APPENDIX C

HYDROLOGIC AND HYDRAULIC MODELING

Water Levels
Niveaux d'eau

Great Lakes and Montreal Harbour

Monthly Bulletin prepared by the
Canadian Hydrographic Service
Department of Fisheries and Oceans

Grands Lacs et port de Montréal

Bulletin mensuel préparé par le
Service hydrographique du Canada
Ministère des Pêches et des Océans
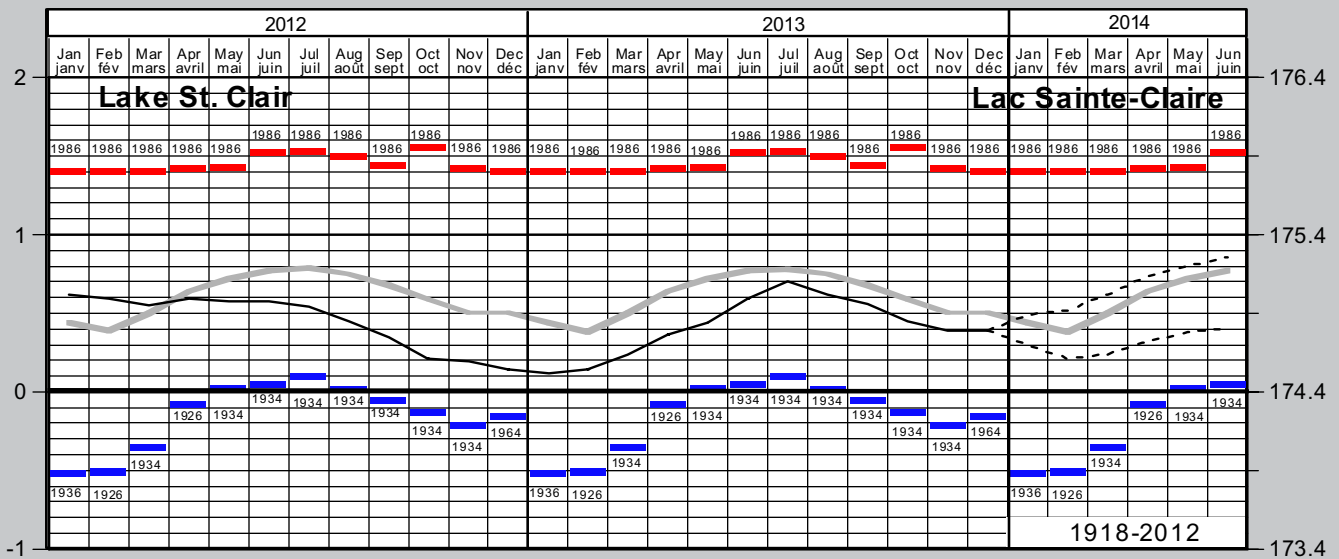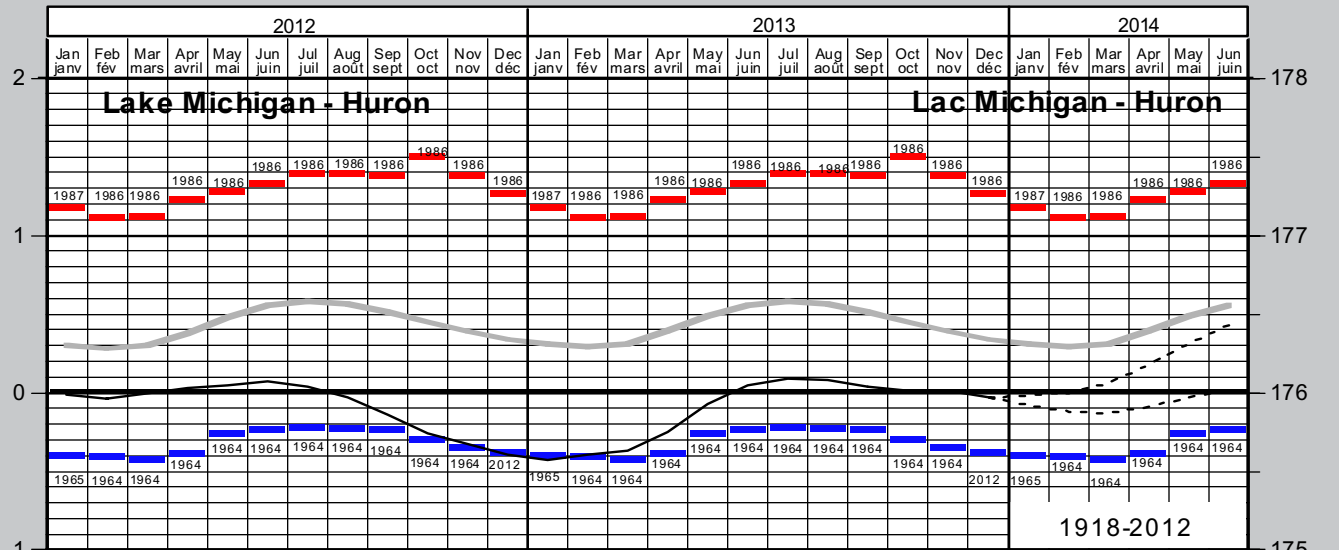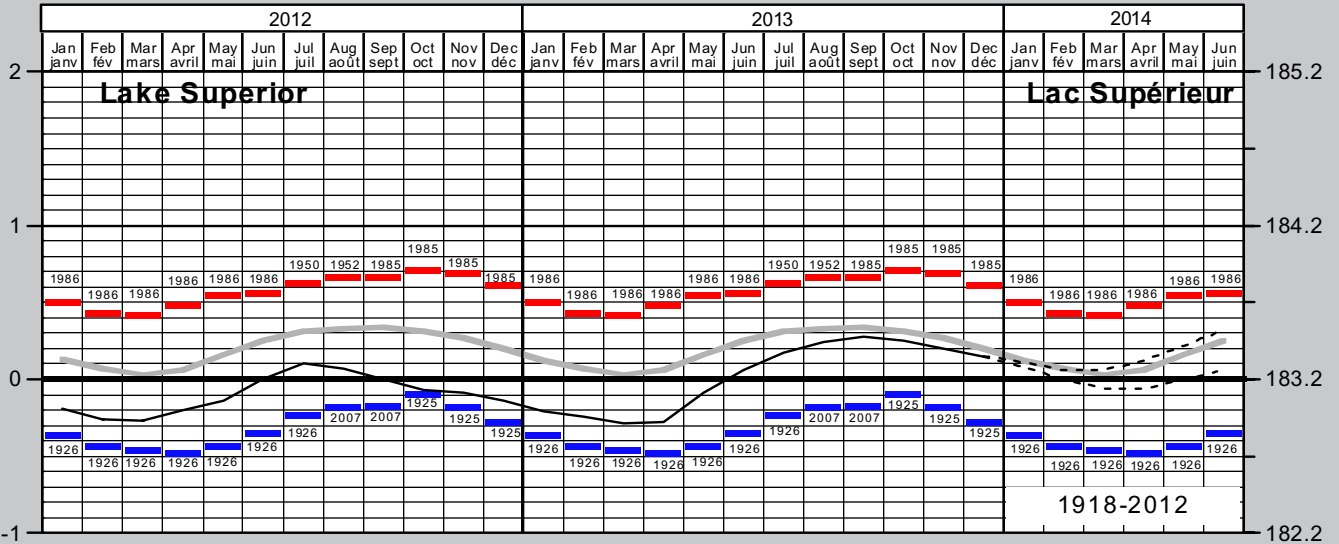
December 2013 Décembre

Water Level Advisory

Water levels on Lake Michigan-Huron are below the level of Chart Datum. Water levels on Lake Superior, Lake St.Clair, Lake Erie, and at Montreal Harbour are below their all-time average for this time of year and are above the level of Chart Datum. Water levels on Lake Ontario are near their all-time average level for this time of year and are above the level of Chart Datum. **Mariners should exercise extreme caution throughout the entire system, especially during periods of strong winds when water levels can rise or fall significantly in a short period of time.**

Avis du niveau d'eau

Les niveaux d'eau de lac Michigan-Huron sont au-dessous du zéro des cartes. Les niveaux d'eau des lacs Supérieur, Sainte-Claire, Érié, et du port de Montréal sont en dessous de leur moyenne de tous les temps pour cette période de l'année et sont au-dessus du zéro des cartes. Les niveaux de l'eau de lac Ontario sont proches de leurs moyennes historiques pour cette période de l'année. **Les navigateurs devraient faire preuve de beaucoup de prudence à travers tout le bassin hydrographique,** *tout part***iculièrement lors**qu'il vente très fort, car dans de telles situations, le niveau de l'eau peut grandement augmenter ou diminuer en très peu de temps.
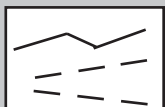
December 2013 Décembre

