings.
4.23	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connection of proposed works to existing City infrastructure shown as "by City crews at Developer's cost".
4.24	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dead/future ends of pipes include approved cleanout inspection chamber/manhole.

5. Sanitary Sewers

	Yes	No	N/A	
5.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sizing calculations for all proposed sanitary sewers and sanitary connections included in the drawing set, complete with catchment plan and the City's approved catchment boundary.
5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All proposed mains and connections meet the hydraulic requirements in the City's specifications.
5.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location of Sanitary Sewers proposed with consideration for future upgrades and the servicing requirements of future upstream and downstream developments. Where possible, rear-yard service has been moved to the roadway.
5.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All proposed mains and service connections given a profile. All existing and proposed utility crossings shown on the profile.
5.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Service connections designed to minimum grades as per MMCD specifications.
5.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Manhole requirements & spacing per the City's Engineering Design Specifications.
5.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pumping Station locations approved by the General Manager.
5.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All existing sanitary systems capped with manufactured cap to the extents of the development's external works and plugged at the existing main by trenchless method if available. All to be shown on the drawings.
5.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All items given a chainage referenced to the road centreline or, for sanitary sewers in rear-yard rights-of-ways, to the centreline of the main.
5.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vertical and horizontal clearances as per engineering design specifications.

	Yes	No	N/A	
5.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All crossings of proposed and existing utilities indicated on plan view, and shown on the profile.
5.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dead/future ends of pipes include approved cleanout inspection chamber/manhole.
5.13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connection of proposed works to existing City infrastructure shown as "by City crews at Developer's cost".

6. Water Distribution System

	Yes	No	N/A	
6.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location and alignment of mains proposed with consideration for future upgrades and the servicing requirements of future upstream and downstream developments.
6.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Joint restraint table included.
6.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All Hydrants and Line Valves (spacing etc.) as per the engineering design specifications and shown on drawing.
6.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	One service connection provided for each lot, sizes as per the Engineering Design Specifications.
6.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All proposed mains and service connections given a profile. All existing and proposed utility crossings shown on the profile.
6.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Street end/cul-de-sac mains provided with a blow off at the dead-end.
6.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRV location approved by the General Manager.
6.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Corrosion protection.
6.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Connection of proposed works to existing City infrastructure shown as "by City crews at Developer's cost".
6.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Anticipated consumption and fire demand per Fire Underwriter Survey calculations and 2041 OCP available fire flow as provided by the City shown on drawings.
6.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All existing water services disconnected at the existing main and shown on the drawings.
6.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All items given a chainage referenced to the road centreline.
6.13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vertical and horizontal clearances as per engineering design specifications.
6.14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All crossings of proposed and existing utilities indicated on plan view, and shown on the profile.
6.15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Requirement for approved joint wrapping denoted on drawings when minimum pipe separation from other utilities not achieved.
6.16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water Meters required for all water connections and denoted on drawings.
6.17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rights of ways provided for water meters located onsite.
6.18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Microbiological analysis required for all new watermains and denoted on drawings.
6.19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'Never Seize' required on all nuts and bolts and denoted on drawings.

7. Roadway Lighting

	Yes	No	N/A	
7.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roadway Lighting type consistent with surrounding area.
7.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Approved service entrance received from Utility Company and shown on drawing with voltage data.
7.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Utility Company roadway lighting.
7.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Existing, proposed & future roadway lighting shown on drawings (Stationing to coincide with roads design)
7.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Existing, proposed & future Traffic Signal Lighting shown.

