

## **2. SUPPLEMENTARY SPECIFICATIONS**



Victoria Subdivision and Development Servicing Bylaw

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City of Victoria Supplementary Specifications  
 Schedule 'B' to the Subdivision and Development Servicing Bylaw No. 12-042

**2. Supplementary Specifications - Revise the following MMCD Master Municipal Specifications:**

Section	Sub-section	Title	Supplementary Specifications
<b>03 30 20</b> Concrete Walks, Curbs and Gutters	1.4	Measurement and Payment	<p><b>Revise Clause 1.4.6</b> : that payment for driveway crossings including granular base as shown on Standard Detail Drawing SD C7c and the City of Victoria's Highway access bylaw schedule "B", will be made on a sq. m basis for each specified thickness.</p> <p><b>Add Clause 1.4.10</b> : "Payment for grouted rock infill will be on a sq. m basis and includes 100-200mm rock 75mm mortar between rocks and 150mm compacted granular base material".</p> <p><b>Add Clause 1.4.11</b> : "Payment shall include all works associated with the supply and installation of each curb inlet as shown on the Contract Drawings".</p>
	2.1	Materials	<b>Delete clauses 2.1.5.1 and 2.1.5.2 replace</b> with "City of Victoria Supplementary Specifications Table 1" See page 11 of this section.
	3.5	Concrete Placement	<b>Add to Clause 3.5.9</b> Adjustment to other Public Utility manholes and appurtenances to be undertaken by contractors/subcontractors and approved by the corresponding authority.
	3.9	Expansion Joints	<b>Delete 3.91 to 3.94</b>
	3.11	Isolation Joints	<b>Delete 3.11.2 and 3.11.3</b>
<b>03 30 53</b> Cast in Place Concrete	1.5	Measurement and Payment	<b>Add Clause 1.5.6</b> : "Payment for grouted rock retaining wall will be based on the sq. m of finished wall face including buried portions. Payment includes all work and incidentals, but excludes excavation and backfilling which will be paid under items in Section 31 22 01."
	2.1	Materials	<b>Add to Clause 2.1.9</b> "not to be used except at the descretion of the City's Director of Engineering"
<b>31 11 41</b> Shrub and Tree Preservation	2.1	Materials	<b>Delete clause 2.1.9</b>
	3.1	Existing Trees	<p><b>Add clause 3.1.1.1</b> "Tree Protection Fencing (referred to as 'barricade' in 3.1.1) is to be constructed and installed to MMCD Supplemental Drawing P1. Tree Protection Fencing is to be constructed and inspected by the Contract Administrator prior to project commencing."</p> <p><b>Add clause 3.1.1.2</b> " When working around City trees refer to MMCD Supplemental P2 - 'Guidelines for Working Around City Trees'.</p>
	3.3	Lowering Grade Around Existing Trees	<p><b>Delete Clause 3.3.2</b> "If excavation through roots is required, excavate by hand and cut roots with sharp axe, tree looper or saw. Seal cut edges 10mm in diameter and larger with wound dressing."</p> <p><b>replace with clause 3.3.2</b> : "If excavation through roots is required, excavate by hand or Hydro-vac (at low pressure as not to remove bark from roots). Roots less than 50mm in diameter are to be clean cut with loppers or saw. When roots encountered are greater than 50mm, Contractor is to contact Contract Administrator or designate (i.e.: Project Arborist).</p>
	3.4	Pruning	<p><b>Delete clause 3.4.1</b> "Selectively remove 1/3 of tree branches to reduce transpiration and compensate for dieback of roots in fill conditions and damage to root system in cut conditions."</p> <p><b>replace with clause 3.4.1</b> "Pruning of City trees is to done by an ISA Certified Arborist, with the permission of the Contract Administrator."</p>
<b>31 22 01</b> Site Grading	3.2	Grading	<b>Add clause 3.2.4.1</b> "Remove and dispose to approved off-site disposal area of perennial weeds and invasive plants. Examples of such plants, but not limited to, are Equisetum spp. (Horsetail), Convolvulus spp.(Morning Glory), Agropyin repens (Couch Grass), Fallopia spp. (Knotweed), Rubus discolor (Himalayan blackberry), Hedera helix (English Ivy), and all other noxious weeds or invasive plants that are known to the site. Refer to Province of BC Weed Management Guide.