Water Levels in metres referred to chart datum / Niveaux d'eau en mètres par rapport au Zéro des cartes
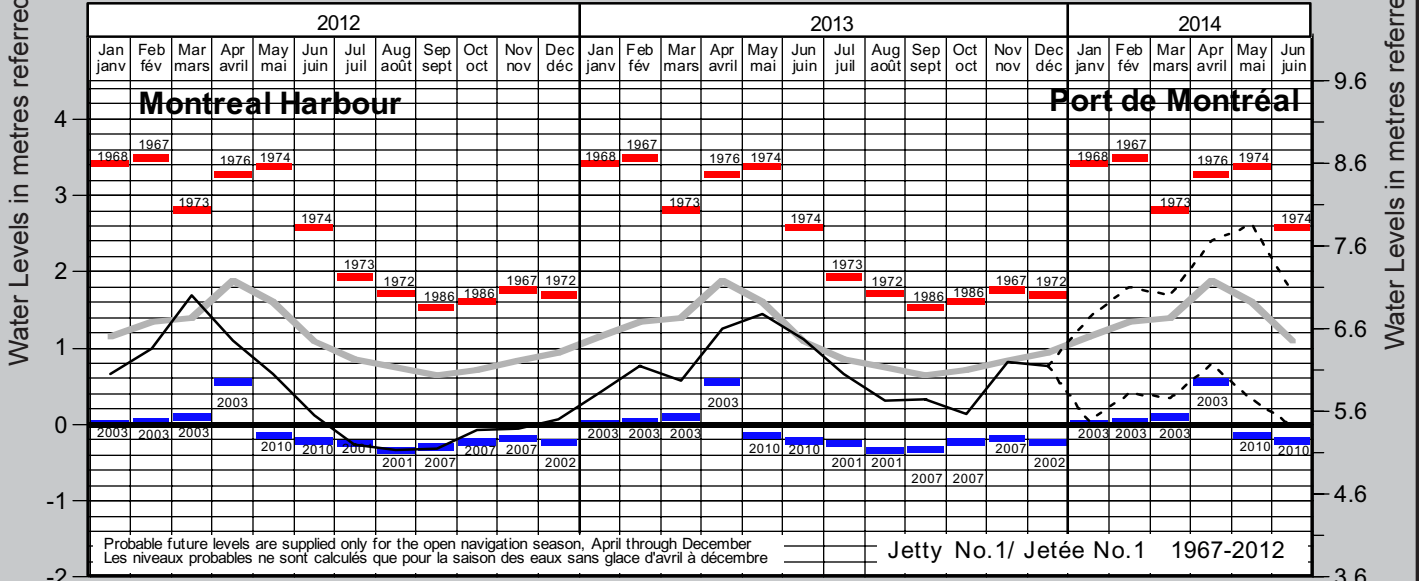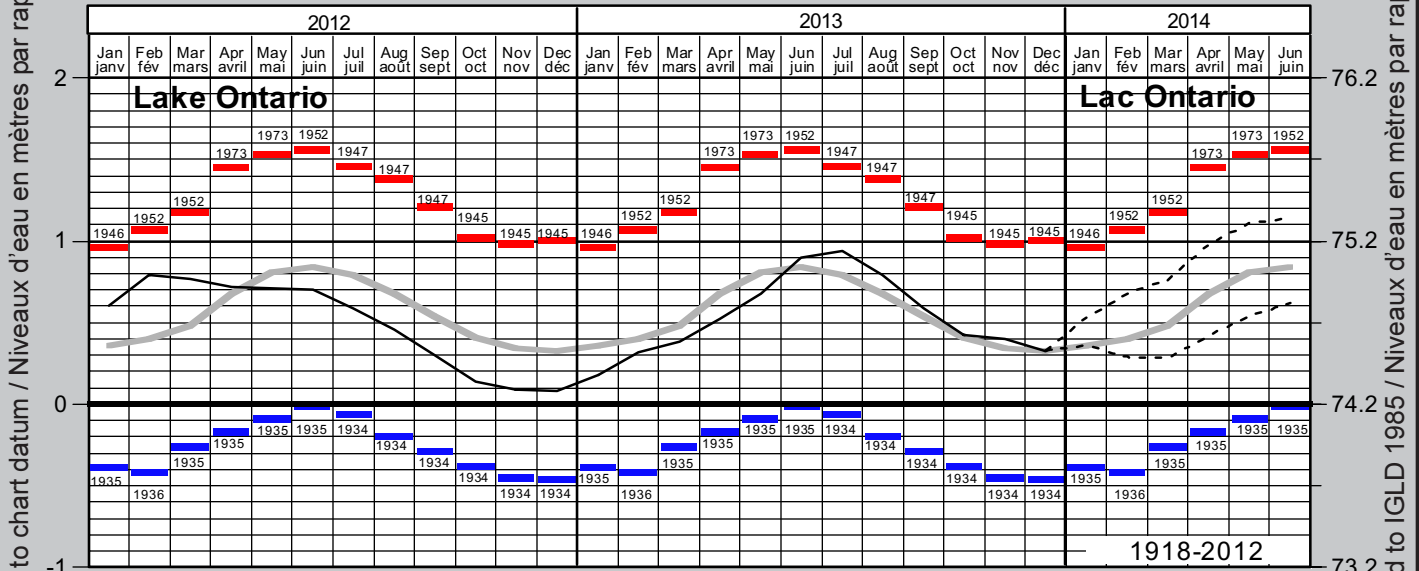
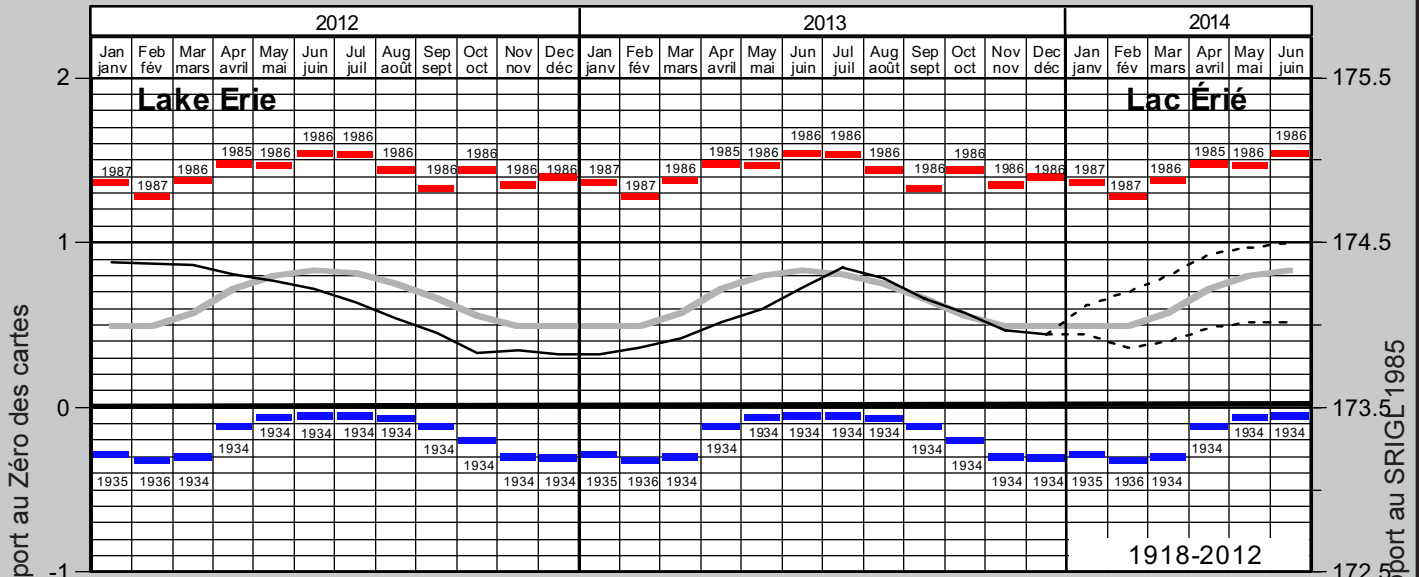**Water Levels in metres referred to IGLD 1985 / Niveaux d'eau en mètres par rapport au SRIGL 1985**

Lake Superior / Lac Supérieur

2012	2013	2014
Jan janv Feb fév Mar mars Apr avril May mai Jun juin Jul juil Aug août Sep sept Oct oct Nov nov Dec déc	Jan janv Feb fév Mar mars Apr avril May mai Jun juin Jul juil Aug août Sep sept Oct oct Nov nov Dec déc	Jan janv Feb fév Mar mars Apr avril May mai Jun juin

1918-2012

(vertical axis: 2, 1, 0, -1 left; 185.2, 184.2, 183.2, 182.2 right)

Record high years: 1986, 1986, 1986, 1986, 1986, 1986, 1950, 1952, 1985, 1985, 1985, 1985
Record low years: 1926, 1926, 1926, 1926, 1926, 1926, 1926, 2007, 2007, 1925, 1925, 1925

Lake Michigan - Huron / Lac Michigan - Huron

2012	2013	2014
Jan janv Feb fév Mar mars Apr avril May mai Jun juin Jul juil Aug août Sep sept Oct oct Nov nov Dec déc	Jan janv Feb fév Mar mars Apr avril May mai Jun juin Jul juil Aug août Sep sept Oct oct Nov nov Dec déc	Jan janv Feb fév Mar mars Apr avril May mai Jun juin

1918-2012

(vertical axis: 2, 1, 0, -1 left; 178, 177, 176, 175 right)

Record high years: 1987, 1986, 1986, 1986, 1986, 1986, 1986, 1986, 1986, 1986, 1986, 1986
Record low years: 1965, 1964, 1964, 1964, 1964, 1964, 1964, 1964, 1964, 1964, 1964, 2012

Lake St. Clair / Lac Sainte-Claire

2012	2013	2014
Jan janv Feb fév Mar mars Apr avril May mai Jun juin Jul juil Aug août Sep sept Oct oct Nov nov Dec déc	Jan janv Feb fév Mar mars Apr avril May mai Jun juin Jul juil Aug août Sep sept Oct oct Nov nov Dec déc	Jan janv Feb fév Mar mars Apr avril May mai Jun juin

1918-2012

(vertical axis: 2, 1, 0, -1 left; 176.4, 175.4, 174.4, 173.4 right)

Record high years: 1986
Record low years: 1936, 1926, 1934, 1934, 1934, 1934, 1934, 1934, 1934, 1934, 1934, 1964

Recorded Monthly Mean Level — Niveaux moyens mensuels enregistrés

Probable Range of Future Levels — Prévisions pour les mois à venir

December 2013 Décembre

Lake Erie / Lac Érié

	2012	2013	2014

1918-2012

Lake Ontario / Lac Ontario

	2012	2013	2014

1918-2012

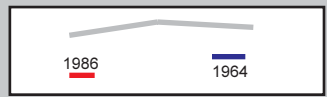## Montreal Harbour / Port de Montréal

	2012	2013	2014

Probable future levels are supplied only for the open navigation season, April through December
Les niveaux probables ne sont calculés que pour la saison des eaux sans glace d'avril à décembre

Jetty No.1/ Jetée No.1   1967-2012

All - time Average

Historical extremes - Maximum / Year

1986   1964

Moyenne de tout temps

Minimum / Année - Extrêmes historiques

Monthly Mean Water Levels
in metres referred to IGLD 1985

Niveaux d'eau moyens mensuels
en mètres par rapport au SRIGL 1985

December 2013 Décembre	Lake Superior	Lake Huron	Lake St. Clair	Lake Erie	Lake Ontario	Montréal
Mean for month (preliminary data) Moyenne mensuelle (données préliminaires)	183.35	175.97	174.79	173.94	74.53	6.32
Mean for month last year Moyenne mensuelle, l'année dernière	183.06	175.61	174.54	173.82	74.28	5.62
Mean for month, last 10 years Moyenne mensuelle, 10 dernières années	183.17	175.92	174.77	173.98	74.54	6.35
Statistics for period of record Statistiques pour la periode d'observation	1918-2012	1918-2012	1918-2012	1918-2012	1918-2012	1967-2012
Maximum monthly mean / year Moyenne mensuelle maximale / année	183.81 1985	177.26 1986	175.80 1986	174.89 1986	75.20 1945	7.24 1972
Mean for month / Moyenne mensuelle	183.40	176.33	174.90	173.98	74.52	6.52
Minimum monthly mean / year Moyenne mensuelle minimale / année	182.92 1925	175.61 2012	174.24 1964	173.19 1934	73.74 1934	5.56 2007
Probable mean for next month Moyenne probable du mois prochain	183.30	175.95	174.80	174.02	74.62	6.16
Chart datum / Zéro des cartes	183.2	176.0	174.4	173.5	74.2	5.55

To convert from metres to feet, divide by 0.3048

Pour convertir de mètres en pieds, divisez par 0.3048

Information

Renseignements

The monthly mean levels for the previous year and current year shown on the graphs are the average of water levels recorded at a network of gauging stations on each lake. Historical data from these networks are used to determine the all-time average and the historical extreme monthly levels.

Water levels for the Canadian stations in the networks are collected by the Canadian Hydrographic Service. Six month forecasts of the probable range of future levels are prepared under the auspices of the International Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data by Environment Canada and the Detroit District, Corps of Engineers.

