CORPORATION OF THE CITY OF COURTENAY
COUNCIL MEETING AGENDA

We respectfully acknowledge that the land on which we gather is the unceded traditional territory of the K'ómoks First Nation

DATE: **April 16, 2018**
PLACE: **City Hall Council Chambers**
TIME: **4:00 p.m.**

1.00 ADOPTION OF MINUTES

1 1. Adopt April 03rd, 2018 Regular Council meeting minutes

2.00 INTRODUCTION OF LATE ITEMS

3.00 DELEGATIONS

7 1. Dennis Thomas, Direct Billing to Strata Corps for Service Charges

29 2. John Watson, Executive Director and Geoff Crawford, Business Development Manager, Comox Valley Economic Development (CVED) - Spring 2018 Update

4.00 STAFF REPORTS/PRESENTATIONS

(a) CAO and Legislative Services

37 1. Council Procedure and Election Bylaw Amendments

45 2. Harmston Avenue Road Closure and Property Disposition

(b) Development Services

57 3. A Change to Existing Liquor Licence (Royal Canadian Legion) - 367 Cliffe Avenue

5.00 EXTERNAL REPORTS AND CORRESPONDENCE FOR INFORMATION

6.00 INTERNAL REPORTS AND CORRESPONDENCE FOR INFORMATION

61 1. Briefing Note - Courtenay Transportation Master Plan Update and presentation, John Steiner, Urban Systems

63 2. Heritage Advisory Commission Meeting Minutes February 28, 2018

7.00 REPORTS/UPDATES FROM COUNCIL MEMBERS INCLUDING REPORTS FROM COMMITTEES

8.00 RESOLUTIONS OF COUNCIL

1. Councillor Lennox – K'ómoks First Nation Motion

That the K'ómoks First Nation acknowledgment on the Council agenda be read aloud at the beginning of each Council meeting and Committee of the Whole meeting.

2. In Camera Meeting

That notice is hereby given that a Special In-Camera meeting closed to the public will be held April 16th, 2018 at the conclusion of the Regular Council Meeting pursuant to the following sub-sections of the *Community Charter*:

- 90 (1) (e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality.

9.00 UNFINISHED BUSINESS

10.00 NOTICE OF MOTION

11.00 NEW BUSINESS

12.00 BYLAWS

For First, Second and Third Reading

67 1. "Council Procedure Amendment Bylaw No. 2918, 2018"
(A bylaw to incorporate legislative changes for the 2018 General Local Election)

69 2. "Election Procedures and Automated Voting Amendment Bylaw No. 2917, 2018"
(A bylaw to incorporate legislative changes for the 2018 General Local Election)

73 3. "Harmston Avenue Road Closure Bylaw No. 2920, 2018"
(A bylaw to close and dispose of a portion of Harmston Avenue)

For Final Adoption

77 1. "Subdivision and Development Servicing Bylaw No. 2919, February 2018"
(A bylaw to regulate and require the provision of works and services in connection with the subdivision and development of land)

235 2. "2018–2022 Consolidated Financial Bylaw No. 2924, 2018"

13.00 ADJOURNMENT

NOTE: There is a Public Hearing scheduled for 5:00 p.m. regarding:

Zoning Amendment Bylaw No. 2893 A bylaw proposing an amendment to *Zoning Bylaw No. 2500, 2007* to adjust the zoning boundaries for 3420 Rhys Road to accommodate the realignment and dedication of Harbourview Boulevard.

R7/2018 – April 03, 2018

Minutes of a Regular Council Meeting held in the City Hall Council Chambers, Courtenay B.C., on Tuesday, April 03, 2018 at 4:00 p.m.

Attending:

Mayor:	**L. V. Jangula**
Councillors:	**E. Eriksson**
	D. Hillian
	R. Lennox
	M. Theos
	B. Wells
Staff:	**D. Allen, CAO**
	J. Ward, Director of Legislative and Corporate Services/Deputy CAO
	W. Sorichta, Manager of Corporate Administrative Services
	I. Buck, Director of Development Services
	T. Kushner, Director of Public Works Services
	R. O'Grady, Director of Engineering Services
	B. Parschauer, Director of Financial Services
	D. Snider, Director of Recreation and Cultural Services
	D. Bardonnex, Fire Chief
	A. Guillo, Manager of Communications
	N. Borecky, Manager of IT

1.00 ADOPTION OF MINUTES

.01 MINUTES

Moved by Wells and seconded by Theos that the March 19th, 2018 Regular Council meeting minutes be adopted.
Carried

Moved by Wells and seconded by Theos that the March 26th, 2018 Committee of the Whole meeting minutes be adopted.
Carried

2.00 ADOPTION OF LATE ITEMS

3.00 DELEGATIONS

1. Russell Dyson, Chief Administrative Officer and Kevin Douville, Manager of Financial Planning, Comox Valley Regional District (CVRD) made a presentation to Council summarizing the approved 2018 CVRD budget and the impact of Regional District services to Courtenay taxpayers.

2. Andy Telfer, Consultant, Richard Campbell Executive Director and Marg Harris, President, British Columbia Cycling Coalition (BCCC) made a presentation to Council identifying the Mid-Island Cycling and Active Transportation Route Feasibility Project and Survey currently underway. The BCCC is exploring opportunities for improving cycling transportation, recreation and tourism in the Mid Vancouver Island Region and Comox Valley Regional District in conjunction with project partners Comox Valley Cycling Coalition and Friends of Rails to Trails Vancouver Island.

Mayor Jangula left Council Chambers at 4:49 p.m.; Acting Mayor Wells took the chair
Mayor Jangula returned to Council Chambers and took his seat at 4:54 p.m.

Councillor Lennox left Council Chambers at 4:59 p.m.
Councillor Lennox returned to Council Chambers and took her seat at 5:02 p.m.

4.00 STAFF REPORTS/PRESENTATIONS

.01
SUMMER MEETING SCHEDULE - 2018
0570-01

Moved by Hillian and seconded by Lennox that based on the April 3rd, 2018 staff report "Summer Meeting Schedule - 2018", Council approve OPTION 1 and cancel the following scheduled meetings:

- July 30th, 2018 Committee of the Whole meeting;
- August 27th, 2018 Committee of the Whole meeting; and

That the June 4th, 2018 Regular Council meeting be rescheduled for June 11th, 2018.

Carried

.02
MERVILLE FIRE SERVICES AGREEMENT
7200-20

Moved by Wells and seconded by Lennox that based on the April 3rd, 2018 staff report "Merville Fire Services Agreement", Council approve OPTION 1 and the attached agreement between the City and the CVRD for Merville Fire Services; and

That the Mayor and Corporate Officer be authorized to execute the agreement on behalf of the City.

Carried

.03
K'OMOKS FIRST NATION (KFN) FIRE SERVICES AGREEMENT
2240-20

Moved by Hillian and seconded by Lennox that based on the April 3rd, 2018 staff report "K'omoks First Nation Fire Services Agreement", Council approve OPTION 1 and the attached agreement between the City and KFN for K'omoks First Nation Fire Services; and

That the Mayor and Corporate Officer be authorized to execute the agreement on behalf of the City.

Carried

.04
ZONING AMENDMENT BYLAW NO. 2893 – 3420 RHYS ROAD - BUCKSTONE DEVELOPMENT (PHASE 3A)
3360-20-1709

Moved by Hillian and seconded by Wells that based on the April 3rd, 2018 staff report "Zoning Amendment Bylaw No. 2893 - 3420 Rhys Road – Buckstone Development (Phase 3A)" Council approve OPTION 1 and proceed to First and Second Readings of "Zoning Amendment Bylaw No. 2893, 2018"; and

That Council direct staff to schedule and advertise a statutory public hearing with respect to the above-referenced Bylaw on April 16th, 2018 at 5:00 p.m. in City Hall Council Chambers.

Carried

.05
CHANGE TO EXISTING LIQUOR LICENCE (COMOX VALLEY CURLING CLUB) – 4835 HEADQUARTERS ROAD
4320-20

Moved by Wells and seconded by Lennox that based on the April 3rd, 2018 staff report, "A Change to Existing Liquor Licence (Comox Valley Curling Club) 4835 Headquarters Road", Council approve OPTION 1 as follows:

1) The Council of the City of Courtenay recommends the approval of the application by the Comox Valley Curling Club for a change of hours of liquor service at the club facility.
2) Council's comments on the prescribed considerations are as follows:
    a) If the amendment application is approved, it would not result in an increase of noise in the area;
    b) If the application is approved, it would not negatively impact the community based on the submissions received from the public; and
    c) In order to gather the views of residents, the City of Courtenay posted a notice on the City's website outlining the Comox Valley Curling Club application. Additionally, the RCMP was contacted for comment.

Carried with Councillor Eriksson opposed

.06
CHANGE TO EXISTING LIQUOR LICENCE (ROYAL CANADIAN LEGION) – 367 CLIFFE AVENUE
4320-20

Moved by Lennox and seconded by Hillian that based on the April 3rd, 2018 staff report, "A Change to Existing Liquor Licence (Royal Canadian Legion)", Council approve OPTION 1 and direct staff to post notice on the City`s website requesting public inputs on the proposed transition for Council consideration at the regular meeting scheduled for April 16, 2018.

Carried

.07
SUBDIVISION AND DEVELOPMENT SERVICING BYLAW – 3RD READING
5220-20

Moved by Wells and seconded by Hillian that based on the April 3rd, 2018 staff report "Subdivision and Development Servicing Bylaw – 3rd Reading" Council approve OPTION 1 and the amendments proposed to the Subdivision and Development Servicing Bylaw No. 2919, 2018 as outlined in the staff report;

That "Subdivision and Development Servicing Bylaw No. 2919, 2018" be amended after second reading reflecting the amendments shown on Attachment "A" of the staff report; and

That the "Subdivision and Development Servicing Bylaw No. 2919, 2018" proceed to Third Reading as amended.

Carried

Councillor Lennox left Council Chambers at 5:31 p.m.
Councillor Lennox returned to Council Chambers and took her seat at 5:32 p.m.

.08
2018 – 2022 GENERAL FUND BUDGET AND 2018 – 2022 CONSOLIDATED FINANCIAL PLAN
1705-20

Moved by Hillian and seconded by Lennox that based on the April 3rd, 2018 Staff Report "2018–2022 General Fund Budget and 2018–2022 Consolidated Financial Plan",

That Council approve the 2018–2022 General Fund Budget and 2018–2022 Consolidated Financial Plan with an amended increase of 1.5% derived from property taxation;

That the 2018–2022 Consolidated Financial Plan be amended to remove the 1% Asset Management Reserve contribution;

That Council approve the 2018–2022 Consolidated Financial Plan as amended;

That the amended 2018–2022 Consolidated Financial Plan be posted on the City's website for 10 days to allow for public input, and;

That Council direct staff to include the various amended schedules in the 2018–2022 Consolidated Financial Plan Bylaw.
Carried with Mayor Jangula opposed

Mayor Jangula left Council Chambers at 5:43 p.m.; Acting Mayor Wells took the chair
Mayor Jangula returned to Council Chambers and took his seat at 5:46 p.m.

Councillor Hillian left Council Chambers at 6:14 p.m.
Councillor Hillian returned to Council Chambers and took his seat at 6:16 p.m.

Mayor Jangula left Council Chambers at 6:25 p.m.; Acting Mayor Wells took the chair
Mayor Jangula returned to Council Chambers and took his seat at 6:28 p.m.

5.00 EXTERNAL REPORTS AND CORRESPONDENCE FOR INFORMATION

6.00 INTERNAL REPORTS AND CORRESPONDENCE FOR INFORMATION

7.00 REPORTS/UPDATES FROM COUNCIL MEMBERS INCLUDING REPORTS FROM COMMITTEES

COUNCILLOR HILLIAN

Councillor Hillian reviewed his attendance at the following events:

- Ministry of Transportation and Infrastructure meeting re: Ryan Road safety
- K'omoks First Nation Intergovernmental Engagement meeting
- Columbia Institute, 2018 Centre for Civic Governance Forum

COUNCILLOR WELLS

Councillor Wells reviewed his attendance at the following events:

- Ministry of Transportation and Infrastructure meeting re: Ryan Road safety
- K'omoks First Nation Intergovernmental Engagement meeting
- CVRD Water Committee with K'omoks First Nation meeting
- Rick Hansen Foundation Accessibility Certification Program meeting
- 2018 Dummy Downhill Race Mt. Washington

MAYOR JANGULA

Mayor Jangula reviewed his attendance at the following events:

- K'omoks First Nation Intergovernmental Engagement meeting
- CVRD Board Financial Plan meeting
- The Art of Belonging event "I Belong" L'Arche Comox Valley

8.00 RESOLUTIONS OF COUNCIL

.01
IN CAMERA MEETING

Moved by Hillian and seconded by Lennox that that a Special In-Camera meeting closed to the public will be held April 3rd, 2018 at the conclusion of the Regular Council Meeting pursuant to the following sub-sections of the *Community Charter*:

- 90 (1) (i) the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose;

- 90 (2) (b) the consideration of information received and held in confidence relating to negotiations between the municipality and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party.

Carried

9.00 UNFINISHED BUSINESS

.01
COUNCILLOR LENNOX K'OMOKS FIRST NATION MOTION

Moved by Lennox and seconded by Wells that the following statement be included on the first page of all Council meeting and Committee of the Whole meeting agendas:

We respectfully acknowledge that the land on which we gather is the unceded traditional territory of the K'ómoks First Nation

Carried

10.00 NOTICE OF MOTION

11.00 NEW BUSINESS

12.00 BYLAWS

.01
BYLAW NO. 2893, 2018
ZONING AMENDMENT PHASE 3A BUCKSTONE DEVELOPMENT (3420 RHYS ROAD AVENUE)

Moved by Wells and seconded by Lennox that "Zoning Amendment Bylaw No. 2893, 2018" pass first and second reading.
Carried

.02
BYLAW NO. 2924, 2018
2018–2022 CONSOLIDATED FINANCIAL

Moved by Wells and seconded by Hillian that "2018–2022 Consolidated Financial Bylaw No. 2924, 2018" pass first, second and third reading as amended.
Carried with Mayor Jangula and Councillor Theos opposed

.03
BYLAW NO. 2919, 2018
SUBDIVISION AND DEVELOPMENT SERVICING BYLAW

Moved by Eriksson and seconded by Wells that "Subdivision and Development Servicing Bylaw No. 2919, 2018" pass third reading as amended.
Carried

13.00 ADJOURNMENT

.01

Moved by Lennox and seconded by Theos that the meeting now adjourn at 6:59 p.m.
Carried

CERTIFIED CORRECT

_____
Director of Legislative and Corporate Services

Adopted this 16th day of April, 2018

_____
Mayor

DELEGATION BEFORE COURTENAY CITY COUNCIL 16 APRIL 2018

Subject: Objection to Direct Billing of Service Fees to Strata Corporations

By: Dennis Thomas of VIS 6154 The Woodlands

The enclosed package consisting of 21 pages, contains information pertaining to the subject.

The information will be explained and expanded on during a 9 to 10 minute presentation, by the undersigned, making reference to speaking notes.

If there are questions prior to the presentation, the undersigned may be contacted via email at dkthomas@telus.net or cell phone 250 650 5450

Sincerely: Dennis Thomas

#75 – 2001 Blue Jay Place

Courtenay, BC V9N 4A8

29 March, 2018


COURTENAY
COURTENAY RIVER
COMOX HARBOUR
INDIAN RESERVE NO. 2
INDIAN RESERVE NO. 1
HYDRO LINE
CONDENSORY RD.
OLD ISLAND HIGHWAY
ISLAND HIGHWAY
19A
RYAN RD.
COMOX RD.
CLIFFE AVE.
AIR PARK
MARINA
LEWIS PARK
PUNTLEDGE RD.
TSOLUM
BACK RD.
LERWICK RD.
VALLEY VIEW
HAWK DR
MARSLAND DR.
MORRISON RD.
CUMMINGS RD.
McDONALD RD.
SHERATON RD.
FARNVIEW RD.
SCOTT RD.
ANFIELD RD.
BEACHWOOD RD
CHRISTIE PARKWAY
MARRIOTT
MILLARD
SANDPIPER DR.
MANSFIELD DR.
MISSION RD.
MURRELET DR.
GLACIER VIEW DR.
MANOR DR.
COMOX GOLF CLUB
THE WOODLANDS
2001 Blue Jay

COURTENAY, VANCOUVER ISLAND, BRITISH COLUMBIA

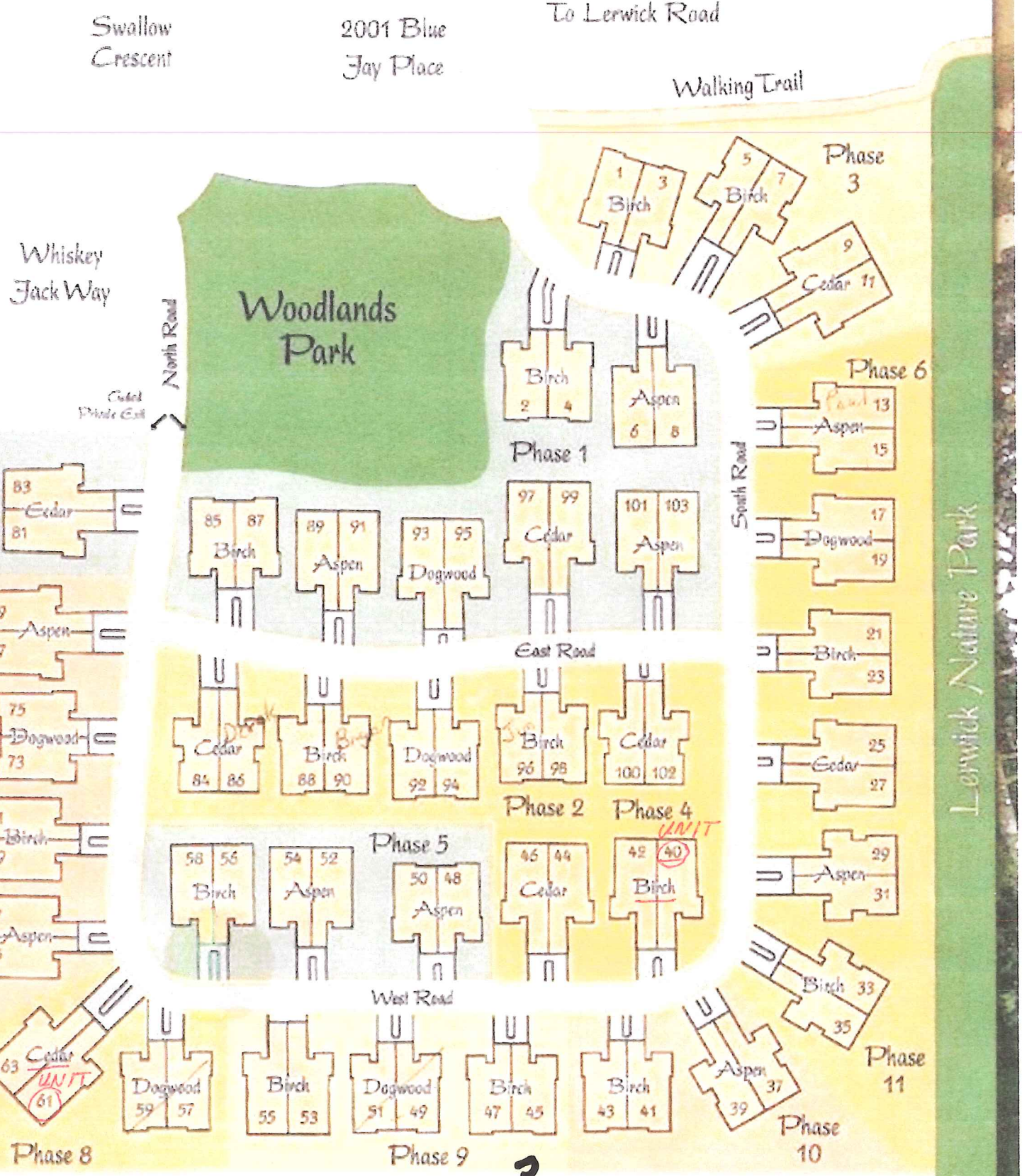
the Woodlands

PATIO HOMES

It's Time to Live the Good Life!

Site Plan

Toll Free Inquiries 1-866-638-4225 or 250-334-3124 | www.thewoodlands.ca
2001 Blue Jay Place, Courtenay, British Columbia V9N 8Z6



City of Courtenay Walking Trail

first approved by a resolution passed by a 3/4 vote at an annual or special general meeting, or authorized

(b) (i) in the budget, or

(ii) under section 98 or 104 (3).

Unapproved expenditures

98 (1) If a proposed expenditure has not been put forward for approval in the budget or at an annual or special general meeting, the strata corporation may only make the expenditure in accordance with this section.

(2) Subject to subsection (3), the expenditure may be made out of the operating fund if the expenditure, together with all other unapproved expenditures, whether of the same type or not, that were made under this subsection in the same fiscal year, is

(a) less than the amount set out in the bylaws, or

(b) if the bylaws are silent as to the amount, less than $2 000 or 5% of the total contribution to the operating fund for the current year, whichever is less.

(3) The expenditure may be made out of the operating fund or contingency reserve fund if there are reasonable grounds to believe that an immediate expenditure is necessary to ensure safety or prevent significant loss or damage, whether physical or otherwise.

(4) A bylaw setting out an amount for the purposes of subsection (2) (a) may set out further conditions for, or limitations on, any expenditures under that provision.

(5) Any expenditure under subsection (3) must not exceed the minimum amount needed to ensure safety or prevent significant loss or damage.

(6) The strata corporation must inform owners as soon as feasible about any expenditure made under subsection (3).

Division 2 — Contribution to Expenses

Calculating strata fees

99 (1) Subject to section 100, owners must contribute to the strata corporation their strata lots' shares of the total contributions budgeted for the operating fund and contingency reserve fund by

means of strata fees calculated in accordance with this section and the regulations.

(2) Subject to the regulations, the strata fees for a strata lot's share of the contribution to the operating fund and contingency reserve fund are calculated as follows:

$$\frac{\text{unit entitlement of strata lot}}{\text{total unit entitlement of all strata lots}} \times \text{total contribution}$$

Change to basis for calculation of contribution

100 (1) At an annual or special general meeting held after the first annual general meeting, the strata corporation may, by a resolution passed by a unanimous vote, agree to use one or more different formulas, other than the formulas set out in section 99 and the regulations, for the calculation of a strata lot's share of the contribution to the operating fund and contingency reserve fund.

(2) An agreement under subsection (1) may be revoked or changed by a resolution passed by a unanimous vote at an annual or special general meeting.

(3) A resolution passed under subsection (1) or (2) has no effect until it is filed in the land title office, with a Certificate of Strata Corporation in the prescribed form stating that the resolution has been passed by a unanimous vote.

No return of contributions on sale of strata lot

101 On the sale of a strata lot, the seller is not entitled to a return of contributions to the contingency reserve fund.

Division 3 — Budgets

Change of fiscal year end

102 (1) The strata corporation may, by a resolution passed by a 3/4 vote at an annual or special general meeting held after the first annual general meeting, change the dates of its fiscal year, and as a result may have a budget for

(a) a period of more than 12 months, but less than 18 months, or

THE WOODLANDS -VIS 6154
SCHEDULE OF UNIT ENTITLEMENT - vs Unit Costs for Water, Sewer, Sanitation (Garbage) as of 2015

UNIT	S/L	U/E
001	25	124
002	1	248
003	26	124
004	2	248
005	27	124
006	3	256
007	28	124
008	4	256
009	29	139
011	30	139
013	43	130
015	44	130
017	45	183
019	46	183
021	47	124
023	48	124
025	76	124
027	75	124
029	74	130
031	73	130
033	72	124
035	71	124
037	70	256
039	69	256
Birch 040	33	123 .94%
041	68	257
042	34	124
043	67	257
044	35	139
045	66	257
046	36	139
047	65	257
048	37	130
049	64	257
050	38	130
051	63	257
052	39	130
053	62	257
054	40	130
055	61	257
056	41	123
057	60	257
058	42	124

UNIT	S/L	U/E
059	59	257
061	58	276 2.1% (Cedar Walkout)
063	57	276
065	56	130
067	55	129
069	54	123
071	53	123
073	52	183
075	51	182
077	50	130
079	49	128
081	16	139
083	15	139
084	17	139
085	14	124
086	18	139
087	13	124
088	19	124
089	12	129
090	20	124
091	11	129
092	21	182
093	10	182
094	22	182
095	9	182
096	23	246
097	8	139
098	24	246
099	7	139
100	32	276
101	6	129
102	31	276
103	5	128
		13083

Water Charges per quarter

$48.55 X 76 units = $3,689.80

Birch pays $36.48

Cedar Walk out pays $77.48

Sewer user rate -Annually

$246.67 X 76 units = $18,746.92

Birch pays $176.22

Cedar Walk out pays $393.68

Garbage including recycling & Yard Waste

Annually

Dwelling rate $152.50 X 76 units = $11,590.00

Birch pays $108.95

Cedar Walk out pays $243.39

TOTAL Annual billing (2015)$45,096.12

Birch Pays $423.90
Cedar Walk out
pays $947 .02

City of Courtenay Bylaw rates (effective 2015)			Woodlands "walkout" pays	
Water 48.55 x 4 =	194.20		77.48 x 4 =	309.92
Sewer	246.67			393.68
Garbage	152.50			243.39
TOTAL	593.37			946.99
		Annual difference from bylaw rate =		**353.62**

Approximate Difference over 10 years (2007 - 2017) **$3,500.00**

Brian Parschauer
Director of Financial Services
City of Courtenay
830 Cliffe Avenue
Courtenay, BC V9N 2J7

Dear Sir,

Re: Woodlands Strata, 2001 Blue Jay Place
VIS 6154
Courtenay, BC

The City of Courtenay is currently billing Woodlands Strata (VIS 6154) directly for both garbage and sewer services. The annual fee for sewer service is $246.67 per Unit for a total of $18,746.92. The annual fee for garbage, recycling and yard waste is $152.50 per Unit for a total of $11,590.00.

At the recent Woodlands Strata Annual General Meeting, the Owners in the Strata passed a motion to instruct the Woodlands Strata Council to advise the City of Courtenay that sewer and garbage collection fees should no longer be billed to The Owners, Strata Plan VIS 6154 but to the individual Owners separately on an equalized basis to be included on each Owner's Notice of Property Tax.

#75-2001 Blue Jay Place
Courtenay, BC V9N 4A8
21 October 2016

Mr. Brian Parschauer, Director of Financial Services
City of Courtenay, 830 Cliffe Avenue
Courtenay, BC V9N 2J7

Re: Billing Procedures for Sewer and Garbage Services

Dear Sir:

I am writing further to a meeting I had with Ms. Collins, Manager of Finance, on September 12, 2016. During that meeting, I noted a number of concerns regarding the current billing practice to my Strata by the City for garbage and sewer usage fees. Ms. Collins advised me that I should submit my concerns outlining what I am requesting and the reasons for the request.

My prime concern is that with the current practice the billing is sent to the Owners of V1S6154 rather than directly to the Owners of the Strata lots in our Strata. This procedure is contrary to the BC Community Charter, in that the billing is being sent to owners who are Tenants in Common as owners of the Common Property and Assets of V1S6154. However, the owners as such, along with the Corporation's Common Property and Assets incur no usage of sewer nor garbage services. Rather, it is the owners of the Strata lots, who are owners of an estate in fee simple, who are using the services and incurring the charges.

A change in the billing procedure by the City will:

- allow the Strata lot owners to be billed in accordance with applicable Provincial Legislation as are other Courtenay owners and service users, and:

- relieve the inequitable billing results that now occur because the City bills the Strata Corporation that must then apply the requirements of the Strata Property Act.

I was impressed with the knowledgeable and understanding attitude of the City's Manager of Finance. I understand the reluctance to change billing procedure; however, I am requesting the change for the reasons noted above. I would be pleased to discuss this matter further with you and your staff, including the detailing of my Legislation references, if it will assist . I can be contacted at the above address, by phone at 250-334-4733 or e-mail dkthomas@telus.net

Thank you for your service and consideration of my request.

Yours truly,

Dennis L. Thomas

Gmail

Dennis Thomas <dkthomas9@gmail.com>

Sewer and Garbage Services

Dennis Thomas <dkthomas9@gmail.com> Mon, Oct 24, 2016 at 10:56 AM
To: "Parschauer, Brian" <bparschauer@courtenay.ca>

Good Morning Mr.Parschauer:
Thank you for the very prompt response; it is appreciated.
With regard to the specific BC legislation I reviewed, I believe the most pertinent are:
-Strata Property Act Section 66;
-Community Charter - Schedule - Definitions - "owner";
-Local Government Act Revision Schedule- RS2015-1 Rev Sch - 41- Interpretation Act, Effective 1 Jan 2016;
Interpretation Act- Section 40 (as revised); and
-Municipal Act - Divisions 4 and 5 (as they make reference to "owner" or " owners").

Central to my concern, is that I believe that BC legislation, by definition, does not include The owners of VIS6154 Strata Corporation,who own the Common Property and Assets of the Strata as Tenant in Common. I don't know if the omission is because of oversight or intent. However, after reviewing the BC Assessment Act and speaking with an Appraiser, I believe it may be by intent. Also the owners of VIS6154, as such and the property they own does not incur any use of the subject services. It is the owners of the individual strata lots that incur the services, are included in the applicable legislation as owners and are now requesting that they be billed directly for the services they use.
I appreciate and believe I understand the reluctance of the City to change the billing practise. However, it is causing a very inequitable and unintended charging of service costs to the owners of the Strata lots at The Woodlands and in two cases that I am aware of, could be considered to be contributing to a hardship, intended or not.
I also believe that with the continued progress of technology such as the increased installation and use of smart meters to monitor, control and conserve the use of resources in both individual and strata homes, the City, in the near future, will be obliged to extend direct billing to all owners.
I am not sure if I have in all cases, made exact reference to the legislation that I have referenced, sometimes there is a lot of back and forth to check on Revisions, However, I have made hard copies and you are welcome to copy same if it will assist.
Thank you again for your prompt consideration of my request. The experience shows me that we are well served by our City staff.

With Regards: Dennis Thomas 250 334 4733

On Mon, Oct 24, 2016 at 8:46 AM, Parschauer, Brian <bparschauer@courtenay.ca> wrote:

Mr. Thomas

I received your correspondence and will provide a response in the near future. Please note however, that I would appreciate receiving the specific pieces of legislation that you are referencing before I provide a response to you. This will give me a better perspective on this matter.

THank you for your time.

Brian Parschauer, BA, CPA-CMA

Director of Financial Services
City of Courtenay

Phone: 250-703-4852

Fax: 250-703-4866

THE CORPORATION OF THE CITY OF COURTENAY

Financial Services Department
Phone: (250) 334-4441
Fax: (250) 334-4241

830 Cliffe Avenue
Courtenay, BC, V9N 2J7
E-mail: info@courtenay.ca
Website: www.courtenay.ca

File No: 1950-01

April-20-17

Woodlands Patio Homes
c/o Advanced Property Management Inc
532 – 5th Street
Courtenay, BC V9N 1K3

Attention Lorrie Fugle, Strata Manager

Dear Ms. Fugle:

Re: Billing Practices for Sewer and Solid Waste

This letter is in response to your correspondence dated April 19, 2017. You may not be aware, but the City also received correspondence from Mr. Dennis Thomas and met with him on several occasions in early 2017 regarding this same issue.

Please note that this matter is continuing to be considered and reviewed. Staff requested and received a legal opinion regarding your Strata's request and while I cannot divulge to you the information contained within this legal opinion, I will tell you that this matter has significant and broad ramifications for all stratas located in the City. Suffice it to say, Staff continues to investigate its options and is continuing to determine the best course of action for the community as a whole.

Thank you for your time.

Sincerely,

Brian Parschauer, BA, CPA-CMA
Director of Finance

be a reference to the provision of the substituted enactment relating to the same subject matter.

No implications from repeal, amendment, etc.

37 (1) The repeal of all or part of an enactment, or the repeal of an enactment and the substitution for it of another enactment, or the amendment of an enactment must not be construed to be or to involve either a declaration that the enactment was or was considered by the Legislature or other body or person who enacted it to have been previously in force, or a declaration about the previous state of the law.

(2) The amendment of an enactment must not be construed to be or to involve a declaration that the law under the enactment prior to the amendment was or was considered by the Legislature or other body or person who enacted it to have been different from the law under the enactment as amended.

(3) An amendment, consolidation, re-enactment or revision of an enactment must not be construed to be or to involve an adoption of the construction that has by judicial decision or otherwise been placed on the language used in the enactment or on similar language.

Notice by newspaper

38 If an enactment provides that notice must or may be given by publication in a newspaper published in a particular municipality, district, county, jurisdiction or other place, the provision must be construed to mean that the notice may be sufficiently given, if no newspaper is published at the time when the notice is to be given in the particular place, by publishing or advertising the notice in a newspaper published in British Columbia, nearest to the place mentioned.

Application of definitions in *Supreme Court Act* to other enactments

39 The definitions section of the *Supreme Court Act*, so far as the terms defined can be applied, extends to all enactments relating to legal proceedings.

Definitions in *Community Charter* and *Local Government Act* apply to other enactments

40 (1) So far as the terms defined can be applied, the definitions established by or applicable under the following apply to all enactments relating to municipal and regional district matters:

(a) the Schedule to the *Community Charter*;

(b) section 1 of the Schedule to the *Local Government Act*.

(2) As an exception, subsection (1) does not apply in relation to the definition of "municipality" in the *Community Charter*.

Powers to make regulations

RS 2015-1 Rev Sch 1 4 / Jan 2016

"local service tax" means a tax imposed under section 216 *[local service taxes]*;

"minister responsible" means the minister responsible in relation to the applicable matter;

"municipality" means, as applicable,

(a) the corporation into which the residents of an area are incorporated as a municipality under Part 2 *[Incorporation of Municipalities and Regional Districts]* of the *Local Government Act* or under any other Act, or

(b) the geographic area of the municipal corporation,

but does not include the City of Vancouver unless otherwise provided;

"net taxable value", in relation to land or improvements or both, means

(a) if the *Hospital District Act* applies, the net taxable value of land or improvements or both for regional hospital district purposes, and

(b) if the *Hospital District Act* does not apply, the net taxable value of land or improvements or both determined as if the *Hospital District Act* applies;

"newspaper" means, in relation to a requirement or authorization for publication in a newspaper, a publication or local periodical that contains items of news and advertising;

"occupier"

(a) for the purposes of Division 8 *[Tax Liability of Occupiers]* of Part 7 *[Municipal Revenue]*, means occupier as defined in the *Assessment Act*, and

(b) for other purposes, means a person

(i) who is qualified to maintain an action for trespass,

(ii) who is in possession of Crown land under a homestead entry or preemption record,

(iii) who is in possession of

(A) Crown land, or

(B) land owned by a municipality or regional district

under a lease, licence, agreement for sale, accepted application to purchase, easement or other record from the Crown, municipality or regional district, or

(iv) who simply occupies the land;

"owner" means, in respect of real property,

(a) the registered owner of an estate in fee simple,

(b) the tenant for life under a registered life estate,

What does the term *real property* mean?

Real property is a term that refers to land and whatever is erected, growing upon, or affixed to the land. Land also include rights related to the land. Real property is distinct from Personal property that is, in effect, everything else. Personal property generally includes any right or interest which one has in moveable objects. According to the Real Estate Services Act (http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_04042_01) *real estate* means real property.

Who *owns* land?

In the context of land, ownership involves the control of the right to use land and control of the decision to transfer all or a portion of these rights to others. In Canada, the only *owner of land is the Crown* (meaning the Federal and Provincial governments). This is why, for example, governments can evict people from land and why they can determine land use through building codes and zoning. Note that municipalities become involved when there is subdivision of land. In terms of possession and administration, most of the land in Canada is Public Land that is administered by the provincial and federal governments while the minority is privately held. Property rights and the division of powers between the federal and provincial governments were addressed in various versions of the Constitution Act (http://laws.justice.gc.ca/eng/Const/Const_index.html) beginning in 1867.

An estate in land is a legal concept that is distinct from the actual land. Estates in land in British Columbia can be either Freehold (involving an indefinite duration) or Leasehold (having a fixed duration such as a lease). Freehold Estates can be Fee Simple or Life Estates.

A *Fee Simple Estate* is what we commonly think of as ownership of land. A Fee Simple owner has more rights over land than any other owner. Fee simple owners are subject only to:

a. the Crown's right of expropriation and tax sale;
b. the Crown's land use and building regulations; and
c. other individuals' common law rights.

Other than the above restrictions, the rights of Fee Simple owners last idefinitely and the owners may pass these rights on to their heirs. They may also dispose of their interests in land in total by sale, for a period of time through a lease, or they may grant a portion of their rights away through an interest that is less than an estate such as an easement.

A *Life Estate* is created when Fee Simple interest is passed to a person for the duration of their life (pur sa vie) or the life of another person (pur autre vie).

A Life Estate pur sa vie is a form of freehold estate that exists only for the lifetime of the holder who is known as the life tenant. The Life Tenant is charged with a number of responsibilities for the land during his or her life. The Life Tenant many also use and occupy the land and may sell or otherwise dispose of the land. A Life Estate pur autre vie is an estate based on the life of another person. For example, a wife inherits a life tenancy from her husband upon his death which terminates upon her death and passes to an only child in fee

The *Title* is the document that describes what a person purchases when they purchase land in British Columbia. The Title will include things such as the registered owner or owners, the type of estate and ownership, and it will describe the interests less than estates that apply to the land. Common items appearing on the title may include whether or not there is a duplicate Certificate of Title (if one is issued and removed from the land title office, the registrar will not register a transfer, mortgage or long term lease on the title until the duplicate is returned), Caveat (a note placed on title by a person claiming an interest in the land – a caveator must commence a court action within 2 months of lodging the caveat – a caveat prevents all dealings with the land inconsistent with the interest claimed), a Certificate of Pending Litigation (notice that court action has commenced concerning the property) a Builder's Lien, Judgments, Covenants and Notices of Special Waste. It is important to note that they may be restrictions on the property not registered on the title. For more information on land titles refer to the Land Title Act (http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/96250_00) of British Columbia.

The BC Land Title and Survey Authority (LTSA) (http://www.ltsa.ca/cms/) maintains British Columbia's official legal record of private property ownership which contains legal information about property in BC. The LTSA's Electronic Filing System (EFS) allows authorized customers such as lawyers, notaries, registry agents, conveyancers and land surveyors to electronically submit documents to the LTSA through BC Online.

Do Manufactured Homes have Titles?

Manufactured Homes are governed by the Manufactured Home Act (http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_03075_01) that became effective in April of 1978. A Manufactured Home is defined as a structure used for dwelling or business purposes that is designed to be moved from one place to another (although wheels are not necessary). Purchasers can place them on property they already own or rent space on which to place them in a manufactured home park. Manufactured Homes are registered in the Manufactured Home Registry (with some exceptions) but there is no title, just registered ownership. Manufactured Homes should have a serial number and a

All Topics

Search

Help

First Time Users

My Account

Land Registry

Survey Plan Registry

Judgment Registry

SPPR

System Requirements and Recommendations

Training

Glossary

-A- Glossary of Terms
-B- Glossary of Terms
-C- Glossary of Terms
-D- Glossary of Terms
-E- Glossary of Terms
-F- Glossary of Terms
-G- Glossary of Terms
-H- Glossary of Terms
-I- Glossary of Terms
-J- Glossary of Terms
-L- Glossary of Terms
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-O- Glossary of Terms
-P- Glossary of Terms
-Q- Glossary of Terms
-R- Glossary of Terms
-S- Glossary of Terms
-T- Glossary of Terms
-U- Glossary of Terms
-V- Glossary of Terms
-W- Glossary of Terms

Contact Us

Customer Support
Call: 1-866-275-4721
Email: ask@isc.ca
ISC Locations

-I- Glossary of Terms

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

Image
1. A graphic representation of an object that is produced by an optical or electronic device. An example of this is remotely sensed data from a satellite, scanned data and photographs. An image is stored as a raster data set of binary or integer values representing the intensity of reflected light, heat or other range of values on the electromagnetic spectrum.
2. The result of scanning a piece of paper to create an electronic version of the page which can, when viewed or printed, reproduce an exact replica of the paper page.

Image Page - A single photograph or snapshot.

Image Processing (IP) - The process of converting 'raw' remotely sensed data into a usable form through the application of various transformations such as supervised and unsupervised classification schemes.

Imaged Document - A paper document from the previous Land Titles system that has been imaged and stored in the Land Registry.

In Perpendicular WidthThroughout - Parallel with a line at a distance from it which is measured to a point which is at right angles to the line.

Inactive - No longer in effect or current; discharged.

Inactive Parcel - Parcel that has been made inactive through the transform process, it cannot have a current title record tied to it.

Individual - A natural person. See also "non-individual" and "person"

Instance - The single occurrence of a feature.

Integrated Spatial Database (ISBD) - The ISDB contains all SaskGIS Base Map data sets: cadastral and topographic.

Interest - Any right, interest, or estate, whether legal or equitable, in, over, or under land, recognized at law, that is less than title.

Interest Amendment - The process of adding or changing features of an existing interest. Options include, among other things, amending the scheduled expiry date, amending the description of interest, and adding the interest to additional parcels or interests.

Interest Amendment Date - The calendar date on which an interest amendment was registered.

Interest Assignment - The transfer of ownership of an interest.

Interest Audit - Function that displays all transactions that have taken place in relation to a specific interest.

Interest Category or Type - Describes the type of legal interest registered.

Interest Description - A summary of the terms of an interest agreement that is included for purposes of disclosure.

Indefeasible title

14.11 (1) On every indefeasible title issued for a strata lot, the registrar must endorse the following:

"STRATA PROPERTY ACT (Section 249)".

(2) The registrar must include on any indefeasible title for a strata lot, in the legal description, the words "together with an interest in the common property in proportion to the unit entitlement of the strata lot as shown on Form V".

(3) The registrar must not register an indefeasible title covering more than one strata lot and its owner's share in the common property.

(4) On registration of an indefeasible title under section 249 (2) of the Act, the registrar must transmit to the appropriate taxing authority a copy of the strata plan.

Correction of errors

14.12 (1) In this section:

"error" means any erroneous measurement or error, defect or omission in a registered strata plan;

"registered strata plan" includes any document, deposited in the land title office, that

(a) is referred to in section 245 (a) or (b) of the Act,

(b) forms part of a strata plan under the *Condominium Act*, R.S.B.C. 1996, c. 64 or a former Act, or

(c) amends or replaces a document referred to in paragraph (a) or (b).

(2) If it appears to the registrar that there is an error in any registered strata plan, the registrar may give notice or direct that notice be given to any person, in the manner and within the time determined by the registrar, and the registrar, after considering submissions, if any, and examining the evidence, may correct the error.

[am. B.C. Reg. 241/2001, s. 3.]

Court ordered amendments to Schedule of Unit Entitlement

14.13 An application must not, after November 24, 2009, be brought under section 246 (7) of the Act in respect of a strata lot

Aug. 25. 2008 1:27PM

Date: 08/08/25 TITLE SEARCH PRINT - VICTORIA Time: 13:24:24
Requestor: (PD96166) REALTY WORLD - COAST COUNTRY REALTY Page: 001
TITLE - FB122284

VICTORIA LAND TITLE OFFICE TITLE NO: FB122284
FROM TITLE NO: FB96051

APPLICATION FOR REGISTRATION RECEIVED ON: 22 NOVEMBER, 2007
ENTERED: 27 NOVEMBER, 2007

REGISTERED OWNER IN FEE SIMPLE:
0692273 BC LTD., INC.NO. 0692273
200 - 1260 SHOPPERS ROW
CAMPBELL RIVER, BC
V9W 2C8

TAXATION AUTHORITY:
CITY OF COURTENAY

DESCRIPTION OF LAND:
PARCEL IDENTIFIER: 027-311-899
STRATA LOT 51 DISTRICT LOT 158 COMOX DISTRICT STRATA PLAN VIS6154
* TOGETHER WITH AN INTEREST IN THE COMMON PROPERTY IN PROPORTION TO THE UNIT ENTITLEMENT OF THE STRATA LOT AS SHOWN ON FORM V

LEGAL NOTATIONS:

THIS TITLE MAY BE AFFECTED BY A PERMIT UNDER PART 26 OF THE LOCAL GOVERNMENT ACT, SEE FA101677

HERETO IS ANNEXED EASEMENT FA137556 OVER THE COMMON PROPERTY OF STRATA PLAN VIS6154

THIS TITLE MAY BE AFFECTED BY A PERMIT UNDER PART 26 OF THE LOCAL GOVERNMENT ACT, SEE FA47264

THIS TITLE MAY BE AFFECTED BY A PERMIT UNDER PART 26 OF THE LOCAL GOVERNMENT ACT, SEE FB708

CHARGES, LIENS AND INTERESTS:
NATURE OF CHARGE
CHARGE NUMBER DATE TIME

EXCEPTIONS AND RESERVATIONS
M76300
REGISTERED OWNER OF CHARGE:
ESQUIMALT AND NANAIMO RAILWAY COMPANY
M76300
REMARKS: INTER ALIA
A.F.B. 9.693.7434A, SECTION 172(3),
FOR ACTUAL DATE AND TIME OF REGISTRATION SEE
ORIGINAL GRANT FROM E & N RAILWAY COMPANY

STATUTORY RIGHT OF WAY
FA53334 2006-05-04 08:53
REGISTERED OWNER OF CHARGE:
BRITISH COLUMBIA HYDRO AND POWER AUTHORITY
FA53334

(b) holders of financial charges noted on the common property record must consent in writing to the proposed disposition unless in the registrar's opinion the interests of the persons who have not consented in writing are not adversely affected by the disposition;

(c) any document needed to effect the disposition must be executed by the strata corporation and delivered to the land title office accompanied by

(i) a Certificate of Strata Corporation in the prescribed form, stating that the resolution referred to in paragraph (a) has been passed and that the document conforms to the resolution, and

(ii) the written consents referred to in paragraph (b).

(3) For the purpose of determining what consents are required under subsection (2) (b) from holders of financial charges, section 97 (3) to (8) of the *Land Title Act* applies to the disposition of common property.

Strata corporation must not mortgage common property

81 The strata corporation must not mortgage common property.

Acquisition and disposal of personal property by strata corporation

82 (1) The strata corporation may acquire personal property for the use of the strata corporation.

(2) The strata corporation may sell, lease, mortgage or otherwise dispose of personal property.

(3) The strata corporation must obtain prior approval by a resolution passed by a 3/4 vote at an annual or special general meeting of an acquisition or disposal of personal property if the personal property has a market value of more than

(a) an amount set out in the bylaws, or

(b) $1 000, if the bylaws are silent as to the amount.

(4) This section does not apply to the acquisition or disposal of an investment instrument referred to in section 95 (2).

Division 4 — Work Orders

Work order against strata corporation property

83 The strata corporation must comply with a requirement to do work on or

City of Courtenay Strategic Priorities 2016 – 2018

We actively pursue vibrant economic growth

- ● Revitalizing our downtown is critical to our economic future
- ● Continue to improve our relationship with business in our community
- ▲ Our investment in economic development is measurable
- ▲ Continue to explore innovative economic options
- ■ The regional airport is a key economic driver

We proactively plan and invest in our natural and built environment

- ● Continued focus on asset management for sustainable service delivery
- ● Focus on infrastructure renewal rather than upgrades
- ● Continued support for social, economic and environmental sustainability solutions
- ▲ We look for regional infrastructure solutions for shared services to our community

We value multi-modal transportation in our community

- ● We support developing multi-modal transportation network plans
- ● As we build new or replace existing transportation infrastructure, we are consistent with what we learn from our Complete Streets Pilot Project
- ▲ Support our regional transit service while balancing service improvements with costs

We support diversity in housing and reasoned land use planning

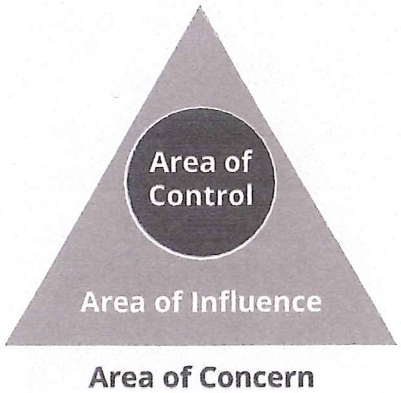
- ● Support densification aligned with community input and regional growth strategy
- ● Assess how city-owned lands can support our strategic land acquisitions and disposals
- ▲ Support initiatives and incentives to encourage lower cost housing
- ■ Proactively pursue housing diversity and advocate for senior government support

We focus on organizational and governance excellence

- ● We support and encourage initiatives to improve efficiencies
- ● We support meeting the fundamental corporate and statutory obligations
- ● We recognize staff capacity is a finite resource
- ● Communication with our community is a priority, and is considered in all decisions we make
- ● We responsibly provide services at a level which the people we serve are willing to pay

We invest in our key relationships

- ● We value and recognize the importance of our volunteers
- ● We will continue to engage and partner with service organizations for community benefit
- ▲ We actively engage with our K'ómoks First Nation neighbours on issues of mutual interest and concern
- ▲ We advocate and cooperate with other local governments and senior governments on regional issues affecting our city



● Area of Control

The policy, works and programming matters that fall within Council's jurisdictional authority to act.

▲ Area of Influence

Matters that fall within shared or agreed jurisdiction between Council and another government or party.

Area of Concern

Matters of interest outside Council's jurisdictional authority to act.

CITY OF COURTENAY

Comox Valley Economic Development and Tourism

Q1 2018 – Strategic Priorities Report Summary Highlights

KEY FOCUS AREA; Business Retention and Enhancement

Export Navigator Program

Export Navigator Program contract renewal was completed with the Ministry of Jobs, Trade and Technology. Staff also participated in Export Navigator Update & CASL Training and Referral Process webinars during the quarter. Participated in the "New Exporter Mission to Seattle" in partnership with the Ministry of Jobs, Trade and Technology which included export navigator program clients.

Online Tech Database Tool development

Application to the Invest Canada-Communities Initiatives Program was approved for funding in the amount of $12,500. The objective of this initiative is to highlight businesses in the Tech Sector and profile them and our community technology assets to act as a gateway for lead generation and FDI attraction that will enable the Comox Valley to position itself for company relocation and FDI.

Seminar Series with partners in key small business sectors

Partnered with the Comox Valley Chamber of Commerce and MNP to host an Economic Forecasting event which featured panel presentations from CMHC, BDC, and MNP. Also, partnered with the Comox BIA as part of our MOU to host a Business Succession Planning Workshop on Tuesday April 10, 2018 featuring presentations from MNP's Wendy Lewis and Karen Guinan.

KEY FOCUS AREA; Investment Attraction and Promotion

BC Seafood Festival, Expo and Buyers Mission

After 12 years the next generation of the BC Seafood Festival (June 8-17) is being unveiled in 2018. Led by CVEDS, in collaboration with seafood producers and associations, as well as tourism and culinary event partners, the Festival's Signature Weekend (June 15-17) is expanding to three days, with new events, a record breaking number of local, domestic and for the first time, international Chefs, as well as exciting new competitions. Select limited ticket releases commenced in the latter part of March, and excellent new and returning sponsors have been secured to support the costs of what is now the largest seafood festival in Western Canada. The BC Seafood Expo has secured over 1/3 of targeted trade show booths to date, and are finalizing a robust industry training and development program in collaboration with several provincial-level seafood industry associations.

Toll Free 1.877.848.2427
Tel 250.334.2427
Fax 250.334.2414
investcomoxvalley.com

Destination Marketing

Awesome All Winter / WinterFest Campaign was extended to run January 11 to mid-March to motivate visitation to the region, during the slower shoulder season, for winter ski and après ski experiences. CVEDS collaborated with the Courtenay and Comox BIA's and numerous businesses and groups including Mount Washington Alpine Resort, Tourism Mount Washington, Pacific Coastal Airlines, local entertainment & food/beverage venues, 40 Knots Winery, Comox Valley Exhibition and Courtenay hoteliers to develop an extensive event calendar (50), featuring new events, and market Ski & Stay and Après & Stay Packages to Vancouver Island and lower mainland residents. Preliminary marketing results demonstrated success including online contest entries over 10k contest entries were received, over 3000 new signups for Discover Comox Valley e-Blasts were received. MRDT impacts and ski lift ticket sales reporting will be forthcoming in Q2.

CVEDS developed its 2018/19 Destination BC Cooperative Marketing Collaboration application with four distinct marketing and sales campaigns including the Seafood Festival, Marine and Outdoor Campaign, Culinary Campaign and its Winter Campaign; a public announcement on funding confirmations is expected in April. Further CVEDS agreed to collaborate with the Central North Island Mountain Bike Consortium Sector Application and includes Campbell River, Nanaimo, Mount Washington and Cumberland.

CVEDS also supported tour development and hosting of 19 domestic and international receptive tour operators in February via Tourism VI's Explore event. Comox Valley attractions and amenities were showcased in the tour including Mount Washington, Comox Valley Airport, local beverage producers and restaurants, downtown cores, as well as marine adventure experiences.

Inbound and Outbound Trade and Investment Delegation Support

Hosted the Province of BC Trade and Investment representatives and Managing Directors from Europe, USA, North & East China and the Philippines. Their visit featured a networking event and tour at Wayward Distillation House with Export Navigator Program clients, a roundtable with economic development practitioners on services and investment opportunities, as well as a meeting the KFN Economic Development Corporation Board regarding Foreign Direct Investment.

KEY FOCUS AREA; Economic Development Facilitation

VI Community Consortium Initiative for Regional Tech Attraction

An application for a Regional Technology Attraction Strategy to the Invest Canada-Communities Initiatives program was approved for funding. Project scope and request for proposal are currently being developed with the project committee established by the Vancouver Island and Coast Economic Developers Association.

KEY FOCUS AREA; Communications

Delivery of timely, relevant & engaging industry, tourism, business content via digital & traditional media

In Q1, E-newsletter activity continued with distribution of Tourism industry and Business Counts distribution, as well as several Discover Comox Valley Consumer E-Blasts promoting winter experiences. Social media account followers and likes continued to grow across all platforms.

Comox Valley Economic Development and Tourism (CVEDS)
Q4 2017 Report Summary Highlights

Export Navigator Program
Hosted an export roundtable, site visits to program participants, as well as an Export Pavilion and panel presentation at the Comox Valley Chamber of Commerce's CV Business Expo with Small Business BC, Business Development Bank of Canada, Canadian Trade Commissioner Service, and HSBC Bank Canada. Also nominated Export Navigator Program participants for the Small Business BC International Trade Award.

Business Counts Workshop Series
Hosted 14 small business workshops during the quarter with a variety of industry partners including the Comox Valley Chamber of Commerce, Comox BIA, Small Business BC, Innovation Island Technology Association, Certified Organic Association of BC, BC Small Scale Food Processors, and MNP; 242 small business registrants attended the various workshops.

Destination Marketing – Leveraging Funds 2018/19
Building upon the completion of the 5 year Municipal Regional District Tax Strategic Plan completion (formerly called the Hotel Tax), staff developed the Destination BC (DBC) 2018/19 Cooperative Marketing Partnerships Program *consortium* application that integrates four major destination marketing initiatives: BC Seafood Festival, Awesome All Winter / WinterFest, a new WILD'erness campaign and a new Crave Comox Valley Culinary Campaign. The request is for the maximum allowable of $250k, which if successful, would be matched by DBC. Letters of support were provided by a selection of partners & stakeholders that collaborate within the Initiatives including the BC Shellfish Growers Assn, Comox Valley Airport, Downtown Courtenay BIA, Comox BIA, Mount Washington Alpine Resort and the BC Restaurant and Foodservices Assn. The region also confirmed participation in the Vancouver Island Mountain Biking Consortium *sector* application with other central and north Island mountain biking communities.

WinterFest / Awesome All Winter Event Development and Marketing
In collaboration with the Comox BIA, Downtown Courtenay BIA, Mount Washington Alpine Resort, the Sid Williams Theatre, hoteliers and other winter season stakeholders, WinterFest event development and expansion was undertaken for Live Sites, Après Ski events, Signature events and Ski & Stay packages. WinterFest runs Feb. 2 to 12, while the Awesome all Winter campaign to promote the Comox Valley as the Island's true, full service winter destination will run the entire ski season, with a focus on January to March.

2017 STRATEGIC PRIORITIES UPDATE - Q4 (Oct, Nov, Dec)
COMOX VALLEY ECONOMIC DEVELOPMENT AND TOURISM

BUSINESS RETENTION AND EXPANSION – ACTIONS AND MEASUREMENTS

PRIORITY PROJECTS

Project	5-Year Plan Reference	2017 - 2018 Actions	Output Measurements	C
Export Navigator Pilot Program	Export Development Program	Implement pilot program with Province of BC	Hosted Export Roundtable with service providers from Small Business BC, Business Development Bank of Canada, Canadian Trade Commissioner Service and HSBC along with 4 export navigator program participants. The roundtable was followed by site visits to 3 local export companies (Atlas Manufacturing, Fanny Bay Oysters, Natural Glacial Waters) to discuss challenges and opportunities. Hosted an Export Pavilion as part of the CV Chamber of Commerce Business Expo which included Small Business BC, Business Development Bank of Canada, Canadian Trade Commissioner Service and HSBC. Also featured a panel presentation and discussion on Export from the service providers at the Comox Valley Chamber of Commerce's Business Expo that was moderated by CVEDS. Nominated 3 Export Navigator Program clients for the Small Business BC International Trade Award.	IP
Downtown Interactive Development Map and supporting resources	Downtown, Waterfront and Local Area Enhancement Program	Current, proposed, and major projects are listed and maintained on the online mapping system	Available real estate opportunities and developments maintained in Development Map. 15 current downtown opportunities and 36 developments highlighted. Unique Pageviews Q4: T369	IP
Early-Stage Technology Entrepreneur Support	Business Visitation & Entrepreneurship Program	Host workshops for technology based small and medium-sized businesses	Hosted Rethink Series Round 1with Innovation Island at North Island College, which included the 'Tech Talk' session which had over 42 registrants including local leaders in business, government, and academics.	IP
E-Commerce Local Company Assistance	Business Visitation & Entrepreneurship Program	Facilitate a connection for local companies to e-commerce tools through workshops or other resources	Hosted an E-commerce workshop with MNP's Technology Consulting Team Leader Jeff Michaud which featured digital commerce overview, barriers to success, current industry facts and figures, case studies and digital strategy development that had 7 local business registrants.	C

Project	5-Year Plan Reference	2017 - 2018 Actions	Output Measurements	C
ONGOING ACTIVITIES				
Provision of business support services, resources and individualized small business planning	Business Visitation & Entrepreneurship Program	Provide referrals and resources on common challenges, issues, and barriers to growth	Information/Referrals Provided: 10 Individualized Business Plan Assistance: 5 Business Site Visits: 3 (Export Tour) Workshops Hosted: 14	IP
		Use current market and business plan resources to guide companies through the business planning and start-up process	Businesscomoxvalley.com unique pageviews: 2,085 Events page: 598 Resources pages: 846 Start a Business Pages: 210 Contact Us/Staff Directory: 242	IP
Seminar series with partners in key small business sectors	Business Visitation & Entrepreneurship Program	Business Counts workshop series that addresses common issues and challenges such as Online Marketing, Financing, Product Development, HR, and Business Succession.	Hosted 14 workshops during Small Business Month Business Counts Workshop Series with a registrant total of 242; This included Fall Forward Tourism Conference, a workshop for members of the Comox BIA , 3 Tech-focused sessions in partnership with Innovation Island Technology Association, E-commerce workshop with MNP, 1 agrifood session in partnership with Certified Organics Associations of BC and 1 Community Food Analysis Open House with the Small Scale Food Processors Association. Also included was a Business Development Webinar Series in partnership with Small Business BC during Small Business Week.	C
Event Development and Enhancement	Tourism, Arts, Culture and Heritage Development Program	Grow existing signature events and expand one additional event	WinterFest / Awesome All Winter sponsorship and event development participation solicited for campaign. Currently confirmed 11 après events, 6 signature events, and 13 community live site participants. Dine Around Comox Valley is actively signing up participants, including 10 restaurants and 3 events confirmed to date, for campaign running Feb 21 - March 11, 2018. Development of BC Seafood Festival sponsorship program and outreach underway for event running June 8 - 17, 2018.	C

2017 STRATEGIC PRIORITIES UPDATE - Q4 (Oct, Nov, Dec)
COMOX VALLEY ECONOMIC DEVELOPMENT AND TOURISM

Project	5-Year Plan Reference	2017 - 2018 Actions	Output Measurements	C
INVESTMENT ATTRACTION AND PROMOTION - ACTIONS AND MEASUREMENTS				
PRIORITY PROJECTS				
Regional Technology Attraction Strategy	Resident and Entrepreneur Relocation Program/Sustainability-Related Business Opportunities Program	Support regional efforts to develop technology-oriented website with detailed community profiles on tech-related topics	Funding application was submitted in the 4th quarter in partnership with Campbell River, Port Alberni, Parksville/Qualicum, Nanaimo, and Cowichan for the development of a Regional Technology Attraction Strategy through the Vancouver Island and Coast Economic Developers Association.	IP
ONGOING ACTIVITIES				
Destination Marketing	Destination Marketing Program	Market the region as outlined in annual Work Plan	2017 MRDT revenue 12%+ over 2016 (as of August 2017) DiscoverComoxValley.com and its ancillary websites saw an increase of 10% YOY with 562,294 total pageviews. Staff developed the Destination BC (DBC) 2018/19 Cooperative Marketing Partnerships Program consortium application that integrates four major destination marketing initiatives: BC Seafood Festival, Awesome All Winter / WinterFest, a new WILD'erness campaign and a new Crave Comox Valley Culinary Campaign. The request is for the maximum allowable of $250k, which if successful, would be matched by DBC. The region also confirmed participation in the Vancouver Island Mountain Biking Consortium sector application with other central and north Island mountain biking communities.	IP
	Visitor Services Opportunity Program	Promote Visitor Centre suite of marketing services	2018 Visitor Services Marketing Program was launched in Q4 with a target to produce over 70k in sales within a new partnership agreement with Blackpress. Vancouver Island Visitor Centre is tracking 8%+ in true visitors as of end of December compared to 2017.	IP

2017 STRATEGIC PRIORITIES UPDATE - Q4 (Oct, Nov, Dec)
COMOX VALLEY ECONOMIC DEVELOPMENT AND TOURISM

Project	5-Year Plan Reference	2017 - 2018 Actions	Output Measurements	C
ECONOMIC DEVELOPMENT FACILITATION - ACTIONS AND MEASUREMENTS				
PRIORITY PROJECTS				
Hotel Room Tax Renewal and Expansion	Destination Marketing Program	Expand hotel room tax to include Mount Washington, Comox, and Regional District accommodation properties	Municipal and Regional District Tax renewal update process undertaken in Q3, sent to Province in September to renew another 5 year mandate of 2% being charged to Courtenay accommodation properties overnight guests for use in increased Destination Marketing.	C
Community Food Analysis Lab Initiative	Food Security Enhancement Program	Partner with the BC Small Scale Food Processors in the development of a pilot Community Food Analysis Lab for local agriculture producers	Community Food Analysis Open House hosted in Downtown Courtenay (407 - 5th Street) with the BC Small Scale Food Processors. Featured remarks by Ms. Pamela Baxeter, President and Director of SSFPA, Dr. Claver Bundac, Managing Director of Biomedix, and CVEDS.	C
ONGOING ACTIVITIES				
Business and Community Economic Analysis and Surveys	Land and Development Impact Analysis Program	General economic impact analysis information for local major commercial/industrial developments and investments	Development Impact Model updated with new underlying data. 9 Impact Assessments planned to be completed.	IP
Data and Resource Updates and Maintenance	Economic Profile and Information Program	Profile current and timely economic and demographic information to local business and investors	Online Statistics updated for Q4	IP

2017 STRATEGIC PRIORITIES UPDATE - Q4 (Oct, Nov, Dec)
COMOX VALLEY ECONOMIC DEVELOPMENT AND TOURISM

Project	5-Year Plan Reference	2017 - 2018 Actions	Output Measurements	C
COMMUNICATIONS - ACTIONS AND MEASUREMENTS				
PRIORITY PROJECTS				
Earned Media Generation & Hosting	Communications and Media Relations Program	Expand media content and resources in News Centre	Content expanded with press releases on: Mount Washington Stakeholder Survey, CVEDS Q3 Highlights/Update, Celebrate the Season at the Visitor Centre, and the Business Counts Fall Series	IP
		Proactive pitching of story ideas to key media	Circulated press releases on each of the items noted above; local paper ran each story.	IP
		Support media trips in partnership with industry	Northwest Travel and Life Magazine (October) hosted	IP
ONGOING ACTIVITIES				
		Update and report on quarterly CVEDS Strategic Plan updates & news	Presentations of the CVEDS Q2 & Q3 Report we presented as follows: Oct. 2 - City of Courtenay, Oct. 11 - Town of Comox, Oct. 17 - Comox Valley Regional District.	C
		Provision of key business and industry stats, resources and content to regional stakeholders	Q4: # of Tourism Industry e-News: 1 # of Consumer Tourism e-Blasts: 7 # of Business e-News: 8 CVEDS Twitter followers: 2,239 (+1%) CVEDS Facebook likes: 1298 (+3%) VIVC Twitter followers: 2012 (+1%) VIVC Facebook likes: 15810 (+0%)	IP

Notes: The "C" column stands for Completion
In the C column; IP = Progress, C = Complete, O = Ongoing

THE CORPORATION OF THE CITY OF COURTENAY

STAFF REPORT

To: Council **File No.:** 0570-01

From: Chief Administrative Officer **Date:** April 16, 2018

Subject: Council Procedure and Election Bylaw Amendments

PURPOSE:

The purpose of this report is to consider amendments to "Council Procedure Bylaw No. 2730, 2013" and "Election Procedures and Automated Voting Bylaw No. 2545, 2008" to update the bylaws due to legislative changes for the 2018 General Local Election.

