

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 1

Schedule 1 sets servicing requirements for development. The requirement for Transportation is based on the updated classification structure in OCP Map 13.1 OCP Overlay Maps 13.2-13.5 and aligns with updated cross sections. This ensures that identified Cross Section Standards are consistent and better suited to the different contexts throughout Kelowna.

WORKS & SERVICES REQUIREMENTS

Key Sheet

Abbreviation	Requirement
WTR	Community water system. In subdivisions which are to be provided with a community water system, each Parcel within the proposed subdivision, or Parcel being Developed, must be supplied by a water distribution system, including service connections, and with adequate fire flow and protection, which is designed in accordance with the standards prescribed in the Design Standards Water Section.
WELL	Where a community water system is not available a proven water supply located on each parcel is permitted.
SWR	Community sanitary sewer system.
SWRSEP	Sanitary sewer collection and disposal or Sanitary sewage effluent ground disposal in accordance with Part 2, Section 5.2 (o)(viii) of this bylaw.
DITCH	Drainage collection and disposal system by open ditches and culverts.
STM	Closed drainage collection and disposal system (i.e., a system other than open ditches).
SL	Street lighting throughout the subdivision.
SLI	Street lighting at street intersections only.
ОН	Overhead electrical and communication wiring.
UG	Underground electrical and communication wiring.
W	Communication and electrical wiring to conform to the highest standard of existing adjacent facilities

Table 1: Utility Requirements

					Table 1. Ot				
			Utilities						
	(Refer to Key Sheet above)								
Zone ¹	Water	Sewer	Drain	Wiring	Lighting				
A1	WELL	SWRSEP	DITCH	ОН	SLI				
A2	WELL	SWRSEP	DITCH	ОН	SLI				
RR1	WTR	SWRSEP	DITCH	ОН	SLI				
RR2	WTR	SWR	DITCH	ОН	SLI				
RU1	WTR	SWR	STM	UG	SL				
RU2	WTR	SWR	STM	UG	SL				
RU3	WTR	SWR	STM	UG	SL				
RU4	WTR	SWR	STM	UG	SL				
RU5	WTR	SWR	STM	UG	SL				
MF1	WTR	SWR	STM	UG	SL				
MF2	WTR	SWR	STM	UG	SL				
MF ₃	WTR	SWR	STM	UG	SL				
MH1	WTR	SWR	STM	UG	SL				
HD1	WTR	SWR	STM	UG	SL				
HD ₂	WTR	SWR	STM	UG	SL				

	Utilities									
		(Refer t	o Key Sheet	above)						
Zone ¹	Water	Sewer	Drain	Wiring	Lighting					
C1	WTR	SWR	STM	UG	SL					
C2	WTR	SWR	STM	UG	SL SL					
VC1	WTR	SWR	STM	UG						
UC1-5	WTR	SWR	STM	UG	SL					
CA1	WTR	SWR	STM	IJ	SL					
11	WTR	SWR	STM	IJ	SL					
l2	WTR	SWR	STM	UG	SL					
l3	WTR	SWRSEP	DITCH	OH	SLI					
14	I4 WELL		DITCH	ОН	SLI					
P1	WTR	SWR	STM	UG	SL					
P2	WTR	SWR	STM UG		SL					
P ₃	WELL	SWRSEP	STM	W	SLI					
P4	P ₄ WELL		STM	W	SL					
W1	W1 N/A		N/A	N/A	N/A					
W2	AS REQUIRED BASED ON DEVELOPMENT PROPOS									
CD ⁽³⁾	WTR	SWR	STM	UG	SL					
CD12	WTR	SWR	STM	STM UG						

Notes:

- 1. Comprehensive Development Zones listed in Section 17 of the Zoning Bylaw, except the CD12 Airport zone.
- 2. The zones identified in this table are the zones designated in the Zoning Bylaw. Properties with an 's'. 'b'. 'h', 'lp' or 'rls' as part of the zoning designation shall comply with the works and services requirements of the parent zone (e.g. RU1s shall comply with the requirements of the RU1 zone.)

