



JBNA

Cruise Tourism Transportation Options in James Bay

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***Presentation to City of Victoria Administration
February 10, 2012***

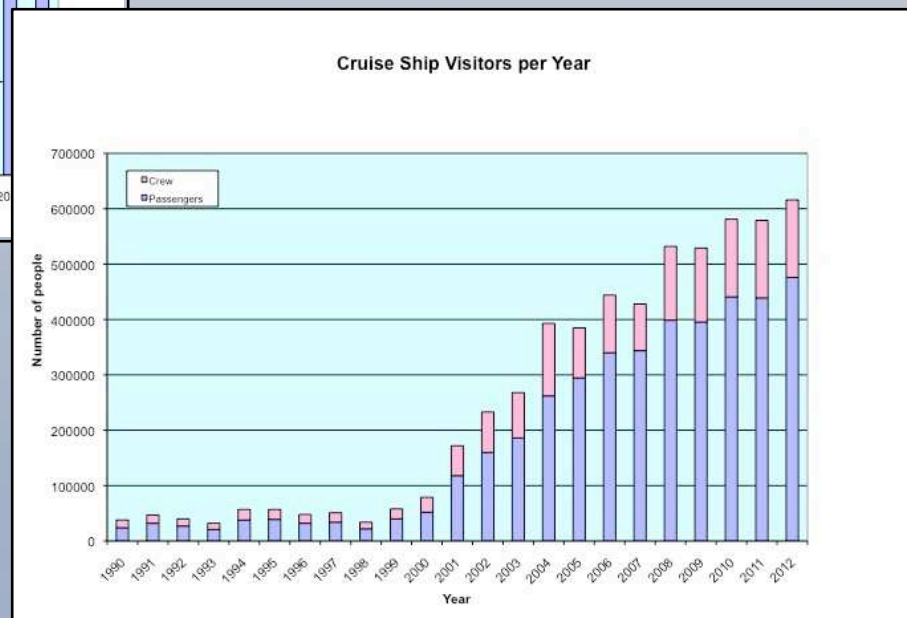
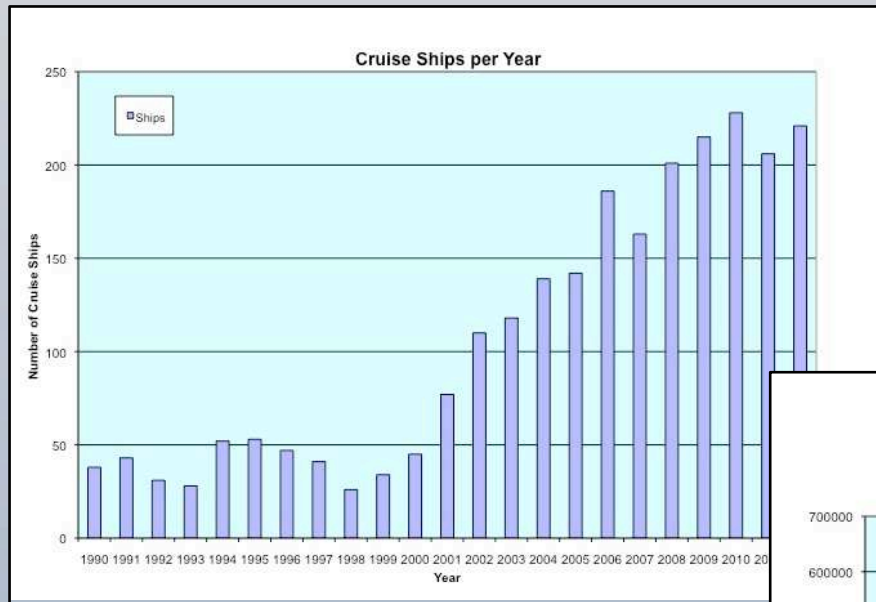
snapshots - pieces of a picture



- passenger choices
(Topline Consultants number counts)
- traffic volume
(City of Victoria Engineering 2011 traffic counts)
- traffic noise
(Wakefield Acoustics 2011 noise study)



growth *ships, passengers & crew*



disembarkation

Disembarkation Data and Ratios: August 22-August 27, 2011

	Cruise Ship Complement	Cruise Ship Disemb Number	%	Topline Disemb Number	%
Carnival Spirit	3,054	1,605	53	1,302	43
Rhapsody of Seas	2,765	2,009	73	1,716	62
Celebrity Infinity	3,000	1,035*	35*	1,842	61
Sea Princess	2,850	1,967	69	1,850	65
Westerdam	2,716	1,275	47		
Golden Princess	3,700	2,312	62		
West + Gold Princ	6,416	3,587	56	4,077	64
Norwegian Pearl	3,410	1,829	54		
Sapphire Princess	3,700	1,804	49		
Nor Pearl + Sapp Pr	7,110	3,633	51	4,798*	67*
Total (ex Cele Infn)	22,195*	12,801*	58		
Total (ex NP + SP)	18,085*			10,787*	60
Total daytime	5,615	3,976	71	3,566	64
Total eve (ex CInf)	16,580*	8,825*	53		
Total eve (ex NP/SP)	12,470*			7,221*	58

passengers ashore

- Disembarkation overall
 - Topline: overall 60% daytime 64% evening 58%
 - Cruise Line: overall 58% daytime 71% evening 53%
 - Crew assumptions
 - Crew/Passenger ratio = 35%
 - Crew disembarkation daytime = 40%
 - Crew disembarkation evening = 20%
 - Passengers ashore (derived)
 - overall 72-74% daytime 76-84% evening 67-73%
-

passenger choices

Passenger Counts Data (Topline)

Transportation Mode	Daytime Ships		Evening Ships		Total Ships	
	Number	%	Number	%	Number	%
Tour bus	1,566	43.9	3,413	28.4	4,979	31.9
Shuttle bus	975	27.3	3,083	25.7	4,058	26.0
Walking	296	8.3	2,433	20.2	2,729	17.5
Taxicab	436	12.2	2,068	17.2	2,504	16.1
Other*	293	8.2	1,022	8.5	1,315	8.4
Total	3,566	100.0	12,019	100.0	15,585	100.0

*Other includes Limo/Van/Classic Car, Horse Drawn Carriage, Pedi-cab and Bicycle.