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Section	Sub-section	Title	Supplementary Specifications
<b>31 23 01</b> Excavating, Trenching and Backfilling	1.1	Measurement and Payment	<b>Add Clause 1.10.9</b> : "Payment for removal of abandoned streetcar tracks will be paid on a linear metre basis per (single) rail".
	3.1	Site Preparation	<b>Add Clause 3.1.5</b> : "One (1) week prior to commencing work, the Contractor shall obtain an underground utility check".
	3.3	Excavation	<b>Add clause 3.3.1.6.1</b> "Comply with Section 31 11 41 Shrub and Tree Preservation and Supplements."
<b>31 23 17</b> Rock Removal	1.5	Blasting Operation Proposal	<b>Delete Clause 1.5.1</b> : "Submit to Contract Administer for approval, written proposal of operations for removal of rock by blasting." <b>replace with</b> Contractor to comply with the City of Victoria Blasting (Construction) Operations Bylaw. Contractor to submit a blasting permit application to the City of Victoria, and receive approval prior to blasting.
			<b>Add Clause 1.5.4</b> : When working in other Municipalities approvals and/or permits will need to be obtained from the appropriate municipality prior to blasting.
<b>31 24 13</b> Roadway Excavation, Embankment & Compaction	1.8	Measurement and Payment	<b>Append to Clause 1.8.4</b> : Payment for removal of concrete and asphalt as separate operations will be based on weigh tickets provided to Contract Administrator.
<b>32 31 13</b> Chain Link fences and Gates	2.1	Materials	<b>Delete clause 2.1.4.1</b> : "Top and brace rails: 42mm nominal outside diameter, wall thickness 3.55mm" <b>replace with 2.1.4.1</b> : "Top and brace rails: 25mm nominal outside diameter, wall thickness 3.55mm"
			<b>Delete clause 2.1.4.2</b> : "End and corner posts: 75mm nominal outside diameter, wall thickness 5.15mm" <b>replace with 2.1.4.2</b> : "End and corner posts: 50mm nominal outside diameter, wall thickness 5.15mm"
			<b>Delete clause 2.1.4.3</b> "Line posts: 60mm nominal outside diameter, wall thickness 3.9mm" <b>replace with 2.1.4.3</b> : "Line posts: 50mm nominal outside diameter, wall thickness 3.9mm"
			<b>Delete clause 2.1.4.4</b> "Gate Posts: 89mm minimum nominal outside diameter or as specified." <b>replace with 2.1.4.4</b> : "Gate Posts: 50mm minimum nominal outside diameter or as specified."
			<b>Delete clause 2.1.10</b> "Fittings and hardware: cast aluminium alloy, galvanized steel or malleable or ductile iron. Post caps to provide waterproof fit, to fasten securely over posts and to carry top rail. Overhang tops to provide waterproof fit, to hold top rails and an outward or inward projection, as shown on Contract drawings, to hold barbed wire overhang. Provide projection with clips or recesses to hold 3 strands of barbed wire spaced 100mm apart. Projection of approximately 300mm long to project from fence at 45 degrees above horizontal. Turnbuckles to be drop forged. <b>replace with 2.1.10</b> : "Fittings and hardware: cast aluminium alloy, galvanized steel or malleable or ductile iron. Post caps to provide waterproof fit, to fasten securely over posts and to carry top rail. Turnbuckles to be drop forged."

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**2. Supplementary Specifications - Revise the following MMCD Master Municipal Specifications:**