This bulletin is prepared each month as a public service and is available on the World Wide Web at:

http://www.waterlevels.gc.ca/C&A/bulletin_e.html

Additional information on water levels in the Great Lakes System may be obtained by telephoning the Canadian Hydrographic Service at (877) CHS-LINK (877-247-5465), by fax at (905) 336-8916, or by email at CATCWL@dfo-mpo.gc.ca

World Wide Web at:

http://www.waterlevels.gc.ca/C&A/tidal_e.html

Les niveaux moyens mensuels de l'année précédente et de l'année courante indiqués sur les graphiques sont la moyenne des niveaux d'eau enregistrés à un réseau de stations limnigraphiques sur chaque lac. Les données historiques de ces réseaux sont utilisées pour déterminer les moyennes mensuelles de tout temps et les extrêmes historiques.

Les niveaux d'eau pour les stations canadiennes dans les réseaux sont recueillis par le Service hydrographique du Canada. Les prédictions de six mois sont préparées sous les auspices du Comité international de coordination sur les données de base hydrauliques et hydrologiques des Grands Lacs par Environnement Canada et le "Detroit District, Corps of Engineers".

Ce bulletin est préparé chaque mois à titre de service au public et et est disponible sur le Web à:

http://www.waterlevels.gc.ca/C&A/bulletin_f.html

On peut obtenir de plus amples renseignements sur les niveaux d'eau du réseau des Grands Lacs en téléphonant durant les heures de bureau au Service hydrographique du Canada au (877) CHS-LINK (877-247-5465), par télécopieur à (905) 336-8916 ou par courrier électronique à CATCWL@dfo-mpo.gc.ca.

World Wide Web à :

http://www.waterlevels.gc.ca/C&A/tidal_f.html

TABLE C1: HYDROLOGIC MODELLING PARAMETERS

Subcatchment	Drainage Area (ha)	SCS Soil Class	Base CN for Pervious Area (AMC-II)	Overland Flow Length (m)	Slope (%)	Total Imperviousness (%)	Directly Connected Imperviousness (%)	CN Applied for Pervious Area	Depression Storage for Pervious Area (mm)
100	2.52	BC	68	42	2	37.2	0.0	79.2	3.5
101	0.34	BC	68	29.5	2	58.2	0.0	85.5	2.7
102	3.07	BC	68	48	2	42.2	29.8	73.3	4.3
103	3.72	BC	68	52	2	39.4	0.0	79.8	3.4
104	1.55	BC	68	27	2	30.0	0.0	77.0	3.8
105	0.27	BC	68	52	2	54.1	44.3	73.3	4.3
106	0.64	BC	68	50	2	37.8	0.0	79.3	3.5
107	0.37	BC	68	53	2	50.8	40.3	73.3	4.3
108	1.21	BC	68	107	2	40.7	27.2	73.6	4.3
109	0.62	BC	68	50	2	41.4	28.9	73.3	4.3
110	0.59	BC	68	50	2	39.0	26.0	73.3	4.3
111	1.37	BC	68	50	2	36.8	23.2	73.3	4.3
112	3.56	BC	68	50	2	38.4	25.2	73.3	4.3
113	0.68	BC	68	65	2	40.7	11.3	78.0	3.7
114	1.12	BC	68	60	2	35.8	8.8	76.9	3.8
115	0.43	BC	68	130	0.5	28.3	28.3	68.0	5.0
116	2.48	BC	68	43	2	39.8	0.0	80.0	3.4
117	0.37	BC	68	51	2	41.6	0.0	80.5	3.3
118	0.86	BC	68	45	2	37.4	0.0	79.2	3.5
119	2.16	BC	68	47	2	40.6	0.0	80.2	3.4
120	1.11	BC	68	60	2	38.8	0.0	79.6	3.4
121	1.02	BC	68	20	2	48.0	45.1	69.6	4.8
122	1.28	BC	68	55	2	39.6	0.0	79.9	3.4
123	3.85	BC	68	120	1.4	19.6	8.4	71.7	4.5
124	0.78	BC	68	59	2	37.2	0.0	79.1	3.5
125	2.53	BC	68	66	2	47.7	7.1	81.1	3.3
126	2.32	BC	68	70	1	45.0	16.9	78.1	3.6
127	2.58	BC	68	72	2	33.7	0.0	78.1	3.7
128	0.31	BC	68	50	2	65.1	0.0	87.5	2.4
129	2.79	BC	68	75	2	31.5	0.0	77.5	3.7
130	1.98	BC	68	117	2	32.5	0.0	77.7	3.7
131	5.92	BC	68	51	2	36.7	0.0	79.0	3.5
132	1.40	BC	68	57	2	37.5	9.2	77.4	3.8
133	2.48	BC	68	47	2	36.4	0.0	78.9	3.5
134	1.85	BC	68	45	2	36.4	0.0	78.9	3.5
135	1.20	BC	68	50	2	38.2	0.0	79.4	3.5
136	1.20	BC	68	50	2	37.9	0.0	79.4	3.5
137	1.74	BC	68	55	2	35.5	0.0	78.7	3.6
138	0.49	BC	68	58	2	44.6	0.0	81.4	3.2
139	0.44	BC	68	70	0.5	37.6	17.5	75.3	4.0
140	0.95	BC	68	32	2	36.4	22.8	73.3	4.3
141	4.41	BC	68	130	0.8	3.4	0.0	69.0	4.9
142	1.97	BC	68	27	2	30.0	0.0	77.0	3.8
143	0.69	BC	68	21	2	30.0	0.0	77.0	3.8
144	0.78	BC	68	74	2	30.0	0.0	77.0	3.8
200	1.95	BC	68	116	1.6	4.5	0.0	69.4	4.8
201	0.38	BC	68	30	2	33.8	0.0	78.1	3.6
202	0.70	BC	68	52	2	39.3	0.0	79.8	3.4
203	0.27	BC	68	52	2	39.3	0.0	79.8	3.4
204	1.11	BC	68	65	2	35.9	0.0	78.8	3.6
205	0.49	BC	68	65	2	35.9	0.0	78.8	3.6
206	1.04	BC	68	70	2	36.8	0.0	79.0	3.5
207	1.82	BC	68	70	2	36.8	0.0	79.0	3.5
208	0.65	BC	68	52	2	36.7	0.0	79.0	3.5
209	0.26	BC	68	52	2	36.7	0.0	79.0	3.5
210	0.68	BC	68	52	2	36.3	0.0	78.9	3.5
211	0.78	BC	68	52	2	36.3	0.0	78.9	3.5
212	0.14	BC	68	31	2	41.4	0.0	80.4	3.3
213	0.17	BC	68	31	2	41.4	0.0	80.4	3.3
214	0.34	BC	68	52	2	35.9	0.0	78.8	3.6
215	0.53	BC	68	52	2	35.9	0.0	78.8	3.6
216	0.11	BC	68	31	2	45.7	0.0	81.7	3.2
217	0.14	BC	68	31	2	45.7	0.0	81.7	3.2
218	0.42	BC	68	52	2	37.3	0.0	79.2	3.5
219	0.44	BC	68	52	2	37.3	0.0	79.2	3.5
220	1.00	BC	68	55	2	37.6	0.0	79.3	3.5
221	3.82	BC	68	130	0.5	5.4	0.0	69.6	4.8
300	1.45	BC	68	52	2	36.1	0.0	78.8	3.6
301	1.46	BC	68	52	2	36.1	0.0	78.8	3.6
302	0.30	BC	68	40	2	38.7	0.0	79.6	3.5
303	0.26	BC	68	40	2	38.7	0.0	79.6	3.5
304	2.27	BC	68	53	2	36.2	0.0	78.9	3.6
305	1.20	BC	68	53	2	36.2	0.0	78.9	3.6

TABLE C1: HYDROLOGIC MODELLING PARAMETERS

Subcatchment	Drainage Area (ha)	SCS Soil Class	Base CN for Pervious Area (AMC-II)	Overland Flow Length (m)	Slope (%)	Total Imperviousness (%)	Directly Connected Imperviousness (%)	CN Applied for Pervious Area	Depression Storage for Pervious Area (mm)
306	0.22	BC	68	51	2	37.4	0.0	79.2	3.5
307	0.63	BC	68	51	2	37.4	0.0	79.2	3.5
308	0.14	BC	68	46	2	39.0	0.0	79.7	3.4
309	0.13	BC	68	46	2	39.0	0.0	79.7	3.4
310	4.56	BC	68	100	1.3	0.0	0.0	68.0	5.0
311	0.27	BC	68	51	2	41.7	0.0	80.5	3.3
312	0.21	BC	68	51	2	41.7	0.0	80.5	3.3
313	0.40	BC	68	20	1.1	45.9	0.0	81.8	3.2
314	0.71	BC	68	20	2	53.7	0.0	84.1	2.9
315	0.59	BC	68	132	2.3	0.0	0.0	68.0	5.0
400	3.03	BC	68	46	2	35.5	10.6	76.4	3.9
401	1.01	BC	68	25	2	80.5	77.8	71.5	4.5
402	2.41	BC	68	92	2	36.3	3.3	78.2	3.6
403	2.40	BC	68	35	1.6	30.0	0.0	77.0	3.8
404	1.06	BC	68	27	2	42.8	0.0	80.8	3.3
405	6.37	BC	68	105	2	36.1	0.0	78.8	3.6
406	0.34	BC	68	20	2	49.0	0.0	82.7	3.0
407	1.57	BC	68	55	2	39.9	0.0	80.0	3.4
408	0.91	BC	68	80	2	35.3	0.0	78.6	3.6
409	0.74	BC	68	55	2	36.9	0.0	79.1	3.5
410	0.69	BC	68	55	2	35.3	0.0	78.6	3.6
411	2.62	BC	68	100	2	48.7	28.2	76.6	3.9
412	1.18	BC	68	70	0.5	59.2	34.5	79.3	3.5
413	0.16	BC	68	90	0.5	52.8	26.4	78.7	3.6
414	2.30	BC	68	150	1.2	37.2	18.3	74.9	4.1
415	5.76	BC	68	110	1.4	2.4	1.4	68.3	5.0
416	5.42	BC	68	52	2	36.6	0.0	79.0	3.5
417	6.04	BC	68	52	2	35.5	0.0	78.7	3.6
418	1.11	BC	68	52	2	36.1	0.0	78.8	3.6
419	2.19	BC	68	65	2	38.8	0.0	79.6	3.4
420	0.39	BC	68	20	2	36.1	0.0	78.8	3.6
421	0.97	BC	68	70	1.6	0.0	0.0	68.0	5.0
422	0.41	BC	68	20	1.4	20.2	0.0	74.1	4.2
423	0.81	BC	68	20	2	45.5	0.0	81.6	3.2
500	1.05	BC	68	25	2	41.3	17.5	76.6	3.8
600	1.07	BC	68	20	2	0.0	0.0	68.0	5.0
700	0.95	BC	68	80	2.7	90.0	90.0	68.0	5.0
800	2.78	BC	68	35	0.5	49.9	0.0	83.0	3.0