passenger choices

bus options

bus passenger counts: average per ship

Western Stevedoring (Aug 15-22) 12 ships and Topline (Aug 22-27) 8 ships

tour passengers

616 (54%)

correl 0.921

shuttle passengers

528 (46%)

correl 0.936

total on Ogden buses

1,145 (100%)

correl 0.936



data collection

noise and traffic volume

traffic counts - **blue**

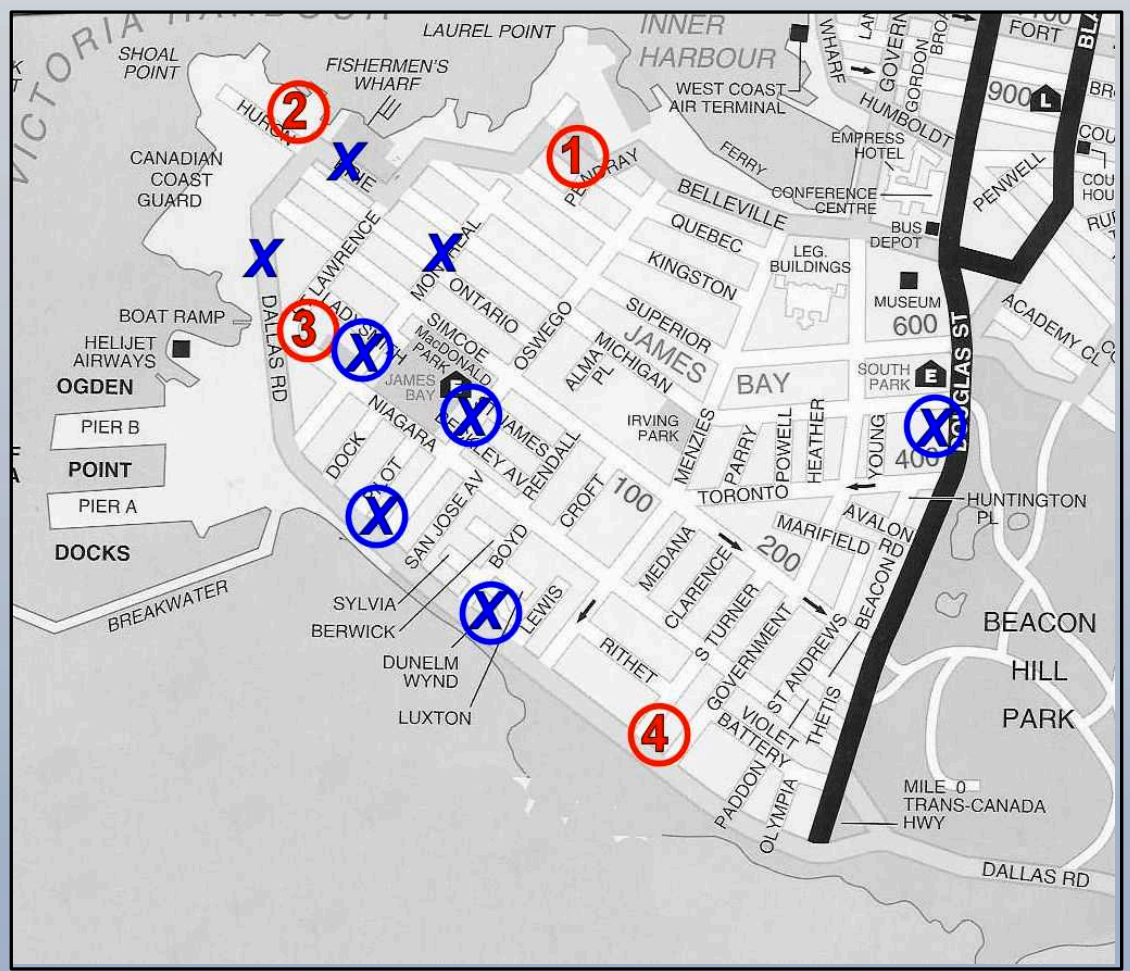
- Erie
- Montreal (2)
- Dallas (3)
- Oswego
- Douglas