Section	Sub-section	Title	Supplementary Specifications
<b>32 31 13</b> Chain Link fences and Gates Continued	2.1	Materials	<b>Delete clause 2.1.12</b> "Barbed wire: 2mm diameter galvanized steel wire to ASTM A121 or aluminium coated steel wire to ASTM A585, 4 point barbs 125mm spacing." <b>replace with 2.1.12:</b> "Barbed wire not permitted on City of Victoria property."
			<b>Delete clause 3.2.3:</b> "Space line posts maximum 3m apart, measured parallel to ground surface." <b>replace with 3.2.3:</b> "Space line posts equally or to Contract Drawings to a maximum 3m apart, measured parallel to ground surface."
			<b>Delete clause 3.2.8:</b> "Place concrete in post holes then embed posts into concrete to depths shown on Standard Detail Drawing C13. Extend concrete 40mm above ground level and slope to drain away from posts. Brace to hold posts in plumb position and true to alignment and elevation until concrete has set." <b>replace with 3.2.8:</b> " Brace to hold posts in plumb position and true to alignment and elevation to depths shown on Standard Detail Drawing C13. Pour concrete around posts and finish concrete to 100mm below grade. Retain braces until concrete has set."
			<b>Delete clause 3.2.13</b>
			<b>Re- number 3.2.14 to 3.2.13</b>
			<b>Re-number 3.2.15 to 3.2.14</b>
	3.0	Execution	<b>Add clause 3.2.15 :</b> "Install bottom tension wire, loop tension wire around end, corner, gate and straining posts and fasten with cable clamp. Align bottom wire above second knuckle from bottom of fabric. Wire is to be threaded through knuckles. Wire is then to be looped around terminal post and stretched back in direction of originating post. Cable clamp to be attached and tightened, excess wire cut allowing a 150mm pigtail to be bent 180 degrees towards terminal post." <b>Delete clause 3.2.16</b>

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**2. Supplementary Specifications -** Revise the following MMCD Master Municipal Specifications:

Section	Sub-section	Title	Supplementary Specifications
<b>32 91 21</b> Topsoil and Finish Grading	<b>2.10</b>	Growing Medium	<b>Delete</b> Table 2 page 6 of 8 replace with revised Table 2

**TABLE 2: Properties of Growing Medium for Different Applications**

Properties		Low Traffic Lawn Areas, Trees and Large Shrubs	High Traffic Lawn Areas	Planting Areas, Planters, Shrub and Groundcover Areas.
<b>TEXTURE:</b>	Particle size classes by Canadian System of Soil Classification	<b>Percent of Dry Weight of Total Growing Medium (%)</b>		
Coarse Gravel	larger than 19 mm smaller than 40 mm	0 - 1	0 - 1	0 - 1
All Gravel	greater than 2 mm less than 75 mm	0 - 5	0 - 5	0 - 5
		<b>Percent of Dry Weight of Growing Medium Excluding Gravel</b>		
Sand	greater than 0.05mm less than 2 mm	50 - 80	70 - 90	40 - 80
Silt	greater than 0.002 mm less than 0.05 mm	10 - 25	0 - 15	10 - 25
Clay	less than 0.002 mm	0 - 25	0 - 15	0 - 25
Clay and Silt Combined		Maximum 35	Maximum 15	Maximum 35
<b>ACIDITY (pH):</b>		6.0 - 7.0	6.0 - 7.0	4.5 - 6.5
<b>DRAINAGE:</b>	Minimum saturated hydraulic conductivity (cm/hr) in place	2.0	7.0	2.0
<b>ORGANIC CONTENT:</b>	Percent of Dry Weight (%)	3 - 10	3 - 5	10 - 20

<b>32 91 21</b> Topsoil and Finish Grading	1.4	Measurement and Payment	See Schedule C of the City of Victoria Subdivision Bylaw and the Contract Drawings for additional City of Victoria requirements.
			<b>Revise Clause 1.4.1 to state:</b> that Payment for topsoil will be by actual area provided based on Parks Supplemental drawings, rather than loose truck box volume.
<b>32 92 20</b> Seeding	3.1	Finish Grade Preparation	<b>Add clause 3.1.2.1:</b> For finish grade refer to Supplemental Drawing P3.
	3.6	Grass Maintenance	<b>Add clause 3.6.4.1:</b> No pesticides to be used. Refer to City of Victoria Pesticide Use Reduction Bylaw 07-094

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**2. Supplementary Specifications - Revise the following MMCD Master Municipal Specifications:**