CAO RECOMMENDATIONS:

That based on the April 16, 2018 staff report "Council Procedure and Election Bylaw Amendments", Council approve OPTION 1 and the recommended amendments to "Council Procedure Bylaw No. 2730, 2013" and "Election Procedures and Automated Voting Bylaw No. 2545, 2008" as per attachment A to this report;

That "Council Procedure Amendment Bylaw No. 2918, 2018" and "Election Procedures and Automated Voting Amendment Bylaw No. 2917, 2018" proceed to three readings; and

That staff arrange for the required statutory advertising regarding "Council Procedure Amendment Bylaw No. 2918, 2018".

Respectfully submitted,

David Allen, BES, CLGEM, SCLGM
Chief Administrative Officer

BACKGROUND:

There have been changes to the *Local Government Act* regarding the 2018 Local Government Election including the date of general voting day, as well as re-numbering of various sections in the *Act*.

DISCUSSION:

Amendments are required to the "Council Procedure Bylaw No. 2730, 2013" and "Election Procedures and Automated Voting Bylaw No. 2545, 2008" in order to align with the *Local Government Act*.

There is only one change to the Council procedure bylaw due to the revised general voting day, and all the amendments to the election bylaw relate to the revised general voting day, and the re-numbering of the *Local Government Act*. There are no other changes to either bylaw.
These amendments are considered routine housekeeping in nature. No other changes to the bylaws are recommended.

Pursuant to section 56 of the *Local Government Act*, any changes to the election bylaw must be adopted by July 9th, 2018.

FINANCIAL IMPLICATIONS:

Not applicable.

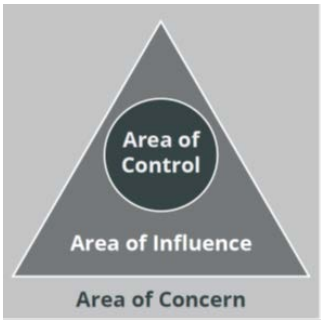
ADMINISTRATIVE IMPLICATIONS:

None.

STRATEGIC PRIORITIES REFERENCE:

We focus on organizational and governance excellence

- We support meeting the fundamental corporate and statutory obligations



- **Area of Control**
  The policy, works and programming matters that fall within Council's jurisdictional authority to act.
- **Area of Influence**
  Matters that fall within shared or agreed jurisdiction between Council and another government or party.
- **Area of Concern**
  Matters of interest outside Council's jurisdictional authority to act.

ASSET MANAGEMENT IMPLICATIONS:

Not applicable.

OFFICIAL COMMUNITY PLAN REFERENCE:

Not applicable.

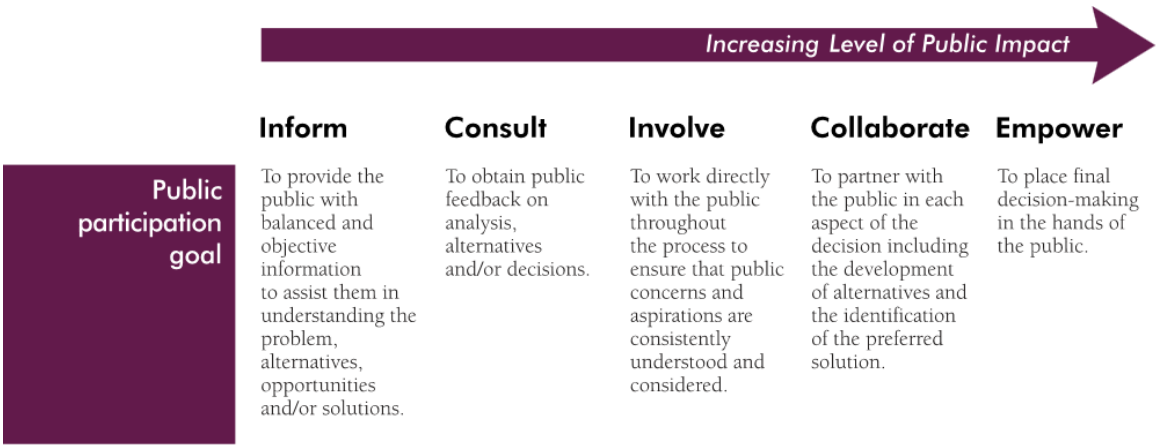
REGIONAL GROWTH STRATEGY REFERENCE:

Not applicable.

CITIZEN/PUBLIC ENGAGEMENT:

Statutory notice required for the Council Procedure Bylaw pursuant to section 94 of the *Community Charter*.

Staff would consult the public at this point in time based on the IAP2 Spectrum of Public Participation:
http://c.ymcdn.com/sites/www.iap2.org/resource/resmgr/imported/IAP2%20Spectrum_vertical.pdf



OPTIONS:

OPTION 1: That Council approve the recommended amendments to "Council Procedure Bylaw No. 2730, 2013" and "Election Procedures and Automated Voting Bylaw No. 2545, 2008" as per attachment A to this report;

That "Council Procedure Amendment Bylaw No. 2918, 2018" and "Election Procedures and Automated Voting Amendment Bylaw No. 2917, 2018" proceed to three readings; and

That staff arrange for the required statutory advertising regarding "Council Procedure Amendment Bylaw No. 2918, 2018".

OPTION 2: That Council refer the bylaws back to staff for further amendments.

Prepared by:

John Ward, CMC
Director of Legislative and Corporate Services/Deputy CAO
Chief Election Officer

Attachment: Proposed bylaw amendments

Attachment A

Bylaw No. 2730

Current

Inaugural Meeting

5. Following a general local election, the first council meeting must be held on the first Monday after December 1 in the year of the election.

New

Inaugural Meeting

5. Following a general local election, the first council meeting must be held on the first Monday after November 1 in the year of the election.

Bylaw No. 2545

Current

General Voting Day means

(a) for a general local election, the 3rd Saturday of November in the year of the election;

(b) for other elections, the date set under sections 37 (5), 38 (1), or (3) or 142 (5) of the *Local Government Act*; and

(c) for other voting, the date set under section 162 of the *Local Government Act*.

New

General Voting Day means

(c) for a general local election, the 3rd Saturday of October in the year of the election;

(d) for other elections, the date set under sections 54 (5), 55 (1), or (3) or 152 (5) of the *Local Government Act*; and

(c) for other voting, the date set under section 174 of the *Local Government Act*.

Current

3. (a) As authorized under section 61 of the *Local Government Act*, the most current list of voters prepared under the Election Act existing at the time an election or other voting is to be held, is deemed to be the register of resident electors for the municipality;

New

3. (a) As authorized under section 76 of the *Local Government Act*, the most current list of voters prepared under the *Election Act* existing at the time an election or other voting is to be held, is deemed to be the register of resident electors for the municipality.

Current

4. (d) At least six but not more than thirty days before a required advance voting opportunity, the chief election officer must give notice in accordance with Section 44 of the *Local Government Act* of

(i) the date, location of the voting places and the voting hours for the voting opportunity.

(ii) the documents that will be required in order for a person to register as an elector at the time of voting, and

(iii) the place where persons may apply on an advance voting day for non-resident property elector certificates required in order to register at the time of voting.

New

4. (d) At least six but not more than thirty days before a required advance voting opportunity, the chief election officer must give notice in accordance with section 50 of the *Local Government Act* of

(i) the date, location of the voting places and the voting hours for the voting opportunity;

(ii) the documents that will be required in order for a person to register as an elector at the time of voting; and

(iii) the place where persons may apply on an advance voting day for non-resident property elector certificates required in order to register at the time of voting.

Current

5. As authorized under section 98 of the *Local Government Act*, Council authorizes the chief election officer to establish additional advance voting opportunities for each election to be held in advance of general voting day and to designate the voting places, establish the date and the voting hours for these voting opportunities.

New

5. As authorized under section 108 of the *Local Government Act*, Council authorizes the chief election officer to establish additional advance voting opportunities for each election to be held in advance of general voting day and to designate the voting places, establish the date and the voting hours for these voting opportunities.

Current

7. (a) Pursuant to Section 99 of the *Local Government Act,* the Chief Election Officer is hereby authorized to establish special voting opportunities in order to give electors who may otherwise be unable to vote, an opportunity to do so.

New

7. (a) Pursuant to Section 109 of the *Local Government Act,* the Chief Election Officer is hereby authorized to establish special voting opportunities in order to give electors who may otherwise be unable to vote, an opportunity to do so.

Current

13. In addition to public access to election documents required under the *Local Government Act* Council authorizes the publication of the following electronically via the Internet:

    (a) nomination documents under section 73 of the *Local Government Act* from as soon as practicable after the time of delivery to the chief election officer until 30 days after the declaration of the official election results; and

    (b) disclosure statements and signed declarations under section 90 of the *Local Government Act* and the supplementary reports and signed declarations un section 90.1 of the *Local Government Act* from as soon as practicable after filing with the Chief Election Officer to six months after general voting day for the election to which they relate.

New

13. In addition to public access to election documents required under the *Local Government Act* Council authorizes the publication of the following electronically via the Internet:

    (a) nomination documents under section 87 of the *Local Government Act* from as soon as practicable after the time of delivery to the chief election officer until 30 days after the declaration of the official election results.

Current

15. In the event of a tie vote after a judicial recount, the tie vote will be resolved by conducting a lot in accordance with section 141 of the *Local Government Act*.

New

15. In the event of a tie vote after a judicial recount, the tie vote will be resolved by conducting a lot in accordance with section 151 of the *Local Government Act*.

Current

16. The order of names of candidates on the ballot will be determined by lot in accordance with section 107 of the *Local Government Act*.

New

16. The order of names of candidates on the ballot will be determined by lot in accordance with section 117 of the *Local Government Act*.

Current

17. As authorized under Section 110 (2) (d) of the *Local Government Act*, the number of scrutineers for each candidate that may attend at an election is a maximum of one scrutineer for each automated vote counting system in use.

New

17. As authorized under Section 120 (2) (d) of the *Local Government Act*, the number of scrutineers for each candidate that may attend at an election is a maximum of one scrutineer for each automated vote counting system in use.

End of Document

THE CORPORATION OF THE CITY OF COURTENAY

STAFF REPORT

To: Council **File No.:** 950-20

From: Chief Administrative Officer **Date:** April 16, 2018

Subject: Harmston Avenue Road Closure and Property Disposition

PURPOSE:

The purpose of this report is to provide additional information to Council regarding a request from the Comox Valley Regional District (CVRD) to close an approximately 4.4 metre wide portion of Harmston Avenue, and to subsequently dispose of a portion of the closed road to the CVRD.

CAO RECOMMENDATIONS:

That based on the April 16, 2018 staff report "Harmston Avenue Road Closure and Property Disposition", Council approve OPTION 1 and approve in principle the closure of an approximately 4.4 metre wide portion of Harmston Avenue;

That subject to public input, Council approve the disposition of the portion of closed road adjacent to the Comox Valley Regional District (CVRD) property and current School District 71 property, 567 square metres in size, to the CVRD for the appraised value of $130,640 less the cost of any road improvements performed by the CVRD not required by the development of the new CVRD administration building;

That "Harmston Avenue Road Closure Bylaw No. 2920, 2018" proceed to first, second, and third reading; and

That statutory notice for the road closure and property disposition be published pursuant to section 94 of the *Community Charter*.

Respectfully submitted,

David Allen, BES, CLGEM, SCLGM
Chief Administrative Officer

BACKGROUND:

The City has been approached by the CVRD to close a portion of the east side of Harmston Avenue in conjunction with the development of the new CVRD administration building. Details of this request are outlined in a letter included in the March 16, 2018 report to Council, attached to this report.

At the regular Council meeting held March 16, 2018 Council passed the following resolution:

That Council postpone consideration of the resolution for a period of two weeks to allow staff time to clarify the points raised regarding potential parking implications if the proposed RCMP building comes to pass and roadway lease options.

DISCUSSION:

Staff contacted the Comox Valley RCMP and the CVRD requesting a response regarding Council's concerns.

The Officer in Charge of the Comox Valley RCMP detachment has no concerns regarding the remaining width of Harmston Avenue, should the road closure proceed and an RCMP building be built on the site.

The CVRD has provided the following comments in summary:

"Given the level of CVRD improvements, ownership of the closed road would be preferable. These spaces would be available to the public and this could be quite an asset outside of office hours. The design and location will give an appearance that the CVRD spots are "public space". If leasing is a means to reduce our costs we can explore this option. The design still enables parking on both sides of the remaining road."

"Our project, with this ROW closure/acquisition, would meet the city's zoning requirement for # of onsite parking stalls (72). At the city's request we retained a consultant to undertake traffic and parking studies for our project. The traffic study confirmed no negative impact and the parking study confirmed significant excess capacity of street parking in the immediate area. The traffic study also indicated a net loss of approximately 13 street parking spaces through the acquisition/road closure (i.e. by converting existing angle to parallel). This would be more than offset by the increase of spaces associated with our offer to convert existing parallel spaces elsewhere on Harmston to angle. CVRD are also reviewing options to develop a staff transportation demand management program to encourage staff to carpool, bike, bus, walk etc. which would result in less staff parking demand."

FINANCIAL IMPLICATIONS:

As outlined in the original staff report.

ADMINISTRATIVE IMPLICATIONS:

General administration of the road closure bylaw and land sale is not specifically included in the Legislative and Corporate Services work plan.

ASSET MANAGEMENT IMPLICATIONS:

Staff have no concerns regarding the closure of this portion of Harmston Avenue. The current road profile is much wider than currently needed, and staff does not anticipate the additional width being required in the future. There are also no servicing issues related to adjacent or underground infrastructure.

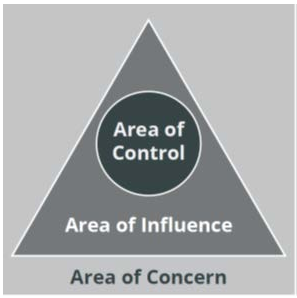
STRATEGIC PRIORITIES REFERENCE:

We focus on organizational and governance excellence

- We support meeting the fundamental corporate and statutory obligations
- Communication with our community is a priority, and is considered in all decisions we make

We invest in our key relationships

- ▲ We advocate and cooperate with other local governments and senior governments on regional issues affecting our city



- ● **Area of Control**
  The policy, works and programming matters that fall within Council's jurisdictional authority to act.
- ▲ **Area of Influence**
  Matters that fall within shared or agreed jurisdiction between Council and another government or party.
- ■ **Area of Concern**
  Matters of interest outside Council's jurisdictional authority to act.

OFFICIAL COMMUNITY PLAN REFERENCE:

Statutory in nature.

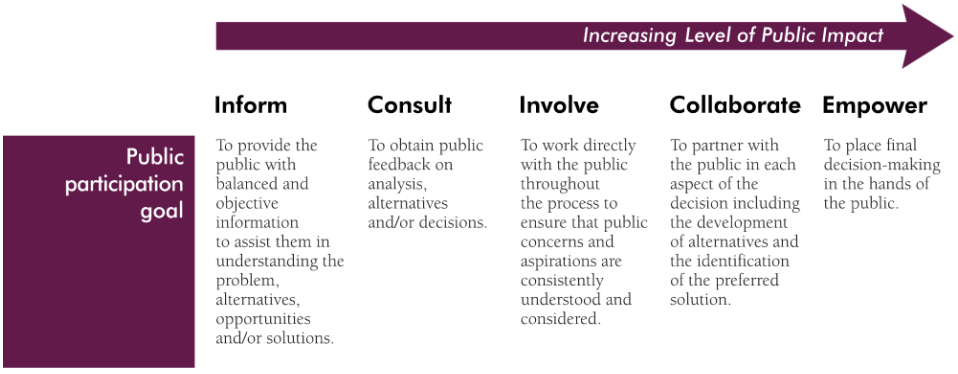
REGIONAL GROWTH STRATEGY REFERENCE:

Statutory in nature.

CITIZEN/PUBLIC ENGAGEMENT:

Pursuant to sections 26 and 40 of the *Community Charter,* publication of notice is required for the road closure and the subsequent disposition of land. Notification will be published after third reading and before final adoption of Bylaw No. 2920 to allow public input regarding the road closure.

Staff would consult the public based on the IAP2 Spectrum of Public Participation:
http://c.ymcdn.com/sites/www.iap2.org/resource/resmgr/imported/IAP2%20Spectrum_vertical.pdf



OPTIONS:

OPTION 1: That Council approve in principle the closure of an approximately 4.4 metre wide portion of Harmston Avenue;

That subject to public input, Council approve the disposition of the portion of closed road adjacent to the Comox Valley Regional District (CVRD) property and current School District 71 property, 567 square metres in size, to the CVRD for the appraised value of $130,640 less the cost of any road improvements performed by the CVRD not required by the development of the new CVRD administration building; and

That statutory notice for the road closure and property disposition be published pursuant to section 94 of the *Community Charter*. (Recommended)

OPTION 2: That Council not approve the road closure bylaw and sale of property.

OPTION 3: That Council refer the report back to staff to negotiate a different arrangement.

Prepared by:

John Ward, CMC
Director of Legislative and Corporate Services

Attachments:

1. March 19, 2018 Report to Council

THE CORPORATION OF THE CITY OF COURTENAY

STAFF REPORT

To: Council **File No.:** 950-20

From: Chief Administrative Officer **Date:** March 19, 2018

Subject: **Harmston Avenue Road Closure and Property Disposition**

PURPOSE:

The purpose of this report is to consider a request from the Comox Valley Regional District (CVRD) to close an approximately 4.4 metre wide portion of Harmston Avenue, and to subsequently dispose of a portion of the closed road to the CVRD.

CAO RECOMMENDATIONS:

That based on the March 19, 2018 staff report "Harmston Avenue Road Closure and Property Disposition", Council approve OPTION 1 and approve in principle the closure of an approximately 4.4 metre wide portion of Harmston Avenue;

That subject to public input, Council approve the disposition of the portion of closed road adjacent to the Comox Valley Regional District (CVRD) property and current School District 71 property, 567 square metres in size, to the CVRD for the appraised value of $130,640 less the cost of any road improvements performed by the CVRD not required by the development of the new CVRD administration building;

That "Harmston Avenue Road Closure Bylaw No. 2920, 2018" proceed to first, second, and third reading; and

That statutory notice for the road closure and property disposition be published pursuant to section 94 of the *Community Charter*.

Respectfully submitted,

David Allen, BES, CLGEM, SCLGM
Chief Administrative Officer

BACKGROUND:

The City has been approached by the CVRD to close a portion of the east side of Harmston Avenue in conjunction with the development of the new CVRD administration building.

Details of this request are outlined in a letter from the previous CVRD CAO dated April 6, 2017 and attached to this report.

DISCUSSION:

The CVRD requires the closed road to meet its obligations for the development regarding the provision of onsite parking. In exchange for the closed road property, the CVRD is proposing that the following improvements be made to Harmston Avenue:

- *New pavement markings to extend angle parking on Harmston Avenue to 5th Street, and to upgrade Harmston Avenue to the centreline in front of the CVRD and School District 71 property*.

Regardless of the road closure, as part of the proposed CVRD administration building development the CVRD is required to upgrade Harmston Avenue to the centreline in front of their property.

To ensure a consistent road alignment, it is recommended that a portion of Harmston Avenue be closed from Cumberland Road to 6th Street. This is reflected in the road closure bylaw. Only the portion of Harmston Avenue adjacent to the CVRD/School District property will be disposed of. This is shown on the reference plan attached to this report.

An agreement is in place for the CVRD to acquire the School District property in the near future.

FINANCIAL IMPLICATIONS:

The value of the land is based on an appraised value determined for the parent CVRD property. The CVRD arranged at its expense the preparation of the necessary survey plans and property appraisals for the road closure and disposition.

Although CVRD staff requested to acquire the land in exchange for some road improvements, based on a preliminary assessment City staff believe that the value of these improvements (specifically those not required as part of the approval process) do not equal the value of the land. This value will need to be determined once additional details of the proposed development are better understood.

It is recommended that the property be sold to the CVRD for the appraised value of $130,640, less the actual cost of any road improvements not required by the development.

ADMINISTRATIVE IMPLICATIONS:

General administration of the road closure bylaw and land sale is not specifically included in the Legislative and Corporate Services work plan.

ASSET MANAGEMENT IMPLICATIONS:

Staff have no concerns regarding the closure of this portion of Harmston Avenue. The current road profile is much wider than currently needed, and staff do not anticipate the additional width being required in the future.

STRATEGIC PRIORITIES REFERENCE:

We focus on organizational and governance excellence

- We support meeting the fundamental corporate and statutory obligations

● Communication with our community is a priority, and is considered in all decisions we make

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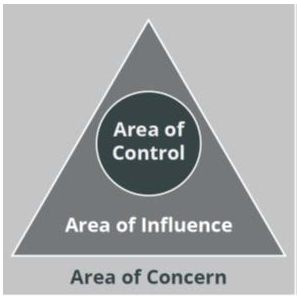
▲ We advocate and cooperate with other local governments and senior governments on regional issues affecting our city



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Matters of interest outside Council's jurisdictional authority to act.

OFFICIAL COMMUNITY PLAN REFERENCE:

Statutory in nature.

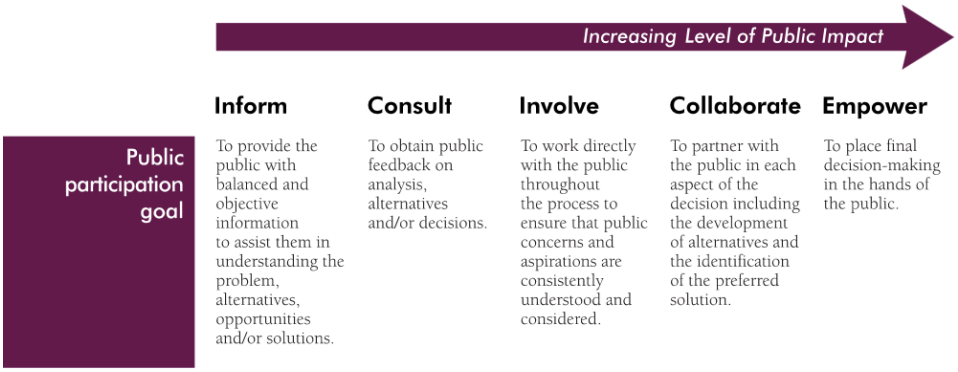
REGIONAL GROWTH STRATEGY REFERENCE:

Statutory in nature.

CITIZEN/PUBLIC ENGAGEMENT:

Pursuant to sections 26 and 40 of the *Community Charter,* publication of notice is required for the road closure and the subsequent disposition of land. Notification will be published after third reading and before final adoption of Bylaw No. 2920 to allow public input regarding the road closure.

Staff would consult the public based on the IAP2 Spectrum of Public Participation:
http://c.ymcdn.com/sites/www.iap2.org/resource/resmgr/imported/IAP2%20Spectrum_vertical.pdf



OPTIONS:

OPTION 1: That Council approve in principle the closure of an approximately 4.4 metre wide portion of Harmston Avenue;

That subject to public input, Council approve the disposition of the portion of closed road adjacent to the Comox Valley Regional District (CVRD) property and current School District 71 property, 567 square metres in size, to the CVRD for the appraised value of $130,640 less the cost of any road improvements performed by the CVRD not required by the development of the new CVRD administration building; and

That statutory notice for the road closure and property disposition be published pursuant to section 94 of the *Community Charter*. (Recommended)

OPTION 2: That Council not approve the road closure bylaw and sale of property.

OPTION 3: That Council refer the report back to staff to negotiate a different arrangement.

Prepared by:

John Ward, CMC
Director of Legislative and Corporate Services

Attachments:

1. *Letter from CVRD dated April 6th 2017*
2. *Reference plan showing area of road disposition*

Office of the Chief Administrative Officer

600 Comox Road, Courtenay, BC V9N 3P6
Tel: 250-334-6000 Fax: 250-334-4358
Toll free: 1-800-331-6007
www.comoxvalleyrd.ca

Comox Valley REGIONAL DISTRICT

File: 890-20/IAB

April 6, 2017

Sent via email only: dallen@courtenay.ca

David Allen
Chief Administrative Officer
City of Courtenay
830 Cliffe Avenue
Courtenay, BC V9N 2J7

Dear David:

Re: Disposition of Harmston Avenue right-of-way

As you know Comox Valley Regional District (CVRD) is developing the design for the new Comox Valley Civic Centre – Regional Office Project on Harmston Ave. As part of the design process CVRD staff and consultants met with staff from City of Courtenay (City) to discuss the project. City staff identified parking as a concern in the neighbourhood and this is something CVRD have also heard as part of our neighbourhood engagement.

During the meeting City staff indicated a potential willingness to dispose of a five metre section of the Harmston Avenue right-of-way (ROW) adjacent to our property. While other roads in the area are constructed to a 20 metre width, this road was apparently constructed to a wider 25 metre standard, potentially to accommodate additional traffic and parking demand generated by the Courtenay Junior School which was located there previously. As this school no longer exists, the road width could be considered excessive and an asset management burden for the City.

City staff have also indicated that as part of this project, CVRD will be required to upgrade the Harmston Avenue ROW to the centreline in front of our property. A 20 metre road cross section has been provided to CVRD which includes new sidewalk, curb and gutter as well as paved parallel parking and road surfaces. CVRD's consultants have also identified the potential opportunity to extend the angle parking on Harmston Avenue all the way to 5th Street which would significantly increase public street parking in the area. Currently the angle parking street markings only exist on approximately half of Harmston Avenue between Cumberland Road to 6th Street.

The CVRD is willing to fund new pavement markings needed to extend angle parking and to upgrade Harmston Avenue to the centreline in front of our property and the existing School District No. 71 (SD71) property, which CVRD will own in approximately five years. This would greatly improve parking availability for neighbouring businesses and residents as well as those accessing the Comox Valley Civic Centre – Regional Office. In exchange CVRD would request that the City approve the disposition of five metres of Harmston Avenue ROW fronting our property and the SD71 property (approximately from Cumberland Road to 7th Avenue) to CVRD.

We would very much like to incorporate this space into the project's site design and look forward to hearing back from you on this matter.

Sincerely,

Debra Oakman, CPA, CMA
Chief Administrative Officer

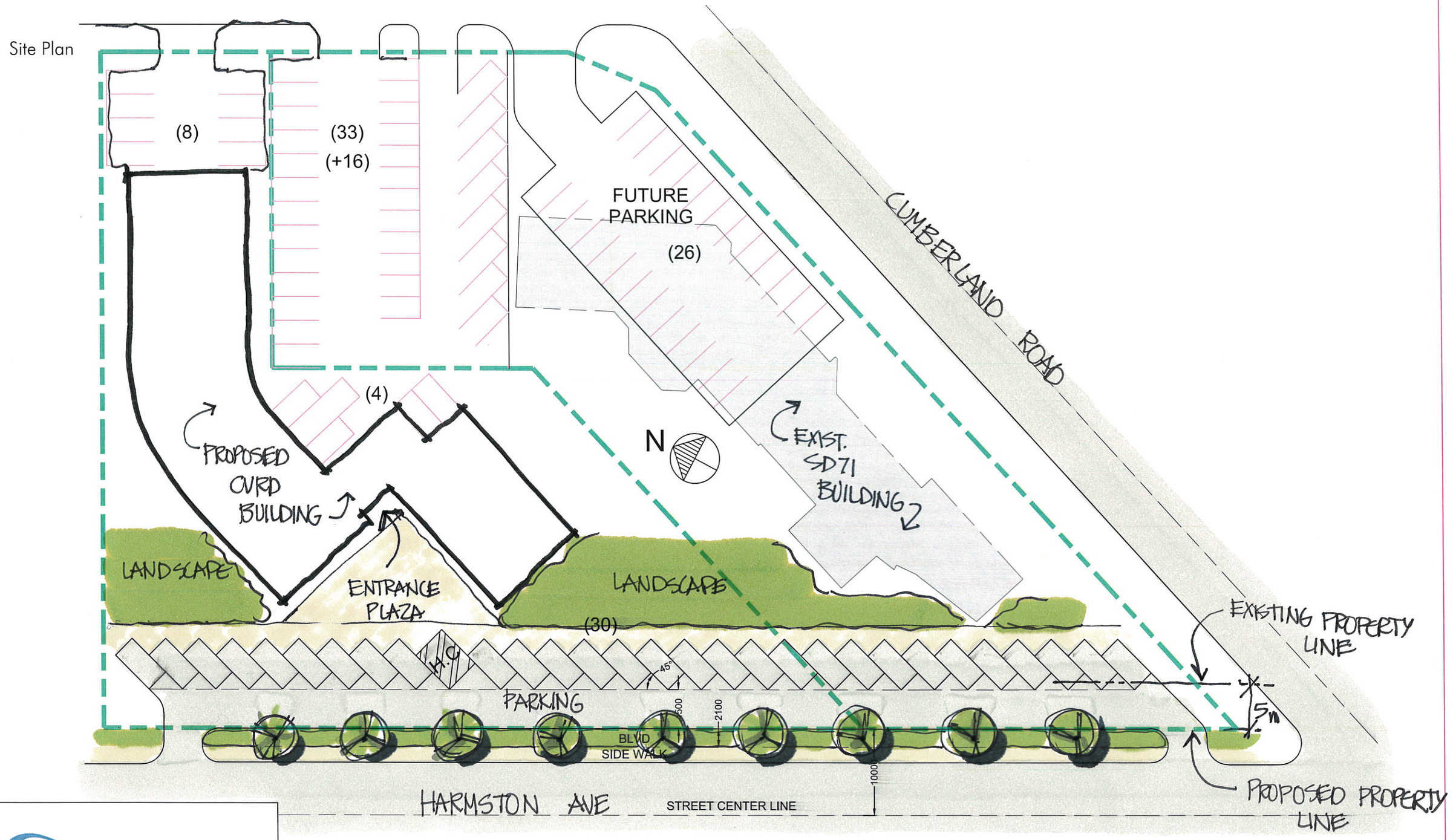
Enclosure: Harmston Avenue parking illustration

cc: Michael Zbarsky, Manager of Transit and Sustainability

COMOX VALLEY CIVIC CENTRE

Regional Office Project

Site Plan



Comox Valley
REGIONAL DISTRICT

KMBR ARCHITECTS PLANNERS INC.

PROPOSED ROAD CLOSURE OF PART OF SECTION 61, COMOX DISTRICT, SHOWN DEDICATED AS ROAD ON PLAN 472–B

PURSUANT TO SECTION 120 OF THE LAND TITLE ACT
PURSUANT TO SECTION 40 OF THE COMMUNITY CHARTER

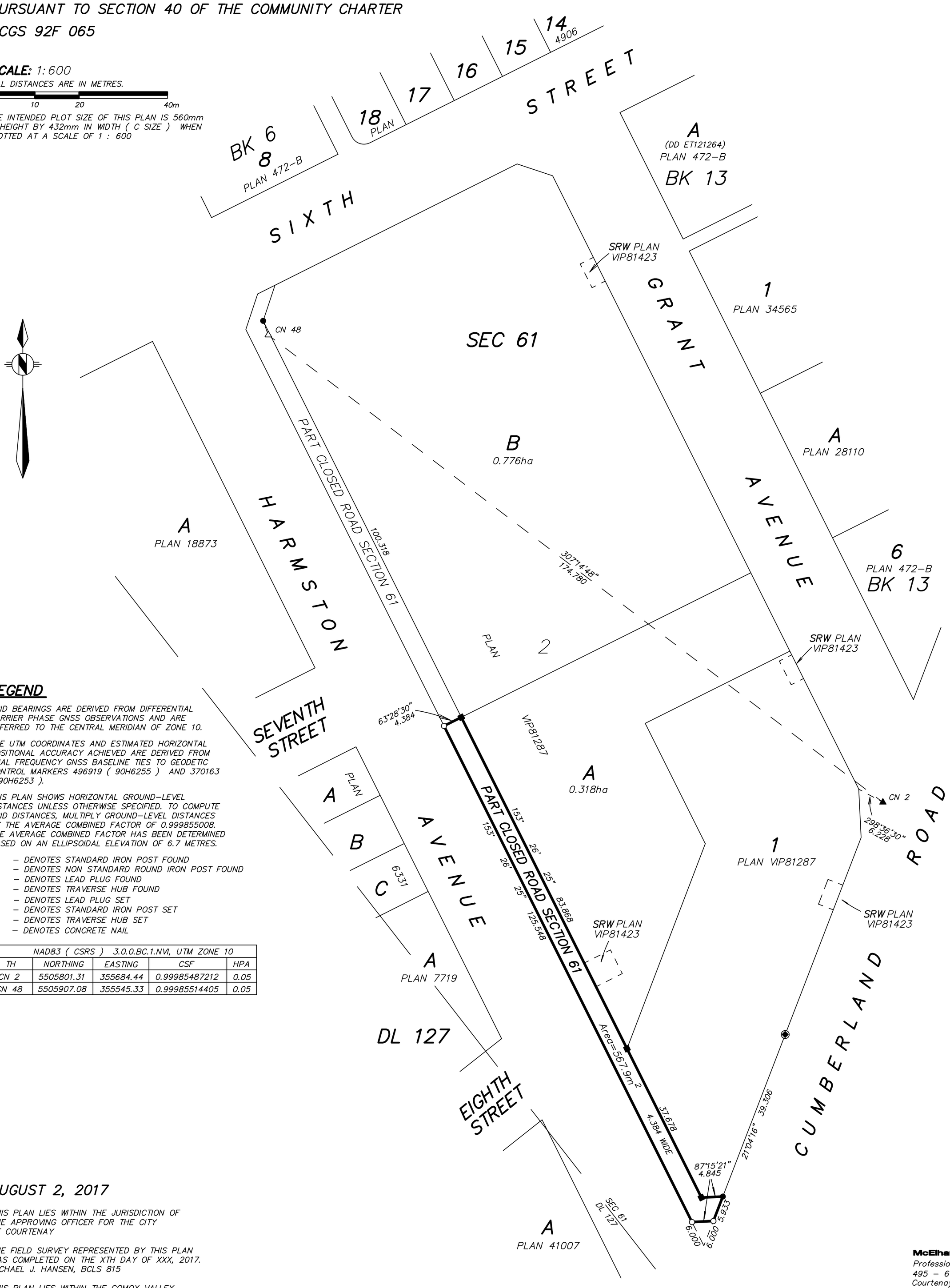
BCGS 92F 065

SCALE: 1:600

ALL DISTANCES ARE IN METRES.

0 10 20 40m

THE INTENDED PLOT SIZE OF THIS PLAN IS 560mm IN HEIGHT BY 432mm IN WIDTH (C SIZE) WHEN PLOTTED AT A SCALE OF 1 : 600



LEGEND

GRID BEARINGS ARE DERIVED FROM DIFFERENTIAL CARRIER PHASE GNSS OBSERVATIONS AND ARE REFERRED TO THE CENTRAL MERIDIAN OF ZONE 10.

THE UTM COORDINATES AND ESTIMATED HORIZONTAL POSITIONAL ACCURACY ACHIEVED ARE DERIVED FROM DUAL FREQUENCY GNSS BASELINE TIES TO GEODETIC CONTROL MARKERS 496919 (90H6255) AND 370163 (90H6253).

THIS PLAN SHOWS HORIZONTAL GROUND–LEVEL DISTANCES UNLESS OTHERWISE SPECIFIED. TO COMPUTE GRID DISTANCES, MULTIPLY GROUND–LEVEL DISTANCES BY THE AVERAGE COMBINED FACTOR OF 0.999855008. THE AVERAGE COMBINED FACTOR HAS BEEN DETERMINED BASED ON AN ELLIPSOIDAL ELEVATION OF 6.7 METRES.

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NAD83 (CSRS) 3.0.0.BC.1.NVI, UTM ZONE 10				
TH	NORTHING	EASTING	CSF	HPA
CN 2	5505801.31	355684.44	0.99985487212	0.05
CN 48	5505907.08	355545.33	0.99985514405	0.05

AUGUST 2, 2017

THIS PLAN LIES WITHIN THE JURISDICTION OF THE APPROVING OFFICER FOR THE CITY OF COURTENAY

THE FIELD SURVEY REPRESENTED BY THIS PLAN WAS COMPLETED ON THE XTH DAY OF XXX, 2017.
MICHAEL J. HANSEN, BCLS 815

THIS PLAN LIES WITHIN THE COMOX VALLEY REGIONAL DISTRICT AND THE CITY OF COURTENAY

McElhanney Associates
Professional Land Surveyors
495 – 6th Street
Courtenay, B.C. V9N 6V4
Tel. 338–5495
File 05620 RD CLS CVRD

CITY FILE:

THE CORPORATION OF THE CITY OF COURTENAY

STAFF REPORT

To: Council **File No.:** 4320-20

From: Chief Administrative Officer **Date:** April 16, 2018

Subject: A Change to Existing Liquor Licence (Royal Canadian Legion) – 367 Cliffe Avenue

PURPOSE:

The purpose of the report is to provide Council with the results of public notification of the Royal Canadian Legion's application made to the LCLB for transitioning their liquor licence classification from liquor primary club to liquor primary.

CAO RECOMMENDATIONS:

That based on the April 16, 2018 staff report, **'**A Change to Existing Liquor Licence (Royal Canadian Legion) – 367 Cliffe Avenue**',** Council approve OPTION 1 as follows:

1) The Council of the City of Courtenay recommends the LCLB approve the application by the Royal Canadian Legion for transitioning the licence classification from liquor primary club to liquor primary.

2) Council's comments on the prescribed considerations are as follows:
   (a) If the amendment application is approved, it would not result in an increase of noise in the area;

   (b) If the application is approved, it would not negatively impact the community based on the submissions received from the public;

   (c) In order to gather the views of residents, the City of Courtenay posted a notice on the City's website outlining the application. Additionally, the RCMP was contacted for comment.

Respectfully submitted,

David Allen, BES, CLGEM, SCLGM
Chief Administrative Officer

BACKGROUND:

Royal Canadian Legion Branch number 17, the applicant, has applied to the the Liquor Control and Licencing Branch (LCLB) for a transition of the existing liquor licence from liquor primary club to liquor primary. The purpose of this application is to enable the applicant to provide added amenity liquor

services to both the public and a wider range of events such as fundraisers, meetings, or ceremonies as it is restricted under the current licence. The primary difference between the liquor primary club and liquor primary license is that the licenced facility is open to the general public. Proposed hours of service will remain the same from Monday through Sunday between 11 AM and 1:00 AM.
Pursuant to the *Liquor Control and Licensing Act*, the City posted a notice of the application on the City's main website for two weeks after the April 3rd regular Council meeting. The City has not received comments to date.

DISCUSSION:

The Comox Valley RCMP responded during standard referral period and has no concern with the application.

Staff has also reviewed the application and concluded that there will be no negative impacts in terms of land use as the subject property is zoned Commercial One (C-1), which permits the proposed use. In C-1 zone, provision of parking stalls is not required except for residential use. The service area is enclosed so that no noise concerns are anticipated.

FINANCIAL IMPLICATIONS:

There is no direct financial implication related to this application.

ADMINISTRATIVE IMPLICATIONS:

Administration of liquor licencing is included in the City's general statutory duties. To date, staff has spent five hours to process the application.

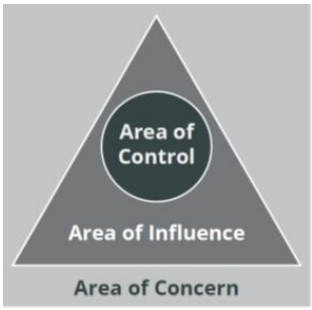
ASSET MANAGEMENT IMPLICATIONS:

There is no direct asset management implications related to this application.

STRATEGIC PRIORITIES REFERENCE:

We focus on organizational and governance excellence

- We support meeting the fundamental corporate and statutory obligations



- **Area of Control**
  The policy, works and programming matters that fall within Council's jurisdictional authority to act.

OFFICIAL COMMUNITY PLAN REFERENCE:

There is no direct reference related to this application.

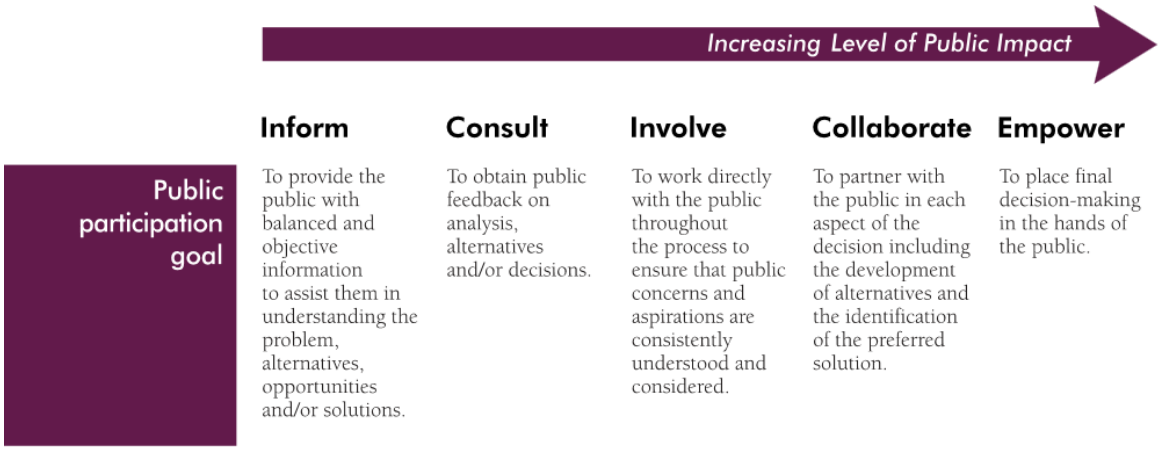
REGIONAL GROWTH STRATEGY REFERENCE:

There is no direct reference related to this application.

CITIZEN/PUBLIC ENGAGEMENT:

Staff will consult members of the public based on the IAP2 Spectrum of Public Participation:

http://c.ymcdn.com/sites/www.iap2.org/resource/resmgr/imported/IAP2%20Spectrum_vertical.pdf



Public comment gathering period was open on the City's home page from April 4th to 16th, 2018.

OPTIONS:

Option 1: 1) The Council of the City of Courtenay recommends the LCLB approve the application by the Royal Canadian Legion for transitioning the licence classification from liquor primary club to liquor primary.

2) Council's comments on the prescribed considerations are as follows:

(a) If the amendment application is approved, it would not result in an increase of noise in the area;

(b) If the application is approved, it would not negatively impact the community based on the submissions received from the public;

(c) In order to gather the views of residents, the City of Courtenay posted a notice on the City's website outlining the application. Additionally, the RCMP was contacted for comment.

(Recommended)

Option 2: That Council not recommend approval of the application.

Prepared by:

Tatsuyuki Setta, MCIP, RPP
Manager of Planning

Approved by:

Ian Buck, MCIP, RPP
Director of Development Services

THE CORPORATION OF THE CITY OF COURTENAY

BRIEFING NOTE

To: Council **File No.:** 8620-21; 16014

From: Chief Administrative Officer **Date:** April 16, 2018

Subject: **Courtenay Transportation Master Plan Update**

ISSUE:

This briefing note is to present an update to Council on the development of the Master Transportation Plan, including the results from the initial round of public and stakeholder consultation and existing and future conditions assessment. It also provides a preliminary introduction to the ongoing long-term planning work and the approach to prioritization and capital planning.

BACKGROUND:

The City is currently undertaking development of Connecting Courtenay – Courtenay's Master Transportation Plan. The plan has six phases, as illustrated below:

Council has received two updates on this work. On October 30, 2017 Council received information about Phases 1 and 2 of the plan, which included project start-up, collection and review of data, relevant reports, and studies, and analysis of existing conditions. On February 29, 2018, Council received information about the proposed public consultation program. Since then, staff and consultants have completed future forecasting and assessment of future conditions. At the same time, the public and stakeholder consultation program proposed to Council in February was successfully delivered.

Consultation included:

- Open House (March 7, 5:00 pm to 7:00 pm) – Attended by approximately 90 people.
- Community Engagement Booths at Comox Valley Farmers' Market (March 10, 9:00 am to 10:30 am), Lewis Centre (March 10, 11:00 am to 1:00 pm), Driftwood Mall (March 10, 2:30 pm to 4:30 pm), North Island College (March 12, 10:00 am to 11:45 am) – Reached more than 200 people.
- Stakeholder engagement – individual meetings with the Accessibility Committee, School District 71, Cycling Coalition, and other agencies / road authorities (BC Ministry of Transportation and Infrastructure, Town of Comox, Village of Cumberland).

- Social media outreach on Facebook (main post reached more than 13,000 people in the Comox Valley) and Twitter (nearly 3,000 twitter feeds reached in the Comox Valley)
- Online survey – 967 responses.

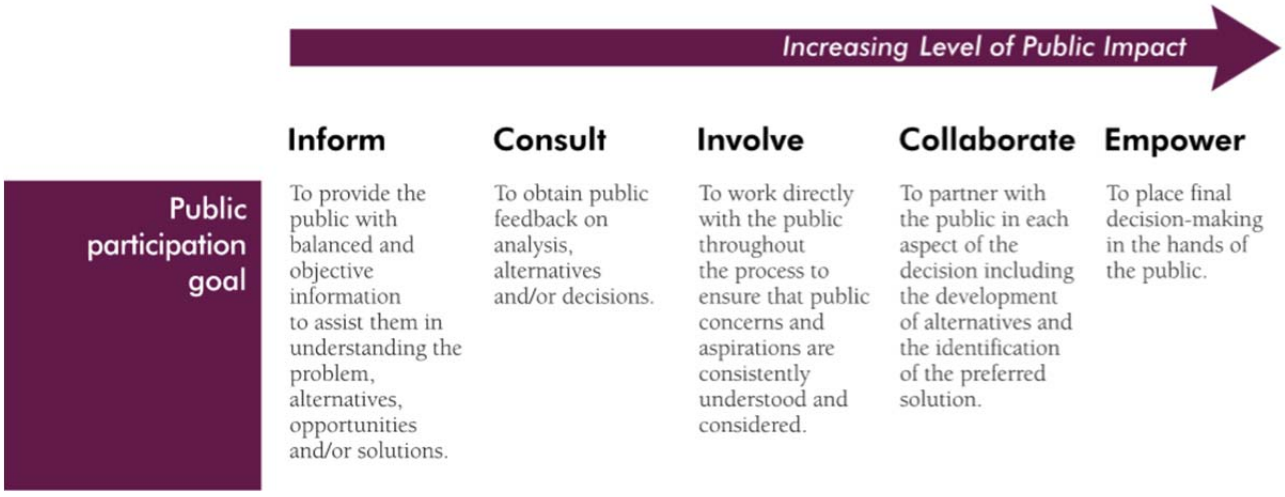
Staff and consultants are now working to develop long-term plans for each mode. These will be presented to the public at consultation in June.

The final report will be presented to City Council for consideration in fall 2018.

KEY CONSIDERATIONS:

Staff and consultants are working to develop long-term plans for each mode of transportation in Courtenay. These plans will work to address the issues identified for each mode, based on the findings of technical analysis and the public and stakeholder input collected through public consultation. The plans will be used as a basis to develop short-term and medium-term priorities for each mode.

Public engagement efforts will focus the on "inform – involve" phases of the spectrum International Association of Public Participation (IAP2) values and spectrum:



Long term plans will be presented to the public and stakeholders at consultation in June. This consultation will also seek input on short- and medium- term priorities.

NEXT STEPS:

The project team will be developing long-term plans for each mode of transportation based on screening and evaluation of possibilities identified through the technical assessment of existing and future conditions and by the public through consultation. City Council will be updated prior to finalization of the transportation plan.

Prepared by:

Craig Perry, P.Eng.
Manager of Engineering Projects

Ryan O'Grady, P.Ag., P.Eng.
Director of Engineering Services

CITY OF COURTENAY HERITAGE ADVISORY COMMISSION
MINUTES

Meeting of the City of Courtenay Heritage Advisory Commission meeting held on February 28, 2018 at 10:05 a.m. in the Council Chambers of City Hall.

Present:

L. Burns	L. Grant	J. Fortin	J. Hagen
A. Ireson	C. Piercy		
T. Setta (staff)			

Absent:

R. Dingwall D. Griffiths

1. Minutes from Last Meeting

Moved by C. Piercy and seconded by J. Fortin that the January 24, 2018 minutes be adopted as circulated.

Carried

2. Opening Remarks

L. Burns announced that the commission member Rob Smith passed away. The commission requests Staff and Council to write a letter to his family.

3. Old Business

HERITAGE CLOCKS	• L.Burns and AIreson to meet with the Manager of Civic Properties Maintenance to discuss candidate locations and other implications for the clock installation
PIONEER GRAVES TREE	• No progress at this time
RESIDENTIAL INVENTORY	• Member's individual work in progress
HERITAGE ARCHIVE STORAGE	• Finalize an archive list by L. Burns
TRAIN STATION	• A. Ireson reported that he had received the report Graham Bruce. No further action taken
CUMBERLAND	• L. Burns made presentation. Overall, the event was successfully executed

CITY'S WEBSITE

- The Committee will pick one or two featured items each month and promote through City's social media site as well as homepage.
- Suggested E&N for March and the History of Afloat for April

REZONING APPLICATION

- A concern was raised by a member regarding a rezoning application in an established neighbourhood. The application was withdrawn.

HERITAGE BC WEBINAR

- A. Ireson reported to members about the event

4. New Business

MUSEUM REPORT

- Tabled

IN KIND HOURS

- Total 19.5 hours in February

BUDGET

- Commission to consider budget items and create a project list

HERITAGE BC ANNUAL CONFERENCE

- The Commission has budgeted registration and associated fees.
- Moved by J. Hagen and second by L. Grant that A. Ireson is delegated to the conference held between May 10 to 12 in New Westminster

40 HOUSES

- A new information board to be mounted

ELECTION OF NEW CHAIR

- L. Burns drafted and distributed "Duties and Responsibilities" of the Chair prior to the meeting
- No questions were raised regarding the document. No amendment is required
- L. Grant nominated A. Ireson for the new Chair
- A. Ireson declined the nomination
- C. Piercy nominated J. Hagen for the new Chair
- J. Hagen accepted the nomination
- The Commission has selected J. Hagen as the new Chair

NEXT WROKSHOP

- On March 14th at 9: 15 at the Museum

- J. Fortin suggested that an annual report to be prepared for Council

5. Correspondence

- L. Burns provided a suggested working for on "40 Houses' information board

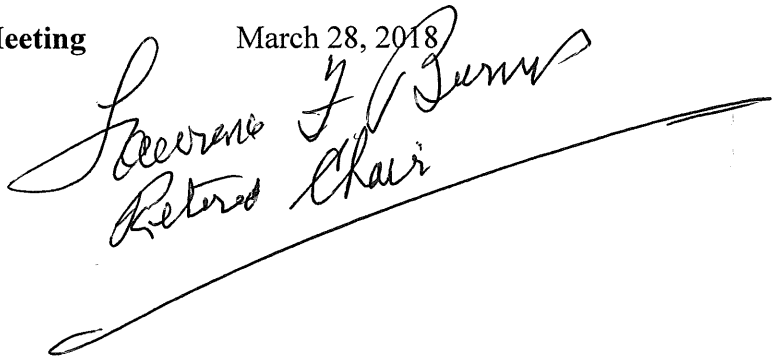
6. For Your Information

- The Museum requested information on:
  - Courtenay Cold Storage Locker (5th Street and Fitzgerald Avenue)
  - Cadillac building (449 – 8th Street?)

7. **Meeting Adjournment**

Meeting Adjourned at 11:55 p.m.

8. **Next Meeting** March 28, 2018



THE CORPORATION OF THE CITY OF COURTENAY

BYLAW NO. 2918

A bylaw to amend Council Procedure Bylaw No. 2730, 2013

WHEREAS the *Community Charter* requires that a council must, by bylaw, establish the general procedures to be followed by council and committees in conducting their business.

NOW THEREFORE the Council of the Corporation of the City of Courtenay, in open meeting assembled, enacts as follows:

1. This bylaw may be cited for all purposes as *"Council Procedure Amendment Bylaw No. 2918, 2018"*.

2. That Council Procedure Bylaw No. 2730, 2013 be hereby amended by deleting ***Section 5*** and substituting therefore with the following:

   Inaugural Meeting

   5. Following a general local election, the first council meeting must be held on the first Monday after November 1in the year of the election.

Read a first time this day of , 2018.

Read a second time this day of , 2018.

Read a third time this day of , 2018.

Notice published pursuant to section 94 of the *Community Charter* on the and day of , 2018.

Finally passed and adopted this day of , 2018.

_____

Mayor

_____

Director of Legislative Services

THE CORPORATION OF THE CITY OF COURTENAY

BYLAW NO. 2917

A bylaw to amend Election Procedures and Automated Voting Bylaw No. 2545, 2008

The Council of the Corporation of the City of Courtenay, in open meeting of Council, enacts as follows:

1. That *"Election Procedures and Automated Voting Bylaw No. 2545, 2008"* be hereby amended as follows:

   (a) That *Section 1 - DEFINITIONS - General Voting Day* be hereby repealed and substituted therefore by the following:

   General Voting Day means

   (a) for a general local election, the 3rd Saturday of October in the year of the election;

   (b) for other elections, the date set under sections 54 (5), 55 (1), or (3) or 152 (5) of the *Local Government Act*; and

   (c) for other voting, the date set under section 174 of the *Local Government Act*.

   (b) That *Section 3 (a)* be hereby repealed and substituted therefore by the following:

   3. (a) As authorized under section 76 of the *Local Government Act*, the most current list of voters prepared under the *Election Act* existing at the time an election or other voting is to be held, is deemed to be the register of resident electors for the municipality.

   (c) That *Section 4 (d)* be hereby repealed and substituted therefore by the following:

   4. (d) At least six but not more than thirty days before a required advance voting opportunity, the chief election officer must give notice in accordance with section 50 of the *Local Government Act* of

   (i) the date, location of the voting places and the voting hours for the voting opportunity;

   (ii) the documents that will be required in order for a person to register as an elector at the time of voting; and

   (iii) the place where persons may apply on an advance voting day for non-resident property elector certificates required in order to register at the time of voting.

(d) That *Section 5* be hereby repealed and substituted therefore by the following:

5. As authorized under section 108 of the *Local Government Act*, Council authorizes the chief election officer to establish additional advance voting opportunities for each election to be held in advance of general voting day and to designate the voting places, establish the date and the voting hours for these voting opportunities.

(e) That *Section 7 (a)* be hereby repealed and substituted therefore by the following:

7. (a) Pursuant to Section 109 of the *Local Government Act*, the Chief Election Officer is hereby authorized to establish special voting opportunities in order to give electors who may otherwise be unable to vote, an opportunity to do so.

(f) That *Section 13* be hereby repealed and substituted therefore by the following:

13. In addition to public access to election documents required under the *Local Government Act* Council authorizes the publication of the following electronically via the Internet:

(a) nomination documents under section 87 of the *Local Government Act* from as soon as practicable after the time of delivery to the chief election officer until 30 days after the declaration of the official election results.

(g) That *Section 15* be hereby repealed and substituted therefore by the following:

15. In the event of a tie vote after a judicial recount, the tie vote will be resolved by conducting a lot in accordance with section 151 of the *Local Government Act*.

(h) That *Section 16* be hereby repealed and substituted therefore by the following:

16. The order of names of candidates on the ballot will be determined by lot in accordance with section 117 of the *Local Government Act*.

(i) That *Section 17* be hereby repealed and substituted therefore by the following:

17. As authorized under Section 120 (2) (d) of the *Local Government Act*, the number of scrutineers for each candidate that may attend at an election is a maximum of one scrutineer for each automated vote counting system in use.

3. This bylaw may be cited for all purposes as **"Election Procedures and Automated Voting Amendment Bylaw No. 2917, 2018".**

Read a first time this day of , 2018

Read a second time this day of , 2018

Read a third time this day of , 2018

Finally passed and adopted this day of , 2018

_____

Mayor

_____

Corporate Officer

THE CORPORATION OF THE CITY OF COURTENAY

HARMSTON AVENUE ROAD CLOSURE BYLAW NO. 2920, 2018

WHEREAS, pursuant to Section 40 of the *Community Charter*, Council may, by bylaw, close a portion of a highway to traffic and remove the dedication of the highway, if prior to adopting the bylaw, Council publishes notices of its intention in a newspaper and provides an opportunity for persons who consider they are affected by the bylaw to make representations to Council;

AND WHEREAS the Council of the City of Courtenay deems it expedient to close to traffic and remove the dedication of highway of that portion of highway comprising of .103 hectares in size legally described as Part of Section 61, Comox District dedicated as road at the Victoria Land Title Office by Plan 472-B, outlined in bold black on the draft Reference Plan prepared by J. Hansen, BCLS 815 on the 17th day of July, 2017 a reduced copy of which is attached hereto as Schedule "A";

AND WHEREAS notices of Council's intention to close this portion of highway to traffic, to remove its dedication as highway, and to dispose of it were published in a newspaper and posted in the public notice posting place, and Council has provided an opportunity for persons who consider they are affected by the closure and disposition to make representations to Council;

AND WHEREAS the Council does not consider that the closure of that portion of highway will affect the transmission or distribution facilities or works of utility operators;

NOW THEREFORE the Council of the City of Courtenay in open meeting assembled, enacts as follows:

1. That portion of highway comprising of .103 hectares in size legally described as Part of Section 61, Comox District dedicated as road at the Victoria Land Title Office by Plan 472-B, outlined in bold black on the draft Reference Plan prepared by J. Hansen, BCLS 815 on the 17th day of July, 2017 a reduced copy of which is attached hereto as Schedule "A" (the Closed Road), is closed to all types of traffic, and its dedication as highway is removed.

2. On deposit of the reference plan attached hereto as Schedule "A" and all other documentation for the closure of the Closed Road in the Victoria Land Title Office, the Closed Road is closed to traffic, it shall cease to be public highway, and its dedication as highway is cancelled.

3. The Mayor and Corporate Officer are hereby authorized to execute and deliver such transfers, deeds of land, plans and other documentation as may be necessary for the purposes aforesaid.

4. This Bylaw may be cited as **"Harmston Avenue Road Closure Bylaw No. 2920, 2018**".

Read a first time this 19th day of March, 2018

Read a second time this 19th day of March, 2018

Read a third time this 19th day of March, 2018

Published in two editions of the Comox Valley Record on the day of , 2018 and on the day of , 2018

Finally passed and adopted this day of , 2018

Mayor

Corporate Officer

Schedule A to Bylaw No. 2920, 2018

PROPOSED ROAD CLOSURE OF PART OF SECTION 61, COMOX DISTRICT, SHOWN DEDICATED AS ROAD ON PLAN 472–B

PURSUANT TO SECTION 120 OF THE LAND TITLE ACT
PURSUANT TO SECTION 40 OF THE COMMUNITY CHARTER

BCGS 92F 065

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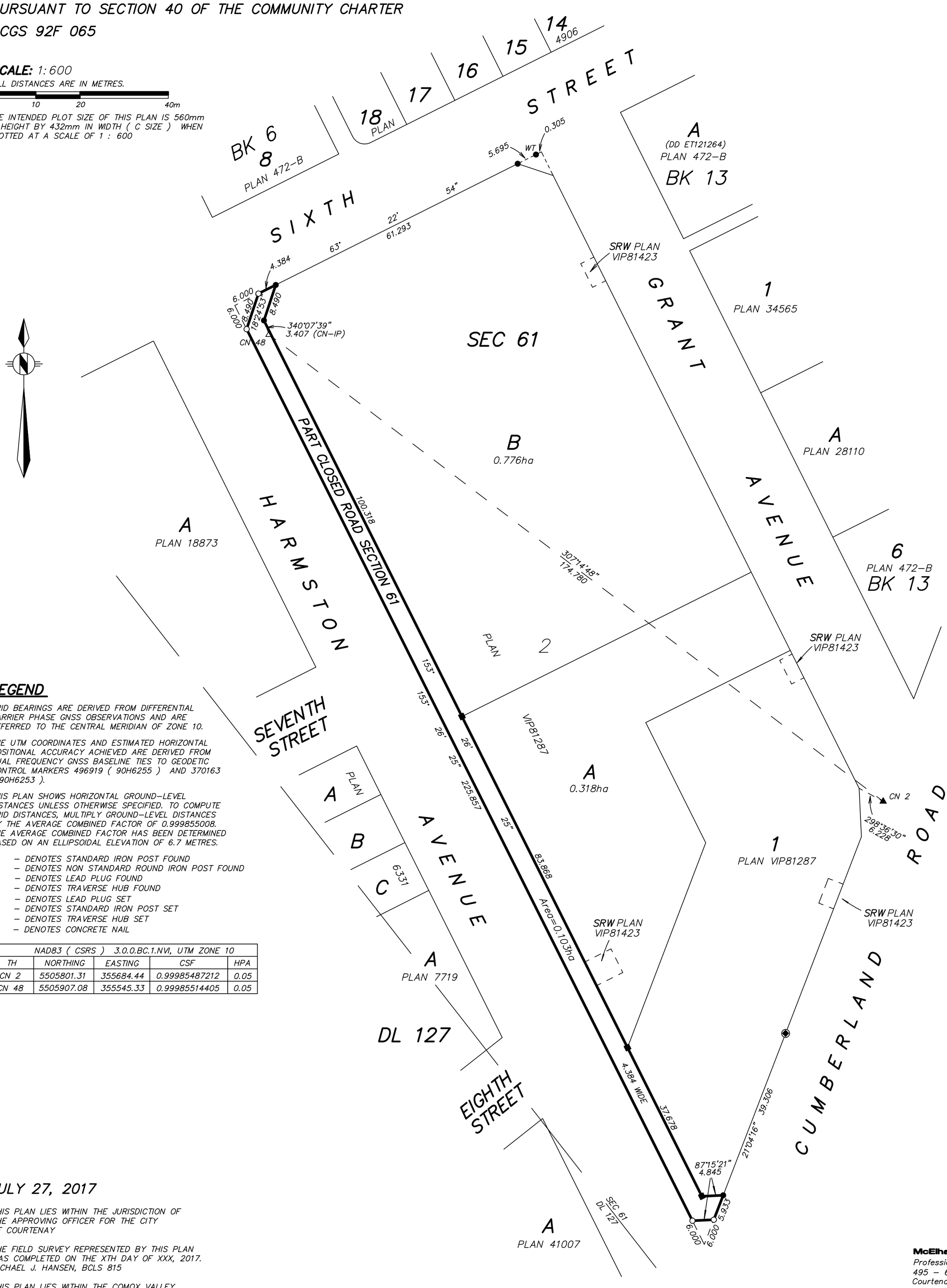

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JULY 27, 2017

THIS PLAN LIES WITHIN THE JURISDICTION OF THE APPROVING OFFICER FOR THE CITY OF COURTENAY

THE FIELD SURVEY REPRESENTED BY THIS PLAN WAS COMPLETED ON THE XTH DAY OF XXX, 2017.
MICHAEL J. HANSEN, BCLS 815

THIS PLAN LIES WITHIN THE COMOX VALLEY REGIONAL DISTRICT AND THE CITY OF COURTENAY

McElhanney Associates
Professional Land Surveyors
495 – 6th Street
Courtenay, B.C. V9N 6V4
Tel. 338–5495
File 05620 RD CLS draft

CITY FILE:

THE CORPORATION OF THE CITY OF COURTENAY

BYLAW NO. 2919

A bylaw to regulate and require the provision of works and services in connection with the subdivision and development of land

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The Council of the Corporation of the City of Courtenay, in open meeting assembled, enacts as follows:

1. In this bylaw,

   "Approving Officer" means the person appointed to that position under the *Land Title Act*, or a designate.