traffic count analysis

- 200 block Dallas
- 400 block Douglas
- 100 block Oswego

noise monitoring - **red**

- 215 Quebec St
- 21 Dallas
- 104 Dallas
- 558 Dallas



total traffic
200 block Dallas eastbound

August 17-21

Regression Analysis

additional vehicles

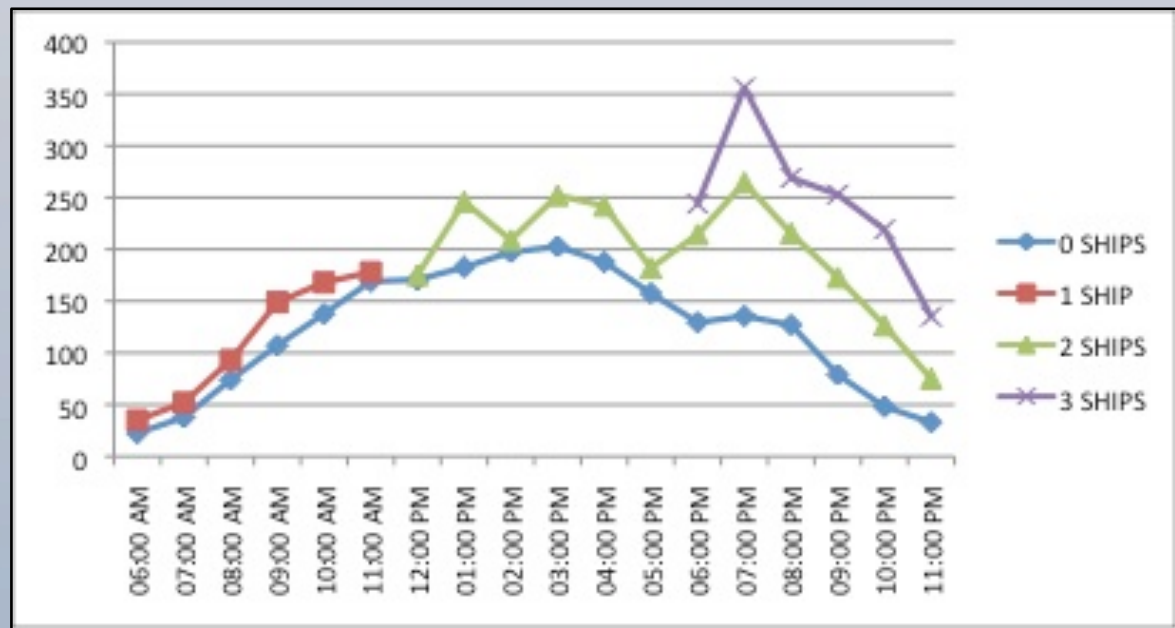
eastward = 228/ship

westward = 156/ship

or

+ 384 movements/ship

**1152 additional vehicles
on 3-ship evenings**



bus traffic

200 block Dallas eastbound

August 17-21

Regression Analysis

Additional buses

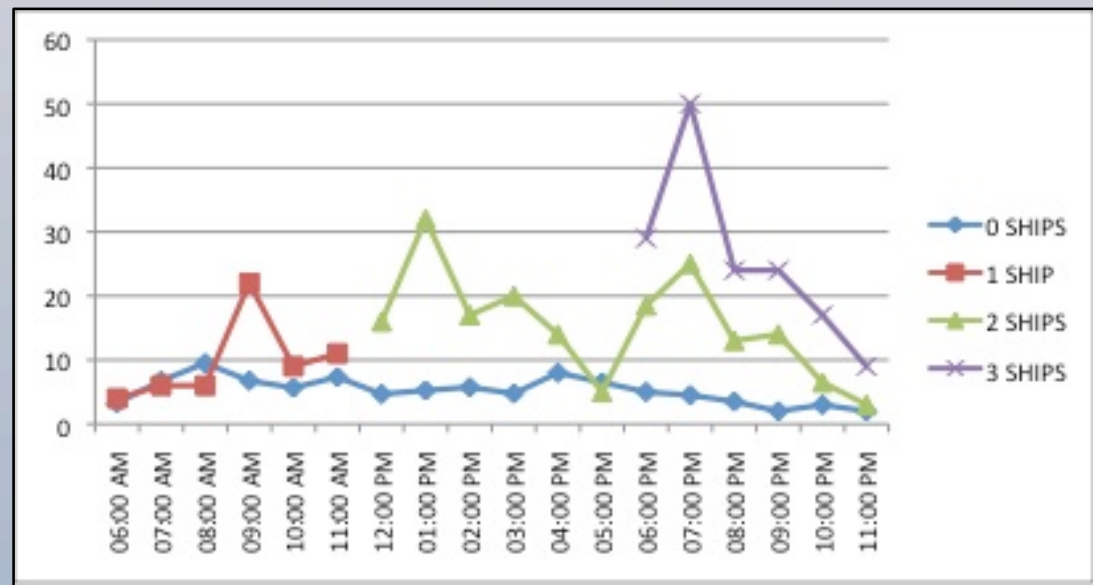
eastward = 36/ship

westward = 6/ship

or

+ 42 movements/ship

**126 additional buses
on 3-ship evenings**

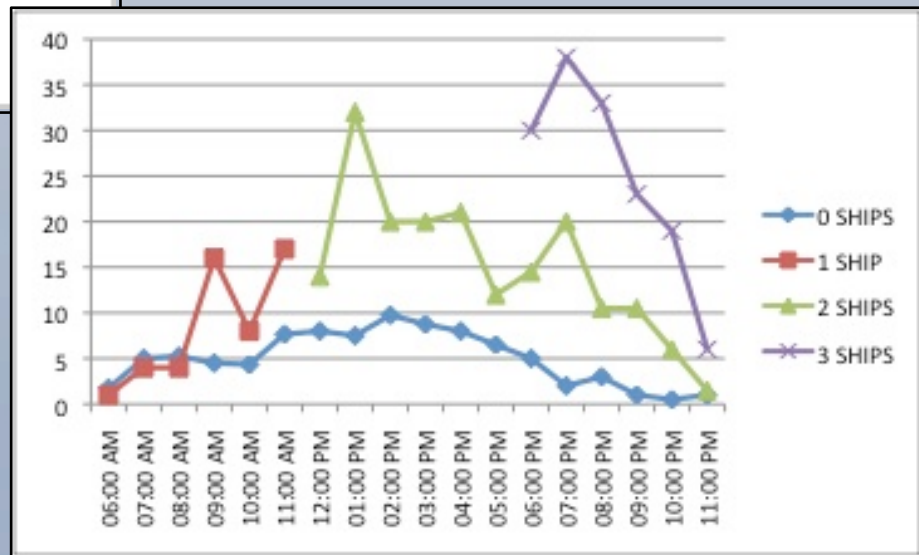
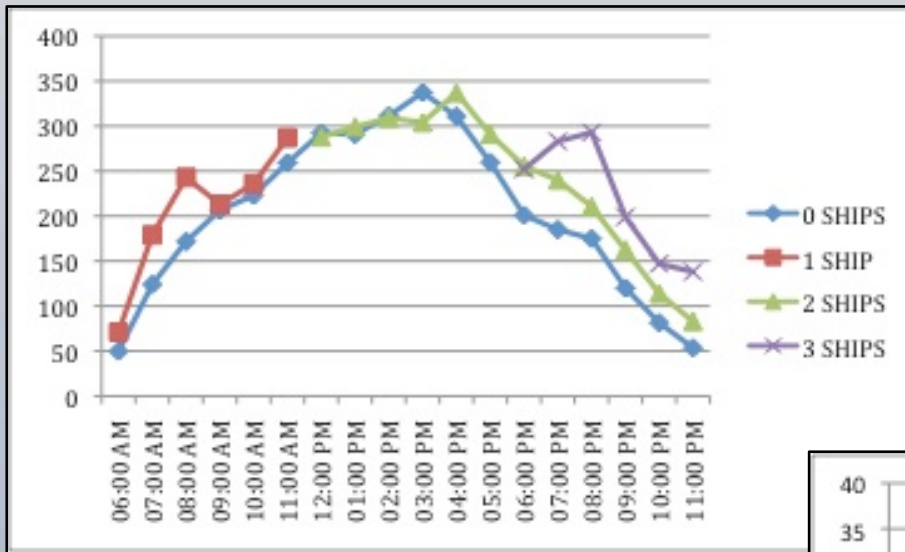


Note:

Each ship also generates 36 bus movements on 400 Dallas eastward & 400 Douglas northward