Section	Sub-section	Title	Supplementary Specifications
32 92 20 Seeding cont.	3.8	Guarantee / Maintenance	<b>Delete clause 3.8.1:</b> "Customary one year guarantee period for construction industry will apply as standard for landscape work. Contractor to guarantee all materials and workmanship for a period of one year from date of Total Performance, unless specified otherwise in Contract Documents." <b>replace with 3.8.1:</b> "Thirty day guarantee period will apply as standard for sod. Contractor to guarantee all materials and workmanship for a period of thirty days from date of Total Performance, unless specified otherwise in Contract Documents."
	3.8	Guarantee / Maintenance	<b>Delete clause 3.8.2:</b> "Guarantee includes replacing all sodded areas determined by Contract Administrator to be dead or failing at end of guarantee period. Replacements to be made at next appropriate season, and conditions of guarantee will apply to all replacement seeding for one full growing season." <b>replace with 3.8.2:</b> "Guarantee includes reseeding all areas determined by Contract Administrator to be dead or failing at end of guarantee period. Reseeding to be made within ten days upon notification to Contractor by Contract Administrator, and conditions of guarantee will apply to all reseeding for thirty days."
32 92 23 Sodding	2.1	Sod	<b>Add clause 2.1.1.1:</b> Sod to have no reinforcing mesh for all areas.
	3.1	Finish Grade Preparation	<b>Add clause 3.1.2.1:</b> For finish grade refer to Supplemental Drawing P3.
	3.4	Grass Maintenance	<b>Add clause 3.4.4.1:</b> No pesticides to be used. Refer to City of Victoria Pesticide Use Reduction Bylaw 07-094
	3.6	Guarantee / Maintenance	<b>Delete clause 3.6.1:</b> "Customary one year guarantee period for construction industry will apply as standard for landscape work. Contractor to guarantee all materials and workmanship for a period of one year from date of Total Performance, unless specified otherwise in Contract Documents." <b>replace with 3.6.1:</b> "Thirty day guarantee period will apply as standard for sod. Contractor to guarantee all materials and workmanship for a period of thirty days from date of Total Performance, unless specified otherwise in Contract Documents." <b>Delete clause 3.6.2:</b> "Guarantee includes replacing all sodded areas determined by Contract Administrator to be dead or failing at end of guarantee period. Replacements to be made at next appropriate season, and conditions of guarantee will apply to all replacement seeding for one full growing season." <b>replace with 3.6.2:</b> "Guarantee includes replacing all sodded areas determined by Contract Administrator to be dead or failing at end of guarantee period. Replacements to be made within ten days upon notification to Contractor by Contract Administrator, and conditions of guarantee will apply to all replacement sod for thirty days."
32 93 01 Planting of Trees, Shrubs and Ground Covers	2.1	Plant Material	<b>Delete clause 2.1.2.9:</b> " Trees to have straight stems (unless this is uncharacteristic) and to be well and characteristically branched for species or variety." <b>replace with:</b> "Trees to have one dominant central leader or single straight trunk, caliper measured 15cm above ground, 5-8cm diameter (or contract specified), well balanced crowns, branching starting at 1.8m-2.5m above ground." <b>Delete clause 2.1.2.12</b> "All trees and plants to be inspected by Contract Administrator upon delivery to site." <b>replace with:</b> "All trees and plants to be inspected at the nursery and upon delivery to site by the Contract Administrator or designate."
			2.5
	2.6 - 2.12		<b>Delete sub sections 2.6 -2.12 replace with 2.6 - 2.8</b>

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**2. Supplementary Specifications - Revise the following MMCD Master Municipal Specifications:**

Section	Sub-section	Title	Supplementary Specifications
<b>32 93 01</b> Planting of Trees, Shrubs and Ground Covers Continued	New 2.6	Tree Tie	<b>Add clause 2.6.1</b> : "Tree tie to be 40mm wide nylon webbing ( or substitute approved by Contract Administrator)"
	New 2.7	Root barrier	<b>Add clause 2.7.1</b> : "Root barrier to be a Deep Root product or a similar, industry recognized, root control product at a minimum 450mm in height"
	New 2.8	Tree grates	<b>Add clause 2.8.1</b> : "Tree grates are to be Dobney Foundry SP48 Tree grates, or similar subject to the approval of the Contract Administrator".
	3.1	Pre-planting Operations	<b>Delete clause 3.1.3</b>
	3.3	Planting	<b>Delete clause 3.3.6.5</b> : "Upon completion of boulevard, rake planting soil to remove any debris brought to surface by planting operations. After raking mulch planting area with 75mm of bark mulch placed in even layers over soil surface." <b>replace with</b> : "Upon completion of boulevard, rake planting soil to remove any debris brought to surface by planting operations. After raking mulch planting area with 100mm of bark mulch placed in even layers over soil surface."
	3.4	Tree Support	<b>Delete clause 3.4.2</b> :"Install all stakes, clamps, anchors, collars, tighteners and guying wire such that no damage is done to tree." <b>replace with</b> :" Refer to Supplemental Drawing <b>P4</b> - Tree Planting in Boulevard or Supplemental Drawing <b>P5</b> - Tree Planting in Hardscape."
	3.6	Pruning	<b>Delete clause 3.6.6</b>
	3.7	Mulching	<b>Delete clause 3.7.2</b> :"Ensure minimum depth of bark mulch 50mm after settlement." <b>replace with</b> : "Ensure minimum depth of bark mulch 100mm after settlement."
	3.9	Maintenance	<b>Delete clause 3.9.5</b> :"Apply pesticides in accordance with Federal, Provincial and Municipal regulations as and when required to control insects, fungus and disease. Advise the Contract Administrator of products proposed for use prior to application." <b>replace with</b> : "No pesticides to be used. Refer to City of Victoria Pesticide Use Reduction Bylaw 07-094."
	3.11	Guarantee/ Maintenance	<b>Delete clause 3.11.2</b> : " Guarantee includes replacing all plants determined by Contract administrator to be dead or failing at end of guarantee period. Replacements to be made at next appropriate season, and conditions of guarantee will apply to all replacement plants for one full growing season." <b>replace with 3.11.2</b> :" Guarantee includes replacing all plants determined by Contract administrator to be dead or failing at end of guarantee period. Replacements to be made within thirty days, and conditions of guarantee will apply to all replacement plants for one full growing season."



