

Subdivision, Development & Servicing Bylaw 7900 Transportation Update

The Subdivision, Development & Servicing Bylaw 7900 regulates infrastructure standards for development within Kelowna. It provides guidelines and **design standards** for consultants, contractors, and City staff involved with the delivery of municipal infrastructure. Through this role the Bylaw helps implement the community vision set out in Imagine Kelowna as well as the goals and objectives of the Official Community Plan.

This update focuses on transportation and draws additional guidance from the <u>Transportation Master Plan</u> as well as other provincial and national guidelines.

Bylaw 7900, Schedule 5, Section 2 Drawing Index

This table is the City of Kelowna Supplement to the Master Municipal Specifications. This table outlines the construction standards for municipal infrastructure and identifies City of Kelowna Standard Drawings and cross reference to MMCD; including Cross Section Standards.

2. Drawing Index

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CITY OF KELOWNA STANDARD DRAWINGS INDEX AND CROSS-REFERENCE TO MMCD

	MMCD Standard Drawings	City of Kelowna Standard Drawings			
Dwg.	Title	Comment	Dwg.	Title	
	GENERAL DETAILS				
G1	General Legend for Contract Drawings	Deleted		(Per City A-size Drawing Block)	
G2	Legend for Materials	MMCD	G2	Legend for Materials	
G3	Legend for Street Light and Traffic Signal Drawings	Deleted		(Future Amendment - Refer to Utility)	
G4	Utility Trench	Replaced	SS-G4	Utility Trench	
G5	Pavement Restoration	Replaced	SS-G5	Pavement Restoration	
G6	Concrete Encasement for Water Main/ Sewer Separation	MMCD	G6	Concrete Encasement for Water Main/Sewer Separation	
G7	Concrete Protection for Underground Utilities	MMCD	G7	Concrete Protection for Underground Utilities	
G8	Pipe Anchor Blocks	MMCD	G8	Pipe Anchor Blocks	
S1	STORM AND SANITARY SEWERS Standard and Sump Manholes	Replaced	SS-S1a SS-	Manholes	
		•	S1b	Manhole Frame and Cover	
S2	Standard Manhole Connection Details	Replaced	SS-S1a	Manholes	
S3	Manhole Connection Details - Drop and Ramp Type	MMCD	S3	Manhole Connection Details - Drop and Ramp Type	
S4	Inside Drop Manhole	MMCD	S4	Inside Drop Manhole	
S 5	Precast Riser Manhole	MMCD	S5	Precast Riser Manhole	
S6	Sewer Clean-Out	Replaced	SS-S6	Clean-Out Detail (Temporary)	
S 7	Sanitary Sewer Service Connection	Replaced	SS-S7	Sanitary Sewer Service Connection	
S8	Storm Sewer Service Connection	MMCD	S8	Storm Sewer Service Connection	
S9	Inspection Chamber for 100 to 200 Sanitary Sewer Connection	Replaced	SS-S9	Inspection Chamber for 100 to 200 Sanitary Sewer Connection	
S10	Inspection Chamber for 250 to 375 Storm Sewer Connection	MMCD	S10	Inspection Chamber for 250 to 375 Storm Sewer Connection	

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S11	Top Inlet Catch Basin	Replaced	SS-S11a	Catch Basin 900 mm diameter
			SS-S11b	Catch Basin Castings Combined Side and Gutter Inlet
			SS-S11c	Catch Basin - Top Slabs
S12	Lawn Drains	MMCD	S12	Lawn Drains
S13	Storm Sewer Inlet with Safety Grillage	MMCD	S13	Storm Sewer Inlet with Safety Grillage

BL12066 amended:

	MMCD Standard Drawings	City of Kelowna Standard Drawings			
Dwg.	Title	Comment	Dwg.	Title	
S14	Concrete Block Endwall	MMCD	S14	Concrete Block Endwall	
S15	Driveway Culvert with Concrete Block Endwalls	MMCD	S15	Driveway Culvert with Concrete Block Endwalls	
		Added	SS-S50	Manhole Requirement for Services	
		Added	SS-S51	Drainage Drywell	
		Added	SS-S52	Drainage Drywell Installation	
		Added	SS-S53	Pipe Perforation and Bedding Detail for Ground Water Recharge	
		Added	SS-S54	Catch Basin Trapping Hood	
		Added	SS-S55	Flow Control Chamber (with sediment grease trap)	
		Added	SS-S56	IDF Curves	
		Added	SS-S57	Riprap Design Chart	
		Added	SS-S58	Groundwater Recharge Suitability Map	
		Added	SS-S59	Typical Lift Station Site Layout	
		Added	SS-S60	Sanitary Lift Station	
		Added	SS-S61	Above Ground Valve Kiosk	
		Added	SS-S62	Pigging Port	
		Added	SS-S63	Radio Antenna mast and Base	
	WATERWORKS				
W1	Typical Thrust Block Arrangements	MMCD	W1	Typical Thrust Block Arrangements	
W2a	Water Service Connection	Replaced	SS-W2	Water Service Connection	
W2b	Water Service Connection	Replaced	SS-W2	Water Service Connection	
W2c	Meter Installation for 19mm & 25mm Service Connections	Deleted			
W2d	Meter Installation for 38mm & 50mm Service Connections	Deleted			
W3	Gate Valve Installation	MMCD	W3	Gate Valve Installation	
W4	Fire Hydrant Installation	Replaced	SS-W4	Hydrant	
W5	Test Point Installation	MMCD	W5	Test Point Installation	

W6	Air Valve Assemblies - 25 and 50 mm Valves	Replaced	SS-W6	Air Valve Assembly
W7	Air Valve Assembly - 100 mm Valve	Delete		
W8	Blow-Off for Water Main	Replaced	SS-W8a SS-W8b	Blow-Off (for mains 100mm & smaller) 100mm Blow-Off (for mains 150mm & larger)
W9	Blow - Down Chamber	MMCD	W9	Blow - Down Chamber
W10	Waterworks Chamber Drain	MMCD	W10	Waterworks Chamber Drain
		Added	SS-W50	Irrigation Service
		Added	SS-W51	U-Bend Detail (Pipe Crossing Conflict)

	MMCD Standard Drawings	City of Kelowna Standard Drawings		
Dwg.	Title	Comment	Dwg.	Title
	CONCRETE AND MISCELLANEOUS DETAILS			
C1	Concrete Sidewalk, Infill and Barrier Curb	MMCD	C1	Concrete Sidewalk, Infill and Barrier Curb
C2	Concrete Sidewalk and Barrier Curb	MMCD	C2	Concrete Sidewalk and Barrier Curb
C3	Concrete Sidewalk and Roll-Over Curb	MMCD	C3	Concrete Sidewalk and Roll-Over Curb
C4	Concrete Curbs - Narrow Base	MMCD	C4	Concrete Curbs - Narrow Base
C5	Concrete Curbs - Wide Base	MMCD	C5	Concrete Curbs - Wide Base
C6	Concrete Median Curb and Interim Curbs	Replaced	SS-C6	Concrete Median Curb and Interim Curbs
C7	Driveway Crossing for Barrier Curbs	Replaced	SS-C7a	Driveway Crossing for Barrier Curbs - Separate Sidewalk and Letdown
			SS-C7b	Driveway Crossing for Barrier Curbs - Combined Sidewalk and Letdown
C8	Wheelchair Ramp for Sidewalk, Infill and Barrier Curbs	Replaced	SS-C8	Sidewalk Ramp Details
С9	Wheelchair Ramp for Sidewalk and Barrier Curbs	Replaced	SS-C9	Sidewalk Ramp Layouts
C10	Concrete Walkway	Deleted		
C11	Bicycle Baffle	Deleted		
C12	Removable Restriction Post	Deleted		
C13	Chain Link Fence for Walkway	MMCD	C13	Chain Link Fence for Walkway
C14	Handrail on Concrete Retaining Wall	MMCD	C14	Handrail on Concrete Retaining Wall
			SS-C50	Concrete Island Ramp

MMCD Standard Drawings		City of Kelowna Standard Drawings			
D	wg.	Title	Comment	Dwg.	Title