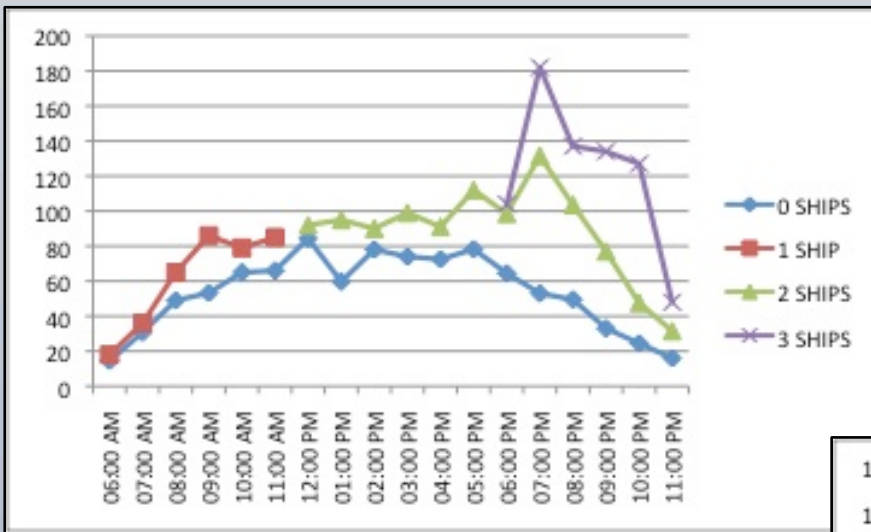
total & bus traffic 400 block Douglas northbound

August 17-21



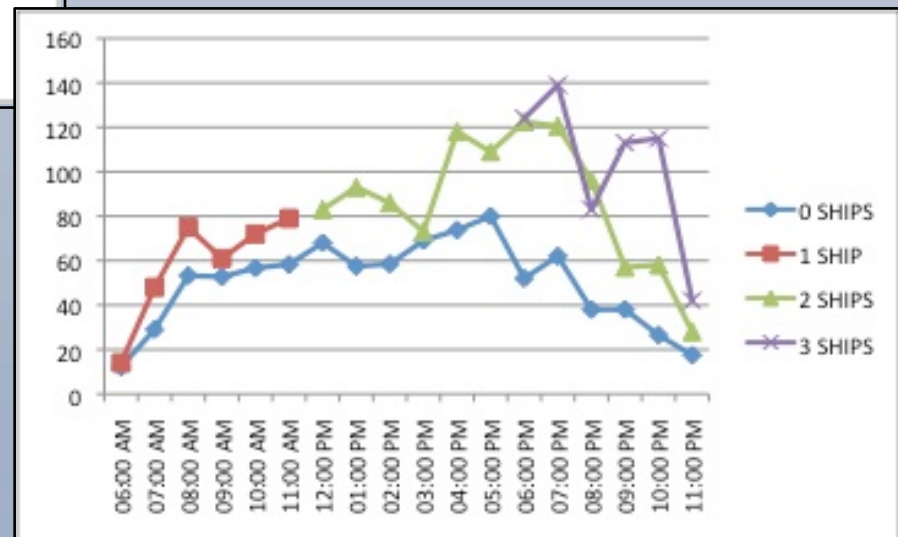
total traffic 100 block Oswego

August 17-21



**total northbound
traffic**

total southbound traffic



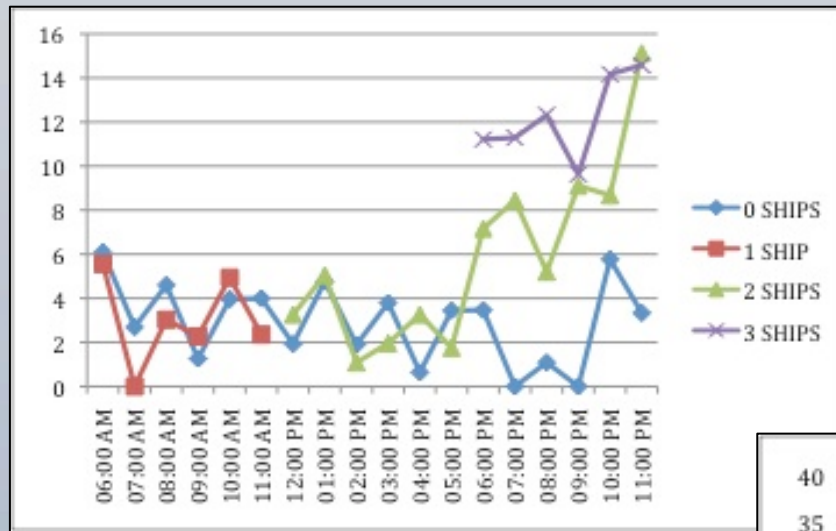
speeding traffic

James Bay Residents Survey – 4th highest priority

- Superior Street (224 Douglas) *2007*
 - 21.6% eastbound > 50 kph (7.9% > 55 kph)
 - 28.0% westbound > 50 kph (11.3% > 55 kph)
 - Douglas Street (400 block) *2011*
 - 15.6% northbound > 50 kph (6.5% > 55 kph)
 - 8.6% southbound > 50 kph (4.3% > 55 kph)
 - Oswego Street (100 block) *2011*
 - 3.9% northbound > 50 kph (1.9% > 55 kph)
 - 10.6% southbound > 50 kph (3.9% > 55 kph)
 - Montreal Street (100 block) *2011*
 - 1.4% northbound > 50 kph (49.2% > 30 kph)
 - 2.3% southbound > 50 kph (51.0% > 30 kph)
-