TABLE C2: ESTIMATED LAND USE AND CALCULATED IMPERVIOUSNESS

Subcatchment	Drainage Area (ha)	Open Space and Forested	Roadway Curb and Gutter	Roadway Ditched	Detached Residential - Curb and Gutter	Detached Residential - Ditched	Townhouse Residential	Commercial	Institutional	Total Imperviousness (%)	Directly Connected Imperviousness (%)
100	2.52			0.26		2.26				37.2	0.0
101	0.34			0.14		0.20				58.2	0.0
102	3.10		0.54		2.56					42.2	29.8
103	3.72			0.50		3.23				39.4	0.0
104	1.55					1.55				30.0	0.0
105	0.27		0.09		0.18					54.1	44.3
106	0.64			0.07		0.57				37.8	0.0
107	0.37		0.11		0.26					50.8	40.3
108	1.21		0.12		0.18				0.91	40.7	27.2
109	0.62		0.10		0.52					41.4	28.9
110	0.59		0.08		0.51					39.0	26.0
111	1.37		0.13		1.23					36.8	23.2
112	3.56		0.43		3.14					38.4	25.2
113	0.68		0.06	0.05	0.13	0.45				40.7	11.3
114	1.12		0.04	0.05	0.39	0.64				35.8	8.8
115	0.43	0.31	0.12							28.3	28.3
116	2.48			0.35		2.13				39.8	0.0
117	0.37			0.06		0.31				41.6	0.0
118	0.86			0.09		0.77				37.4	0.0
119	2.16			0.33		1.83				40.6	0.0
120	1.11			0.14		0.97				38.8	0.0
121	1.02	0.39	0.43		0.20					48.0	45.1
122	1.28			0.18		1.10				39.6	0.0
123	3.85	1.61				0.62			1.62	19.6	8.4
124	0.78			0.08		0.70				37.2	0.0
125	2.53			0.38		1.55		0.60		47.7	7.1
126	2.32			0.36					1.96	45.0	16.9
127	2.58			0.14		2.44				33.7	0.0
128	0.31	0.04		0.17		0.10				65.1	0.0
129	2.79			0.06		2.73				31.5	0.0
130	1.98			0.07		1.91				32.5	0.0
131	5.92			0.57		5.35				36.7	0.0
132	1.40		0.04	0.11	0.57	0.68				37.5	9.2
133	2.48			0.23		2.25				36.4	0.0
134	1.85			0.17		1.68				36.4	0.0
135	1.20			0.14		1.06				38.2	0.0
136	1.20			0.14		1.06				37.9	0.0
137	1.74			0.14		1.60				35.5	0.0
138	0.49			0.10		0.39				44.6	0.0
139	0.44	0.28	0.08	0.09						37.6	17.5
140	0.95		0.09		0.86					36.4	22.8
141	4.41	3.97		0.03		0.41				3.4	0.0
142	1.97				1.93	0.04				30.0	0.0
143	0.69				0.69					30.0	0.0
144	0.78				0.24	0.54				30.0	0.0
200	1.95	1.86		0.09						4.5	0.0
201	0.38			0.02		0.36				33.8	0.0
202	0.70			0.09		0.60				39.3	0.0
203	0.27			0.04		0.24				39.3	0.0
204	1.11			0.09		1.01				35.9	0.0
205	0.49			0.04		0.45				35.9	0.0
206	1.04			0.10		0.94				36.8	0.0
207	1.82			0.18		1.64				36.8	0.0
208	0.65			0.06		0.58				36.7	0.0
209	0.26			0.02		0.23				36.7	0.0
210	0.68			0.06		0.62				36.3	0.0
211	0.78			0.07		0.71				36.3	0.0
212	0.14			0.02		0.12				41.4	0.0
213	0.17			0.03		0.14				41.4	0.0
214	0.34			0.03		0.31				35.9	0.0
215	0.53			0.05		0.49				35.9	0.0
216	0.11			0.03		0.09				45.7	0.0
217	0.14			0.03		0.11				45.7	0.0
218	0.42			0.04		0.38				37.3	0.0
219	0.44			0.05		0.40				37.3	0.0
220	1.00			0.11		0.89				37.6	0.0
221	3.82	3.61		0.21						5.4	0.0
300	1.45			0.13		1.33				36.1	0.0
301	1.46			0.13		1.33				36.1	0.0
302	0.30			0.04		0.27				38.7	0.0
303	0.26			0.03		0.23				38.7	0.0
304	2.27			0.20		2.07				36.2	0.0
305	1.20			0.11		1.09				36.2	0.0
306	0.22			0.02		0.20				37.4	0.0
307	0.63			0.07		0.56				37.4	0.0

TABLE C2: ESTIMATED LAND USE AND CALCULATED IMPERVIOUSNESS

Subcatchment	Drainage Area (ha)	Open Space and Forested	Roadway Curb and Gutter	Roadway Ditched	Detached Residential - Curb and Gutter	Detached Residential - Ditched	Townhouse Residential	Commercial	Institutional	Total Imperviousness (%)	Directly Connected Imperviousness (%)
308	0.14			0.02		0.12				39.0	0.0
309	0.13			0.02		0.11				39.0	0.0
310	4.56	4.56								0.0	0.0
311	0.27			0.05		0.23				41.7	0.0
312	0.21			0.03		0.17				41.7	0.0
313	0.40			0.09		0.31				45.9	0.0
314	0.71			0.24		0.47				53.7	0.0
315	0.59	0.59								0.0	0.0
400	3.03		0.08	0.15	1.57	1.22				35.5	10.6
401	1.01		0.09		0.18			0.74		80.5	77.8
402	2.41		0.04	0.18	0.28	1.92				36.3	3.3
403	2.40					2.40				30.0	0.0
404	1.06			0.19		0.87				42.8	0.0
405	6.40			0.56		5.84				36.1	0.0
406	0.34			0.09		0.25				49.0	0.0
407	1.57			0.22		1.35				39.9	0.0
408	0.91			0.07		0.84				35.3	0.0
409	0.74			0.07		0.67				36.9	0.0
410	0.69			0.05		0.64				35.3	0.0
411	2.60		0.13				1.08		1.39	48.7	28.2
412	1.18	0.09	0.12				0.97			59.2	34.5
413	0.16	0.08	0.04	0.04						52.8	26.4
414	2.30	0.08		0.12					2.11	37.2	18.3
415	5.76	5.37							0.39	2.4	1.4
416	5.42			0.51		4.91				36.6	0.0
417	6.00			0.47		5.53				35.5	0.0
418	1.11			0.10		1.01				36.1	0.0
419	2.19			0.27		1.91				38.8	0.0
420	0.39			0.11		0.28				49.9	0.0
421	0.97	0.97								0.0	0.0
422	0.41	0.32		0.08						20.2	0.0
423	0.81			0.18		0.63				45.5	0.0
500	1.05			0.09		0.95				36.1	0.0
600	1.07		0.10	0.07	0.55	0.34				41.3	17.5
700	0.95	0.95								0.0	0.0
800	2.78							2.78		90.0	90.0

TABLE C3: SUMMARY OF SIMULATED INLET CONTROL FUNCTIONS

Orifice ID	Inlet Node	Outlet Node	Inlet Type	Orifice Type	Equivalent Area (m^2)	Height (m)	Width (m)
J34-IC	J34-S	J34	1 MH Lid	BOTTOM	0.0016	0.04	0.04
J35-IC	J35-S	J35	1 MH Lid	BOTTOM	0.0016	0.04	0.04
J36-IC	J36-S	J36-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
O_0120_10233-IC	O_0120_10233-S	O_0120_10233	1 CB Lid	BOTTOM	0.125	0.35	0.35
O_0120_10234-IC	O_0120_10234-S	O_0120_10234	1 CB Lid	BOTTOM	0.125	0.35	0.35
O_0120_10253-IC	O_0120_10253-S	O_0120_10253	1 CB Lid	BOTTOM	0.125	0.35	0.35
O_0120_9430-IC	O_0120_9430-S	O_0120_9430	1 CB Lid	BOTTOM	0.125	0.35	0.35
O_0160_3765A-IC	O_0160_3765A-S	O_0160_3765A	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3765-IC	O_0160_3765-S	O_0160_3765	1 DCB Lid	BOTTOM	0.25	0.50	0.50
O_0160_3799-IC	O_0160_3799-S	O_0160_3799	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3800-IC	O_0160_3800-S	O_0160_3800	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3801-IC	O_0160_3801-S	O_0160_3801	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3802-IC	O_0160_3802-S	O_0160_3802	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3803-IC	O_0160_3803-S	O_0160_3803	1 CBMH Lid/Inlet	BOTTOM	0.125	0.35	0.35
O_0160_3804-IC	O_0160_3804-S	O_0160_3804	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3805-IC	O_0160_3805-S	O_0160_3805	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3806-IC	O_0160_3806-S	O_0160_3806	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3807-IC	O_0160_3807-S	O_0160_3807	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3808-IC	O_0160_3808-S	O_0160_3808	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_3809-IC	O_0160_3809-S	O_0160_3809	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_3810-IC	O_0160_3810-S	O_0160_3810	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_3811-IC	O_0160_3811-S	O_0160_3811	2 CBMH Lids	BOTTOM	0.25	0.50	0.50
O_0160_3813-IC	O_0160_3813-S	O_0160_3813	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_3820-IC	O_0160_3820-S	O_0160_3820	5 MH Lids	BOTTOM	0.0081	0.09	0.09
O_0160_3821-IC	O_0160_3821-S	O_0160_3821	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3822-IC	O_0160_3822-S	O_0160_3822	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3823-IC	O_0160_3823-S	O_0160_3823	1 CBMH Lid/Inlet	BOTTOM	0.125	0.35	0.35
O_0160_3824-IC	O_0160_3824-S	O_0160_3824	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_3825-IC	O_0160_3825-S	O_0160_3825	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3829-IC	O_0160_3829-S	O_0160_3829	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_3832-IC	O_0160_3832-S	O_0160_3832	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3836-IC	O_0160_3836-S	O_0160_3836	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3837A-IC	O_0160_3837A-S	O_0160_3837A	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3837-IC	O_0160_3837-S	O_0160_3837	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3838-IC	O_0160_3838-S	O_0160_3838	2 MH Lids	BOTTOM	0.0036	0.06	0.06
O_0160_3840A-IC	O_0160_3840A-S	O_0160_3840A	2 MH Lids	BOTTOM	0.0036	0.06	0.06
O_0160_3840-IC	O_0160_3840-S	O_0160_3840	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3916-IC	O_0160_3916-S	O_0160_3916	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3917-IC	O_0160_3917-S	O_0160_3917	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3918-IC	O_0160_3918-S	O_0160_3918	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_3919A-IC	O_0160_3919A-S	O_0160_3919A	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3919-IC	O_0160_3919-S	O_0160_3919	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_3920-IC	O_0160_3920-S	O_0160_3920	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_400066-IC	O_0160_4174-S	O_0160_400066	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_400067-IC	O_0160_400067-S	O_0160_400067	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_400068-IC	O_0160_400068-S	O_0160_400068	1 RYCB Lid	BOTTOM	0.125	0.35	0.35
O_0160_400069-IC	O_0160_400069-S	O_0160_400069	1 RYCB Lid	BOTTOM	0.125	0.35	0.35
O_0160_400096-IC	O_0160_400096-S	O_0160_400096	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_400187-IC	O_0160_400187-S	O_0160_400187	4 CBMH Lids	BOTTOM	0.5	0.71	0.71
O_0160_400687-IC	O_0160_400687-S	O_0160_400687	5 MH Lids	BOTTOM	0.0081	0.09	0.09
O_0160_400688-IC	O_0160_400688-S	O_0160_400688	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_402412-IC	O_0160_402412-S	O_0160_402412	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4076-IC	O_0160_4076-S	O_0160_4076	2 MH Lids	BOTTOM	0.0036	0.06	0.06
O_0160_4077-IC	O_0160_4077-S	O_0160_4077	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4078-IC	O_0160_4078-S	O_0160_4078	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4079-IC	O_0160_4079-S	O_0160_4079	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4080-IC	O_0160_4080-S	O_0160_4080	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_4170-IC	O_0160_4170-S	O_0160_4170	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4171-IC	O_0160_4171-S	O_0160_4171	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4174-IC	O_0160_4174-S	O_0160_4174	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4175-IC	O_0160_4175-S	O_0160_4175	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4176-IC	O_0160_4176-S	O_0160_4176	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4180C-IC	O_0160_4180C-S	O_0160_4180C	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4180D-IC	O_0160_4180D-S	O_0160_4180D	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_4180E-IC	O_0160_4180E-S	O_0160_4180E	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_4180F-IC	O_0160_4180F-S	O_0160_4180F	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_4180G-IC	O_0160_4180G-S	O_0160_4180G	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_4180H-IC	O_0160_4180H-S	O_0160_4180H	1 CBMH Lid	BOTTOM	0.125	0.35	0.35

