

DOWNTOWN CIRCULATOR SHUTTLE FEASIBILITY STUDY

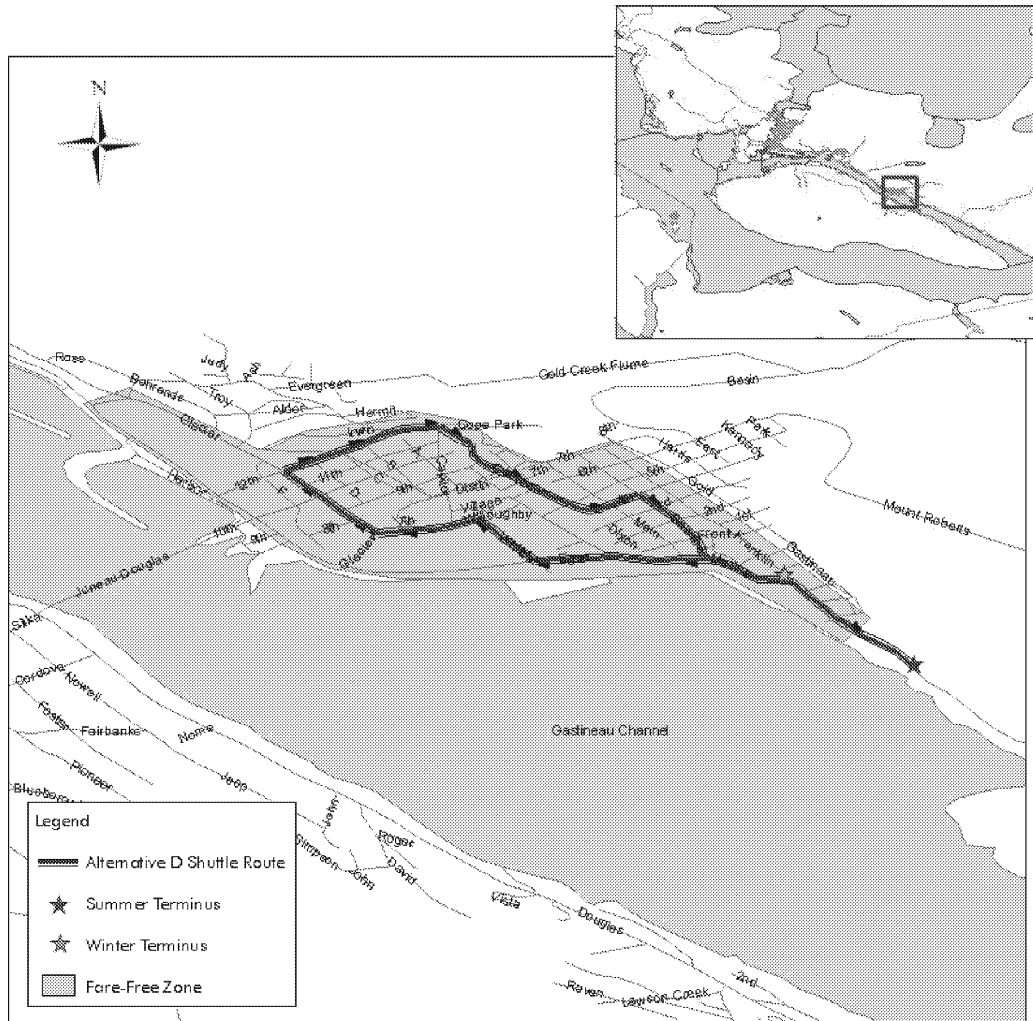
Exhibit 4.6 Alternative C Timetable

Alternative C							
Minutes from last stop	0:03:00	0:01:00	0:02:00	0:02:00	0:02:00	0:02:00	0:03:00
Princess Dock (summer) Library (winter)	Franklin/4th (Rainbow Foods)	Seward/Front (Post Office)	Calhoun/9th (Governor's Mansion)	12th/Glacier Ave. (High School)	Whittier (Parking, State Museum)	Egan/Main (Bus Stop, Parking)	Princess Dock (summer) Library (winter)
Begin Summer timetable							
7:00 AM	7:03 AM	7:04 AM	7:06 AM	7:06 AM	7:10 AM	7:12 AM	7:15 AM
7:10 AM	7:13 AM	7:14 AM	7:16 AM	7:16 AM	7:20 AM	7:22 AM	7:25 AM
7:20 AM	7:23 AM	7:24 AM	7:26 AM	7:26 AM	7:30 AM	7:32 AM	7:35 AM
7:30 AM	7:33 AM	7:34 AM	7:36 AM	7:36 AM	7:40 AM	7:42 AM	7:45 AM
7:40 AM	7:43 AM	7:44 AM	7:46 AM	7:46 AM	7:50 AM	7:52 AM	7:55 AM
7:50 AM	7:53 AM	7:54 AM	7:56 AM	7:56 AM	8:00 AM	8:02 AM	8:05 AM
8:00 AM	8:03 AM	8:04 AM	8:06 AM	8:06 AM	8:10 AM	8:12 AM	8:15 AM
8:10 AM	8:13 AM	8:14 AM	8:16 AM	8:16 AM	8:20 AM	8:22 AM	8:25 AM
8:20 AM	8:23 AM	8:24 AM	8:26 AM	8:26 AM	8:30 AM	8:32 AM	8:35 AM
8:30 AM	8:33 AM	8:34 AM	8:36 AM	8:36 AM	8:40 AM	8:42 AM	8:45 AM
8:40 AM	8:43 AM	8:44 AM	8:46 AM	8:46 AM	8:50 AM	8:52 AM	8:55 AM
8:50 AM	8:53 AM	8:54 AM	8:56 AM	8:56 AM	9:00 AM	9:02 AM	9:05 AM
Begin Winter timetable/Summer timetable continues							
9:00 AM	9:03 AM	9:04 AM	9:06 AM	9:06 AM	9:10 AM	9:12 AM	9:15 AM
9:10 AM	9:13 AM	9:14 AM	9:16 AM	9:16 AM	9:20 AM	9:22 AM	9:25 AM
9:20 AM	9:23 AM	9:24 AM	9:26 AM	9:26 AM	9:30 AM	9:32 AM	9:35 AM
9:30 AM	9:33 AM	9:34 AM	9:36 AM	9:36 AM	9:40 AM	9:42 AM	9:45 AM
9:40 AM	9:43 AM	9:44 AM	9:46 AM	9:46 AM	9:50 AM	9:52 AM	9:55 AM
9:50 AM	9:53 AM	9:54 AM	9:56 AM	9:56 AM	10:00 AM	10:02 AM	10:05 AM
10:00 AM	10:03 AM	10:04 AM	10:06 AM	10:06 AM	10:10 AM	10:12 AM	10:15 AM
10:10 AM	10:13 AM	10:14 AM	10:16 AM	10:16 AM	10:20 AM	10:22 AM	10:25 AM
10:20 AM	10:23 AM	10:24 AM	10:26 AM	10:26 AM	10:30 AM	10:32 AM	10:35 AM
10:30 AM	10:33 AM	10:34 AM	10:36 AM	10:36 AM	10:40 AM	10:42 AM	10:45 AM
10:40 AM	10:43 AM	10:44 AM	10:46 AM	10:46 AM	10:50 AM	10:52 AM	10:55 AM
10:50 AM	10:53 AM	10:54 AM	10:56 AM	10:56 AM	11:00 AM	11:02 AM	11:05 AM
11:00 AM	11:03 AM	11:04 AM	11:06 AM	11:06 AM	11:10 AM	11:12 AM	11:15 AM
11:10 AM	11:13 AM	11:14 AM	11:16 AM	11:16 AM	11:20 AM	11:22 AM	11:25 AM
11:20 AM	11:23 AM	11:24 AM	11:26 AM	11:26 AM	11:30 AM	11:32 AM	11:35 AM
11:30 AM	11:33 AM	11:34 AM	11:36 AM	11:36 AM	11:40 AM	11:42 AM	11:45 AM
11:40 AM	11:43 AM	11:44 AM	11:46 AM	11:46 AM	11:50 AM	11:52 AM	11:55 AM
11:50 AM	11:53 AM	11:54 AM	11:56 AM	11:56 AM	12:00 PM	12:02 PM	12:05 PM
12:00 PM	12:03 PM	12:04 PM	12:06 PM	12:06 PM	12:10 PM	12:12 PM	12:15 PM
12:10 PM	12:13 PM	12:14 PM	12:16 PM	12:16 PM	12:20 PM	12:22 PM	12:25 PM
12:20 PM	12:23 PM	12:24 PM	12:26 PM	12:26 PM	12:30 PM	12:32 PM	12:35 PM
12:30 PM	12:33 PM	12:34 PM	12:36 PM	12:36 PM	12:40 PM	12:42 PM	12:45 PM
12:40 PM	12:43 PM	12:44 PM	12:46 PM	12:46 PM	12:50 PM	12:52 PM	12:55 PM
12:50 PM	12:53 PM	12:54 PM	12:56 PM	12:56 PM	1:00 PM	1:02 PM	1:05 PM
1:00 PM	1:03 PM	1:04 PM	1:06 PM	1:06 PM	1:10 PM	1:12 PM	1:15 PM
1:10 PM	1:13 PM	1:14 PM	1:16 PM	1:16 PM	1:20 PM	1:22 PM	1:25 PM
1:20 PM	1:23 PM	1:24 PM	1:26 PM	1:26 PM	1:30 PM	1:32 PM	1:35 PM
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1:40 PM	1:43 PM	1:44 PM	1:46 PM	1:46 PM	1:50 PM	1:52 PM	1:55 PM
1:50 PM	1:53 PM	1:54 PM	1:56 PM	1:56 PM	2:00 PM	2:02 PM	2:05 PM
2:00 PM	2:03 PM	2:04 PM	2:06 PM	2:06 PM	2:10 PM	2:12 PM	2:15 PM
2:10 PM	2:13 PM	2:14 PM	2:16 PM	2:16 PM	2:20 PM	2:22 PM	2:25 PM
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2:40 PM	2:43 PM	2:44 PM	2:46 PM	2:46 PM	2:50 PM	2:52 PM	2:55 PM
2:50 PM	2:53 PM	2:54 PM	2:56 PM	2:56 PM	3:00 PM	3:02 PM	3:05 PM
3:00 PM	3:03 PM	3:04 PM	3:06 PM	3:06 PM	3:10 PM	3:12 PM	3:15 PM
3:10 PM	3:13 PM	3:14 PM	3:16 PM	3:16 PM	3:20 PM	3:22 PM	3:25 PM
3:20 PM	3:23 PM	3:24 PM	3:26 PM	3:26 PM	3:30 PM	3:32 PM	3:35 PM
3:30 PM	3:33 PM	3:34 PM	3:36 PM	3:36 PM	3:40 PM	3:42 PM	3:45 PM
3:40 PM	3:43 PM	3:44 PM	3:46 PM	3:46 PM	3:50 PM	3:52 PM	3:55 PM
3:50 PM	3:53 PM	3:54 PM	3:56 PM	3:56 PM	4:00 PM	4:02 PM	4:05 PM
4:00 PM	4:03 PM	4:04 PM	4:06 PM	4:06 PM	4:10 PM	4:12 PM	4:15 PM
4:10 PM	4:13 PM	4:14 PM	4:16 PM	4:16 PM	4:20 PM	4:22 PM	4:25 PM
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5:30 PM	5:33 PM	5:34 PM	5:36 PM	5:36 PM	5:40 PM	5:42 PM	5:45 PM
5:40 PM	5:43 PM	5:44 PM	5:46 PM	5:46 PM	5:50 PM	5:52 PM	5:55 PM
5:50 PM	5:53 PM	5:54 PM	5:56 PM	5:56 PM	6:00 PM	6:02 PM	6:05 PM
End Winter timetable/Summer timetable continues							
6:00 PM	6:03 PM	6:04 PM	6:06 PM	6:06 PM	6:10 PM	6:12 PM	6:15 PM
6:10 PM	6:13 PM	6:14 PM	6:16 PM	6:16 PM	6:20 PM	6:22 PM	6:25 PM
6:20 PM	6:23 PM	6:24 PM	6:26 PM	6:26 PM	6:30 PM	6:32 PM	6:35 PM
6:30 PM	6:33 PM	6:34 PM	6:36 PM	6:36 PM	6:40 PM	6:42 PM	6:45 PM
6:40 PM	6:43 PM	6:44 PM	6:46 PM	6:46 PM	6:50 PM	6:52 PM	6:55 PM
6:50 PM	6:53 PM	6:54 PM	6:56 PM	6:56 PM	7:00 PM	7:02 PM	7:05 PM
7:00 PM	7:03 PM	7:04 PM	7:06 PM	7:06 PM	7:10 PM	7:12 PM	7:15 PM
7:10 PM	7:13 PM	7:14 PM	7:16 PM	7:16 PM	7:20 PM	7:22 PM	7:25 PM
7:20 PM	7:23 PM	7:24 PM	7:26 PM	7:26 PM	7:30 PM	7:32 PM	7:35 PM
7:30 PM	7:33 PM	7:34 PM	7:36 PM	7:36 PM	7:40 PM	7:42 PM	7:45 PM
7:40 PM	7:43 PM	7:44 PM	7:46 PM	7:46 PM	7:50 PM	7:52 PM	7:55 PM
7:50 PM	7:53 PM	7:54 PM	7:56 PM	7:56 PM	8:00 PM	8:02 PM	8:05 PM