   "Building Inspector" means a person designated to that position by the City of Courtenay.

   "City" means the Corporation of the City of Courtenay.

   "Construct" when used with respect to Works and Services referred to herein, means build, erect, install, repair, alter, add, enlarge, move, locate, relocate, rebuild, upgrade, demolish, remove, excavate or shore.

   "Construction Costs" means the estimated construction costs of Works and Services as determined by the Qualified Professional and accepted by the Development Engineer.

   "Contractor" means a person having a contract with a Developer or the City to construct Works and Services required by this Bylaw.

   "Council" means the Council of the Corporation of the City of Courtenay.

   "Developer" means the owner of land, or appointed agent for the owner, in respect of which a subdivision application or building permit application has been made.

   "Development Engineer" means the person designated the Manager of the department responsible to approve subdivisions by the City of Courtenay, or a designate.

   "Inspector" means a person who shall make inspections and tests, on behalf of the Developer, of any Works and Services being carried out to ensure compliance with this Bylaw.

   "Master Municipal Construction Documents" means the most recent version of the Platinum Edition documents of that name issued by the Master Municipal Construction Documents Association including any revisions issued by the Association, as of the date of application for a subdivision or building permit referred to in Section 3 or Section 5 of this bylaw, respectively, which documents are incorporated into and form part of this bylaw.

"Qualified Professional" means a Professional Engineer who is registered or licensed to practice in British Columbia under the provisions of the *Engineers and Geoscientists Act*, who is responsible for the design, construction, supervision and certification of all Works and Services on behalf of the Developer.

"Security" means cash or a clean, unconditional, irrevocable and automatically renewing letter of credit drawn on a chartered bank or credit union having a branch in the City at which demand may be made on the letter of credit.

"Servicing Agreement" means an agreement between the Developer and the City for the construction and installation of Works and Services required under this Bylaw and pursuant to the *Local Government Act*.

"Subdivide" or "Subdivision" means:

(a) a *subdivision* as defined in the *Land Title Act* including the adjustment of existing parcel boundaries; or

(b) a *subdivision* as defined in the *Strata Property Act*.

"Works and Services" means the works and services a Developer is required to provide under this Bylaw, including all design, construction, installation and certification.

2. All *Works and Services* shall be designed by a *Qualified Professional* in accordance to this Bylaw, and adhere to all other *City* Bylaws, Provincial and Federal Regulations.

3. No person shall *subdivide* land in the *City* unless:

   (a) the *Works and Services* required by this bylaw have been provided by the *Developer* to the satisfaction of the *Development Engineer*; or

   (b) the *Developer* has entered into an agreement with the *City* to *construct* and install the required *Works and Services* by a date specified in the agreement, and provided to the *City security* in the amount determined by the *Development Engineer*, having regard to the cost of installing and paying for the *Works and Services*.

4. Section 3 does not apply:

   (a) in relation to underground wiring, conduit and vaults, in the case of any *subdivision* resulting in the creation of fewer than 2 additional parcels in an area zoned for single-family residential use only, where the electrical and telephone services abutting the parcel being subdivided and all immediately abutting parcels are above-ground; or

   (b) in relation to *Works and Services* of any type, in cases where the *Development Engineer* determines that the need for the *Works or Services* is not directly attributable to the *subdivision*, or to buildings likely to be constructed in the *subdivision*.

5. No person shall *construct* a building or structure in the *City* for which a building permit is required unless:

(a) the *Works and Services* required by this bylaw have been constructed by the *Developer* to the satisfaction of the *Development Engineer*; or

(b) the *Developer* has entered into an agreement with the *City* to *construct* and install the required *Works and Services* by a date specified in the agreement, and provided to the *City security* in the amount determined by the *Development Engineer*, having regard to the cost of installing and paying for the *Works and Services*.

6. Section 5 does not apply:

(a) in relation to a building permit authorizing the construction of a single family dwelling whether or not the dwelling contains a secondary suite, or in relation to the construction of a two-family dwelling; or

(b) in relation to *Works and Services* of any type, in cases where the *Development Engineer* determines that the need for the *Works and Services* is not directly attributable to the building for which a building permit application has been made.

7. The *Development Engineer* may:

(a) from time to time, prescribe the form of *servicing agreement* referred to in sections 3 and 5, provided that each such agreement shall require the *Developer* to:

i. repair any deficiencies in design, materials or workmanship in the *Works and Services* that may arise during the Warranty Period following the completion of construction;

ii. provide to the *City* throughout the construction period performance, *security* in the amount of up to 125 percent of the *construction costs* in relation to the construction of the *Works and Services*;

iii. pay all applicable fees and charges associated with the application, review, administration and compliance of the *Works and Services*;

iv. carry third party liability insurance in an amount and form acceptable to the *City*, naming the *City* as an additional insured, in respect of claims arising out of death, personal injury or damage arising from the construction of the *Works and Services*; and

v. indemnify the *City* and save it harmless in respect of all costs and expenses it may incur as a result of faulty workmanship or defective material in the *Works and Services*, in respect of which the *City* has provided notice to the *Developer* prior to the *City*'s final acceptance of the *Works and Services*;

(b) execute and deliver such agreements on behalf of the *City*, and

(c) require that such agreements be drafted in a form that is registrable under s. 219 of the *Land Title Act* against title to the land being subdivided or built upon.

8. The *Works and Services* required by this bylaw are the following:

(a) highways and lanes, boulevards including, without limitation, street trees, boulevard landscaping, irrigation, culverts, transit bays, sidewalks, walkways and pathways, cycling facilities, fences, bridges, retaining walls, curbs and gutters, traffic signs and signals, street lighting and conduit and vaults for underground wiring;

(b) water distribution systems connected to the *City*'s water distribution system including, without limitation, pipes, service connections, fire hydrant systems, valves and valve chambers, meters and meter chambers, pump stations and reservoirs;

(c) sewage collection systems connected to the *City*'s sewage collection system including, without limitation, pipes, service connections, inspection chambers, lift stations, manholes and sewage holding facilities; and

(d) drainage collection systems connected to the *City*'s drainage collection system including, without limitation, pipes, service connections, inspection chambers, catch basins, manholes, ditches, gates, stormwater retention and detention facilities, and environmental control facilities.

9. The *Works and Services* described in section 8 must, in all cases, be provided on that portion of any highway or lane immediately adjacent to the parcel that is the subject of the *subdivision* or building permit application, as the case may be, unless additional requirements are imposed under section 14.

10. The *Works and Services* required by sections 3 and 5 and under section 14 must be constructed and installed at the cost of the *Developer* to the standards set out in this Bylaw including its Schedules, and using only those materials and products as identified in the *City*'s Approved Products List, as amended from time to time.

11. If *Works and Services* of the type described in section 8 are already in existence on or in the highway or lane adjacent to a parcel being subdivided or on which a building is proposed to be constructed, and the *Works and Services* do not comply with the standards specified in section 10, the *Developer* must alter the *Works and Services* so that they comply with the standards, and the provisions of sections 3 and 5 regarding agreements and *security* apply to the alterations.

12. The *Development Engineer* may require a *Developer* to pay to the *City:*

(a) In lieu of constructing or altering *Works and Services* required by this bylaw, cash in the amount approved by the *Development Engineer* to be the cost of constructing or altering the *Works and Services* as of the time of approval of the *subdivision* or issuance of the building permit, if the *Development Engineer* determines on the basis of sound civil engineering practice or cost considerations that the works should be constructed or

altered at a later time or concurrently with the construction or alteration of *Works and Services* serving adjacent or nearby parcels of land, and in such cases the *City* shall deposit the funds into a reserve fund established for the construction or alteration of the *Works and Services*.

(b) In the case of boulevard trees required by this bylaw, the *Developer* must pay to the *City*, in lieu of installing the trees, cash in the amount determined by the *Development Engineer* as the cost to procure and install the trees, which the *City* shall deposit into a reserve fund established for the installation of boulevard trees and apply to the cost of installing the trees, maintenance and replacement if the tree does not survive, at such time following the completion of all construction associated with the *subdivision* or development as the *Development Engineer* may determine. The *Developer* shall have no further obligations under this bylaw in respect of such boulevard trees after providing the cash payment required by the *Development Engineer*.

13. The *Works and Services* required by this bylaw shall be provided in dedicated highways, unless the *Development Engineer* has approved the location of the *Works and Services* in a statutory right of way granted to the *City*, in which case the statutory right of way, including any required plan of right of way, must be prepared at the cost of the *Developer*, in terms satisfactory to the *Development Engineer* and the *City* Solicitor, and deposited concurrently with the deposit of the *subdivision* plan in the case of a *subdivision* application and prior to the issuance of an occupancy permit in the case of a building permit application.

14. Any *Works and Services* required by this bylaw within an existing highway right-of-way shall be provided, at a minimum, to the centre line of the highway along the entire frontage of the property, except that all required utility upgrades for water, sanitary sewer, stormwater, natural gas, electrical, street lighting or telecommunications shall be provided within the entire right-of-way regardless of its location.

15. The *Council* delegates to the *Development Engineer* the powers of the *Council* under the *Local Government Act* to:

(a) require a *Developer* to *construct* excess or extended services as defined in Sections 507 of the *Local Government Act* other than any excess or extended services that are required by this bylaw in respect of all *subdivision* and building permit applications;

(b) determine whether the cost to the *City* to provide the excess or extended services would be excessive and, in that event, that the cost must be paid by the *Developer*;

(c) determine the benefit of the excess or extended service that may be attributed to each of the parcels of land that will be served by the services; and

(d) impose latecomer charges under Section 508 of the *Local Government Act* including interest at a rate determined by the *City* and established in the City of Courtenay Fees and Charges Bylaw No. 1673, 1992 as amended.

16. For the purpose of section 15, the *Development Engineer* may require the *Developer*'s *Qualified Professional* to provide information specifying parcels of land that will be served by the excess or extended services and the benefit that each such parcel derives from the services, and execute and deliver on behalf of the *City* agreements with Developers regarding the collection and remittance of latecomer charges, which agreements may be combined with *Works and Services* agreements as referred to in sections 3 and 5.

17. All *Works and Services* shall be completed in accordance with the following portions of the *Master Municipal Construction Documents*, unless specifically modified herein.

    (a) Volume II Master Municipal Specifications – Division 01, 03, 06, and 31 to 34 inclusive including any relevant definitions in the Master Municipal General Conditions and excluding all provisions pertaining to measurement and payment;

    (b) Volume II Standard Detail Drawings; and

    (c) MMCD Design Guidelines.

18. The following schedules are attached to and form part of this Bylaw:

    Schedule 1 – Supplementary Design Guidelines
    Schedule 2 – Supplementary Construction Specifications
    Schedule 3 – Supplementary Standard Detail Drawings
    Schedule 4 – Standards for Sanitary Lift Stations

19. The City of Courtenay Subdivision Control Bylaw No. 1401, 1986 as amended, is hereby repealed.

20. This bylaw may be cited as "Courtenay Subdivision and Development Servicing Bylaw No. 2919".

Read a first time this 19th day of February, 2018.

Read a second time this 19th day of February, 2018.

Read a third time this 3rd day of April, 2018.

Finally passed and adopted this day of , 2018.

Mayor

Corporate Officer

SUBDIVISION AND DEVELOPMENT SERVICING BYLAW 2919

APRIL 16, 2018

SCHEDULE 1

SUPPLEMENTARY DESIGN GUIDELINES

SUPPLEMENTARY DESIGN GUIDELINES

This schedule contains supplementary design guidelines to be applied in conjunction with the Design Guideline Manual of the Master Municipal Construction Documents, dated 2014, both of which shall apply to all Works and Services constructed within the City of Courtenay.

Supplementary Design Guidelines contained within this Schedule supplement or supersede the Master Municipal Construction Document (MMCD). Where the City of Courtenay Supplementary Design Guidelines are in conflict with the MMCD, the City of Courtenay Supplementary Design Guidelines shall take precedence.

Section number and clause numbers in the City of Courtenay Supplementary Design Guidelines coincide with the MMCD numbering protocol.

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SECTION

7.0 TRAFFIC SIGNALS

1.0 GENERAL DESIGN CONSIDERATIONS

1.2	**Independent Utilities**	Add Section 1.2.1	Design for location and relocation of Canada Post Mailbox shall be coordinated with Canada Post.

2.0 WATER DISTRIBUTION

2.2 Metering — Replace Section

For all single family residential homes without fire sprinklers the water meter setter size shall be 25mm except in the case where there is a demonstrated need for a larger meter. All other meters must be sized in accordance with AWWA M22 and form contained in Appendix A. It should be noted that this methodology is based on the fixture value method and not the fixture unit method employed in the BC Building Code for piping within buildings.

The maximum operating range for a water meter shall be less than 80% of the maximum instantaneous flow capacity as outlined by the meter manufacturer, with a maximum pressure loss of 48 kPa at the design flow rate. The size selection must not compromise the operating range or the long term life of the meter and must ensure that pressures supplied to property are appropriate for the intended use.

For developments that are proposed to be phased, the meter chamber and piping must be sized for the meter required for the ultimate buildout of the development. However, the initial meter installed must also be sized to accurately capture the range of flows for the first phase.

The Qualified Professional must ensure the meter selection and installation requirements are appropriate for the designed application.

A Qualified Professional must provide detailed sealed drawings and shop drawings of the installation and relevant calculations, to demonstrate the appropriateness of the sizing of the meter, for approval prior to installing the chamber.

2.3 Per Capita Demand — Replace Section

In the absence of reliable water consumption records, the following per capita demands shall be applied to future residential development:

- ADD: 635 L/c/d
- Peak Day: 2100 L/c/d
- Peak Hour: 3000 L/c/d

2.9	**Minimum Pipe Diameter**	Delete	Service Connections: 19mm
		Replace with	Service Connections: 25mm
2.14	**Valves**	Delete	• The valves shall be the same diameter as the watermain up to 300mm diameter • The main line valves on mains 350 mm and 400 mm diameter may be smaller by one (10 size with the use of proper reducers • The main line valves on mains 450 mm diameter and larger may be smaller by two (2) sizes with the use of proper reducers
		Replace with	• The main line valves on mains of all sizes shall be of the same nominal diameter as the watermain.
2.15	**Hydrants**	Add Bullet	• STORZ connection must face the road or cul-de-sac at 90 degrees.
2.18	**Air Valves**	Replace Section	Combination air valves must be installed at the summits of all mains of 200 mm diameter and larger, except as follows: • Where the difference in elevation between the summit and valley is less than 600 mm. • Where it can be shown that air pockets will be carried by typical flows. • Where active service connections are suitably located to dissipate trapped air. Typical air valve sizes, subject to design analysis, are as follows (Table 2.18)
2.21	**Service Connections**	Add to Section	Every legal lot and each unit of residential duplex must be provided with a separate service connection.

Table 2.18 Typical Air Valve sizes

Watermain Size	Valve Size
200 mm to 300 mm	25 mm
350 mm to 600 mm	50 mm
Larger than 600 mm	Special Design

Air Valves located in a flood plain shall be of a manual permanent blow type

2.25.2 Design Features Replace Section

General requirements for pressure reducing stations shall be as follows:

- Include a dual Pressure Reduction Valve (PRV) arrangement with separate domestic and fire flow PRV's.
  - Epoxy coated valve bodies both inside and out.
  - Fire flow PRV must be equipped with a position indicator (limit switch).
  - Domestic flow PRV must be equipped with position indicator and insertion flow meter.
  - Filters shall be provided on all valve control piping.
  - All piloting shall be set to fail close.
- Include a surge/high pressure relief valve with stainless steel mesh dechlorination basket (capable of housing a minimum of 8 – 65mm dechlorination pucks).
- Pressure relief valves and surge relief valves to include anti-cavitation trim where recommended by the manufacturer based on site specific differential pressures.
- Each PRV and surge relief valve must be provided with isolating valves such that individual components can be removed for repair and each component can be operated independently.
- Pressure gauges and pressure transducers complete with snubbers and isolating valves must be included to register both upstream and downstream pressure.
- All piping and fittings, including control piping, must be stainless steel;
- Grooved couplings must be included to assist in disassembly of piping as required.
- All equipment and controls must be mounted in an above ground secure, lockable cabinet, on a concrete foundation. The cabinet shall be as follows:
  - Include two separate compartments, including one for the electrical controls and another for the mechanical piping and valves. All compartments must be heated, lighted and the controls enclosure must be ventilated.
  - Include removable roof hatch above the Mechanical compartment.

  - Fabricated from powder coated aluminum.
  - Include a rubber gasket between the aluminum kiosk and the concrete to prevent water leakage into the kiosk.
- The PRV station include 8 hours of uninterruptible power (UPS) and a user control interface (HMI).
- The PRV station must be integrated with the City's SCADA system via ethernet or cellular telephone connection to monitor at a minimum:
  - PRV valve position.
  - Utility failure.
  - Access intrusion.
  - Limits switches.
  - High pressure relief.
  - Flow data.

3.0 SANITARY SEWERS

3.2	**Per Capita Flow**	Replace Section	In the absence of sanitary sewer flow records, sanitary sewer system design should be based on an average daily dry weather flow (ADWF) of 360 litres per day per capita (L/d/c).
3.8	**Flow Velocities**	Delete	▪ Force mains: 0.75 m/s
		Replace with	▪ Force mains: 0.9 m/s
3.10	**Minimum Pipe Diameter**	Replace Section	The minimum pipe diameter is 200mm. Sewers must be designed to satisfy the following parameters: ▪ 200mm diameter and less: d/D < 0.5. ▪ 250mm diameter: d/D < 0.7. ▪ 300mm diameter and greater: d/D < 0.8.
3.12	**Curved Sewers**	Replace Section	On straight roads, sanitary sewers shall be installed in straight runs such that sewer mains and manholes are entirely under the road pavement and no closer than 1m to the curb. Curvilinear sewers are permitted on horizontal curves and shall have a constant offset from property line. The radius of curve shall not exceed 50% of the manufacturer's recommended maximum and shall not be less than 60m. The minimum grade shall be 1% and each joint shall be located by survey. Manholes are to be installed at the beginning and end of horizontal curve sections. Curvilinear sewers are not permitted on vertical curves The minimum design velocity design velocity in curved sewers is 0.9 m/s.
3.14.1	**Locations**	Replace Section	Manholes are required at the following locations: ▪ Every change of pipe size. ▪ Every change in grade. ▪ Every change in direction. ▪ Every pipe intersection except for 100 mm and 150 mm service connections and junctions with trunk sewers 900 mm diameter and larger. ▪ Every future pipe intersection.

- 150 m maximum spacing for pipe diameters up to 450 mm.
- 300 m maximum spacing for pipe diameter of 450 mm and larger.
- Every beginning and end of horizontal curves.

3.14.2 Hydraulic Details

Replace Table 3.14

Table 3.14 Drop Structures

Invert Difference	Structure
Up to 0.25 m	Inside Ramp
0.25 to 0.90 m	Outside Ramp
Greater than 0.90 m	Outside Drop*
*Inside drop structures are not permitted	

Delete Sentence

If a manhole drop cannot be avoided, an inside drop pipe is required.

3.16.3 Grade

Delete

- 100 mm diameter pipe: 1.50%

Replace with

- 100mm diameter pipe: 2% min.

3.16.4 Details

Replace Section

Use standard wye fittings for connections to new mains. For connections to existing mains, strap on saddle and insertable tees are permitted.

The service connection centreline must not be below the sewer main centreline.

Residential service connections are not to be connected to manholes. All wye connections to be a minimum of 1.0 m downstream from manhole.

Inspection chambers are required on residential connections. Control manholes are required on industrial connections and commercial connections. Inspection manholes are required on service connections 200mm diameter and larger.
Connections exceeding 30 m in length will be treated as mains.

3.18 Pump Stations

Replace Section

Replace this section with the document “Standards for Sanitary Lift Stations”, provided in Schedule 4.

4.0 STORMWATER MANAGEMENT

4.1.1 Drainage Planning Add Section 4.1.1

The Developer shall prepare such plans prior to approval of the development applications. Such plans shall provide an in-depth review of stormwater opportunities and constraints on a specific watershed, and take into consideration the potential impacts and remediation measures for the affected watercourses.

Submission requirements for Developers are in accordance with 2014 MMCD Design Guideline Manual Stormwater Management Section 4.2: Stormwater Control Plan.

4.1.2 Master Drainage Plan Add Section 4.1.2

The Master Drainage Plan (MDP), Watershed Plan (WP) or Integrated Stormwater Management Plan (ISMP) proposes an optimum drainage servicing strategy that meets the ultimate land use in the watershed. If a City MDP is not available, developments with a cumulative phased development area greater than 5 hectares are required to provide an acceptable MDP. The proposed MDP must address all identified constraints and provide the following information as required:

- Conceptual schemes for storm drainage servicing including trunk storm sewers, catchment detention ponds, minor and major flow routes, and erosion protection.
- Department of Fisheries & Oceans and BC Ministry of Forests, Lands, Natural Resource Operations and & Rural Development review.
- Hydrological and hydraulic model of pre-development and ultimate development condition.
- Bio-inventory of creeks and watercourses.
- Hydrogeological Impact Assessment (in areas where DFO and MOE jointly require its consideration).
- Inventory of watercourses and trunk drainage facilities.
- Sizes and performance requirements of catchment detention areas.
- Priority of MDP recommendations.

4.3.1	**The Minor System**	Replace Section	Consists of pipes, gutters, catch basins, driveway culverts, open channels, watercourses and stormwater management "best management practices" (BMPs) designed to capture, convey, treat or modify flows up to and including the 1 in 10 year return period storm event.
4.3.2	**The Major System**	Replace Section	Consists of surface flow paths, roadways culverts, watercourses, and stormwater management facilities designed to capture, convey, treat or modify larger flows up to and including the 1 in 100 year return period storm event. If required to accommodate low building elevations, and if approved, a piped minor system may be enlarged or supplemented to accommodate major flows.
4.3.3	**Stormwater Detention Release Rates**	Add Section 4.3.3	All stormwater detention facilities shall be designed to limit post-development peak flows to equal to the corresponding pre-development peak flows for the 1 in 2, 1 in 5, 1 in 10 and 1 in 25 year return period storm events. Overland escape routes must be provided to account for greater storms up to 1 in 100 year return period in a manner which does not result in flooding of any properties. Design rainfall intensities have been increased by 15% as indicated in Section 4.4. The total volume of runoff generated during storms can also have a significant impact on receiving watercourses. To the extent possible, the total runoff generated from storms should be minimized through the application of site adaptive planning and the use of source controls. Site adaptive planning focuses on limiting total imperviousness at development sites and preserving natural features such as wetlands, forests and native soils. Source controls focus on reducing volume by retaining or enhancing opportunities for infiltration and evapotranspiration on development sites. Discharge shall be controlled such that the downstream watercourses receiving outflow from detention facilities are protected from surcharge and erosion. Where stability cannot be maintained, measures to avoid or mitigate erosion shall be proposed.

4.4 Runoff Analysis

Delete Bullet

- Hydrograph Method: Applicable for all areas larger than 10 hectares, more hydrologically complex catchments, and where stormwater management systems require more than basic conveyances. The computer program proposed for use is subject to approval by the local authority. The program should be selected to suit the complexity of the watershed and the hydrologic processes that need to be considered (e.g. detention, groundwater recharge and infiltration, evapotranspiration, continuous simulation, etc.) The most widely used programs (or software packages) are those that are SWMM based, however are constantly evolving, it is inappropriate for this guide document to state or endorse any particular ones.

Replace with

- Hydrograph Method: Applicable for complex systems involving multiple catchments with highly variable land use conditions, where flow attenuation features are involved (eg. detention pond, constructed wetland), or for gross areas exceeding 10 hectares. Computer models shall be based on the U.S. Environmental Protection Agency's SWMM software.

Add Bullet

- Mass Balance: Volumetric based computations may be used to supplement flow analysis for the design of water quality treatment BMPs and BMPs intended for stormwater detention.

Add to Section

Computer stormwater models shall utilize the 10 and 100 year return period design storm hyetographs provided in Table 4.4.2. These hyetographs have been derived using the Modified Chicago Distribution for a 24 hour storm duration. The hyetographs have also been adjusted to reflect a 15% increase in rainfall intensities.

Note: Performance of the drainage systems may be under the influence of ocean levels and pump stations, and therefore may surcharge under certain conditions. Aside from the runoff analysis method

applied, hydraulic grade lines shall be indicated in design drawings and associated system performance shall consider governing downstream hydraulic boundary conditions.

Figure 4.4: Intensity Duration Frequency Curves – Courtenay Puntledge BCHP ID: 1021990
15% Increase from Historical Intensities (mm/hr)
Years of Record: 1964-1995 (35 Years)

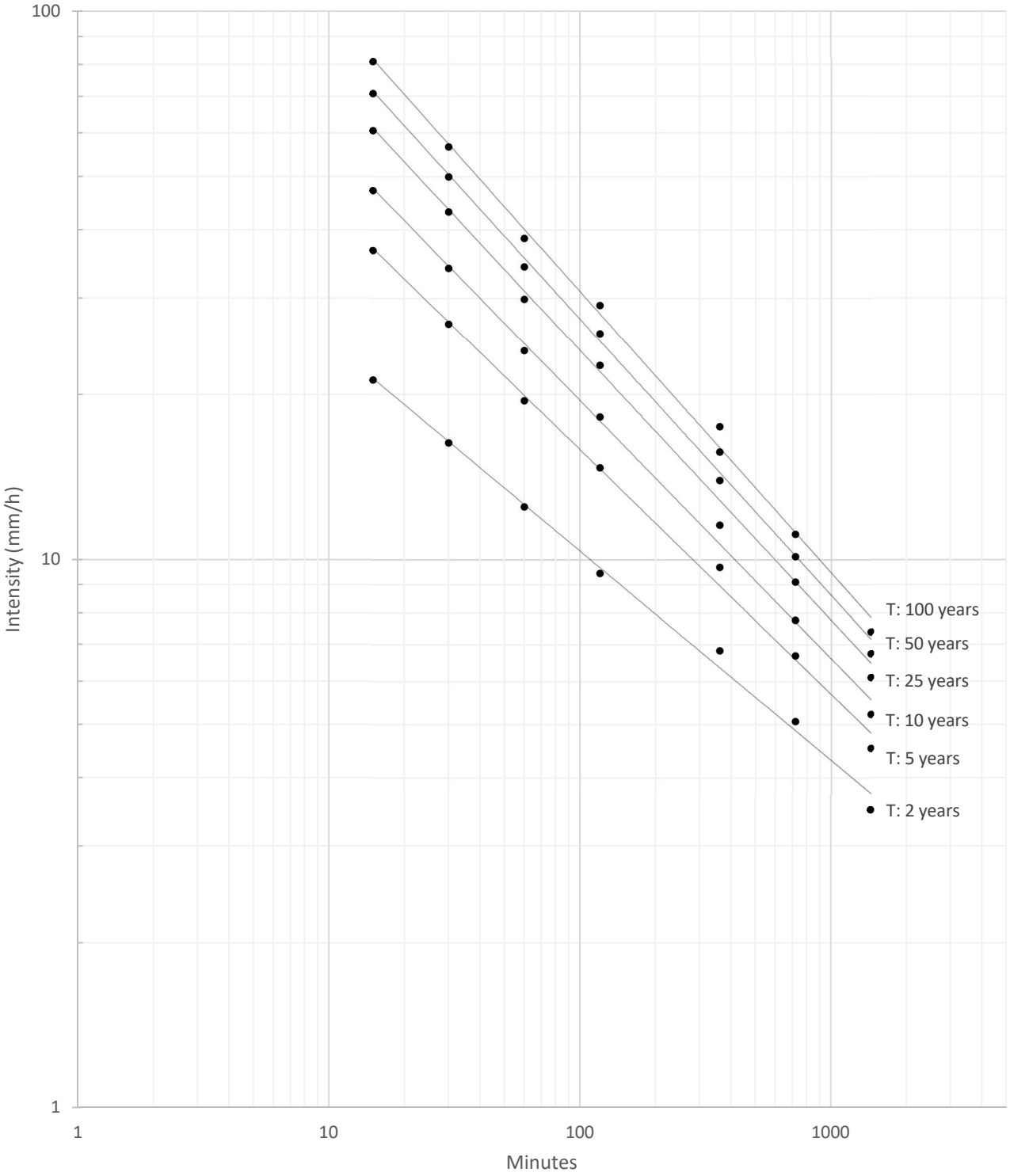

Table 4.4.1: IDF Curve Intensity Table Summary
15% Increase from Historical Intensities (mm/hr)

Time		Return Frequency					
Minutes	Hours	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr
15	0.25	21.3	36.7	47.2	60.7	70.8	80.9
30	0.5	16.3	26.9	34.1	43.1	49.9	56.7
60	1	12.5	19.5	24.1	29.9	34.3	38.6
120	2	9.5	14.7	18.2	22.6	25.9	29.1
360	6	6.8	9.7	11.6	14.0	15.7	17.5
720	12	5.1	6.7	7.8	9.1	10.1	11.1
1440	24	3.5	4.5	5.2	6.1	6.8	7.4

Note: 15 and 30 minute durations have been extrapolated from historical IDF Curve

Table 4.4.2: Interpolation Equation of IDF Curve – Historical Data
$R = A * T^B$ where: R = Rainfall (mm/hr), A and B = Coefficients, based on return period

Parameters	Return Frequency					
	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr
A	11.0	17.5	21.9	27.3	31.4	35.5
B	-0.386	-0.452	-0.477	-0.499	-0.511	-0.521

Note: Coefficients are based on Historical Data - 15% must be added to resulting intensities

Table 4.4.3: Modified Chicago Distribution – 24 Hr Design Storm Data (10 Minute Increment)
15% Increase from Historical Intensities (mm/hr)
Years of Record: 1964-1995 (35 Years)

Time (min)	Return Frequency				
	2 year	5 year	10 year	25 Year	100 year
0	2.29	2.64	2.91	3.24	3.76
10	2.31	2.66	2.94	3.28	3.80
20	2.33	2.69	2.98	3.32	3.85
30	2.35	2.72	3.01	3.36	3.90
40	2.38	2.76	3.05	3.40	3.95
50	2.40	2.79	3.09	3.45	4.01
60	2.43	2.82	3.13	3.49	4.07
70	2.45	2.86	3.17	3.54	4.12
80	2.48	2.90	3.21	3.59	4.19
90	2.51	2.93	3.26	3.65	4.25
100	2.54	2.97	3.30	3.70	4.32
110	2.57	3.02	3.35	3.76	4.39
120	2.60	3.06	3.40	3.82	4.46
130	2.63	3.11	3.46	3.88	4.54
140	2.67	3.15	3.52	3.95	4.62
150	2.70	3.21	3.58	4.02	4.71
160	2.74	3.26	3.64	4.10	4.80
170	2.78	3.32	3.71	4.17	4.89
180	2.83	3.38	3.78	4.26	5.00
190	2.87	3.44	3.85	4.35	5.11
200	2.92	3.51	3.93	4.44	5.22
210	2.97	3.58	4.02	4.54	5.35
220	3.03	3.66	4.11	4.65	5.48
230	3.08	3.74	4.21	4.77	5.62
240	3.15	3.83	4.31	4.89	5.78
250	3.21	3.92	4.43	5.03	5.94
260	3.29	4.03	4.55	5.18	6.13
270	3.37	4.14	4.69	5.34	6.33
280	3.45	4.27	4.84	5.52	6.55
290	3.55	4.41	5.00	5.71	6.79
300	3.65	4.56	5.19	5.93	7.07
310	3.77	4.73	5.39	6.18	7.38
320	3.90	4.93	5.63	6.46	7.73
330	4.05	5.15	5.90	6.79	8.13
340	4.23	5.41	6.21	7.17	8.61
350	4.43	5.72	6.59	7.62	9.18
360	4.68	6.09	7.04	8.17	9.87
370	4.98	6.56	7.61	8.86	10.74
380	5.37	7.16	8.34	9.76	11.88
390	5.89	7.98	9.36	11.00	13.47
400	6.66	9.22	10.90	12.90	15.90
410	8.00	11.43	13.68	16.37	20.39
420	11.84	18.14	22.30	27.33	34.86
430	25.10	44.93	58.80	76.25	103.14
440	12.39	19.06	23.47	28.80	36.78
450	9.84	14.55	17.65	21.37	26.93
460	8.54	12.33	14.82	17.79	22.24
470	7.71	10.93	13.05	15.57	19.35
480	7.11	9.94	11.80	14.02	17.34

Time (min)	Return Frequency				
	2 year	5 year	10 year	25 Year	100 year
490	6.65	9.19	10.86	12.86	15.84
500	6.28	8.60	10.12	11.94	14.67
510	5.97	8.11	9.52	11.20	13.72
520	5.72	7.70	9.02	10.58	12.93
530	5.49	7.35	8.59	10.06	12.26
540	5.30	7.05	8.22	9.60	11.68
550	5.13	6.79	7.89	9.20	11.17
560	4.98	6.55	7.60	8.85	10.73
570	4.84	6.34	7.34	8.54	10.33
580	4.72	6.15	7.11	8.25	9.97
590	4.60	5.98	6.90	8.00	9.65
600	4.50	5.82	6.71	7.76	9.35
610	4.40	5.67	6.53	7.55	9.08
620	4.31	5.54	6.36	7.35	8.84
630	4.23	5.41	6.21	7.17	8.61
640	4.15	5.29	6.07	7.00	8.39
650	4.08	5.19	5.94	6.84	8.19
660	4.01	5.08	5.82	6.69	8.01
670	3.94	4.99	5.70	6.55	7.84
680	3.88	4.90	5.59	6.42	7.67
690	3.83	4.81	5.49	6.30	7.52
700	3.77	4.73	5.39	6.18	7.37
710	3.72	4.66	5.30	6.07	7.24
720	3.67	4.58	5.22	5.97	7.11
730	3.62	4.51	5.13	5.87	6.99
740	3.58	4.45	5.05	5.77	6.87
750	3.53	4.39	4.98	5.68	6.76
760	3.49	4.33	4.91	5.60	6.65
770	3.45	4.27	4.84	5.52	6.55
780	3.42	4.21	4.77	5.44	6.45
790	3.38	4.16	4.71	5.36	6.36
800	3.34	4.11	4.65	5.29	6.27
810	3.31	4.06	4.59	5.22	6.18
820	3.28	4.01	4.53	5.15	6.10
830	3.25	3.97	4.48	5.09	6.02
840	3.21	3.92	4.43	5.03	5.94
850	3.18	3.88	4.38	4.97	5.87
860	3.16	3.84	4.33	4.91	5.80
870	3.13	3.80	4.28	4.85	5.73
880	3.10	3.76	4.24	4.80	5.66
890	3.08	3.73	4.19	4.75	5.60
900	3.05	3.69	4.15	4.70	5.54
910	3.03	3.66	4.11	4.65	5.48
920	3.00	3.62	4.07	4.60	5.42
930	2.98	3.59	4.03	4.56	5.36
940	2.96	3.56	3.99	4.51	5.31
950	2.93	3.53	3.96	4.47	5.26
960	2.91	3.50	3.92	4.43	5.20
970	2.89	3.47	3.89	4.39	5.15

Time (min)	Return Frequency				
	2 year	5 year	10 year	25 Year	100 year
980	2.87	3.44	3.85	4.35	5.10
990	2.85	3.41	3.82	4.31	5.06
1000	2.83	3.38	3.79	4.27	5.01
1010	2.81	3.36	3.76	4.23	4.97
1020	2.80	3.33	3.73	4.20	4.92
1030	2.78	3.31	3.70	4.16	4.88
1040	2.76	3.28	3.67	4.13	4.84
1050	2.74	3.26	3.64	4.10	4.80
1060	2.73	3.24	3.61	4.06	4.76
1070	2.71	3.21	3.58	4.03	4.72
1080	2.69	3.19	3.56	4.00	4.68
1090	2.68	3.17	3.53	3.97	4.64
1100	2.66	3.15	3.51	3.94	4.61
1110	2.65	3.13	3.48	3.91	4.57
1120	2.63	3.11	3.46	3.88	4.54
1130	2.62	3.09	3.44	3.86	4.51
1140	2.60	3.07	3.41	3.83	4.47
1150	2.59	3.05	3.39	3.80	4.44
1160	2.58	3.03	3.37	3.78	4.41
1170	2.56	3.01	3.35	3.75	4.38
1180	2.55	2.99	3.32	3.73	4.35
1190	2.54	2.97	3.30	3.70	4.32
1200	2.52	2.96	3.28	3.68	4.29
1210	2.51	2.94	3.26	3.65	4.26
1220	2.50	2.92	3.24	3.63	4.23
1230	2.49	2.91	3.22	3.61	4.20
1240	2.47	2.89	3.21	3.59	4.18
1250	2.46	2.87	3.19	3.56	4.15
1260	2.45	2.86	3.17	3.54	4.12
1270	2.44	2.84	3.15	3.52	4.10
1280	2.43	2.83	3.13	3.50	4.07
1290	2.42	2.81	3.12	3.48	4.05
1300	2.41	2.80	3.10	3.46	4.03
1310	2.40	2.78	3.08	3.44	4.00
1320	2.39	2.77	3.06	3.42	3.98
1330	2.38	2.76	3.05	3.40	3.95
1340	2.37	2.74	3.03	3.38	3.93
1350	2.36	2.73	3.02	3.37	3.91
1360	2.35	2.72	3.00	3.35	3.89
1370	2.34	2.70	2.99	3.33	3.87
1380	2.33	2.69	2.97	3.31	3.84
1390	2.32	2.68	2.96	3.29	3.82
1400	2.31	2.66	2.94	3.28	3.80
1410	2.30	2.65	2.93	3.26	3.78
1420	2.29	2.64	2.91	3.25	3.76
1430	2.28	2.63	2.90	3.23	3.74
1440	0.00	0.00	0.00	0.00	0.00

4.9.6	**Minimum Pipe Diameter**	Replace Section	▪ Storm Sewer 250 mm ▪ Culvert: -Crossing Roads 450 mm -Crossing Driveways 300 mm ▪ Catch Basin Leads 200 mm ▪ Service Connections: -Residential 150 mm -Commercial/industrial 150 mm Downstream pipe sizes are not to be reduced unless the downstream pipe is 600 mm diameter or larger and increased grade provides adequate capacity. Detailed hydraulic analysis is required. That maximum reduction is two pipe sizes.
4.9.8	**Curved Sewers**	Replace Section	On straight roads, storm sewers shall be installed in straight runs such that sewer mains and manholes are entirely under the road pavement and no closer than 1m to the curb. Curvilinear sewers are permitted on horizontal curves and shall have a constant offset from property line. The radius of curve shall not exceed 50% of the manufacturer's recommended maximum and shall not be less than 60m. The minimum grade shall be 1% and each joint shall be located by survey. Manholes are to be installed at the beginning and end of horizontal curve sections. Curvilinear sewers are not permitted on vertical curves The minimum design velocity in curved sewers is 0.9 m/s. Sewers larger than 600 mm diameter may include deflections formed by mitred bends to a maximum mitre of 45°.
4.9.10	**Pipe Joints**	Replace Section	All pipe joints shall be gasketed and water tight.
4.9.14	**Service Connections**	Delete	▪ Details Use standard wye fittings for connections to new mains. For connections to existing mains, use wye saddles or, if approved, insertable tees. Service connections may be permitted into manholes if:

- The connection is not oriented against the flow in the main.
- Manhole hydraulic requirements are met.

Replace with

- Details

Use standard wye fittings for connections to new PVC and HDPE mains. For connections to existing PVC and HDPE mains, strap on saddle and insertable tees are permitted. For connections to new or existing concrete mains, a cored tee is required.

The service connection centreline must not be below the sewer main centreline.

No services shall be directly connected to manholes, all wye connections must be a minimum of 1.0 m downstream from manholes.

4.10.3 Surface Flow Capacity — Add to Section

Surface swale shall only traverse three lots downstream before directing into a surface inlet. The swale shall be included in an across lot drainage easement.

4.11.2 Underground Storage — Add to Section

Other detention facilities such as underground storage will be considered for approval at the discretion of the City.

4.11.3 Dry Detention Ponds — Add to Section

Design Details for Dry Ponds

Dry ponds are an effective method of stormwater quantity control, and are typically not intended as water quality improvement facilities. Dry ponds may be constructed in areas where it is not feasible to include a wet pond due to topography or site plan constraints. Generally, dry ponds are used to control larger, less frequent flows while allowing smaller flows to pass through uncontrolled. A sedimentation forebay is required upstream of dry ponds to promote settlement of suspended solids.

a) <u>Land Dedication Requirements</u>

Dry ponds to be operated by the City of Courtenay are to be located on public property, which is to

encompass all lands subject to inundation from the 24 hour 1 in 25 year return period design high water level and shall encompass all maintenance access roads as outlined in Section i) below.

If the slope integrity may be jeopardized by cutting or filling of priority lots, a restrictive covenant will be placed on lots abutting the dry pond to control lot development so as not to compromise design requirements at the HWL. This is to ensure an adequate freeboard is maintained.

b) Minimum Pond Size

The City discourages the proliferation of large numbers of small ponds, with the resultant higher maintenance cost and lower efficiency impact. The storage size is determined on the basis of outflow control requirements as presented in this document.

c) Frequency of Operation

All dry ponds shall be off-line storage areas designed to temporarily detain excess runoff and thereby reduce the peak outflow rates to the connected downstream system. These facilities may be subject to prolonged inundation during winter due to the rainfall pattern in Courtenay.

d) Drain Time

Ponds shall be generally designed to completely drain within 40 hours of reaching maximum water surface level, but in no case longer than 72 hours.

e) Side Slopes

Side slopes subject to inundation upon filling of the dry pond shall have a maximum slope of 4 (horizontal) to 1 (vertical) within public property. A freeboard allowance of 0.6 m is required for all dry ponds.

f) Depth of Ponding

The maximum live storage limit in a dry pond is for 3.0 m for the 1 in 25-year return period storm event and

1.5 m for the 1 in 10-year event, as measured from the invert elevation of the outlet pipe.

g) Bottom Grading and Drainage

The dry pond shall be graded to properly drain all areas after its operation. The dry pond bottom shall have a minimum slope of 0.5% and a slope of 0.7% or greater is recommended where feasible. Lateral slopes for the pond bottom shall be 0.5% or greater. French drains or similar means may be required where it is anticipated that these slopes will not properly drain the dry pond bottom, or where dictated by multiple use or other special considerations.

h) Safety Provisions at Inlets and Outlets

All inlet and outlet structures associated with dry ponds shall have grates provided over their openings to restrict access. A maximum clear bar spacing of 0.150 m shall be used for gratings. Grated outlet structures, are to be designed with a hydraulic capacity of at least twice the required capacity to allow for possible plugging. Further, the arrangement of the structures and the location of the grating shall be such that the velocity of the flow passing through the grating will not exceed 1.0 m/s.

Appropriate fencing and guard-rails are to be provided to restrict access and reduce the hazard presented by structure head and wing walls.

i) Maintenance Access Requirements

A minimum 4.0 m wide, all-weather vehicle access shall be constructed from a public road to the inlet, sediment sump, outlet, emergency overflow and other works requiring maintenance. The maximum grade of the access shall be 8%. The surface shall be finished with gravel topped with path chip, geogrid, or rigid grass suitable for all weather maintenance truck access. A vehicle access route shall also be provided to the edge of all stormwater management ponds suitable to carry maintenance vehicles. This access shall also extend to the pond static (normal) water level. The access surface shall include a 1.0 m buffer from top of pond and an additional 1.0 m from edge of

access road to the edge of dedicated lands, and shall be accessible from and extend to a public road right-of-way. Sharp bends in this access route are to be avoided. Vehicle turning movements must accommodate a tandem axle 60,000lb flush truck and tandem axle dump truck.

j) Landscaping

Landscaping plans shall be submitted as part of the Engineering Drawings for dry ponds, and the completion of landscaping will be considered part of the improvement construction. The minimum requirement for landscaping of dry ponds shall be the establishment of grass cover. Preference should be given to use of native plant materials and, in no case, should non-native, aggressive ("invasive") plant materials be used.

k) Sediment Control

Use of storm ponds for sediment control is acceptable during construction of the first phase of a development, and must be remediated prior to acceptance of the Works and Services by the City of Courtenay. The City may accept the use of storm ponds for sediment control for multiple phases of a development if the appropriate maintenance agreement is established and the appropriate security is provided by the developer. The required security is 125% of the estimated remediation cost.

l) Operation and Maintenance Manual

Three copies of an operation and maintenance manual shall be submitted when the facility is completed and transferred to the Municipality and include:

- Record drawings of the completed facility.
- Brief description of the facility operation including design flows, design depths, and schematic diagrams of the inlet and outlet structures, connections, controls, valves, bypass, overflows, etc.
- List of manufacturer's operation, service and repair instructions and parts lists.

- Volume-stage-discharge relationships of all control structures.
- General maintenance requirements and emergency procedures.
- Copies of senior government environmental approvals if applicable.

4.11.4	**Wet Detention Ponds**	Add to Section	**Design Details for Wet Ponds**

Wet ponds are well suited for both quality and quantity control of stormwater runoff. Wet ponds incorporate a permanent pool which rises in response to rainfall events. Extended storage durations and strategic planting in the active storage zone can further improve water quality. Sedimentation forebays should still be incorporated upstream of wet ponds for preliminary settlement of larger suspended solids.

a) Land Dedication Requirements

Wet ponds to be operated by the City of Courtenay are to be located on Public property which is to encompass all lands subject to inundation from the 24 hour 1 in 25 year return period design high water level plus the edge treatment. This designation will also apply to all rights-of-way for access to and protection of inlet and outlet sewers and flow control facilities, maintenance access routes to the pond, and to a certain proportion of the lands fronting on the pond, from the upper edge of the area containing the edge treatment to the limit of the water's edge when the water surface is at the design high water elevation.

A restrictive covenant and/or a limit for the Minimum Building Elevation (MBE) will be placed upon those lots abutting the pond to guide lot development that design requirements of the stormwater storage facility are not compromised and that an adequate freeboard is maintained.

b) Minimum Pond Size

The City discourages the proliferation of large numbers of small ponds, with the resultant higher

maintenance cost and lower efficiency impact. The storage size is determined on the basis of outflow control requirements as presented in this document.

c) Drain Time

Ponds shall be generally designed to drain to normal water surface level within 40 hours of reaching maximum water surface level, but in no case longer than 72 hours.

d) Side Slopes

Areas covered by water, from the design high water level down to the normal water level shall have a maximum slope of 7 (horizontal) and 1 (vertical) and extend at a maximum slope of 7:1 (H:V), from normal water level to a depth of 0.43 m (i.e., a distance of 3 m horizontally into the pond for safety needs). Steeper side slopes, up to 4:1 (H:V), may be considered for areas separated from the public by a Concrete Rail Fence. A slope of 4:1 (H:V) shall be used from the 0.43 m depth point (below normal water level) to the pond bottom.

e) Minimum Depth

The minimum depth from normal water level to pond bottom (beyond the side slope area) shall be 1.5 m. The maximum live storage limit in a wet pond is for 3.0 m for the 1 in 25-year return period storm event and 1.5 m for the 1 in 10-year event, as measured from the invert elevation of the outlet pipe. A freeboard allowance of 0.6 m is required for all wet ponds.

f) Pond Bottom Material

For areas where the ground water table is below the Normal Water Level (NWL), the pond bottom and side slopes are to be composed of impervious material with a suitably low permeability (e.g. with a permeability coefficient in the order of 1×10^{-6} cm/s).

For areas where the groundwater table is expected to be near or above the NWL, the pond bottom may be of a pervious material as dictated by geotechnical considerations.

g) Circulation Requirements

Narrow and/or dead bay areas where floating debris may accumulate are to be excluded at the design stage. Inlets and outlets should be located with consideration of the need to maximize detention time and circulation within the pond water body.

h) Inlet and Outlet Requirements

- Submergence of Inlets and Outlets

  Inlet and outlet pipe inverts are to be a minimum 0.1 m above the pond bottom. Forebays are to be constructed on pond bottom to accommodate extra depth requirements for placing inlet/outlet structures, as required.

- Provision for Free Outfall from Inlets to Ponds

  Where feasible, the invert elevation at the first manhole upstream from the pond in a minor system or the connecting or interconnecting pipe system, shall be at or above the normal water level of the pond to avoid deposition of sediments in the inlet pipe. To avoid backwater effects on the upstream sewers leading to the pond, the obvert of the inlet sewer at the first manhole upstream from the pond shall be at or above the pond level for the 1 in 10-year return period storm event. A drop structure upstream from the pond will generally be required to achieve this. “Inlet” and “outlet” control calculations are required to verify the mode of operation of the pond inlets. In cases where grades set limits on the above, special maintenance needs, such as periodic flushing/cleaning must be identified.

- Provisions for Water Level Measurements

  To permit direct measurement of water level in the pond, a manhole is to be provided hydraulically connected to the pond such that the level of water in the manhole will mimic the pond water surface level.

- Provisions for Lowering the Pond Level

  The provision of the means to drain the pond completely by gravity drainage is desirable. Where a gravity drain is not feasible, provisions are to be made in association with the outlet works or otherwise, so that mobile pumping equipment may be installed and used to drain the pond.

i) Sediment Removal Provisions

The pond design shall include an approved sedimentation removal process for control of heavy solids, which may be washed to the pond during the construction period associated with the development of the contributing drainage catchment.

Sediment basins shall be provided at all inlet locations for continued use after completion of the subdivision development. Stormwater storage/detention ponds shall not take the place of a development's sediment control storage basin.

j) Pond Edge Treatment

Edge treatment or shore protection is required and shall be compatible with the adjacent land use. The treatment used shall meet criteria for low maintenance, safety and habitat requirements. The edge treatment is to cover ground surfaces exposed or covered by water during a pond level fluctuation to 0.3 m below or above the normal water elevation, and shall be adequate to prevent erosion of the pond edge due to wave action. The typical acceptable edge treatment shall be, but is not limited to, a 250 mm deep layer of well graded washed rock with a 75 mm minimum size or alternatively appropriate edge vegetation.

k) Maintenance Access Requirements

A minimum 4.0 m wide, all-weather vehicle access shall be constructed from a public road to the inlet, sediment sump, outlet, emergency overflow and other works requiring maintenance. The maximum grade of the access shall be 8%. The surface shall be finished

with gravel topped with path chip, geogrid, or rigid grass suitable for all weather maintenance truck access. A vehicle access route shall also be provided to the edge of all stormwater management ponds suitable to carry maintenance vehicles. This access shall also extend to the pond static (normal) water level. The access surface shall include a 1.0 m buffer from top of pond and an additional 1.0 m from edge of access road to the edge of dedicated lands, and shall be accessible from and extend to a public road right-of-way. Sharp bends in this access route are to be avoided. Vehicle turning movements must accommodate a tandem axle 60,000lb flush truck and tandem axle dump truck.

l) Landscaping Requirements

Landscaping plans for areas bounding the pond shall be submitted as part of the Engineering Drawings. Landscaping of all proposed public lands included for purposes of the pond and of all proposed lands dedicated to the City for storm ponds on proposed private property, including all areas from the pond edge treatment to the limit of inundation when the pond is filled to the design high water level, is to be part of the pond construction requirement. The minimum requirement for landscaping shall be the establishment of grass cover. Native plant materials must be used.

m) Sediment Control

Use of storm ponds for sediment control is acceptable during construction of the first phase of a development, and must be remediated prior to acceptance of the Works and Services by the City of Courtenay. The City may accept the use of storm ponds for sediment control for multiple phases of a development if the appropriate maintenance agreement is established and the appropriate security is provided by the developer. The required security is 125% of the estimated remediation cost.

n) Operation and Maintenance Manual

Three copies of an operation and maintenance manual shall be submitted when the facility is completed and transferred to the Municipality and include:

- Record drawings of the completed facility.
- Brief description of the facility operation including design flows, design depths, and schematic diagrams of the inlet and outlet structures, connections, controls, valves, bypass, overflows, etc.
- List of manufacturer's operation, service and repair instructions and parts lists.
- Volume-stage-discharge relationships of all control structures.
- General maintenance requirements and emergency procedures.
- Copies of senior government environmental approvals if applicable.

4.11.5	**Subsurface Disposal / Infiltration Systems**	Delete	▪ May be located on-site or off-site
		Replace With	▪ Must be located on-site
4.11.8	**Oil and Grit Separators**	Replace Section	Oil and Grit Separators are required for sites with parking for 11 or more vehicles. Oil and Grit Separators must be in compliance with Building Bylaw 2323 and Storm Sewer Bylaw 1402, as amended. The maximum hydraulic loading rate (HLR) will be 27 L/s/m2. At the target HLR, the unit will be capable of settling coarse particles of D50 > 0.115mm at 5 C and specific gravity of 2.65, and capturing free oil droplets of D50> 0.465mm at 5 ^{0}C and assuming a specific gravity of 0.88 for a “typical” motor oil. The target effluent shall meet a TSS removal rate of 85%.
4.11.10	**Alternate Design Standards**	Add Section 4.11.10	The application of Sustainability Considerations, as described in Section 8.0 of the MMCD Design Guidelines 2014, as well as the Province’s “Stormwater Planning: A Guide for British Columbia” (May 2002), will be considered on a case by case basis by the City where practical.

4.12	**Erosion and Sediment Control (ESC)**	Add to Section	Project specific ESC plans shall be prepared by a Qualified Professional and included with engineering drawing submissions. ESC plans are to include, at minimum: ▪ ESC plan drawing clearly indicating types and locations of BMP installations ▪ Notes describing any BMP phasing, inspection and documentation requirements, and good housekeeping practices ▪ Detail drawings of BMPs with specific material and installation requirements

5.0 ROADS

5.3 Cross-Section Elements — Replace Section

Refer to the Courtenay Supplementary Standard Drawings for typical road cross sections for each road classifications. Typical road cross sections are to be applied where identified in the Official Community Plan – Bylaw No. 2387, Road Network – Map No. 3. Design speeds of the typical road sections are provided in Table 5.4 below.

5.4.2 Vertical Curves — Replace Table 5.4

Replace Table 5.4 as follows:

Table 5.4 Alignment Standards

Classification	Design Speed (km/h)	Min. Radius (m)	Grade (%)		K-Value				Minimum Sight Distance (m)	
					Crest Curves		Sag Curves			
			Min	Max	Min.	Desir.	Min.	Desir.	Stopping	Decision
Arterial Road Section: B	60	120	0.5	8	10	13	8	9	95-235	95-235
Collector Road Section: Urban – P	50	85	0.5	10	6	7	5	6	75-200	75-200
Collector Road Section: Urban – B	50	85	0.5	10	6	7	5	6	75-200	75-200
Collector Road Section: Residential – C	50	85	0.5	10	6	7	5	6	75-200	75-200
Collector Road Section: Residential – B	50	85	0.5	10	6	7	5	6	75-200	75-200
Collector Road Section: Residential	50	85	0.5	10	6	7	5	6	75-200	75-200
Collector Road Section: Rural	60	120	0.5	10	10	13	8	9	95-235	95-235
Local Road Section	50	35	0.5	12	6	7	5	6	75-200	75-200
Lane	30	25	1.0	12	2	4	2	4	45	-
Driveway Multi-Family	30	-	0.5	12	2	4	2	4	45	-
Driveway Single Family	-	-	0.5	15	-	-	-	-	-	-
Emergency Access[8]	30	12	1.0	15	2	4	2	4	45	-
Pedestrian Ramps	-	-	1.0	8.3[6]	-	-	-	-	-	-

5.7 Railway Grade Crossings — Replace Section

Locations and details of railway grade crossings are subject to requirements included in the latest edition of the Transportation Canada Grade Crossing Standards.

			Railway crossing signs and pavement marking shall be in accordance with Transportation Canada Grade Crossing Standards.
5.8	**Traffic Control Devices**	Replace Section	Traffic control devices, signs, and pavement marking must be in accordance with the Manual of Uniform Traffic Control Devices for Canada. Pavement markings shall be thermoplastic and should be installed within 7 days of the final pavement lift on a clean and dry surface.
5.9	**Culs-De-Sac**	Delete	The maximum road length for a cul-de-sac, as measured from the edge of the intersecting through road to the centre of the cul-de-sac bulb, is 200m
		Replace with	The maximum road length for a cul-de-sac, as measured from the edge of the intersecting through road to the centre of the cul-de-sac bulb, is 300m
5.9.1	**Temporary Turnaround**	Add Section 5.9.1	Where a road terminates and there is future access to lands beyond; a turnaround shall be provided in a form acceptable to the City, and may be located on private property if protected by a right-of-way and covenant registered in favour of the City. The turnaround shall be signed as a 'fire access' with no parking allowed. The right-of-way and covenant shall be discharged when the road connection is completed.
5.10.1	**Traffic Barriers at Temporary Cul-De-Sac and Turnarounds**	Add Section 5.10.1	A concrete barrier shall be located at the end of a temporary cul-de-sac and turnarounds.
5.11.1	**Sidewalk**	Replace Section	Sidewalk location and width shall be as per Courtenay Standard Detail Drawings for typical road cross sections for different road classifications. Minimum cross fall for sidewalk shall be 2% towards the gutter, except at driveway letdowns.
5.11.2	**Pedestrian Crossings**	Replace Section	The warrant for pedestrian crossings must be considered as part of a broader analysis process which should include an understanding of existing site conditions, pedestrian and traffic volumes, and pedestrian accessibility. This can be evaluated utilizing TAC Pedestrian Crossing Control Guide.

			The pedestrian crossing width can range from a minimum of 2.5 m to as wide as 4.0 m. (TAC Design Guidelines, Section 2.3.14.1). The pavement marking and signage configuration for crossings must be designed in accordance with TAC. Wheel chair ramps from sidewalks, medians and traffic islands to crosswalks must be provided at intersections and multiuse pathways. Locations and details of ramps and related pedestrian safety features must be in accordance with local bylaws and the TAC Geometric Design Guide. Sidewalks, crosswalks, and pedestrian facilities must be designed in accordance with the following guidelines: ▪ TAC Geometric Design Guideline, 1999 (Section 2.2.6, Section 2.3.14, Section 3.3) ▪ TAC – Pedestrian Crossing Control Manual, 2012 ▪ Pedestrian Crossing Control Manual for British Columbia, Second Edition, 1994 BC Ministry of Transportation – Manual of Standard Traffic Signs & Pavement Markings
5.14.4	**Driveway Grades**	Delete Sentence	For the first 10 m on private property, the maximum driveway grade is 15% if accessing a local or collector road.
		Replace with	For the first 10 m on private property, the maximum driveway grade is 12% if accessing a local or collector road.
5.14.8	**Driveway Surface**	Add Section 5.14.8	New or altered driveways shall be concrete or asphalt within the road right-of-way.
5.15.3	**Signs and Poles**	Delete Sentence	Use of minimum clearance should be justified by safety appurtenances such as poles with break-away or frangible bases or sign poles of light weight fabrication.
5.15.4	**Trees**	Replace Section	Provide 1 boulevard tree per single residential or duplex dwelling lot where required. For all other developments provide 1 boulevard tree per 15-22m of lot frontage and/or flankage. Boulevard trees are required on the same side of the street as sidewalks and are not required on rural roads.

			Boulevard trees are to be located where there is a minimum space of 1.5m between the sidewalk and back of curb. Horizontal clearance from edge of driveway, curb return or above ground utility to tree trunk is 2.5m. Boulevard trees are to be located no closer than 6m from the adjacent street right of way at intersections. Boulevard trees are to be a minimum of 3cm caliper. The cost for each boulevard tree shall be $800.00. The cost includes the price of the tree, installation that may include root barriers, maintenance and replacement if the tree does not survive. The Developer shall provide a boulevard tree layout plan showing the location and number of trees and the location of utilities, prepared by a Qualified Professional to the satisfaction of the Development Engineer.
5.16	**Underground Utility Locations**	Replace Section	Underground utility locations within a road right-of-way will vary with the road cross section. Refer to the Courtenay Supplementary Standard Drawings for the general location of underground utilities and minimum separation requirements within the various cross sections.
5.17.3	**Pavement Alternatives**	Replace Section	Pavement structure design must be based on site specific recommendations provided by a Qualified Professional and shall include the minimum pavement structure identified in the City of Courtenay Supplementary Standard Detail Drawing for the relevant road classification.
5.21	**Street Parking**	Replace Section	Refer to the Courtenay Standard Drawings for parking configuration for different road classifications.
5.22	**Retaining Walls**	Add Section 5.22	Retaining wall shall be a maximum of 2.4 m in height. Where larger retaining walls heights are required, they must be constructed as a stepped wall. The step must have a minimum width of 1.8 meters or 75% of the height of the highest adjacent wall.