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Cross Section Standards			
	Added	XS-R01	Hillside Laneway
	Added	XS-R02	Suburban / Core Area / Urban Centre Laneways
	Added	XS-R20	Rural Local
	Added	XS-R21	Hillside Village Local Residential
	Added	XS-R22	Hillside Local Condition A (Development Both Sides)
	Added	XS-R23	Hillside Local Condition B (Development One Sides)
	Added	XS-R24	Hillside Local Condition A (No Development Either Sides)
	Added	SX-R25	Suburban Local
	Added	XS-R26	Industrial Local
	Added	XS-R27	Core Area Local
	Added	XS-R28	Urban Centre Local
	Added	XS-R40	Rural Collector
	<mark>Added</mark>	XS-R41	Hillside Village Collector Condition A (Retail/M.F. Fronting)
	Added	XS-R42	Hillside Village Collector Condition B (No Retail Fronting)
	Added	XS-R43	Hillside - Collector Condition A (Development Both Sides)
	Added	XS-R44	Hillside Collector Condition B (Development One Side)
	Added	XS-R45	Hillside Collector Condition C (Nove Development Either Side)
	Added	XS-R46	Hillside Minor Collector Condition A
	Added	XS-R47	Hillside Minor Collector Condition B
	Added	XS-R48	Suburban Collector
	Added	XS-R49	Suburban Collector (With Bike Lanes)
	Added	XS-R50	Industrial Collector
	Added	XS-R51	Core Area Collector
	Added	XS-R52	Core Area Collector (With Bike Lanes)
	Added	SX-R53	Urban Centre Collector
	Added	XS-R54	Urban Centre Collector (With Bike Lanes)
	Added	XS-R60	Rural Minor Arterial
	Added	XS-R61	Rural Minor Arterial (With Multi-Use Path)
	<mark>Added</mark>	XS-R62	Hillside Arterial Condition A (Village Parkway)

	<mark>Added</mark>	XS-R63	Hillside Arterial Condition B (Within 0.8km
			Walking Distance of Village)
	Added	XS-R64	Hillside Arterial Condition C (Greater Than
			0.8km Walking Distance of Village)
	Added	XS-R65	Suburban Minor Arterial
	riadoa	AC ITOC	
	<mark>Added</mark>	XS -R66	Core Area Minor Arterial
	<mark>Added</mark>	XS-R67	Urban Centre Minor Arterial
	<mark>Added</mark>	XS-R80	Rural Major Arterial (3 Lane)
		V/0 = 0.4	
	<mark>Added</mark>	XS-R81	Rural Major Arterial (3 Lane with Multi-Use Path)
-	A al al a al	VC DOO	Dural Major Artorial (E. Long)
	<mark>Added</mark>	XS-R82	Rural Major Arterial (5 Lane)
	Added	XS-R83	Rural Major Arterial (5 Lane with Multi-Use Path)
	Maaca	73 K03	Rural Major Arterial (3 Earle With Marti 536 Fath)
	Added	XS-R84	Suburban Major Arterial (3 Lane)
		110 110 1	
	<mark>Added</mark>	XS-R85	Suburban Major Arterial (5 Lane)
			· · · · · ·
	<mark>Added</mark>	XS-R86	Core Area Major Arterial (3 Lane)
	<mark>Added</mark>	XS-R87	Core Area Major Arterial (5 Lane)
	A -I -II	VC DOO	Universidad (2 Leng)
	<mark>Added</mark>	XS-R88	Urban Centre Major Arterial (3 Lane)
	Added	XS-R89	Urban Centre Major Arterial (5 Lane)
	Added	73-K07	Orban Centre Major Arterial (3 Lane)

	MMCD Standard Drawings		City of Kelowna Standard Drawings		
Dwg.	Title	Comment	Dwg.	Title	
	Linear Park Trail Standards				
		Added	SS-T01	Class 1 - Major Urban Promenade	
		Added	SS-T02	Class 2 - Major Multi-Use Urban	
		<mark>Added</mark>	SS-T03	Class 3 - Major Multi-Use Rural	
		<mark>Added</mark>	SS-T04	Class 4 - Standard Multi-Use Rural	
		Added	SS-T05	Class 5 - Narrow Multi-Use Rural	
		Added	SS-T06	Class 6 - Nature Trail Rural	

	MMCD Standard Drawings			City o	f Kelowna Standard Drawings
Dwg.	Title		Comment	Dwg.	Title
	ROAD WORKS				
R1	Paved Shoulders	MMCD	R1	Paved Shoulders	Paved Shoulders
			Added	SS-R20	Left Turn Lane (Raised Median)
			Added	SS-R21	Left Turn Lane (Painted) and Two-Way Left Turn Lane