Alternative D

Alternative D begins by heading north on Franklin Street, the same as Alternative A. As in the previous three alternatives, summer service begins at the Princess Dock and heads north on Franklin, while winter service begins at the Library roundabout at Franklin and Marine Way. However, Alternative D travels instead in a clockwise fashion, heading west on Marine Way as Franklin forks north, then descending down Seward Street (due to Franklin Street being a one-way street) back to its terminus. As detailed in Alternative C (which also utilizes Seward Street), the drawback of this route is its need to use a street that bottlenecks. Dependable headways are very important not only to residents who work in the area, who may be using the service during a defined break time, but also to tourists who need to arrive back on their cruise ships prior to departure. Headways in this type of shuttle service need to be effective as well as efficient. If proper headways can be realized, the primary benefit of this route is its ability to service the restaurant district, a valuable destination for visitors and residents alike.

Exhibit 4.7 Alternative D Map





DOWNTOWN CIRCULATOR SHUTTLE FEASIBILITY STUDY

Exhibit 4.8 Alternative D Timetable

Alternative D							
Minutes from last stop	0:02:00	0:03:00	0:03:00	0:02:00	0:02:00	0:01:00	0:02:00
Princess Dock (summer) Library (winter)	Marine/Franklin (Library)	Whittier (Parking, State Museum)	12th/Glacier Ave. (High School)	Calhoun 9th (Governor's Mansion)	4th/Seward (Rainbow Foods, State Capitol)	Seward/Egan (Bus Stop, Parking)	Princess Dock (summer) Library (winter)
Begin Summer timetable							
7:00 AM	7:02 AM	7:05 AM	7:08 AM	7:10 AM	7:12 AM	7:15 AM	7:15 AM
7:10 AM	7:12 AM	7:15 AM	7:18 AM	7:20 AM	7:22 AM	7:23 AM	7:25 AM
7:20 AM	7:22 AM	7:25 AM	7:28 AM	7:30 AM	7:32 AM	7:33 AM	7:35 AM
7:30 AM	7:32 AM	7:35 AM	7:38 AM	7:40 AM	7:42 AM	7:43 AM	7:45 AM
7:40 AM	7:42 AM	7:45 AM	7:48 AM	7:50 AM	7:52 AM	7:53 AM	7:55 AM
7:50 AM	7:52 AM	7:55 AM	7:58 AM	8:00 AM	8:02 AM	8:03 AM	8:05 AM
8:00 AM	8:02 AM	8:05 AM	8:08 AM	8:10 AM	8:12 AM	8:13 AM	8:15 AM
8:10 AM	8:12 AM	8:15 AM	8:18 AM	8:20 AM	8:22 AM	8:23 AM	8:25 AM
8:20 AM	8:22 AM	8:25 AM	8:28 AM	8:30 AM	8:32 AM	8:33 AM	8:35 AM
8:30 AM	8:32 AM	8:35 AM	8:38 AM	8:40 AM	8:42 AM	8:43 AM	8:45 AM
8:40 AM	8:42 AM	8:45 AM	8:48 AM	8:50 AM	8:52 AM	8:53 AM	8:55 AM
8:50 AM	8:52 AM	8:55 AM	8:58 AM	9:00 AM	9:02 AM	9:03 AM	9:05 AM
Begin Winter timetable/Summer timetable continues							
9:00 AM	9:02 AM	9:05 AM	9:08 AM	9:10 AM	9:12 AM	9:13 AM	9:15 AM
9:10 AM	9:12 AM	9:15 AM	9:18 AM	9:20 AM	9:22 AM	9:23 AM	9:25 AM
9:20 AM	9:22 AM	9:25 AM	9:28 AM	9:30 AM	9:32 AM	9:33 AM	9:35 AM
9:30 AM	9:32 AM	9:35 AM	9:38 AM	9:40 AM	9:42 AM	9:43 AM	9:45 AM
9:40 AM	9:42 AM	9:45 AM	9:48 AM	9:50 AM	9:52 AM	9:53 AM	9:55 AM
9:50 AM	9:52 AM	9:55 AM	9:58 AM	10:00 AM	10:02 AM	10:03 AM	10:05 AM
10:00 AM	10:02 AM	10:05 AM	10:08 AM	10:10 AM	10:12 AM	10:13 AM	10:15 AM
10:10 AM	10:12 AM	10:15 AM	10:18 AM	10:20 AM	10:22 AM	10:23 AM	10:25 AM
10:20 AM	10:22 AM	10:25 AM	10:28 AM	10:30 AM	10:32 AM	10:33 AM	10:35 AM
10:30 AM	10:32 AM	10:35 AM	10:38 AM	10:40 AM	10:42 AM	10:43 AM	10:45 AM
10:40 AM	10:42 AM	10:45 AM	10:48 AM	10:50 AM	10:52 AM	10:53 AM	10:55 AM
10:50 AM	10:52 AM	10:55 AM	10:58 AM	11:00 AM	11:02 AM	11:03 AM	11:05 AM
11:00 AM	11:02 AM	11:05 AM	11:08 AM	11:10 AM	11:12 AM	11:13 AM	11:15 AM
11:10 AM	11:12 AM	11:15 AM	11:18 AM	11:20 AM	11:22 AM	11:23 AM	11:25 AM
11:20 AM	11:22 AM	11:25 AM	11:28 AM	11:30 AM	11:32 AM	11:33 AM	11:35 AM
11:30 AM	11:32 AM	11:35 AM	11:38 AM	11:40 AM	11:42 AM	11:43 AM	11:45 AM
11:40 AM	11:42 AM	11:45 AM	11:48 AM	11:50 AM	11:52 AM	11:53 AM	11:55 AM
11:50 AM	11:52 AM	11:55 AM	11:58 AM	12:00 PM	12:02 PM	12:03 PM	12:05 PM
12:00 PM	12:02 PM	12:05 PM	12:08 PM	12:10 PM	12:12 PM	12:13 PM	12:15 PM
12:10 PM	12:12 PM	12:15 PM	12:18 PM	12:20 PM	12:22 PM	12:23 PM	12:25 PM
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12:30 PM	12:32 PM	12:35 PM	12:38 PM	12:40 PM	12:42 PM	12:43 PM	12:45 PM
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12:50 PM	12:52 PM	12:55 PM	12:58 PM	1:00 PM	1:02 PM	1:03 PM	1:05 PM
1:00 PM	1:02 PM	1:05 PM	1:08 PM	1:10 PM	1:12 PM	1:13 PM	1:15 PM
1:10 PM	1:12 PM	1:15 PM	1:18 PM	1:20 PM	1:22 PM	1:23 PM	1:25 PM
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2:00 PM	2:02 PM	2:05 PM	2:08 PM	2:10 PM	2:12 PM	2:13 PM	2:15 PM
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2:40 PM	2:42 PM	2:45 PM	2:48 PM	2:50 PM	2:52 PM	2:53 PM	2:55 PM
2:50 PM	2:52 PM	2:55 PM	2:58 PM	3:00 PM	3:02 PM	3:03 PM	3:05 PM
3:00 PM	3:02 PM	3:05 PM	3:08 PM	3:10 PM	3:12 PM	3:13 PM	3:15 PM
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4:30 PM	4:32 PM	4:35 PM	4:38 PM	4:40 PM	4:42 PM	4:43 PM	4:45 PM
4:40 PM	4:42 PM	4:45 PM	4:48 PM	4:50 PM	4:52 PM	4:53 PM	4:55 PM
4:50 PM	4:52 PM	4:55 PM	4:58 PM	5:00 PM	5:02 PM	5:03 PM	5:05 PM
5:00 PM	5:02 PM	5:05 PM	5:08 PM	5:10 PM	5:12 PM	5:13 PM	5:15 PM
5:10 PM	5:12 PM	5:15 PM	5:18 PM	5:20 PM	5:22 PM	5:23 PM	5:25 PM
5:20 PM	5:22 PM	5:25 PM	5:28 PM	5:30 PM	5:32 PM	5:33 PM	5:35 PM
5:30 PM	5:32 PM	5:35 PM	5:38 PM	5:40 PM	5:42 PM	5:43 PM	5:45 PM
5:40 PM	5:42 PM	5:45 PM	5:48 PM	5:50 PM	5:52 PM	5:53 PM	5:55 PM
5:50 PM	5:52 PM	5:55 PM	5:58 PM	6:00 PM	6:02 PM	6:03 PM	6:05 PM
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6:10 PM	6:12 PM	6:15 PM	6:18 PM	6:20 PM	6:22 PM	6:23 PM	6:25 PM
6:20 PM	6:22 PM	6:25 PM	6:28 PM	6:30 PM	6:32 PM	6:33 PM	6:35 PM
6:30 PM	6:32 PM	6:35 PM	6:38 PM	6:40 PM	6:42 PM	6:43 PM	6:45 PM
6:40 PM	6:42 PM	6:45 PM	6:48 PM	6:50 PM	6:52 PM	6:53 PM	6:55 PM
6:50 PM	6:52 PM	6:55 PM	6:58 PM	7:00 PM	7:02 PM	7:03 PM	7:05 PM
7:00 PM	7:02 PM	7:05 PM	7:08 PM	7:10 PM	7:12 PM	7:13 PM	7:15 PM
7:10 PM	7:12 PM	7:15 PM	7:18 PM	7:20 PM	7:22 PM	7:23 PM	7:25 PM
7:20 PM	7:22 PM	7:25 PM	7:28 PM	7:30 PM	7:32 PM	7:33 PM	7:35 PM
7:30 PM	7:32 PM	7:35 PM	7:38 PM	7:40 PM	7:42 PM	7:43 PM	7:45 PM
7:40 PM	7:42 PM	7:45 PM	7:48 PM	7:50 PM	7:52 PM	7:53 PM	7:55 PM
7:50 PM	7:52 PM	7:55 PM	7:58 PM	8:00 PM	8:02 PM	8:03 PM	8:05 PM

Alternative E

Alternative E is the only route alternative that does not begin and end at the Princess Dock. This route aims at not only improving mobility downtown, but during the summer also services the AJ Cruise Dock at the Rock Dump. Summer service would begin at the Rock Dump and follow the same alignment as Alternative A once reaching the Princess Dock. Winter service would eliminate service to both the Rock Dump and the Princess Dock, and would be identical to Alternative A winter service. This route is nearly 3 miles long; a minimum of two vehicles would be needed to produce efficient headways.