6.0 ROADWAY LIGHTING

6.1	**General**	Add to Section	Relevant publications of the Illuminating Society of North America (IESNA) including RP-8-14
6.2.2	**Standards and Guidelines**	Add to Section	IESNA – Illuminating Engineering Society of North America IDA – International Dark-Sky Association
6.5.1	**Light Sources and Luminaires**	Delete	Light sources shall be LED, Induction, High Pressure Sodium or Pulse Start Metal Halide. The selection process shall be based on a review of energy efficiency, cost/benefit (installation and operational) and optical performance which shall be undertaken in consultation with the jurisdiction that will own and operate the lighting.
		Replace with	Light sources shall only be LED. The selection process shall be undertaken in consultation with the City of Courtenay and will only include luminaire manufacturers listed in the current version of the City's Approved Product List. All streetlights shall include flat lenses. If BC Hydro lease lights are used, they shall meet BC Hydro requirements.
6.7	**Sidewalk Lighting**	Delete	Sidewalk lighting levels for various pedestrian activity levels are defined in Figure 6.3, Sidewalk Illuminance Table below.
		Replace with	Sidewalk lighting levels for various pedestrian activity levels are defined in Figure 6.7, Sidewalk Illuminance Table below.
6.8	**Intersection Lighting**	Delete	Intersection lighting levels for various street types and pedestrian activity levels are defined in the Intersection Horizontal Illuminance Table 6.4 below.
		Replace with	Intersection lighting levels for various street types and pedestrian activity levels are defined in Figure 6.8 Horizontal Illuminance Table below.
6.9	**Crosswalk Lighting**	Delete	This can be achieved by placing poles in advance of the crosswalk (see Figure below) to create high levels of

			vertical illumination thus improving driver visibility of pedestrians.
		Replace with	This can be achieved by placing poles in advance of the crosswalk (see Figure 6.5 below) to create high levels of vertical illumination thus improving driver visibility of pedestrians.
6.13	**Poles**	Delete	For rural roads, if approved by the local authority and the power company, lights may be installed on power poles.
		Replace with	Luminaires may be installed on power poles, if approved by the City and BC Hydro.
6.14	**Pole Foundations**	Delete	Where soil conditions are in question a geotechnical engineer must be consulted to define the suitability of the base for the given soil's condition.
		Replace with	Where standard MMCD foundations are not suitable for site soil conditions, custom foundations will be required, and shall be designed, signed and sealed by a Qualified Professional registered as a Professional Engineer in the province of British Columbia.
6.15	**Luminaires**	Delete	▪ Colour temperature shall not exceed 4500 kelvin.
		Replace with	▪ LED luminaire colour temperature shall not exceed 3000 kelvin.
6.16	**Power Supply and Distribution**	Delete	Lighting system shall be fed via a service base or pole mounted cabinet which shall contain panel boards, breakers, lighting contactor(s) and photocell bypass switch as per MMCD Standard Specifications and Drawings.
		Replace with	Lighting system shall be fed via a pad mount or pole mount cabinet which shall contain panel boards, breakers, lighting contactor(s) and bypass switch as per MMCD Standard Detail Drawings and Specifications.
		Delete	Power is generally supplied by the utility through an un-metered service when servicing only streetlights and traffic signals; however, some utility power providers may require metered services.

	Replace with	Power is generally supplied by the utility through an un-metered service when servicing only streetlights and traffic signals unless metering is required by BC Hydro.
	Delete	Services are to be "Underground Dip" type as shown on the MMCD Standard Specifications and Drawings unless otherwise accepted by the local Municipality/City
	Replace with	Services are to be "Underground Dip" type as shown on the MMCD Standard Specifications and Drawings or overhead drops, as specified on the design drawings.
6.17.4 Drawing Requirements	Add to Section	▪ Design submissions for City approval shall include relevant load calculators for signal and sign poles as well as other relevant engineering calculations and design drawings ▪ Record drawings submissions shall include 3 - ½ size paper copy sets of drawings as well as pdf and AutoCAD electronic files of drawings
	Delete	Design drawings shall be submitted for approval along with signed and sealed computer lighting calculations.

7.0 TRAFFIC SIGNALS

7.3.1 Codes, Rules and Regulations — Add to Section

- BC Motor Vehicle Act, Motor Vehicle Act Regulations, Division 23

7.4 Signal Heads — Replace Figure 7.4.2

Replace Figure 7.4.2 as follows:

Table 7.4.2 Signal Head Sizes

Signal Head Type	Area Classification Lens Size and Shape
Primary	300 mm round
Secondary and Auxiliary	300 mm round
	300 mm round
Pedestrian	Combination walk/don't walk indication 300 mm square

7.8 Signal Pre-Emption — Add to Section

The City utilizes siren actuated emergency pre-emption equipment. Pre-emption equipment to be located 1 m right of the left most signal head.

7.9 Audible Pedestrian Signals — Add to Section

The City utilizes Accessible Pedestrian Signals.

7.11 Detection Methods — Replace Section

Traffic detection for signal actuation is accomplished by:

- Vehicle detector loops (induction)
- A vehicle detector loop is a coil of wire buried in the road surface. The coil detects the presence of a vehicle by the change in electrical induction. This change is sensed by the detector module in the traffic control cabinet. Detector loop details are indicated in the MMCD Standard Detail Drawings.

7.15 Poles and Foundations — Add to Section

Where standard MMCD foundations are not suitable for site soil conditions, custom foundations will be required, and shall be designed, signed and sealed by a Qualified Professional registered as a Professional Engineer in the province of British Columbia

7.18 Power Supply and Distribution — Add to Section

Traffic signal systems shall be fed via a pad mount or pole mount cabinet which shall contain panel boards, breakers, lighting contactor(s) and bypass switch as per MMCD Standard Detail Drawings and Specifications

			Power is generally supplied by the utility through an un-metered service when servicing only streetlights and traffic signals unless metering is required by BC Hydro. Services are to be "Underground Dip" type as shown on the MMCD Standard Detail Drawings and Specifications or overhead drops, as specified on the design drawings.
7.19	**Uninterruptible Power Supplies (UPS's)**	Delete	UPS's are required where traffic signals are interconnected by grade crossing warning systems as per Transport Canada. UPS's shall be considered where power outages are a concern or the intersection is in a high collision or a high risk area.
		Replace with	Uninterruptible power supplies shall be utilized at all new traffic signal installations.
7.21	**Drawing Requirements**	Add bullets	▪ Design submissions for City approval shall include relevant load calculators for signal and sign poles as well as other relevant engineering calculations and design drawings ▪ Record drawings submissions shall include 3 - ½ size paper copy sets of drawings as well as pdf and AutoCAD electronic files of drawings

SCHEDULE 2

SUPPLEMENTARY CONSTRUCTION SPECIFICATIONS

CONSTRUCTION SUPPLEMENTARY SPECIFICATIONS

This schedule contains supplementary specifications to be applied in conjunction with the Specifications of the Master Municipal Construction Documents, dated 2009, both of which shall apply to all Works and Services constructed within the City of Courtenay.

Supplementary Specifications contained within this Schedule supplement or supersede the Master Municipal Construction Document (MMCD). Where the City of Courtenay Supplementary Specifications are in conflict with the MMCD, the City of Courtenay Supplementary Specifications shall take precedence.

Section number and clause numbers in the City of Courtenay Supplementary Specifications coincide with the MMCD numbering protocol.

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SECTION

MMCD Section 01 55 00S TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING

1.0	GENERAL	Add 1.0.6	The Contractor is responsible for all temporary traffic control required to complete the Work. The Contractor will be responsible to provide a Traffic Management Plan (TMP) for review and acceptance by the City (10) ten working days prior to any travel lane closures taking place. TMP is to be prepared by a qualified professional. The TMP shall outline the approach to traffic management, show recognition and minimization of risks indicates signing locations, identify Traffic Control Persons (TCP) stations, show lane shifting and proposed closures. The TMP is to be revised and resubmitted as required during the progress of the work

MMCD Section 01 57 01S ENVIRONMENTAL PROTECTION

1.0 GENERAL

1.2	Temporary Erosion and Sediment Controls	Add 1.2.1.4	An Erosion & Sediment Control (ESC) Plan must be prepared by a Certified Professional in Erosion and Sediment Control. The ESC Plan is to be reviewed by the City prior to the start of construction. Protection of the site and watercourses to which it drains, directly or indirectly, against erosion and siltation must be maintained in accordance with the ESC Plan until the *Works* are completed or as directed by the *Contract Administrator*. The *Contractor* is responsible for all damage that may be caused by water backing up or flowing over, through from or along any part of the *Work* or otherwise resulting from their operations.
		Add 1.2.1.5	Keep existing culverts, drains, ditches and watercourses affected by the Work clear of excavated material at all times. When it is necessary to remove or alter any existing drainage structure, provide suitable alternative measures for handling the drainage. Adequately support culverts and drainpipes across trenches to prevent displacement and interference with the proper flow of water due to trench settlement.
		Add 1.2.1.6	Sweep streets, and clean catch basins, manhole sumps, detention tanks, and maintain siltation controls as often as the Contract Administrator deems necessary.
		Add 1.2.1.7	Follow all Federal and Provincial regulations and guidelines respecting protection of fish, fish habitat, and watercourses.
1.4	Environmental Protection	Add 1.4.3.5	Immediately contain and clean up any leaks and spills of prohibited materials at the Place of Work.

		Add 1.4.3.6	The *Contractor* shall report any leaks or spills of prohibited materials to the BC Provincial Emergency Program. Following the report to the Province, the *Contractor* shall then immediately notify the *Contract Administrator* of the Spill and all other actions taken.
		Add 1.4.3.7	Ensure that no equipment fueling or servicing is conducted within 15 metres of a stream and spill provisions are in place prior to fueling and/or servicing.
1.9	Archaeological / Historical Resources	Add 1.9.1	Immediately cease work and inform the Contract Administrator, if any archaeological or historical resources are encountered during construction. Leave these resources in place and do not disturb them in any way.

MMCD Section 26 56 01S ROADWAY LIGHTING

2.0 PRODUCTS

2.1	General	Delete 2.1.2 and replace with the following	All products supplied to be new, in accordance with Contract Documents. All products are to meet Canadian Electrical Code requirements and be certified by either CSA, ULC, or Intertek Testing Systems (Warnock Hersey) and be supplied with the certifier's label.
2.8	Conductors and Cables	Delete 2.8.1 and replace with the following	Single Conductors: 600V, conductor size (AWG) as noted on contract drawings, stranded copper or aluminum type with RW90 polyethylene insulation, to conform to CSA C22.2 No. 38, 90 ^{0}C and colour coded per CEC.
		Add 2.8.5	Minimum conductor size to be as follows, unless specified otherwise on Contract Drawings: .1 No 8 AWG copper or No 6 AWG aluminum for feeder conductors in conduit. .2 No 8 AWG copper or No 6 AWG aluminum for bond conductors in conduit. .3 No 12 AWG copper for luminaire conductors in poles.
2.14	Luminaires	Delete 2.14.1 and replace with the following	LED luminaires shall be listed on the current edition of the City of Courtenay Approved Products list.
		Delete 2.14.2	
		Delete 2.14.5 and replace with the following	Decorative luminaires to have: .1 Vandal resistant features .2 Photo-control receptacle .3 Powder coat finish .4 Quick disconnect terminations
2.19	Service Panels	Add 2.19.1	Type 40A 120/240V, 60A 120/240V roadway lighting and 100A 120/240V combination roadway lighting / traffic signal, per Contract Drawings to include items listed within the Section 34 41 13 - Traffic Signals - 2.11.2 and Standard Detail Drawing E7.1 to E7.9

3.0 EXECUTION

3.3	Concrete Bases	Add 3.3.7	All concrete bases shall be pre-cast concrete only, unless noted on Contract Drawings or directed by the Contract Administrator.
3.4	Junction Boxes and Vaults	Add 3.4.5	All junction boxes shall be provided with RPVC bars to support electrical connections and fuse holders. The RPVC bars shall be attached into the junction box side walls with the electrical connections/fuse holders tie-wrapped in place and installed in the up-right position.
3.5	Underground Conduit	Add 3.5.6	Conduits shall be blown out with compressed air, from both ends if necessary, then swabbed with the appropriate size mandrel to remove stones, dirt, water and other material which may have entered during installation.
		Add 3.5.7	Conduit shall not be bent in the field. Only factory bends will be accepted.
3.8	Wiring	Delete 3.8.11 and replace with the following	Bond all luminaires and receptacles with No. 12 RW90 copper green conductor, and steel junction box lids with No. 8 RW90 copper green conductor.
		Add 3.8.12	Aluminum conductors shall be spliced with H-Tap compression connections or equivalent. Spliced connections shall be completed using an anti-oxidant compound complete with split bolt connector. Spliced connections shall be wrapped with self-fusing rubberized tape and then completely covered with PVC tape.
3.13	Pole Finish Application	Delete 3.13 and replace with the following	.1 Pole finish: Hot dip galvanized or powder coat .2 Power coat colour to be confirmed with City

MMCD Section 31 05 17S AGGREGATES AND GRANULAR MATERIALS

2.0 PRODUCTS

2.11	Recycled Aggregate Material	Delete 2.11.1 and replace with the following	Aggregates containing recycled material may be utilized if approved by the Contract Administrator. A maximum of 25% recycled aggregate may be used in sub-base gravel, and a maximum of 15% recycled aggregate is permitted in base gravel. In addition to meeting all other conditions of this specification, recycled material should not reduce the quality of construction achievable with quarried materials. Recycled material shall consist only of aggregates, crushed portland cement concrete, or asphalt that is free of impurities.
2.13	Path Chip	Add Clause 2.13.1:	To be crushed gravel conforming to following gradations:

Sieve Designation	Percent Passing		
9.5mm		100	
4.75mm	80	–	100
2.36mm	40	–	60
1.18mm	20	–	40
0.6mm	10	–	30
0.3mm	8	–	20
0.15mm	5	–	15
0.075mm	3	–	10

MMCD Section 33 11 01S WATERWORKS

1.0	GENERAL		
1.7	Scheduling of Work	Delete 1.7.5 and replace with the following	Notify Contract Administrator, fire department and City of Courtenay Public Works Office of any planned or accidental interruption of water supply. After hours phone number to be identified at the project initiation meeting.
2.0	PRODUCTS		
2.1	General	Delete 2.1.1 and replace with the following	Pipe material as shown on Contract Drawings, excluding main pipe within chambers or structures, which shall be stainless steel, and leads to fire hydrants which shall be PVC.
2.2	Mainline Pipe, Joints and Fittings	Delete 2.2.4.8.1 and replace with the following	Flange gaskets to be manufactured from black natural rubber 3.175mm thick.
		Delete 2.2.4.14.1.8 and replace with the following	Tapping machine must have provision for pressure testing.
2.3	Valves and Valve Boxes	Delete 2.3.6.2 and replace with the following	Valve box riser to be 150mm diameter PVC C900.
2.5	Service Connections, Pipe, Joints and Fittings	Delete 2.5.5 and replace with the following	Copper tubing joints to be compression type suitable for 1100 kPa working pressure.
2.6	Hydrants	Delete 2.6.1.6.3 and replace with the following	Pump nozzle shall be “quick connect” STORZ type.
		Delete 2.6.2 and replace with the following	Colour: As specified in the approved products list

3.0 EXECUTION

3.17	General Procedure Flushing, Testing, and Disinfection	Add 3.17.7	Contractor shall record locations of installed testing point locations as per paragraph 1.7.2.2 under Section 01 33 01 Project Record Documents.
3.18	Cleaning and Preliminary Flushing	Delete 3.18.2 and replace with the following	Isolation of existing water system where required will be performed by the City. Do not operate any existing valves.
3.23	Connection to Existing Mains	Delete 3.23.1 and replace with the following	Connections to the existing waterworks system will be made by the City or by the Contractor under supervision of the City. Contractor to make all necessary scheduling arrangements with the City to prevent construction delays.
		Add 3.23.2	Isolation of existing water system where required will be performed by the City. The Contractor shall not operate any existing valves.
		Add 3.23.3	The contractor is to schedule a “pre-construction” meeting to occur a minimum of one (1) week prior to connection to the existing waterworks system. This meeting will include, at minimum, the Contractor, Contract Administrator, and City of Courtenay Public Works in attendance. The purpose of this meeting is to review all pre-connection documentation, public notifications, and works to be completed by both the Contractor and City of Courtenay.

MMCD Section 33 30 01S SANITARY SEWERS

1.0	GENERAL			
1.1	Related Work	Add the following to 1.1	.5 CCTV Inspection of Pipelines	Section 33 01 30.1
2.0	PRODUCTS			
2.3	Service Connections	Delete 2.3.8.2		
3.0	EXECUTION			
3.8	Connections to Existing Mainline Pipes	Delete 3.8.3 andreplace with the following	Connection to existing PVC mainline sewers to be as shown on Contract Documents or approved by Contract Administrator. Coring of pipe to be done with the proper size and type of coring bit. Use saddle for connections more than two sizes smaller than mainline. For less than two sizes, manufactured wye shall be used.	
3.18	Video Inspection	Add the following to 3.18.1	The Contractor shall complete CCTV video inspection prior to completing paving works and again prior to the expiry of the maintenance period. CCTV Video inspection shall be completed for all gravity mains including service connections.	

MMCD Section 33 40 01S STORM SEWERS

2.0	PRODUCTS		
2.6	Service Connections	Delete 2.6.1 and replace with the following	Storm sewer service connections to be 150 mm minimum diameter; maximum diameter as specified on Contract Drawings
3.0	EXECUTION		
3.12	Inspection and Testing	Add 3.12.4	The Contractor shall complete CCTV video inspection prior to completing paving works and again prior to the expiry of the maintenance period. CCTV Video inspection shall be completed for all gravity mains including service connections.

MMCD Section 33 44 01S MANHOLES AND CATCHBASINS

1.0	GENERAL		
1.1	Related Work	Add 1.1.6	Hot Mix Asphalt Concrete Pavement Section 32 12 16
		Add 1.1.7	Portland Cement Concrete Pavement Section 32 13 13
3.0	EXECUTION		
3.3	Manhole Installation	Delete 3.3.15 and replace with the following	Install drop structures where required to Standard Detail Drawings S3. Inside drop structure shall not be permitted.

MMCD Section 34 41 13S TRAFFIC SIGNALS

2.0	PRODUCTS		
2.1	General	Delete 2.1.2 and replace with the following	All products supplied to be new, in accordance with Contract Documents. All products are to meet Canadian Electrical Code requirements and be certified by either CSA, ULC, or Intertek Testing Systems (Warnock Hersey) and be supplied with the certifier's label.
2.16	Traffic and Pedestrian Signals	Delete 2.16.2 and replace with the following	Yellow as indicated on the contract drawings, complete with 50 mm wide ASTM VI retro-reflective tape around the outer edge.
2.20	Audible Signals	Delete 2.20.1 and replace with the following	The City utilizes APS audible signals which are specified in the current edition of the City's Approved Product list.
2.22	Luminaires	Delete 2.22.1 and replace with the following	LED luminaires are specified in the current edition of the City's Approved Products list.
		Delete 2.22.2	
		Delete 2.22.5 and replace with the following	Decorative luminaires to have: 1. Vandal resistant features 2. Photo-control receptacle 3. Powder coat finish 4. Quick disconnect terminations
2.27	Video Detection System	Delete 2.27	
3.0	EXECUTION		
3.3	Concrete Bases	Add 3.3.7	All concrete bases shall be pre-cast concrete only, unless noted on Contract Drawings or directed by the Contract Administrator.
3.4	Junction Boxes and Vaults	Add 3.4.5	All junction boxes shall be provided with RPVC bars to support electrical connections and fuse holders. The RPVC bars shall be attached into the junction box side walls with the electrical connections/fuse holders tie-wrapped in place and installed in the up-right position.

3.5	Underground Conduit	Add 3.5.6	Conduits shall be blown out with compressed air, from both ends if necessary, then swabbed with the appropriate size mandrel to remove stones, dirt, water and other material which may have entered during installation.
		Add 3.5.7	All conduits entering traffic controller cabinets shall be sealed with “Duct Seal”.
		Add 3.5.8	Conduit shall not be bent in the field. Only factory bends will be accepted.
3.7	Traffic and Pedestrian Signal Head Mounting	Delete 3.7.4 and replace with the following	Completely cover all traffic and pedestrian signal heads with dark coloured pre-manufactured signal cover bags from the time they are installed until system startup.
3.16	Traffic Controller	Add 3.16.8	Traffic cabinet interior shall be kept dry during inclement weather.
3.22	Pole Finish Application	Delete 3.22.1 and replace with the following	Pole finish: Hot dip galvanized or powder coat. Powder coat colour to be confirmed with the City

SCHEDULE 3

SUPPLEMENTARY STANDARD DETAIL DRAWINGS

SUPPLEMENTARY STANDARD DETAIL DRAWINGS

This schedule contains supplementary standard detail drawings to be applied in conjunction with the Standard Detail Drawings of the Master Municipal Construction Documents, dated 2009, both of which shall apply to all Works and Services constructed within the City of Courtenay.

Supplementary Standard Detail Drawings contained within this Schedule supplement or supersede the Master Municipal Construction Document (MMCD). Where the City of Courtenay Supplementary Standard Detail Drawings are in conflict with the MMCD, the City of Courtenay Supplementary Standard Detail Drawings shall take precedence.

Drawing numbers in the City of Courtenay Supplementary Standard Detail Drawings coincide with the MMCD numbering protocol.

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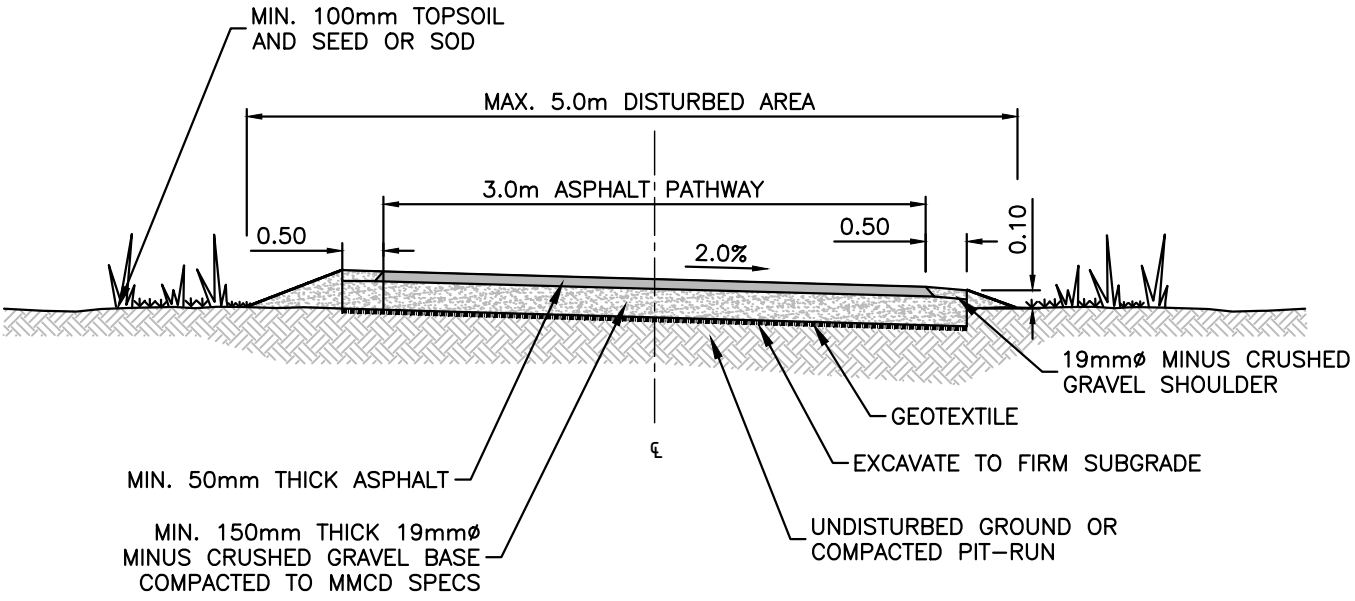
CSSD S7	SANITARY SEWER SERVICE CONNECTION 100MM RESIDENTIAL SANITARY
CSSD S8	STORM SEWER SERVICE CONNECTION 150MM RESIDENTIAL STORM
CSSD S9	INSPECTION CHAMBER FOR SANITARY AND STORM SEWER CONNECTIONS
CSSD S11	TOP INLET CATCH BASIN
CSSD S16	WET DETENTION POND PLAN AND SECTION
CSSD W2a	WATER SERVICE CONNECTION SERVICE BOX
CSSD W2c	WATER METER SETTER INSTALLATION FOR 25MM SERVICE CONNECTION
CSSD W2d	WATER METER SETTER INSTALLATION FOR 50MM SERVICE CONNECTION
CSSD W2e	WATER METER INSTALLATION FOR GREATER THAN 50MM SERVICE
CSSD W2f	FIRE / DOMESTIC WATER SERVICE PIPING LAYOUT
CSSD W8	TEMPORARY AND PERMANENT BLOW-OFF FOR WATERMAIN

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

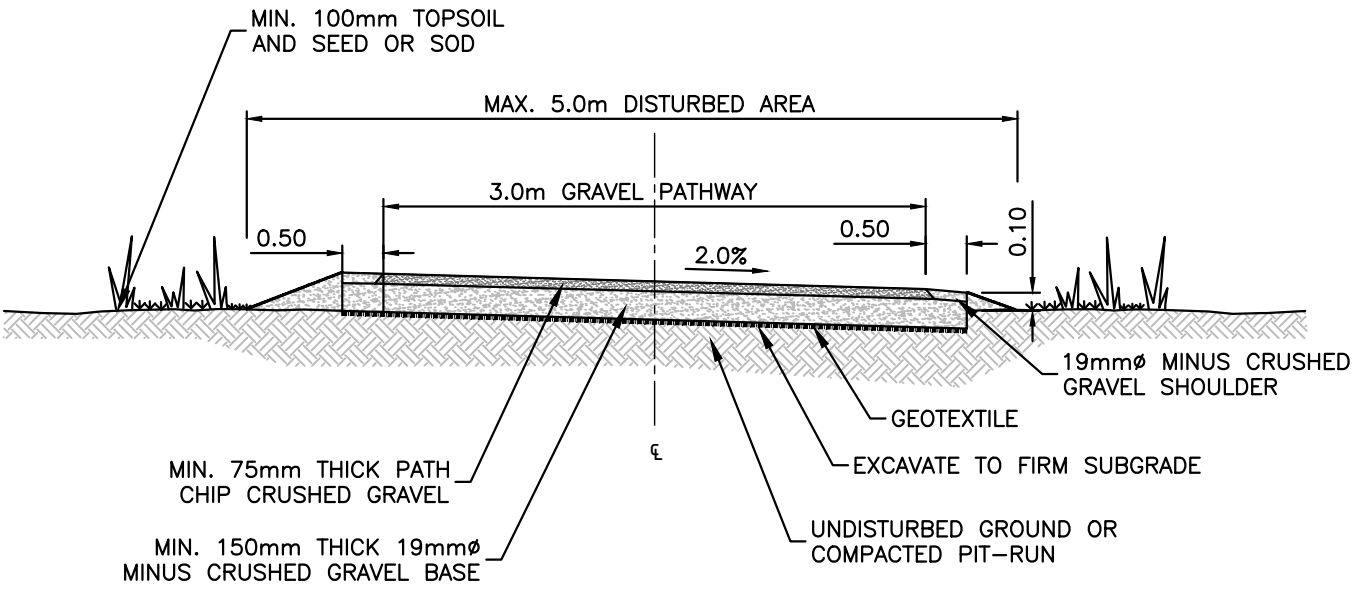
1. GRAVEL DEPTH TO SUIT GROUND CONDITIONS.
2. 150ø DR–28 PVC DRAIN TO BE INSTALLED WHERE REQUIRED.
3. MATERIALS AND CONSTRUCTION TO MEET CURRENT CITY OF COURTENAY SPECIFICATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS AS REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR IS TO SUPPLY A "SEDIMENT & EROSION CONTROL PLAN" FOR REVIEW BY THE CITY PRIOR TO CONSTRUCTION.
5. ALL MATERIALS TO BE SUPPLIED & CONSTRUCTED AS PER THE MOST RECENT VERSION OF THE MASTER MUNICIPAL CONTRACT DOCUMENTS (MMCD).
6. IF ACCESS REQUIRED BY CITY PUBLIC WORKS, PATHWAY MUST INCLUDE A MINIMUM UNOBSTRUCTED ACCESS OF 4.0m.
7. WHERE PATHWAY INTERSECTS WITH CITY ROAD OR SIDEWALK, THE FIRST 5.0m IS TO BE CONSTRUCTED OF CONCRETE COMPLETE WITH REMOVABLE BOLLARD PER DETAIL CSSD C12. SEE DETAIL CSSD C10 FOR DETAILS.

NOVEMBER, 2017

ALTERNATIVE DESIGN STANDARD 1
MULTI–USE PATH

DRAWING NUMBER	CSSD A1
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



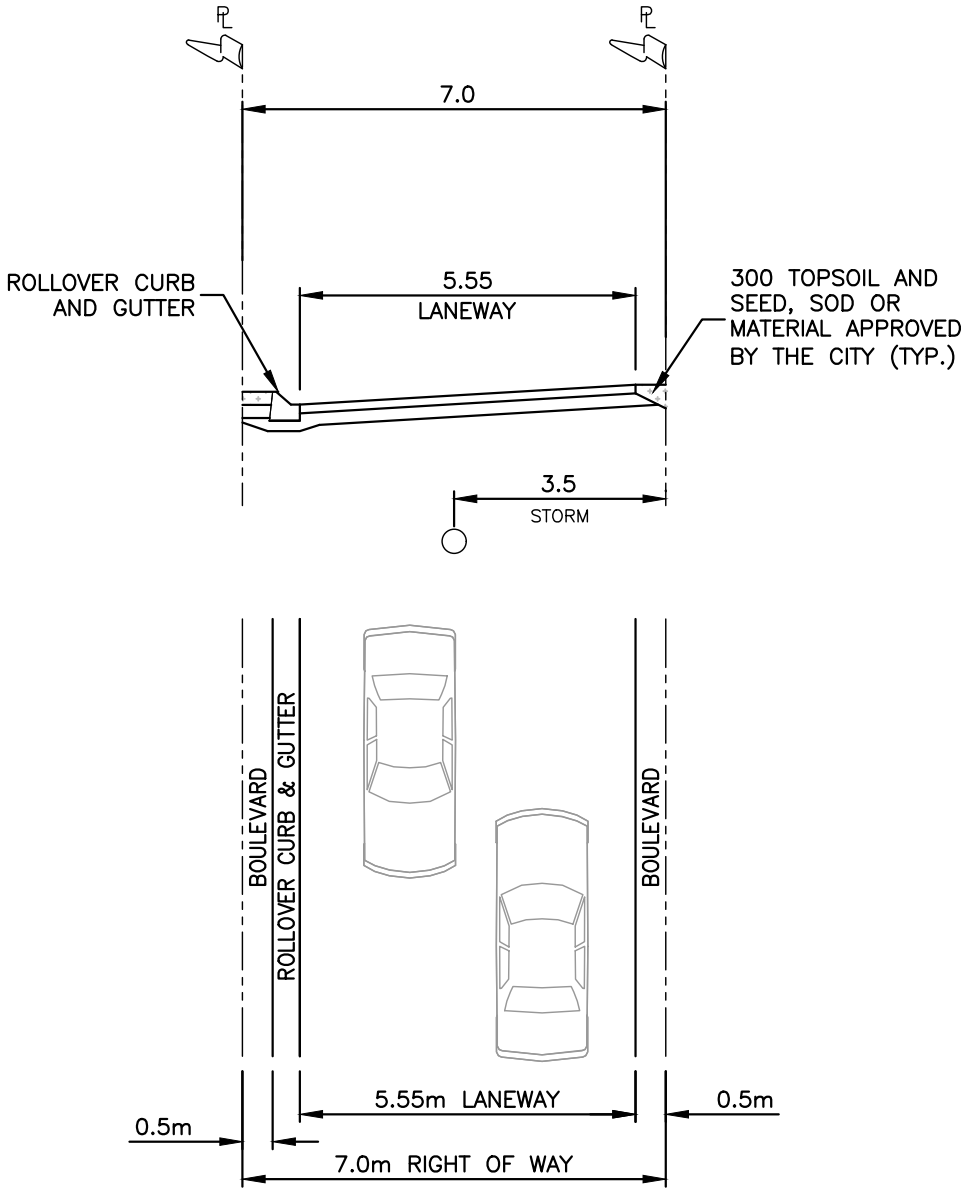
NOTE:

1. GRAVEL DEPTH TO SUIT GROUND CONDITIONS.
2. 150ø DR–28 PVC DRAIN TO BE INSTALLED WHERE REQUIRED.
3. MATERIALS AND CONSTRUCTION TO MEET CURRENT CITY OF COURTENAY SPECIFICATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS AS REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR IS TO SUPPLY A "SEDIMENT & EROSION CONTROL PLAN" FOR REVIEW BY THE CITY PRIOR TO CONSTRUCTION.
5. ALL MATERIALS TO BE SUPPLIED & CONSTRUCTED AS PER THE MOST RECENT VERSION OF THE MASTER MUNICIPAL CONTRACT DOCUMENTS (MMCD).
6. WHERE PATHWAY INTERSECTS WITH CITY ROAD OR SIDEWALK, THE FIRST 5.0m IS TO BE CONSTRUCTED OF CONCRETE COMPLETE WITH REMOVABLE BOLLARD PER DETAIL CSSD C12. SEE DETAIL CSSD C10 FOR DETAILS.
7. TRAIL WIDTH MAY BE REDUCED TO 1.5m IN RIPARIAN AREAS, BUT NOT WHERE REQUIRED FOR MAINTENANCE ACCESS.

NOVEMBER, 2017

ALTERNATIVE DESIGN STANDARD 2
GRAVEL TRAIL

DRAWING NUMBER	CSSD A2
REVISION NUMBER	0
SCALE	N.T.S.

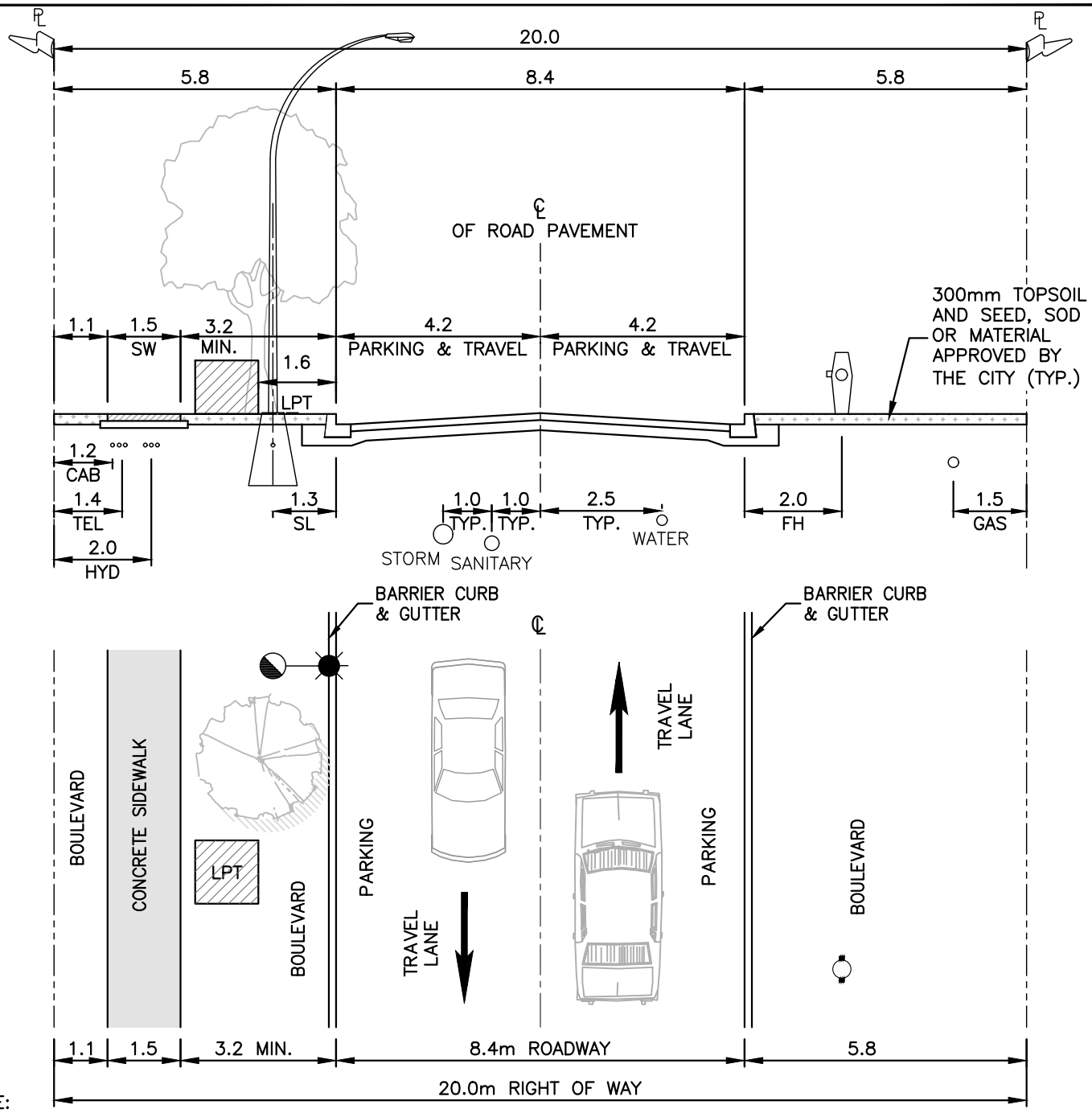


ALTERNATIVE DESIGN STANDARD 3
LANE

DRAWING NUMBER	CSSD A3
REVISION NUMBER	0
SCALE	N.T.S.

NOVEMBER, 2017

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

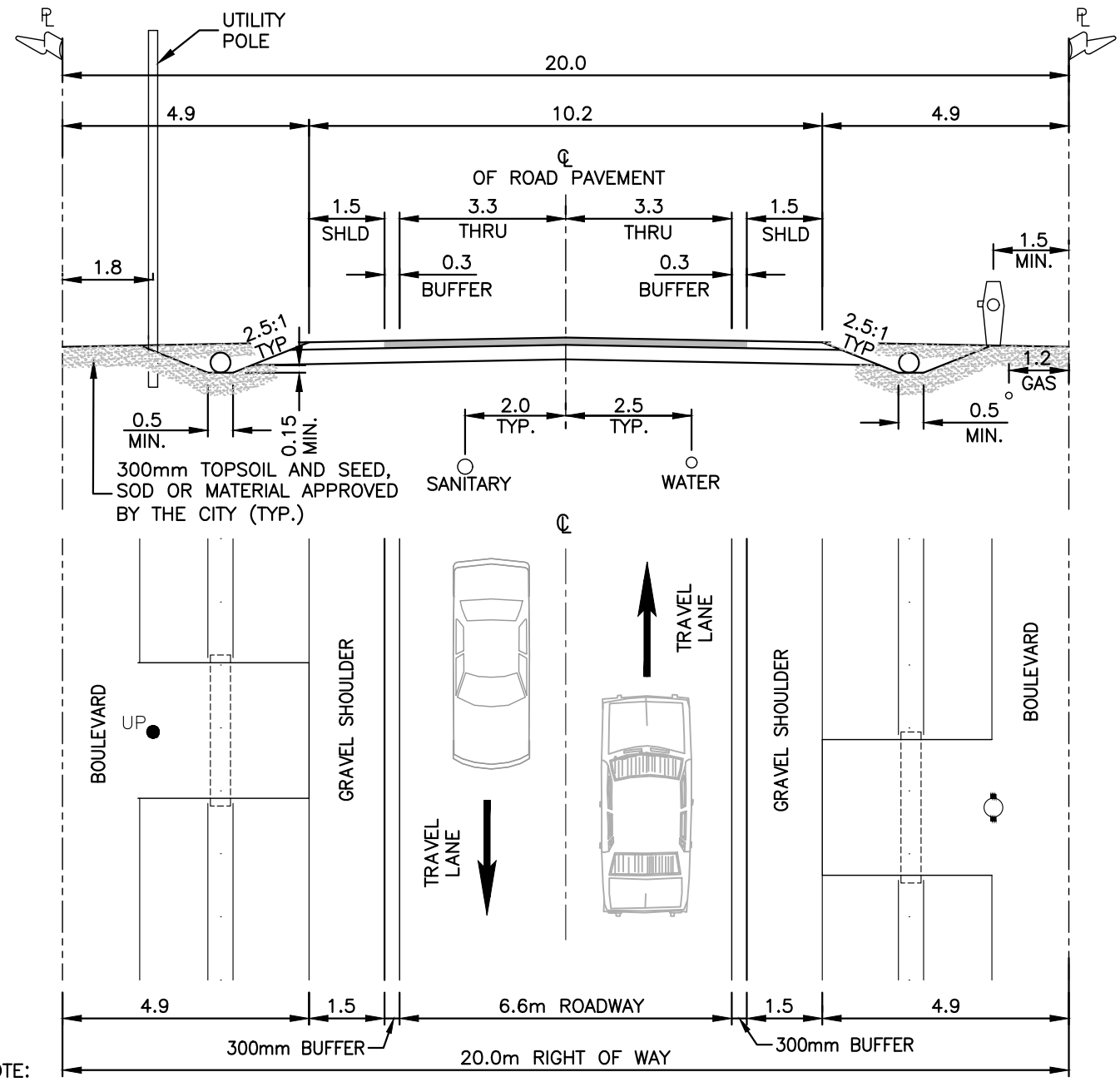
1. PAVEMENT MARKINGS NOT REQUIRED FOR THE CENTRE LINES, INTERSECTION APPROACHES AND FOG LINES.
2. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
3. THE STRUCTURAL ROAD ELEMENTS SHOWN ARE MINIMUM REQUIREMENTS. ROAD STRUCTURE TO BE DESIGNED BASED ON SITE CONDITIONS BY A QUALIFIED GEOTECHNICAL ENGINEER.
4. SIDEWALK TO BE LOCATED ON NORTH OR WEST SIDE OF ROAD.
5. HYDRO SERVICE BOX TO INCLUDE A STORM SEWER SERVICE CONNECTION AS PER CSSD S8. INSPECTION CHAMBER TO BE LOCATED 300mm FROM SERVICE BOX.
6. TREES TO BE CENTRED IN BOULEVARDS.

NOVEMBER, 2017

LOCAL ROAD SECTION

DRAWING NUMBER	CSSD L1
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

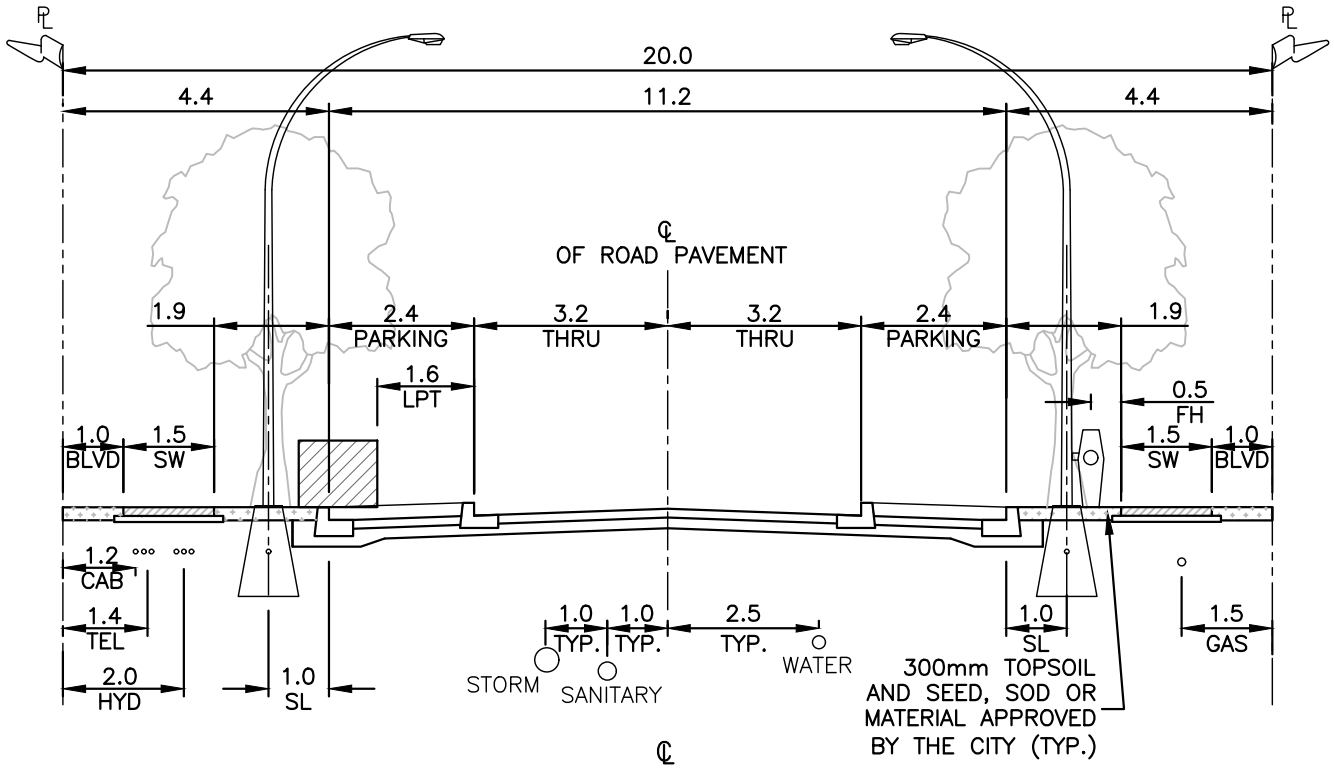
1. DESIGNATED BIKE ROUTE TO HAVE 1.5m PAVED AND 0.5m GRAVEL SHOULDER ON BOTH SIDES.
2. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE AND FOG LINES TO TAC STANDARD.
3. 3.0m LONG CULVERT CROSSING TO BE INSTALLED IN FRONT OF HYDRANT (C/W HEADWALLS), SIZED APPROPRIATELY FOR DRAINAGE FLOWS (MIN. 300mm).
4. REQUIREMENT FOR ROADSIDE BARRIER TO BE DETERMINED AS PER TAC WARRANT.
5. ADDITIONAL 0.75m ASPHALT WIDTH TO BE ADDED TO SHOULDER WIDTH IF ROADSIDE BARRIER IS REQUIRED.
6. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
7. IF UTILITY POLE LOCATED WITHIN DITCH PROFILE, 3.0m LONG CULVERT TO BE INSTALLED IN FRONT OF UTILITY POLE.

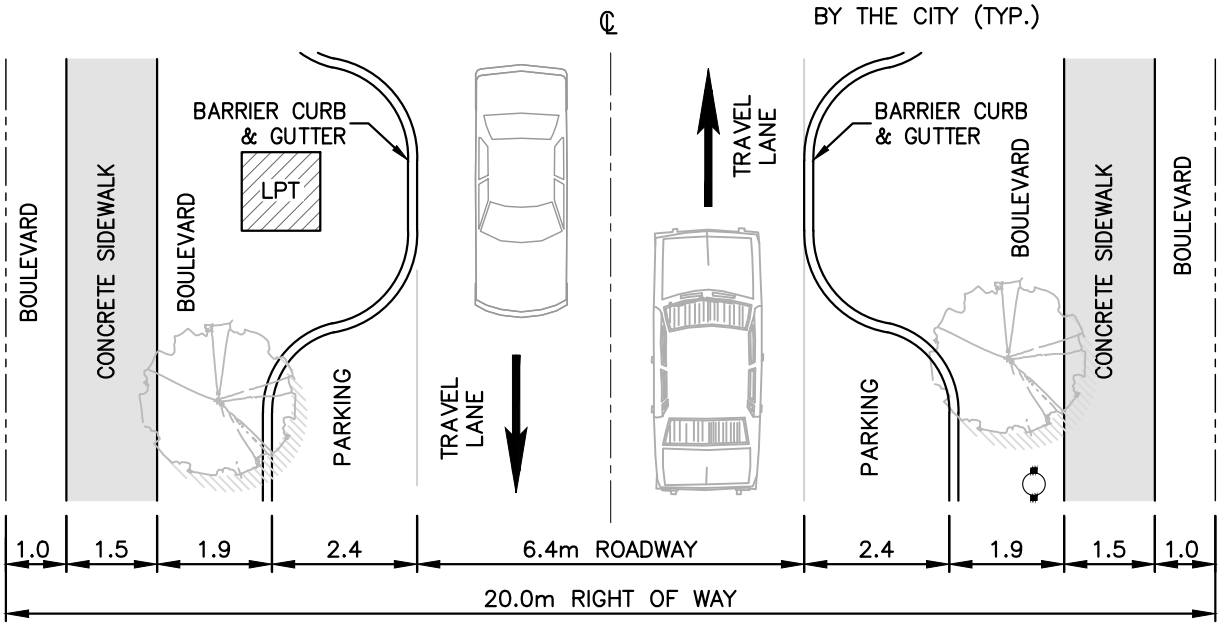
NOVEMBER, 2017

COLLECTOR ROAD SECTION
RURAL

DRAWING NUMBER
CSSD CRu
REVISION NUMBER
0
SCALE
N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING





NOTE:

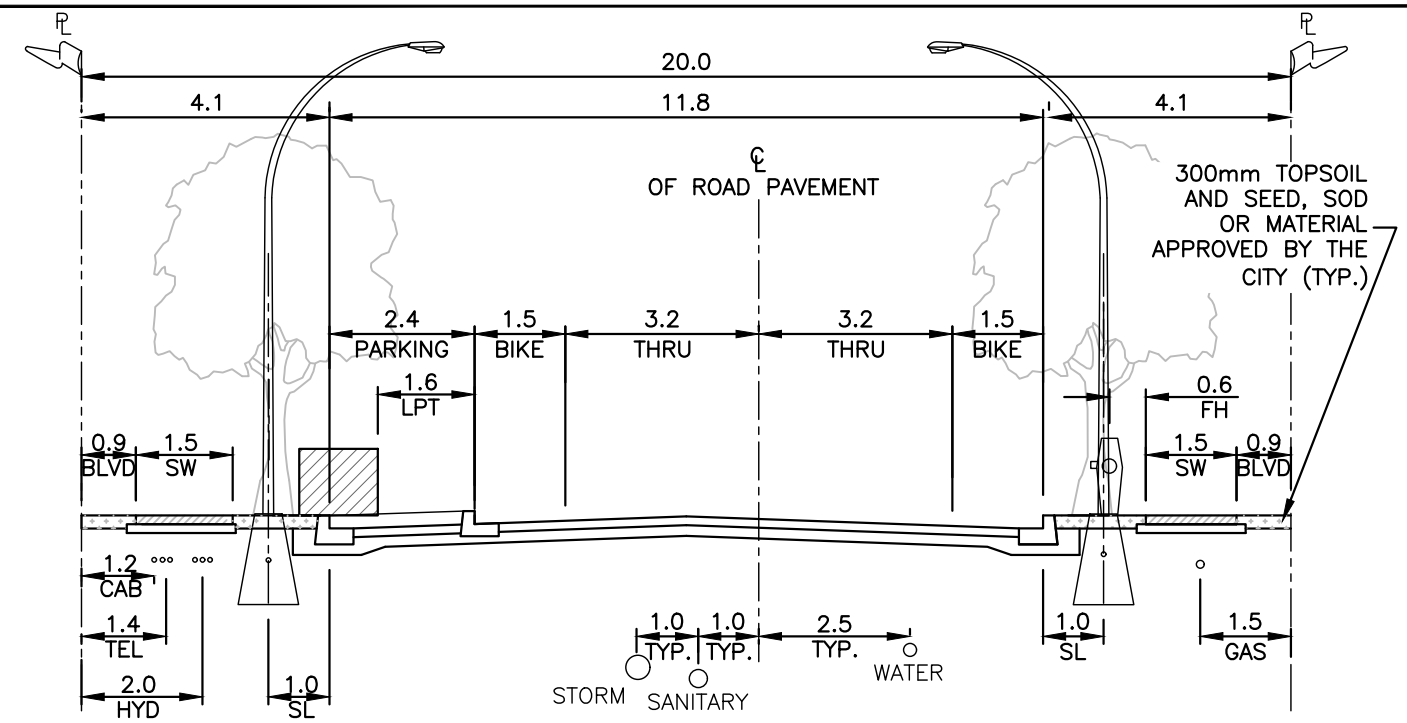
1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, LANE LINE, AND TRANSVERSE ROAD MARKINGS TO TAC STANDARD.
2. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
3. BULB OUTS TO BE LOCATED AT LPTS, CROSSWALKS AND INTERSECTIONS TO DELINEATE PARKING POCKETS.
4. HYDRO SERVICE BOX TO INCLUDE A STORM SEWER SERVICE CONNECTION AS PER CSSD S8. INSPECTION CHAMBER TO BE LOCATED 300mm FROM SERVICE BOX.
5. TREES TO BE CENTRED IN BOULEVARDS.

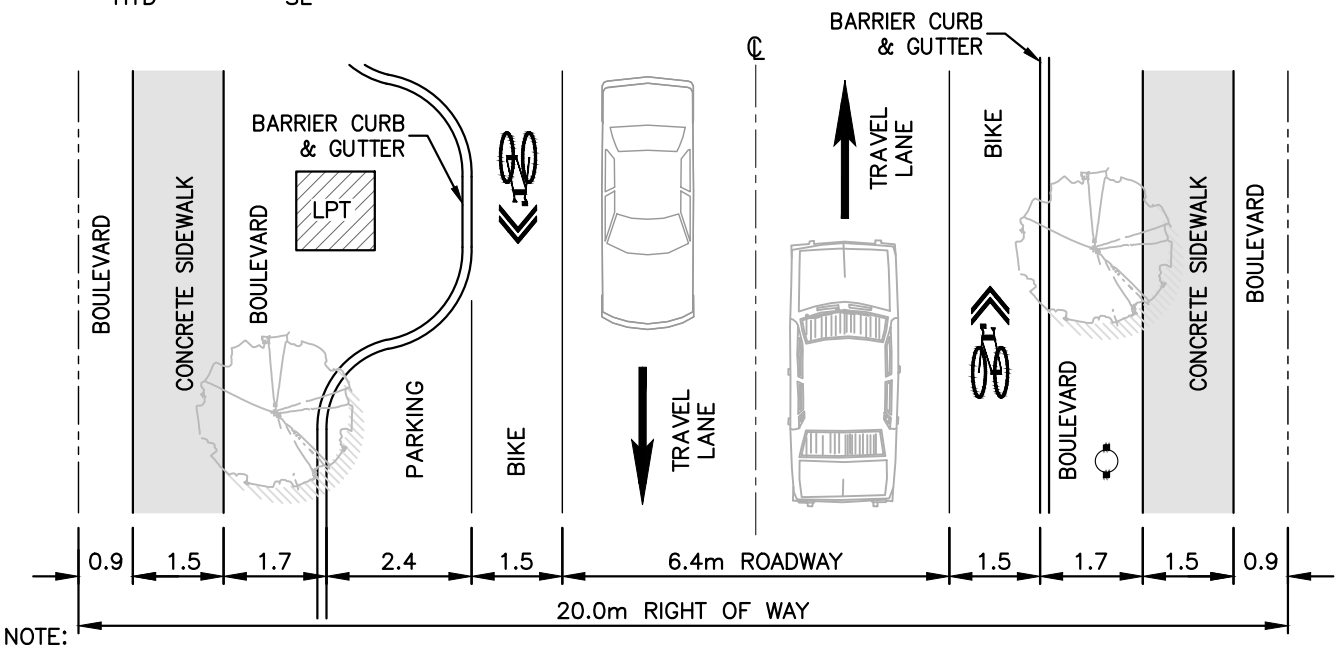
NOVEMBER, 2017

COLLECTOR ROAD SECTION
RESIDENTIAL

DRAWING NUMBER	CSSD CRe
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING





NOTE:

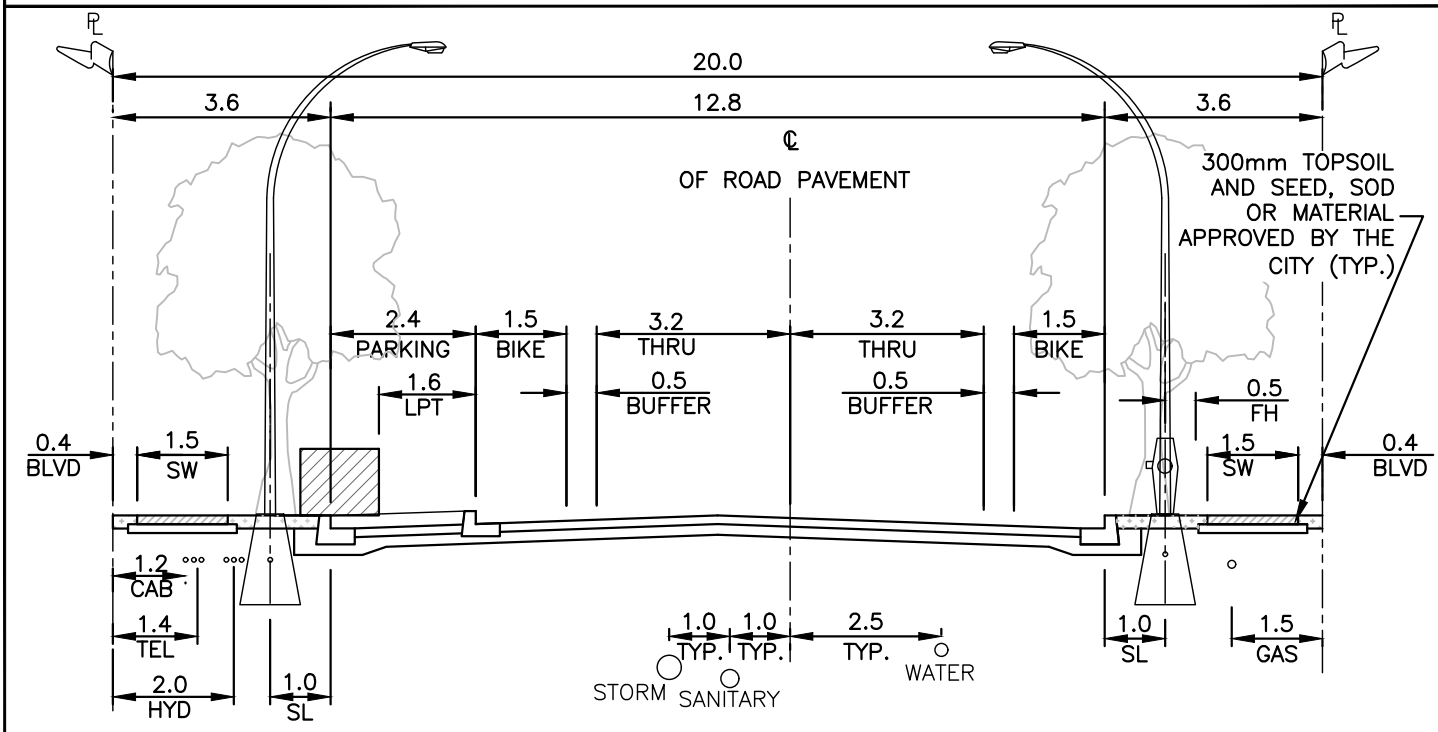
1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, LANE LINES, BIKE LANES AND ALL TRANSVERSE MARKINGS TO TAC STANDARD.
2. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
3. BULB OUTS TO BE LOCATED AT LPTS, CROSSWALKS AND INTERSECTIONS TO DELINEATE PARKING POCKETS.
4. PARKING PROVISION TO BE ON NORTH OR WEST SIDE OF ROAD.
5. HYDRO SERVICE BOX TO INCLUDE A STORM SEWER SERVICE CONNECTION AS PER CSSD S8. INSPECTION CHAMBER TO BE LOCATED 300mm FROM SERVICE BOX.
6. TREES TO BE CENTRED IN BOULEVARDS.

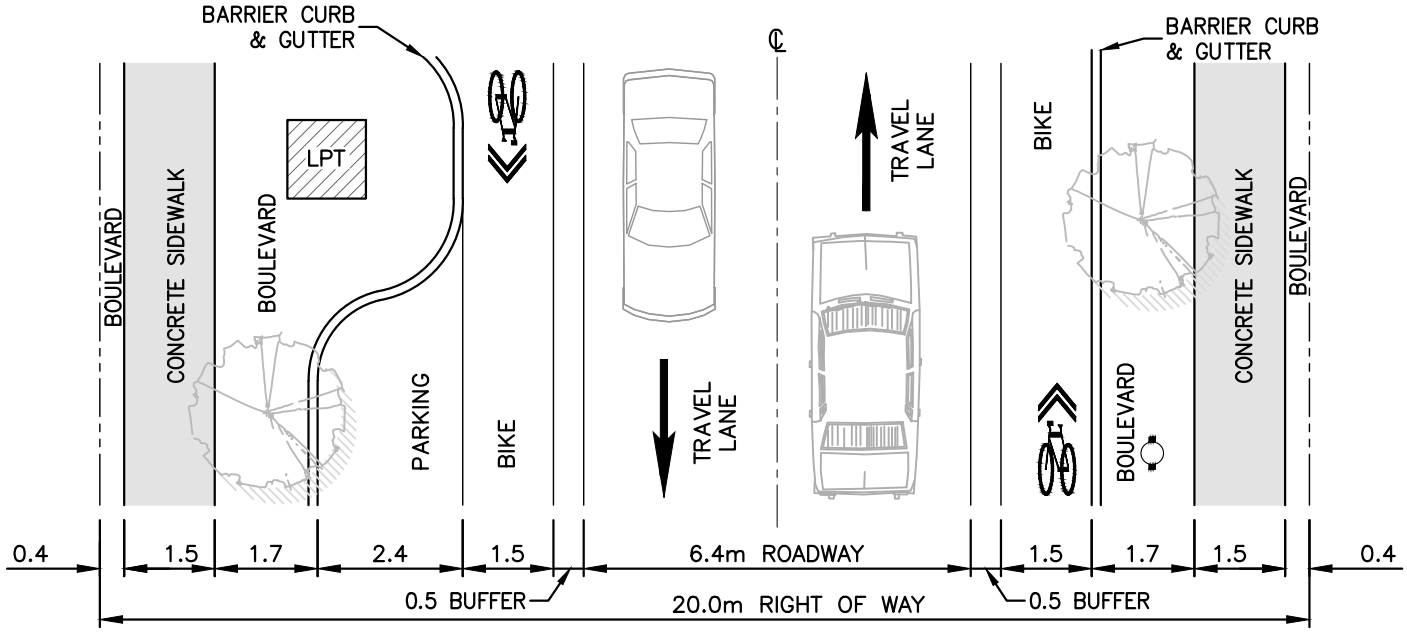
NOVEMBER, 2017

COLLECTOR ROAD SECTION
RESIDENTIAL – B

DRAWING NUMBER
CSSD CRB
REVISION NUMBER
0
SCALE
N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING





NOTE:

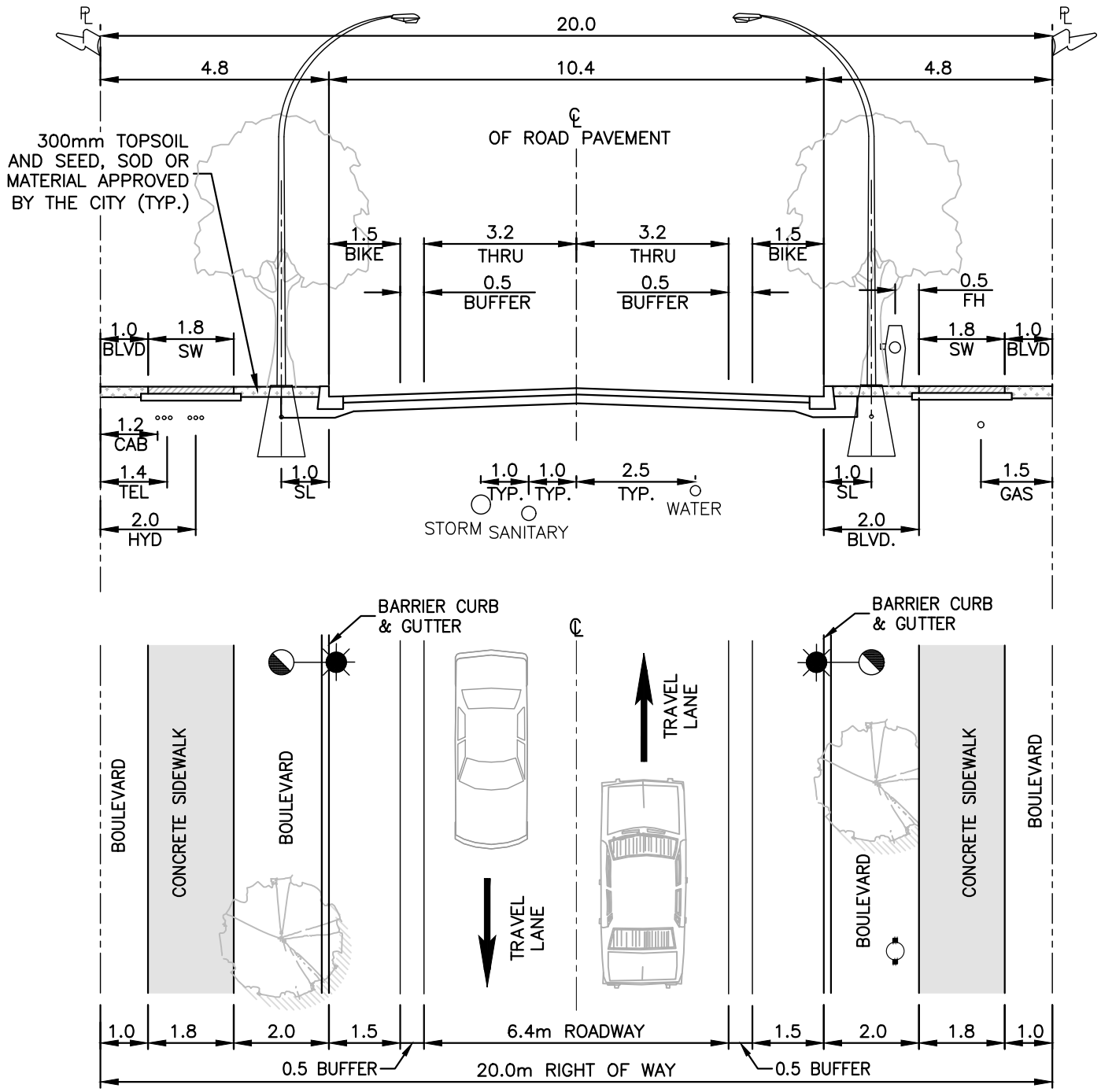
1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, LANE LINES, BIKE LANES, AND TRANSVERSE ROAD MARKINGS TO TAC STANDARD.
2. BIKE LANE BUFFER TO BE HATCHED / GORE TO TAC STANDARD.
3. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
4. BULB OUTS TO BE LOCATED AT LPTS, CROSSWALKS AND INTERSECTIONS TO DELINEATE PARKING POCKET.
5. HYDRO SERVICE BOX TO INCLUDE A STORM SEWER SERVICE CONNECTION AS PER CSSD S8. INSPECTION CHAMBER TO BE LOCATED 300mm FROM SERVICE BOX.
6. TREES TO BE CENTRED IN BOULEVARDS.