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Section	Sub-section	Title	Supplementary Specifications
33 01 30 CCTV Pipeline Inspection	1.2	References	<p><b>Delete clause 1.2.2.1</b>"Water Research Centre (WRc) publication MSCC Manual of sewer Condition Classification, Third Edition, 1993 including Addendum February 1996"</p> <p><b>Add clause</b> "NASSCO (National Association of Sewer Service Companies) PACP (Pipeline Assessment Certification Program) and MACP ( Manhole Assessment Certification Program)"</p> <p><b>Add clause 1.2.2.2</b> Delete any reference to NAAPI and WRc and replace with NASSCO and PACP respectively</p>
	3.3	Site Coding Sheets	<p><b>Delete clause 3.3.2</b> "Standard coding form shown on page 14 of MSCC to be modified as follows:" <b>Delete</b></p> <p><b>clause 3.3.2.1, 3.3.2.2 and 3.3.2.3</b> entirely</p>
	3.8	Inspection Reporting Hard Copies & Digital Format	<p><b>Delete clause 3.8.5</b> " Digital information to be presented in format approved by Contract Administrator"</p> <p><b>Add Clause</b> "Digital information to be in Granite XP format"</p>
33 05 24 Cured in Place Pipe Liners	3.4	Verify Existing Sewer Dimensions	<p><b>Add Clause 3.4.2</b> : " Measure the pipe diameter in each manhole to confirm exact dimensions"</p>
	3.5	Preparation	<p><b>Add to Clause 3.5.6</b>: "Information notices to be pre-approved by the Contract Administrator and are to include the Contractors 24 hour contact information."</p>
			<p><b>Add Clause 3.5.7</b>: "Submit schedule of expected service disruptions to Contract Administrator 72 hours in advance and include a description of how the disruptions will be handled."</p> <p><b>Add Clause 3.5.8</b> : "Notify the Contract Administrator in writing of any repairs or alterations required to be done by the City prior to lining."</p>
33 11 01 Waterworks	1.4	Material Certification	<p><b>Add Clause 1.4.3</b> : "All products must be as per the pre-approved City of Victoria Products List. If not on the City of Victoria Pre-Approved List, products must be pre-approved in writing by the City of Victoria."</p>
	1.8	Measurement and Payment	<p><b>Add to Clause 1.8.4</b> : " Owner to provide water meters at no cost to the Contractor".</p>
			<p><b>Add to Clause 1.8.10</b> : "If the Contractor is required to repair a sanitary sewer or storm drain lateral or main in the Township of Esquimalt the contractor shall excavate into trench wall as required to find sound pipe ends that may be trimmed for the repair and a minimum of 300mm soil bearing. The pipe repair shall be to MMCD standards and a representative from the Township of Esquimalt Engineering Department must inspect repair prior to backfilling."</p>
	2.2	Mainline Pipe, Joints and fittings	<p><b>Add Clause 2.2.1.1</b> : "Ductile iron pipe to be pressure class 350."</p> <p><b>Add Clause 2.2.1.2</b> : "PVC pipe to be Pressure Class 200 (DR14)."</p>
	2.3	Valves and Valve Boxes	<p><b>Delete Clause 2.3.1.1</b>: "Valves to open counter-clockwise" <b>replace with</b>: "Valves to open clock-wise"</p>
			<p><b>Delete Clause 2.3.2.6</b>: "Valves to be complete with 50mm square operating nut for underground service." <b>replace with</b>: "Valves to be complete with 32mm square operating nut for underground service."</p>
2.5	Service Connections, Joints and Fittings.	<p><b>Delete Clause 2.5.1</b>: "Pipe diameter 19 mm to 75 mm to be Polyethylene to AWWA C901, Pressure Class 160 Tubing certified to CSA B137.1 or Type K annealed copper, to ASTM B88M." <b>replace with</b>: "Pipe diameter 19 mm to 50 mm to be Type K annealed copper, to ASTM B88M, for pipes greater than 50mm in diameter use ductile iron pipe."</p>	