DOWNTOWN CIRCULATOR SHUTTLE FEASIBILITY STUDY

Exhibit 4.10 Alternative E Timetable

Alternative E*							
Minutes from last stop	0:03:00	0:02:00	0:02:00	0:03:00	0:03:00	0:04:00	0:03:00
Rock Dump	Princess Dock	Marine/Franklin (Library)	Franklin/4th (Rainbow Foods)	12th/Glacier Ave. (High School)	Willoughby/Egan (Centennial Hall)	Princess Dock	Rock Dump
7:00 AM	7:03 AM	7:05 AM	7:07 AM	7:10 AM	7:13 AM	7:17 AM	7:20 AM
7:10 AM	7:13 AM	7:15 AM	7:17 AM	7:20 AM	7:23 AM	7:27 AM	7:30 AM
7:20 AM	7:23 AM	7:25 AM	7:27 AM	7:30 AM	7:33 AM	7:37 AM	7:40 AM
7:30 AM	7:33 AM	7:35 AM	7:37 AM	7:40 AM	7:43 AM	7:47 AM	7:50 AM
7:40 AM	7:43 AM	7:45 AM	7:47 AM	7:50 AM	7:53 AM	7:57 AM	8:00 AM
7:50 AM	7:53 AM	7:55 AM	7:57 AM	8:00 AM	8:03 AM	8:07 AM	8:10 AM
8:00 AM	8:03 AM	8:05 AM	8:07 AM	8:10 AM	8:13 AM	8:17 AM	8:20 AM
8:10 AM	8:13 AM	8:15 AM	8:17 AM	8:20 AM	8:23 AM	8:27 AM	8:30 AM
8:20 AM	8:23 AM	8:25 AM	8:27 AM	8:30 AM	8:33 AM	8:37 AM	8:40 AM
8:30 AM	8:33 AM	8:35 AM	8:37 AM	8:40 AM	8:43 AM	8:47 AM	8:50 AM
8:40 AM	8:43 AM	8:45 AM	8:47 AM	8:50 AM	8:53 AM	8:57 AM	9:00 AM
8:50 AM	8:53 AM	8:55 AM	8:57 AM	9:00 AM	9:03 AM	9:07 AM	9:10 AM
9:00 AM	9:03 AM	9:05 AM	9:07 AM	9:10 AM	9:13 AM	9:17 AM	9:20 AM
9:10 AM	9:13 AM	9:15 AM	9:17 AM	9:20 AM	9:23 AM	9:27 AM	9:30 AM
9:20 AM	9:23 AM	9:25 AM	9:27 AM	9:30 AM	9:33 AM	9:37 AM	9:40 AM
9:30 AM	9:33 AM	9:35 AM	9:37 AM	9:40 AM	9:43 AM	9:47 AM	9:50 AM
9:40 AM	9:43 AM	9:45 AM	9:47 AM	9:50 AM	9:53 AM	9:57 AM	10:00 AM
9:50 AM	9:53 AM	9:55 AM	9:57 AM	10:00 AM	10:03 AM	10:07 AM	10:10 AM
10:00 AM	10:03 AM	10:05 AM	10:07 AM	10:10 AM	10:13 AM	10:17 AM	10:20 AM
10:10 AM	10:13 AM	10:15 AM	10:17 AM	10:20 AM	10:23 AM	10:27 AM	10:30 AM
10:20 AM	10:23 AM	10:25 AM	10:27 AM	10:30 AM	10:33 AM	10:37 AM	10:40 AM
10:30 AM	10:33 AM	10:35 AM	10:37 AM	10:40 AM	10:43 AM	10:47 AM	10:50 AM
10:40 AM	10:43 AM	10:45 AM	10:47 AM	10:50 AM	10:53 AM	10:57 AM	11:00 AM
10:50 AM	10:53 AM	10:55 AM	10:57 AM	11:00 AM	11:03 AM	11:07 AM	11:10 AM
11:00 AM	11:03 AM	11:05 AM	11:07 AM	11:10 AM	11:13 AM	11:17 AM	11:20 AM
11:10 AM	11:13 AM	11:15 AM	11:17 AM	11:20 AM	11:23 AM	11:27 AM	11:30 AM
11:20 AM	11:23 AM	11:25 AM	11:27 AM	11:30 AM	11:33 AM	11:37 AM	11:40 AM
11:30 AM	11:33 AM	11:35 AM	11:37 AM	11:40 AM	11:43 AM	11:47 AM	11:50 AM
11:40 AM	11:43 AM	11:45 AM	11:47 AM	11:50 AM	11:53 AM	11:57 AM	12:00 PM
11:50 AM	11:53 AM	11:55 AM	11:57 AM	12:00 PM	12:03 PM	12:07 PM	12:10 PM
12:00 PM	12:03 PM	12:05 PM	12:07 PM	12:10 PM	12:13 PM	12:17 PM	12:20 PM
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2:00 PM	2:03 PM	2:05 PM	2:07 PM	2:10 PM	2:13 PM	2:17 PM	2:20 PM
2:10 PM	2:13 PM	2:15 PM	2:17 PM	2:20 PM	2:23 PM	2:27 PM	2:30 PM
2:20 PM	2:23 PM	2:25 PM	2:27 PM	2:30 PM	2:33 PM	2:37 PM	2:40 PM
2:30 PM	2:33 PM	2:35 PM	2:37 PM	2:40 PM	2:43 PM	2:47 PM	2:50 PM
2:40 PM	2:43 PM	2:45 PM	2:47 PM	2:50 PM	2:53 PM	2:57 PM	3:00 PM
2:50 PM	2:53 PM	2:55 PM	2:57 PM	3:00 PM	3:03 PM	3:07 PM	3:10 PM
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3:30 PM	3:33 PM	3:35 PM	3:37 PM	3:40 PM	3:43 PM	3:47 PM	3:50 PM
3:40 PM	3:43 PM	3:45 PM	3:47 PM	3:50 PM	3:53 PM	3:57 PM	4:00 PM
3:50 PM	3:53 PM	3:55 PM	3:57 PM	4:00 PM	4:03 PM	4:07 PM	4:10 PM
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4:20 PM	4:23 PM	4:25 PM	4:27 PM	4:30 PM	4:33 PM	4:37 PM	4:40 PM
4:30 PM	4:33 PM	4:35 PM	4:37 PM	4:40 PM	4:43 PM	4:47 PM	4:50 PM
4:40 PM	4:43 PM	4:45 PM	4:47 PM	4:50 PM	4:53 PM	4:57 PM	5:00 PM
4:50 PM	4:53 PM	4:55 PM	4:57 PM	5:00 PM	5:03 PM	5:07 PM	5:10 PM
5:00 PM	5:03 PM	5:05 PM	5:07 PM	5:10 PM	5:13 PM	5:17 PM	5:20 PM
5:10 PM	5:13 PM	5:15 PM	5:17 PM	5:20 PM	5:23 PM	5:27 PM	5:30 PM
5:20 PM	5:23 PM	5:25 PM	5:27 PM	5:30 PM	5:33 PM	5:37 PM	5:40 PM
5:30 PM	5:33 PM	5:35 PM	5:37 PM	5:40 PM	5:43 PM	5:47 PM	5:50 PM
5:40 PM	5:43 PM	5:45 PM	5:47 PM	5:50 PM	5:53 PM	5:57 PM	6:00 PM
5:50 PM	5:53 PM	5:55 PM	5:57 PM	6:00 PM	6:03 PM	6:07 PM	6:10 PM
6:00 PM	6:03 PM	6:05 PM	6:07 PM	6:10 PM	6:13 PM	6:17 PM	6:20 PM
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6:40 PM	6:43 PM	6:45 PM	6:47 PM	6:50 PM	6:53 PM	6:57 PM	7:00 PM
6:50 PM	6:53 PM	6:55 PM	6:57 PM	7:00 PM	7:03 PM	7:07 PM	7:10 PM
7:00 PM	7:03 PM	7:05 PM	7:07 PM	7:10 PM	7:13 PM	7:17 PM	7:20 PM
7:10 PM	7:13 PM	7:15 PM	7:17 PM	7:20 PM	7:23 PM	7:27 PM	7:30 PM
7:20 PM	7:23 PM	7:25 PM	7:27 PM	7:30 PM	7:33 PM	7:37 PM	7:40 PM
7:30 PM	7:33 PM	7:35 PM	7:37 PM	7:40 PM	7:43 PM	7:47 PM	7:50 PM
7:40 PM	7:43 PM	7:45 PM	7:47 PM	7:50 PM	7:53 PM	7:57 PM	8:00 PM

\*Summer service only. Winter service would be the same as winter service for Alternative A, with the Library as the terminus.