NOVEMBER, 2017

COLLECTOR ROAD SECTION
RESIDENTIAL – C

DRAWING NUMBER
CSSD CRC
REVISION NUMBER
0
SCALE
N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

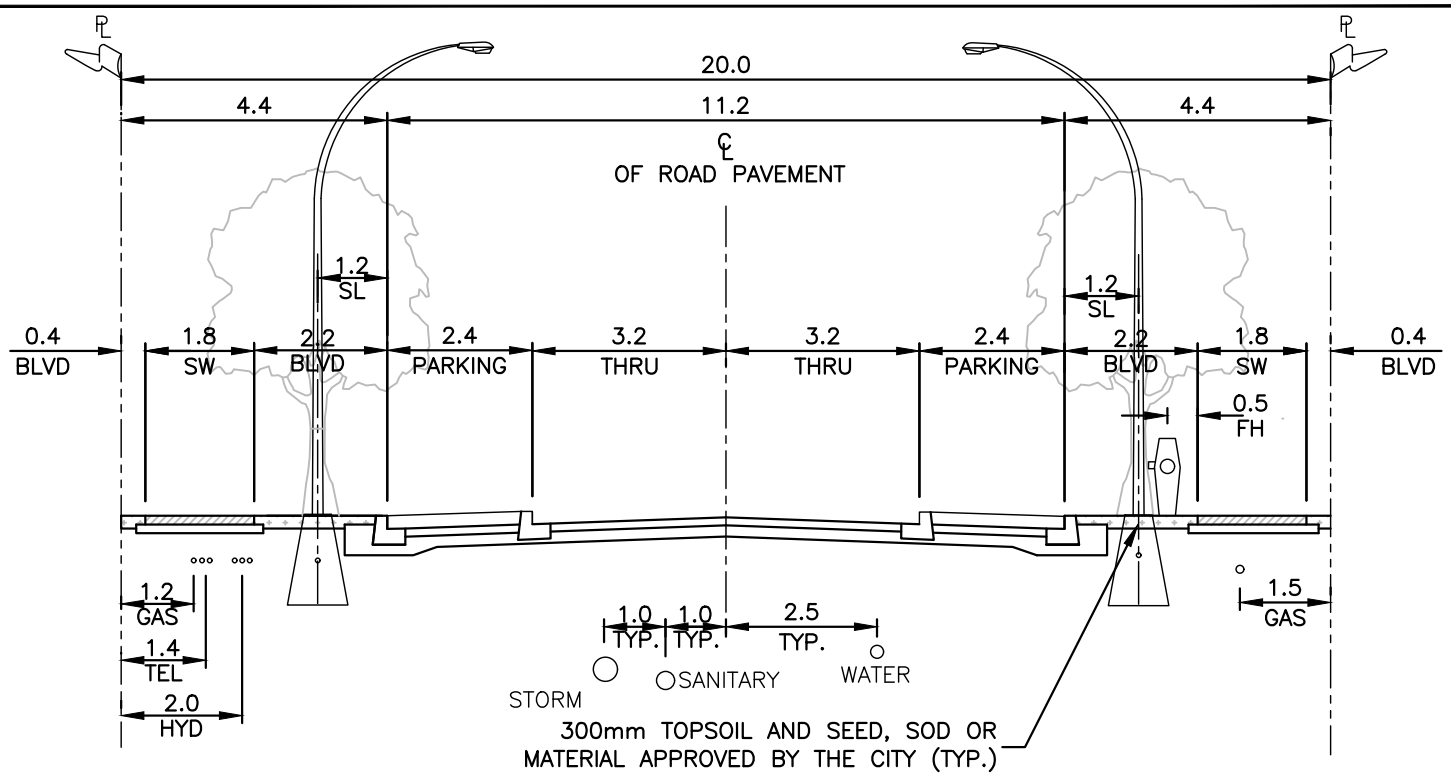
1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, BIKE LANES AND TRANSVERSE ROAD MARKINGS TO TAC STANDARD.
2. BIKE LANE BUFFER TO BE HATCHED / GORE TO TAC STANDARD.
3. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
4. THIS ROAD SECTION ASSUMES NO HYDRO LOADS OR LPT.
5. TREES TO BE CENTRED IN BOULEVARDS.

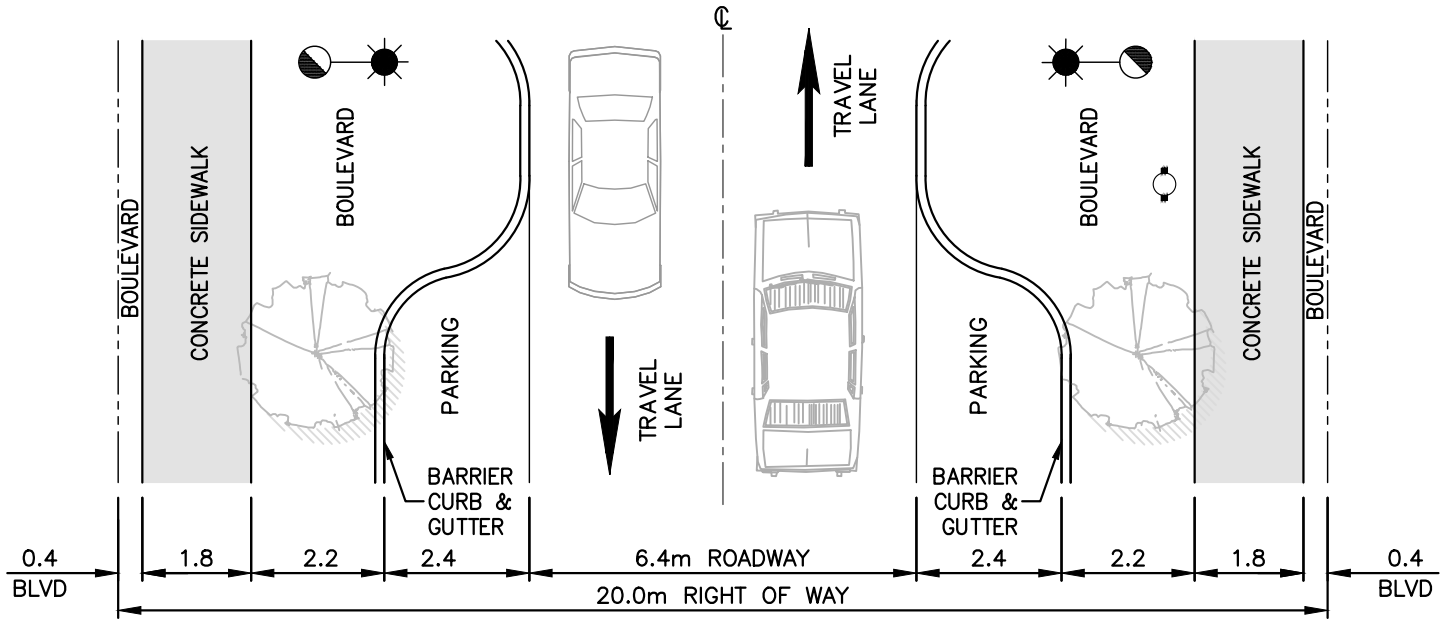
NOVEMBER, 2017

COLLECTOR ROAD SECTION
URBAN – B

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD CUB	0	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING





NOTE:

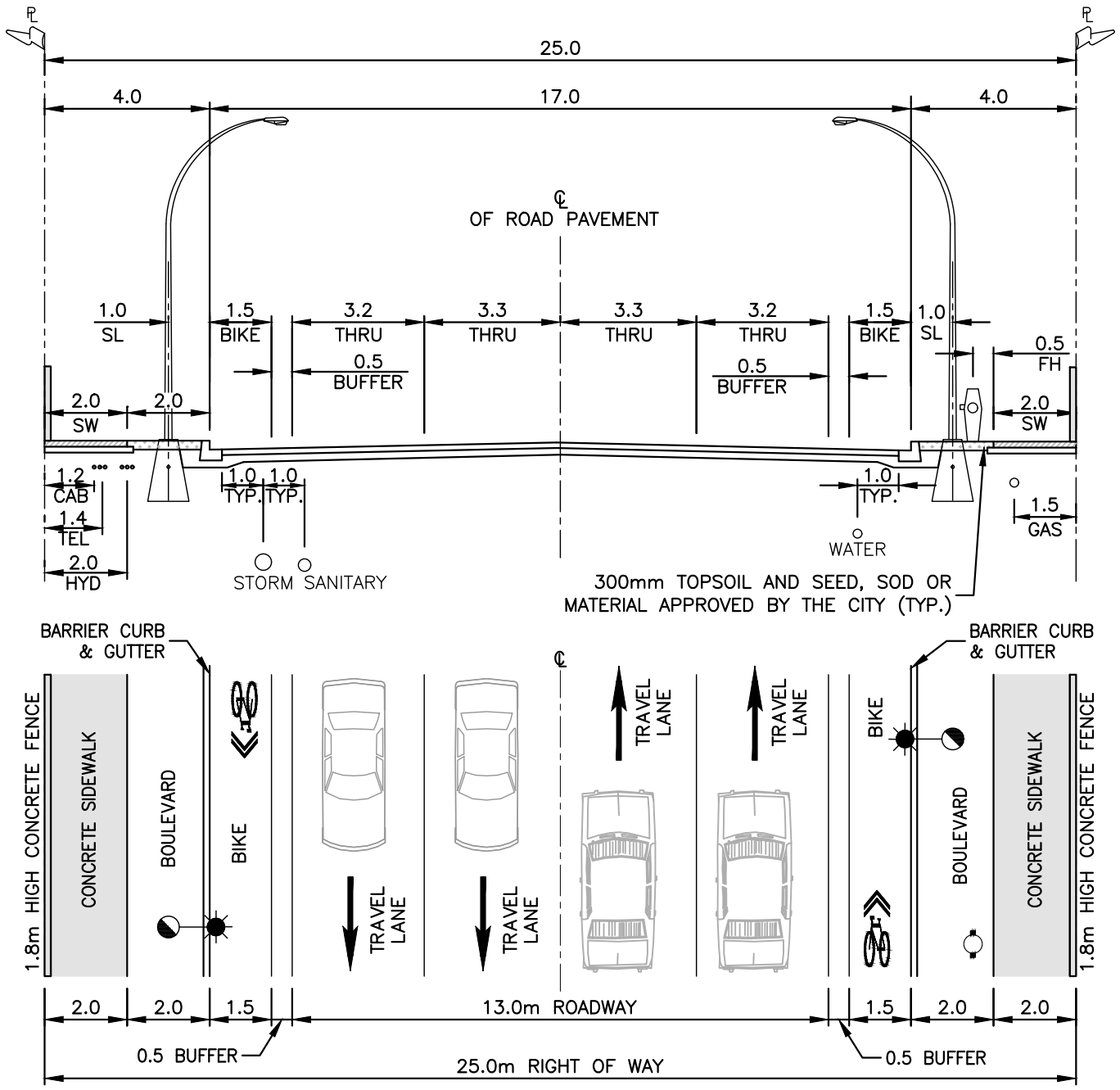
1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, BIKE LANES AND TRANSVERSE ROAD MARKINGS TO TAC STANDARD.
2. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
3. THIS ROAD SECTION ASSUMES NO HYDRO LOADS OR LPT.
4. BULB OUTS TO BE LOCATED AT INTERSECTIONS.
5. TREES TO BE CENTRED IN BOULEVARDS.

NOVEMBER, 2017

COLLECTOR ROAD SECTION
URBAN – P

DRAWING NUMBER
CSSD CUP
REVISION NUMBER
0
SCALE
N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



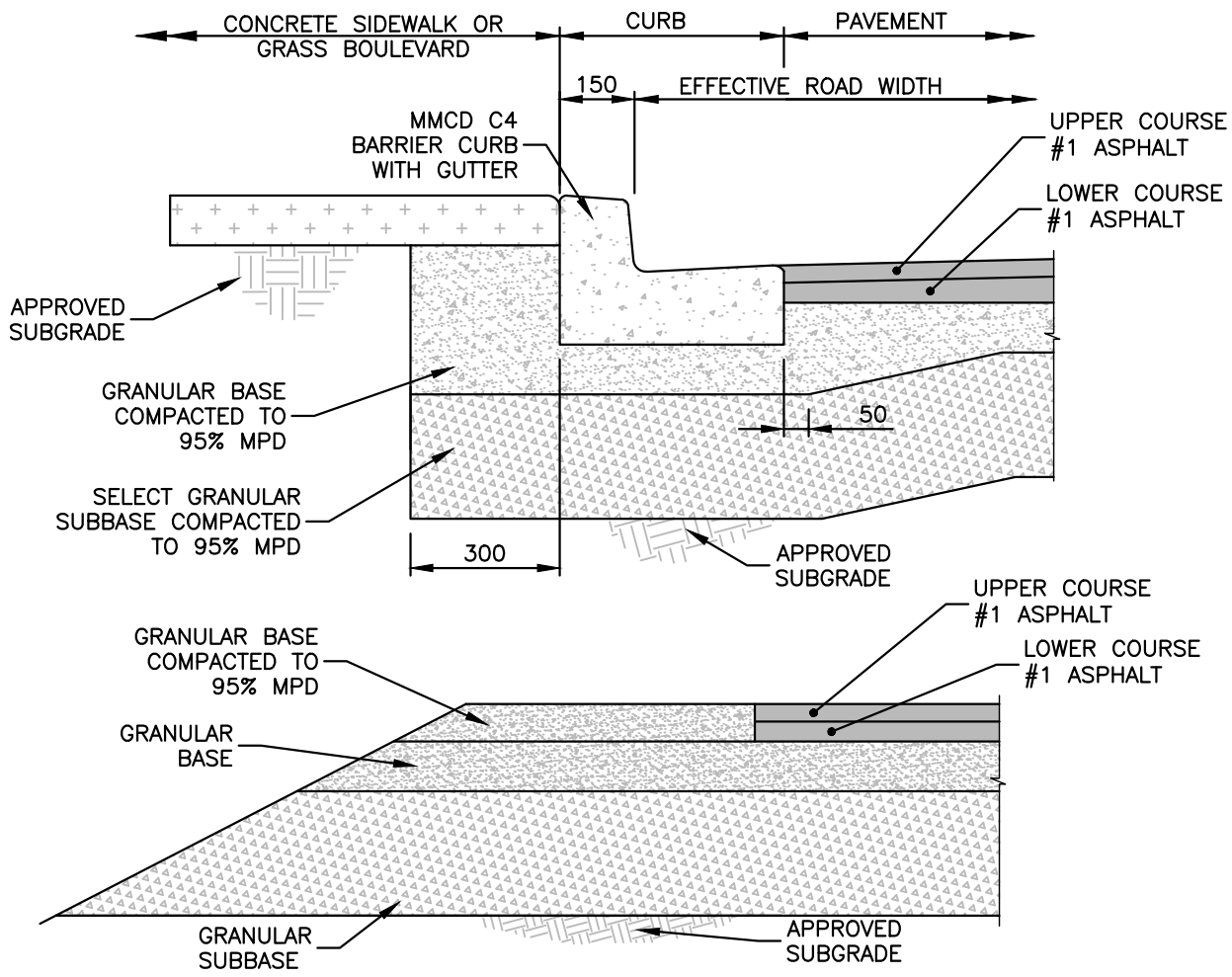
NOTE:

1. PAVEMENT MARKINGS TO INCLUDE: CENTRE LINE, THRU LANES, BIKE LANES AND TRANSVERSE ROAD MARKINGS TO TAC STANDARD.
2. BIKE LANE BUFFER TO BE HATCHED / GORE TO TAC STANDARD.
3. 3rd PARTY UTILITY DESIGN TO BE PROVIDED BY THE RESPECTIVE UTILITIES.
4. HYDRO SERVICE BOX TO INCLUDE A STORM SEWER SERVICE CONNECTION AS PER CSSD S8. INSPECTION CHAMBER TO BE LOCATED 300mm FROM SERVICE BOX.

NOVEMBER, 2017

ARTERIAL ROAD SECTION B

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD AB	0	N.T.S.



STANDARD DETAIL	ROAD CLASSIFICATION	UPPER COURSE #1 ASPHALT	LOWER COURSE #1 ASPHALT
CSSD L1	LOCAL ROAD SECTION	35	40
CSSD CRu	COLLECTOR ROAD SECTION: RURAL	35	40
CSSD CRe	COLLECTOR ROAD SECTION: RESIDENTIAL	35	40
CSSD CRB	COLLECTOR ROAD SECTION: RESIDENTIAL - B	35	40
CSSD CRC	COLLECTOR ROAD SECTION: RESIDENTIAL - C	50	50
CSSD CUB	COLLECTOR ROAD SECTION: URBAN - B	35	40
CSSD CUC	COLLECTOR ROAD SECTION: URBAN - C	50	50
CSSD CUP	COLLECTOR ROAD SECTION: URBAN - P	50	50
CSSD AB	ARTERIAL ROAD SECTION: B	50	50
CSSD A3	ALTERNATIVE DESIGN STANDARD 3: LANE	50	N/A

NOTE:

1. THE STRUCTURAL ROAD ELEMENTS SHOWN ARE MINIMUM REQUIREMENTS. ROAD STRUCTURE TO BE DESIGNED BASED ON SITE CONDITIONS BY A QUALIFIED GEOTECHNICAL ENGINEER.

NOVEMBER, 2017

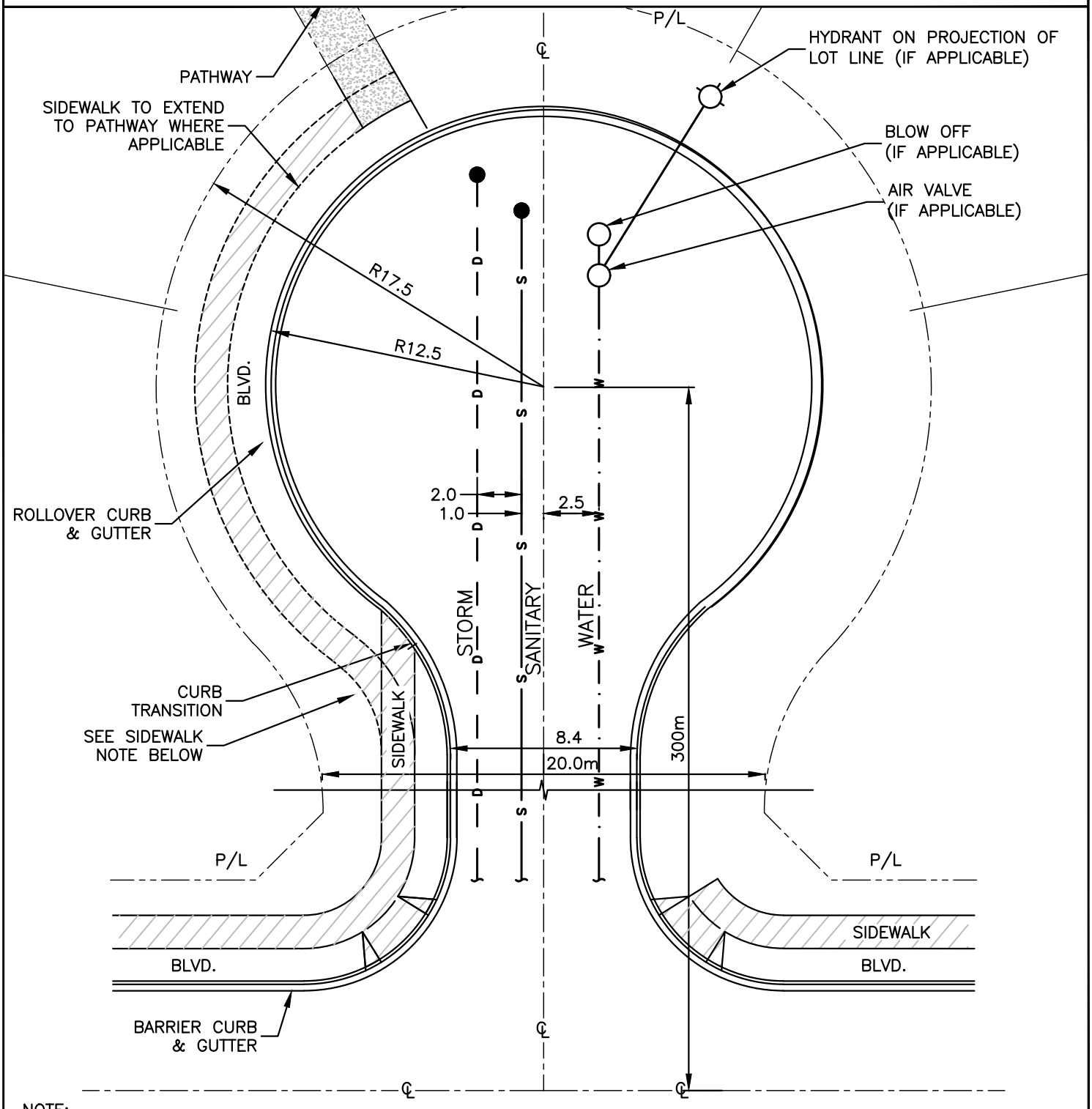
MINIMUM PAVEMENT STRUCTURE REQUIREMENTS

DRAWING NUMBER
CSSD R2

REVISION NUMBER
0

SCALE
N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



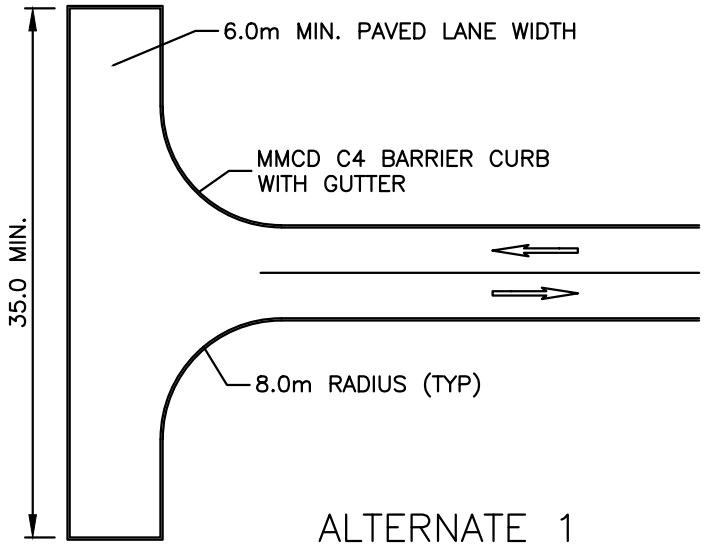
NOTE:

1. CUL–DE–SAC HAVING MORE THAN 10 LOTS INCLUDING THE CORNER LOTS TO BE PROVIDED WITH A SIDEWALK.
2. THE MAXIMUM PERMITTED PROFILE GRADE ON THE TURNAROUND OF A CUL–DE–SAC IS 6%.

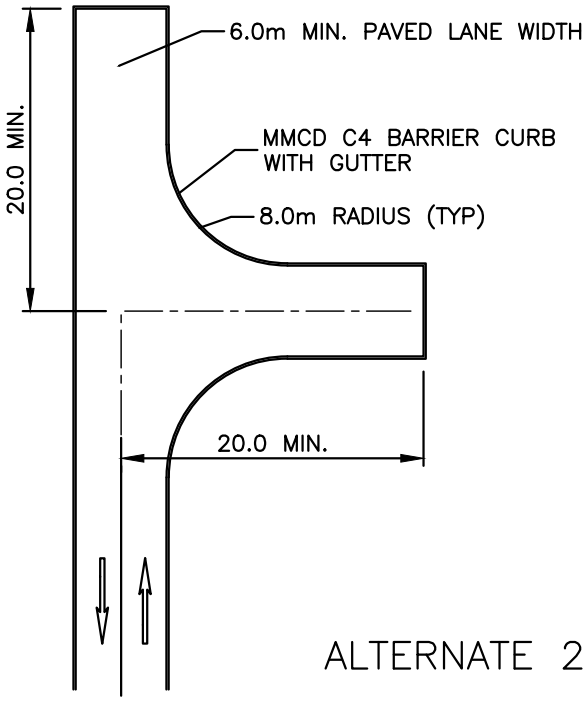
NOVEMBER, 2017

CUL–DE–SAC

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD R3	0	N.T.S.



ALTERNATE 1



ALTERNATE 2

NOTE:

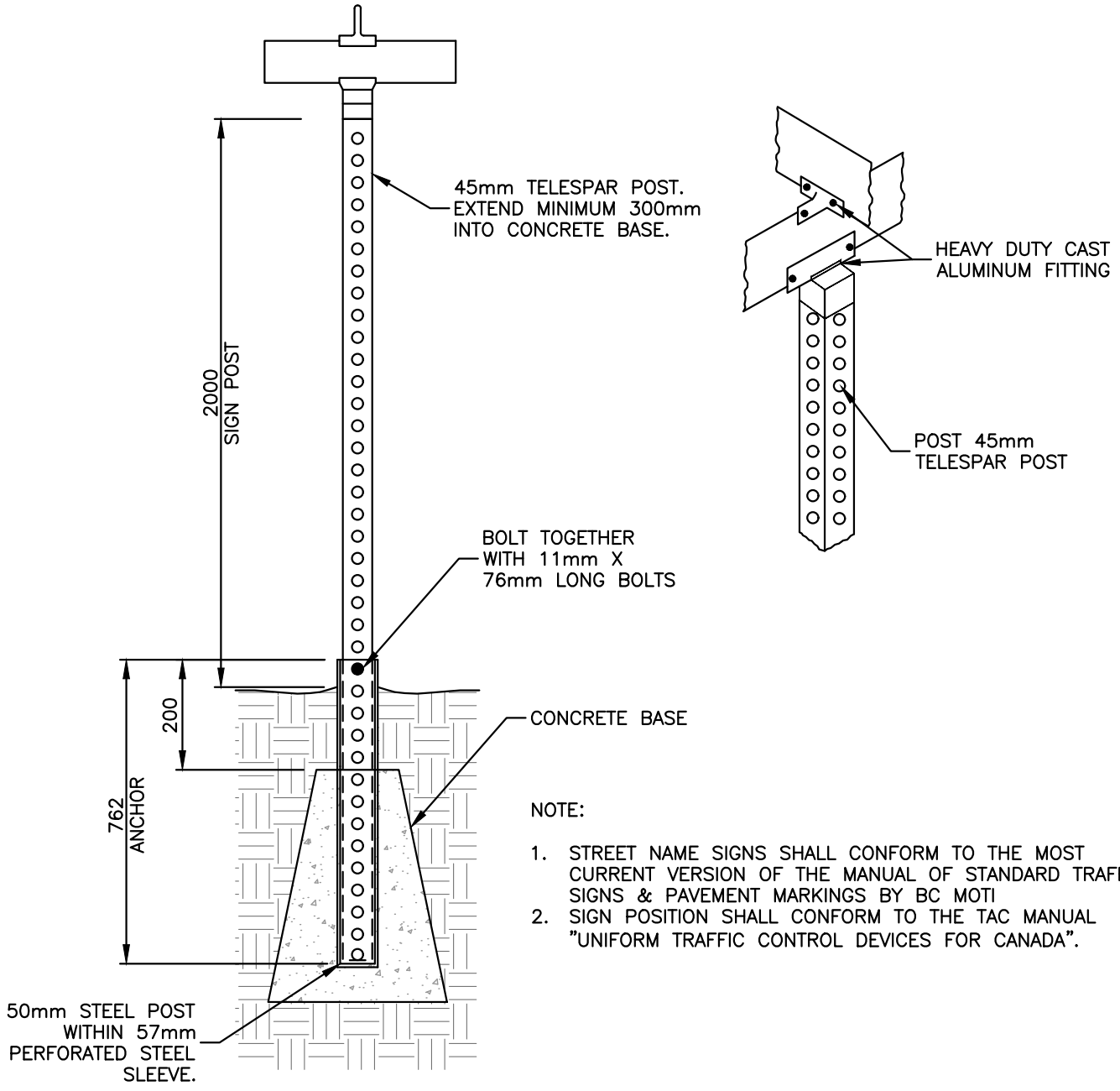
1. ALL DIMENSIONS ARE REQUIRED MINIMUMS

NOVEMBER, 2017

HAMMERHEAD TURNAROUND (PRIVATE ROADS)

DRAWING NUMBER	CSSD R4
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

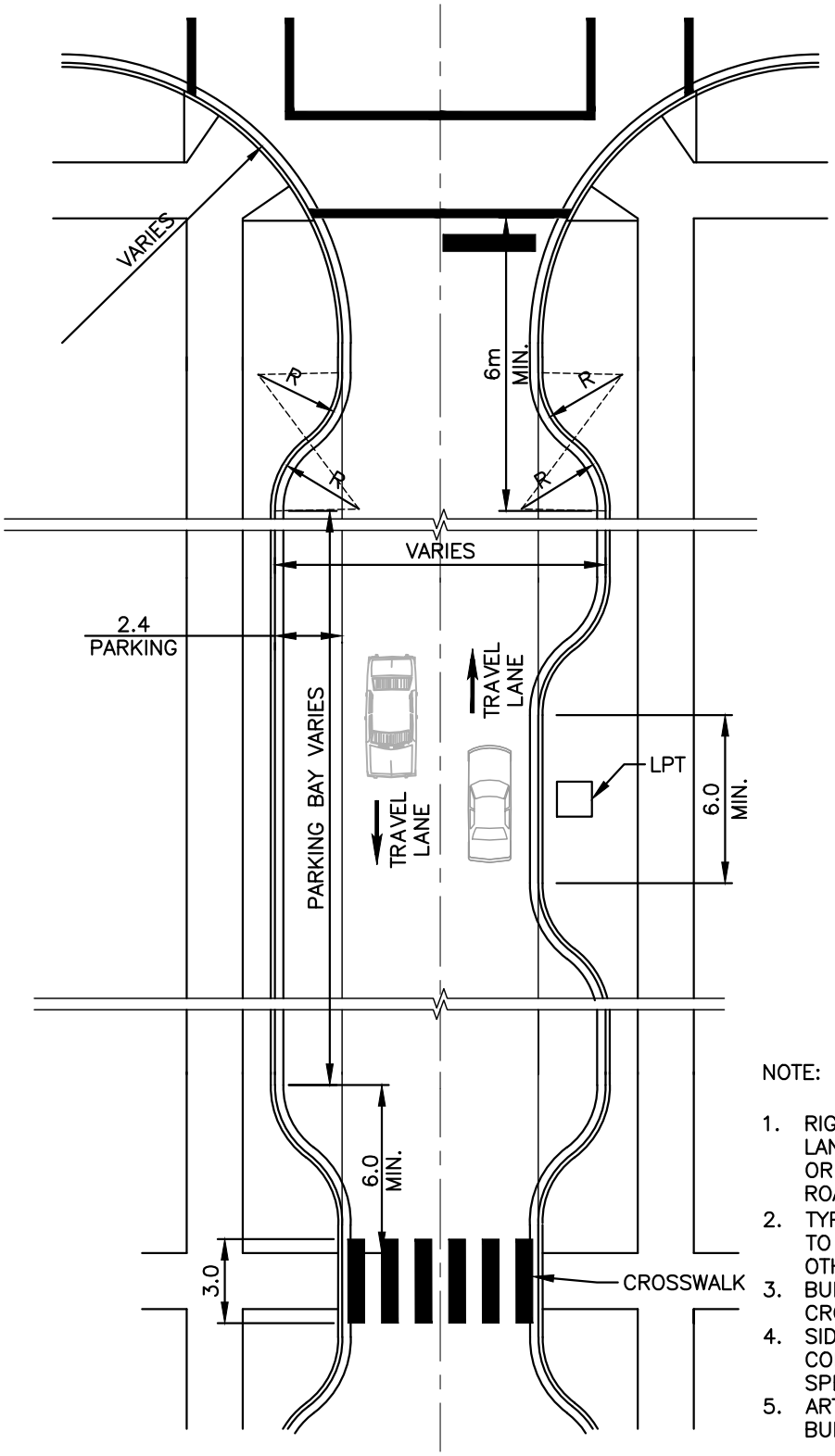
1. STREET NAME SIGNS SHALL CONFORM TO THE MOST CURRENT VERSION OF THE MANUAL OF STANDARD TRAFFIC SIGNS & PAVEMENT MARKINGS BY BC MOTI
2. SIGN POSITION SHALL CONFORM TO THE TAC MANUAL "UNIFORM TRAFFIC CONTROL DEVICES FOR CANADA".

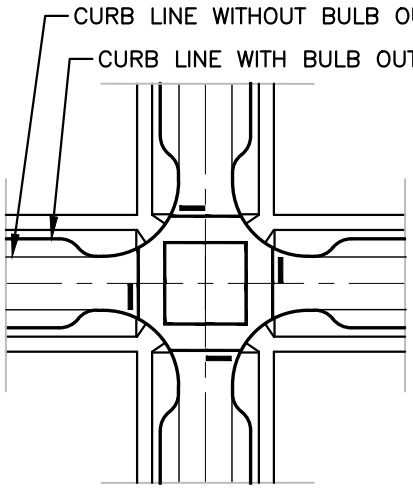
STREET NAME SIGN AND BASE DETAIL

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD R5	0	N.T.S.

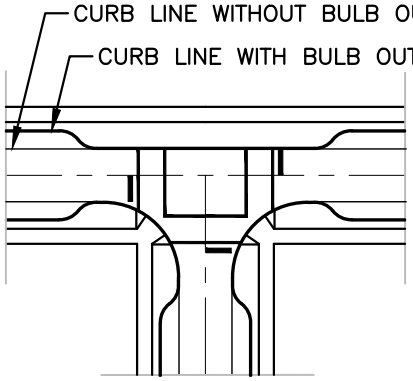
NOVEMBER, 2017

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING





CROSS INTERSECTION CONFIGURATION



TEE INTERSECTION CONFIGURATION

NOTE:

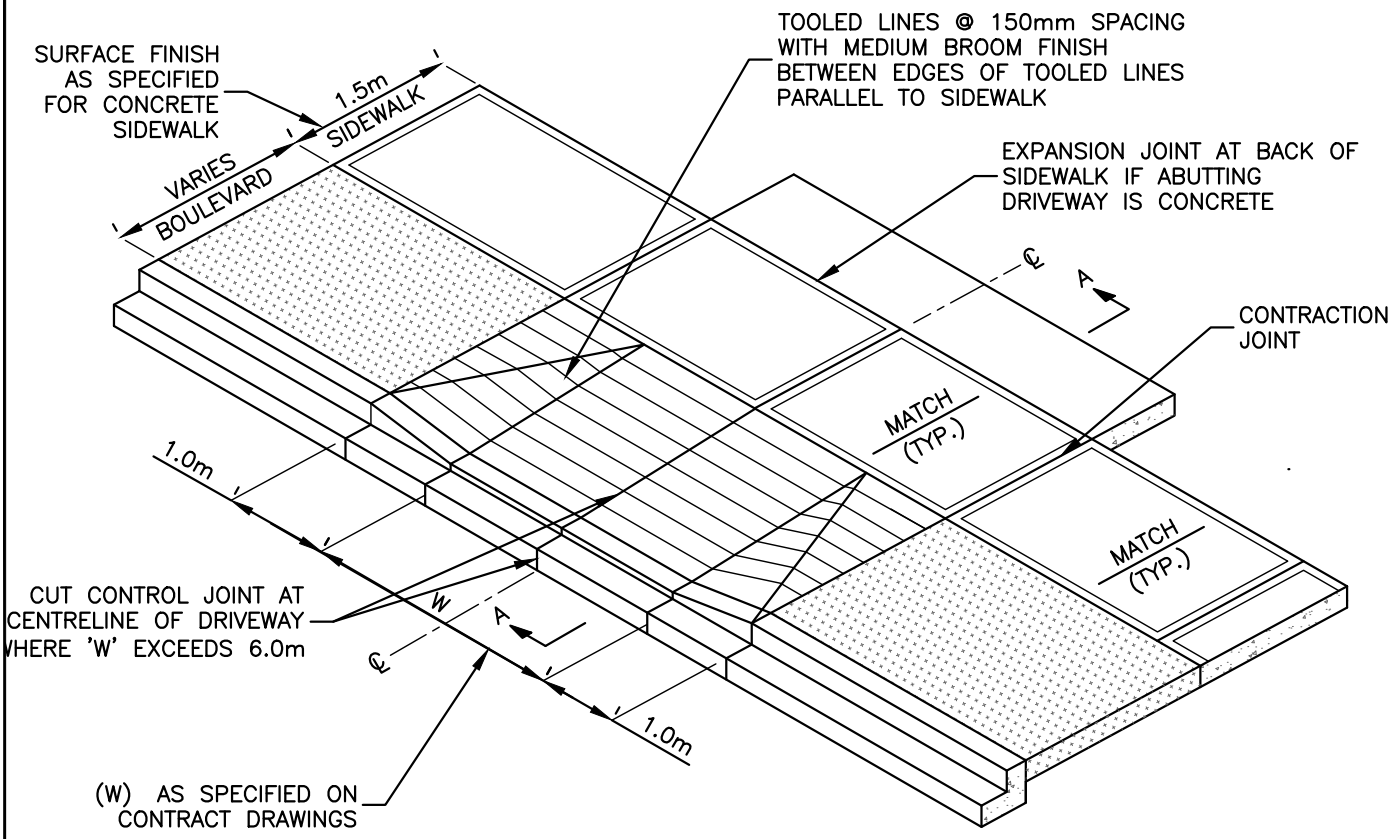
1. RIGHT OF WAY WIDTHS, NUMBER OF LANES AND INCLUSION OF BIKE LANES OR BUFFERS VARIES AS PER SPECIFIED ROAD CLASSIFICATION.
2. TYPICAL PARKING BAY FLARE RADII "R" TO BE 3.0m UNLESS SPECIFIED OTHERWISE.
3. BULB–OUT LENGTHS AT MID–BLOCK CROSSWALKS VARIES AS REQUIRED.
4. SIDEWALK & BOULEVARD WIDTHS AND CONFIGURATION VARIES AS PER SPECIFIED ROAD CLASSIFICATION.
5. ARTERIAL ROADWAYS SHALL NOT HAVE BULB OUTS.

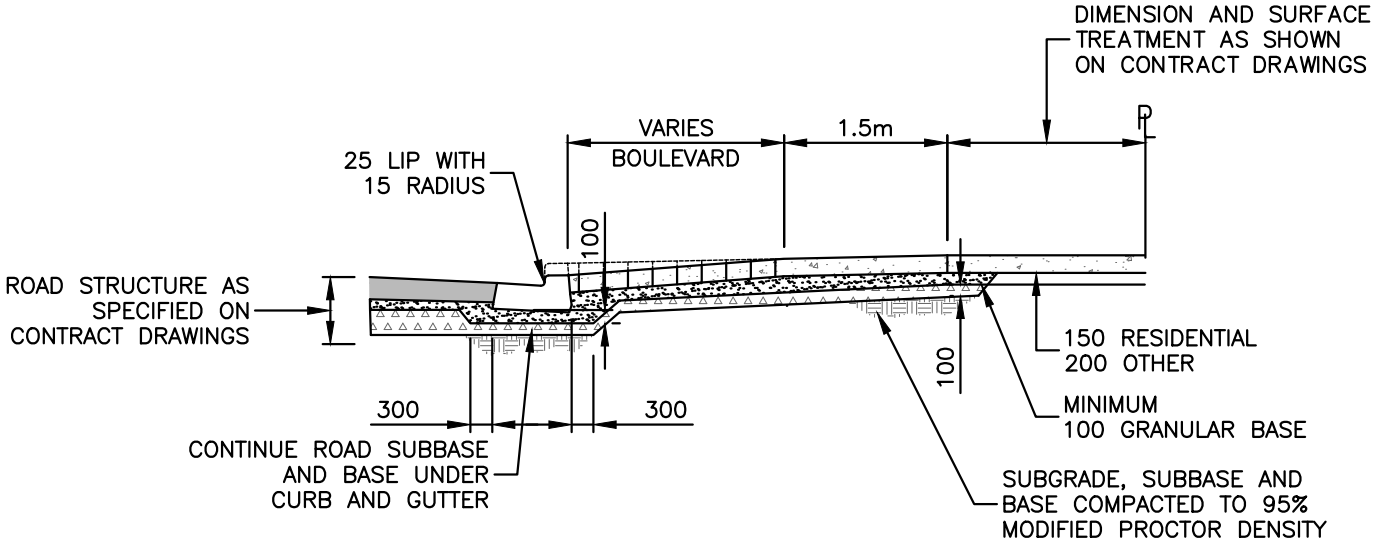
TYPICAL BULB OUT LOCATION AND DETAILS

DRAWING NUMBER	CSSD R6
REVISION NUMBER	0
SCALE	N.T.S.

NOVEMBER, 2017

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING





SECTION A–A

NOTE:

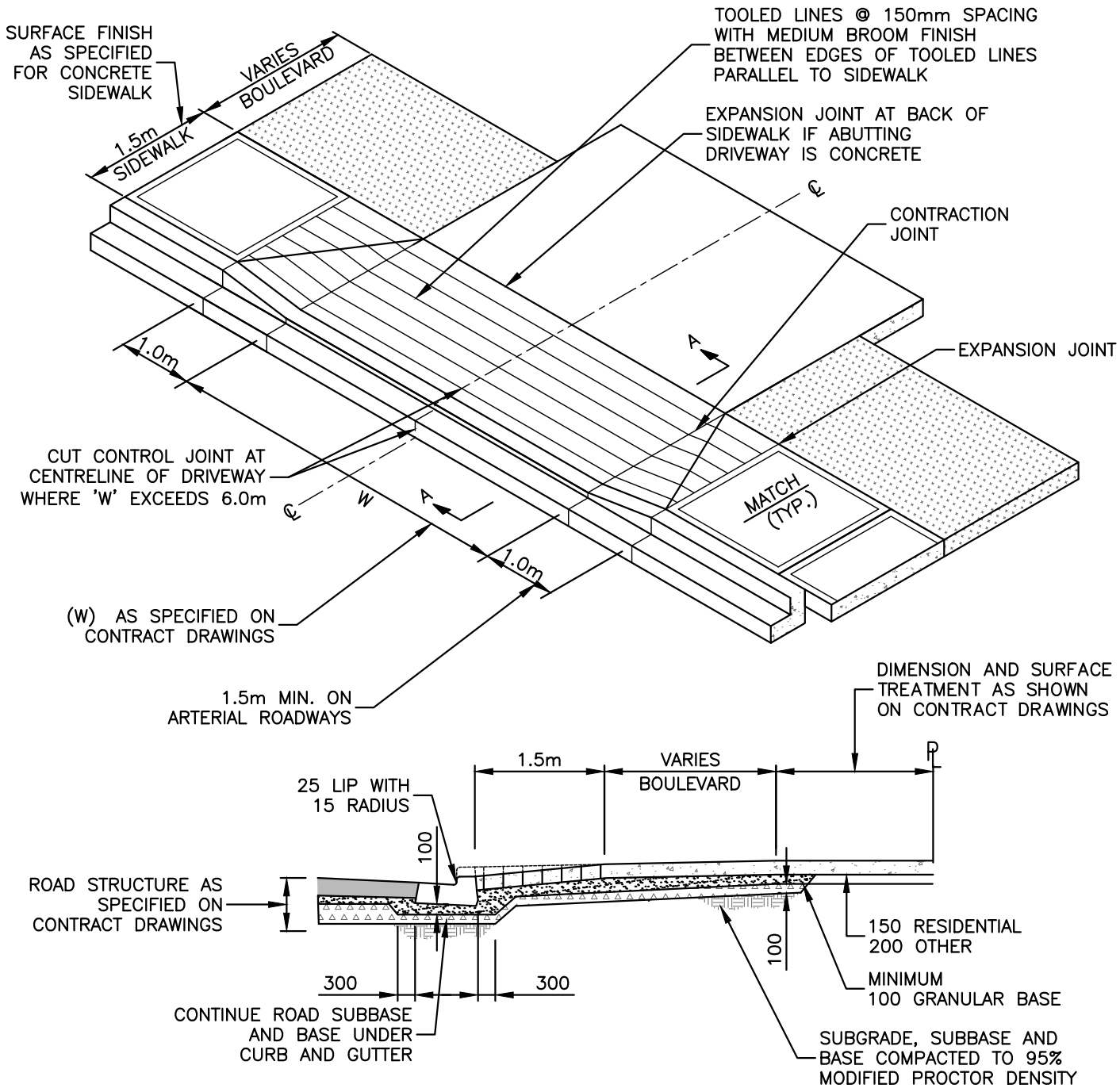
1. DRIVEWAYS ORIENTATED AT 90° TO CURB, UNLESS SPECIFIED OTHERWISE ON CONTRACT DRAWINGS.

NOVEMBER, 2017

DRIVEWAY CROSSING FOR BARRIER CURBS TYPE 2

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD C7b	0	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



SECTION A–A

NOTE:

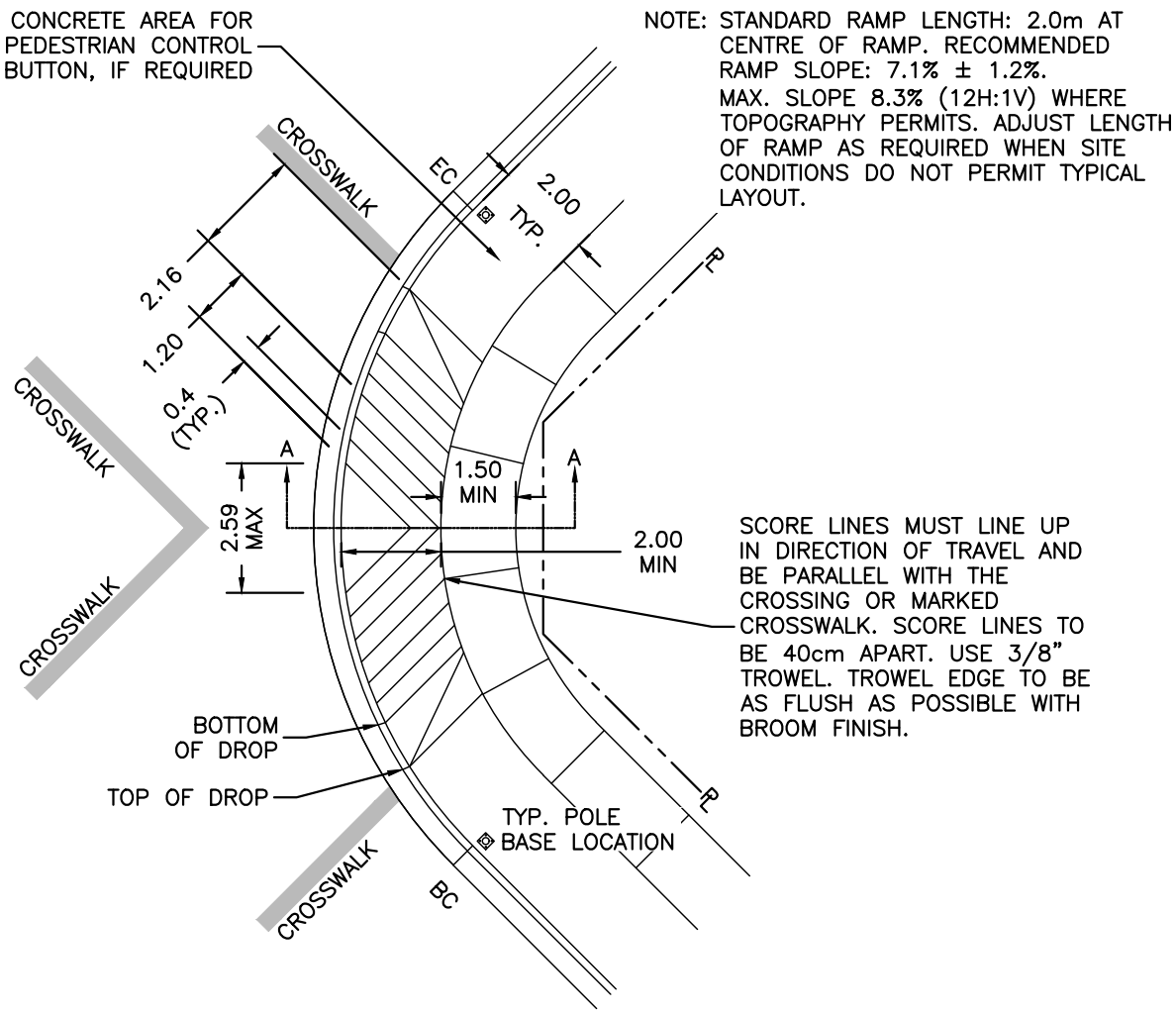
1. DRIVEWAYS ORIENTATED AT 90° TO CURB, UNLESS SPECIFIED OTHERWISE ON CONTRACT DRAWINGS.

NOVEMBER, 2017

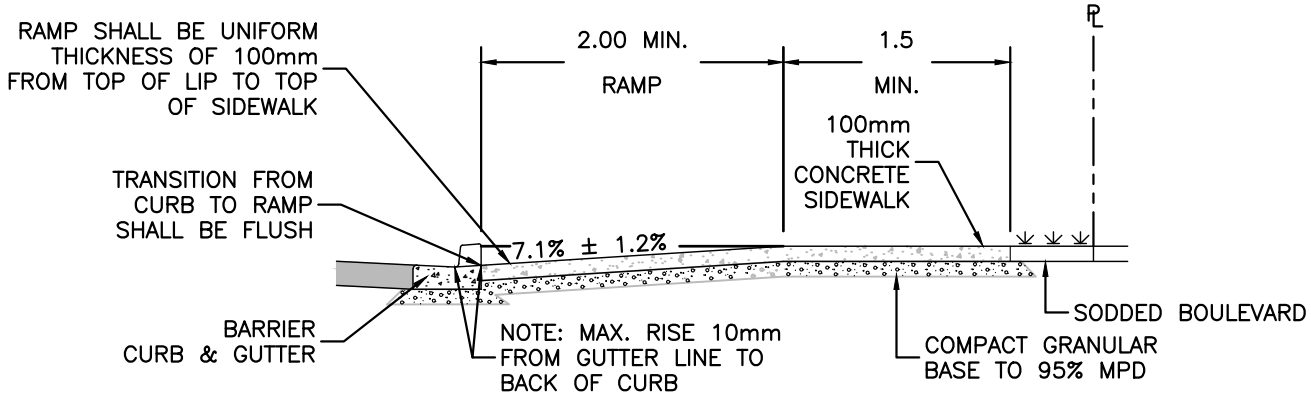
DRIVEWAY CROSSING FOR BARRIER CURBS TYPE 3

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD C7c	0	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



SINGLE RAMP



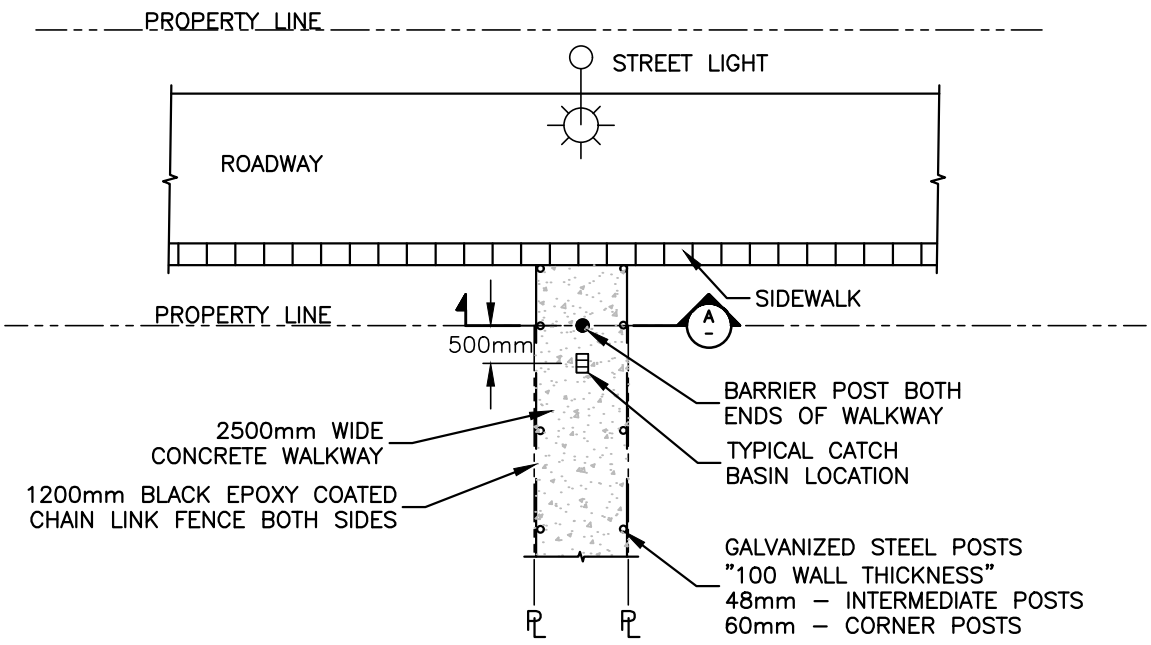
SECTION A–A CURB RAMP

NOVEMBER, 2017

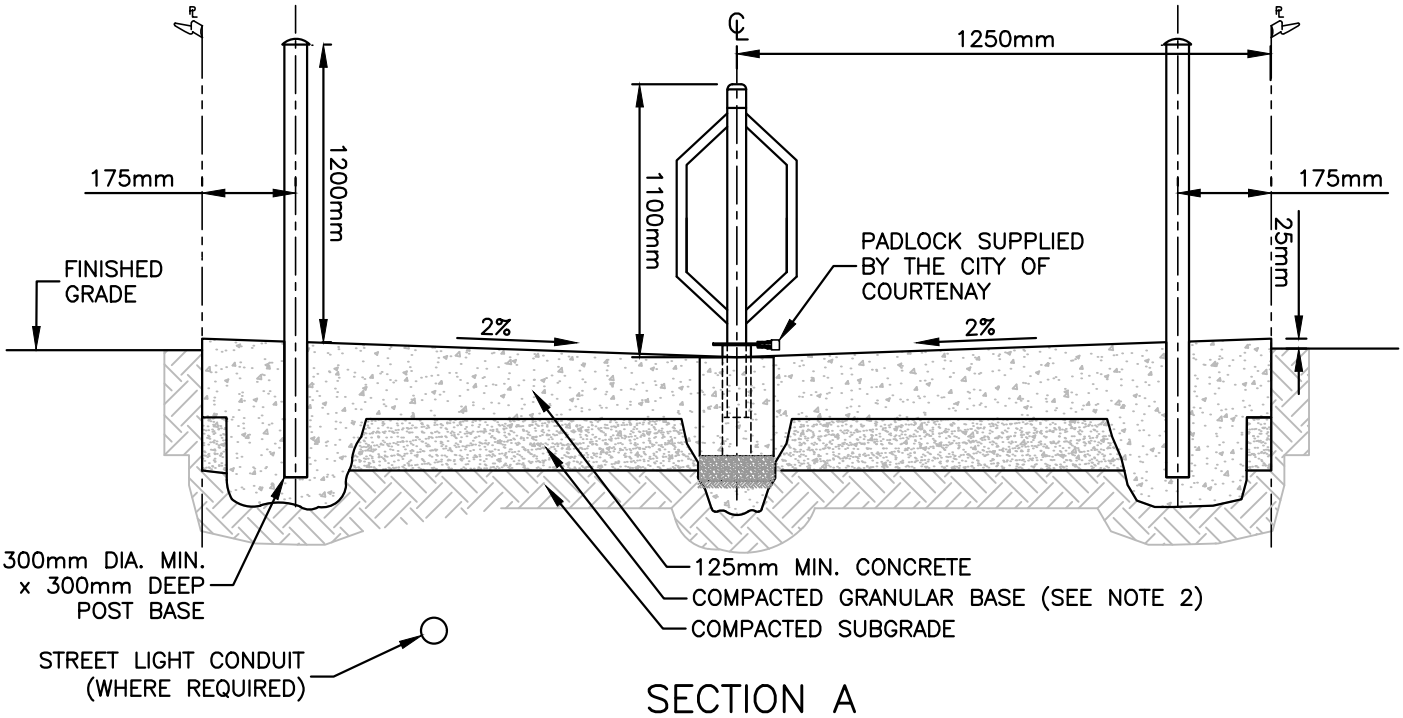
WHEELCHAIR RAMP FOR SIDEWALK, INFILL AND BARRIER CURBS

DRAWING NUMBER	CSSD C8a
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



PLAN



SECTION A

NOTE:

1. THE STRUCTURAL WALKWAY ELEMENTS SHOWN ARE MINIMUM REQUIREMENTS. WALKWAY STRUCTURE TO BE DESIGNED BASED ON SITE CONDITIONS BY A QUALIFIED GEOTECHNICAL ENGINEER.
2. CONCRETE THICKNESS TO BE 150mm MINIMUM WHEN WALKWAY USED TO ACCESS UTILITIES. GRANULAR BASE THICKNESS TO BE DETERMINED BY QUALIFIED GEOTECHNICAL ENGINEER.

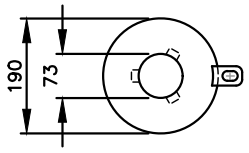
FEBRUARY, 2016

CITY OF COURTENAY

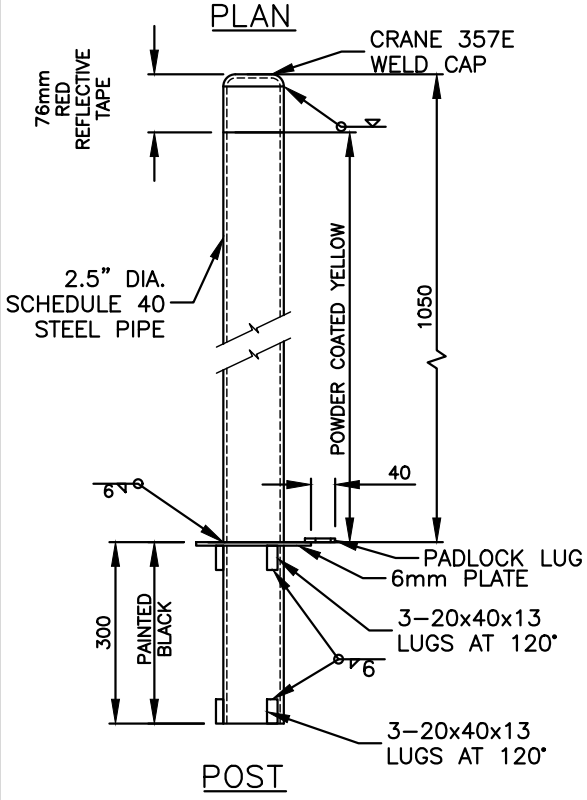
CONCRETE WALKWAY

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD C10	0	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



PLAN



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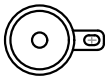
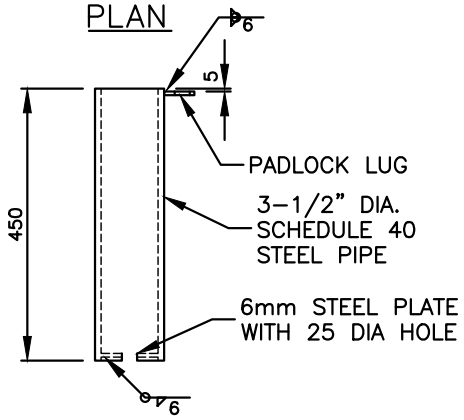
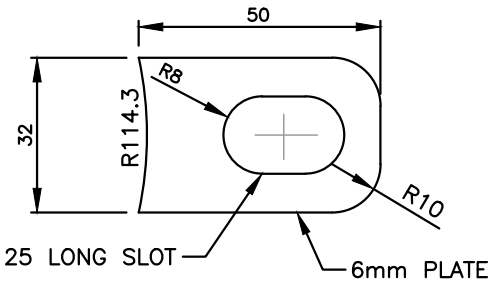


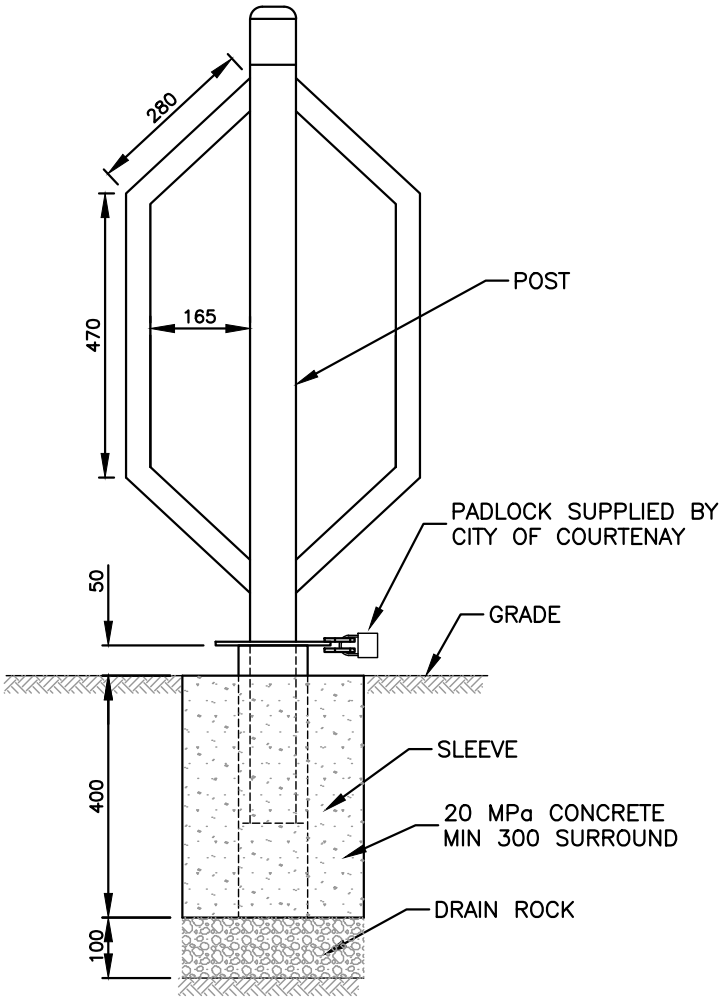
PLAN



SLEEVE



LUG FOR PADLOCK



ASSEMBLY

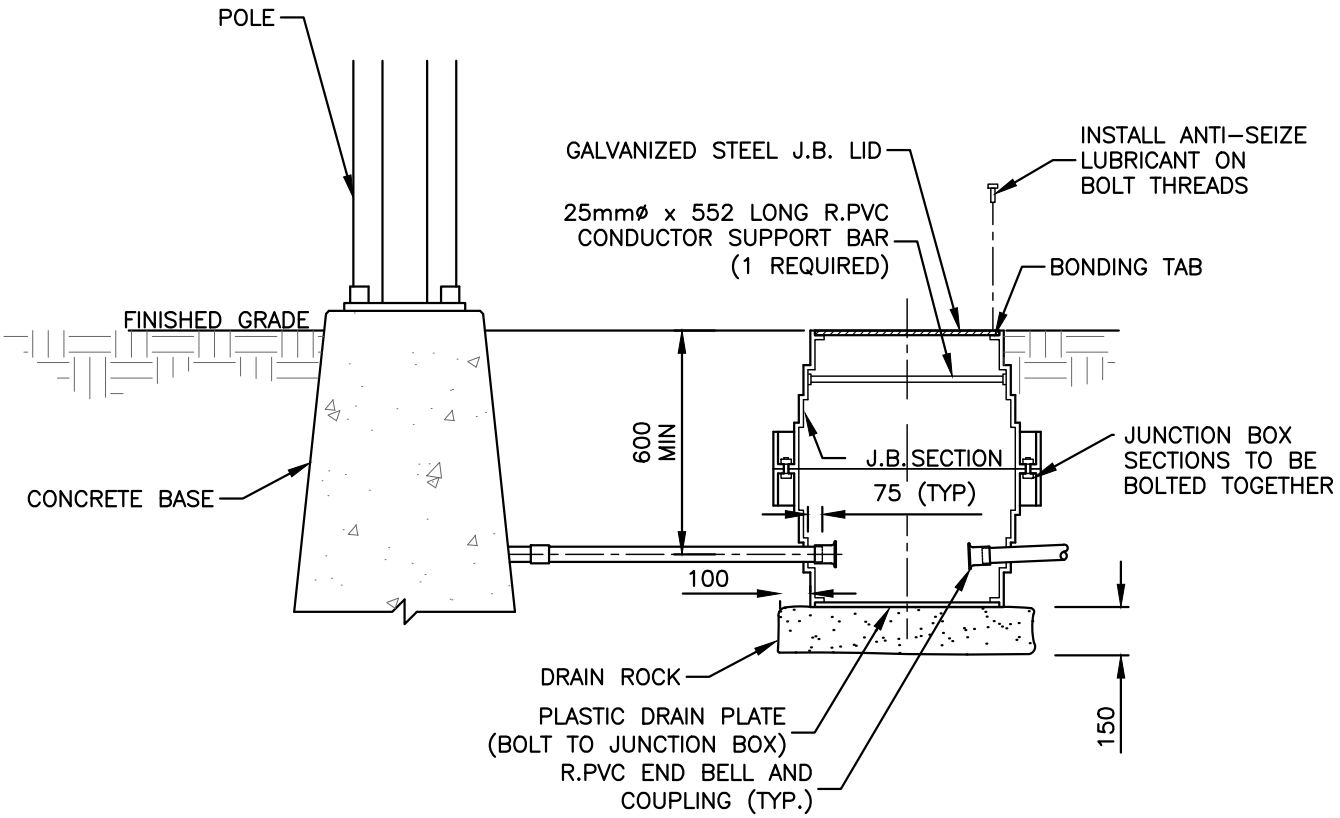
NOTE:

1. FOR USE ON MULTI–USE PATHWAYS AND TRAILS WHEN NECESSARY TO PREVENT VEHICLE ACCESS.
2. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.