speeding traffic 100 block Oswego

August 17-21, 2011

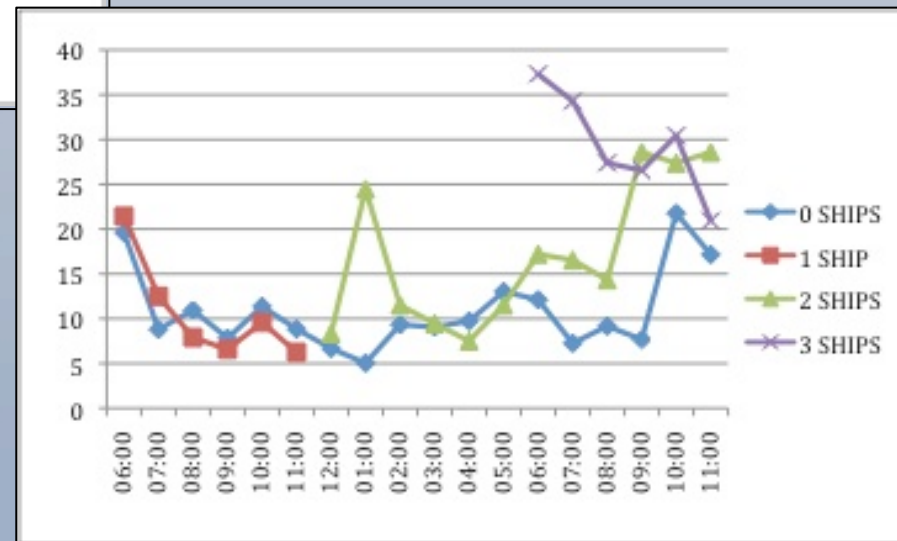


northbound traffic

% exceeding 50 kph

southbound traffic

speeding when
cruise-ships in port



large vehicle routing

buses, 2-axle 6-tire, & trucks



- 200/400 Dallas
 - Eastbound: 13.1% 200 Dallas, 9.4% 400 Dallas
 - Westbound: 8.5% 200 Dallas, 6.1% 400 Dallas
 - Dallas-Erie
 - Eastbound: 9.4% Dallas, 7.8% Erie
 - Westbound: 15.2% Dallas, 14.5% Erie
 - Counter-clockwise routing observed
 - GVHA ✓
 - James Bay community ?
-

traffic volumes 2007 and 2011

- 2011 Dallas south of Ogden (August 17-21)
 - 384 additional vehicle movements per ship
 - Implying 1152 additional vehicle movements on 3-ship evenings
- 2007 Dallas-Erie north of Ogden (June 28-July 4 & July 31-Aug 6)
 - 317 additional vehicle movements per ship
 - Implying 950 additional vehicle movements on 3-ship evenings



data collection

noise and traffic volume

traffic counts - **blue**

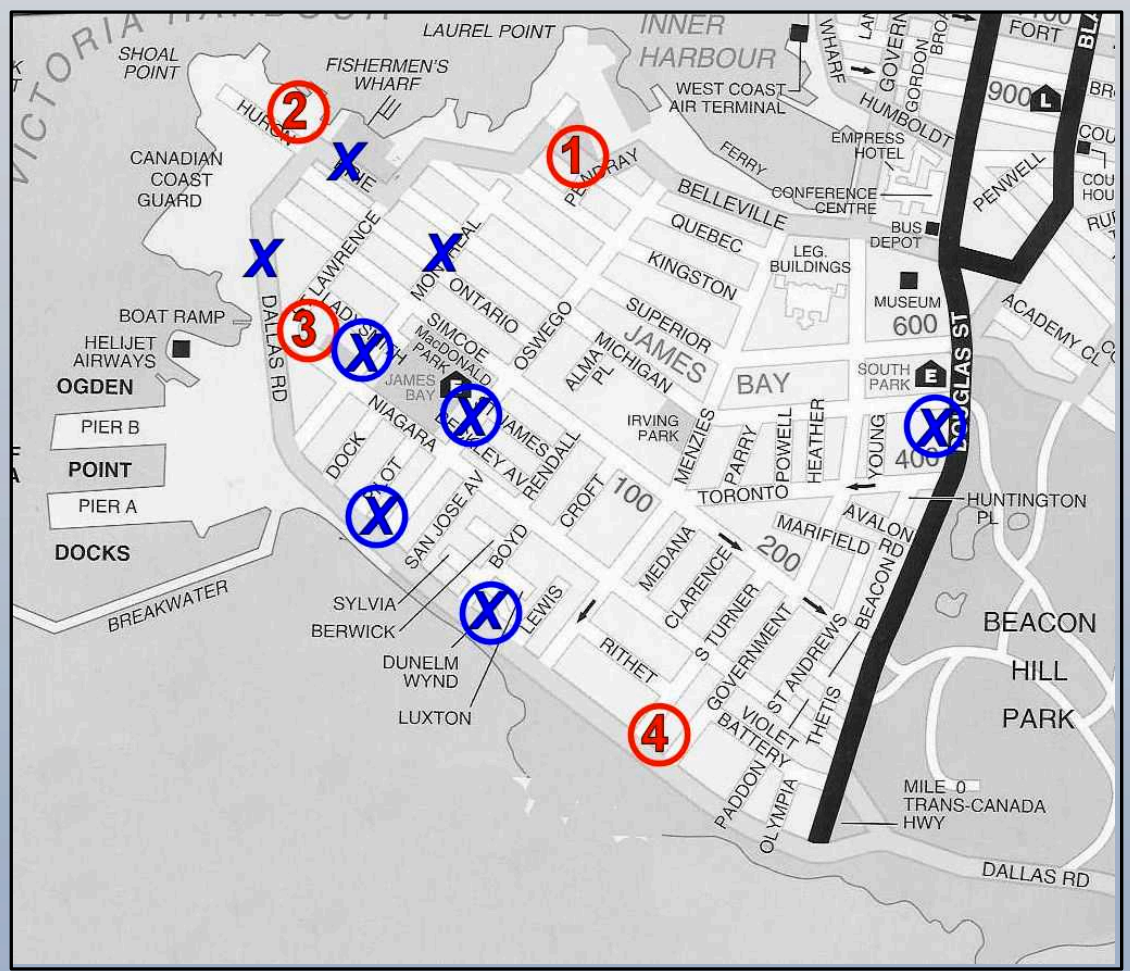
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noise

definitions & guidelines

A-weighted decibels (dBA)

- Logarithmic scale
- Energy level vs. perceived noise
(Energy doubles every 3 dBA, perceived noise every 10 dBA)
- WHO standards for the general community neighbourhoods
(55 dBA = threshold for serious annoyance)

Relevant Community Noise Guidelines

- City of Victoria Noise Bylaw
 - Health Canada Guidelines
 - World Health Organization (WHO)
-

noise

what was studied

Noise measurement 2-phase study of the noise environment

- Sep 2 – 4, 2011 (Cruise Ships) & Oct 14 – 16, 2011 (no ships)

The noise measurements that were most impacted by cruise-related traffic (in particular bus pass-bys):