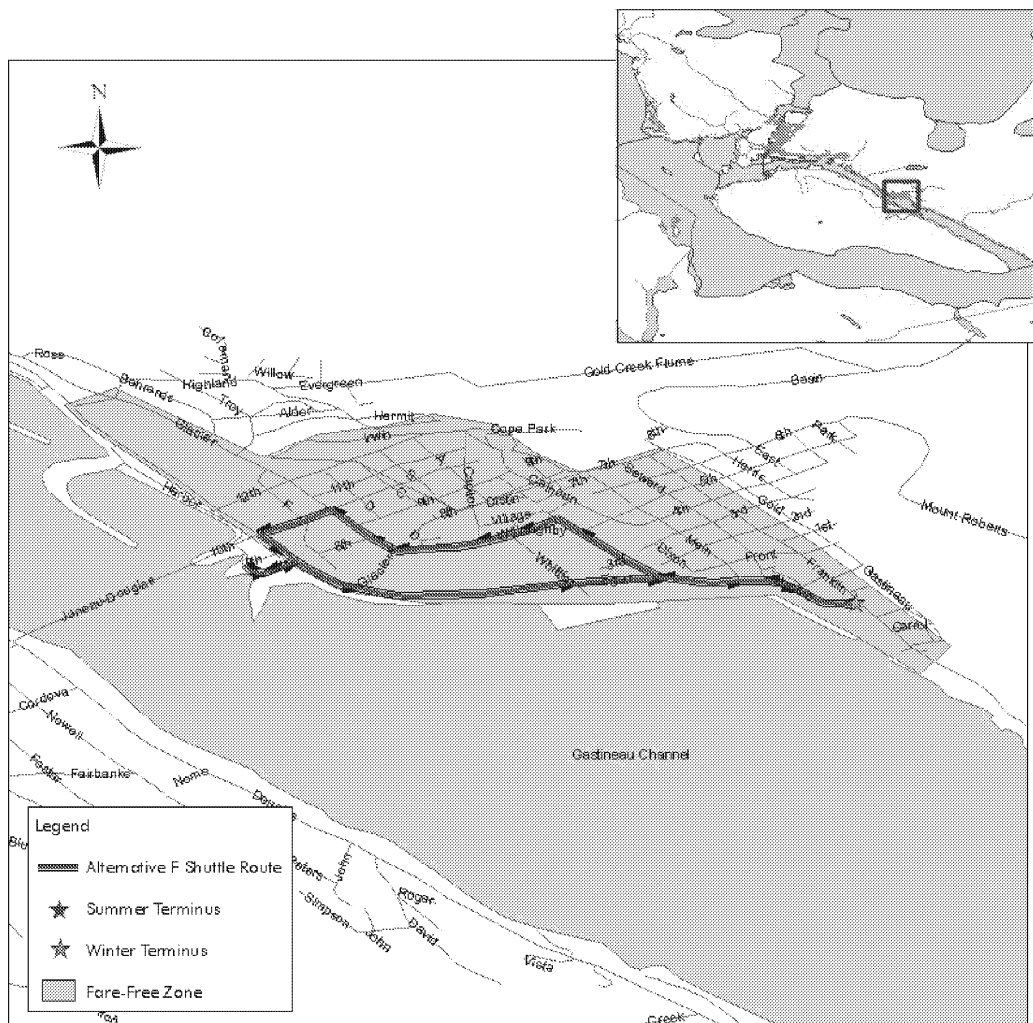
Alternative F

Alternative F is considerably different from the other routes proposed in this chapter. Not only does it focus exclusively on the southern portion of the downtown area, its terminus begins and ends at the Library roundabout. This alignment serves the Library/municipal parking garage, Federal Building, the Department of Labor, the Department of Fish and Game, and the Alaska State Museum. Beginning at the Library roundabout, this route travels northwest on Marine Way/Egan, turning right onto Willoughby. It continues on Willoughby past the Federal Building on the corner of 9th Street and Willoughby, where it veers northwest on Glacier Avenue. The alignment returns to Egan via 10th Street. Moving southeast on Egan, it diverts on 8th Street to serve the Department of Labor and Department of Fish and Game before resuming its travel east on Egan back to the Library.

The advantage of this alignment is its service to both a major downtown parking facility as well as several government offices. Conversely, it does not serve many of the more tourist-focused sites and central downtown government offices, including the Capitol Building, the Governor's Mansion, the State Office Building, and the cruise ship docks.



Exhibit 4.11 Alternative F Map



DOWNTOWN CIRCULATOR SHUTTLE FEASIBILITY STUDY

Exhibit 4.12 Alternative F Timetable

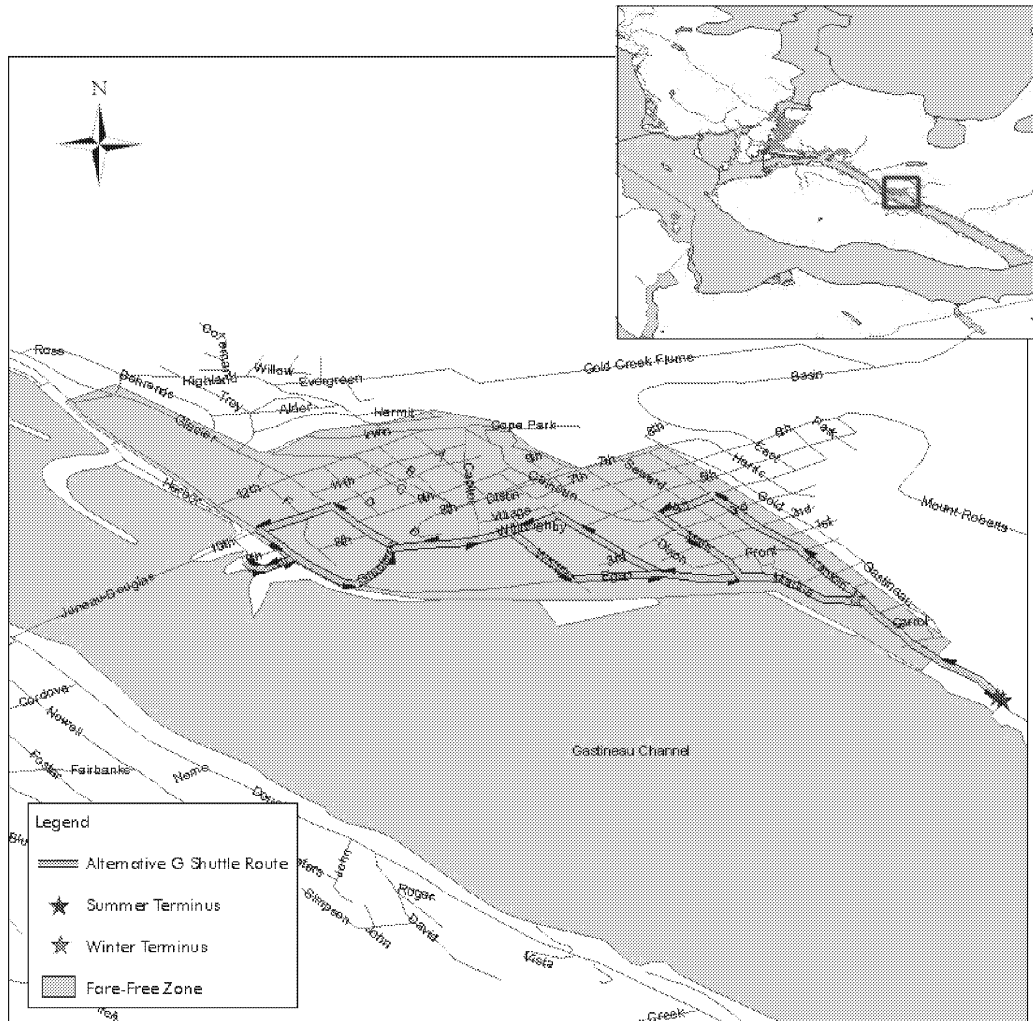
Alternative F						
Minutes from last stop	0-01:00	0-03:00	0-01:00	0-01:00	0-02:00	0-02:00
Library (Parking Garage)	Egan/ Willoughby (Centennial Hall)	Glacier Ave./ 9th Street (Federal Building)	10th Street/ Egan	Egan/8th Street (DOL & DF&G)	Egan/ Whittier (State Museum)	Library (Parking Garage)
Begin Downtown Shuttle						
7:00 AM	7:01 AM	7:04 AM	7:05 AM	7:06 AM	7:08 AM	7:10 AM
7:10 AM	7:11 AM	7:14 AM	7:15 AM	7:16 AM	7:18 AM	7:20 AM
7:20 AM	7:21 AM	7:24 AM	7:25 AM	7:26 AM	7:28 AM	7:30 AM
7:30 AM	7:31 AM	7:34 AM	7:35 AM	7:36 AM	7:38 AM	7:40 AM
7:40 AM	7:41 AM	7:44 AM	7:45 AM	7:46 AM	7:48 AM	7:50 AM
7:50 AM	7:51 AM	7:54 AM	7:55 AM	7:56 AM	7:58 AM	8:00 AM
8:00 AM	8:01 AM	8:04 AM	8:05 AM	8:06 AM	8:08 AM	8:10 AM
8:10 AM	8:11 AM	8:14 AM	8:15 AM	8:16 AM	8:18 AM	8:20 AM
8:20 AM	8:21 AM	8:24 AM	8:25 AM	8:26 AM	8:28 AM	8:30 AM
8:30 AM	8:31 AM	8:34 AM	8:35 AM	8:36 AM	8:38 AM	8:40 AM
8:40 AM	8:41 AM	8:44 AM	8:45 AM	8:46 AM	8:48 AM	8:50 AM
8:50 AM	8:51 AM	8:54 AM	8:55 AM	8:56 AM	8:58 AM	9:00 AM
Begin Return Shuttle to Downtown Shuttle continues						
9:00 AM	9:01 AM	9:04 AM	9:05 AM	9:06 AM	9:08 AM	9:10 AM
9:10 AM	9:11 AM	9:14 AM	9:15 AM	9:16 AM	9:18 AM	9:20 AM
9:20 AM	9:21 AM	9:24 AM	9:25 AM	9:26 AM	9:28 AM	9:30 AM
9:30 AM	9:31 AM	9:34 AM	9:35 AM	9:36 AM	9:38 AM	9:40 AM
9:40 AM	9:41 AM	9:44 AM	9:45 AM	9:46 AM	9:48 AM	9:50 AM
9:50 AM	9:51 AM	9:54 AM	9:55 AM	9:56 AM	9:58 AM	10:00 AM
10:00 AM	10:01 AM	10:04 AM	10:05 AM	10:06 AM	10:08 AM	10:10 AM
10:10 AM	10:11 AM	10:14 AM	10:15 AM	10:16 AM	10:18 AM	10:20 AM
10:20 AM	10:21 AM	10:24 AM	10:25 AM	10:26 AM	10:28 AM	10:30 AM
10:30 AM	10:31 AM	10:34 AM	10:35 AM	10:36 AM	10:38 AM	10:40 AM
10:40 AM	10:41 AM	10:44 AM	10:45 AM	10:46 AM	10:48 AM	10:50 AM
10:50 AM	10:51 AM	10:54 AM	10:55 AM	10:56 AM	10:58 AM	11:00 AM
11:00 AM	11:01 AM	11:04 AM	11:05 AM	11:06 AM	11:08 AM	11:10 AM
11:10 AM	11:11 AM	11:14 AM	11:15 AM	11:16 AM	11:18 AM	11:20 AM
11:20 AM	11:21 AM	11:24 AM	11:25 AM	11:26 AM	11:28 AM	11:30 AM
11:30 AM	11:31 AM	11:34 AM	11:35 AM	11:36 AM	11:38 AM	11:40 AM
11:40 AM	11:41 AM	11:44 AM	11:45 AM	11:46 AM	11:48 AM	11:50 AM
11:50 AM	11:51 AM	11:54 AM	11:55 AM	11:56 AM	11:58 AM	12:00 PM
12:00 PM	12:01 PM	12:04 PM	12:05 PM	12:06 PM	12:08 PM	12:10 PM
12:10 PM	12:11 PM	12:14 PM	12:15 PM	12:16 PM	12:18 PM	12:20 PM
12:20 PM	12:21 PM	12:24 PM	12:25 PM	12:26 PM	12:28 PM	12:30 PM
12:30 PM	12:31 PM	12:34 PM	12:35 PM	12:36 PM	12:38 PM	12:40 PM
12:40 PM	12:41 PM	12:44 PM	12:45 PM	12:46 PM	12:48 PM	12:50 PM
12:50 PM	12:51 PM	12:54 PM	12:55 PM	12:56 PM	12:58 PM	1:00 PM
1:00 PM	1:01 PM	1:04 PM	1:05 PM	1:06 PM	1:08 PM	1:10 PM
1:10 PM	1:11 PM	1:14 PM	1:15 PM	1:16 PM	1:18 PM	1:20 PM
1:20 PM	1:21 PM	1:24 PM	1:25 PM	1:26 PM	1:28 PM	1:30 PM
1:30 PM	1:31 PM	1:34 PM	1:35 PM	1:36 PM	1:38 PM	1:40 PM
1:40 PM	1:41 PM	1:44 PM	1:45 PM	1:46 PM	1:48 PM	1:50 PM
1:50 PM	1:51 PM	1:54 PM	1:55 PM	1:56 PM	1:58 PM	2:00 PM
2:00 PM	2:01 PM	2:04 PM	2:05 PM	2:06 PM	2:08 PM	2:10 PM
2:10 PM	2:11 PM	2:14 PM	2:15 PM	2:16 PM	2:18 PM	2:20 PM
2:20 PM	2:21 PM	2:24 PM	2:25 PM	2:26 PM	2:28 PM	2:30 PM
2:30 PM	2:31 PM	2:34 PM	2:35 PM	2:36 PM	2:38 PM	2:40 PM
2:40 PM	2:41 PM	2:44 PM	2:45 PM	2:46 PM	2:48 PM	2:50 PM
2:50 PM	2:51 PM	2:54 PM	2:55 PM	2:56 PM	2:58 PM	3:00 PM
3:00 PM	3:01 PM	3:04 PM	3:05 PM	3:06 PM	3:08 PM	3:10 PM
3:10 PM	3:11 PM	3:14 PM	3:15 PM	3:16 PM	3:18 PM	3:20 PM
3:20 PM	3:21 PM	3:24 PM	3:25 PM	3:26 PM	3:28 PM	3:30 PM
3:30 PM	3:31 PM	3:34 PM	3:35 PM	3:36 PM	3:38 PM	3:40 PM
3:40 PM	3:41 PM	3:44 PM	3:45 PM	3:46 PM	3:48 PM	3:50 PM
3:50 PM	3:51 PM	3:54 PM	3:55 PM	3:56 PM	3:58 PM	4:00 PM
4:00 PM	4:01 PM	4:04 PM	4:05 PM	4:06 PM	4:08 PM	4:10 PM
4:10 PM	4:11 PM	4:14 PM	4:15 PM	4:16 PM	4:18 PM	4:20 PM
4:20 PM	4:21 PM	4:24 PM	4:25 PM	4:26 PM	4:28 PM	4:30 PM
4:30 PM	4:31 PM	4:34 PM	4:35 PM	4:36 PM	4:38 PM	4:40 PM
4:40 PM	4:41 PM	4:44 PM	4:45 PM	4:46 PM	4:48 PM	4:50 PM
4:50 PM	4:51 PM	4:54 PM	4:55 PM	4:56 PM	4:58 PM	5:00 PM
5:00 PM	5:01 PM	5:04 PM	5:05 PM	5:06 PM	5:08 PM	5:10 PM
5:10 PM	5:11 PM	5:14 PM	5:15 PM	5:16 PM	5:18 PM	5:20 PM
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5:30 PM	5:31 PM	5:34 PM	5:35 PM	5:36 PM	5:38 PM	5:40 PM
5:40 PM	5:41 PM	5:44 PM	5:45 PM	5:46 PM	5:48 PM	5:50 PM
5:50 PM	5:51 PM	5:54 PM	5:55 PM	5:56 PM	5:58 PM	6:00 PM
End Downtown Shuttle to Downtown Shuttle continues						
6:00 PM	6:01 PM	6:04 PM	6:05 PM	6:06 PM	6:08 PM	6:10 PM
6:10 PM	6:11 PM	6:14 PM	6:15 PM	6:16 PM	6:18 PM	6:20 PM
6:20 PM	6:21 PM	6:24 PM	6:25 PM	6:26 PM	6:28 PM	6:30 PM
6:30 PM	6:31 PM	6:34 PM	6:35 PM	6:36 PM	6:38 PM	6:40 PM
6:40 PM	6:41 PM	6:44 PM	6:45 PM	6:46 PM	6:48 PM	6:50 PM
6:50 PM	6:51 PM	6:54 PM	6:55 PM	6:56 PM	6:58 PM	7:00 PM
7:00 PM	7:01 PM	7:04 PM	7:05 PM	7:06 PM	7:08 PM	7:10 PM
7:10 PM	7:11 PM	7:14 PM	7:15 PM	7:16 PM	7:18 PM	7:20 PM
7:20 PM	7:21 PM	7:24 PM	7:25 PM	7:26 PM	7:28 PM	7:30 PM
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7:40 PM	7:41 PM	7:44 PM	7:45 PM	7:46 PM	7:48 PM	7:50 PM
7:50 PM	7:51 PM	7:54 PM	7:55 PM	7:56 PM	7:58 PM	8:00 PM