NOVEMBER, 2017

REMOVABLE BOLLARD

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD C12	0	N.T.S.



JUNCTION BOX

TWO J.B. SECTIONS
ONE STEEL LID
ONE DRAIN PLATE

NOTE:

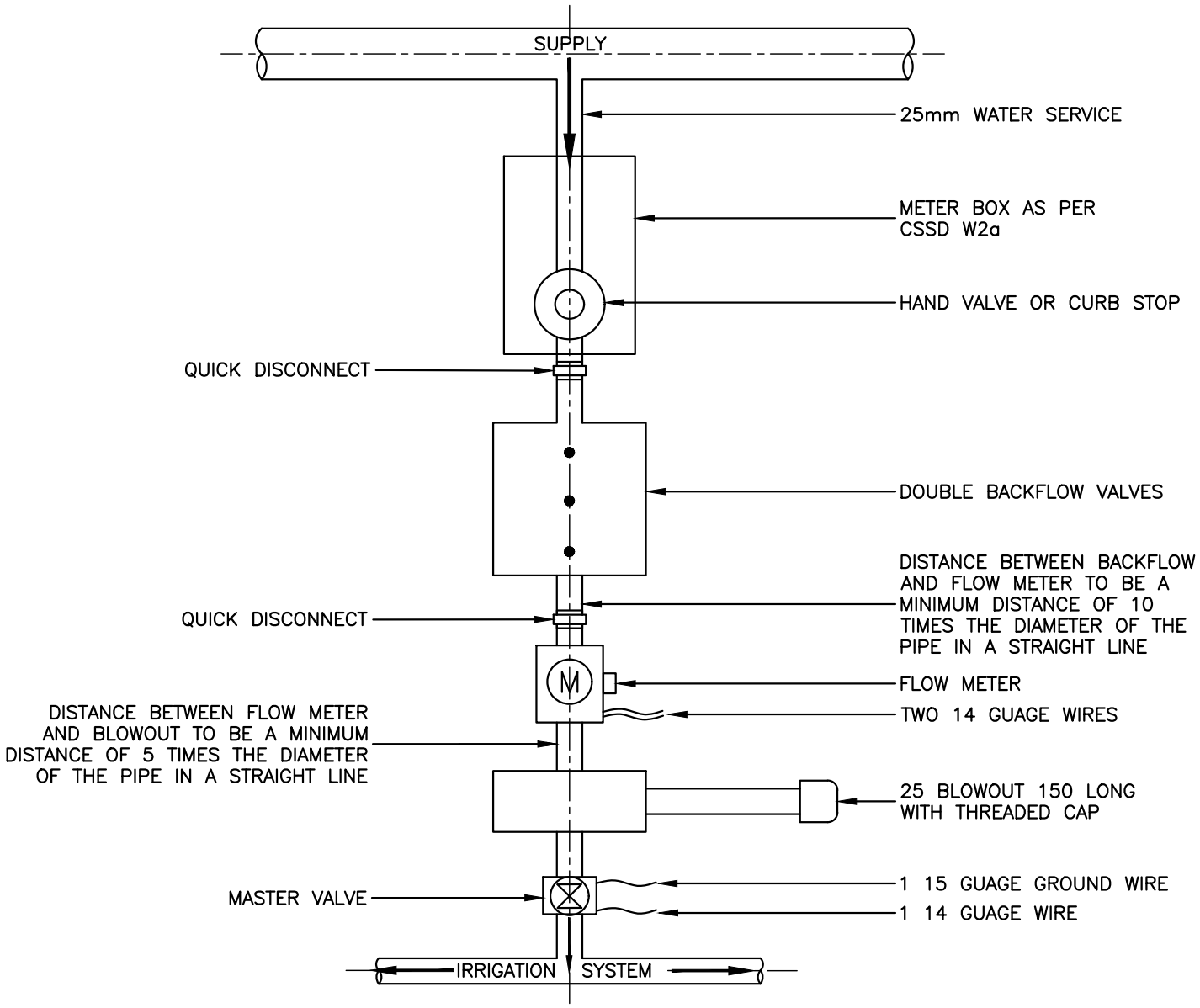
1. REFER TO CONTRACT DRAWINGS, SECTION 34 41 13 FOR DETAILED SPECIFICATIONS.
2. BOLT DOWN LID ON BOX BEFORE BACKFILLING, TAMPING & PAVING OPERATIONS.
3. INSTALL TOP OF JUNCTION BOX FLUSH WITH FINISHED GRADE.
4. ALL CONDUITS SHALL DRAIN TO J.B.'S
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

NOVEMBER, 2017

ROUND PLASTIC JUNCTION BOXES

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD E2.1	0	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



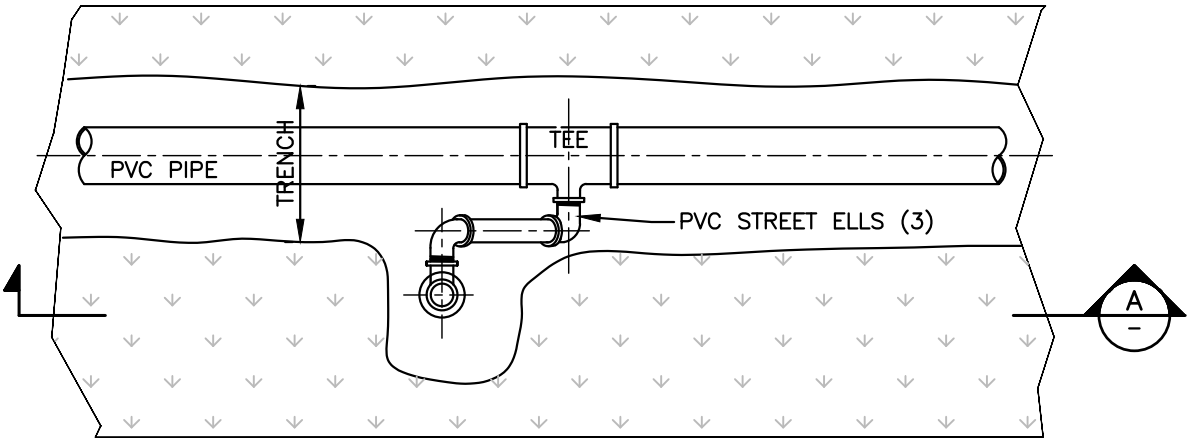
NOTE:

1. 25X150 RISER WITH THREADED CAP FOR BLOWOUT.
2. BACKFLOW VALVE DOUBLE CHECK.
3. (760X450X450) RECTANGULAR BOX.
4. TWO QUICK DISCONNECT COUPLERS FOR BACKFLOW REMOVAL.
5. 14 GAUGE T.W.U. WIRE FOR CONNECTION TO CONTROLLER.
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.

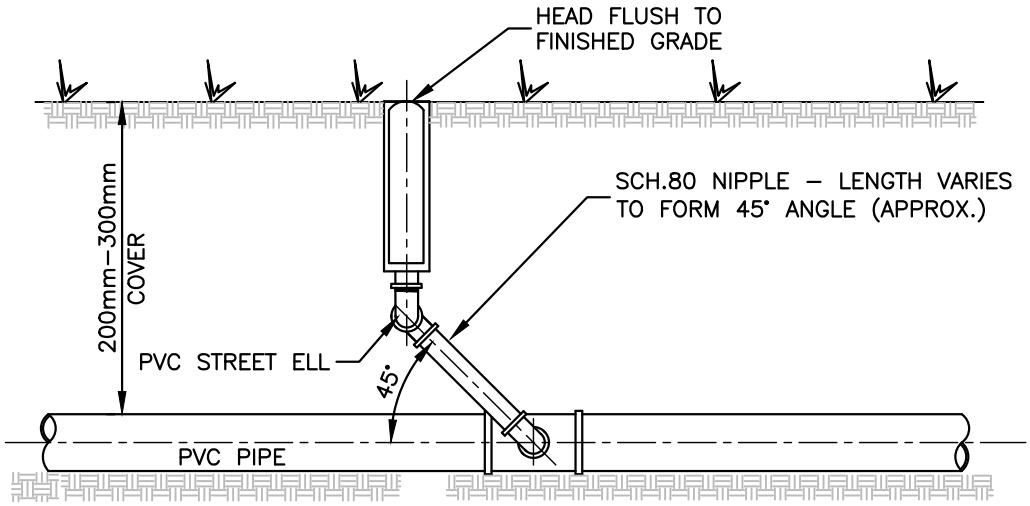
NOVEMBER, 2017

IRRIGATION CONNECTION

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD I1	0	N.T.S.



PLAN



SECTION A

NOTE:

1. USE TEFLON TAPE ON ALL MALE THREADED ENDS

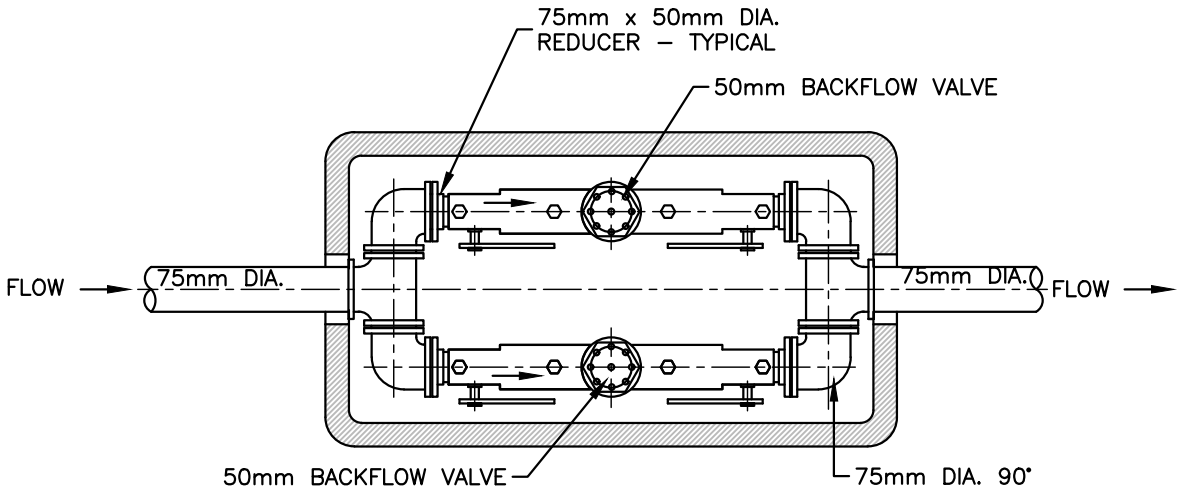
NOVEMBER, 2017

IRRIGATION SWING JOINT

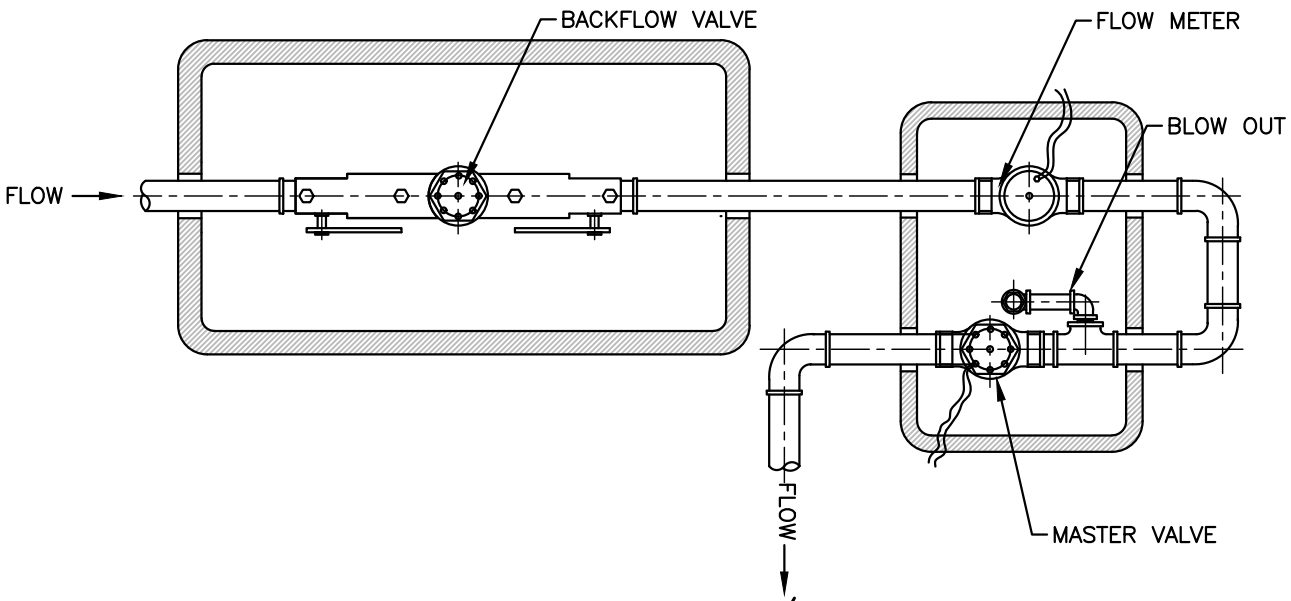
DRAWING NUMBER
CSSD 12

REVISION NUMBER
0

SCALE
N.T.S.



TYPICAL LARGE LINE/TWIN BACKFLOW VALVES



TYPICAL MASTER VALVE/FLOW METER

NOTE:

1. FLOW METER TO HAVE 10x PIPE DIA. BEFORE AND 5x PIPE DIA. AFTER, OF UNRESTRICTED STRAIGHT PIPE (OF THE SAME DIAMETER, NO FITTINGS) EACH SIDE OF METER.
2. FLOW METER TO BE DISASSEMBLED PRIOR TO GLUING OF PIPE.

NOVEMBER, 2017

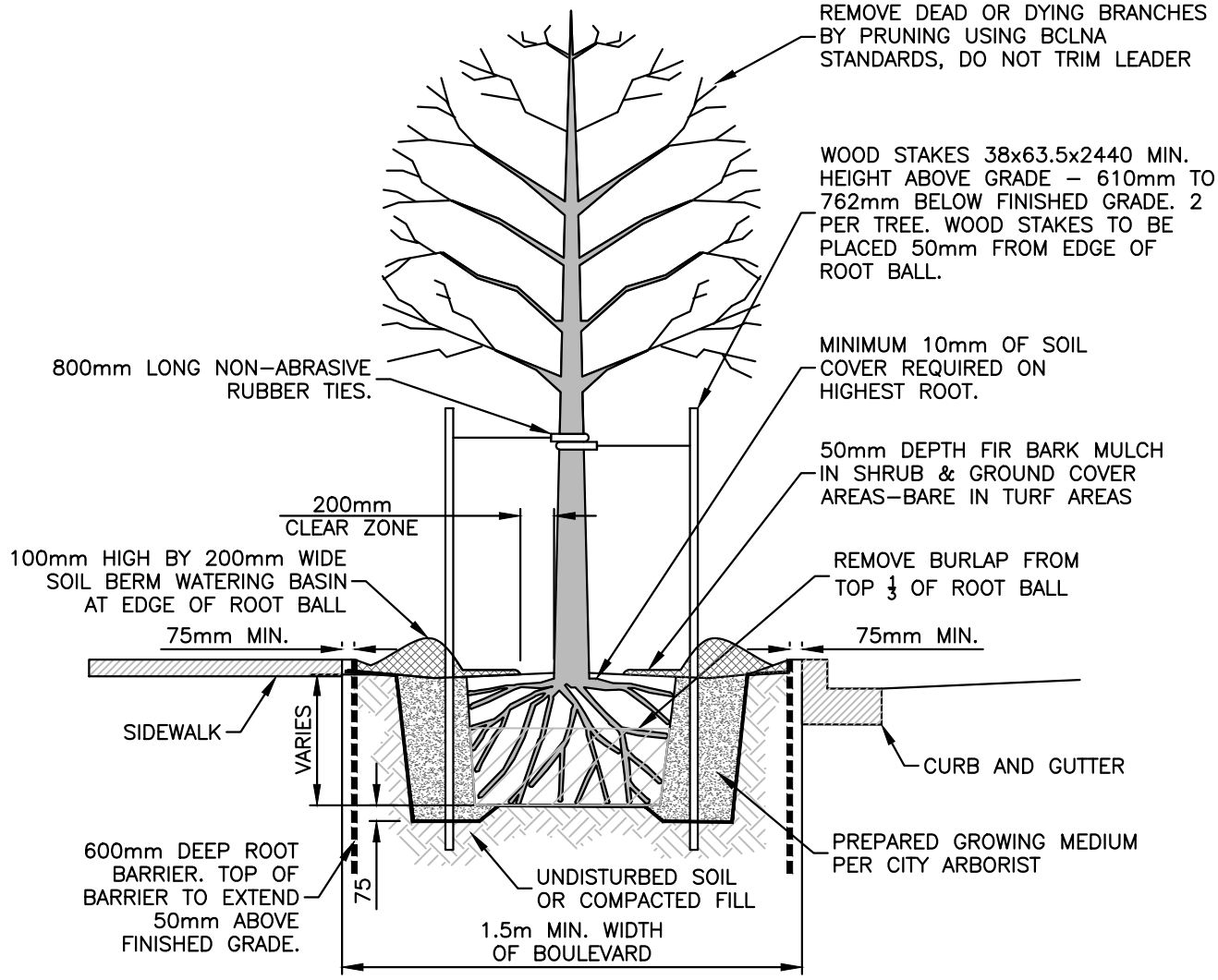
TYPICAL INSTALLATIONS
LARGE LINE / TWIN BACKFLOW VALVES
MASTER VALVE / FLOW METER

DRAWING NUMBER
CSSD 13

REVISION NUMBER
0

SCALE
N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

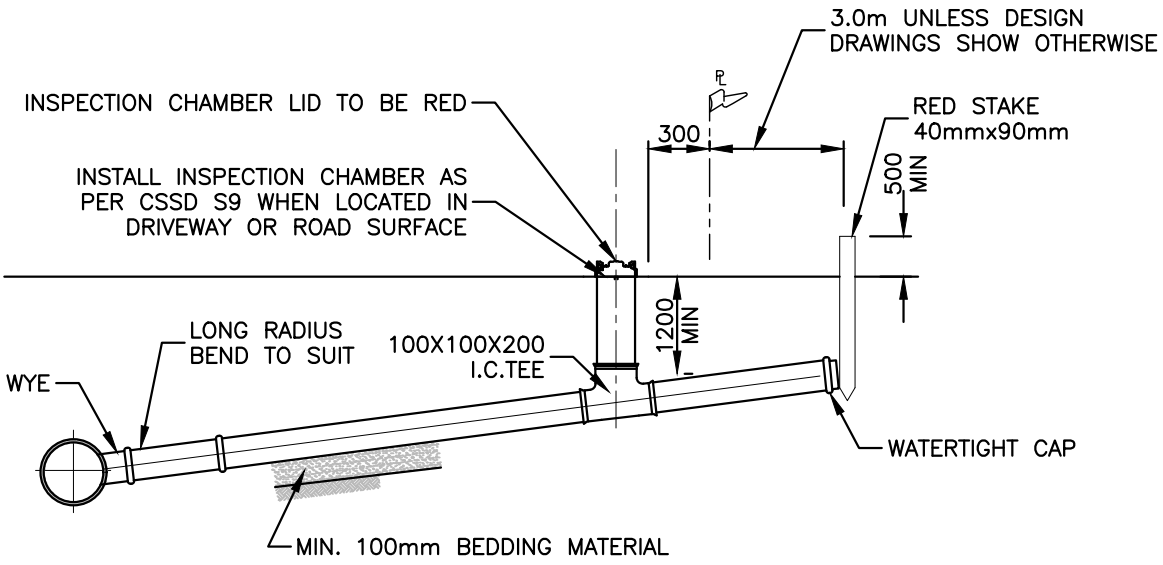
1. PLACE TREE & BACKFILL 50mm ABOVE GRADE TO ALLOW FOR SETTLEMENT.
2. ROOT BARRIERS SHALL BE INSTALLED WHEN ROOT BALL IS LOCATED WITHIN 2.44m OF PAVEMENT.
3. ROOT BARRIERS TO EXTEND 2.44m IN BOTH DIRECTIONS FROM TREE CENTRE LINE.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS UNLESS OTHERWISE INDICATED.

NOVEMBER, 2017

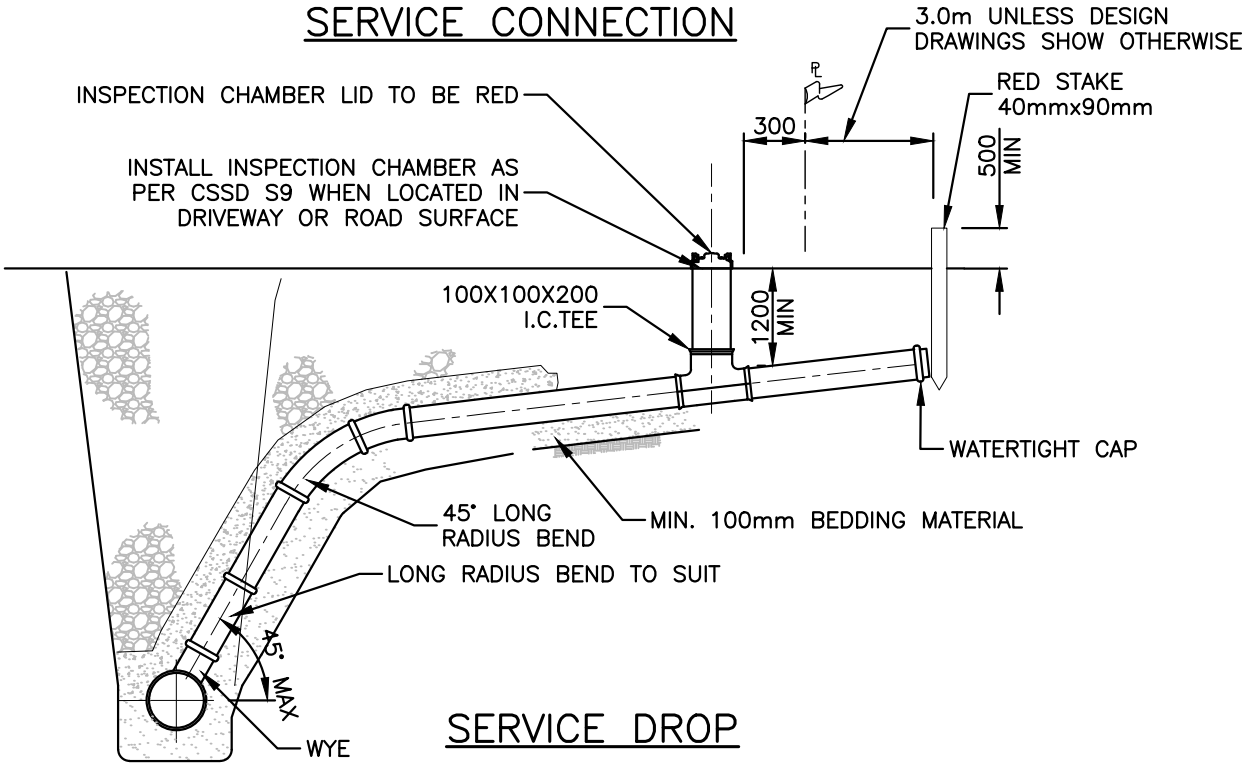
TREE PLANTING AND STAKING

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD P1	0	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



SERVICE CONNECTION



SERVICE DROP

NOTE:

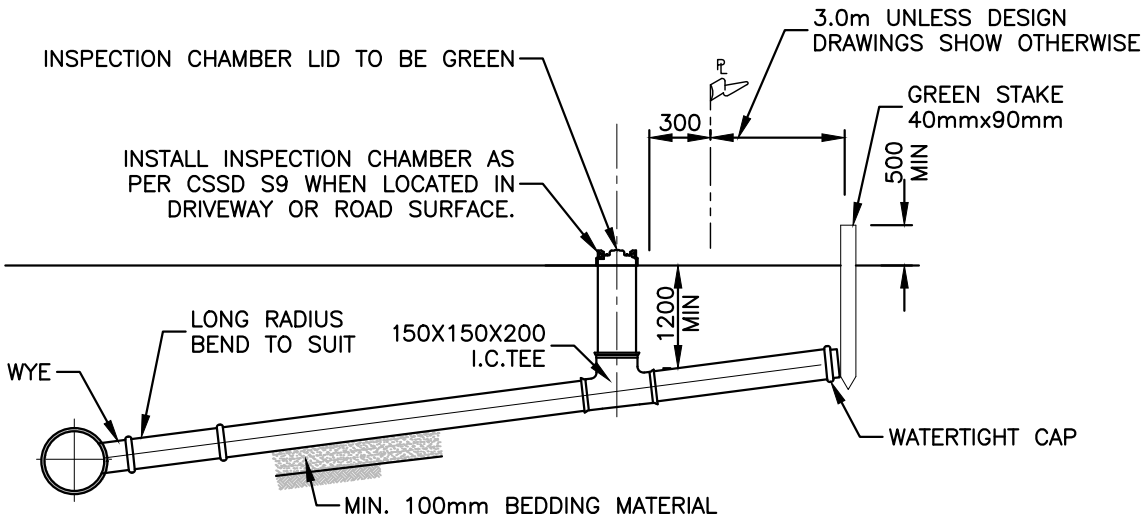
1. SERVICE CONNECTIONS TO BE LONG LENGTHS OF PVC WITH AS FEW JOINTS AS POSSIBLE.
2. FOR LARGER SERVICE CONNECTIONS, REFER TO CONTRACT DRAWINGS
3. SANITARY SERVICE TO HAVE A MINIMUM GRADE OF 2%.
4. THE CONTRACTOR IS TO VIDEO INSPECT ALL SANITARY SERVICE CONNECTIONS. THE VIDEO MUST BE REVIEWED AND ACCEPTED BY THE ENGINEER OF RECORD PRIOR TO COMMENCEMENT OF ASPHALT PAVING.
5. BEDDING AND BACKFILL AS PER MMCD DRAWING G4.

NOVEMBER, 2017

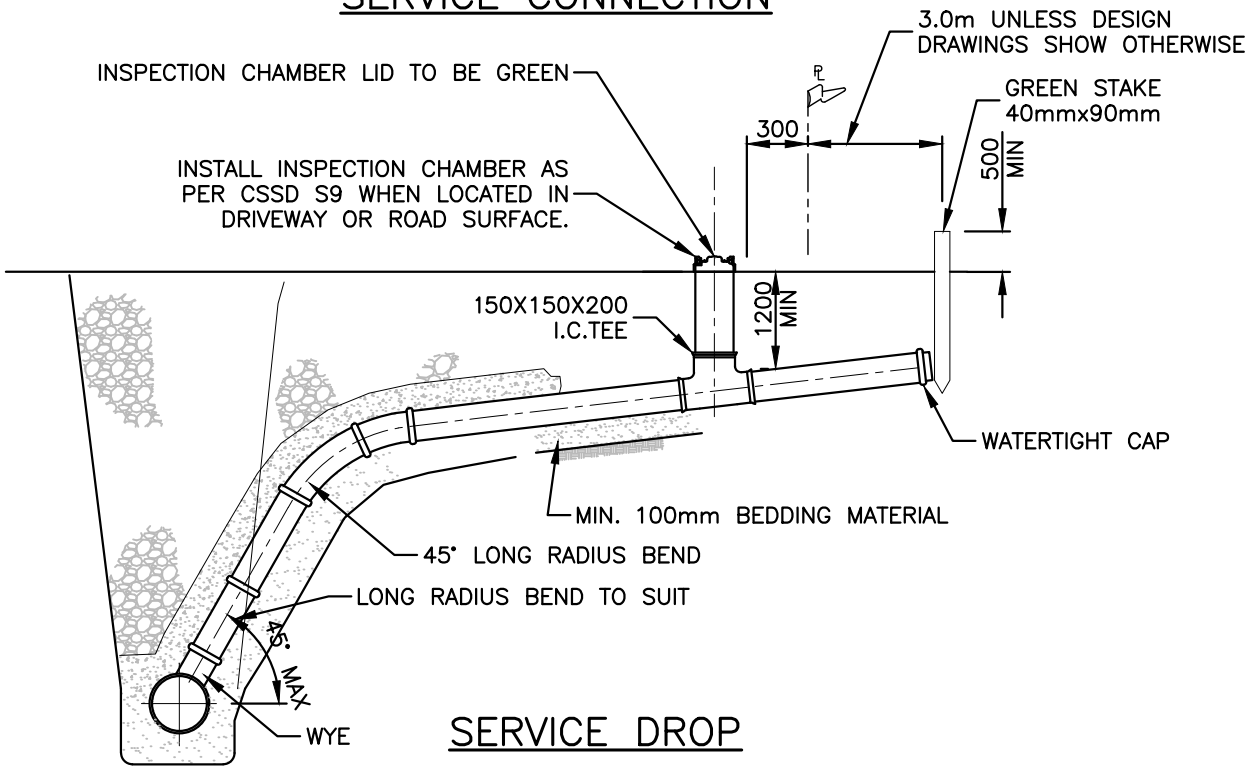
SANITARY SEWER SERVICE CONNECTION
100mm RESIDENTIAL SANITARY

DRAWING NUMBER	CSSD S7
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



SERVICE CONNECTION



SERVICE DROP

NOTE:

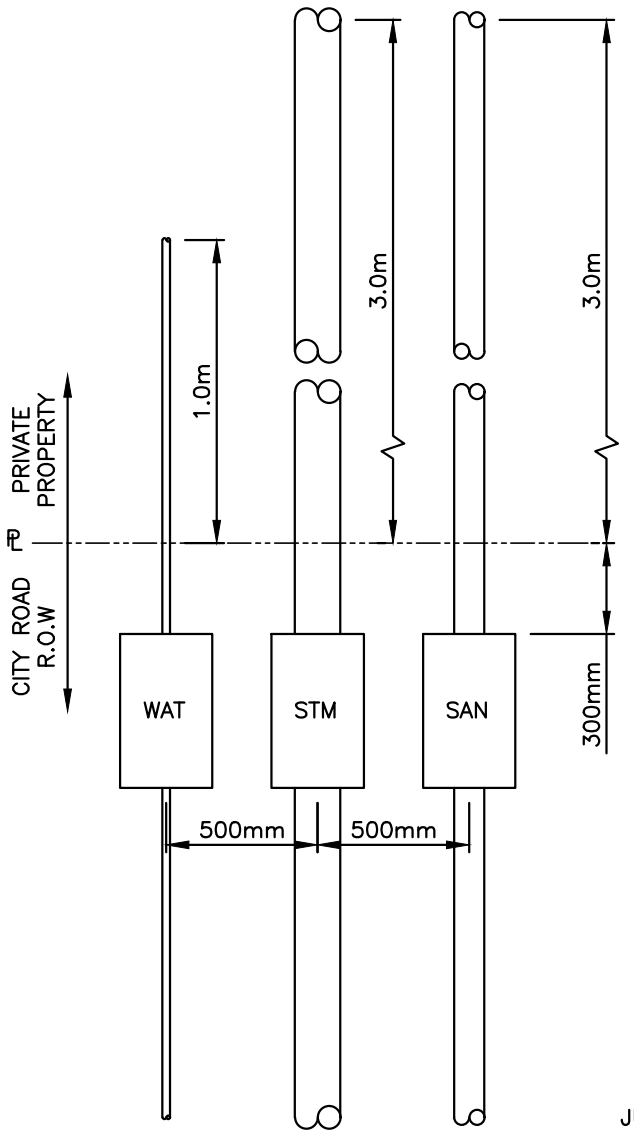
1. CONCRETE STORM SEWER PIPES TO BE PROVIDED WITH SUPPLIER INSTALLED PVC STUB.
2. SERVICE CONNECTIONS TO BE LONG LENGTHS OF PVC WITH AS FEW JOINTS AS POSSIBLE.
3. STORM SERVICE TO HAVE MINIMUM GRADE OF 2%.
4. MINIMUM SIZE OF SERVICE CONNECTION: 150mm.
5. THE CONTRACTOR IS TO VIDEO INSPECT ALL STORM SERVICE CONNECTIONS. THE VIDEO MUST BE REVIEWED AND ACCEPTED BY THE ENGINEER OF RECORD PRIOR TO COMMENCEMENT OF ASPHALT PAVING.
6. BEDDING AND BACKFILL AS PER MMCD DRAWING G4.

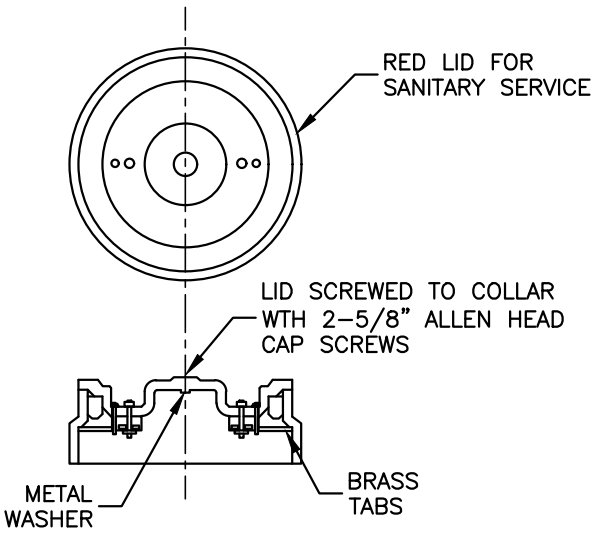
NOVEMBER, 2017

STORM SEWER SERVICE CONNECTION
150mm RESIDENTIAL STORM

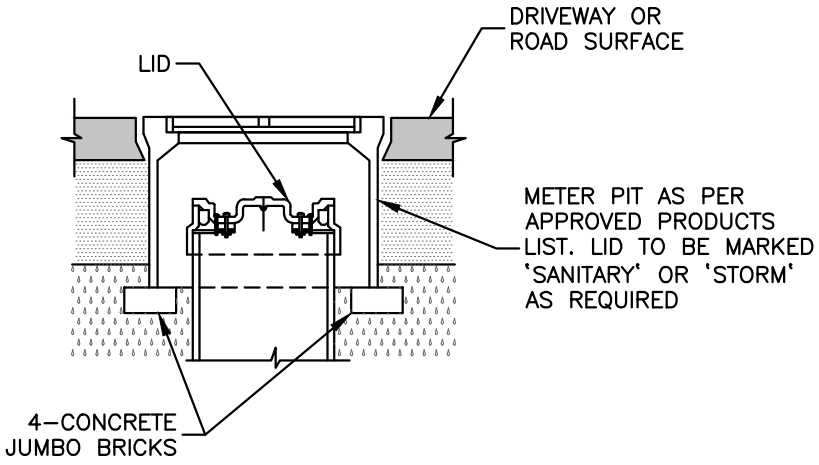
DRAWING NUMBER	CSSD S8
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING





LID DETAIL



INSPECTION CHAMBER DETAIL

NOTE:

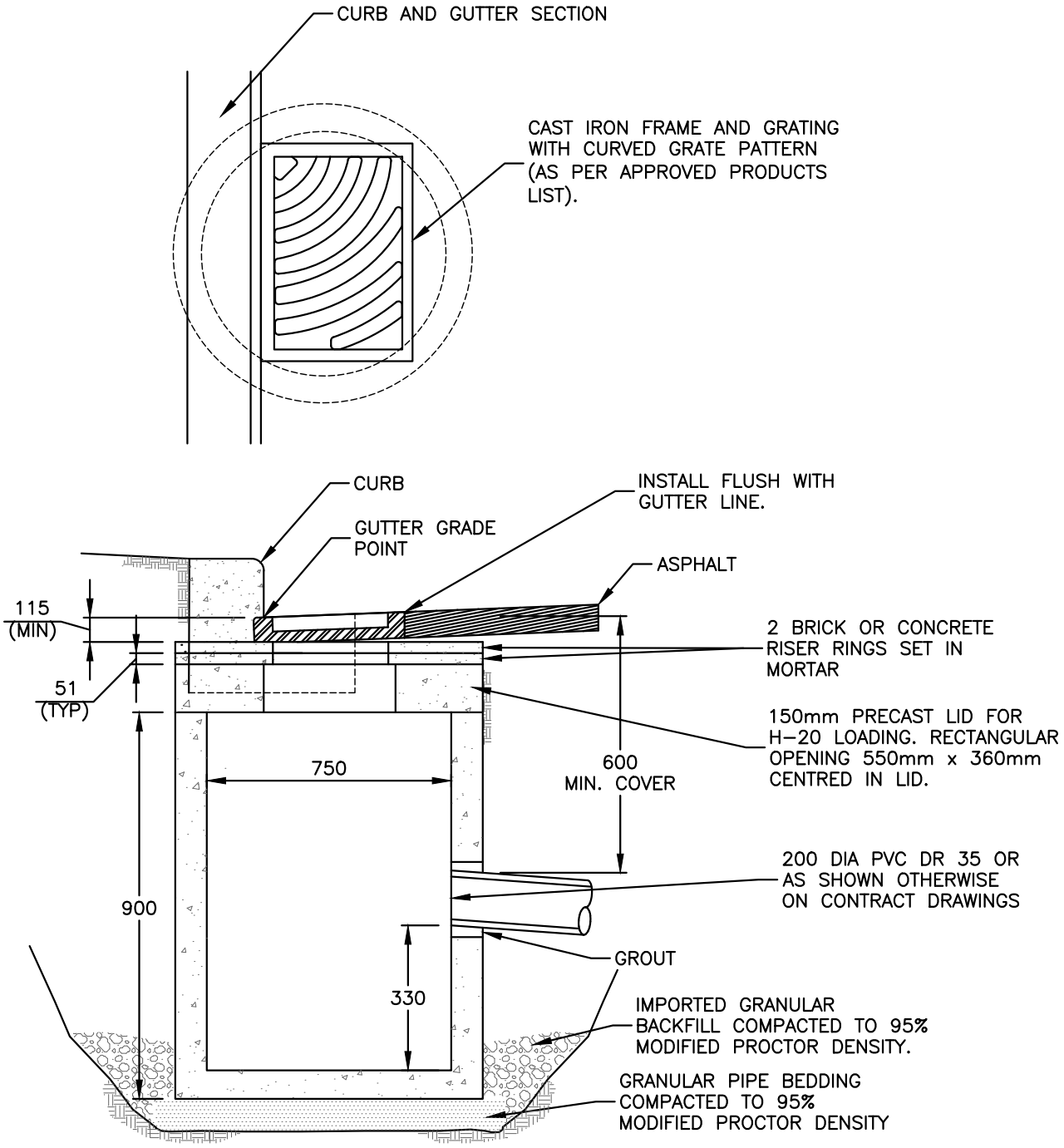
1. REFER TO DRAWING CSSD S7 AND CSSD S8 FOR INSTALLATION REQUIREMENTS.
2. INSPECTION CHAMBER TO BE APPROVED MANUFACTED FITTING.
3. REFER TO CONTRACT DRAWINGS FOR SITE SPECIFIC DIMENSIONS. REFER TO SECTION 33 30 01 FOR DETAILED SPECIFICATIONS.
4. SANITARY AND STORM SERVICES TO BE EXTENDED 3.0m INTO PROPERTY UNLESS DRAWINGS SHOW OTHERWISE.
5. SERVICES TO BE LOCATED A DISTANCE OF $\frac{1}{3}$ THE LOT WIDTH FROM THE PROPERTY LINE ON THE OPPOSITE SIDE AS THE DRIVEWAY.

FEBRUARY, 2016

INSPECTION CHAMBER FOR SANITARY AND STORM SEWER CONNECTIONS

DRAWING NUMBER	CSSD S9
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

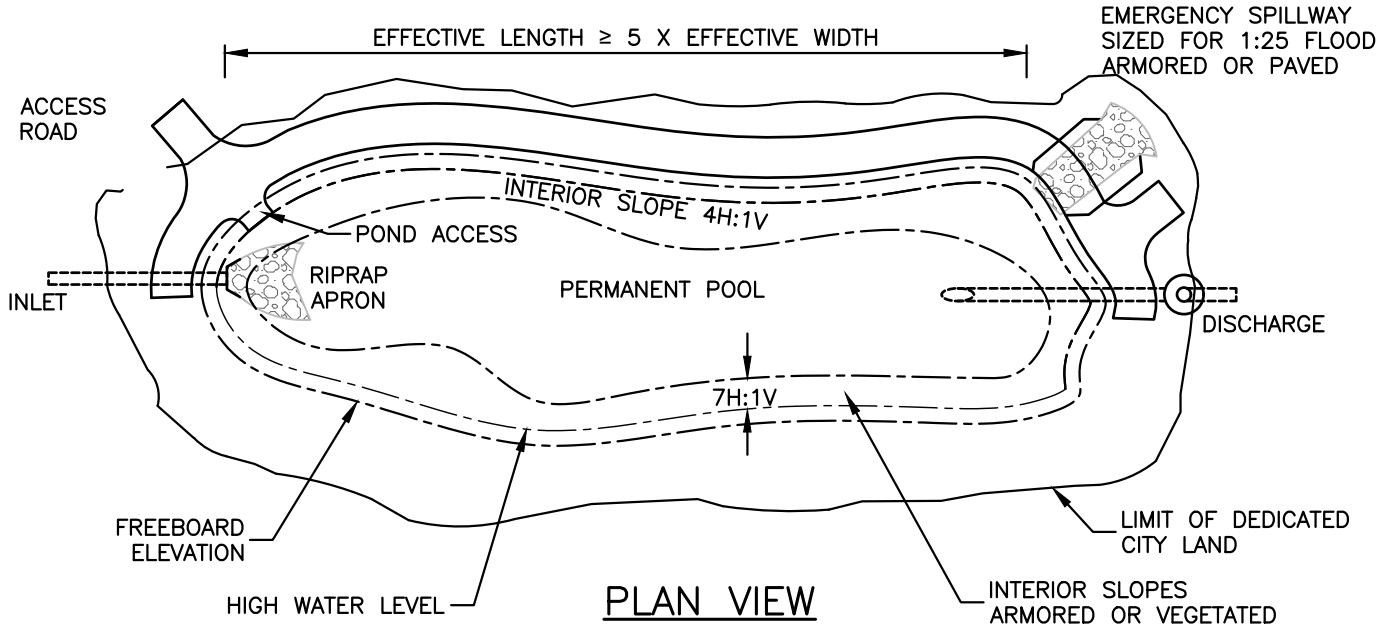
1. PRECAST UNITS c/w BASE AND H–20 RATING, APPROVED BY CONTRACT ADMINISTRATOR, ARE ACCEPTABLE.
2. REFER TO CONTRACT DRAWINGS, SECTION 33 44 01 FOR DETAILED SPECIFICATIONS.
3. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

NOVEMBER, 2017

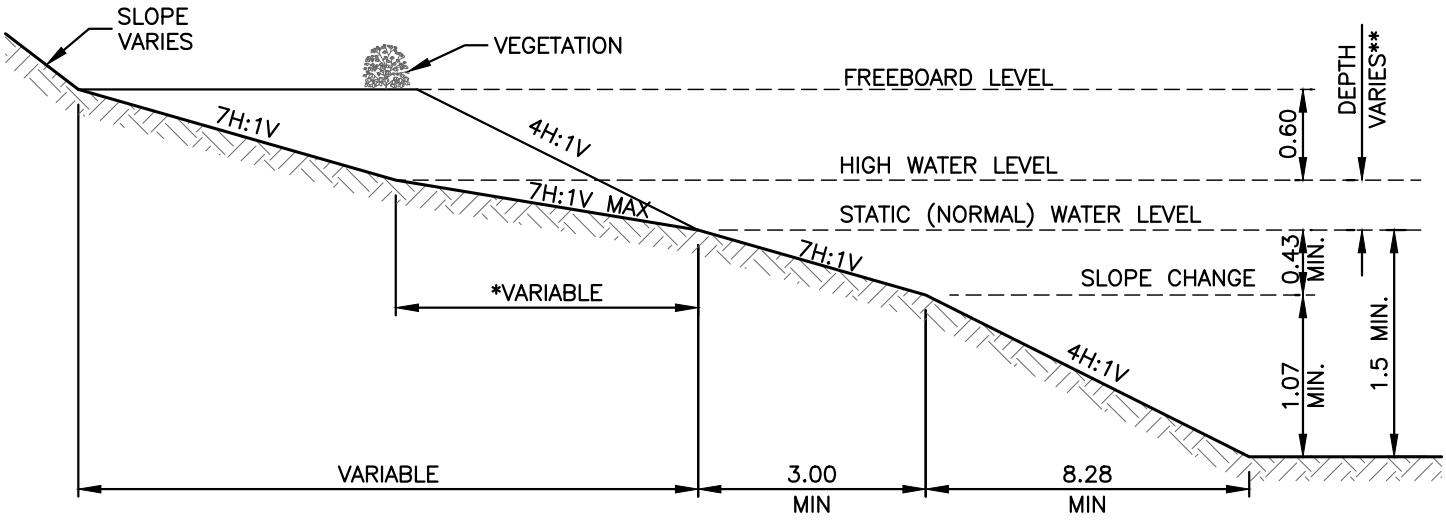
TOP INLET CATCH BASIN

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD S11	0	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



PLAN VIEW



SECTION VIEW

NOTE:

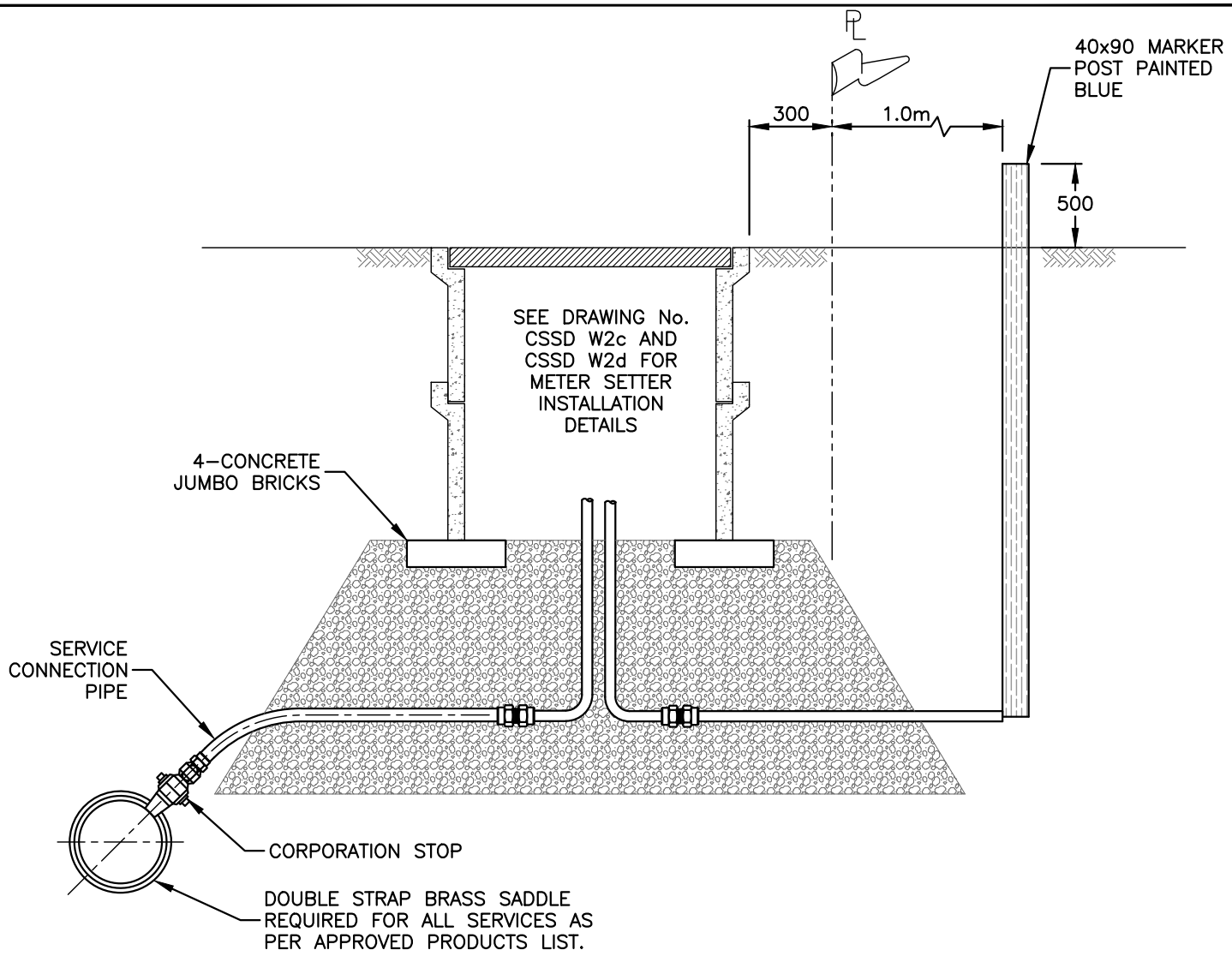
1. *MAXIMUM SIDE SLOPES OF 4:1 (H:V) MAY BE USED PROVIDED ADEQUATE VEGETATION IS USED TO PREVENT ACCESS, OR FOR DRY POND SIDE SLOPES.
2. **MAXIMUM 1.5m FOR <=10 YEAR LEVEL AND 3.0m FOR THE 25 YEAR LEVEL.
3. PERMANENT POOL BOTTOM SHALL INCLUDE FULL WIDTH BAFFLES TO DEVELOP SEDIMENTATION BASINS IF APPLICABLE.
4. DEPTHS ABOVE WET POND STATIC (NORMAL) WATER LEVEL SHALL ALSO APPLY TO DRY PONDS.
5. ALL DIMENSIONS ARE IN METRES.

WET DETENTION POND
PLAN AND SECTION

DRAWING NUMBER	REVISION NUMBER	SCALE
CSSD S16	0	N.T.S.

NOVEMBER, 2017

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

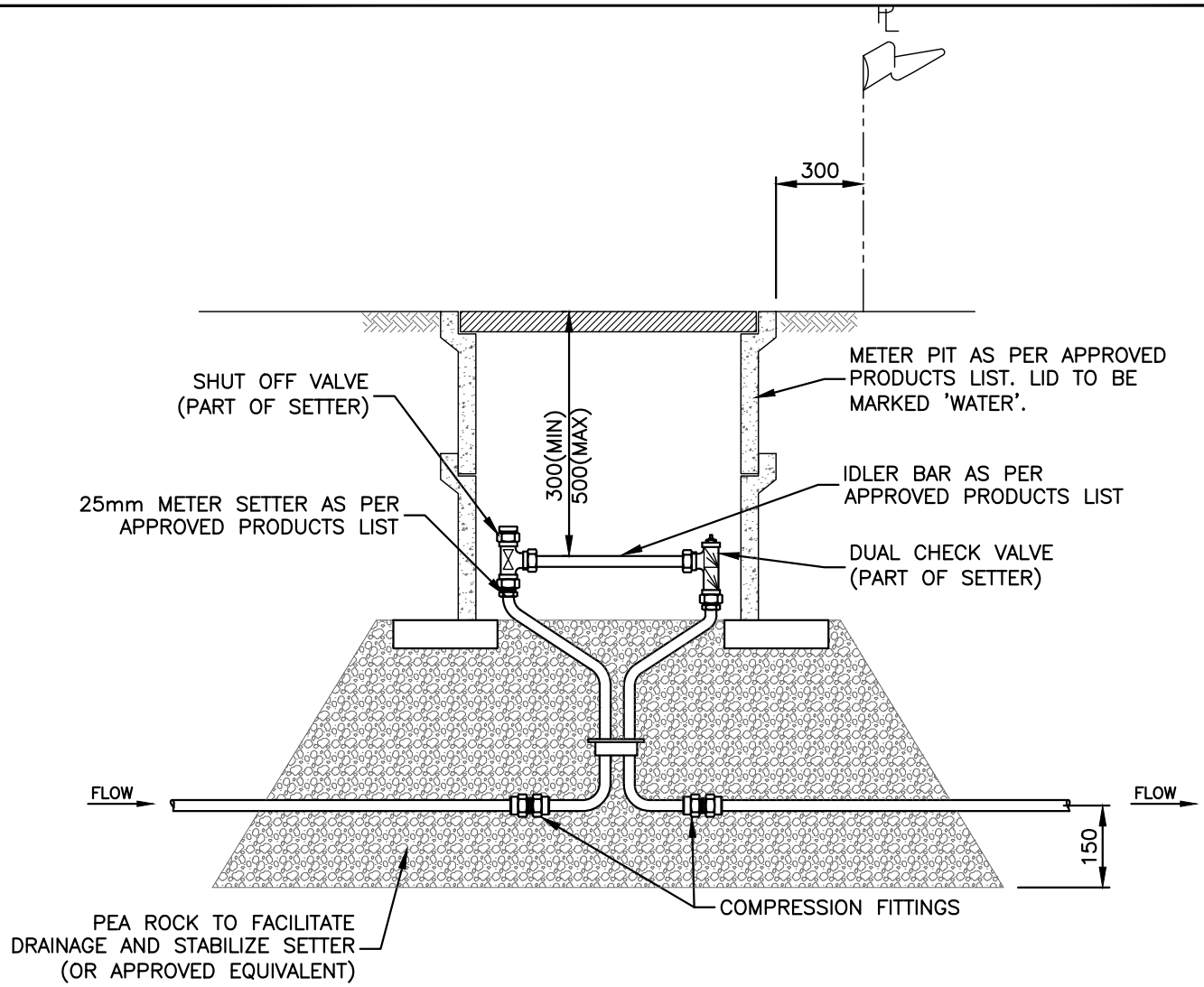
1. THIS DETAIL FOR SERVICES 25 TO 50mm ONLY.
2. PVC SADDLES TO SECTION 33 11 01.
3. INSTALL SERVICE PIPE WITH "GOOSE NECK" IN HORIZONTAL POSITION.
4. REFER TO CONTRACT DRAWINGS, SECTION 33 11 01 FOR DETAILED SPECIFICATIONS.
5. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

NOVEMBER, 2017

WATER SERVICE CONNECTION SERVICE BOX

DRAWING NUMBER	CSSD W2a
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

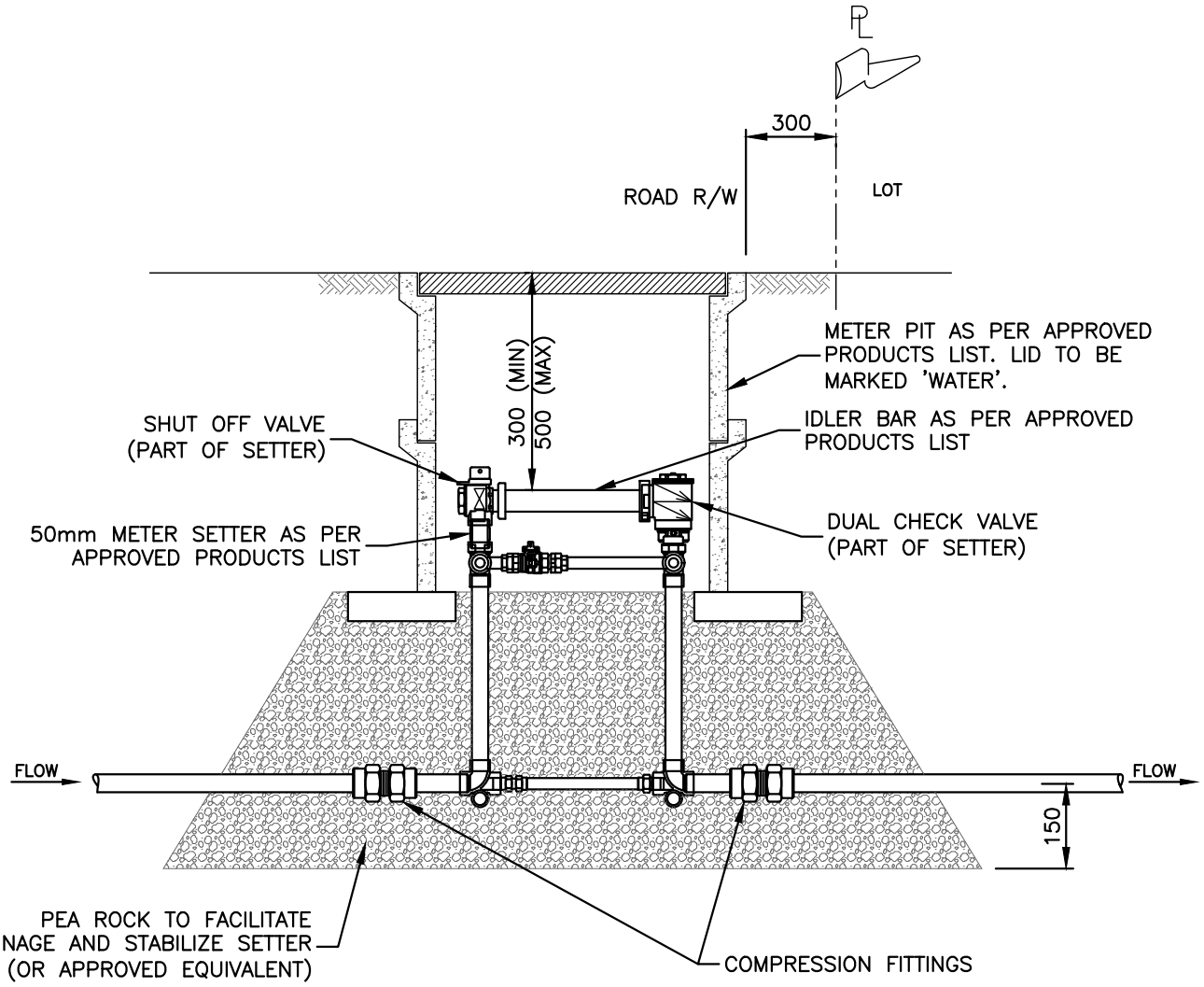
1. METER BOX TO BE INSTALLED AS PART OF THE INITIAL SERVICE INSTALLATION.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.
3. REFER TO CONTRACT DRAWINGS, SECTION 33 11 01 FOR DETAILED SPECIFICATIONS.