TABLE C3: SUMMARY OF SIMULATED INLET CONTROL FUNCTIONS

Orifice ID	Inlet Node	Outlet Node	Inlet Type	Orifice Type	Equivalent Area (m²)	Height (m)	Width (m)
O_0160_4180-IC	O_0160_4180-S	O_0160_4180	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4198-IC	O_0160_4198-S	O_0160_4198	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4199-IC	O_0160_4199-S	O_0160_4199	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_4200-IC	O_0160_4200-S	O_0160_4200	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_5936-IC	O_0160_5936-S	O_0160_5936	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_5937-IC	O_0160_5937-S	O_0160_5937	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_6078-IC	O_0160_6078-S	O_0160_6078	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_6079-IC	O_0160_6079-S	O_0160_6079	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
O_0160_6828-IC	O_0160_6828-S	O_0160_6828	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0160_6829-IC	O_0160_6829-S	O_0160_6829	1 MH Lid	BOTTOM	0.0016	0.04	0.04
O_0200_400663DS-IC	O_0200_400663DS-S	O_0200_400663DS	1 CB Lid	BOTTOM	0.125	0.35	0.35
O_0200_400663US-IC	O_0200_400663US-S	O_0200_400663US	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR1	O_0120_9426-s	O_0120_9426	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR10	O_0160_3823-S2	O_0160_3823	1 CB Lead	SIDE	0.05	0.25	0.20
OR100	O_0160_3832-S2a	O_0160_3832	1 DCB Lead	SIDE	0.072	0.30	0.24
OR101	O_0160_3832-S	O_0160_3832-S2b	4 CB Lids	BOTTOM	0.5	0.71	0.71
OR102	O_0160_3832-S2b	O_0160_3832	4 CB Leads	SIDE	0.1975	0.25	0.79
OR103	O_0160_3813-S	O_0160_3813-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR104	O_0160_3813-S2	O_0160_3813	1 CB Lead	SIDE	0.05	0.25	0.20
OR105	O_0160_3811-S	O_0160_3811-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR106	O_0160_3811-S2	O_0160_3811	1 CB Lead	SIDE	0.05	0.25	0.20
OR107	O_0160_3810-S	O_0160_3810-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR108	O_0160_3810-S2	O_0160_3810	2 CB Leads	SIDE	0.0975	0.25	0.39
OR109	O_0160_3809-S	O_0160_3809-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR11	O_0160_3803-S	O_0160_3803-S2	1 CB Lid/Inlet	BOTTOM	0.125	0.35	0.35
OR110	O_0160_3809-S2	O_0160_3809	2 CB Leads	SIDE	0.0975	0.25	0.39
OR111	O_0160_3808-S	O_0160_3808-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR112	O_0160_3808-S2	O_0160_3808	1 CB Lead	SIDE	0.05	0.25	0.20
OR113	O_0160_3806-S	O_0160_3806-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR114	O_0160_3806-S2	O_0160_3806	2 CB Leads	SIDE	0.0975	0.25	0.39
OR115	O_0160_4170-S	O_0160_4170	3 CBMH Lids	BOTTOM	0.375	0.61	0.61
OR116	O_0160_4170-S	O_0160_4170-S2	3 CB Lids	BOTTOM	0.375	0.61	0.61
OR117	O_0160_4170-S2	O_0160_4170	3 CB Leads	SIDE	0.1475	0.25	0.59
OR119	O_0160_400187-S	O_0160_400187-S2	4 CB Lids	BOTTOM	0.5	0.71	0.71
OR12	O_0160_3803-S2	O_0160_3803	1 CB Lead	SIDE	0.05	0.25	0.20
OR120	O_0160_400187-S2	O_0160_400187	4 CB Leads	SIDE	0.1975	0.25	0.79
OR13	O_0160_3802-S	O_0160_3802-S2	2 DCB Lids	BOTTOM	0.5	0.71	0.71
OR14	O_0160_3802-S2	O_0160_3802	2 DCB Leads	SIDE	0.141	0.30	0.47
OR15	O_0160_3799-S	O_0160_3799-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR16	O_0160_3799-S2	O_0160_3799	2 CB Leads	SIDE	0.0975	0.25	0.39
OR17	O_0160_3805-S	O_0160_3805-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR18	O_0160_3805-S2	O_0160_3805	2 CB Leads	SIDE	0.0975	0.25	0.39
OR19	O_0160_400067-S	O_0160_400067-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR2	O_0120_9427-s	O_0120_9427	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR20	O_0160_400067-S2	O_0160_400067	1 CB Lead	BOTTOM	0.05	0.25	0.20
OR21	O_0160_4174-S	O_0160_4174-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR22	O_0160_4174-S2	O_0160_4174	2 CB Leads	SIDE	0.0975	0.25	0.39
OR23	O_0160_4174-S	O_0160_400066-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR24	O_0160_400066-S2	O_0160_400066	2 CB Leads	SIDE	0.0975	0.25	0.39
OR25	O_0160_4176-S	O_0160_4176-S2	2 DCB Lids	BOTTOM	0.5	0.71	0.71
OR26	O_0160_4176-S2	O_0160_4176	2 DCB Leads	SIDE	0.141	0.30	0.47
OR27	O_0160_6828-S	O_0160_6828-S2	2 CB Lids/Inlets	BOTTOM	0.25	0.50	0.50
OR28	O_0160_6828-S2	O_0160_6828	2 CB Leads	SIDE	0.0975	0.25	0.39
OR29	O_0160_4171-S	O_0160_4171-S2	9 CB Lids	BOTTOM	1.125	1.06	1.06
OR3	O_0120_9428-s	O_0120_9428	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR30	O_0160_4171-S2	O_0160_4171	9 CB Leads	SIDE	0.4425	0.25	1.77
OR31	O_0160_6829-S	O_0160_6829-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR32	O_0160_6829-S2	O_0160_6829	2 CB Leads	SIDE	0.0975	0.25	0.39
OR33	O_0160_400069-S	O_0160_400069-S2	1 RYCB Lid	BOTTOM	0.125	0.35	0.35
OR34	O_0160_400069-S2	O_0160_400069	1 RYCB Lead (375mm)	SIDE	0.10875	0.38	0.29
OR35	O_0160_400096-S	O_0160_400096-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR36	O_0160_400096-S2	O_0160_400096	1 CB Lead	SIDE	0.05	0.25	0.20
OR37	O_0160_3836-S	O_0160_3836-S2	3 CB Lids	BOTTOM	0.375	0.61	0.61
OR38	O_0160_3836-S2	O_0160_3836	3 CB Leads	SIDE	0.1475	0.25	0.59
OR39	O_0160_3837-S	O_0160_3837-S2	5 CB Lids	BOTTOM	0.625	0.79	0.79
OR4	O_0120_9429-s	O_0120_9429	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR40	O_0160_3837-S2	O_0160_3837	5 CB Leads	SIDE	0.245	0.25	0.98
OR41	O_0160_3837A-S	O_0160_3837A-S2	6 CB Lids	BOTTOM	0.75	0.87	0.87