Alternative G

Alternative G is different from the other routes proposed in this chapter, and somewhat similar to the route originally proposed in the 1984 report. This alignment serves the Library/municipal parking garage, Federal Building, the Department of Labor, the Department of Fish and Game, and the Alaska State Museum. Beginning at the Princess Dock, this route travels north Franklin and makes a left on 4th. The route then makes a left on Main down to Egan, before turning on Willoughby all the way to 10th. From 10th, the route heads back inbound on Egan and stops through the Department of Labor before heading back inbound on Egan. From Egan, the route turns left on Glacier Avenue, then takes Willoughby to Whittier, before heading back to the Princess Dock via Egan.

The advantage of this alignment is its service to the Main Street area and both a major downtown parking facility as well as several government offices.

Exhibit 4.13 Alternative G Map





DOWNTOWN CIRCULATOR SHUTTLE FEASIBILITY STUDY

Exhibit 4.14 Alternative G Timetable

Alternative G							
Minutes from last stop	0:03:00	0:01:00	0:02:00	0:02:00	0:02:00	0:02:00	0:03:00
Princess Dock (summer)/ Library (winter)	Franklin/ 4th (Rainbow Foods)	Main/ Egan	Willoughby/ Whittier (Parking, State Museum)	10th/ Glacier Ave.	8th/ Egan (DOL)	Egan/ Willoughby	Princess Dock (summer)/ Library (winter)
Begin Summer timetable							
7:00 AM	7:03 AM	7:04 AM	7:05 AM	7:06 AM	7:07 AM	7:08 AM	7:10 AM
7:10 AM	7:13 AM	7:14 AM	7:15 AM	7:16 AM	7:18 AM	7:20 AM	7:22 AM
7:20 AM	7:23 AM	7:24 AM	7:25 AM	7:26 AM	7:28 AM	7:30 AM	7:32 AM
7:30 AM	7:33 AM	7:34 AM	7:35 AM	7:36 AM	7:38 AM	7:40 AM	7:42 AM
7:40 AM	7:43 AM	7:44 AM	7:45 AM	7:46 AM	7:48 AM	7:50 AM	7:52 AM
7:50 AM	7:53 AM	7:54 AM	7:55 AM	7:56 AM	7:58 AM	8:00 AM	8:02 AM
8:00 AM	8:03 AM	8:04 AM	8:05 AM	8:06 AM	8:08 AM	8:10 AM	8:12 AM
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8:20 AM	8:23 AM	8:24 AM	8:25 AM	8:26 AM	8:28 AM	8:30 AM	8:32 AM
8:30 AM	8:33 AM	8:34 AM	8:35 AM	8:36 AM	8:38 AM	8:40 AM	8:42 AM
8:40 AM	8:43 AM	8:44 AM	8:45 AM	8:46 AM	8:48 AM	8:50 AM	8:52 AM
8:50 AM	8:53 AM	8:54 AM	8:55 AM	8:56 AM	8:58 AM	9:00 AM	9:02 AM
Begin Winter timetable/Summer timetable continues							
9:00 AM	9:03 AM	9:04 AM	9:05 AM	9:06 AM	9:08 AM	9:10 AM	9:12 AM
9:10 AM	9:13 AM	9:14 AM	9:15 AM	9:16 AM	9:18 AM	9:20 AM	9:22 AM
9:20 AM	9:23 AM	9:24 AM	9:25 AM	9:26 AM	9:28 AM	9:30 AM	9:32 AM
9:30 AM	9:33 AM	9:34 AM	9:35 AM	9:36 AM	9:38 AM	9:40 AM	9:42 AM
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9:50 AM	9:53 AM	9:54 AM	9:55 AM	9:56 AM	9:58 AM	10:00 AM	10:02 AM
10:00 AM	10:03 AM	10:04 AM	10:05 AM	10:06 AM	10:08 AM	10:10 AM	10:12 AM
10:10 AM	10:13 AM	10:14 AM	10:15 AM	10:16 AM	10:18 AM	10:20 AM	10:22 AM
10:20 AM	10:23 AM	10:24 AM	10:25 AM	10:26 AM	10:28 AM	10:30 AM	10:32 AM
10:30 AM	10:33 AM	10:34 AM	10:35 AM	10:36 AM	10:38 AM	10:40 AM	10:42 AM
10:40 AM	10:43 AM	10:44 AM	10:45 AM	10:46 AM	10:48 AM	10:50 AM	10:52 AM
10:50 AM	10:53 AM	10:54 AM	10:55 AM	10:56 AM	10:58 AM	11:00 AM	11:02 AM
11:00 AM	11:03 AM	11:04 AM	11:05 AM	11:06 AM	11:08 AM	11:10 AM	11:12 AM
11:10 AM	11:13 AM	11:14 AM	11:15 AM	11:16 AM	11:18 AM	11:20 AM	11:22 AM
11:20 AM	11:23 AM	11:24 AM	11:25 AM	11:26 AM	11:28 AM	11:30 AM	11:32 AM
11:30 AM	11:33 AM	11:34 AM	11:35 AM	11:36 AM	11:38 AM	11:40 AM	11:42 AM
11:40 AM	11:43 AM	11:44 AM	11:45 AM	11:46 AM	11:48 AM	11:50 AM	11:52 AM
11:50 AM	11:53 AM	11:54 AM	11:55 AM	11:56 AM	11:58 AM	12:00 PM	12:02 PM
12:00 PM	12:03 PM	12:04 PM	12:05 PM	12:06 PM	12:08 PM	12:10 PM	12:12 PM
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12:50 PM	12:53 PM	12:54 PM	12:55 PM	12:56 PM	1:00 PM	1:00 PM	1:02 PM
1:00 PM	1:03 PM	1:04 PM	1:05 PM	1:06 PM	1:08 PM	1:10 PM	1:12 PM
1:10 PM	1:13 PM	1:14 PM	1:15 PM	1:16 PM	1:18 PM	1:20 PM	1:22 PM
1:20 PM	1:23 PM	1:24 PM	1:25 PM	1:26 PM	1:28 PM	1:30 PM	1:32 PM
1:30 PM	1:33 PM	1:34 PM	1:35 PM	1:36 PM	1:38 PM	1:40 PM	1:42 PM
1:40 PM	1:43 PM	1:44 PM	1:45 PM	1:46 PM	1:48 PM	1:50 PM	1:52 PM
1:50 PM	1:53 PM	1:54 PM	1:55 PM	1:56 PM	1:58 PM	2:00 PM	2:02 PM
2:00 PM	2:03 PM	2:04 PM	2:05 PM	2:06 PM	2:08 PM	2:10 PM	2:12 PM
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## 5. CIRCULATOR FLEET OPTIONS

## CHAPTER 5 – CIRCULATOR FLEET OPTIONS

The selection of vehicles for the Circulator service is not an insignificant task. Multiple considerations must be taken into account, including fuel type, size, and – perhaps most importantly – appearance. The Circulator is more than just a regular transit vehicle; it is also representative of the spirit of downtown Juneau. Four types of vehicles are presented in this section, including conventional vehicles, advanced diesel vehicles, hybrid electric vehicles, and non-electric trolley-style vehicles. Each type of vehicle has advantages and disadvantages, but all are potentially viable options for the CBJ's Downtown Circulator. Compressed natural gas (CNG) vehicles, while an environmentally friendly option, were not included because of the lack of supporting infrastructure (i.e., local CNG refueling station).