NOVEMBER, 2017

WATER METER SETTER INSTALLATION FOR 25mm SERVICE CONNECTION

DRAWING NUMBER	CSSD W2c
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NOTE:

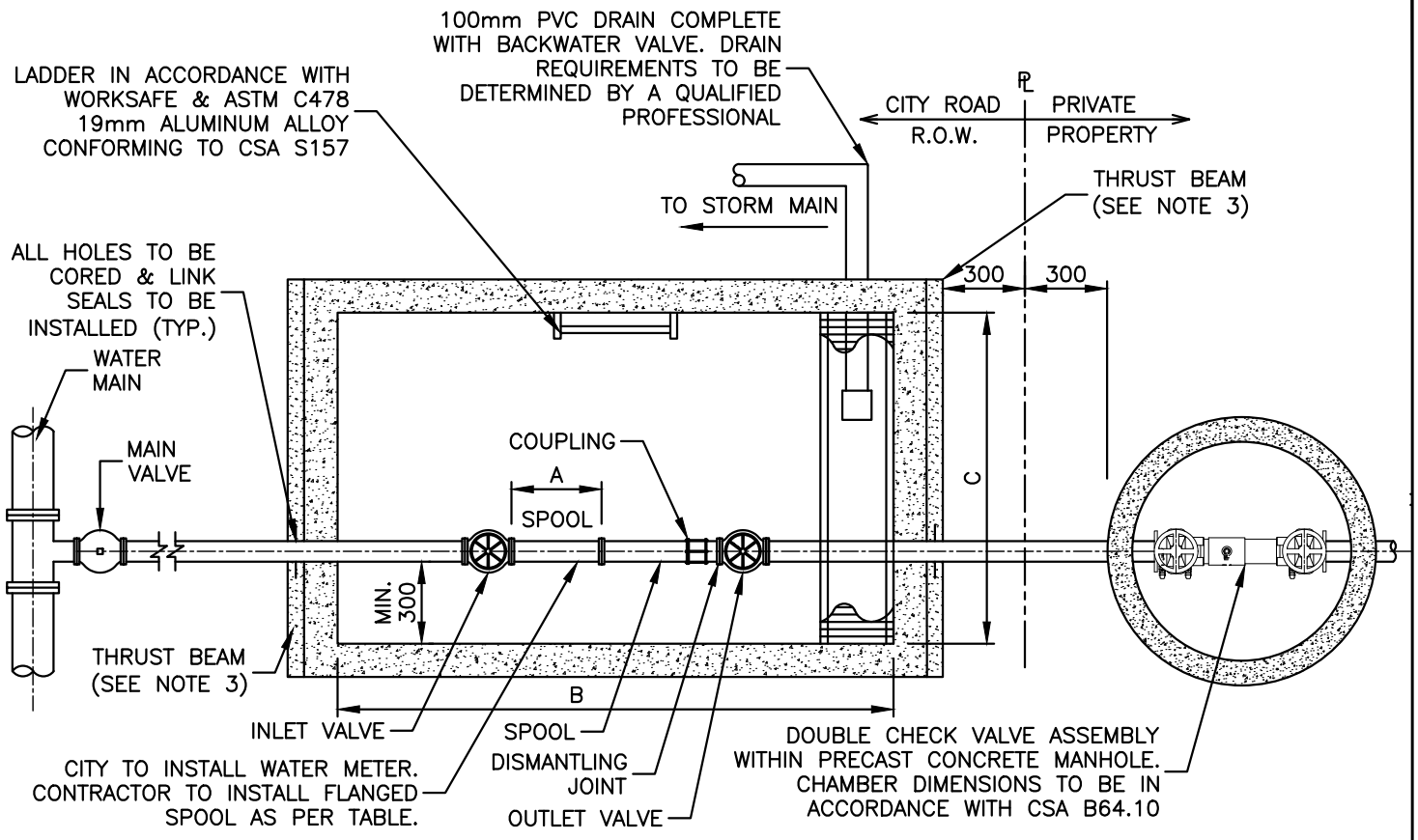
1. METER BOX TO BE INSTALLED AS PART OF THE INITIAL SERVICE INSTALLATION.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.
3. REFER TO CONTRACT DRAWINGS, SECTION 33 11 01 FOR DETAILED SPECIFICATIONS.

NOVEMBER, 2017

WATER METER SETTER INSTALLATION FOR 50mm SERVICE CONNECTION

DRAWING NUMBER	CSSD W2d
REVISION NUMBER	0
SCALE	N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



WATER METER DIMENSIONS SPOOL LENGTH			
METER SIZE	A (mm)	B (mm)	C (mm)
75mm (3")	304.8	2060	1254
100mm (4")	355.6	2060	1254
150mm (6")	457.2	2060	1254
200mm (8")	508.0	TO BE DESIGNED BY A QUALIFIED PROFESSIONAL	
250mm (10")	450.0		

NOTES:

1. THIS DRAWING TO BE REVIEWED IN CONJUNCTION WITH THE CITY OF SUPPLEMENTARY DESIGN GUIDELINES AND SUPPLEMENTARY SPECIFICATIONS.
2. HATCH COVER TO BE DUAL DOOR. H20 OCCASIONAL (STATIC LOADING – NOT FOR DYNAMIC TRAFFIC) LOAD RATED LOCKABLE ALUMINUM LID C/W SPRING ASSISTED HATCH AND LOCK OPEN ARMS. HATCHES TO BE TROUGH FRAME WITH DRAIN DIRECTED TO SUMP.
3. PIPE ANCHORING/RETRAINT TO BE DESIGNED BY APPLICANT'S ENGINEER.
4. ALL DIMENSIONS ARE IN MILLIMETRES.
5. METER CHAMBER FLOOR TO SLOPE TOWARD DRAIN.
6. 2121.5 PRE–CAST CONCRETE VAULT TO BE USED UP TO AND INCLUDING 150mm METER SIZE.

NOVEMBER, 2017

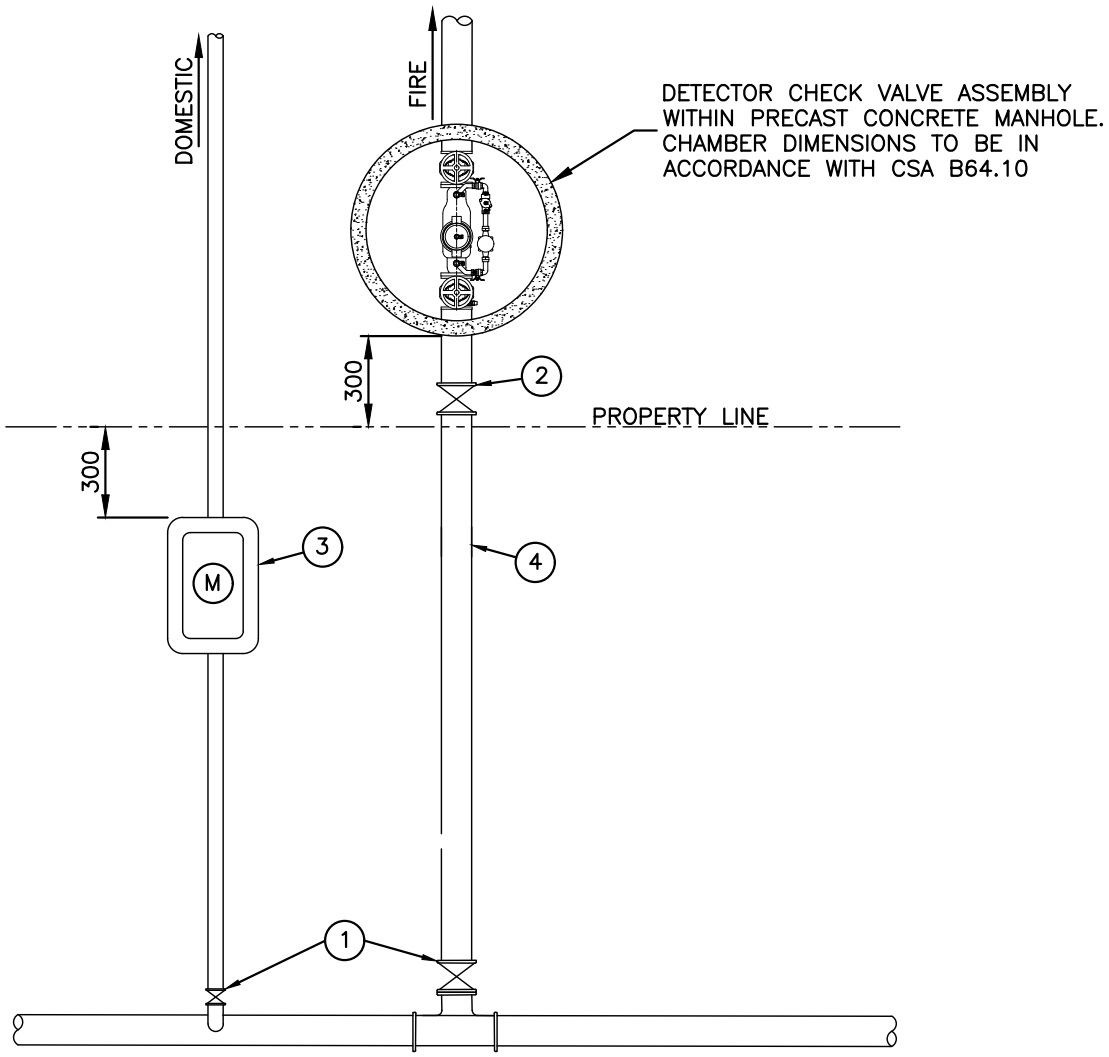
DOMESTIC WATER METER INSTALLATION FOR GREATER THAN 50mm SERVICE

DRAWING NUMBER: CSSD W2e

REVISION NUMBER: 0

SCALE: N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



NO	NAME
1	CORPORATION STOP, 25ø–50ø GATE VALVE, OVER 50ø
2	CURB STOP, 25ø–50ø (IN METER BOX) GATE VALVE, OVER 50ø
3	DOMESTIC SERVICE, 25ø–50ø FOR MORE DETAIL SEE DRAWINGS – CSSD W2a – CSSD W2c – CSSD W2d SERVICES GREATER THAN 50ø FOR MORE DETAIL SEE DRAWING – CSSD W2e
4	FIRE LINE SERVICE (SIZE VARIES)

NOTE:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN
2. REFER TO CONTRACT DRAWINGS AND SECTION 33 11 01 FOR DETAILED SPECIFICATIONS.
3. INSTALL THRUST BLOCKING AS REQUIRED.
4. SEPARATE DOMESTIC AND FIRE CONNECTION MAY BE PERMITTED IF APPROVED BY THE CITY.

NOVEMBER, 2017

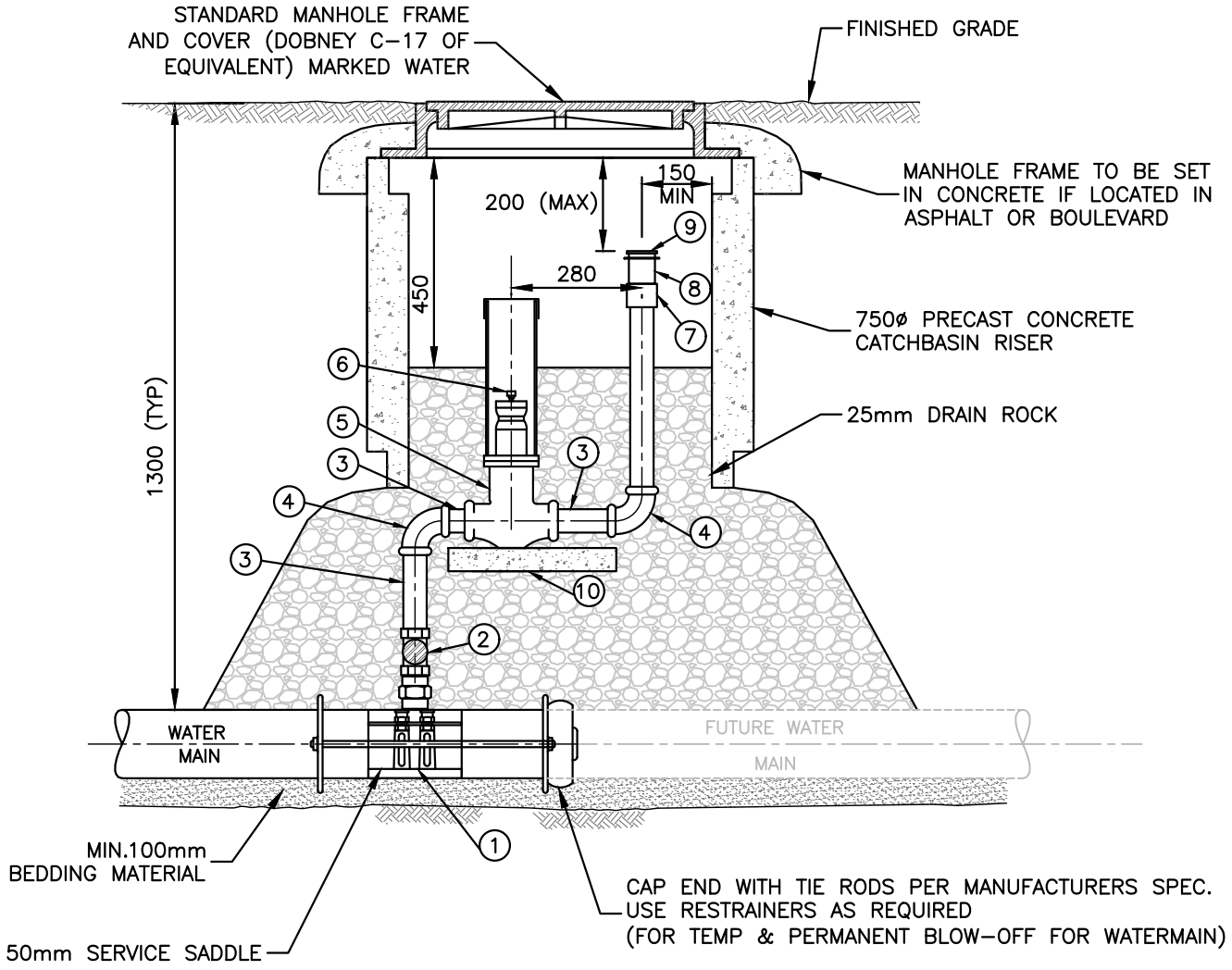
FIRE / DOMESTIC WATER SERVICE PIPING LAYOUT

DRAWING NUMBER
CSSD W2f

REVISION NUMBER
0

SCALE
N.T.S.

CITY OF COURTENAY
SUPPLEMENTARY STANDARD DETAIL DRAWING



MATERIALS LIST	
ITEM	DESCRIPTION
1	50mm SERVICE SADDLE TAPPED AT PIPE CROWN
2	50mm GATE VALVE
3	50mm SS SPOOL PIECE
4	50mm SS 90° BEND

5	50mm CURB STOP WITH DRAIN
6	50mm SQUARE NUT
7	65mmx50mm BUSHING
8	65mmx65mm ADAPTOR
9	65mm QUICK CONNECT BRASS CAP
10	450x450x50 PRECAST CONCRETE PAD

NOTE:

1. FOR INSTALLATIONS SHOWN ON CONTRACT DRAWINGS WHERE WATER TABLE (AT SEASONAL HIGH) IS ABOVE BASE OF DRAIN ROCK, REMOVE 4mm DRAIN HOLE AND AND SUBSTITUTE GRANULAR PIPE BEDDING FOR DRAIN ROCK. (COMPACT PIPE BEDDING TO 95% MODIFIED PROCTOR DENSITY).
2. REFER TO MMCD DRAWING W1 FOR THRUST BLOCK DETAILS.
3. REFER TO CONTRACT DRAWINGS, SECTION 33 11 01 FOR DETAILED SPECIFICATIONS.

NOVEMBER, 2017

TEMPORARY AND PERMANENT BLOW-OFF FOR WATERMAIN

DRAWING NUMBER
CSSD W8

REVISION NUMBER
0

SCALE
N.T.S.

SCHEDULE 4

STANDARDS FOR SANITARY LIFT STATIONS

TABLE OF CONTENTS

INTRODUCTION

The use of sanitary lift stations is generally discouraged and the City must approve any proposal for a lift station prior to submission of any engineered drawings for a lift station. Lift stations are considered a "special case" and are to be designed by a qualified professional. The following will form the general design requirements for duplex lift stations categorized as small to mid-sized lift stations. For stations larger than 50 l/s, or that require more than two pumps, authorization must be obtained from the City on a case by case basis, and the following standards may not fully apply.

Unless documentation provided by the City of Courtenay along with a specific request for tender or request for proposal states specifically that a provision set forth has been waived, all provisions are to be satisfied.

The requirements set forth in these standards are minimum requirements that shall be applied universally by all parties performing services for and/or providing equipment to the City of Courtenay. This includes, but is not limited to, all component parts that may form part of package systems.

This document is part of a series of standards and as such should not be viewed in isolation of all other City of Courtenay associated standards which may modify and/or clarify the requirements set forth within this document.

The City of Courtenay may, on a case-by-case basis, and at the City's sole discretion, approve deviations from these standards.

INTENT OF THE STANDARDS

The Design Criteria are intended to provide direction to the Applicant and their Engineer on the elements required to be considered in the design of sanitary lift stations. It is intended to be used in conjunction with the MMCD Design Guideline Manual and the City of Courtenay Subdivision and Development Servicing Bylaw Schedule 1.

The Supplementary Specifications are intended to provide direction to the Applicant and their Engineer on the specifications that must be incorporated into building servicing contracts for the installation of new sanitary lift stations. The Supplementary Specifications are to be used in conjunction with the City of Courtenay Subdivision and Development Services Bylaw Schedule 2 and Schedule 3 and the Master Municipal Construction Document (MMCD).

SANITARY LIFT STATION DESIGN CRITERIA

1.0 GENERAL SPECIFICATIONS

1.1 Pumps

(a) All sanitary lift stations shall be designed with a minimum of two pumps, each capable of handling the Peak Wet Weather Flows independent of the other. The pump that is furthest away from the inlet shall be supplied with a 4901 flush valve.

(b) Each pump must be:

- capable of passing solids up to 75 mm in size;
- equipped with hour meters;
- easily removed for maintenance;
- constructed to operate on a voltage based on HP rating as shown on the table below:

Pump Size	Approved Voltages
Less than 5HP	Single phase 240V / Three phase 208V
5HP – 10HP	Three phase 208V / Three phase 600V
Larger than 10 HP	Three phase 600V

(c) Motor cables, power cables, etc. shall be continuous from the lift station to the kiosk. Cables are not to be spliced. Only one power cable is allowed in one conduit.

1.2 Kiosk

All auxiliary equipment and control panels shall be mounted in a secure lockable kiosk adjacent to the station. The kiosk shall be located not less than 1.2 metres and not more than 3 metres from the station lid, with the controls section of the kiosk facing the wet well and facing north (where practical to do so.). The kiosk shall be founded on a concrete foundation, and should be made from powder coated aluminum, with a standard green finish. All kiosks shall be supplied with a rubber gasket between the aluminum kiosk and the concrete to prevent water leakage into the kiosk.

The electrical Kiosk shall be CSA Type 3R rated and fabricated from marine grade aluminum in accordance with the following Ministry of Transportation and Infrastructure Kiosk Specifications:

- General Material Requirements: 402.3.1
- Connecting Hardware 402.3.2
- Fabrication Mechanical Requirements, General Requirements 402.4.1
- Welding 402.4.2
- Door Gaskets 402.4.4
- Kiosk Environmental Requirements, General 402.4.8.1
- Kiosk Fan and Heater Thermostat 402.4.8.5
- Kiosk Finish 402.6
- Electrical Kiosk shall be powder coated “Fence Post Green”.

- Plan Pouch 402.9

The kiosk shall be fabricated with sufficient bracing to form a structure capable of withstanding transportation, wind, snow and ice loading. The kiosk manufacturer is responsible for obtaining structural and seismic certification from a professional engineer registered with Engineers and Geoscientists BC. Structural certification shall include recommendations for fastening methods.

The kiosk shall contain separate compartments for:

- pump control;
- service entrance and distribution; and
- fan and duct section, complete with isolated cable junction chamber vented to the atmosphere.

The kiosk shall be designed to contain:

- all control and telemetry equipment within the pump control compartment;
- an electrical service entrance that is complete with required appurtenances and components shall be arranged in a manner acceptable to B.C. Hydro;
- all power distribution equipment in the service entrance and distribution section, with exception to a 120/240 or 120/208V electrical panel which shall be mounted within the pump control compartment;
- an extra 120 volt receptacle within the pump control and service entrance/distribution sections;
- an automatic transfer switch in the service entrance and distribution section;
- a manual transfer switch in the service entrance and distribution section;
- a receptacle for mobile backup generator on the exterior of the kiosk;
- intrusion and fault alarm keypad and panel, keypad to be accessible, with equipment mounted within the pump control compartment;
- exterior lighting mounted to an overhead pole capable of illuminating the area around the tank lid to WorksafeBC required standards;
- a heater within each of the pump control and service entrance/distribution sections; and
- a digital clock.

The fan and duct section shall be isolated from the pump control and service entrance/distribution sections by means of a continuous weld.

1.3 Piping/Valve Chamber

All piping within the wet well shall be stainless steel or approved equivalent, and all stations shall feature an external separate valve chamber for valves and flow measurement equipment. The valve chamber can be either fiberglass or pre-cast concrete with suitable lockable lids with lift assist mechanisms as required.

Each pump discharge shall have a ball check valve or lever type swing check valve.

Each pump discharge shall have a plug valve installed downstream of the check valves.

Drain to be provided at floor elevation and floor to be sloped to convey inflow of water or sewage toward drain inlet. The drain shall include a backwater valve and p-trap to prevent sewage and gas from entering the piping/valve chamber.

1.4 Ventilation

Ventilation at each station is to be by forced air using a fixed speed fan that runs continuously. The minimum ventilation rate is to be 12 air changes per hour or higher if required for safety considerations. The fan shall be located in the kiosk and be sealed to the inlet blower line. The blower shall indicate failure on the control panel.

Each station shall have a minimum of one vent stack, and shall have odour control installed. As a minimum, the vent stack shall be equipped with an activated carbon filter capable of conveying the required air flow rate without excessive pressure loss: Calgon SweetVent or equal.

1.5 Lift Station Tank

The lift station tank to be of fiberglass construction.

Wet wells shall be designed with the following features:

- Include a benched bottom to direct all solids into the pump suction;
- Include surface access with a lockable, waterproof fiberglass or aluminum cover. Access hatches must include hydraulic assist and safe hatch;
- Provide access that is 200 mm to 500 mm above the finished grade to prevent vehicles from riding overtop of the structure;
- Contain aluminum (or fiberglass) ladder mounted so it does not interfere with the removal and installation of the pumps, etc. The ladder shall be designed to extend and lock least 1.0 metre above the tank access. Ladders mounts to be structurally sufficient to prevent puncturing of the tank wall, where mechanical fasteners are to be used, the wall shall be reinforced to provide sufficient capacity for the type and size of fastener. Integrated fiberglass ladders shall be fixed mounted to the fiberglass wall with appropriate reinforcing of the fiberglass as specified by the manufacturer;
- Contain a platform above the high water level float to permit wet well access wherever the total depth from ground level to wet well floor exceeds 2.4 metres;
- Include 1 base and davit complete with hand operated winch capable of lifting the pumps clear of the lift station (as per the City's Approved Products List);
- Include 1 base and davit for confined space entry. (as per the City's Approved Products List);
- Contain explosion proof lighting capable of illuminating the interior of the tank.

1.6 Equipment

All equipment must be CSA Approved and Work Safe BC compliant.

1.7 Emergency Backup Generator

All sewage lift stations shall be equipped with and emergency backup generator unless otherwise approved by the City. The generator transfer switch shall be of the automatic type. The generator shall be diesel fueled unless otherwise approved by the City. Diesel fuel tanks shall be base tanks integrated into generator unit by OEM, shall include double wall containment, and shall be sized to run the generator for at least 24 hrs continuously at 100% load. The concrete base to install the generator shall be provided with a spill containment structure to capture any spillage. The generator shall have a 1.2m clearance all around, and it shall be provided with a noise control package. Noise Control Package Specification for Generator shall be residential rated. Sound attenuation includes enclosure and exhaust muffler package. Sound attenuation system performance shall result in measured sound levels not to exceed 65 dB @ 10.7 metres. Design Engineer shall perform a load analysis with the sequence of motor starting in order to know the motor starting loads and the motor running loads. Such electric load calculations must be done in kVA units to account additional loads due to low power factor. The generator shall have a motor starting kVA capacity to limit the voltage dip to no more than 15% for any motor starting conditions. Such generator load analysis must be included in the engineering report. The generator manufacturer must be pre-approved by the City prior to design of the backup system.

The generator shall also come equipped with a permanently-mounted resistive load bank, with a full load that equals +/- 80% of the generator unit's full load capacity. The load bank shall also include the following specifications:

- Duty Cycle: Rated for continuous operation.
- Load Steps: 5, 10, 10, 25, 50, 100 KW
- Cooling System: integral with generator cooling system
- Sound dampening: integral with generator muffling system
- Operator Controls: Control Panel housed in a NEMA-type wall mount enclosure including:
    - Main Power ON/OFF Switch, Power ON Indicator, and Master Load ON/OFF Switch.
    - Load selection shall be provided by individual industrial lever-type toggle switches for on/off application of resistive load segments, one provided for each load step.
    - Auto Load Dump Circuit: A remote load dump circuit is provided as part of the load bank control circuit.
- Provisions shall be provided to trip the load bank off-line from a normally closed set of auxiliary contacts from an automatic transfer switch or other device. In the event of a utility failure, all load is removed.

Automatic Load Controller: Automatic Load step controller that maintains a minimum load on the generator set. The controller shall monitors the connected downstream loads and will automatically add or subtract load steps in response to overall load changes as to maintain a minimum load level on the generator set.

1.8 Warranty

All lift station components shall be warranted in accordance with the manufacturer's warranty, and such warranty shall be explicitly stated in a warranty statement (section) provided with the Operations and Maintenance Manuals submitted upon acceptance of the Lift Station by the City.

1.9 Water Connection

A 50 mm water service connection for cleaning purposes must be provided at the site. The service must include a dry standpipe and appropriate cross-connection control devices located in an above ground heated lockable cabinet. The connection shall also include an on/off ball valve and a 38mm quick connect cam-lock fitting. Cross-connection control devices must designed to be compliant with CSA standard B64.10-11 (Selection and Installation of Backflow Preventers/Maintenance and Field Testing of Backflow Preventers). RP backflow device shall be located in an above ground kiosk.

1.10 Site Fencing

1.8m black epoxy coated perimeter fencing is to be provided.

2.0 LIFT STATION ELECTRICAL DESIGN STANDARDS

2.1 Standard Lift Station Electrical Specification

All lift stations shall include at a minimum the following features and capabilities:

Manual pump controls	It shall be possible to set each pump into manual (Hand) mode. When in the manual mode the control of the pump shall be independent of (and unaffected by) the actions (or absence) of the controller or fail-safe pump control relays.
Motor type and starting	All pumps 10hp or larger require soft starting devices or are to be speed controlled via Variable Frequency Drives.
Controller	The station controller shall conform to the City of Courtenay Approved Products List.
Float Switches	Each station shall be supplied with a high level and low level float switch. These shall be either an ITT Flygt float level tree type (mercury) or an acceptable alternative as Approved by the City and CSA certified. Guides must be used for all float levels. The low level float is to be set at a level just above the pump intake. The high level float is to be set at a level no higher than the obvert of the lowest inlet pipe.

Fail Safe Operation	The high level float shall trigger operation of pumps, the operation of which shall be independent of the main station controller. The pump operation shall be wired to cease on either activation of the low level float or time-out of a timer relay. During normal operation the high level float will not be activated.
Level monitoring	Wet well levels shall be monitored using an ultrasonic sensor or pressure transducer connected as an analog input to the control unit. This level is to be used for pump control and shall be reported to the central monitoring station.
Programmable operation	Pump start and stop levels are to be programmable and set through the local pump controller HMI and via SCADA.
Pump supervision	Pumps shall be monitored, as a minimum, for stator over temperature faults, seal leakage and over current condition.
Flow rate	Flow rate data is to be reported by flow monitoring device.
Intrusion alarm for kiosk or building	Access to the electrical controls is to be monitored by a contact switch, and an alarm condition shall be generated when the contact is broken.
Receptacle for plug in of standby generator	Each station, including those which include local generator, shall be equipped with a receptacle for plug-in of City standby generator, mounted on the exterior of the building or kiosk within a lockable NEMA-4X enclosure (padlock provided by the City).
Alarms	The following alarms shall be generated and reported by the alarm system by way of a dedicated telephone connection. The alarms shall also be connected to the lift station controller to allow for annunciation through the City's SCADA system • Intrusion Alarm • Loss of Power • High level alarm • Low level alarm • Pump monitoring alarms (leakage, high temperature) • Generator Faults (if generator installed) • Breaker tripped • Float switch failure
UPS backup for controller and communications system	A UPS standby power system is required. The UPS must provide power to the controller for at least one hour in the event of a power outage.

2.2 User Interface

The user interface in a typical lift system consists of manual controls for emergency and maintenance purposes, and an electronic interface directly to the controller.

Manual Controls

The operator interface at this level shall be kept to a minimum. Auto/Off/Manual selectors for each pump are to be provided. These controls shall function independently of the controller. When in placed in manual mode the appropriate pump shall start. When placed in the Off condition the pump shall not start regardless of input from the controller. In Auto mode the pump is controlled by the controller. Pump run time meters shall be installed for each pump.

Status lamps are required as follows:

- One lamp indicating kiosk power
- One status lamp for each pump indicating pump run condition
- One status lamp for each pump indicating a failure condition

Controller Interface

Each station shall also include a station control Human-Machine-Interface (HMI), mounted in the door of the control cabinet. This control keypad is used to view and reset alarm status, and to configure the operation of the station. The HMI shall conform to the City of Courtenay Approved Products List, and shall integrate directly with the station controller.

2.3 VFD Station Supplementary Specification

All lift stations involving VFDs shall include the features and capabilities outlined above plus the following features and capabilities:

VFD	A solid state variable frequency drive, sized for the motors associated with the project, with inline load filters. Xylem ACS550 or similar.
VFD Manual Mode	The VFD shall be programmed to run the pump at an appropriate default speed in manual mode (when started).
VFD controller connection	Connection to the VFD is by analog output from the controller.
VFD output monitoring	The controller shall monitor and make use of the speed output, and current outputs of each VFD. These shall be made available to the monitoring system.

2.4 Entry and Alarm Test Mode

Each pumping station panel will have a key lock access to the control cabinet. A momentary spring-to-centre rotary selector switch shall be provided to switch to select between Test & Normal mode of operation. In Test mode the system shall behave as follows:

When momentarily switched to the “Test” position all normal alarms from the station will be acknowledged and disabled for 30 minutes, and a local “Test Mode” pilot light will illuminate.

In addition, a test alarm shall be triggered which will be treated as a low priority alarm at the SCADA system.

The station controller begins a phased monitoring of the situation, as described in the following table.

Phase	Description	
1	The input is activated by the test mode selector switch. Result: Work time begins (25 minutes).	
2	The input has been activated longer than the Work time. Result: Common alarm outputs are activated. Warning time begins. (5 minutes)	
3	Personnel acknowledge their presence within the Warning time. Result: Work time is restarted. Common alarm outputs are set to passive.	No acknowledge is received within the Warning time. Result: Personnel alarm is generated.
4	The selector switch is momentarily placed in the "Normal" position, or the kiosk/station door is closed. Result: "Test Mode" pilot light extinguishes and station alarming returns to normal.	

3.0 CITY SCADA SYSTEM

City of Courtenay sewage pumping stations are to be compatible with a central monitoring system, planned for some future date. This section is provided to explain the requirements on all new lift stations in order to ensure compatibility with the planned SCADA system.

Key features of the planned SCADA system are planned to include:

- real time information regarding the status of stations throughout the municipality in order to efficiently respond to faults and other issues as they arise;
- limited remote control capability of the stations, which in certain cases may avoid the need for a site visit;
- historical information and other data that will assist with proactive maintenance activities; and
- historical information and other data that can be used to make informed decisions guiding future infrastructure development.

4.0 COMMUNICATIONS BETWEEN SCADA AND LIFT STATION

Stations constructed pre SCADA system shall support the future installation of communications equipment. Sufficient space is to be provided in the kiosk for a lockable louvred/ventilated box that will contain transmitter/receiver and networking equipment. In addition, a 100mm underground communications conduit shall be stubbed out from the kiosk/building foundation to allow for a future installation of antenna.

CONSTRUCTION SUPPLEMENTARY SPECIFICATIONS

1.0	GENERAL	.1	This section refers to those portions of the Work that are unique to the supply and installation of prefabricated submersible sewage lift stations. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the works described herein.	
1.1	Related Work	.1	Electrical	Division 26
		.2	Concrete Reinforcement	Section 03 20 01
		.3	Cast-in-Place Concrete	Section 03 30 53
		.4	Aggregates and Granular Materials	Section 31 05 17
		.5	Excavating, Trenching, and Backfilling	Section 31 23 01
		.6	Sanitary Sewers	Section 33 30 01
		.7	Sewage Forcemains	Section 33 34 01
1.2	Shop Drawing and Data Sheets	.1	Before fabrication, the supplier shall submit shop drawings to the City for review. The submission shall include data sheets for all equipment to be ordered, along with a full drawing package for the electrical kiosk (external kiosk, internal layouts, wiring and controls diagrams)	
		.2	Lift station structural drawings, stamped by a Professional Engineer registered in British Columbia, shall be provided for the fibreglass wet well, the reinforced concrete base, the electrical kiosk enclosure and the anchoring systems for the generator, electrical kiosk and wet well.	
1.3	Requests for Approved Equals	.1	Any requests for approved equal shall contain sufficient documentation regarding the service organization which is available to back up the tendered pumping units. In particular, the service organization shall: • have been in existence a sufficient length of time to have established a reputation which can be backed up with references; • have a number of qualified employees whose major commitment is to carry out service calls; and • have a well-equipped local maintenance shop.	
		.2	The Contractor shall also be prepared to demonstrate the availability of commonly required spare parts. If these are not kept in stock locally, the anticipated delivery period must be clearly indicated in the Form of Tender.	

1.4 Commissioning Plan .1 A commissioning plan should be provided to the City for review 2 weeks in advance of the scheduled commissioning.

2.0 PRODUCTS

2.1 Structure .1 Chamber:

.1 The main chamber shall contain the pumps and associated equipment and shall be a vertical cylinder.

.2 The shell shall be constructed of Fibreglass Reinforced Plastic (FRP) and shall provide sufficient rigidity to resist deflection during installation and to resist pump loads and vibrations.

.3 The main chamber shall be reinforced with external reinforcing rings.

.4 Four (4) lifting "eyes" adequate for the entire weight of the completed station, including all installed equipment, shall be provided.

.5 Where inflow, discharge and ventilation lines, pass through the tank wall, the wall shall be reinforced.

.6 The connecting flanges shall be ANSI B-16.1, Class 125, unless shown otherwise on drawings.

.7 Color of the fibreglass interior shall be sanitary white. The exterior shall be dark green.

.8 Hold down lugs, complete with hold down bolts, shall be provided with sufficient strength to anchor the lift station to the reinforced concrete base, preventing flotation.

.9 The wet well shall be smooth and free of projections and pockets which could impede flow and collect sediment.

.10 An aluminum access ladder shall be provided as per Work Safe BC requirements. After installation of the complete lift station, all equipment shall be capable of servicing from the upper chamber.

.11 Electrical connection points shall be provided for the pump motors, light, and float conduits.

.2 Physical Properties of FRP Fabrication:

.1 The material of all tanks shipped shall meet the following minimum requirements:

Property at 73° F.	ASTM Test	Value
Tensile Strength	D638	8,000 - 16,000 psi
Compressive Strength	D695	14,000 - 27,000 psi
Flexural Strength	D790	16,000 - 30,000 psi
Flexural Modulus	D790	1.0×10^6 psi
Hardness (average)	D790	Barcol 40

.2 Fiberglass tank to be helically filament wound utilizing chemically inert ISO resins. The laminate shall contain at least 60% and not over 70% glass by weight. All FRP work shall meet or exceed the following standards:

C.G.S.B.	41-GP-22
A.S.T.M.	3299 and 2563-2.4
A.S.T.M.	D883-69

.3 The maximum load rating permitted on the top of the tank must be posted on a plaque on the inside of the lid. The plaque must clearly visible when the lid is open.

.3 Construction

.1 Laminates shall be dense, without voids, dry spots, foreign inclusions, air bubbles, pinholes, or delamination and shall not be cracked or crazed. Such deficiencies shall be removed by grinding and replaced with hand laid matt and roving exceeding the amount removed. The fabricated unit shall have a smooth white inner surface and shall have a dimensional tolerance of plus or minus 6mm from design dimensions.

.2 Bonded joints shall be made by wrapping with strips of fibreglass mat soaked in resin. The wrap material shall be at least as thick as the heaviest plastic section joined, and it shall extend to either side of the joint a sufficient distance to make the joint at least as strong as the pieces joined. Interior joints shall be coloured white to match the interior surfaces; exterior joints shall be of the same colour as the exterior surface.

.3 The inside surfaces of bonded joints shall be sealed with one layer of mat and then coated with resin to a minimum of 2.5mm thick.

.4 All exposed interior and exterior surfaces shall have sufficient resin coating 0.51mm minimum thickness, to avoid exposure of glass fibres.

.5 To prevent "flowing" of the final resin coat, it shall be bonded by using "Veil" glass fibre.

.6 All cut edges and drilled holes shall be coated with resin so that no glass fibres are exposed and voids filled.

.7 Structural elements having edges exposed shall be reinforced with chopped strand glass mat.

.8 The minimum tank wall thickness shall be 16mm and shall be externally reinforced to resist soil, bearing, hydraulic, and handling loads, both internal and external. Wall thickness to be increased as required to resist loading.

.9 The resin used shall be a commercial grade and shall be evaluated by test of previous service to be acceptable for use in domestic sewage applications and suitable for installation underground throughout Canada.

.10 Ultraviolet light inhibitors to be used on all external surface in accordance with resin manufacturer's instructions.

2.2 Submersible Sewage Pumps

.1 Pumps to be equipped with ANSI discharge flange. Pumps shall be a centrifugal, submersible, non-clog, bottom suction, capable of passing a 76mm solid. Pumps and motors shall incorporate the following:

Impeller: Cast iron.

Volute/Motor Frame: Cast iron, close coupled to seal chamber. Volute to be equipped with quick discharge nozzle to provide an automatic rapid and leakproof gravity lock type connection or disconnection from the fixed elbow. Sliding guide brackets to slide along guide rails.

Shaft: Stainless Steel.

Seals: Double mechanical seals (tungsten carbide to carbide upper and tungsten carbide to tungsten carbide lower).

Bearings: Anti-friction suitable for a minimum bearing life of 50,000 hours B10 life under operating conditions.

Fluid Operating Temp.: 0°C to 20°C.

Fluid Specific Gravity: 1.0

Fluid Type: Domestic Sewage

Fasteners: Stainless Steel (ASTM TYPE 316).

.2 Motors shall be CSA approved submersible squirrel cage induction type with Class F insulation and non-hydroscopic windings. Service factor shall be 1.0. Use EEMAC Design B. If higher starting torque is required for the equipment loading, use EEMAC Design C.

Pump motors shall come equipped with means of communicating seal leaks and over-temperature conditions.

.3 Power cables shall be factory-sealed into the motors and flush valve. They shall be of a type of construction acceptable to the electrical inspector. Cables shall be of sufficient length to reach the Control Kiosk without splices.

Power cables shall be equipped with a disconnect switch located inside the wet well, complete with lockout. Disconnect switches to be Meltric Decontactors or approved equal.

.4 The pump motor nameplates shall be mounted in the Kiosk or Panel.

.5 Pumps shall be painted with epoxy and equipped with sacrificial zinc anodes to provide corrosion protection.

.6 Pump P2 to be equipped with Flygt Model 4901 Mix Flush Valve or approved equal.

.7 Contractor shall supply the following spare equipment:

- one (1) impeller
- one (1) spare pump

2.3 Fixed Discharge Connection

.1 Fixed discharge elbow, quick disconnect type, with steel soleplate, lower guide rail holder and drilled for anchor bolts.

2.4	Lifting Chains	.1	Lifting chains to be Grade 80 Accoloy A8 material, rated with a working load of 1900 kg and shall be NAR approved for overhead lifting, finish to be galvanized. Chain length to be sufficient to connect between pump and chain hoist.
2.5	Guide Rail Assembly	.1	Schedule 40 galvanized steel pipe c/w upper guide bar holder.
		.2	All fittings and connectors to be galvanized.
2.6	Ventilation Duct Work & Fan	.1	Inlet duct shall be provided for air blown into the lift station and a vent shall release exhaust air.
2.7	Lighting Fixture	.1	The wet well light shall be an explosion-proof, wall-mounted, LED fixture suitable for Class 1 locations, complete with globe and guard, RAB Type EB 123 or equal. Switch by General Contractor.
2.8	External Piping	.1	As per the Contract Drawings.
2.9	Internal Piping	.1	Sewage piping shall be stainless steel.
2.10	Plug Valves	.1	Plug Valve, c/w lever. Flanges to ANSI B-16.1, Class 125.
2.11	Check Valves	.1	Ball check valve. Flanges to ANSI B-16.1, Class 125.
2.12	Level Regulators	.1	Provide five ENM-10 Flygt level regulators to stop both pumps, start lead pump, start standby pump, high level alarm, low level alarm for 24 volt operation, each with sufficient cable suitable for the installation.
		.2	Provide one aluminum liquid level hanger, with wall bracket mount and flat switch conductor hooks for excess cable. Hanger shall also provide threaded strain-relief squeeze connectors for each level regulator.
2.13	Bolts	.1	All bolts, including those for the check valve and plug valve, shall be ASTM Type 316 Stainless Steel.
2.14	Access Covers	.1	Access covers shall be designed to allow removal of the pumps from the stations without removing or damaging other equipment.
		.2	Each cover shall be hinged and include hydraulic assist for easy opening with less than 225 N lifting force and shall be provided with a padlock hasp with a box enclosure to prevent vandalizing of the lock.

	.3	A brass padlock shall will be installed by the City at the developer's cost.
	.4	Each cover shall be provided with a positive means of locking open.
	.5	Safe-Hatch (or approved equal) shall be included to provide fall through protection.
2.15 Air Release Valve	.1	Air release valve to be 50mm diameter NPT inlet, cast iron body, bronze mechanism and seat, stainless steel lever pins and float, designed for sewage, rated at 1MPa. Provide shut-off valve and back flushing facilities including blow-off valves and 3 metre long back flush hose. Equip valve and hose with quick disconnect couplings.
2.16 Floor Gratings	.1	Fibreglass or Borden Type B aluminium Size No. 6 suitable for a bearing load of 5 kN/m², or 200 kg plus dead weight of one pump whichever is greater.
2.17 Miscellaneous Metals	.1	Aluminium: to ASTM 655.
	.2	conforming to CSA G40.2-M1977; Type W with yield strength of 300 MPa, shop primed.
	.3	stainless steel ASTM Type A316 Stainless Steel unless otherwise noted.
	.4	Miscellaneous metalwork, including brackets, nuts and bolts, cables, turnbuckles, and eye bolts shall be stainless steel or aluminium. Sharp edges and weld splatter shall be removed prior to installation.
2.18 Pressure Gauge	.1	GIC #6211, liquid 100 mm diameter pressure gauge c/w snubber and isolating valve.
2.19 Hydrostatic Tests	.1	Pressure piping within the FRP wet well and valve chamber shall be hydrostatically tested to a pressure no less than 1.5 x the shut off pressure of the lift station pumps. The test pressure shall be held for a period of not less than two (2) hours, with no leakage permitted. Sewage forcemains external to the lift station shall be tested in accordance with Section 33 34 01 – Sewage Forcemains. Should any test disclose leakage greater than that specified above, the Supplier shall locate and repair the defect and retest

the section to ensure that the leakage is within the allowable limits.

2.20 Concrete Base and Anchoring System

.1 The reinforced concrete wet well base and anchoring system shall be designed to prevent uplift of the fibreglass lift station assuming that the surrounding soil is flooded to finished ground elevation and that the station is empty. A minimum safety factor of 1.5 against uplift shall be used in the design of the base and anchoring system.

2.21 Power Supply and Controls

.1 As per Division 26.

3.0 EXECUTION

3.1 Excavation and Backfilling

.1 To requirements of Section 31 23 01 Excavation, Trenching and Backfilling.

.2 Start backfilling only after the concrete has acquired a suitable degree of strength and only after obtaining written permission from the Contract Administrator. No backfilling of walls shall take place before the slabs have been cast and have reached a minimum of 75% design strength.

.3 Use only the approved portion of the excavated material and other approved imported granular fill.

.4 Deposit backfill in layers not exceeding 150mm thickness, and compact to obtain 95% of Standard Proctor Density or otherwise indicated on the Contract Documents.

.5 Keep heavy compacting equipment away from structure by at least 1.5 metres. This portion shall be compacted using hand operated tampers.

.6 Make all fills and embankments to elevations, contours, and slopes shown on the drawings.

.7 Grade top layer carefully to smooth regular surface, with a minimum thickness of 100mm of topsoil, when indicated on the drawings.

.8 Allow for any settlement which may occur in order that the finished fills or embankments will be to the final grades as shown on the drawings.

.9 Excavate and remove all materials whatever their nature and condition to depths and dimensions necessary for the construction of the structure and piping to the limits shown on the drawings.

.10 Furnish all equipment for construction, temporary supports including shoring, bracing, cribs, coffer dams, etc. and for de-watering.

.11 Install and operate an adequate de-watering system for construction of the structures in the dry.

.12 All equipment used for de-watering and excavation shall be of a suitable and rugged type to assure continuous operation.

.13 Make special provisions to relieve the water pressure and prevent flotation or damage to parts of the works in case of accidental stoppage of de-watering equipment.

.14 Where over excavation is required, fill with specified sub-base or lean concrete unless otherwise indicated in the Contract Documents.

.15 Stockpile excavated granular material meeting backfill specification designated by the Contract Administrator. Save for re-use.

.16 Notify the Contract Administrator for inspection and approval after the excavation is completed.

.17 Do not place any concrete until the Contract Administrator has approved the depth of excavation and the character of the foundation material.

3.2 External Piping .1 To requirements of Sections 31 23 01 - Excavating, Trenching and Backfilling, Section 33 30 01 - Sanitary Sewers, and Section 33 34 01 - Sewage Forcemains.

3.3 Concrete Work .1 To Section 03 30 53 - Cast-in-Place Concrete and Section 03 20 01 - Concrete Reinforcement.

3.4 Electrical .1 To Division 26.

3.5 Piping Installation .1 Pipe shall be adequately supported on adjustable pipe saddle supports or from pie hangers or brackets during construction and completion to prevent abnormal stresses being imposed on items of equipment such as pump flanges.

.2 Valves shall be installed in accordance with the manufacturer's recommendations.

.3 Before installing bolted connections, pipe ends, and gaskets shall be absolutely clean. Gaskets shall be lubricated with soapy water and bolts with thread lubricant. Bolts shall be tightened progressively by the crossover method and not in rotation around the joint. Bolts shall be torqued to the manufacturer's requirements. Wrenches used for tightening bolts shall be in good condition and properly sized to prevent rounding of nuts and bolt heads.

.4 During all stages of construction, piping shall be protected from damage from any cause. Openings in the piping system shall be securely covered, capped, or plugged to prevent collection of dirt, debris, or other extraneous matter during the entire construction.

.5 Damaged work shall be removed and replaced with new material to the satisfaction of the City.

3.6 Pumps and Accessories

.1 Locate discharge elbows on the sump floor at exact locations required so that guide rails which connect from them to the access frame will be in perfect alignment.

.2 Firmly anchor discharge elbows to the floor at their proper location.

.3 Install guide rails.

.4 Lower pumps on guide rail system until contact is made with discharge elbows. Ensure that system functions to give leaktight connection.

3.7 Start-Up

.1 Lift station shall be completed, including work of other sections, before start-up.

.2 Start-up of equipment to take place in the presence of a trained representative of the Equipment Supplier and City. Copies of final operating and maintenance manuals shall be provided to the City at least two (2) weeks in advance of start-up.

.3 Set level and align all equipment to the complete satisfaction of the City.

.4 Carefully check the operation and controls of the equipment.

.5 Notify the City when the operation and controls of the equipment are satisfactory.

.6 Provide the necessary facilities for the City to check the operation of the equipment.

.7 The Contractor shall make provisions for adequate supply of water to the wet well and forcemain for testing purposes. Testing will include checking performance of all pumps, floats, and controls. At minimum the following tests will be conducted.

.1 Pump Condition - i.e. pump body, impeller running free, quick disconnect connection, cable connections, gaskets and oil level.

.2 Wet Well Condition - i.e. pump sliding free on guide rails, pump cable with sufficient slack, floats suitably positioned and will not snarl, no cable splices or junction box in the wet well, well clean.

.3 Control Panel Condition - i.e. components including motor overloads correctly rated for the pumps. Record over-load settings on schematic, date and sign.

.4 Start-Up Operation - i.e. supply voltage suitable, pump rotation correct, operation of pumps - by float switches - HOA selectors - lead pump selector - overloads isolate associated control, alarm float.

.5 Pump Load Checks - ie. load current on all phases for single and parallel pump operation, supply voltage under load. Confirm pumping rate and operating head.

.6 Alarm panel test to confirm all zones are correctly configured and operational.

.8 Liaise with the Contract Administrator to ensure that the Design Engineer, the City, the Contractor, and the Equipment Supplier are present for the start-up and testing program.

.9 The City will not take over operation and maintenance of any equipment until the work of all related sections has been completed in the area in which the equipment is located and all equipment has operated in its intended manner to the satisfaction of the City.

.10 Cost of any temporary power costs for the start-up procedure shall be the responsibility of the Contractor.

3.8 Protection

.1 Protect the work and material of all other sections from damage and make good all damage thus caused, to the satisfaction of the City.

.2 Be responsible for work and equipment until finally inspected, tested, and accepted, protect work against theft, injury, or damage, and carefully store material and equipment received on site which are not immediately installed. Close open ends of work with temporary covers and plugs during construction to prevent entry of obstructing materials.

3.9 Cleaning

.1 Any dirt rubbish, or grease on walls, floors, or fixtures for which the Contractor is responsible must be removed and the premises left in first class condition in every respect.

.2 De-water station wet well and remove all dirt and grit from bottom of station.

3.10 Maintenance Manuals

.1 Supply three copies of hard backed bound manuals with all the information required for maintenance, operation, parts catalogue and lubrication.

The following information shall be included in the manual:

.1 Table of contents.
.2 As constructed shop drawings.
.3 Equipment, layout drawings.
.4 Electrical, control, and alarm wiring diagrams.
.5 Normal and emergency operating instructions for all equipment.
.6 Maintenance instructions for all equipment.
.7 Safe work procedure for confined space entry into the wet well and valve chamber (to be prepared by a Qualified Professional).
.8 Equipment data sheets.
.9 Certified head/capacity curves for pumps.
.10 Equipment part lists.

.2 Each section shall be separated from the preceding section with a plasticized divider with a tab denoting contents of the section.

.3 Review all of these instructions with the City representatives before the commencement of the maintenance period.

General catalogues will not be accepted and bulletins must deal specifically with the equipment provided.

REFERENCE DOCUMENT 1

WORKS AND SERVICES AGREEMENT

TERMS OF INSTRUMENT - PART 2
COVENANT

(Section 219 *Land Title Act*)

Agreement Number:
File Number:

THIS AGREEMENT is dated _____, _____ and is between

THE CORPORATION OF THE CITY OF COURTENAY
830 Cliffe Avenue
Courtenay, BC V9N 2J7

(the "City")

OF THE FIRST PART

AND

[name of Developer]

(the "Developer")

OF THE SECOND PART

WHEREAS

A. The Developer is the registered owner in fee simple of the lands in the City of Courtenay legally described in Item 2 of Part 1 of the *Land Title Act* Form C to which this Agreement is attached and which forms part of this Agreement (the "Land");

B. The Developer has agreed to construct and provide certain works and services as required by the City's Subdivision and Development Servicing Bylaw No. XXXX, 2017, as amended, in accordance with the drawings, standards and specifications attached to this Agreement and in accordance with the applicable policies of the City;

C. The Developer has applied for the approval of a subdivision or building permit in respect of the Land prior to the construction and installation of the required works and services and has agreed to enter into this Agreement with the City pursuant to Section 509(2) of the *Local Government Act;*

D. The Developer has agreed to grant and transfer to the City all its right, title and interest in and to the works and services required to be constructed and installed, and the City has agreed to accept such transfer of the works and services on the terms of this Agreement; and

E. The Developer has agreed to provide *security* for *completion* of the works and services.

NOW THEREFORE in consideration of payment of $2.00 by the City to the Developer and other good and valuable consideration, the receipt of which is acknowledged by the Developer, the Developer covenants and agrees with the City in accordance with Section 219 of the *Land Title* Act as follows:

DEFINITIONS

1. In this Agreement:

"**Accepted Drawings**" means the specifications, design drawings and other plans for the Works as referred to in Schedule "A" of this Agreement that are sealed by the Qualified Professional, and accepted in writing by the Development Engineer.

"**Bylaw**" means the City's Subdivision and Development Servicing Bylaw No. XXXX, 2017, as amended or replaced from time to time.

"Certificate of Construction Completion" means written certification by the Development Engineer that the Works have been tested and are complete except for minor deficiencies specified in the certification, such that the Works are usable for their intended purpose, as determined by the Development Engineer acting reasonably.

"**Certificate of Acceptance**" means written certification by the Development Engineer under Section 5 of this Agreement that the Warranty Period in respect of the Works has been satisfactorily completed and ownership of the Works can be transferred to the City.

"Complete" or **Completion"** with respect to the Works means completion to the satisfaction of the Development Engineer evidenced by the Certificate of Construction Completion.

"Construction Costs" means the construction costs of Works and Services as estimated by the Qualified Professional and accepted by the Development Engineer.

"Developer" means the owner of land, or appointed agent for the owner, in respect of which a subdivision application or building permit application has been made.

"Development Engineer" means the person designated to that position by the City of Courtenay, or a designate.

"**Warranty Period**" means the period which expires on the later of one year after the date of issuance of the Certificate of Construction Completion and a later date established under section 5(c) of this Agreement

"**Qualified Professional**" means a Professional Engineer who is registered or licensed to practice in British Columbia under the *Engineers and Geoscientists Act*, who is responsible for the design, construction, supervision and certification of all Works on behalf of the Developer.

"**Security**" means cash or a clean, unconditional, irrevocable and automatically renewing letter of credit drawn on a chartered bank or credit union having a branch in the City at which demand may be made on the letter of credit.

"Works" means the works and services to be provided, performed and constructed by the Developer as required by the bylaws of the City or as otherwise required under statutory authority; without limitation, the Works include all the design and construction work described in Schedule "A" hereto, utilities and connections to be constructed on and off the Land, landscaping, environmental protection measures, provision of plans and registration of Land Title Office documents and plans.

DEVELOPER'S COVENANTS

2. The *Developer* covenants and agrees with the City:

    a) that the Land shall not be used except in accordance with this Agreement; and

    b) that until such time as all the terms and conditions contained in sections 3, 4 and 8 are complied with, the Land and any buildings or structures erected or placed on or to be erected or placed on the Land shall not be used or occupied.

3. The *Developer* covenants and agrees:

    a) not to commence the construction or installation of the *Works* without first receiving authorization to commence construction in writing from the *Development Engineer*;

    b) to construct, install and *complete* the *Works* in accordance with the *Accepted Drawings*, with this Agreement and all applicable enactments;

    c) to obtain the prior written consent of the *Development Engineer* for any changes to the *Accepted Drawings*;

    d) to comply with any changes to the *Accepted Drawings* required by the *Development Engineer* as may be necessary to satisfy the *Development Engineer*that the *Works* function and operate in a manner satisfactory to the *Development Engineer*;

    e) to comply with all statutes, laws, regulations and orders of any authority having jurisdiction and without limiting the generality of the foregoing all bylaws of the City; and

    f) not to deposit or permit the deposit of any material or debris upon any highway or lands of the City, and if any material or debris is left upon a highways or land of the City during or after the construction of the *Works*, the City may remove the material or debris at the expense of the *Developer*.

4. Upon *completion* of the *Works*, the *Developer* covenants and agrees:

    a) to assign to the City all of its right, title and interest in and to the *Works* not located on the Land unless in a City statutory right-of-way over the Land, free and clear of all encumbrances;

    b) to grant or cause to be granted to the City in registerable form all statutory rights-of-way reasonably required by the *Development Engineer* for the operation, maintenance, repair and replacement of the *Works* located on the Land, on the City's standard terms; and

    c) to deliver to the City all final inspection and testing records and as-constructed drawings of the *Works* which drawings shall be prepared by a professional engineer in accordance with the *Bylaw* and good engineering practice and be in a form satisfactory to the *Development Engineer* before issuance of the *Certificate of Acceptance*.

5. The *Developer* covenants and agrees :

    a) to repair any deficiencies in design, materials or workmanship in the *Works* that may arise during the *Warranty Period*, including without limitation any deficiency of which the *Development Engineer* gives the *Developer* notice in writing;

    b) that if the *Works* are in any way defective or do not operate in a satisfactory manner, the *Developer* shall, at the expense of the *Developer*, modify and reconstruct the *Works* immediately so that the *Works* are fully operative and function in accordance with the *Bylaw* standards, provided that any modification has been approved in writing by the *Development Engineer*;

    c) that the *Development Engineer* may upon written notice to the *Developer*, given before the issuance of the *Certificate of Construction Completion*, increase the *Warranty Period* to a period the *Development Engineer* considers reasonable, in consideration of the period of time that is required to repair any deficiency in the *Works* of which the *Developer* has been given notice, but in any event not to exceed three years;

    d) that if the *Developer* fails to remedy any defect or deficiency in the *Works* or pay for any damage resulting from the installation of the *Works*, the City may deduct from the *Security* the cost of repairing the *Works*, remedying any defect or deficiency or paying for any damage, and Section 10 of this Agreement shall apply.

6. The *Developer* authorizes the City, its agents and contractors to enter upon the Land at any time as may be necessary or convenient for the carrying out of this Agreement, including without limitation for the purpose of inspecting, repairing or undertaking the *Works*.

THE CITY'S COVENANTS

7. The City covenants and agrees that:

a) it will permit the *Developer* to perform the *Works* on the terms and conditions contained in this Agreement and to occupy and use municipal highways and lands of the City as necessary for the construction of the *Works* as defined on the *Accepted Drawings*;

b) it will issue a *Certificate of Construction Completion* signed by the *Development Engineer* upon the *Developer* satisfactorily completing the *Works*;

c) during the *Warranty Period*, the City will operate and maintain those parts of the *Works* which are within a highway, municipal easement or municipal statutory right of way in the same manner and to the same standard as equivalent *works* are operated and maintained elsewhere in the City. Any costs attributable to any deficiency or defect in the *Works* or failure of the *Works* to operate normally shall be the responsibility of the *Developer*; and

d) it will issue a *Certificate of Acceptance* signed by the *Development Engineer* upon the *Developer* satisfactorily completing the repair or correction of any defect or deficiency in the *Works* during the *Warranty Period* and performing all other requirements of this Agreement, i, and providing all final inspection records, testing records and as-constructed drawings.

TIME FOR COMPLETION OF WORKS

8. The *Developer* will *complete* the construction and installation of the *Works* to the satisfaction of the *Development Engineer* and obtain a *Certificate of Construction Completion* by ***[insert date]***.

SECURITY

9. As a guarantee for the *Developer*'s performance of all of its covenants and agreements contained in this Agreement, the *Developer* has deposited *Security*, in accordance with the *Bylaw*, in the sum of $***[amount]*** (the "Deposit"), which is equal to 125% of the estimated Construction Cost of the required *Works*, as certified by the *Qualified Professional*.

10. If the *Developer* does not *complete* the *Works* as required by Sections 3 and 8 of this Agreement, the City may, without notice to the *Developer*, *complete* the *Works* at the cost of the *Developer* and for that purpose the City may draw down upon the *Security* and hold or use the full amount of the *Security*. The City may undertake the *Works* either by itself or by contractors employed by it. The City shall be under no obligation to *complete* the *Works* and may undertake the *Works* in whole or in part, in the City's discretion as to extent and timing of *completion*.

11. If there are insufficient monies included in the *Security* to *complete* the *Works* in accordance with the *Accepted Drawings*, the *Developer* shall pay to the City the amount of the insufficiency immediately upon receipt of the City's invoice for that amount, whether or not the City has then completed the balance of the *Works*.

12. If:

a) The *Developer* completes the *Works* as required by Section 3 and section 8 of this Agreement, and the *Certificate of Construction Completion* is issued by the City; or

b) The City completes the *Works* in accordance with Section 10 of this Agreement at a cost which is less than the amount of the *Security*,

then the amount of the *Security* may be reduced by the *Development Engineer* to the sum of 5% of the *Security*, or $1,000.00, whichever is greater, which amount shall be held by the City throughout the *Warranty Period* as *security* for the requirements in section 5.

13. The City shall return any unused part of the *Security* to the *Developer* without interest, not less than 60 days after issuance of the *Certificate of Acceptance*. Any return of *security* shall be made to the *Developer*, despite any change in ownership of the Land.

14. The *Development Engineer* may, not more than once in any three-month period, approve the *Developer*'s request for a partial reduction in the amount of the *Security* as the construction of the *Works* proceeds, on the basis of a certification by the *Developer*'s *Qualified Professional* that the portion of the *Works* to which the reduction relates has been completed to the standard specified in the *Bylaw* and in accordance with the *Accepted Drawings*, but not so as to reduce the amount of the *Security* below the amount mentioned in section 12. The *Development Engineer* may not approve a reduction under this section in relation to any portion of the *Works* in respect of which the *Development Engineer* has advised the *Developer* of a deficiency that has not been satisfactorily repaired.

15. If the City undertakes all or part of the *Works*, the cost of completing the *Works* which is payable by the *Developer* includes the City's actual cost of the construction and installation of them, together with engineering, supervision, legal, survey, contract administration, tendering, other professional services, interest and all other costs reasonably required for *completion* of the *Works*.

STANDARD OF THE WORKS

16. The *Developer* will construct and install or secure the *Works* to the standard required in the Engineering Divisions Design Standards and Specifications contained in the *Bylaw* and to the satisfaction of the *Development Engineer*.

DEVELOPER'S QUALIFIED PROFESSIONALS

17. The *Developer* represents and warrants that the *Works* have been, or will be, designed by a *Qualified Professional*.

18. The *Developer* acknowledges that the City has relied on cost estimates prepared by one or more *Qualified Professional*s in establishing the amount of the *Security* and that the *Developer* has so advised the *Qualified Professional*s prior to submission of those estimates to the City by the *Developer*.

19. At all times during the construction and provision of the *Works*, the *Developer* shall retain one or more *Qualified Professional*s to oversee the *completion* of the *Works*.

20. Any explanations, orders, instructions, directions and requests given by the City to the *Qualified Professional* shall be deemed to have been given to the *Developer*.

21. Upon *completion* of the *Works* and prior to issuance of the *Certificate of Construction Completion*, the *Developer*'s *Qualified Professional* shall certify in writing that the *Works* have been constructed in accordance with the *Accepted Drawings*.

INDEMNIFICATION AND INSURANCE

22. The *Developer* shall indemnify and save harmless the City, its officers, employees, Council members, contractors and agents:

    a) against all expenses and costs incurred as a result of bodily injury, death, property loss, property damage or other loss arising from the construction or provision of the *Works*;

    b) against all expenses and costs which may be incurred by reason of liens, non-payment for labour or materials, Workers' Compensation assessments, employment insurance, federal or provincial tax, or union dues check off in respect of the construction or provision of the *Works*; and

    c) from any claims, actions or proceedings relating to the construction, provision, maintenance or repair of the *Works* by the *Developer*, including defects in the *Works* and non-repair of the *Works*.

    This indemnity shall survive any conclusion or other termination of this Agreement, in relation to any matter arising prior to expiry of the *Warranty Period*.

23. The *Developer* shall take out and maintain at all times from commencement of construction and installation of the *Works* until the *Development Engineer* issues a *Certificate of Acceptance*:

    a) comprehensive general liability insurance against claims for bodily injury (including death) and property damage or loss arising from its carrying out the construction and installation of the *Works* (including failure to properly carry out or negligence in carrying out the *Works*), in an amount of not less than $5,000,000.00 combined single limit per claim and with a per claim deductible of not more than $5,000.00; and

    b) builder's risk insurance, insuring the *Works* against loss or damage to the full replacement cost of the *Works*, and if the City elects to *complete* the *Works* as provided in this Agreement, the *Developer* is conclusively considered to have assigned the benefit of that insurance, and all proceeds of it, to the City.

    The *Developer* must provide the *Development Engineer* with proof in writing of insurance before commencing the *Works* and again before the issuance of any *Certificate of Construction Completion*. All policies of insurance must name the City as an additional insured and contain a provision requiring the insurer to give the City 30 days' prior written notice before any alteration or cancellation of the policy is effective.

MISCELLANEOUS

24. Nothing in this Agreement shall exempt the *Developer* of the Lands from the ordinary jurisdiction of the council of the City, its *bylaw*s and regulations, and without limitation the construction of the *Works* shall not confer directly or indirectly any exemption or right of set-off from development cost charges, connection fees, application fees, user fees or other fee charge, except as statutorily required.