	Yes	No	N/A	
7.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Design Criteria Table.
7.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special considerations for illumination levels.
7.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Required data submitted for approval.
7.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Voltage drop (City may also require calculations).
7.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roadway lighting standards and luminaire types.
7.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Locating existing, proposed and future poles, services, junction boxes, etc.
7.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Roadway lighting conduits and offsets.
7.13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Communication conduits and offsets.
7.14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Finish grade for roadway lighting bases
7.15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Conductor symbols, numbers, sizes and types shown on drawing.
7.16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Service connection note shown per new/existing.
7.17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Conflicts with overhead utility lines resolved.
7.18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Special features (trees, pole receptacles, banner hangers, flower basket hangers, irrigation etc.) required.
7.19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Existing roadway lighting drawing numbers shown
7.20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Applicable general notes and details

8. Street Trees and Landscaping

	Yes	No	N/A	
8.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Landscape SA drawings signed and sealed by a registered BCSLA Landscape Architect or at the discretion of the City Parks Department.
8.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Site Survey as per the City of Richmond Survey and Site Plan Guidelines: http://www.richmond.ca/__shared/assets/devapps_016105.pdf
8.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Arbourist Report and Tree Retention Plan as per the City of Richmond Arborist Report Bulletin, Tree Permit Section: http://www.richmond.ca/__shared/assets/tree_0418164.pdf
8.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Materials Plan at a scale of 1:200 minimum. The materials plan must clearly illustrate the locations of all paving, hardscape, site furnishings, and lighting (if applicable) and include a legend indicating the sizes / thicknesses, finishes, colours, and suppliers of all materials and furnishings. Civil and Electrical drawings to be shown on Materials and Layout plans (even if greyed out in the background). Landscape drawings to be fully co-ordinated with Civil and Electrical drawings and ensure there are no conflicts between utilities and landscape features. Materials and Layout plans to also clearly identify property lines, SRW's and extent of parkade slab under landscape (if applicable).
8.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Layout Plan at a scale of 1:200 minimum. The layout plan must include all critical dimensions required to accurately locate all pathways, trees, furnishings, and other major landscape features.
8.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Grading Plan at a scale of 1:200 minimum. The grading plan to include:</p> <ul style="list-style-type: none"> a) Grade markers indicating the existing grade at the base of all retained trees; b) Grade markers indicating the proposed top and bottom of walls; c) Grade markers indicating the proposed top and bottom of stairs; d) Grade markers and / or contours for land forms - berms / mounds and / or depressions / raingardens / swales; e) Grade markers indicating the finished grades of pathways and / or hard surface areas; f) Grade markers indicating the RIM elevations of catch / lawn basins, and / or area drains;

Yes No N/A

- g) Maximum and minimum slopes of all pathways and planted areas; and
- h) Existing spot elevations at extents of work.

8.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Planting Plan at a scale of 1:100 minimum. The planting plan must clearly illustrate the location of all trees and plant material and include a plant list. Plant list to include the botanical name, common name, size, and spacing of all trees and plants. For (hydro)seeded areas, seed mix and supplier to be specified on drawings. Trees to be 7cm caliper minimum. Minimum soil depths to be clearly indicated on drawings as follows: Trees – 800mm; Shrubs, Perennials, Ornamental Grasses, and Ferns – 450mm; Groundcover - 300mm; Lawn – 200mm. Note that a continuous 800mm minimum depth trench of growing medium to be provided in planted boulevards containing street trees. Street tree species to be approved by City Arborist. For trees in grates, reference detail P-3-SD in the City of Richmond supplementary specifications and detail drawings.
8.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Irrigation Plan at a scale of 1:200 minimum. Irrigation to be provided in all planted areas. Irrigation details and specifications as per City of Richmond Engineering Department Supplementary Specifications and Detail Drawings – Schedule H (Details IR-C-1 through 5 and IR-S-1 through 3)
8.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sections and / or Elevations at a scale of 1: 100 minimum. Sections and / or elevations to be provided for key landscape features such as stairs, walls, plazas, berms, rain gardens, and / or seating areas. Sections and elevations to be clearly labeled and include dimensions.
8.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Detail drawings to be provided for all paving, hardscape, custom furnishings, typical tree and shrub planting. Reference the City of Richmond supplementary specifications/detail drawings for all standard details. Include details for all custom details and / or any deviations from the supplementary specifications/detail drawings. Provide Cut sheets for all off-the-shelf furnishings and fastening methods to be provided.