Three sizes for each vehicle type were evaluated. Pricing estimates and photographs of each model of vehicle are provided when the information was available. Each vehicle can be equipped with wheelchair tie-downs to ensure compliance with the Americans with Disabilities Act (ADA). However, we do not recommend using the smallest vehicle size for several reasons:

1. Some vehicles are not available in the smaller size;
2. The cost savings of the smaller vehicles is minimal;
3. The width of the smaller vehicles does not provide any advantage for narrow or congested thoroughfares;

4. Wheelchair tie-downs would potentially eliminate up to four seats, limiting the number of passengers; and
5. If the service were popular, such small vehicles would rapidly become overcrowded.

#### Conventional Vehicles (Gas)

For years, the common vehicle of choice for smaller shuttle services such as the proposed Circulator has been fueled by either conventional gas or diesel. This was primarily due to the lack of alternate fuel choices, though that industry has seen tremendous growth recently. Because of the lack of alternative-fueled vehicles, and thus, alternative fueling stations, manufacturers still produce the majority of their vehicles to run on either gas or diesel.

As transit agencies select new or replacement vehicles, many times capital funding constraints dictate the need to select less-expensive transit vehicles that still use gas as their fuel source. Traditionally, transit vehicles that utilize a conventional gas engine have a lower initial cost and are rather abundant in supply. However, transit agencies are being forced to think more long-term when they purchase their transit vehicles, longer than just the initial purchase price, because of rising gas prices and harmful environmental effects. Though the purchase of alternatively fueled vehicles is becoming increasingly popular due to these rising environmental and fueling costs, many transit agencies with limited capital funding are still forced to purchase the initially less-expensive vehicles that utilize conventional gas engines.



Given Juneau's strong reputation for continuing efforts of environmental sustainability, the disadvantages of conventional gas can overshadow its benefits. Namely, the higher emissions of particulate matter (PM) and nitrogen oxides (NOx) can deter ridership from residents that embrace the region's "greener" philosophy. This, along with the rising price of gas and continual maintenance of the vehicle, can make the option of selecting an alternative-fueled vehicle more attractive. Presented below is an estimate of the initial purchase price for a vehicle that utilizes a conventional gas engine. Though rather difficult to quantify, the long-term cost of using a transit vehicle that runs solely on gas may become more costly over time.

Estimated Initial Investment (Approximate Purchase Price):

12- to 14-Passenger Shuttle:	\$80,000
15- to 20-Passenger Shuttle:	\$100,000
21- to 30-Passenger Bus:	\$125,000

Exhibit 5.1 12- to 14-Passenger Shuttle

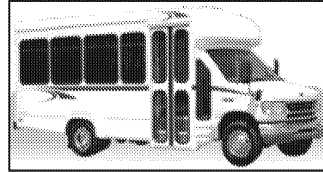


Exhibit 5.2 15- to 20-Passenger Shuttle

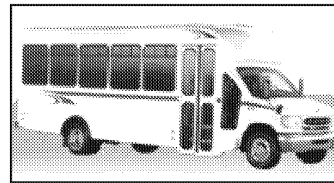
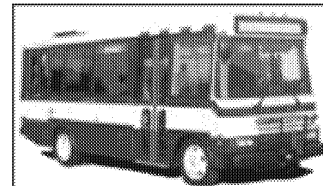


Exhibit 5.3 21- to 30-Passenger Bus



#### Advanced Diesel Vehicles

Currently, the Capital Transit fleet is composed primarily of conventional diesel vehicles, with a handful of advanced diesel vehicles. Conventional diesel buses produce significant amounts of pollutant emissions, especially particulate matter (PM) and nitrogen

oxides (NO<sub>x</sub>), which cause a deterioration of air quality with resulting adverse impacts on public health. In order to reduce these emissions, advanced diesel buses are being developed with various emission control technologies. The term "advanced diesel bus" here refers to a bus meeting at least the 2004 United States emission standards without the need for retrofitting.

There are two types of system components that allow advanced diesel buses to produce lower pollutant emissions than regular diesel buses:

1. The fuel combustion system: Advanced technologies refer to combustion optimization, improved fuel injection, and variable geometry turbochargers.
2. After-treatment emission control devices, including:
  - Diesel particulate filters (DPFs),
  - Diesel oxidation catalysts (DOCs),
  - Selective catalytic reduction (SCR),
  - NO<sub>x</sub> absorbers, and
  - Exhaust gas recirculation (EGR) that extracts a portion of the exhaust gases and uses them to modify the combustion process itself.

Advanced diesel buses may employ different combinations of these. Most of the technologies listed in number two can also be applied

to conventional engines through the retrofitting of current conventional diesel vehicles.

For optimal performance, the technologies listed above require the use of ultra-low sulfur diesel (LSD), which does not increase fuel efficiency but results in a significant reduction in environmental impacts over conventional diesel vehicles.

Estimated Initial Investment (Approximate Purchase Price):

- 12- to 14-Passenger Shuttle: \$100,000
- 15- to 20-Passenger Shuttle: \$125,000
- 21- to 30-Passenger Bus: \$150,000

Exhibit 5.4 12- to 14-Passenger Shuttle

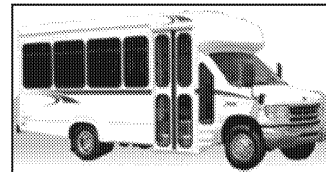


Exhibit 5.5 15- to 20-Passenger Shuttle





Exhibit 5.6 21- to 30-Passenger Shuttle



#### Hybrid Electric Vehicles

Hybrid electric vehicles (HEV) have two power sources. One converts fuel into useable energy and the other, an electric motor powered by an advanced energy storage device, lowers the demand placed on the first power source. When the two HEV power sources are arranged in parallel, one or both can be used, depending on the situation. The electric motor often can power the HEV alone in city driving or over flat terrain. When the hybrid is accelerating and climbing hills, which might be the case in parts of the downtown area, the two power sources can work together for optimal performance. In a series configuration hybrid, a primary fuel is converted to electric energy by an internal generator set (usually engine and electric motor working as a generator). A hybrid bus usually combines an internal combustion engine of a conventional vehicle with the battery and an electric motor.

Many configurations are possible for HEVs, but they always contain the following parts:

- ◆ An energy storage system,
- ◆ A power unit, and
- ◆ A vehicle propulsion system.

Hybrid systems have the following advantages:

- ◆ Vehicles can run in local zero emission mode when required (e.g., in the downtown Juneau area).
- ◆ The combustion engine runs mostly under optimum conditions, thus reducing energy consumption and emissions.
- ◆ The engine can be downsized compared to a conventional drive-train with the same performance, meaning lower engine weight and higher efficiency.
- ◆ Regenerative braking capability helps minimize energy loss and can recover the energy used to slow down or stop a vehicle (the downtown area is ideal for this, due to the multiple stops and turns recommended in the route alternatives for the Circulator).
- ◆ Longer driving range compared to most battery electric buses.

Disadvantages of hybrid systems are:

- ◆ Equipment of two systems leads to increased weight and results in additional energy consumption (although

normally the energy savings from regenerative braking and other hybrid features more than offsets this penalty).

- There is a higher initial investment cost than with conventional systems.

Estimated Initial Investment (Approximate Purchase Price):

12- to 14-Passenger Shuttle: Not available in mass production

15- to 20-Passenger Shuttle: Not available in mass production

21- to 30-Passenger Bus: \$500,000-\$750,000

Exhibit 5.7 15- to 20-Passenger Shuttle

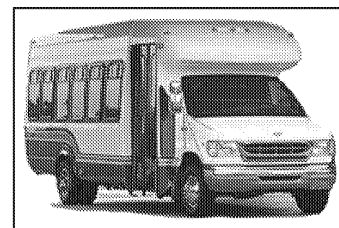
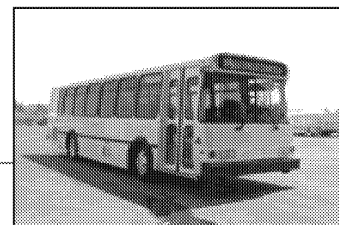


Exhibit 5.8 20- to 30-Passenger Bus



Trolley-Style Vehicles (non-electric)

The trolley-style vehicle is a non-electric, gas- or diesel-fueled vehicle that operates the same as a conventional transit vehicle. However, it is “dressed up” to look like a traditional early 1900s streetcar. The disadvantages of this type of vehicle are largely the same as conventional gas- or diesel-fueled vehicles, as they operate in the same fashion. Besides the environmental costs, the capital investments of this option are similar to that of the conventionally fueled vehicles, though an increased cost results from the “trolley” design.

The 2008 CBJ Transit Development Plan analyzed the introduction of a standard electric-style trolley system for the purposes of this Circulator, but because of the large amount of initial capital investment alongside this type of system’s vulnerability to service disruption due to inclement weather and natural disasters, it was recommended that the CBJ not investigate this as an option. Though this full-electric trolley system was considered impractical, this non-electric option attempts to “piggy-back” the nostalgic appeal of the early streetcars introduced nearly 100 years ago. This replication is designed to increase ridership through the utilization of a transit route made to look like a tourist attraction. The

perception is that a resident or visitor will be more likely to use the service if it is more visually appealing and comfortable, which is what this aims to accomplish.

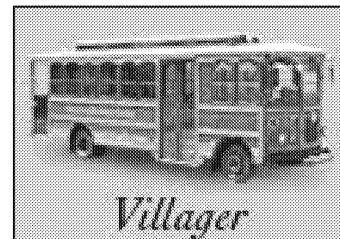
Estimated Initial Investment (Approximate Purchase Price):

12- to 14-Passenger Shuttle:	Not available
15- to 20-Passenger Shuttle:	\$150,000
21- to 30-Passenger Bus:	\$175,000

Exhibit 5.9 15- to 20-Passenger Shuttle



Exhibit 5.10 20- to 30-Passenger Bus





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# 6

## 6. RECOMMENDED ALTERNATIVES

## CHAPTER 6 – RECOMMENDED ALTERNATIVES

### Service Recommendation

Due to the existence of the sufficient demand within downtown Juneau to support the introduction of a dedicated Circulator shuttle, Moore & Associates recommends the CBJ implement Alternative G as detailed in the Service Planning chapter (Chapter 4) of this report. This configuration would increase transit's footprint within downtown Juneau through increased service area and enhanced frequency. Among the possible alternatives, Alternative G is the most effective in addressing concerns raised by staff, stakeholders, and members of the community. Alternative G is the best-suited alternative for improving mobility for residents and visitors in downtown Juneau.