25. Where the singular or masculine is used in this Agreement it will be construed as the plural or feminine or neuter, as the case may be, and vice versa where the context or the parties so require.

26. This Agreement will be binding upon and will enure to the benefit of the parties, their successors and assigns.

27. The headings in this Agreement are for convenience of reference only and do not define or limit the scope or intent of this Agreement.

28. The Schedules to this Agreement form part of this Agreement.

29. The *Developer* acknowledges and agrees that the *Developer* relies exclusively on its own expertise, the *Developer*'s *Qualified Professional*s and contractors and that the City does not, by its approvals, inspections or acceptance of the *Works*, warrant or represent that the *Works* are in compliance with any enactment or warrant the quality, fitness for purpose, adequacy or safety of the *Works*.

30. The *Developer* acknowledges that the City has made no representations, covenants, warranties, guarantees, promises or agreement with the *Developer* with regard to the subject matter of this Agreement, other than those in this Agreement.

31. The *Developer*'s obligations and rights under this Agreement shall not be assigned without the written consent of the City, such consent not to be unreasonably withheld.

32. Every obligation and covenant of the *Developer* in this Agreement constitutes both a contractual obligation and a covenant granted under s.219 of the *Land Title Act* in respect of the Land and this Agreement burdens the Land and runs with it and binds the successors in title to the Land. This Agreement burdens and charges all of the Land and any parcel into which the Land is subdivided by any means and any parcel into which the Land is consolidated (including by removal of interior parcel boundaries) and shall be extended, at the *Developer*'s cost, to burden and charge any land consolidated with the Land.

33. The *Developer* will, at the *Developer*'s expense, do or cause to be done all acts reasonably necessary to register this Agreement against title to the Land with priority over all financial charges, liens and encumbrances registered or pending registration at the time of application for registration of this agreement against the title to the Land.

34. An alleged waiver of any breach of this Agreement is effective only if it is an express waiver in writing of the breach in respect of which the waiver is asserted. A waiver of a breach of this Agreement does not operate as a waiver of any other breach of this Agreement.

35. If any part of this Agreement is held to be invalid, illegal or unenforceable by a court having the jurisdiction to do so, that part is to be considered to have been severed from the rest of this Agreement and the rest of this Agreement remains in force unaffected by that holding or by the severance of that part.

36. This Agreement binds the parties to it and their respective successors, heirs, executors and administrators.

37. The parties hereto shall execute and do all such further deeds, acts, things and assurances that may be reasonably required to carry out the intent of this Agreement.

38. Time is of the essence of this Agreement.

39. Any notice to be given pursuant to this agreement must be in writing and delivered personally or sent by registered mail. The addresses of the parties for the purpose of notice are the addresses on the first page of this agreement and in the case of any subsequent *Developer*, the address will be the address shown on the title to the Land in the Land Title Office. If notice is delivered personally, it may be left at the relevant address in the same manner as ordinary mail is left by Canada Post and is to be deemed given when delivered. If notice is sent by mail, it will be considered given 5 days after mailing. In the case of any strike or other event causing disruption of ordinary Canada Post operations, a party giving notice for the purposes of this agreement must do so by delivery as provided in this section. A party may change its address for the purposes of this section by giving notice in accordance with this section.

40. By executing and delivering this Agreement each of the parties intends to create both a contract and a deed executed and delivered under seal.

IN WITNESS WHEREOF the parties hereto have executed this Agreement as of the day and year first above written.

SIGNED by an authorized signatory of: "The Developer"	)	
in the presence of	)	
_____	)	_____
Witness:	)	Name of Developer
SIGNED by the authorized signatories of **THE CORPORATION OF THE CITY OF COURTENAY**	)	_____
	)	Name
	)	Mayor
	)	_____
	)	Name
	)	Director of Legislative Services

Schedule "A" – Description of Required Works

Schedule "B" – Calculation of Security

REFERENCE DOCUMENT 2

APPROVED PRODUCTS LIST

APPROVED PRODUCTS LIST

This Reference Document lists materials and products that are either approved, restricted, or not allowed, for Works and Services performed within the City of Courtenay.

If a material or product is not listed in relation to an MMCD or a Supplementary Specification, any product meeting the requirements of such specification shall be accepted.

Where brand names are specified for a product, any proposal for an alternate product requires the approval of the Director of Engineering.

MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
03 40 01	***Precast Concrete***				
		Concrete Fence for Arterial Roads	• American Technocrete • Approved equal	• Woodcrete Wall, Buffer Color	• Posts at 1.5m c/c
		Concrete Fence for Wet Detention Pond	• American Technocrete • Approved equal	• Woodcrete Rail, Buffer Colour	• Post at 2.44 c/c & 2 Rail Fence
		Concrete MSE Retaining Wall	• Langley Precast • Ocean Precast		
26 56 01	***Roadway Lighting***				
	Products	LED Luminaires	• Philips	• Roadfocus	3000 K, RFS, RFM and RFL Series, as applicable
31 11 45	***Shrub and Tree Preservation***				
		Snow Fence	• Dupont	• L-70	
32 92 19	***Hydraulic Seeding***				
	Fertilizer		• Direct Solutions	• 20-2-16	
32 93 01	***Planting of Trees, Shrubs and Ground-covers***				
		Tree Guy Anchors	• Tree Guy Systems	• Arrow Anchor	
		Tree Trunk Protection	• Deep Roots Products	• Arborgard	
		Tree Ties	• Deep Roots Products	• Arbor Tie	
	Misc. Products	Root Barrier	• deeproot	• UB 18-2	
		Adhesive	• OSI Sealants	• PL 200	
		Drain Mat	• Nilex Geotextile	• Nudrain WD/15	
		Filter Fabric	• Nilex Geotextile	• Nilex 4545	

MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
32 94 01S	***Irrigation System***				
	Backflow Prevention Device		• Watts	• Model 007-QT	
	Electronic Control Valves		• Rain Bird	• EFB CP Series Brass • 300 BPES Series Brass	• < 75mm • ≥ 75mm
	Master Valve		• Rain Bird	• EFB CP Series Brass • 300 BPES Series Brass	• < 75mm ≥ 75mm
	Pressure Regulating Modules		• Toro • Rain Bird	• EZR-100 • PRS-Dial	
	Automatic Controllers		• Toro	• Sentinel Satellite Controller	
	Control Wire	Wire	• Paige Wire	• P7079D	Common Wire to be min. 14-gauge Master Valve Wire to be min. 14-gauge
		Flow / pulse transmitter wiring	• Belden	• PE39	8mm Aluminum Polyester Shield Black HDPE Jacket
		Wire splice	• 3M	• DBY connector	
	Sprinkler Heads		• Toro • Rain Bird • Hunter		Additions to existing irrigation systems to be same product
33 11 01	***Waterworks***				
	Water Main Ductile Iron	• Ductile Iron	• McWane Group • US Pipe		CL 50 for all mains less than 400mm dia. and Pressure Class 350 for all mains larger than 400mm dia.
	Water Main PVC	• PVC • PVCO	• Ipex • Royal Pipe Systems	• Blue Brute • Seal • Bionax	PVC pipe to AWWA C900 / C 905/ C 909 – 100 mm to 300 mm diameter DR18 Minimum. Compliance with MMCD updated Section 33 11 01 2.2.2.2 for thickened bell and spigot pipe All PVC / PVCO water mains shall be pigmented blue. Nitro gasket shall be used when hydro carbon is encountered in surrounding soil.

MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
					Bionax to be accepted for use in seismic condition
	Water Main HDPE	• HDPE	• KWH Pipe • Isco Pipe • Polytubes	• Sclairpipe • WL Plastics	AWWA C 153 AWWA C110
	Water Main Fitting Ductile Iron	• Ductile Iron	• Terminal City Iron Works • Sigma		
	PVC Injection Molded Fittings	• PVC • PVCO	• IPEX • Royal		
	PVC Fabricated Fittings	• PVC • PVCO	• IPEX • Pro-line • Galaxy Plastics		
	Nuts and Bolts	Stainless Steel ASTM A194 type 304			
	Tie Rod	Zinc or Cadmium Plated ASTM A354 Grade BC Steel	• Cor-ten Steel		
	Couplings and Flange Coupling Adapters	Plain End Coupler	• Robar • Smith-Blair • Romac • Mueller • Ford	• Robar 1408 • Smith-Blair441 • Romac 501 • Mueller MRC • Ford FC1	
		Flanged Adapter	• Robar • Smith-Blair • Romac • Mueller • EBAA • Clow	• Robar 7404/6 • Smith-Blair912 • Romac • Mueller • EBAA Iron 1000 • Clow Series 40, DI • Clow Series 90, PVC	
		Restrained Flange Adaptors	• Romac • Uniflange • EBAA	• Romac RFCA • Uniflange RFAP • EBAA 2100	
		Repair Clamps	• Canpac • Mueller • Robar • Clow • Romac	• Canpac CR-2 • Mueller 520 • Robar 400 and 1500 • Clow 100, 200, 300 • Romac SS2	Repair clamps shall be stainless steel
	Joint Restraint Ductile Iron Mains		• UniFlange Series 1400 • EBAA Iron • Clow	• UniFlange Series 1400 • EBAA Iron Megalug1700 • Clow Tufgrip TDG	All joint restraints shall have a pressure rating equal or greater than the mainline pipe.

MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
	Joint Restraint PVC / PVCO Mains		• UniFlange • EBAA Iron • Romac	• UniFlange Series 1300 • EBAA Iron MJ Series 1500 • EBAA Iron 1900 • Romac Alpha	No wedge action type for PVC or PVCO pipes. Restraint systems for PVC or PVCO pipe shall be approved by the pipe manufacturer to not reduce the pipe recommended working pressure.
	Restrained Joint Pipe Systems (PVC)		• Ipex • Royal	• Ipex Terra Brute • Royal Cobra Lock	
	Restrained Joint Pipe Systems (DI)		• US Pipe • McWane	• Field-Lok Gasket • SureStop Gasket	
	Valves and Valve Boxes	75 mm – 300 mm Resilient-seated	• Mueller • Clow Canada • AVK • Dobney • Terminal City	• Mueller A2362 • Clow 6100 • AVK	All valves shall have epoxy coated ductile iron body with Stainless Steel Bolts
	Blowoff Valve	50mm Resilient Seat Gate Valve	• AVK • Mueller • Clow	• AVK • Mueller A2360 • Clow F6103	
	Air Valve		• Apco • Val-Matic • Crispin	• APCO 143C • Val-Matic 201C • Crispin UL	Internally Coated
	Water Valve Box		• Terminal City • Dobney • Sigma		Square type Cover shall be marked with "Water".
	Curb Stop Box		• Dobney • Trojan • Mueller		Square type Cover shall be marked with "Water".
	Joint Protection	Petrolatum Tape & Mastic	• Petrowrap • Trenton Tec Tape • Denso		AWWA C209 AWWA C214 AWWA C217-90
	Water Service Connection	Type K Copper – 19mm to 75mm			ASTM B88M
		Polyethylene	• Rehau	• Rehau Municipex (PexA)	With 10 Gauge Tracer Wire (AWG)
	Saddles for Ductile Iron Mains		• Robar • Canpac • Mueller • Romac	• Robar 2406/8 • Canpac 313 • Mueller DR2A • Romac 202BS	
	Saddles for PVC / PVCO Main		• Canpac • Robar • Cambridge Brass	• Series 81Z	Saddles required for service installation on all PVC / PVCO mains - Bronze body with stainless steel straps

MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
	Tapping Sleeve for PVCO		• Ford Meter Box • JCM • Romac	• Ford FS313 • JCM 422 Series • SST Series	
	Abandon Service Sleeve		• Robar	• 6636AS	NC T 304 SS Const
	Hydrant		• Terminal City • Mueller Co. • AVK	• C71P – H105 • Modern Centurion (A-442) • 2780	Must have 100mm Storz fitting on pumper port Paint colours shall be as follows: • Red body • White top • 2 white side ports • black Storz
	Corporation Stop	Full Port Ball Valve	• Cambridge • Ford • Mueller • Al-MacDonald	• Cambridge 301 • Ford FB600 • Mueller B25008 • Al-MacDonald 4700	Shall be full-port ball valve to 50 mm only. Use mainline gate valve for sizes >50 mm
	Curb Stop	Full Port Ball Valve	• Cambridge • Ford • Mueller • Al-MacDonald	• Cambridge 202 • Ford B44-343G • Mueller B25209 • Al-MacDonald 6100	Shall be full-port ball valve to 50 mm with 90^0 turn stop. Use mainline gate valve for larger sizes > 50mm
	Meter Setters		• Cambridge Brass	• 1" 6031 Series • 1 ½" – 2" 6020 series	
	Idler Bar		• Cambridge Brass	• 450 Plastic (25mm Service Connection) • 450NL Copper (50mm Service Connection)	
	Meter Pits		• Langley Concrete • AE Concrete • Armtec	• Type#66 with cast iron Lid for 25mm • 5686 with steel lid for 50mm	Full Circumferential models only.
	Meter Chambers		• Armtec	• 2121.5	With Aluminum spring assisted double lids.
	Casing Spacers	As shown on contract drawings	• Uniflange • Calpico • APS	• Uniflange • Calpico • APS Casing Spacers	Shall be fabricated cast iron or high density polyethylene insulating spacers designed to center main in the carrier pipe
	Pressure Reducing Valve Stations (PRV)	• PRV Valve • Limit Switch Indicator • Valve Position Indicator	• Singer • Singer • Singer	• Singer 106-PR • Singer X129 • Singer X156	Epoxy coated

MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
		• Strainer • Domestic flow indicator • Pressure Transducer • PLC • HMI • Router	• Singer • Singer • Emerson-Rosemount • Scadapack • Maple Systems, or equivalent • SonicWall	• J1521M Arion Strainer • SPI-MV Flow Meter • 2088 • Scadapack 334	
33 30 01	***Sanitary Sewers***				
	Concrete				Not permitted
	PVC Pipe, Mainline Smooth Profile	PVC SDR35	• IPEX • Royal • Diamond • JM Eagle • Northern Pipe Products	• IPEX Ring-Tite • Royal Seal • Diamon Sani-21	Sizes > than 750 mm to be approved by the City
	Sanitary Service Connection	PVC SDR35 Min 100mm diameter	• IPEX • Royal • Diamond • JM Eagle • Northern Pipe Products	• IPEX Ring-Tite • Royal Seal • Diamon Sani-21	New PVC main: use manufactured wyes. Existing mains: use manufactured wyes, strap saddles or insertable tees.
	Inspection Chamber	Inspection Chamber	• Le-Ron Plastics Inc. • Pro-line • Galaxy Plastics		
		Inspection Chamber Back-flow check valve	• Le-Ron Plastics Inc. • Pro-line • Galaxy Plastics		
	Service Connection Boxes		• Brooks	• Series 37	Full Circumferential models only.
	Repair Couplers		• Rollee, Fernco, Shear Band	• Rollee, Fernco, Shear Band	Couplers shall have appropriate adaptor gaskets to suit OD of pipe material being coupled
33 34 01	**Sewage Forcemains**				
	Pipes, Joints and Fittings	Fused PVC	• Ipex • Royal		
		HDPE with fusion welded joints	• Sclairpipe • Drisco Pipe • ISCO Pipe	• Sclairpipe • DriscoPlex • WL Plastics	AWWA C906
	Valves	Air Valves	• ARI		
	Valve Chamber		• Dobney	Dobney C20	
33 40 01	***Storm Sewers***				

MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
	Concrete Pipe	Non-reinforced Concrete C14-3 Reinforced Concrete C76-III, IV, and V	• Langley Concrete and Tiles • Ocean Pipe		PPP or Q-Cast Certified
	PVC Pipe, Mainline Smooth Wall	PVC SDR35	• IPEX • Royal • Diamond • JM Eagle • Northern Pipe	• IPEX Ring-Tite • Royal Seal • Diamond Sani-21	Sizes > than 750 mm to be approved by the City Engineer
	PVC Pipe, Mainline Profile		• Ipex • Royal	• Ipex UltraRib • Royal Korflo	Concentric ribbed pipe only is permitted to 900 mm, No spiral ribbed pipe will be allowed.
	HDPE Pipe, Mainline Open Profile		• Armtec • ADS	• Armtec Boss 2000 • ADS N-12	
	Service Connection	PVC SDR28 Min 150mm diameter	• IPEX • Royal • Diamond • JM Eagle • Northern Pipe	• IPEX Ring-Tite • Royal Seal • Diamond Sani-21	New PVC main: use manufactured wyes. New HDPE mains: Use injection molded PVC manufactured wyes New concrete main: use PVC stub with bell, pre-cemented with epoxy resin. Existing PVC and HDPE mains: use manufactured wyes, strap saddles or insertable tees. Existing concrete main: use cored tee
	Inspection Chamber	Inspection Chamber	• Le-Ron Plastics Inc. • Pro-line • Galaxy Plastics		
	Service Connection Boxes		• Brooks	• Series 37	Full Circumferential models only.
33 42 13	**Pipe Culverts**				
	End Walls	Concrete	• Langley Concrete and Tiles • Ocean Pipe		Q-Cast Certified PPP Certified
		Fiberglass Composite	• CIF Composites	• Ecolite	
		Mechanically Stabilized Earth (MSE)	• Flex MSE	• Flex MSE	
33 44 01	**Manholes and Catchbasins**				
	Manhole Frame and Cover	Cast Iron	• Dobney • Westview Sales Ltd.	• Dobney • Westview Sales Ltd.	Sanitary Sewer manhole lids shall be marked “SANITARY SEWER”

MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
					Storm Sewer manhole lids shall be marked "STORM SEWER"
	Catch Basin and Other Castings	CB Frame	• Dobney • Westview Sales Ltd.	• B50	
		CB Grate	• Dobney • Westview Sales Ltd.	• B50	
		Lawn Basin Grate (1050mm Barrel)	• Dobney • Westview Sales Ltd.		
	Hydro-dynamic grit Separator		• Langley Concrete and Tiles • Contech	• Stormceptor • Vorsentry • CDS	
33 49 23	***Storm Drainage Water Retention Systems***				
	Polypropylene Arched Chamber		• ADS	• Stormtech	
	Polyethylene Arched Chamber		• Contech	• Chambremaxx	
			• Brentwood Industries	• Stormtank	
34 41 13	**Traffic Signals**				
		Siren Activated Emergency Pre-emption	• Traffic Systems LLC	• Sonem 2000	
		Audible Signals	• Polara Enterprises	• Navigator APS	
		LED Luminaires	• Philips	• Roadfocus	3000 K, RFS, RFM and RFL Series, as applicable
		Traffic Controllers	• Econolite	• Cobalt	
	Sanitary Lift Station Components				
	Standards for Sanitary Lift Stations	Submersible Pumps	• Flygt		Non-Clogging
		Flush Valve	• Flygt	Model 4901	Or Approved Equal
		Wet Well	• Xylem		Engineered & Prefabricated
		Portable Lifting Davit	• DBI SALA	• 8510311 w/ Davit Arm • 8517412 including tie off 8516691	
		HMI	• To be confirmed by the City		
		Controller	• Xylem	MultiSmart	

MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
		SCADA	• Flygt / Allied Control Systems		Must be compatible with City Scada system
		Float Switches	• Xylem	tree type (mercury)	Or Approved Equal (must be CSA certified)

THE CORPORATION OF THE CITY OF COURTENAY

BYLAW NO. 2924

A bylaw to adopt the consolidated five year financial plan

WHEREAS the *Community Charter*, being SBC Chapter 26, 2003, requires a five year financial plan that is adopted annually;

AND WHEREAS the financial plan shall by bylaw be adopted before the annual property tax bylaw is adopted;

AND WHEREAS the planning period for a financial plan is five years, being the year in which it is specified to come into force and the following 4 years;

AND WHEREAS the Community Charter, being SBC Chapter 26, 2003, Section 173, requires that a municipality must not make an expenditure other than one authorized and provided for in the financial plan;

NOW THEREFORE the Council of the Corporation of the City of Courtenay, in open meeting assembled, enacts as follows:

1. This bylaw may be cited for all purposes as **"The 2018 – 2022 Consolidated Financial Plan Bylaw No. 2924, 2018"**.

2. Schedule "A" attached hereto and made part of this bylaw is hereby adopted as the 2018 – 2022 statement of objectives and policies for the proportion of total revenue from property value taxes, parcel taxes, fees and charges, borrowing, and other funding sources.

3. Schedule "B" attached hereto and made part of this bylaw is hereby adopted as the 2018 – 2022 statement of the use of permissive tax exemptions.

4. Schedule "C" attached hereto and made part of this bylaw is hereby adopted as the 2018 – 2022 Consolidated Financial Plan.

5. Schedule "D" attached hereto and made part of this bylaw is hereby adopted as the 2018 – 2022 General Operating Fund Financial Plan.

6. Schedule "E" attached hereto and made part of this bylaw is hereby adopted as the 2018 – 2022 Sewer Operating Fund Financial Plan.

7. Schedule "F" attached hereto and made part of this bylaw is hereby adopted as the 2018 – 2022 Water Operating Fund Financial Plan.

8. Schedule "G" attached hereto and made part of this bylaw is hereby adopted as the 2018 – 2022 General Capital Fund Financial Plan.

9. Schedule “H” attached hereto and made part of this bylaw is hereby adopted as the 2018 – 2022 Sewer Capital Fund Financial Plan.

10. Schedule “I” attached hereto and made part of this bylaw is hereby adopted as the 2018 – 2022 Water Capital Fund Financial Plan.

11. “The Final 2017 – 2021 Financial Plan Bylaw No. 2879, 2017” is hereby repealed.

Read a first time this 3rd day of April, 2018

Read a second time this 3rd day of April, 2018

Read a third time this 3rd day of April, 2018

Finally passed and adopted this day of April, 2018

Mayor

Director of Legislative Services

Objectives and Policies for Schedule "A" Bylaw 2924

Proportion of Revenue by Source

Property Tax Policies

- The City of Courtenay will attempt to keep the proportional share of revenue from property taxes at a level similar to the average of comparable municipalities.
- Where new sources of revenue are made available to the City from senior governments, wherever possible these revenues will be used to reduce dependency on property taxation revenue.

Parcel Tax Policies

- Parcel taxes will be used whenever Council determines that they are more appropriate than property taxes.

Fees & Charges

- Wherever possible, fees & charges will be used to assign costs to those who benefit from the service provided. The proportion of costs recovered by fees and charges will vary with the nature of the service provided.

Proceeds of Borrowing

- Borrowing will be considered when determining the funding sources of large capital projects that provide benefits to taxpayers over a long period of time.

Other Sources of Revenue

- The City will continue to seek other sources of revenue in order to reduce reliance on property taxes.

	2016		2017		2018	
Revenue Source	**Amount**	**% Total Revenue**	**Amount**	**% Total Revenue**	**Amount**	**% Total Revenue**
Property Value Taxes	$22,677,200	35.4%	24,056,300	39.2%	24,742,600	37.9%
Parcel Taxes	2,655,500	4.2%	2,858,000	4.7%	3,133,400	4.8%
Fees and Charges	16,077,600	19.3%	17,424,000	28.4%	18,612,300	28.6%
Other Sources	4,504,400	15.8%	5,484,000	8.9%	4,306,700	6.6%
Reserves/Surpluses	13,648,600	25.3%	11,560,200	18.8%	14,413,100	22.1%
Borrowing	-	0.0%	-	0.0%	-	0.0%
TOTAL	**$59,563,300**	**100.0%**	**$61,382,700**	**100.0%**	**65,208,100**	**100.0%**

Objectives and Policies for Schedule "B" Bylaw 2924

Permissive Tax Exemptions

- A permissive tax exemption is strictly at the discretion of the City of Courtenay Council. After careful consideration of all applications Council may approve a full, a partial, or no tax exemption. The tax exemption may vary for the different applicants.
- The cumulative value of permissive tax exemptions shall not exceed 2% of the total tax levy of the previous year.

Permissive Property Tax Exemptions	2016 ($)	2017 ($)	2018($)
City owned properties / managed by not-for-profit groups	175,040	182,352	176,946
Not-for Profit Organizations	133,867	136,224	144,990
Churches	15,486	15,760	16,052
TOTAL	**324,393**	**334,336**	**337,988**
Prior year tax levy for municipal purposes	21,106,452	21,951,300	22,108,900
As a percentage of municipal tax levy	**1.54%**	**1.52%**	**1.53%**

City of Courtenay
BYLAW NO. 2924, 2018
A Bylaw To Adopt the Consolidated Five Year Financial Plan of the
City of Courtenay for the Years 2018 - 2022
Schedule C

Consolidated Financial Plan	Budget				
	2018	2019	2020	2021	2022
Revenues					
Taxes					
General Property Taxes	$ 24 024 400	$ 25 403 000	$ 26 768 900	$ 28 275 600	$ 31 173 700
Collections for Other Governments	21 021 800	21 931 200	22 448 300	22 950 100	23 333 900
Total Property Taxes	45 046 200	47 334 200	49 217 200	51 225 700	54 507 600
Frontage & Parcel Taxes	3 133 400	3 728 800	4 113 000	4 601 600	4 634 700
Grants in Place of Property Taxes	462 400	469 900	477 100	484 800	492 700
% of Revenue Tax	399 500	407 500	415 700	423 900	432 400
Total Taxes Collected	49 041 500	51 940 400	54 223 000	56 736 000	60 067 400
Less: Transfers to Other Governments	(21 165 500)	(22 077 300)	(22 596 600)	(23 100 900)	(23 487 100)
Net Taxes for Municipal Purposes	**27 876 000**	**29 863 100**	**31 626 400**	**33 635 100**	**36 580 300**
Other Revenues					
Fees and Charges	18 612 300	19 671 800	20 612 800	21 351 800	21 966 000
Revenue from Other Sources	1 754 800	1 279 100	1 279 100	1 379 400	1 401 700
Other Contributions	671 000	664 900	504 600	423 400	339 400
Transfers from Other Govt & Agencies	1 880 900	1 914 600	1 952 600	1 991 300	2 031 100
Total Other Revenues	22 919 000	23 530 400	24 349 100	25 145 900	25 738 200
Total Operating Revenues	**50 795 000**	**53 393 500**	**55 975 500**	**58 781 000**	**62 318 500**
Transfers From Reserves and Surplus					
From Reserves	12 621 400	9 424 400	4 481 100	3 501 400	3 300 800
Fom Surplus	1 791 700	777 100	575 200	510 000	-
Total from Reserves and Surplus	**14 413 100**	**10 201 500**	**5 056 300**	**4 011 400**	**3 300 800**
Funding from Debt	**-**	**4 291 400**	**9 422 100**	**7 300 000**	**3 650 000**
Total Revenues	**65 208 100**	**67 886 400**	**70 453 900**	**70 092 400**	**69 269 300**
Equity in Capital Assets	4 425 000	4 425 000	4 425 000	4 425 000	4 425 000
	$69 633 100	**$72 311 400**	**$74 878 900**	**$74 517 400**	**$73 694 300**
Expenses					
Operating Expenses					
General Government	$ 4 132 200	$ 4 266 200	$ 4 371 900	$ 4 449 800	$ 4 582 500
Protective Services	8 579 100	8 739 400	8 912 700	9 090 700	9 272 000
Public Works Services	7 925 000	8 005 800	7 933 700	8 037 200	8 189 400
Environmental Health Services	15 402 900	15 994 800	16 753 400	17 566 600	18 223 700
Public Health Services	305 600	311 600	317 900	324 200	330 900
Development Services	2 021 600	1 882 000	1 867 000	1 901 500	1 937 300
Recreation & Cultural Services	7 167 800	7 170 600	7 314 800	7 463 500	7 613 900
	45 534 200	46 370 400	47 471 400	48 833 500	50 149 700
Amortization	4 425 000	4 425 000	4 425 000	4 425 000	4 425 000
Total Operating Expenses	**49 959 200**	**50 795 400**	**51 896 400**	**53 258 500**	**54 574 700**
Capital Transactions					
Capital Assets					
Land and Improvements	493 900	389 000	614 000	752 000	967 000
Buildings	1 858 500	904 300	6 662 100	5 925 700	1 105 800
Equipment	2 288 300	1 212 000	794 000	701 000	2 201 000
Engineering Structures - Renewal	7 570 100	12 876 100	8 528 300	6 592 300	6 792 300
Engineering Structures - New	2 241 900	1 000 000	-	-	-
Other Capital Assets	275 000	55 000	90 000	65 000	65 000
	14 727 700	16 436 400	16 688 400	14 036 000	11 131 100
Debt for Capital Assets					
Interest	600 800	725 200	1 021 200	1 248 500	1 303 800
Principal	951 800	1 165 500	1 672 800	2 015 600	2 137 000
	1 552 600	1 890 700	2 694 000	3 264 100	3 440 800
Total Capital Transactions	**16 280 300**	**18 327 100**	**19 382 400**	**17 300 100**	**14 571 900**
Transfers to Reserves & Surplus					
To Reserves	3 375 100	3 129 600	3 562 500	3 913 800	4 425 100
To Appropriated Surplus	18 500	59 300	37 600	45 000	122 600
Total to Reserves and Surplus	**3 393 600**	**3 188 900**	**3 600 100**	**3 958 800**	**4 547 700**
	$69 633 100	**$72 311 400**	**$74 878 900**	**$74 517 400**	**$73 694 300**

City of Courtenay
BYLAW NO. 2924, 2018
A Bylaw To Adopt the Consolidated Five Year Financial Plan of the
City of Courtenay for the Years 2018 - 2022
Schedule D

General Operating Fund	Budget				
	2018	2019	2020	2021	2022
REVENUES					
Taxes					
General Municipal Taxes	$ 24 024 400	$ 25 403 000	$ 26 768 900	$ 28 275 600	$ 31 173 700
Collections for Other Governments	21 021 800	21 931 200	22 448 300	22 950 100	23 333 900
Total Taxes Collected	45 046 200	47 334 200	49 217 200	51 225 700	54 507 600
Less:					
Property Taxes for Other Governments	(21 021 800)	(21 931 200)	(22 448 300)	(22 950 100)	(23 333 900)
	(21 165 500)	(22 077 300)	(22 596 600)	(23 100 900)	(23 487 100)
Net Municipal Taxes	23 880 700	25 256 900	26 620 600	28 124 800	31 020 500
Grants in Lieu of Taxes	462 400	469 900	477 100	484 800	492 700
% of Revenue Tax	399 500	407 500	415 700	423 900	432 400
Taxes for Municipal Purposes	24 742 600	26 134 300	27 513 400	29 033 500	31 945 600
Fees and Charges	7 435 300	7 585 800	7 706 500	7 831 600	7 957 900
Revenue from Other Sources	1 050 100	1 066 800	1 083 700	1 181 000	1 200 300
Transfers from Other Govt & Agencies	1 880 900	1 914 600	1 952 600	1 991 300	2 031 100
Transfers-Reserves	1 731 600	1 238 000	1 238 000	1 238 000	1 238 000
Transfers-Surplus	1 791 700	777 100	575 200	510 000	-
Equity in Capital Assets	4 000 000	4 000 000	4 000 000	4 000 000	4 000 000
	$42 632 200	**$42 716 600**	**$44 069 400**	**$45 785 400**	**$48 372 900**
EXPENDITURES					
Operating Expenditures					
General Government	$ 4 132 200	$ 4 266 200	$ 4 371 900	$ 4 449 800	$ 4 582 500
Protective Services	8 579 100	8 739 400	8 912 700	9 090 700	9 272 000
Public Works Services	7 925 000	8 005 800	7 933 700	8 037 200	8 189 400
Environmental Health Services	3 197 400	3 261 400	3 291 300	3 357 100	3 423 800
Public Health Services	305 600	311 600	317 900	324 200	330 900
Development Services	2 021 600	1 882 000	1 867 000	1 901 500	1 937 300
Parks, Recreation & Cultural Services	7 167 800	7 170 600	7 314 800	7 463 500	7 613 900
Total Operating Expenses	33 328 700	33 637 000	34 009 300	34 624 000	35 349 800
Amortization	4 000 000	4 000 000	4 000 000	4 000 000	4 000 000
Total Expenses	37 328 700	37 637 000	38 009 300	38 624 000	39 349 800
Transfer to Capital Fund	2 811 000	2 308 100	3 106 600	3 957 600	5 164 400
Transfer to Reserve Funds	2 492 500	2 771 500	2 953 500	3 203 800	3 764 200
Transfer to Surplus	-	-	-	-	94 500
	5 303 500	5 079 600	6 060 100	7 161 400	9 023 100
	$42 632 200	**$42 716 600**	**$44 069 400**	**$45 785 400**	**$48 372 900**

City of Courtenay
BYLAW NO. 2924, 2018
A Bylaw To Adopt the Consolidated Five Year Financial Plan of the
City of Courtenay for the Years 2018 - 2022
Schedule E

Sewer Operating Fund	Budget				
	2018	2019	2020	2021	2022
Revenues					
Operating					
Frontage & Parcel Taxes	$ 1 973 500	$ 2 266 600	$ 2 268 200	$ 2 275 300	$ 2 285 200
Sale of Services	4 767 900	5 027 200	5 299 300	5 582 200	5 880 200
Revenue from Own Sources	50 900	50 800	50 700	50 700	50 700
Total Operating Revenues	6 792 300	7 344 600	7 618 200	7 908 200	8 216 100
Reserves & Surplus					
Future Expenditure Reserve	307 600	-	-	-	-
Gas Tax Fund	75 000	-	-	-	-
Total Reserves & Surplus	382 600	-	-	-	-
Equity in Capital Assets	125 000	125 000	125 000	125 000	125 000
	125 000	125 000	125 000	125 000	125 000
Total Revenues	**$ 7 299 900**	**$ 7 469 600**	**$ 7 743 200**	**$ 8 033 200**	**$ 8 341 100**
Expenses					
Operating					
General Administration	$ 1 118 800	$ 1 026 000	$ 1 049 100	$ 1 068 500	$ 1 096 000
CVRD	3 890 900	4 124 400	4 371 800	4 634 200	4 912 200
Collection	531 000	542 100	553 300	564 500	576 000
	5 540 700	5 692 500	5 974 200	6 267 200	6 584 200
Amortization	125 000	125 000	125 000	125 000	125 000
Total Operating Expenses	5 665 700	5 817 500	6 099 200	6 392 200	6 709 200
Transfers to Other Funds					
General Fund					
Sewer Capital Fund	941 800	1 341 500	1 341 500	1 341 500	1 341 500
	941 800	1 341 500	1 341 500	1 341 500	1 341 500
Transfers to Reserves					
Asset Management Reserve	300 000	200 000	200 000	200 000	200 000
Machinery/Equip Reserve	75 000	75 000	75 000	75 000	75 000
MFA Reserve Fund	700	600	500	500	500
Future Expenditure	307 600	-	-	-	-
Carbon Offsets Reserve	5 500	5 500	5 500	5 500	5 500
Total Transfers	688 800	281 100	281 000	281 000	281 000
Transfer to Appropriated Surplus					
Surplus contingency	3 600	29 500	21 500	18 500	9 400
	3 600	29 500	21 500	18 500	9 400
Total Expenses	**$ 7 299 900**	**$ 7 469 600**	**$ 7 743 200**	**$ 8 033 200**	**$ 8 341 100**

City of Courtenay
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City of Courtenay for the Years 2018 - 2022
Schedule F

Water Operating Fund	Budget 2018	2019	2020	2021	2022
Revenues					
Operating					
Frontage & Parcel Taxes	$ 1 159 900	$ 1 462 200	$ 1 844 800	$ 2 326 300	$ 2 349 500
Sale of Services	6 409 100	7 058 800	7 607 000	7 938 000	8 127 900
Revenue from Own Sources	132 800	141 500	144 700	147 700	150 700
Total Operating Revenues	7 701 800	8 662 500	9 596 500	10 412 000	10 628 100
Reserves & Surplus					
Future Expenditure	20 500	-	-	-	-
Water Efficiency	15 500	15 800	16 100	16 400	16 800
Gas Tax	110 000	-	-	-	-
Total Transfers	146 000	15 800	16 100	16 400	16 800
Equity in Assets	300 000	300 000	300 000	300 000	300 000
Total Revenues	**$ 8 147 800**	**$ 8 978 300**	**$ 9 912 600**	**$10 728 400**	**$10 944 900**
Expenses					
Operating					
General Administration	$ 1 627 300	$ 1 512 000	$ 1 545 400	$ 1 618 800	$ 1 613 500
CVRD - Supply	4 022 600	4 495 300	4 889 600	5 251 500	5 509 900
Transmission and Distribution	1 014 900	1 033 600	1 052 900	1 072 000	1 092 300
	6 664 800	7 040 900	7 487 900	7 942 300	8 215 700
Amortization	300 000	300 000	300 000	300 000	300 000
Total Operating Expenses	6 964 800	7 340 900	7 787 900	8 242 300	8 515 700
Transfers to Other Funds					
Water Capital Fund	974 300	1 530 600	1 780 600	2 030 600	2 030 600
	974 300	1 530 600	1 780 600	2 030 600	2 030 600
Transfers to Reserves					
Asset Management	100 000	-	250 000	350 000	300 000
Water Utility	37 700	41 400	42 400	43 400	44 300
Water Machinery & Equip	30 000	30 000	30 000	30 000	30 000
MFA	100	100	100	100	100
Future Expenditure	20 500	-	-	-	-
Carbon Offsets	5 500	5 500	5 500	5 500	5 500
	193 800	77 000	328 000	429 000	379 900
Transfer to Appropriated Surplus					
Contingency	14 900	29 800	16 100	26 500	18 700
Total Transfers	208 700	106 800	344 100	455 500	398 600
Total Expenses	**$ 8 147 800**	**$ 8 978 300**	**$ 9 912 600**	**$10 728 400**	**$10 944 900**

City of Courtenay
BYLAW NO. 2924, 2018
A Bylaw To Adopt the Consolidated Five Year Financial Plan of the
City of Courtenay for the Years 2018 - 2022
Schedule G

General Capital Fund	Budget 2018	2019	2020	2021	2022
Revenues					
Revenues					
Other Revenues	$ 50 000	$ 20 000	$ -	$ -	$ -
Grant and Contributions	671 000	664 900	504 600	423 400	339 400
	721 000	684 900	504 600	423 400	339 400
Transfers					
Operating Funds	2 811 000	2 308 100	3 106 600	3 957 600	5 164 400
	2 811 000	2 308 100	3 106 600	3 957 600	5 164 400
Reserves					
Community Works Reserve	4 094 300	3 254 900	1 200 000	800 000	800 000
Other Reserve Funds	3 539 400	2 915 700	1 777 000	1 197 000	996 000
	7 633 700	6 170 600	2 977 000	1 997 000	1 796 000
Total Transfers	10 444 700	8 478 700	6 083 600	5 954 600	6 960 400
Funding from Debt	-	1 791 400	9 422 100	7 300 000	3 650 000
Total Revenues	**$11 165 700**	**$10 955 000**	**$16 010 300**	**$13 678 000**	**$10 949 800**
Expenditures					
Capital Assets					
Land and improvements	493 900	389 000	614 000	752 000	967 000
Buildings	1 858 500	904 300	6 662 100	5 925 700	1 105 800
Equipments / Furnitures / Vehicles	1 703 300	1 212 000	794 000	701 000	2 201 000
Engineering Structures - Renewal	5 333 100	6 876 100	5 528 300	3 342 300	3 542 300
Engineering Structures - New	110 000	-	-	-	-
Other Tangible Capital Assets	275 000	55 000	90 000	65 000	65 000
	9 773 800	9 436 400	13 688 400	10 786 000	7 881 100
Debt					
Interest	535 400	$ 582 800	$ 878 800	$ 1 106 100	$ 1 161 400
Principal	856 500	935 800	1 443 100	1 785 900	1 907 300
	1 391 900	1 518 600	2 321 900	2 892 000	3 068 700
Total Expenditures	**$11 165 700**	**$10 955 000**	**$16 010 300**	**$13 678 000**	**$10 949 800**

City of Courtenay
BYLAW NO. 2924, 2018
A Bylaw To Adopt the Consolidated Five Year Financial Plan of the
City of Courtenay for the Years 2018 - 2022
Schedule H

Sewer Capital Fund	Budget				
	2018	2019	2020	2021	2022
Revenues					
Funding from Operating Fund					
Other Revenues	66 800	-	-	-	-
Sewer Operating Fund	941 800	1 341 500	1 341 500	1 341 500	1 341 500
	1 008 600	1 341 500	1 341 500	1 341 500	1 341 500
Reserves & Surplus					
Sewer Operating Surplus	307 600	-	-	-	-
General Reserve Funds	110 000	2 000 000	250 000	250 000	250 000
Gas Tax Reserve Fund	502 400	-	-	-	-
	920 000	2 000 000	250 000	250 000	250 000
Funding from Debt	-	2 500 000	-	-	-
Total Revenues	**$1 928 600**	**$5 841 500**	**$1 591 500**	**$1 591 500**	**$1 591 500**
Expenditures					
Debt					
Interest - Debenture Debt	54 900	131 900	131 900	131 900	131 900
Principal - Debenture Debt	75 200	209 600	209 600	209 600	209 600
	130 100	341 500	341 500	341 500	341 500
Capital Assets					
Equipment	585 000	-	-	-	-
Engineering Structures - Renewal	643 500	4 500 000	1 250 000	1 250 000	1 250 000
Engineering Structures - New	570 000	1 000 000	-	-	-
	1 798 500	5 500 000	1 250 000	1 250 000	1 250 000
Total Expenditures	**$1 928 600**	**$5 841 500**	**$1 591 500**	**$1 591 500**	**$1 591 500**

City of Courtenay
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A Bylaw To Adopt the Consolidated Five Year Financial Plan of the
City of Courtenay for the Years 2018 - 2022
Schedule I

Water Capital Fund	Budget 2018	2019	2020	2021	2022
Revenues					
Funding from Operating Fund					
Other Revenues	$ 404 200	$ -	$ -	$ -	$ -
Water Operating Fund	974 300	1 530 600	1 780 600	2 030 600	2 030 600
	1 378 500	1 530 600	1 780 600	2 030 600	2 030 600
Reserves & Surplus					
Water Surplus	20 500	-	-	-	-
Community Works (Gas Tax)	500 000	-	-	-	-
Other Reserves	1 287 000	-	-	-	-
	1 807 500	-	-	-	-
Total Revenues	**$3 186 000**	**$1 530 600**	**$1 780 600**	**$2 030 600**	**$2 030 600**
Expenditures					
Debt					
Interest - Debenture Debt	$ 10 500	$ 10 500	$ 10 500	$ 10 500	$ 10 500
Principal - Debenture Debt	20 100	20 100	20 100	20 100	20 100
	30 600	30 600	30 600	30 600	30 600
Capital Assets					
Engineering Structures - Renewal	1 593 500	1 500 000	1 750 000	2 000 000	2 000 000
Engineering Structures - New	1 561 900	-	-	-	-
	3 155 400	1 500 000	1 750 000	2 000 000	2 000 000
Total Expenditures	**$3 186 000**	**$1 530 600**	**$1 780 600**	**$2 030 600**	**$2 030 600**

Objectives and Policies for Schedule "A" Bylaw 2924

Proportion of Revenue by Source

Property Tax Policies

- The City of Courtenay will attempt to keep the proportional share of revenue from property taxes at a level similar to the average of comparable municipalities.
- Where new sources of revenue are made available to the City from senior governments, wherever possible these revenues will be used to reduce dependency on property taxation revenue.

Parcel Tax Policies

- Parcel taxes will be used whenever Council determines that they are more appropriate than property taxes.

Fees & Charges

- Wherever possible, fees & charges will be used to assign costs to those who benefit from the service provided. The proportion of costs recovered by fees and charges will vary with the nature of the service provided.

Proceeds of Borrowing

- Borrowing will be considered when determining the funding sources of large capital projects that provide benefits to taxpayers over a long period of time.

Other Sources of Revenue

- The City will continue to seek other sources of revenue in order to reduce reliance on property taxes.

	2016		2017		2018	
Revenue Source	**Amount**	**% Total Revenue**	**Amount**	**% Total Revenue**	**Amount**	**% Total Revenue**
Property Value Taxes	$22,677,200	35.4%	24,056,300	39.2%	24,954,500	38.1%
Parcel Taxes	2,655,500	4.2%	2,858,000	4.7%	3,133,400	4.8%
Fees and Charges	16,077,600	19.3%	17,424,000	28.4%	18,612,300	28.5%
Other Sources	4,504,400	15.8%	5,484,000	8.9%	4,306,700	6.6%
Reserves/Surpluses	13,648,600	25.3%	11,560,200	18.8%	14,413,100	22.0%
Borrowing	-	0.0%	-	0.0%	-	0.0%
TOTAL	**$59,563,300**	**100.0%**	**$61,382,700**	**100.0%**	**65,420,000**	**100.0%**

Objectives and Policies for Schedule "B" Bylaw 2924

Permissive Tax Exemptions

- A permissive tax exemption is strictly at the discretion of the City of Courtenay Council. After careful consideration of all applications Council may approve a full, a partial, or no tax exemption. The tax exemption may vary for the different applicants.
- The cumulative value of permissive tax exemptions shall not exceed 2% of the total tax levy of the previous year.

Permissive Property Tax Exemptions	2016 ($)	2017 ($)	2018($)
City owned properties / managed by not-for-profit groups	175,040	182,352	176,946
Not-for Profit Organizations	133,867	136,224	144,990
Churches	15,486	15,760	16,052
TOTAL	**324,393**	**334,336**	**337,988**
Prior year tax levy for municipal purposes	21,106,452	21,951,300	22,108,900
As a percentage of municipal tax levy	**1.54%**	**1.52%**	**1.53%**

City of Courtenay
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A Bylaw To Adopt the Consolidated Five Year Financial Plan of the
City of Courtenay for the Years 2018 - 2022
Schedule C

Consolidated Financial Plan	Budget				
	2018	2019	2020	2021	2022
Revenues					
Taxes					
General Property Taxes	$ 24 236 300	$ 25 403 000	$ 26 768 900	$ 28 275 600	$ 31 173 700
Collections for Other Governments	21 021 800	21 931 200	22 448 300	22 950 100	23 333 900
Total Property Taxes	45 258 100	47 334 200	49 217 200	51 225 700	54 507 600
Frontage & Parcel Taxes	3 133 400	3 728 800	4 113 000	4 601 600	4 634 700
Grants in Place of Property Taxes	462 400	469 900	477 100	484 800	492 700
% of Revenue Tax	399 500	407 500	415 700	423 900	432 400
Total Taxes Collected	49 253 400	51 940 400	54 223 000	56 736 000	60 067 400
Less: Transfers to Other Governments	(21 165 500)	(22 077 300)	(22 596 600)	(23 100 900)	(23 487 100)
Net Taxes for Municipal Purposes	**28 087 900**	**29 863 100**	**31 626 400**	**33 635 100**	**36 580 300**
Other Revenues					
Fees and Charges	18 612 300	19 671 800	20 612 800	21 351 800	21 966 000
Revenue from Other Sources	1 754 800	1 279 100	1 279 100	1 379 400	1 401 700
Other Contributions	671 000	664 900	504 600	423 400	339 400
Transfers from Other Govt & Agencies	1 880 900	1 914 600	1 952 600	1 991 300	2 031 100
Total Other Revenues	22 919 000	23 530 400	24 349 100	25 145 900	25 738 200
Total Operating Revenues	**51 006 900**	**53 393 500**	**55 975 500**	**58 781 000**	**62 318 500**
Transfers From Reserves and Surplus					
From Reserves	12 621 400	9 424 400	4 481 100	3 501 400	3 300 800
Fom Surplus	1 791 700	777 100	575 200	510 000	-
Total from Reserves and Surplus	**14 413 100**	**10 201 500**	**5 056 300**	**4 011 400**	**3 300 800**
Funding from Debt	-	**4 291 400**	**9 422 100**	**7 300 000**	**3 650 000**
Total Revenues	**65 420 000**	**67 886 400**	**70 453 900**	**70 092 400**	**69 269 300**
Equity in Capital Assets	4 425 000	4 425 000	4 425 000	4 425 000	4 425 000
	$ 69 845 000	**$ 72 311 400**	**$ 74 878 900**	**$ 74 517 400**	**$ 73 694 300**
Expenses					
Operating Expenses					
General Government	$ 4 132 200	$ 4 266 200	$ 4 371 900	$ 4 449 800	$ 4 582 500
Protective Services	8 579 100	8 739 400	8 912 700	9 090 700	9 272 000
Public Works Services	7 925 000	8 005 800	7 933 700	8 037 200	8 189 400
Environmental Health Services	15 402 900	15 994 800	16 753 400	17 566 600	18 223 700
Public Health Services	305 600	311 600	317 900	324 200	330 900
Development Services	2 021 600	1 882 000	1 867 000	1 901 500	1 937 300
Recreation & Cultural Services	7 167 800	7 170 600	7 314 800	7 463 500	7 613 900
	45 534 200	46 370 400	47 471 400	48 833 500	50 149 700
Amortization	4 425 000	4 425 000	4 425 000	4 425 000	4 425 000
Total Operating Expenses	**49 959 200**	**50 795 400**	**51 896 400**	**53 258 500**	**54 574 700**
Capital Transactions					
Capital Assets					
Land and Improvements	493 900	389 000	614 000	752 000	967 000
Buildings	1 858 500	904 300	6 662 100	5 925 700	1 105 800
Equipment	2 288 300	1 212 000	794 000	701 000	2 201 000
Engineering Structures - Renewal	7 570 100	12 876 100	8 528 300	6 592 300	6 792 300
Engineering Structures - New	2 241 900	1 000 000	-	-	-
Other Capital Assets	275 000	55 000	90 000	65 000	65 000
	14 727 700	16 436 400	16 688 400	14 036 000	11 131 100
Debt for Capital Assets					
Interest	600 800	725 200	1 021 200	1 248 500	1 303 800
Principal	951 800	1 165 500	1 672 800	2 015 600	2 137 000
	1 552 600	1 890 700	2 694 000	3 264 100	3 440 800
Total Capital Transactions	**16 280 300**	**18 327 100**	**19 382 400**	**17 300 100**	**14 571 900**
Transfers to Reserves & Surplus					
To Reserves	3 587 000	3 129 600	3 562 500	3 913 800	4 425 100
To Appropriated Surplus	18 500	59 300	37 600	45 000	122 600
Total to Reserves and Surplus	**3 605 500**	**3 188 900**	**3 600 100**	**3 958 800**	**4 547 700**
	$ 69 845 000	**$ 72 311 400**	**$ 74 878 900**	**$ 74 517 400**	**$ 73 694 300**

City of Courtenay
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A Bylaw To Adopt the Consolidated Five Year Financial Plan of the
City of Courtenay for the Years 2018 - 2022
Schedule D

General Operating Fund	Budget				
	2018	2019	2020	2021	2022
REVENUES					
Taxes					
General Municipal Taxes	$ 24 236 300	$ 25 403 000	$ 26 768 900	$ 28 275 600	$ 31 173 700
Collections for Other Governments	21 021 800	21 931 200	22 448 300	22 950 100	23 333 900
Total Taxes Collected	45 258 100	47 334 200	49 217 200	51 225 700	54 507 600
Less:					
Property Taxes for Other Governments	(21 021 800)	(21 931 200)	(22 448 300)	(22 950 100)	(23 333 900)
	(21 165 500)	(22 077 300)	(22 596 600)	(23 100 900)	(23 487 100)
Net Municipal Taxes	24 092 600	25 256 900	26 620 600	28 124 800	31 020 500
Grants in Lieu of Taxes	462 400	469 900	477 100	484 800	492 700
% of Revenue Tax	399 500	407 500	415 700	423 900	432 400
Taxes for Municipal Purposes	24 954 500	26 134 300	27 513 400	29 033 500	31 945 600
Fees and Charges	7 435 300	7 585 800	7 706 500	7 831 600	7 957 900
Revenue from Other Sources	1 050 100	1 066 800	1 083 700	1 181 000	1 200 300
Transfers from Other Govt & Agencies	1 880 900	1 914 600	1 952 600	1 991 300	2 031 100
Transfers-Reserves	1 731 600	1 238 000	1 238 000	1 238 000	1 238 000
Transfers-Surplus	1 791 700	777 100	575 200	510 000	-
Equity in Capital Assets	4 000 000	4 000 000	4 000 000	4 000 000	4 000 000
	$42 844 100	$42 716 600	$44 069 400	$ 45 785 400	$ 48 372 900
EXPENDITURES					
Operating Expenditures					
General Government	$ 4 132 200	$ 4 266 200	$ 4 371 900	$ 4 449 800	$ 4 582 500
Protective Services	8 579 100	8 739 400	8 912 700	9 090 700	9 272 000
Public Works Services	7 925 000	8 005 800	7 933 700	8 037 200	8 189 400
Environmental Health Services	3 197 400	3 261 400	3 291 300	3 357 100	3 423 800
Public Health Services	305 600	311 600	317 900	324 200	330 900
Development Services	2 021 600	1 882 000	1 867 000	1 901 500	1 937 300
Parks, Recreation & Cultural Services	7 167 800	7 170 600	7 314 800	7 463 500	7 613 900
Total Operating Expenses	33 328 700	33 637 000	34 009 300	34 624 000	35 349 800
Amortization	4 000 000	4 000 000	4 000 000	4 000 000	4 000 000
Total Expenses	37 328 700	37 637 000	38 009 300	38 624 000	39 349 800
Transfer to Capital Fund	2 811 000	2 308 100	3 106 600	3 957 600	5 164 400
Transfer to Reserve Funds	2 704 400	2 771 500	2 953 500	3 203 800	3 764 200
Transfer to Surplus	-	-	-	-	94 500
	5 515 400	5 079 600	6 060 100	7 161 400	9 023 100
	$42 844 100	$42 716 600	$44 069 400	$ 45 785 400	$ 48 372 900

City of Courtenay
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A Bylaw To Adopt the Consolidated Five Year Financial Plan of the
City of Courtenay for the Years 2018 - 2022
Schedule E

Sewer Operating Fund	Budget				
	2018	2019	2020	2021	2022
Revenues					
Operating					
Frontage & Parcel Taxes	$ 1 973 500	$ 2 266 600	$ 2 268 200	$ 2 275 300	$ 2 285 200
Sale of Services	4 767 900	5 027 200	5 299 300	5 582 200	5 880 200
Revenue from Own Sources	50 900	50 800	50 700	50 700	50 700
Total Operating Revenues	6 792 300	7 344 600	7 618 200	7 908 200	8 216 100
Reserves & Surplus					
Future Expenditure Reserve	307 600	-	-	-	-
Gas Tax Fund	75 000	-	-	-	-
Total Reserves & Surplus	382 600	-	-	-	-
Equity in Capital Assets	125 000	125 000	125 000	125 000	125 000
	125 000	125 000	125 000	125 000	125 000
Total Revenues	**$ 7 299 900**	**$ 7 469 600**	**$ 7 743 200**	**$ 8 033 200**	**$ 8 341 100**
Expenses					
Operating					
General Administration	$ 1 118 800	$ 1 026 000	$ 1 049 100	$ 1 068 500	$ 1 096 000
CVRD	3 890 900	4 124 400	4 371 800	4 634 200	4 912 200
Collection	531 000	542 100	553 300	564 500	576 000
	5 540 700	5 692 500	5 974 200	6 267 200	6 584 200
Amortization	125 000	125 000	125 000	125 000	125 000
Total Operating Expenses	5 665 700	5 817 500	6 099 200	6 392 200	6 709 200
Transfers to Other Funds					
General Fund					
Sewer Capital Fund	941 800	1 341 500	1 341 500	1 341 500	1 341 500
	941 800	1 341 500	1 341 500	1 341 500	1 341 500
Transfers to Reserves					
Asset Management Reserve	300 000	200 000	200 000	200 000	200 000
Machinery/Equip Reserve	75 000	75 000	75 000	75 000	75 000
MFA Reserve Fund	700	600	500	500	500
Future Expenditure	307 600	-	-	-	-
Carbon Offsets Reserve	5 500	5 500	5 500	5 500	5 500
Total Transfers	688 800	281 100	281 000	281 000	281 000
Transfer to Appropriated Surplus					
Surplus contingency	3 600	29 500	21 500	18 500	9 400
	3 600	29 500	21 500	18 500	9 400
Total Expenses	**$ 7 299 900**	**$ 7 469 600**	**$ 7 743 200**	**$ 8 033 200**	**$ 8 341 100**

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City of Courtenay for the Years 2018 - 2022
Schedule F

Water Operating Fund	Budget 2018	2019	2020	2021	2022
Revenues					
Operating					
Frontage & Parcel Taxes	$ 1 159 900	$ 1 462 200	$ 1 844 800	$ 2 326 300	$ 2 349 500
Sale of Services	6 409 100	7 058 800	7 607 000	7 938 000	8 127 900
Revenue from Own Sources	132 800	141 500	144 700	147 700	150 700
Total Operating Revenues	7 701 800	8 662 500	9 596 500	10 412 000	10 628 100
Reserves & Surplus					
Future Expenditure	20 500	-	-	-	-
Water Efficiency	15 500	15 800	16 100	16 400	16 800
Gas Tax	110 000	-	-	-	-
Total Transfers	146 000	15 800	16 100	16 400	16 800
Equity in Assets	300 000	300 000	300 000	300 000	300 000
Total Revenues	**$ 8 147 800**	**$ 8 978 300**	**$ 9 912 600**	**$10 728 400**	**$10 944 900**
Expenses					
Operating					
General Administration	$ 1 627 300	$ 1 512 000	$ 1 545 400	$ 1 618 800	$ 1 613 500
CVRD - Supply	4 022 600	4 495 300	4 889 600	5 251 500	5 509 900
Transmission and Distribution	1 014 900	1 033 600	1 052 900	1 072 000	1 092 300
	6 664 800	7 040 900	7 487 900	7 942 300	8 215 700
Amortization	300 000	300 000	300 000	300 000	300 000
Total Operating Expenses	6 964 800	7 340 900	7 787 900	8 242 300	8 515 700
Transfers to Other Funds					
Water Capital Fund	974 300	1 530 600	1 780 600	2 030 600	2 030 600
	974 300	1 530 600	1 780 600	2 030 600	2 030 600
Transfers to Reserves					
Asset Management	100 000	-	250 000	350 000	300 000
Water Utility	37 700	41 400	42 400	43 400	44 300
Water Machinery & Equip	30 000	30 000	30 000	30 000	30 000
MFA	100	100	100	100	100
Future Expenditure	20 500	-	-	-	-
Carbon Offsets	5 500	5 500	5 500	5 500	5 500
	193 800	77 000	328 000	429 000	379 900
Transfer to Appropriated Surplus					
Contingency	14 900	29 800	16 100	26 500	18 700
Total Transfers	208 700	106 800	344 100	455 500	398 600
Total Expenses	**$ 8 147 800**	**$ 8 978 300**	**$ 9 912 600**	**$10 728 400**	**$10 944 900**

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Schedule G

General Capital Fund	Budget 2018	2019	2020	2021	2022
Revenues					
Revenues					
Other Revenues	$ 50 000	$ 20 000	$ -	$ -	$ -
Grant and Contributions	671 000	664 900	504 600	423 400	339 400
	721 000	684 900	504 600	423 400	339 400
Transfers					
Operating Funds	2 811 000	2 308 100	3 106 600	3 957 600	5 164 400
	2 811 000	2 308 100	3 106 600	3 957 600	5 164 400
Reserves					
Community Works Reserve	4 094 300	3 254 900	1 100 000	800 000	800 000
Other Reserve Funds	3 539 400	2 915 700	1 877 000	1 197 000	996 000
	7 633 700	6 170 600	2 977 000	1 997 000	1 796 000
Total Transfers	10 444 700	8 478 700	6 083 600	5 954 600	6 960 400
Funding from Debt	-	1 791 400	9 422 100	7 300 000	3 650 000
Total Revenues	**$11 165 700**	**$10 955 000**	**$16 010 300**	**$13 678 000**	**$10 949 800**
Expenditures					
Capital Assets					
Land and improvements	493 900	389 000	614 000	752 000	967 000
Buildings	1 858 500	904 300	6 662 100	5 925 700	1 105 800
Equipments / Furnitures / Vehicles	1 703 300	1 212 000	794 000	701 000	2 201 000
Engineering Structures - Renewal	5 333 100	6 876 100	5 528 300	3 342 300	3 542 300
Engineering Structures - New	110 000	-	-	-	-
Other Tangible Capital Assets	275 000	55 000	90 000	65 000	65 000
	9 773 800	9 436 400	13 688 400	10 786 000	7 881 100
Debt					
Interest	535 400	$ 582 800	$ 878 800	$ 1 106 100	$ 1 161 400
Principal	856 500	935 800	1 443 100	1 785 900	1 907 300
	1 391 900	1 518 600	2 321 900	2 892 000	3 068 700
Total Expenditures	**$11 165 700**	**$10 955 000**	**$16 010 300**	**$13 678 000**	**$10 949 800**

City of Courtenay
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Schedule H

Sewer Capital Fund	Budget				
	2018	2019	2020	2021	2022
Revenues					
Funding from Operating Fund					
Other Revenues	66 800	-	-	-	-
Sewer Operating Fund	941 800	1 341 500	1 341 500	1 341 500	1 341 500
	1 008 600	1 341 500	1 341 500	1 341 500	1 341 500
Reserves & Surplus					
Sewer Operating Surplus	307 600	-	-	-	-
General Reserve Funds	110 000	2 000 000	250 000	250 000	250 000
Gas Tax Reserve Fund	502 400	-	-	-	-
	920 000	2 000 000	250 000	250 000	250 000
Funding from Debt	-	2 500 000	-	-	-
Total Revenues	**$1 928 600**	**$5 841 500**	**$1 591 500**	**$1 591 500**	**$1 591 500**
Expenditures					
Debt					
Interest - Debenture Debt	54 900	131 900	131 900	131 900	131 900
Principal - Debenture Debt	75 200	209 600	209 600	209 600	209 600
	130 100	341 500	341 500	341 500	341 500
Capital Assets					
Equipment	585 000	-	-	-	-
Engineering Structures - Renewal	643 500	4 500 000	1 250 000	1 250 000	1 250 000
Engineering Structures - New	570 000	1 000 000	-	-	-
	1 798 500	5 500 000	1 250 000	1 250 000	1 250 000
Total Expenditures	**$1 928 600**	**$5 841 500**	**$1 591 500**	**$1 591 500**	**$1 591 500**

City of Courtenay
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City of Courtenay for the Years 2018 - 2022
Schedule I

Water Capital Fund	Budget 2018	2019	2020	2021	2022
Revenues					
Funding from Operating Fund					
Other Revenues	$ 404 200	$ -	$ -	$ -	$ -
Water Operating Fund	974 300	1 530 600	1 780 600	2 030 600	2 030 600
	1 378 500	1 530 600	1 780 600	2 030 600	2 030 600
Reserves & Surplus					
Water Surplus	20 500	-	-	-	-
Community Works (Gas Tax)	500 000	-	-	-	-
Other Reserves	1 287 000	-	-	-	-
	1 807 500	-	-	-	-
Total Revenues	**$3 186 000**	**$1 530 600**	**$1 780 600**	**$2 030 600**	**$2 030 600**
Expenditures					
Debt					
Interest - Debenture Debt	$ 10 500	$ 10 500	$ 10 500	$ 10 500	$ 10 500
Principal - Debenture Debt	20 100	20 100	20 100	20 100	20 100
	30 600	30 600	30 600	30 600	30 600
Capital Assets					
Engineering Structures - Renewal	1 593 500	1 500 000	1 750 000	2 000 000	2 000 000
Engineering Structures - New	1 561 900	-	-	-	-
	3 155 400	1 500 000	1 750 000	2 000 000	2 000 000
Total Expenditures	**$3 186 000**	**$1 530 600**	**$1 780 600**	**$2 030 600**	**$2 030 600**