9. Private Utilities

Yes No N/A

9.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All existing private utility appurtenances/ducting shown on x-section drawings.																				
9.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Underground servicing requirements determined from Utility Companies and shown on drawing cross section(s).																				
9.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All Private Utility service locations approved by City and Utility Companies and shown on drawings.																				
9.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All required above-ground Private Utility structures located on the development site in a right-of-way and shown on the key plan.																				
9.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All required below-ground Private Utility structures located outside of sidewalks and bike paths.																				
9.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Right-of-way requirements resolved and arranged for by Consultant.																				
9.7				<table border="0" style="width: 100%;"> <tr> <td style="width: 60%;">BC Hydro permit design drawing:</td> <td style="width: 15%;"><input type="checkbox"/> Attached</td> <td style="width: 15%;"><input type="checkbox"/> Requested</td> <td style="width: 10%;"><input type="checkbox"/> N/A</td> </tr> <tr> <td>Telus permit design drawing:</td> <td><input type="checkbox"/> Attached</td> <td><input type="checkbox"/> Requested</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td>Shaw Cable permit design drawing:</td> <td><input type="checkbox"/> Attached</td> <td><input type="checkbox"/> Requested</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td>Terasen Gas permit design drawing:</td> <td><input type="checkbox"/> Attached</td> <td><input type="checkbox"/> Requested</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td>Other Private Utility design drawing:</td> <td><input type="checkbox"/> Attached</td> <td><input type="checkbox"/> Requested</td> <td><input type="checkbox"/> N/A</td> </tr> </table>	BC Hydro permit design drawing:	<input type="checkbox"/> Attached	<input type="checkbox"/> Requested	<input type="checkbox"/> N/A	Telus permit design drawing:	<input type="checkbox"/> Attached	<input type="checkbox"/> Requested	<input type="checkbox"/> N/A	Shaw Cable permit design drawing:	<input type="checkbox"/> Attached	<input type="checkbox"/> Requested	<input type="checkbox"/> N/A	Terasen Gas permit design drawing:	<input type="checkbox"/> Attached	<input type="checkbox"/> Requested	<input type="checkbox"/> N/A	Other Private Utility design drawing:	<input type="checkbox"/> Attached	<input type="checkbox"/> Requested	<input type="checkbox"/> N/A
BC Hydro permit design drawing:	<input type="checkbox"/> Attached	<input type="checkbox"/> Requested	<input type="checkbox"/> N/A																					
Telus permit design drawing:	<input type="checkbox"/> Attached	<input type="checkbox"/> Requested	<input type="checkbox"/> N/A																					
Shaw Cable permit design drawing:	<input type="checkbox"/> Attached	<input type="checkbox"/> Requested	<input type="checkbox"/> N/A																					
Terasen Gas permit design drawing:	<input type="checkbox"/> Attached	<input type="checkbox"/> Requested	<input type="checkbox"/> N/A																					
Other Private Utility design drawing:	<input type="checkbox"/> Attached	<input type="checkbox"/> Requested	<input type="checkbox"/> N/A																					

10. District Energy Utility

- | | Yes | No | N/A | |
|------|--------------------------|--------------------------|--------------------------|--|
| 10.1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Field Survey Pick-up is included in the drawing submission. |
| 10.2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All Required Right of Ways for DEU corridor clearly shown on the applicable drawings including Key Plan. |
| 10.3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Service connections shown as per existing/proposed. |

If you have answered **No** to any of the items above, complete table below.

NON-CONFORMANCE REPORT

Item #	Explanation of Reason for Non-Conformance

Note: by signing and sealing this document, you are confirming that the submitted drawings conform to the specifications and requirements listed above, and where they do not conform, it has been noted in the appropriate table. Should there be concerns in the confirmations provided above, the City may request proof of the checks being carried out, including who carried out the checks and when. Similarly, should concerns arise in submissions prepared by non-Engineering Professionals, the City may request records to confirm the submissions were prepared under the appropriate direct supervision.

Developer's Name: _____ **Consulting Firm:** _____

Address: _____ **Engineer-of-Record:** _____

Phone No.: _____ **Signature/Seal:** _____