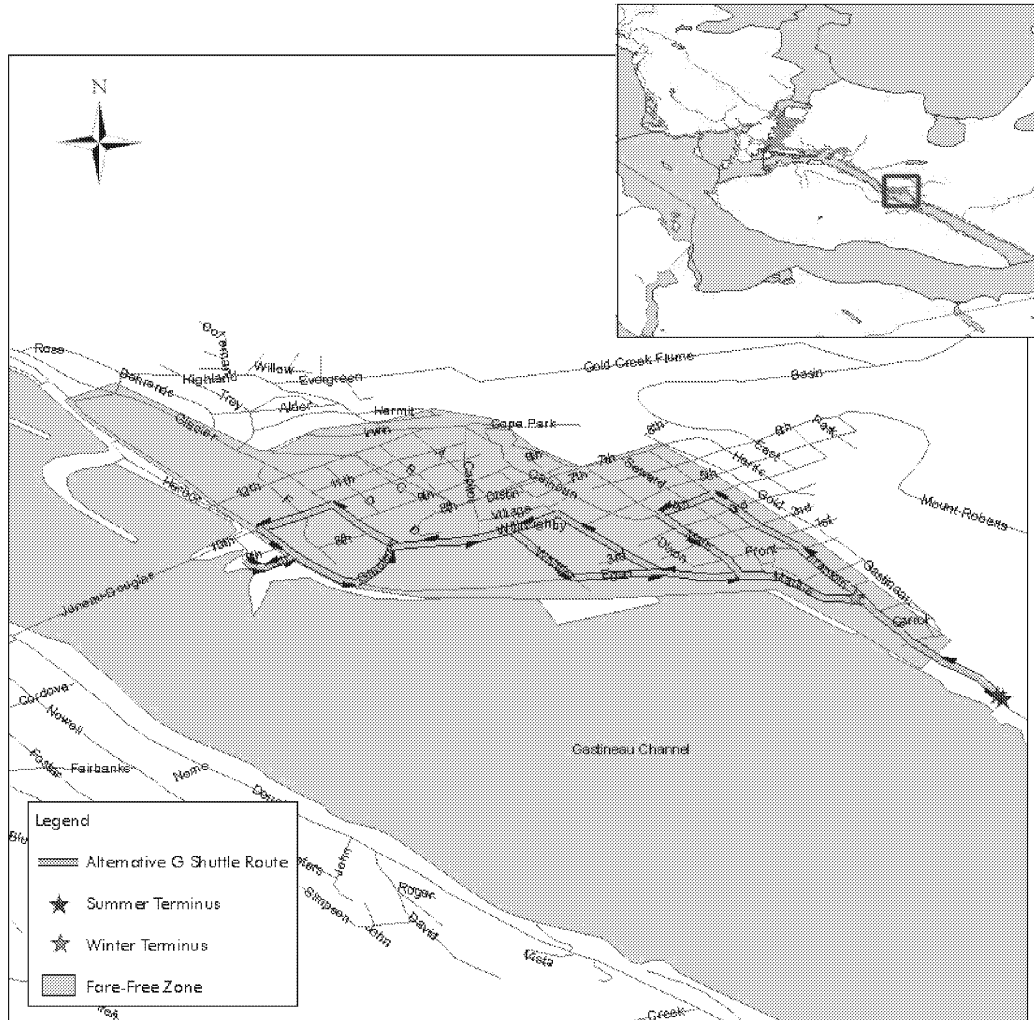
### Alternative G

As detailed in the Service Alternatives Chapter, Alternative G is different from the other routes proposed in this chapter, and somewhat similar to the route originally proposed in the 1984 report. This alignment serves the Library/municipal parking garage, Federal Building, the Department of Labor, the Department of Fish and Game, and the Alaska State Museum. Beginning at the Princess Dock, this route travels north Franklin and makes a left on 4th. The route then makes a left on Main down to Egan, before turning on Willoughby all the way to 10th. From 10th, the route heads back inbound on Egan and stops through the Department of Labor before heading back inbound on Egan. From Egan, the route turns

left on Glacier Avenue, then takes Willoughby to Whittier, before heading back to the Princess Dock via Egan.

The advantage of this alignment is its service to the Main Street area and both a major downtown parking facility as well as several government offices.

Exhibit 6.1 Alternative G Map



Also recommended is the timetable listed in Exhibit 6.2 for this alternative. It details key timepoints of the recommended route and gives different end times for both the summer and winter seasons. The summer season, also known as the Cruise Ship season, would benefit from service



running longer than in the winter due to the increase of visitors arriving daily. Service is recommended to run from 7:00 a.m. to 8:00 p.m. in the summer and from 9:00 a.m. to 6:00 p.m. in the winter (when demand decreases). Differing schedules that reflect seasonal changes such as this benefit from a more cost-efficient service that ultimately serves the riders it needs to, and not over-serving its demand.

DOWNTOWN CIRCULATOR SHUTTLE FEASIBILITY STUDY

Exhibit 6.2 Alternative G Timetable

Alternative G							
Minutes from last stop	0:03:00	0:01:00	0:02:00	0:02:00	0:02:00	0:02:00	0:03:00
Princess Dock (summer) Library (winter)	Franklin/ 4th (Rainbow Foods)	Main/ Egan	Willoughby/ Whittier (Parking, State Museum)	10th/ Glader Ave.	8th/ Egan (DOL)	Egan/ Willoughby	Princess Dock (summer) Library (winter)
Begin Summer timetable							
7:00 AM	7:03 AM	7:04 AM	7:05 AM	7:06 AM	7:10 AM	7:12 AM	7:15 AM
7:10 AM	7:13 AM	7:14 AM	7:16 AM	7:18 AM	7:20 AM	7:22 AM	7:25 AM
7:20 AM	7:23 AM	7:24 AM	7:25 AM	7:28 AM	7:30 AM	7:32 AM	7:35 AM
7:30 AM	7:33 AM	7:34 AM	7:36 AM	7:38 AM	7:40 AM	7:42 AM	7:45 AM
7:40 AM	7:43 AM	7:44 AM	7:46 AM	7:48 AM	7:50 AM	7:52 AM	7:55 AM
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8:30 AM	8:33 AM	8:34 AM	8:36 AM	8:38 AM	8:40 AM	8:42 AM	8:45 AM
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8:50 AM	8:53 AM	8:54 AM	8:56 AM	8:58 AM	9:00 AM	9:02 AM	9:05 AM
Begin Winter timetable/ Summer timetable continues							
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6:50 PM	6:53 PM	6:54 PM	6:56 PM	6:58 PM	7:00 PM	7:02 PM	7:05 PM
7:00 PM	7:03 PM	7:04 PM	7:06 PM	7:08 PM	7:10 PM	7:12 PM	7:15 PM
7:10 PM	7:13 PM	7:14 PM	7:16 PM	7:18 PM	7:20 PM	7:22 PM	7:25 PM
7:20 PM	7:23 PM	7:24 PM	7:26 PM	7:28 PM	7:30 PM	7:32 PM	7:35 PM
7:30 PM	7:33 PM	7:34 PM	7:36 PM	7:38 PM	7:40 PM	7:42 PM	7:45 PM
7:40 PM	7:43 PM	7:44 PM	7:46 PM	7:48 PM	7:50 PM	7:52 PM	7:55 PM
7:50 PM	7:53 PM	7:54 PM	7:56 PM	7:58 PM	8:00 PM	8:02 PM	8:05 PM

Vehicle/Fleet Recommendation

As detailed in the Vehicle/Fleet Analysis chapter (Chapter 5), multiple benefits can be realized by utilizing various types of vehicles for this Circulator. To recommend the most effective vehicle for this type of service, we have investigated vehicles that are cost-efficient, environmentally friendly, and demand-prepared.

It is recommended that the DBA utilize two Trolley-Style Shuttles, as long as it can provide a comfortable ride in winter and inclement weather. If a local contractor operates the service and has other vehicles available to use as a spare, only two dedicated vehicles will need to be procured. Of the three vehicles (including the spare), a minimum of two must be ADA-compliant with wheelchair lifts and tie-downs, thereby ensuring at least one wheelchair-accessible vehicle can be in service at all times.

As mentioned in Chapter 5, conventional diesel buses produce significant amounts of pollutant emissions, especially particulate matter (PM) and nitrogen oxides (NOx), which cause a deterioration of air quality with resulting adverse impacts on public health. Consequently, the use of hybrid trolley-style vehicles equipped with is recommended so as to best balance environmental standards with cost-efficiency.

Exhibit 6.3 15- to 20 Trolley-Style Shuttle



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The non-electric "Trolley-Style" alternative was the most visually appealing and was thought to attract an increase in riders; however, the supply of newly produced "Trolley-Style" buses is limited, likely limiting the DBA to the purchase of used vehicles of this type (which is not recommended).

The justification for recommending two of these vehicles rather than just one was developed in response to the ten-minute headways requested by the DBA. Because the key goals of this Circulator revolve around the ability to move people around the downtown area in a time-efficient manner, it is essential that this service be designed to service stops in an extremely frequent configuration. As the first shuttle reaches the midway point of the route (ten minutes into the trip), the second shuttle will depart the terminus to ensure no patron must wait longer than ten minutes.

#### Operational Recommendations

Regarding the operation of the Circulator, we recommend that it be operated by a separate private contractor or by Capital Transit. If the project manager and City project manager are located downtown, faster response time is possible should problems arise. If the preferred alternative is to have the service run privately, the contracted company will be required to provide the recommended

three vehicles for the service. If the company does not have the recommended amount of vehicles for the service, they (along with the coordination of the DBA) will be responsible for the procurement of the vehicles. If the preferred alternative is to have this Circulator run as an extension of Capital Transit, then Capital Transit (along with the coordination of the CBJ) will be responsible for providing the vehicles.

The final recommendation developed for this Circulator service is to implement it in time for the upcoming cruise season (by early April 2009). Even if only for a trial demonstration period, it is essential that the DBA introduce this service to its community as soon as it can. The benefits of "testing" this program out, if only for a limited time, can allow the DBA to assess its strengths and weaknesses and in turn, develop revisions and system modifications that will ensure program success for the future. It is also important to test the program during the summer season, when the impact of tourists and visitors to Juneau can be assessed. If the DBA does not recognize significant potential within a minimum of six months, the program can be re-evaluated or terminated. This will allow the DBA to investigate all options for the program and reconfigure it as necessary, without a long-term commitment up front.





7. FINANCIAL PLAN

## CHAPTER 7 – FINANCIAL PLAN

This chapter presents the capital requirements and five-year operating budget projections required to support the recommendations contained within the Service Planning Chapter (Chapter 4). The financial information presented in this section includes “good faith” estimates. Therefore, given the strong probability that a competitive contract procurement will be undertaken as part of program development, the figures represented herein are not intended as guarantees of actual costs.

This chapter is composed of two sections – a Capital Plan forecasting capital costs associated with implementing the recommendations detailed in Chapter 6 of the Circulator Feasibility Study, and a Financial Plan estimating the cost of implementing the recommended scenario detailed in Chapter 6.

### Capital Plan

The Capital Plan identifies cost figures for recommendations included within the Transit Development Plan prepared for the City and Borough of Juneau in 2008. To support the operational recommendations included within that Plan, our project team developed a comprehensive fleet analysis (presented in Chapter 5) that outlines the implementation of various service scenarios such as the utilization of alternative fuel vehicles.

### Federal Capital Funding Sources

Various capital grant programs are available to public transit agencies through the Federal government's *Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) legislation. These grants range from the all-encompassing Federal Transit Administration (FTA) Section 5309 program which allocates funding for all programs with few eligibility requirements, to the FTA Section 5308 program which requires recipients to be in either current or former air quality non-attainment areas.