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Section	Sub-section	Title	Supplementary Specifications
33 11 01 Waterworks cont.	2.6	Hydrants	<b>Delete Clause 2.6.1.1:</b> "Shut-Off: compression type or slide gate as per supplementary specifications or contract documents."
			<b>Delete Clause 2.6.1.1:</b> "Shut-Off: compression type or slide gate as per supplementary specifications or contract documents."
			<b>Delete Clause 2.6.1.2:</b> "Inlet Connection: to be 150 mm nominal diameter, bell type with harness lugs." <b>replace with:</b> "Inlet Connection: to be 150 mm or 200mm Inside Diameter pipe, as specified, bell type with harness lugs."
			<b>Delete Clause 2.6.1.6.2:</b> "Pump nozzle to be 117.475 mm outside diameter and 6 threads per 25.4 mm." <b>replace with:</b> "Pump nozzle to be 100mm Storz type painted black."
			<b>Delete Clause 2.6.1.8:</b> "Opening Direction: counter-clockwise." <b>and replace with:</b> "Opening Direction: clockwise."
			<b>Delete Clause 2.6.1.9:</b> "Operating Nut and Cap Nuts: to B.C. Standard for fire Hydrants. Pentagonal 1 1/2" point flat." <b>replace with:</b> "Operating Nut and Cap Nuts: to B.C. Standard for fire Hydrants. Pentagonal 44.45mm (1 3/4") diameter circumscribed circle."
33 11 01 Waterworks Cont.	2.6	Hydrants	<b>Add Clause 2.6.4:</b> "All inlet joints shall conform to AWWA C111. All joints shall fit Class 350 ductile Iron. The inlet joint may be a push-on joint "TYTON", but preference shall be given to mechanical joints. There is no requirement for nuts, bolts, ring or rubbers for M.J. connection provided. For push-on joints two lugs for 19mm tie rods shall be provided on the horizontal centerline of the inlet connection."
			<b>Add Clause 2.6.5:</b> "Use of chains is not required on port caps."
			<b>Add Clause 2.6.7:</b> "Depth of bury shall be 1.0m."
			<b>Add Clause 2.6.8:</b> "Hydrants shall have automatic draining system."
	<b>NEW</b> 3.24	Decommission water main	After the new water main is connected to the distribution system and water services are connected to the new water main the old water main requires shall be decommissioned. The Contractor will place concrete at all open pipe ends and crimp copper pipe so soil or water can not enter the abandoned pipes. The Contractor will salvage existing fire hydrants and valve castings without damaging them and return them to the City of Victoria Public Works Yard.
	<b>NEW</b> 3.25	Bill of Materials	The City of Victoria requires the brand names of valves, hydrants, air release valves, ball valves, etc used on the project to be entered into the GIS maintenance program. The Contractor is to provide an electronic copy to the Contract Administrator. Cost of materials does not need to be included on the bill.
33 30 01 Sanitary Sewers	2.1	Concrete Pipe	<b>Delete Clause 2.1.1:</b> "Non-reinforced circular concrete pipe and fittings: to ASTM C14M maximum diameter 900mm, strength class as shown on Contract Drawings, designed for flexible rubber gasket joints to ASTM C443M." <b>replace with</b> "Non-reinforced circular pipe shall not be used in the City of Victoria".
			<b>Delete Clause 2.1.2:</b> "Reinforced circular concrete pipe and fittings: to ASTM C76M all pipe greater than 900mm diameter, strength class as shown on Contract Drawings, designed for flexible rubber gasket joints to ASTM C443M." <b>replace with:</b> "Reinforced circular concrete pipe and fittings: to ASTM C76M all pipe greater than 375mm diameter, strength class as shown on Contract Drawings, designed for flexible rubber gasket joints to ASTM C443M."
	3.8	Connections to Existing Mainline	<b>Add Clause 3.8.4</b> "For Connections to Brick Main as shown on Contract Drawings and specified by Contract Administrator."