- 15-min average noise levels: $L_{eq}(15 \text{ min})$
- 1-hr average noise levels: $L_{eq}(1 \text{ hr})$

Other noise levels referenced

- Average Day-Night Sound Levels L_{dn}
 - 24-hr average noise levels: $L_{eq}(24 \text{ hr})$
 - Noise level which was exceeded only 1% of the time: L_1
-

noise findings

- Daily average 24-hr noise exposures already equal or exceed recognized thresholds (without cruise ships). They are highest at Site 3.
 - Cruise-related traffic increased daily average noise levels by from 0.5 to 3.0 dBA.
 - 1-hr noise level increased by up to 8.8 dBA during cruise ship weekend.
 - At Site 2, average bus movement creates a maximum noise level of 74.3 dBA , capable of interfering with sleep and relaxation indoors.
 - Community noise impacts would be moderated if the cruise ships arrived at a time that did not result in their peak noise generation hours running into the late evening or if alternative technology was used to lower noise impact.
-

noise

table 3.2 noise level averages

Site No./ Address	Condition	Ld		Ln		Leq(24)		Ldn	
		(dBA)		(dBA)		(dBA)		(dBA)	
		Fri – Sat	Sat - Sun	Fri - Sat	Sat – Sun	Fri - Sat	Sat – Sun	Fri – Sat	Sat - Sun
1 215 Quebec Street	With Cruise Ships	59.1	59.6	54.8	55.2	57.9	58.4	62.1	62.6
	Without Cruise Ships	56.9	57.7	50.4	50.7	55.0	56.1	59.9	59.1
	Difference	2.2	1.9	4.4	4.5	2.9	2.3	2.2	3.5
2 21 Dallas Road	With Cruise Ships	60.9	60.7	54.3	55.3	59.4	59.4	62.5	63.0
	Without Cruise Ships	58.3	58.0	50.5	50.5	56.6	56.4	59.3	59.1
	Difference	2.7	2.7	3.8	4.8	2.8	3.0	3.2	3.9
3 104 Dallas Road	With Cruise Ships	63.0	63.9	57.1	58.3	61.6	62.6	65.0	66.1
	Without Cruise Ships	62.8	61.7	54.3	54.6	61.1	60.0	63.4	63.0
	Difference	0.2	2.2	2.8	3.7	0.5	2.5	1.6	3.1
4 558 Dallas Road	With Cruise Ships	61.7	61.3	54.8	55.4	60.2	59.9	63.1	63.4
	Without Cruise Ships	60.5	61.0	53.2	52.6	58.9	59.2	61.7	61.7
	Difference	1.2	0.3	1.6	2.8	1.3	0.7	1.4	1.7

Table 3.2 Summary of Daytime and Nighttime Equivalent Sound Levels, 24-Hour Equivalent Sounds Levels and Day-Night Average Noise Levels Measured at the Four Noise Monitoring Sites.

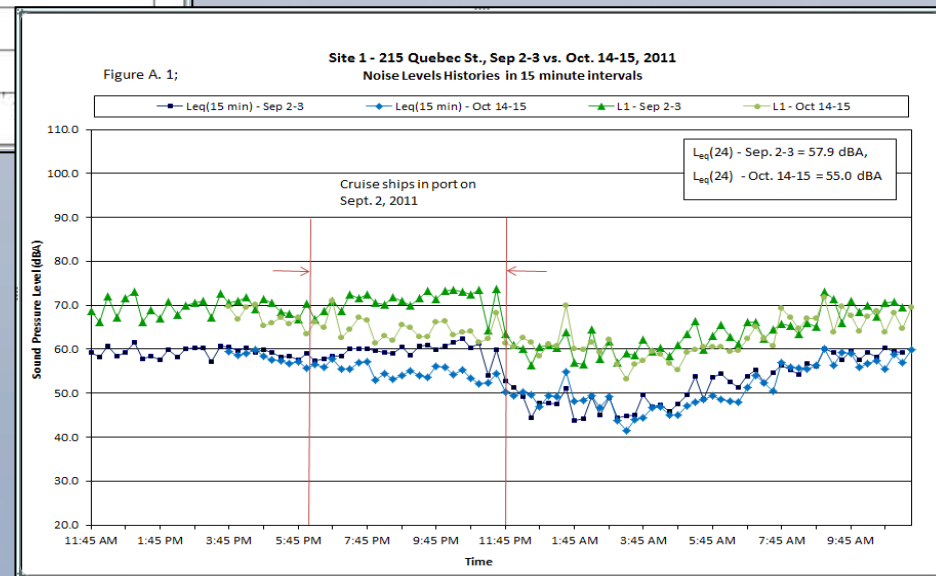
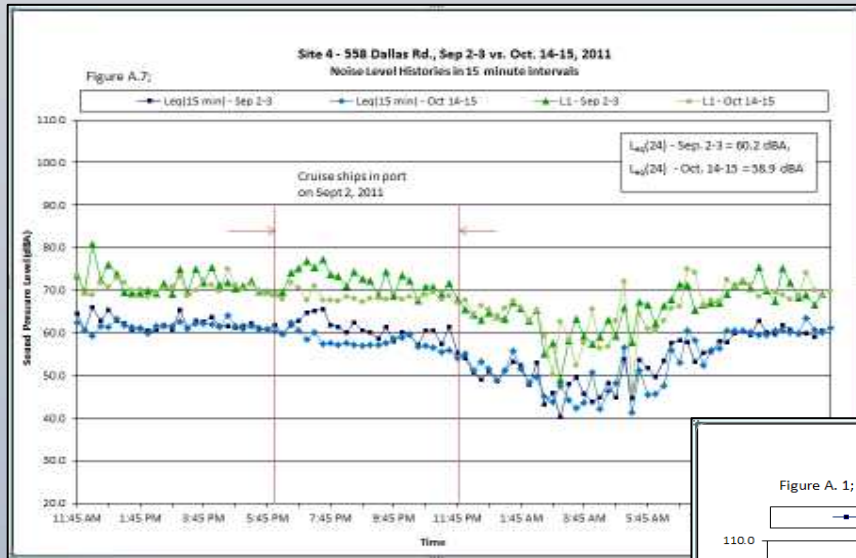
noise

table 3.1 evening hour noise (5:30 to 11:30 p.m.)