Along with the City and Borough of Juneau's Capital Transit and Care-A-Van services, which are eligible for capital grants through FTA Sections 5309, 5311, 5316, and 5317, the proposed downtown circulator would also be eligible for these funding mechanisms regardless of whether the proposed circulator is developed on an independent basis or as an extension of Capital Transit. At present, the CBJ only utilizes funds from Sections 5309 and 5311 grant programs. Capital Transit currently relies on Section 5311 funds to cover operating costs given the program does not receive, or is not eligible for, any other federal transit operating funds. The State of Alaska currently limits individual communities to one million dollars (\$1,000,000) annually in Section 5311 funds, and Capital Transit reserves such funding to cover operating expenses. Section 5309, part of this "pass-through" funding, is the most likely source for future capital funding for Capital

Transit fleet for bus stop amenity expansion. In the past, there has been little advocacy on the part of Capital Transit's management in regards to coordinating properly with the Alaska Department of Transportation (DOT) to request additional funding for transit expansion. In other words, there is additional funding out there in federal monies that has not been requested. The findings produced in this study will be useful if brought to the DOT to help justify the request of additional funding for this type of expansion. The DBA is urged to maintain an active role in the advocacy of new programs such as this Circulator.

Also available for this program is funding from the "head-tax" levied on tourists arriving on the many cruise ships that dock at Juneau on a near daily basis. As a result of the cruise ship ballot initiative, the State collects fifty dollars (\$50.00) per passenger from those cruise lines transiting through Alaskan waters. Of that revenue, four dollars is allocated to funding an Ocean Rangers environmental monitoring program. Another five dollars per passenger goes directly to each of the first five ports visited. The balance goes into the Alaska general fund and is intended for cruise ship-related infrastructure improvements. Juneau and Ketchikan opted out of receiving those state funds, and instead levy their own "head taxes" in addition to the fifty-dollar state tax. These municipalities charge eight and seven dollars per passenger, respectively. In CY 2007, nearly one million cruise ship

passengers disembarked at Alaska ports, resulting in approximately \$50 million in state revenue. Senate Bill 168 effectively caps the total passenger tax at fifty dollars/person. Therefore, municipalities such as Juneau and Ketchikan receive a portion of said funding in lieu of city-levied cruise passenger taxes. The associated legislation sets the maximum rebate to cities at ten dollars/passenger. It is recommended that the DBA investigate the use of funding from this program to help implement this Circulator, which is seen as part of the infrastructure improvement directly related to the effect the cruise ship industry has on the downtown area.

It is important to note the majority of monies identified within Exhibit 7.1 have either been earmarked for specific projects by the Federal government or programmed for allocation in other Alaskan communities.



**DOWNTOWN CIRCULATOR SHUTTLE FEASIBILITY STUDY**

Exhibit 7.1 Federal Capital Funding Source Matrix

Program Name	Description	Eligibility	Recipient	Grant Type	FY 2007/08 State Allocation
Congestion Mitigation and Air Quality Program (CMAQ)	Invests in projects that reduce criteria air pollutants regulated from transportation-related sources.	Funding is available for areas that do not meet the National Ambient Air Quality Standards (non-attainment areas) as well as former non attainment areas that are now in compliance (maintenance areas).	State	Formula	\$6,991,806
5308 Clean Fuels Grant Program	Assists non-attainment and maintenance areas in achieving or maintaining National Ambient Air Quality Standards and supports emerging clean fuel and advanced propulsion technologies for transit buses.	Same as above.	State	Discretionary	\$0
5309 Bus and Bus Facilities Program	Provides capital assistance for new and replacement buses and related equipment and facilities.	All capital projects.	State	Discretionary	\$17,018,000
5310 Transportation for Elderly Persons and Persons with Disabilities	Assists private non-profit groups in meeting the transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs.	Local private non-profit agencies and certain public bodies.	State	Formula	\$289,932
5311 Rural and Small Urban Areas	Provides operating funding to states for the purpose of supporting public transportation in areas of less than 50,000 residents. Enhances mobility of local residents and assists in the maintenance, development, improvement, and use of public transportation systems.	Funds may be used for capital, operating, and administrative assistance to state agencies, local public bodies, Indian tribes, and non-profit organizations, and operators of public transportation services. Projects to meet the requirements of the Americans with Disabilities Act, the Clean Air Act, or bicycle access projects, may be funded at 90 percent Federal match.	State	Formula	\$5,821,286
5316 Job Access/Reverse Commute	Provides financial assistance for transportation services planned, designed, and carried out to meet the transportation needs of eligible low-income individuals, and of reverse commuters regardless of income.	Projects must be included in a locally-developed, human service transportation coordinated plan.	State	Formula	\$236,931
5317 New Freedom	Reduces barriers to transportation services and expands mobility options available to persons with disabilities beyond the requirements of the ADA.	Same as above.	State	Formula	\$126,046
"Head-Tax" Monies	General fund intended for cruise-ship-related infrastructure improvements.	Areas affected by Cruise Ship Industry	State		?

*Source: Federal Transit Administration (except for the "Head-Tax" row)*

The five-year Capital Plan presented below reflects the capital purchases necessary for the implementation of the minimum number of vehicles required to realize the recommended series plan including a 10-minute headway or frequency. This plan reflects the purchase of three vehicles to achieve the recommended service frequency (two vehicles for revenue service plus one spare). Further, the required maintenance and associated cost would depend upon which vehicle is ultimately selected. The vehicles in Exhibit 7.2 are detailed in the Fleet Analysis Chapter (Chapter 5). Below are the cost estimates associated with the acquisition of three of each kind of vehicle.

Exhibit 7.2 Capital Plan

Fleet Costs	FY 2008/09		
	Number	Cost/Unit	Total Cost
<b>Conventional Gas</b>			
12 to 14 Passenger Shuttle	3	\$80,000	\$240,000
15 to 20 Passenger Shuttle	3	\$100,000	\$300,000
21-30 Passenger Bus	3	\$125,000	\$375,000
<b>Advanced Diesel</b>			
12 to 14 Passenger Shuttle	3	\$100,000	\$300,000
15 to 20 Passenger Shuttle	3	\$125,000	\$375,000
21-30 Passenger Bus	3	\$150,000	\$450,000
<b>Hybrid-Electric</b>			
12 to 14 Passenger Shuttle	3	-	Subject to Availability
15 to 20 Passenger Shuttle	3	-	Subject to Availability
21-30 Passenger Bus	3	\$750,000	\$2,250,000
<b>Trolley-Style (non-electric)</b>			
12 to 14 Passenger Shuttle	3	-	Subject to Availability
15 to 20 Passenger Shuttle	3	\$150,000	\$450,000
21-30 Passenger Bus	3	\$175,000	\$525,000

#### Financial Plan

The Financial Plan forecasts the cost of implementing the various alternatives presented within the Service Planning Chapter (Chapter 4). The cost associated with each alternative varies slightly as each service alternative differs in distance traveled (and potentially service frequency).

#### Federal Operational Funding Sources

An array of operational grants are available to public transit agencies through the Federal government's SAFETEA-LU program (which is set to expire in 2009). These grants range from FTA Section 5311 program, which allocates funding for transit programs operating in communities of 50,000 residents or less, to Section 5317, which requires recipients to adopt a Coordinated Human Services Transportation Plan. The City and Borough of Juneau's Capital Transit and Care-A-Van services are eligible for operational grants through FTA Sections 5311, 5316, and 5317. If the preferred alternative is for the Circulator to be run by Capital Transit, this new service would also be eligible for these monies. At present, the CBJ utilizes funds only from Section's 5311. The Federal Transit Administration allows public agencies to use Section 5311 funds to cover up to 50 percent of annual operating costs. In FY 2006/07, Capital Transit used Section 5311 funds amounting to approximately 27 percent of its total operating budget. This can be attributed to the limited nature of Section 5311 funds in Alaska, requiring the State to rely upon

a population-based allocation formula (50 percent), annual ridership forecast (25 percent), and annual revenue forecast miles (25 percent). Capital Transit can expect to receive no more than one million (\$1,000,000) in Section 5311 funding for either capital or operating expenses.

It should be noted funding sources listed in both Exhibits 7.1 and 7.3 are not mutually exclusive, and total funds available apply to both capital and financial allocations. In other words, should Capital Transit elect to use one million dollars (\$1,000,000) in Section 5311 funds for capital expenses, it would have no Section 5311 funding available for operating purposes.

Given a Coordinated Human Services Plan has been adopted, the CBJ is now eligible to receive Section 5316 and 5317 funding for transit service enhancement.

Exhibit 7.3 Operating Funding Sources Matrix

**DOWNTOWN CIRCULATOR SHUTTLE FEASIBILITY STUDY**

Program Name	Description	Eligibility	Recipient	Grant Type	FY 2007/08 State Allocation
5311 Rural and Small Urban Areas	Provides operating funding to states for the purpose of supporting public transportation in areas of less than 50,000 residents. Enhances mobility of local residents and assists in the maintenance, development, improvement, and use of public transportation systems.	Funds may be used for capital, operating, and administrative assistance to state agencies, local public bodies, Indian tribes, and nonprofit organizations, and operators of public transportation services. Projects to meet the requirements of the Americans with Disabilities Act, the Clean Air Act, or bicycle access projects, may be funded at 90 percent Federal match.	State	Formula	\$5,821,286
5316 Job Access/Reverse Commute	Provides financial assistance for transportation services planned, designed, and carried out to meet the transportation needs of eligible low-income individuals, and of reverse commuters regardless of income.	Projects must be included in a locally-developed coordinated human service transportation plan.	State	Formula	\$236,931
5317 New Freedom	Reduces barriers to transportation services and expands mobility options available to persons with disabilities beyond the requirements of the ADA.	Same as above.	State	Formula	\$126,046

*Source: Federal Transit Administration*

Exhibits 7.4a and 7.4b illustrate the estimated expenses that might be expected for the implementation of this Circulator program, and the revenue needed to cover the expenses. Again, it should be noted that these are "best-faith" estimates and are subject to change.

The two financial plans (Exhibit 7.4a, which assumes the Circulator utilizes one vehicle with one spare, and Exhibit 7.4b, which uses two vehicles and one spare) have been developed according to the following assumptions:

1. Purchases of new Circulator vehicles would take place during the fiscal year identified in the Capital Plan.
2. Other capital purchases would take place during the fiscal year identified in the Capital Plan.
3. Operational costs are based on CBJ-provided data and the Transit Development Plan.
4. The rate of inflation is forecast at no greater than three percent per annum.
5. Any operating expenses not covered through farebox recovery or federal operating funds (i.e., Section 5311) will be covered through Local Transportation Funds (i.e., the CBJ's general fund) or the Head Tax general fund.
6. All capital expenses will be covered through federal capital funds (i.e., Section 5309).
7. Non-Fleet Capital Expenditures for project initiation were estimated at \$65,000. Eighty percent of that



would be assumed in Year One, while the remaining 20 percent would be assumed in Year Two.

8. Changes in fare structure might occur based on CBJ recommendations.
9. Marketing assumes five percent of operating expenses in FY 2008/2009 and three percent every fiscal year thereafter.
10. Capital Transit will receive an expected \$1,000,000 in Section 5311 operating funds per Fiscal Year beginning in FY 2008/2009.
11. The cost for the estimated number of vehicles in each chart shows the number of vehicles used, plus one to be used as a spare. For example, Exhibit 7.4a represents the costs for the Circulator service utilizing only one vehicle; however, the chart shows the cost of purchasing two vehicles, not one (using one for the route and one as a backup if needed).