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Section	Sub-section	Title	Supplementary Specifications
33 30 01 Sanitary Sewers cont.	3.12	Leakage Testing- General	<p><b>Delete Clause 3.12.1</b> "Upon completion of cleaning and flushing of each section, carry out leakage testing as specified in Supplementary Specifications. Specified tests may include one or more of the following:</p> <ol style="list-style-type: none"> <li>1. Exfiltration test - using water</li> <li>2. Low Pressure air test</li> <li>3. Infiltration test</li> <li>4. Rubber Ball test, lamp test, mandrel test.</li> <li>5. Individual joint test. "</li> </ol> <p><b>replace with</b> "Upon completion of cleaning and flushing of each section, carry out leakage testing on sanitary main and service connections as outlined in <b>Section 33 30 01 3.14 Low Pressure Air Test</b>. Manholes to be tested as outlined in <b>Section 33 30 01 3.13 Water Exfiltration Test</b>. "</p>
	3.18	Video Inspection	<b>Add Clause 3.18.1.1:</b> "All Video Inspections must be PACP compliant."
33 40 01 Storm Sewers	2.1	Concrete Pipe	<p><b>Delete Clause 2.1.1:</b> "Non-reinforced circular concrete pipe and fittings: to ASTM C14M maximum diameter 900mm, strength class as shown on Contract Drawings, designed for flexible rubber gasket joints to ASTM C443M."  <b>replace with:</b> "Non-reinforced circular pipe shall not be used in the City of Victoria."</p> <p><b>Delete Clause 2.1.2:</b> "Reinforced circular concrete pipe and fittings: to ASTM C76M all pipe greater than 900mm diameter, strength class as shown on Contract Drawings, designed for flexible rubber gasket joints to ASTM C443M."  <b>replace with:</b> "Reinforced circular concrete pipe and fittings: to ASTM C76M all pipe greater than 375mm diameter, strength class as shown on Contract Drawings, designed for flexible rubber gasket joints to ASTM C443M."</p>
			3.8
	3.10	Service Connection Installation	<p><b>Delete Clause 3.10.1:</b> "Install service connections to 3.6 and as shown on Standard Detail Drawing S8."  <b>replace with:</b>"Install service connection to 3.6 and as shown on Standard Detail Drawing S7"</p> <p><b>Delete Clause 3.10.2:</b> "Install 40 X 90 mm marker stake at service terminus. Paint and mark as shown on Standard Detail Drawing S8. <b>replace with:</b> "Install 40 X 90 mm marker stake at service terminus. Paint and mark as shown on Standard Detail Drawing S7. Use green paint for storm drain connections.</p>
			<p><b>Delete Clause 3.10.3:</b> "Where specified, install inspection chamber at specified location, set plumb and to specified elevation as shown on the Standard Detail Drawing S7 or Drawing S10 as applicable. If inspection chamber located in driveway, lane or paved surface install cover or lid as shown on Standard Drawing S9 or Drawing S10 as applicable.  <b>replace with:</b> "Install inspection chamber at specified location, set plumb and to the specified elevation. If inspection chamber located in driveway, lane or paved surface install cover or lid as shown on Standard Detail Drawing S9</p> <p><b>Delete Clause 3.10.4:</b> "Saw cut adjacent curb on alignment of service connection and paint green."</p>
3.12	Video Inspection.	<b>Add Clause 3.12.1.1:</b> "All Video Inspections must be PACP compliant."	