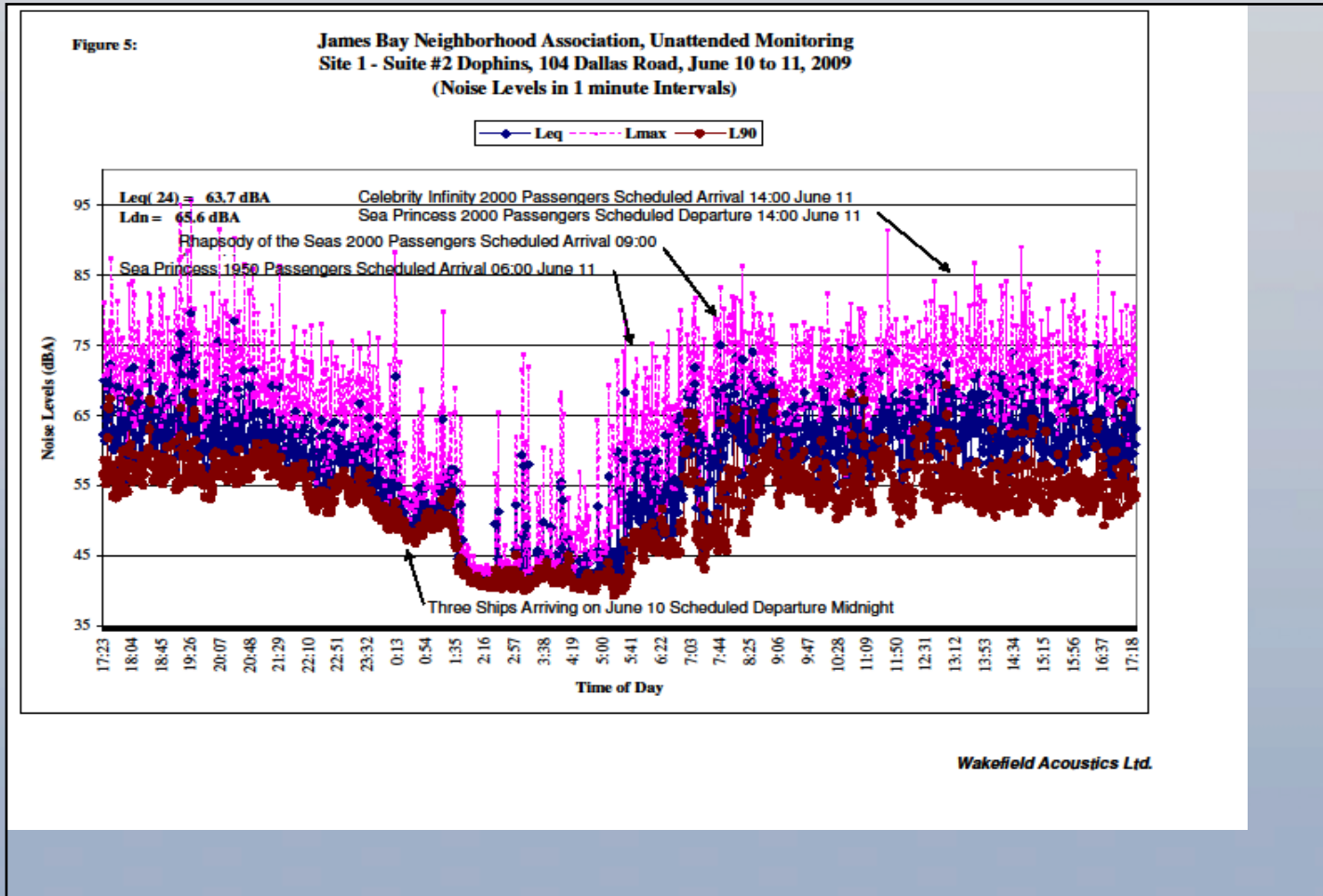
Site No.	Difference in 1-Hour Leq's During Evening Hours With and Without Cruise Ships (dBA)					
	Friday Evenings			Saturday Evenings		
	Minimum	Maximum	Average	Minimum	Maximum	Average
1	1.6	6.5	4.8	2.9	8.2	5.8
2	2.5	6.9	5.5	5.0	8.7	6.5
3	0.9	6.5	3.1	2.8	8.8	5.0
4	0.7	6.0	3.0	3.4	5.3	4.3
Average	1.4	6.5	4.1	3.5	7.8	5.4

Differences in 1-Hour Equivalent Sound Levels obtained during the evenings of Friday and Saturday September 2 and 3, 2011 (with cruise ships) and Friday and Saturday, October 14 and 15, 2011 (without cruise ships)