TABLE C3: SUMMARY OF SIMULATED INLET CONTROL FUNCTIONS

| Orifice ID	Inlet Node	Outlet Node	Inlet Type	Orifice Type	Equivalent Area (m^2)	Height (m)	Width (m)
OR42	O_0160_3837A-S2	O_0160_3837A	6 CB Leads	SIDE	0.295	0.25	1.18
OR43	O_0160_3838-S	O_0160_3838-S2	4 CB Lids	BOTTOM	0.5	0.71	0.71
OR44	O_0160_3838-S2	O_0160_3838	4 CB Leads	SIDE	0.1975	0.25	0.79
OR45	O_0160_4076-S	O_0160_4076-S2	4 CB Lids	BOTTOM	0.5	0.71	0.71
OR46	O_0160_4076-S2	O_0160_4076	4 CB Leads	SIDE	0.1975	0.25	0.79
OR47	O_0160_4077-S	O_0160_4077-S2	6 CB Lids	BOTTOM	0.75	0.87	0.87
OR48	O_0160_4077-S2	O_0160_4077	6 CB Leads	SIDE	0.295	0.25	1.18
OR49	O_0160_4080-S	O_0160_4080-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR5	O_0160_3820-S	O_0160_3820-S2	7 CB Lids	BOTTOM	0.875	0.94	0.94
OR50	O_0160_4080-S2	O_0160_4080	2 CB Leads	SIDE	0.0975	0.25	0.39
OR51	O_0160_4078-S	O_0160_4078-S2	4 CB Lids	BOTTOM	0.5	0.71	0.71
OR52	O_0160_4078-S2	O_0160_4078	4 CB Leads	SIDE	0.1975	0.25	0.79
OR53	O_0160_4079-S	O_0160_4079-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR54	O_0160_4079-S2	O_0160_4079	1 CB Lead	SIDE	0.05	0.25	0.20
OR55	O_0160_3920-S	O_0160_3920-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR56	O_0160_3920-S2	O_0160_3920	2 CB Leads	SIDE	0.0975	0.25	0.39
OR57	O_0160_3919A-S	O_0160_3919A-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR58	O_0160_3919A-S2	O_0160_3919A	2 CB Leads	SIDE	0.0975	0.25	0.39
OR59	O_0160_3916-S	O_0160_3916-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR6	O_0160_3820-S2	O_0160_3820	7 CB Leads	SIDE	0.3425	0.25	1.37
OR60	O_0160_3916-S2	O_0160_3916	1 CB Lead	SIDE	0.05	0.25	0.20
OR61	O_0160_3917-S	O_0160_3917-S2	4 CB Lids	BOTTOM	0.5	0.71	0.71
OR62	O_0160_3917-S2	O_0160_3917	4 CB Leads	SIDE	0.1975	0.25	0.79
OR63	O_0120_9430-S	O_0120_9430-S2	3 CB Lids	BOTTOM	0.375	0.61	0.61
OR64	O_0120_9430-S2	O_0120_9430	3 CB Leads	SIDE	0.1475	0.25	0.59
OR65	O_0120_10234-S	O_0120_10234-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR66	O_0120_10234-S2	O_0120_10234	1 CB lead	SIDE	0.05	0.25	0.20
OR67	O_0120_10234-S	O_0120_10234	1-450mm diam (estimated) CSP	SIDE	0.1575	0.45	0.35
OR68	O_0160_6078-S	O_0160_6078	1 MH Lid	BOTTOM	0.0016	0.04	0.04
OR69	O_0160_6078-S	O_0160_6078-S2	5 CB Lids	BOTTOM	0.625	0.79	0.79
OR7	O_0160_3822-S	O_0160_3822-S2	2 DCB Lids	BOTTOM	0.5	0.71	0.71
OR70	O_0160_6078-S2	O_0160_6078	5 CB Leads	SIDE	0.245	0.25	0.98
OR71	O_0160_6079-S	O_0160_6079-S2	2 CB Lids	BOTTOM	0.25	0.50	0.50
OR72	O_0160_6079-S2	O_0160_6079	2 CB Leads	SIDE	0.0975	0.25	0.39
OR73	O_0160_5937-S	O_0160_5937-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR74	O_0160_5937-S2	O_0160_5937	1 CB Lead	SIDE	0.05	0.25	0.20
OR75	O_0160_5936-S	O_0160_5936-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR76	O_0160_5936-S2	O_0160_5936	1 CB Lead	SIDE	0.05	0.25	0.20
OR77	O_0160_4180F-S	O_0160_4180F-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR78	O_0160_4180F-S2	O_0160_4180F	1 CB Lead	SIDE	0.05	0.25	0.20
OR79	J35-S	J35-S2	3 CB Lids	BOTTOM	0.375	0.61	0.61
OR8	O_0160_3822-S2	O_0160_3822	2 DCB Leads	SIDE	0.141	0.30	0.47
OR80	J35-S2	J35	3 CB Leads	SIDE	0.1475	0.25	0.59
OR81	J34-S	J34-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR82	J34-S2	J34	1 CB Lead	SIDE	0.05	0.25	0.20
OR83	O_0160_402412-S	O_0160_402412-S2	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR84	O_0160_402412-S2	O_0160_402412	1 CB Lead	SIDE	0.05	0.25	0.20
OR85	O_0160_4199-S	O_0160_4199-S2	3 CB Lids	BOTTOM	0.375	0.61	0.61
OR86	O_0160_4199-S2	O_0160_4199	3 CB Leads	SIDE	0.1475	0.25	0.59
OR87	O_0160_3804-S	O_0160_3804	2-300mm(assumed) pipes	SIDE	0.141	0.30	0.47
OR88	O_0160_4200-S	O_0160_4200-S2	3 CB Lids	BOTTOM	0.375	0.61	0.61
OR89	O_0160_4200-S2	O_0160_4200	3 CB Leads	SIDE	0.1475	0.25	0.59
OR9	O_0160_3823-S	O_0160_3823-S2	1 CB Lid/Inlet	BOTTOM	0.125	0.35	0.35
OR90	O_0160_400687-S	O_0160_400687-S2	4 CB Lids	BOTTOM	0.5	0.71	0.71
OR91	O_0160_400687-S2	O_0160_400687	4 CB Leads	SIDE	0.1975	0.25	0.79
OR92	J36-S2	J36	2 CB Leads	SIDE	0.0975	0.25	0.39
OR93	O_0160_3840A-S	O_0160_3840A-S2a	1 DCB Lid	BOTTOM	0.25	0.50	0.50
OR94	O_0160_3840A-S2a	O_0160_3840A	1 DCB Lead	SIDE	0.072	0.30	0.24
OR95	O_0160_3840A-S	O_0160_3840A	1 CBMH Lid	BOTTOM	0.125	0.35	0.35
OR96	O_0160_3840A-S	O_0160_3840A-S2b	1 CB Lid	BOTTOM	0.125	0.35	0.35
OR97	O_0160_3840A-S2b	O_0160_3840A	1 CB Lead	SIDE	0.05	0.25	0.20
OR98	O_0160_3832-S	O_0160_3832	5 CBMH Lids	BOTTOM	0.625	0.79	0.79
OR99	O_0160_3832-S	O_0160_3832-S2a	1 DCB Lid	BOTTOM	0.25	0.50	0.50
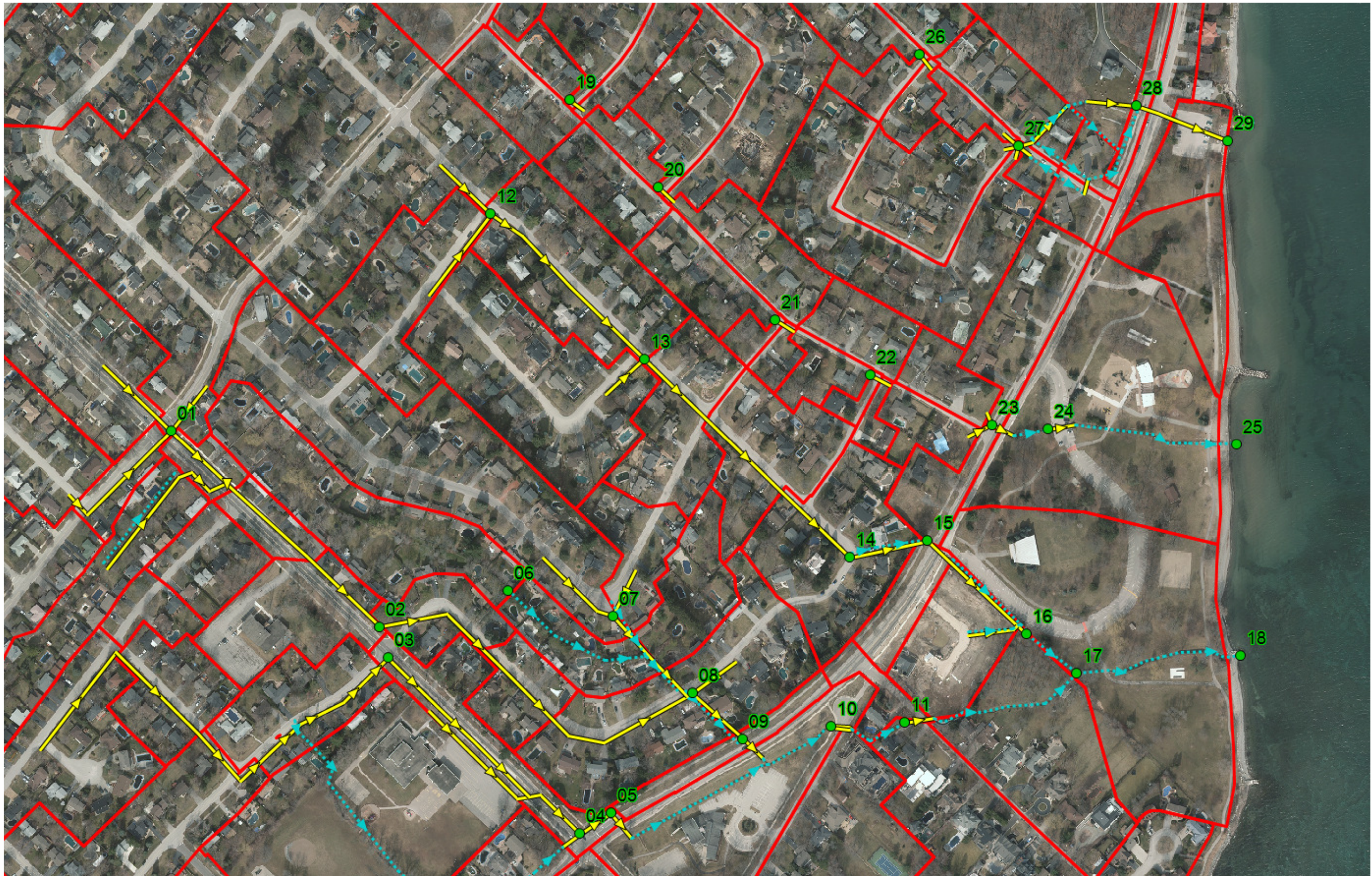
Figure C1: Flow Nodes for 100 through 300 series subcatchments (refer to Table 4.2 for flows)
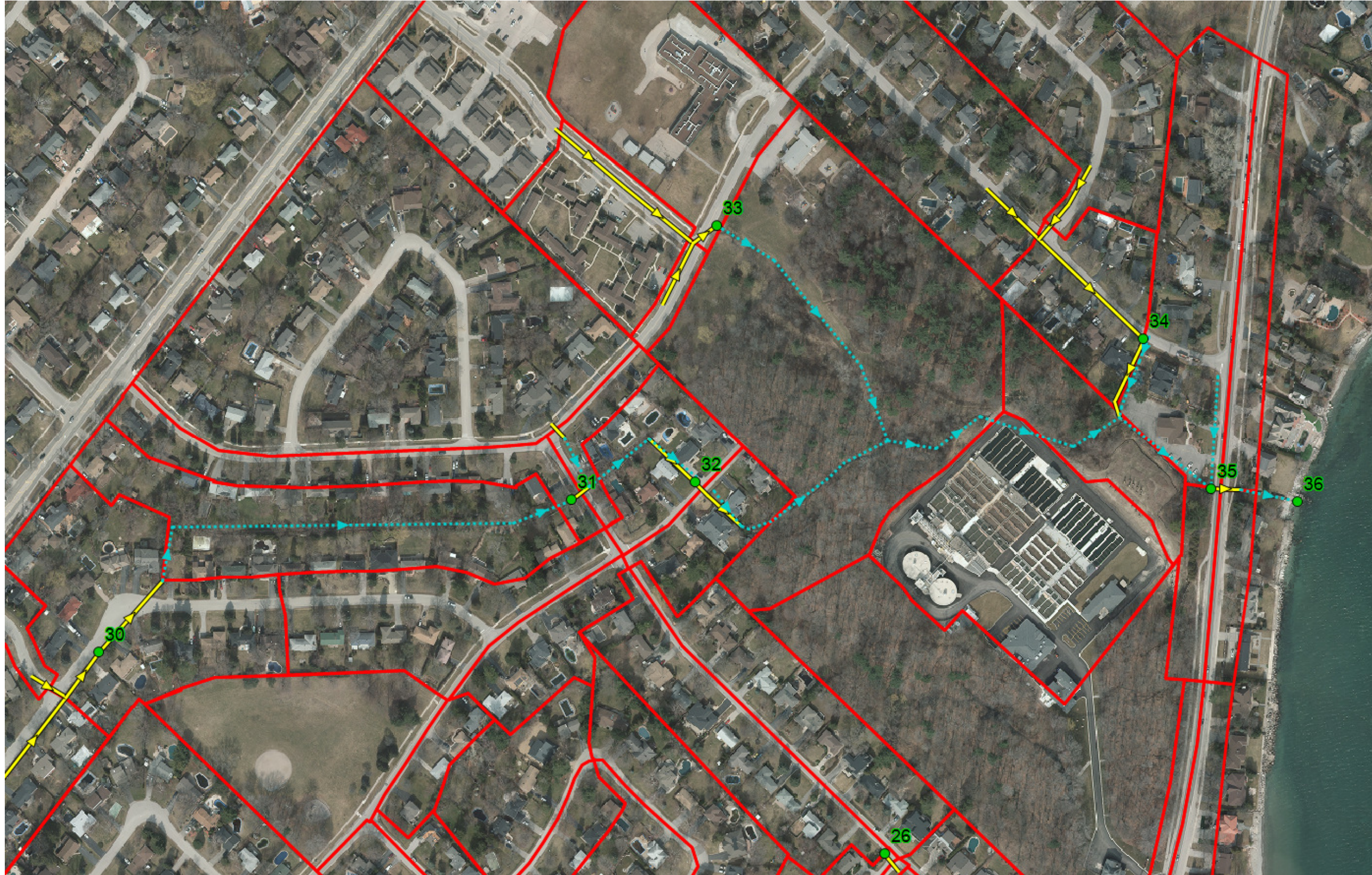
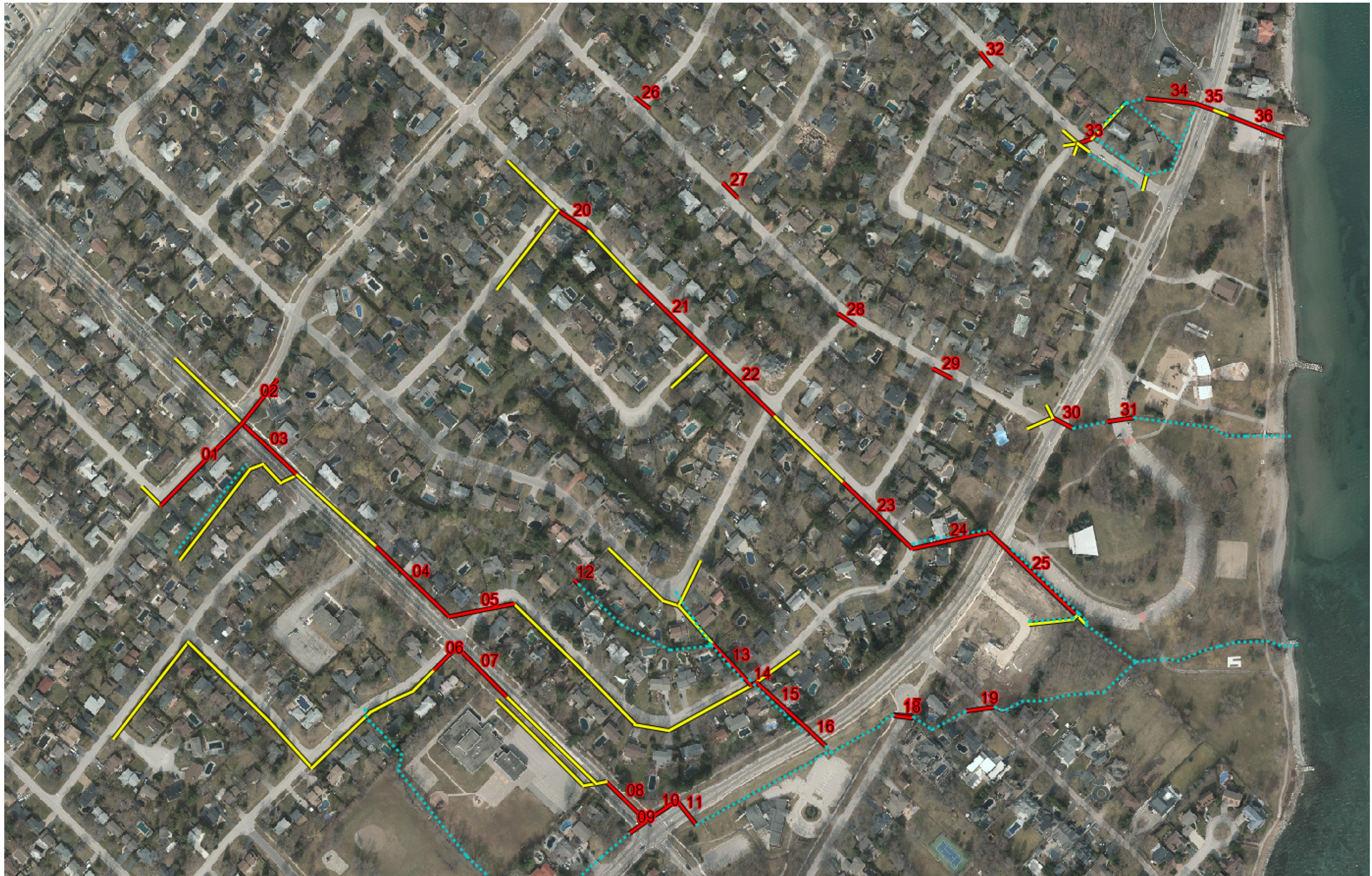**Figure C2: Flow Nodes for 400 series subcatchments onwards (refer to Table 4.2 for flows)**