City of Victoria Supplementary Specifications  
 Schedule 'B' to the Subdivision and Development Servicing Bylaw No. 12-042

**2. Supplementary Specifications** - Revise the following MMCD Master Municipal Specifications:

Section	Sub-section	Title	Supplementary Specifications
<b>33 44 01</b> Manholes and Catch basins	2.1	Materials	<b>Delete Clause 2.1.7:</b> "Cast Iron frame and cover: as shown on Standard Detail Drawing S1 and Municipal Supplementary Specifications" <b>replace with:</b> "Cast Iron frame and cover: as shown on Supplementary Standard Detail Drawing S16SS in accordance with the City of Victoria Supplementary Specifications."
			<b>Delete Clause 2.1.10.1:</b> "As shown on Standard Detail Drawing S11." <b>replace with:</b> "As shown on Supplementary Standard Drawings SD S11a, SD S11b, SD S11c and SD S11d."
	3.3	Manhole Installation	<b>Delete Clause 3.3.10:</b> "Where possible, form channelling using half-sections of pipe or suitable fittings."
			<b>Delete Clause 3.3.18:</b> "Pre-fabricated Corrugated Steel Pipe Manholes to be installed as shown on Contract Drawings and to the manufacturer's specifications." <b>replace with:</b> "Pre-fabricated Corrugated Steel Pipe Manholes are not to be used or installed in the City of Victoria."
	3.5	Catch basin Installation	<b>Delete Clause 3.5.1:</b> "Install catch basins as shown on Standard Detail Drawing S11, to general standards and installation procedures described in 3.3." <b>replace with:</b> "Install catch basins as shown on Supplementary Standard Detail Drawings SD S11a, SD S11b, SD S11c and SD S11d. To general standards and installation procedures described in 3.3"

**2.1.5.1 City of Victoria Supplementary Specifications Table 1**

<b><u>CONCRETE MIX SPECIFICATIONS</u></b>				
<u>Class C2:</u>				
	<u>Standard</u>	Exposed <u>10mm</u>	Exposed <u>20mm</u>	Extruded <u>Curb Mix</u>
Compressive strength, 28 days	32 MPa	32 MPa	32 MPa	32 MPa
Cement (Type 10 or 30), kg	310	330	330	340
Concrete sand (SSD), kg	760	500	540	940
10mm x 5mm stone, kg	420	1430		980
20mm x 10mm stone, kg	780		1430	
Admixture, mL/m <sup>3</sup> **	775	1000	750	850
Slump, mm	80±20	70±10	70±10	25 MAX.
Air content, %	5-8	7-10	5-8	5-8
Air content target, %	6	8	7	
Water/cementing materials ratio, maximum	0.45	0.45	0.45	0.45
<u>Class C3:</u>		<u>Class S-2:</u>		
<u>Standard</u>		<u>Sulphate Resistant</u>		
Compressive strength, 28 days	30 MPa	Compressive strength, 28 days	32 MPa	
*Cement (Type 10 or 30), kg	285	Cement, (Type 50), kg	320	
Concrete sand (SSD), kg	800	Concrete sand (SSD), kg	740	
10mm x 5mm stone, kg	360	10mm x 5mm stone, kg	475	
20mm x 10mm stone, kg	830	20mm x 10mm stone, kg	710	
Admixture, ml/m <sup>3</sup> **	850	Admixture, ml/m <sup>3</sup>	1000	
Slump, mm	80±20	Slump, mm	80±20	
Air content, %	4-7	Air content, %	5-8	
Air content target, %	6	Air content target, %	6.5	
Water/cementing materials ratio, maximum	0.5	Water/cementing materials ratio, maximum	0.45	
<p>*Note: The use of fly ash at a maximum of 10% by mass of the total cementing materials will be considered for standard concrete only (Classes C2 and C3). Alternate concrete mix designs incorporating fly ash will be considered after submission by bidders. For concrete inclusive of fly ash, the minimum total cementing materials content shall be 320 kg/m<sup>3</sup> (Class C2) and 295 kg/m<sup>3</sup> (Class C3).</p>				
<p>**Note: Pozzolith 325 N, Pozzolith LL974, Pozzolith 122 R (The Master Builders Company, Limited), WRDA (Hycol), WRDA 82 or Daratard 17 (W.R. Grace and Company). If the specified admixture is not within the recommended range adjust the specified concrete admixture dose to conform to the admixture manufacturer's recommended range of addition. Other water-reducing admixtures may be used with the written permission of the City Engineer.</p>				



Victoria Subdivision and Development Servicing Bylaw

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