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		1 480 0
Added	SS-R23	Concrete Drainage Swale Across Asphalt (existing)
Added	SS-R24	Density Payment Adjustment Chart
Added	SS-R50	Smart Channel Right Turn
Added	SS-R51	Intersection Curb Extension - Higher Class Road No Parking
Added	SS-R52	Intersection Curb Extension - Higher Class Road With Parking
Added	SS-R53	Cul-De-Sac Turnaround
Added	SS-R54	Hammerhead Turnaround
Added	SS-R55	Standard Ditch Section
Added	SS-R56	Utility Access and Location at Ditch
Added	SS-R57	Rock Cut Cross Section
Added	SS-R58	Driveway Grades
Added	SS-R59	Urban Transit Stop Layout
Added	SS-R60	Urban Transit Stop Shelter Pad Details
Added	SS-R61	Post Mounted Sign
Added	SS-R62	Street Name Blade Details
	Added	Added SS-R24 Added SS-R50 Added SS-R51 Added SS-R51 Added SS-R52 Added SS-R53 Added SS-R54 Added SS-R55 Added SS-R56 Added SS-R56 Added SS-R57 Added SS-R58 Added SS-R58 Added SS-R59 Added SS-R60 Added SS-R60 Added SS-R60

LANDSCAPING AND IRRIGATION – 6 (B) Landscaping	D		
	Added	SS-L.01	Growing Medium - Lawn
	Added	SS-L.02	Growing Medium – Planting Bed
	Added	SS-L.03	Growing Medium - Boulevard
	Added	SS-L.04a	Tree – in Grass Open Space
	Added	SS-L.04b	Tree – in Planting Bed
	Added	SS-L.04c	Boulevard Tree – in Grass
	Added	SS-L.05a	Boulevard Tree – in Structural Soil (Plan)
	Added	SS-L.05b	Boulevard Tree – in Structural Soil (Section A-A')
	Added	SS-L.06a	Boulevard Tree – in Soil Cell (Plan)
	Added	SS-L.06b	Boulevard Tree – in Soil Cell (Section A-A')
	Added	SS-L.07	Root Barrier at Paving

LANDSCAPING AND IRRIGATION – 6 (C) Irrigation			
	Added	SS-IR.01a	Backflow Prevention Assembly 3/4"
	Added	SS-IR.01b	Backflow Prevention Assembly 1" to 2"
	Added	SS-IR.01c	Backflow Prevention Assembly 1" to 2"
	Added	SS-IR.01d	Backflow Prevention Assembly 2 1/2" to 4"
	Added	SS-IR.01e	Backflow Prevention Assembly 2 1/2" to 4"
	Added	SS-IR.02a	Irrigation Vault 1" to 2"
	Added	SS-IR.02b	Irrigation Vault ¾"
	Added	SS-IR.03	Irrigation Cabinet Double
	Added	SS-IR.04a	Trench Section w/o Sleeving
	Added	SS-IR.04b	Thrust Blocks
	Added	SS-IR.05a	Stand Alone Isolation Value 50mm and Under
	Added	SS-IR.05b	Electric Control Value 24VAC

	MMCD Standard Drawings	City of Kelowna Standard Drawings		
Dwg.	Title	Comment	Dwg.	Title
		Added	SS-IR.06a	Control Zone Kit 25mm
		Added	SS-IR.06b	Control Zone Kit 38mm
		Added	SS-IR.07	Mainline Drain Value
		Added	SS-IR.08a	Irrigation Value Box Small Size
		Added	SS-IR.08b	Irrigation Value Box Medium Size
		Added	SS-IR.08c	Irrigation Value Box Large Size
		Added	SS-IR.09	Wired Splice Box
		Added	SS-IR.10a	Sprayhead Sprinkler
		Added	SS-IR.10b	Rotor Sprinkler
		Added	SS-IR.11a	Dripline Header Assembly
		Added	SS-IR.11b	Root Watering System (Double)
		Added	SS-IR.11c	Tree Dripline
		Added	SS-IR.12a	Hydrant/Blow-Out Assembly 50mm
		Added	SS-IR.12b	Quick Coupler
		Added	SS-IR.12c	Lateral End Flush Valve
		Added	SS-IR.12d	Hose Bib
		Added	SS-IR.13	Temporary Boulevard Irrigation