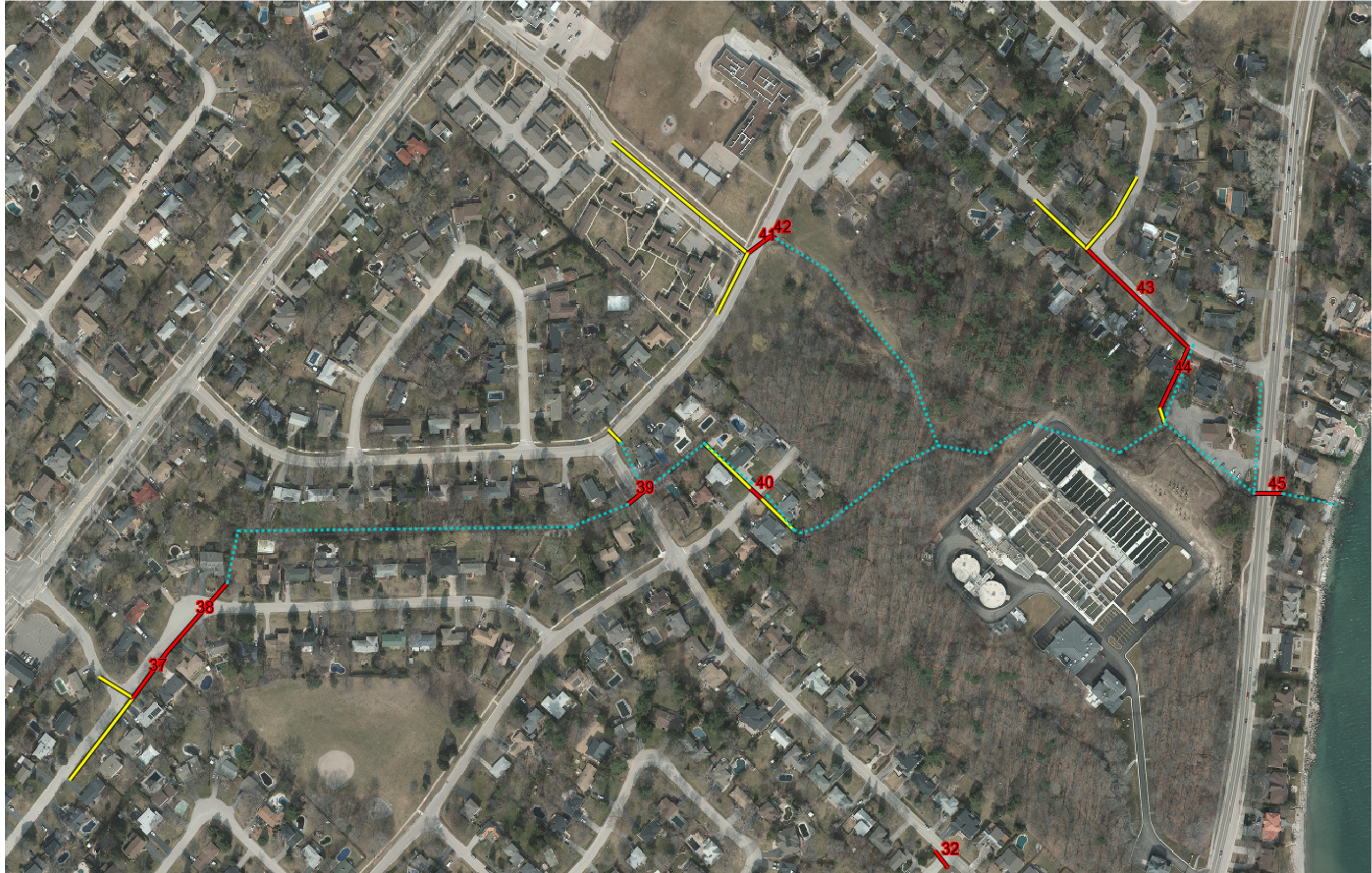**Figure C3: Minor System Conduits of interest for 100 through 300 series subcatchments (refer to Table 4.4 for flows)**