WORKS & SERVICES REQUIRMENTS

Road Requirements

Road requirements (refer to Standard Drawings) are determined using **Table 2** below and **Section 4.2 – Road Classifications**:

- Roadway classifications identified within the Map 13.1 Functional Road Classification of the City's Official Community Plan (OCP).
- 2. OCP Functional Road Classification Overlays:
 - Map 13.2 Transit Overlay,
 - Map 13.3 Biking Overlay;
 - Map 13.4 Truck Route Overlay; and
 - Map 13.5 DCC Project Overlay.
- 3. Consideration of the local context; the local context may include considerations such as, but not limited to:
 - Fixed elements unlikely to change over time, like topography, water bodies, environmentally sensitive areas, agricultural land reserves, First Nations reserves, etc.
 - Atypical frontages, for example schools, recreational facilities, parks, industrial loading areas, etc.
- 4. This Bylaw prescribes infrastructure design and practices. Council recognizes that each situation is unique, and solutions may need to be tailored to the existing conditions. As such, discretion is afforded the City Engineer to ensure the optimal technical solutions are implemented and adapt the prescribed practices herein to suit the individual project/site requirements.

Table 2: Road Requirements (Refer to Standard Drawings)

		OCP	Map 13.3 – Biking	o Overlay				
Roadway Classification		Not on On		On Primary	No.			
	CP Map 13.1	Biking Overlay	Secondary Biking Route	Biking ['] Route	Notes:			
>	Hillside	X	S-Ro1	Consult with				
Laneway	Suburban	Х	S-Ro2	Consult with City				
ane	Core Area	Х	S-Ro2	Engineer				
	Urban Centre	X	S-Ro2	Liigilicei				
	Rural	Х	S-R20					
	Hillside		(S-R21		Village Local-Residential, development fronts at least one side			
	Hillside		S-R22		Condition A, development fronts both sides			
-	Hillside	XS-R23 XS-R24		Consult with City	Condition B, development fronts one side only			
Local	Hillside				Condition C, no development fronts street			
	Suburban	XS-R25		Engineer				
	Industrial	XS-R ₂ 6 XS-R ₂ 7						
	Core Area							
-	Urban Centre	XS-R ₂ 8						
	Rural		S-R40					
	Hillside	XS-R41			Village Collector Condition A, where commercial development fronts street			
	Hillside	XS-R42			Village Collector Condition B, where no commercial development fronts street			
	Hillside	XS-R43	Carranda mila	Consult with	Collector Condition A, development fronts both sides			
-	Hillside Hillside	XS-R44	Consult with City Engineer		Collector Condition B, development fronts one side only Collector Condition C, no development fronts street			
ctc	Hiliside	XS-R ₄₅	City Engineer		<u> </u>			
Collector	Hillside	XS-R46		City Engineer	Minor Collector Condition A, development fronts both sides or, development fronts one side only			
	Hillside	XS-R ₄₇			Minor Collector Condition B, no development fronts street			
	Suburban	XS-R48 XS-R49 XS-R50		_				
	Industrial							
	Core Area	XS-R ₅ 1	XS-R ₅₂					
	Urban Centre	XS-R ₅₃ XS-R ₅₄						
	Rural	XS-R6o		XS-R61				
	Hillside	XS-R62	Consult with City Engineer		Arterial Condition A, within village centre where environmental conditions permit			
Minor Arterial	Hillside	XS-R6 ₃		Consult with City Engineer	Arterial Condition B, within 10-minute walking distance of village centre; or, within village centre where environmental conditions do not permit the use of Condition A			
Mino	Hillside	XS-R64			Arterial Condition C, greater than a 10-minute walking distance from village centre.			
	Suburban	XS-R65						
	Core Area	XS-R66						
	Urban Centre	XS-R67						
	Rural							
	3-lane	XS-R8o		XS-R81				
	5-lane	XS-R82		XS-R8 ₃				
_	Suburban							
ërië	3-lane	XS-R84						
Major Arterial	5-lane	XS-R8 ₅						
jor	Core Area	\/C POS		Consult with				
Ma	3-lane	XS-R86		City Engineer				
	5-lane	Х	XS-R8 ₇					
	Urban Centre		C D00					
	3-lane	XS-R88						
	5-lane	Х	S-R89					