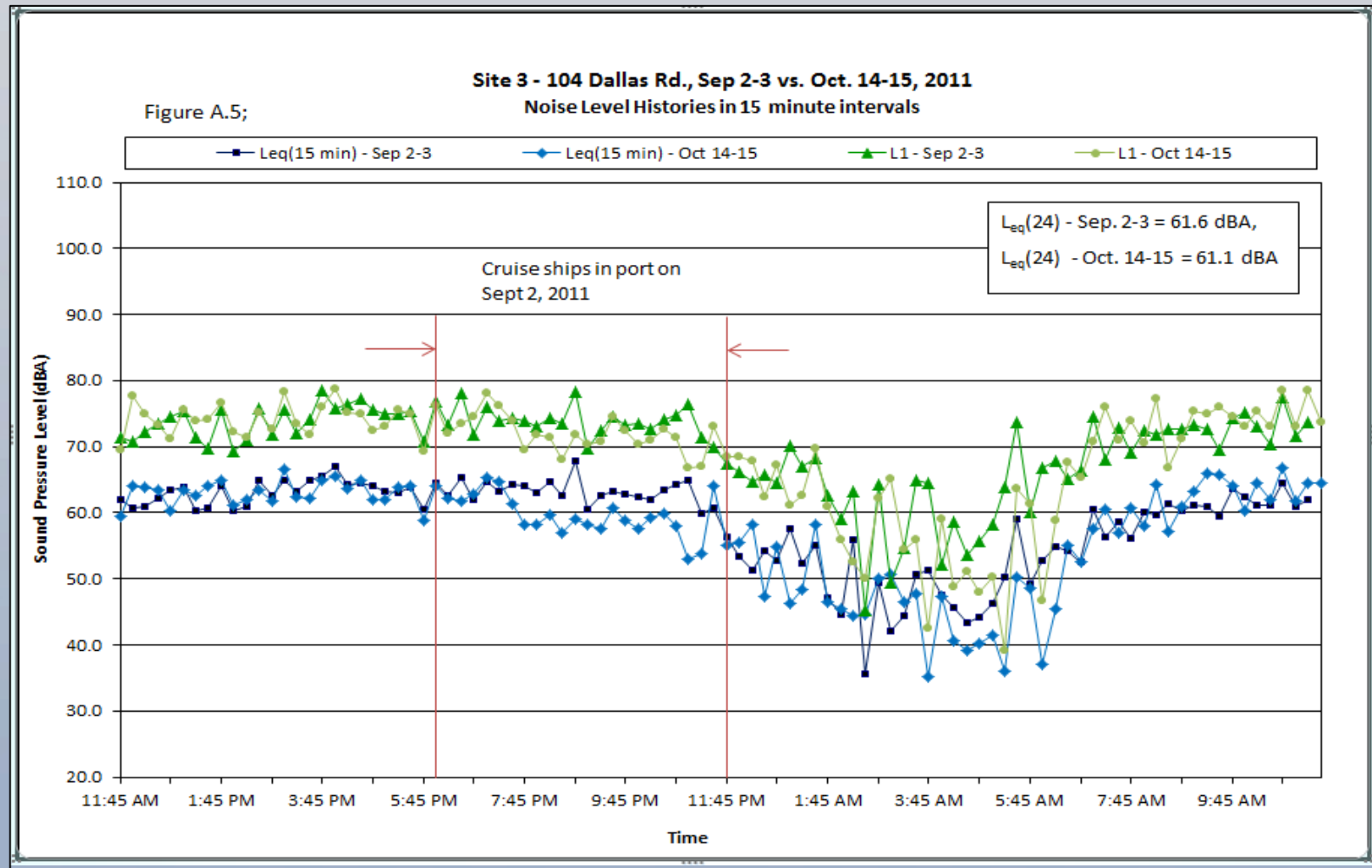
noise traffic leaving Ogden returning to Ogden



noise nearest Ogden - 2009



noise nearest Ogden

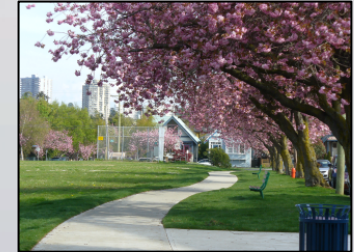


*observed bus traffic
traffic leaving Ogden (Wakefield)*

Bus Type	September 2 (5:00 to 5:50 PM)	September 3 (6:04 to 6:51 PM)	October 14 (6:23 – 6:41 PM)	October 15 (4:51 – 5:20 PM)
Trafalgar	1	0	0	0
Cruise Victoria	0	8	0	0
Horizon	0	2	0	0
Wilson	0	16	0	0
Wilson (school)	0	4	0	0
Tofino Tour Bus	0	0	0	1
Unmarked/Other	1	3	0	0
Total	2	33	0	1
Movements/Hr.	2.4	42.1	0	2.1

Table 4.4; Tour Bus Movements Observed during Attended Monitoring at Site 4, 558 Dallas Road.
(Note; Cruise ships arrived at 6:11 and 6:34 PM on Sept. 2 and at 5:32, 6:37 and 6:52 PM on Sept. 3, 2011)

fisherman's wharf park phase 2 and beyond ...



- Mayor's December 8, 2011 Inaugural Address
 - recommitment to completion of phase 2
- Social Benefits
 - people park
 - passive enjoyment
 - key Harbour Pathway link
 - image from the past



fisherman's wharf park

rain gardens, social & ecological benefits

- *Rain Gardens* manage runoff
- *Old Bay Walls* reflecting history
- *Contemplative Garden*
- *Community Lawn*
- *Trees - GHG*



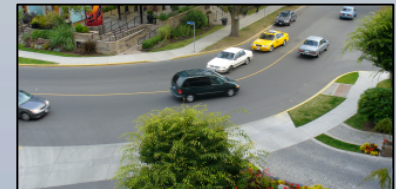
Harbour Pathway walking



Canadian Coast Guard property between Fisherman's Park & Ogden Point



- GVHA and Ogden Point MasterPlan (18 mos)
- Canadian Coast Guard - first step
 - 2-4 year process
- Challenges
 - long-term CCG plans
 - easement for Pathway access (phased)
 - CCG building issues – green roof
 - mature trees
 - creating partnerships



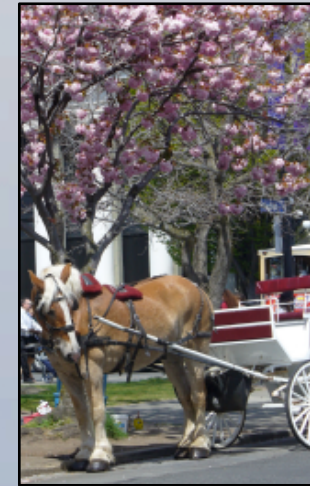
GVHA cruise-tourist walking map through and around James Bay



comments

management of transportation impacts

- Measurement - first step
- Mitigation - next steps
 - optimize ship scheduling
 - promote alternative itineraries and longer port calls
 - vehicle alternatives
 - diversification
 - Ogden Point pedestrian signage
 - walking – to benefit all



The City of Victoria

steps for 2012

- Review tour and other bus parking within City/Region
 - need to reduce impacts of bus operations on JB residents
 - focus on parking alternatives for bus operations not primarily directed to cruise-tourism including Pacific Coach Lines, Greyhound and BC Transit
 - Transportation
 - 4-way stop Simcoe-Oswego
 - X-walks Dock St (2011) & Erie St
 - Enforcement and By-Laws
 - restrict use of oversized buses for intra-city transport: begin phase-out
 - speeding – enforcement (cruise-ships / events)
 - deal with open-air sound systems on any vehicles-for-hire
 - require tour vehicle compliance with BC noise and emissions standards
 - resolve horse droppings problem
 - Parks: Harbour Pathway
 - place a priority on Canadian Coast Guard partnership discussions
 - way-finding map/kiosk at south-west corner of Fisherman's Wharf Park
 - accelerate Harbour Pathway way-finding signage
-