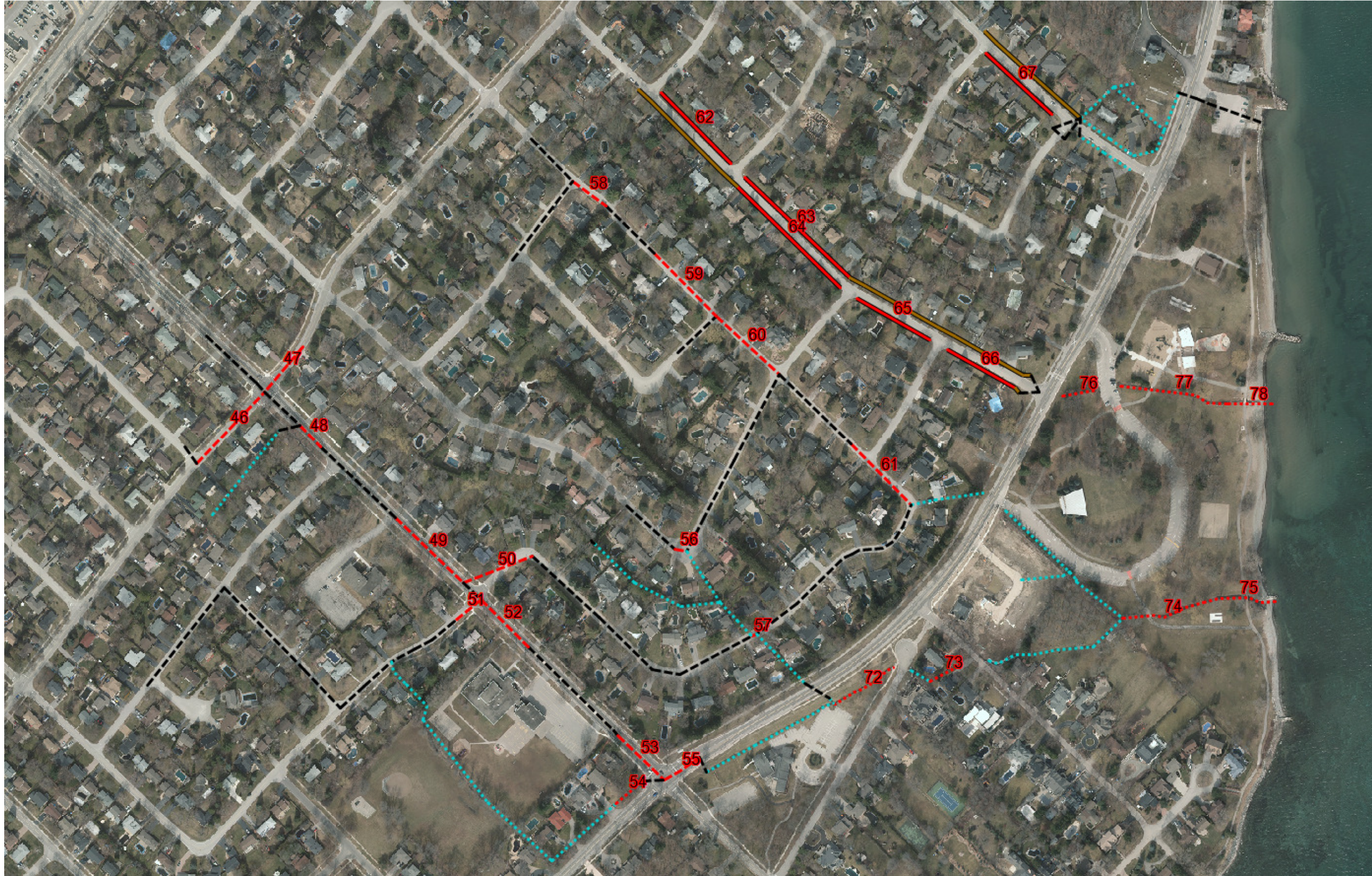**Figure C4: Minor System Conduits of interest for 400 series subcatchments onwards (refer to Table 4.4 for flows)**

Figure C5: Major System Conduits of interest for 100 through 300 series subcatchments (refer to Tables 4.5 and 4.6 for flows)
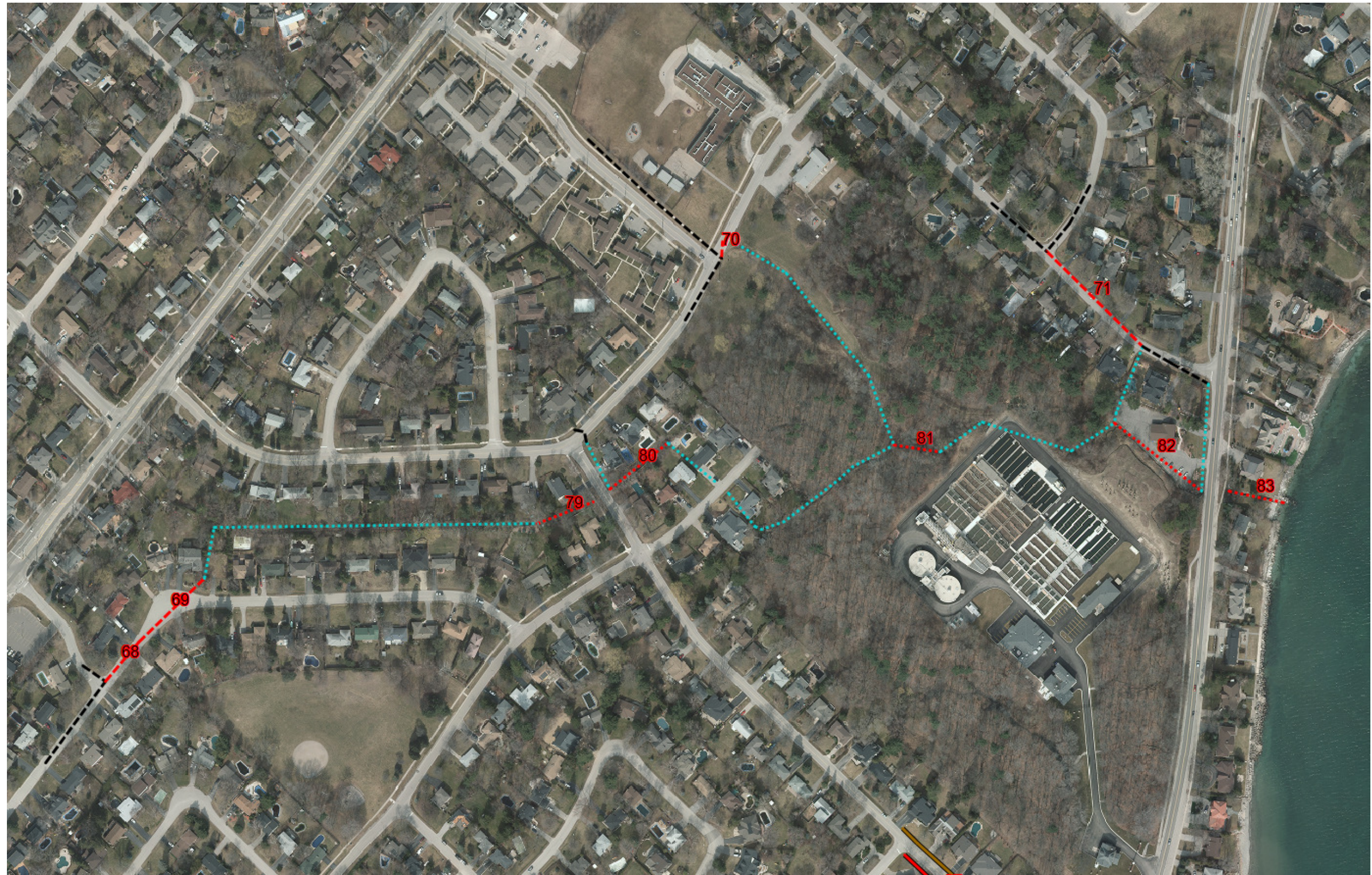
Figure C6: Major System Conduits of interest for 400 series subcatchments onwards (refer to Tables 4.5 and 4.6 for flows)
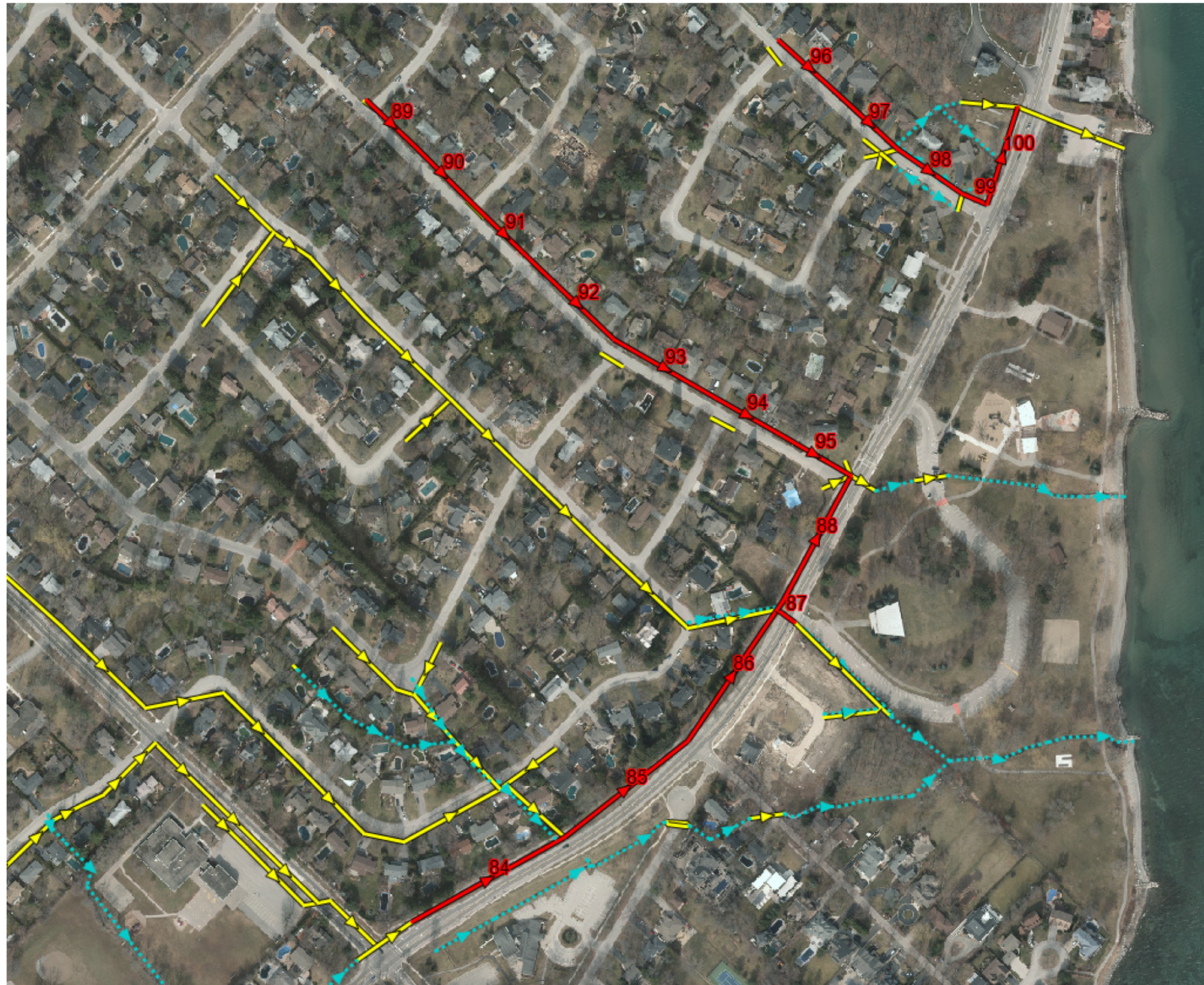
Figure C7: Recommended Minor System Conduits (refer to Table 7.2 for flows)