Notes:

- Active Transportation Corridors not located with road right-of-way's such as but not limited to the Okanagan Rail Trail and Mission Creek Greenway, are transportation corridors requiring frontage improvements.
- 2. Pedestrian facilities are required on any road fronting a school or major recreational facility in rural land use areas.
- 3. Where a primary Biking Route is identified on OCP Map 13.3 Bike Overlay Map up to 2 m of additional ROW may be required.
- 4. Where OCP Classification Overlays Map 13.2,13.3, 13.4 and 13.5 are present, consult with City Engineer for design requirements

Linear Park Trails Requirements

Linear Park requirements (refer to Standard Drawings) are determined using **Table 3: Trail Requirements,** *Map* 10.1 - *Linear Corridors* of the *City's Official Community Plan* (OCP).

Table 3: Trail Requirements (Refer to Standard Drawings)

CLASS DIMENSIONS				CROSS SLOPE	MATERIALS										
Trail Class	Trail Type	(W) Width	(C) Clear Zone	(H) Min. Vertical Clearance	(S) Typical Slope	(S) Slope for Short Sections (max. 10m)	Cross Slope	Surface Type	(M1) Type Depth	(M2) Granular Base	(M3) Sub-Base	(M4) Compacted Sub-Grade			
	Major Urban	4.5m or		5% max.		5% max. 8% max.	5% max.	8% may	8% max.		Asphalt	50 mm	100 mm	200 mm	95% MPD
1	Promenade	greater	0.5 m	3.0 m	(1:20)	(1:12) 2% min		2% min.	Concrete or Brick	100 mm or 75 mm	100 mm	N/A	95% MPD		
	Major Multi-				8% max.	12% max. (1:8) 2% m		Asphalt	50 mm	100 mm	200 mm	95% MPD			
2	Use (Urban)	4.5 - 3.0 m	0.5 m	3.0 m	(1:12)			2% min.	Concrete or Brick	60 mm	100 mm	N/A	95% MPD		
3	Major Multi-				8% max.	12% max. (1:8)		Asphalt	50 mm	75 mm	150 mm	95% MPD			
3	Use (Rural)	4.5 - 3.0 m	0.5 m	2.5 m	(1:12)		2% min.	Concrete or Brick	60 mm	100 mm	N/A	95% MPD			
4	Standard	3.0 - 2.0 m	0.5 m	3.0 - 2.5 m	8% max. (1:12)		15% max.		2% min.	Asphalt millings	60 mm	75 mm	150 mm	95% MPD	
	Multi-Use			2.2.2.0		(1:7)		Aggregate	50 mm	100 mm	N/A	95% MPD			
5	Narrow			m 0.5 m 2.5 m 8% max. 15	5-12 m 05 m 25 m 8% max.	3.5 m 8% max.	8% max.	15% max.	2% min.	Asphalt millings	60 mm	75 mm	150 mm	95% MPD	
3	Multi-Use		0.5 m	2.5 M	(1:12)	(1:7)	276 111111.	Aggregate	50 mm	100 mm	N/A	95% MPD			
6	Nature Trails	1.2 - 0.6 m	0.5 m	2.5 m	20% (1:5) max. hiking & walking	15%			Natural ground	N/A	N/A	N/A	95% MPD		
	riature I I alis	1.2 - 0.0 III	0.5111	2.5 111	15% (1:7) max. mountain biking		2% min.	Aggregate if needed	50 mm	100 mm	N/A	95% MPD			

