

SOUTHERN BRAZORIA COUNTY TRANSIT FACILITY ANNUAL SAVINGS FROM MOVING HEADQUARTERS AND CO-LOCATING MAINTENANCE

QUANTIFIED BENEFIT SUMMARY	
Fuel Savings	\$601,000
Maintenance and Capitalization Savings	\$584,000
TOTAL SAVINGS (to reinvest in service)	\$1,185,000
TOTAL TIP REQUEST	\$1,280,000
BC RATIO	0.93

Demand Response															
Direction	101 Tigner	101 Canna	FM 2004												
Outbound	1,995	1,613	1,236												
Inbound	3,535	1,613	1,756												
Total	5,530	3,226	2,992												
Fixed Route															
	One-Way Deadhead Miles (Daily)			Two-Way	Deadhead Miles (Daily Two Way)			Days a Week	Deadhead Miles (Weekly)			Annual	Deadhead Miles (Annual)		
	101 Tigner	101 Canna	FM 2004		101 Tigner	101 Canna	FM 2004		101 Tigner	101 Canna	FM 2004		101 Tigner	101 Canna	FM 2004
Freeport/red	15	7.4	7.3	2	30	14.8	14.6	5	150	74	73	52	7,800	3,848	3,796
LJ Blue	10.4	0.04	2.5		20.8	0.08	5	5	104	0.4	25		5,408	21	1,300
LJ Green	10.4	0.04	2.5		20.8	0.08	5	5	104	0.4	25		5,408	21	1,300
Angleton/purple	1.5	11.1	7		3	22.2	14	5	15	111	70		780	5,772	3,640
Gold Regional	1.5	3.8	7		3	7.6	14	5	15	38	70		780	1,976	3,640
Saturday LJ	10.4	0.04	2.5		20.8	0.08	5	1	20.8	0.08	5		1,082	4	260
Saturday Red	10.5	3.8	2.5		21	7.6	5	1	21	7.6	5		1,092	395	260
Saturday Purple	1.5	11.1	7		3	22.2	14	1	3	22.2	14		156	1,154	728
													22,506	13,191	14,924
Total Southern Brazoria County Transit Miles by Site															
Service	101 Tigner	101 Canna	FM 2004												
Demand Response	5,530	3,226	2,992												
Fixed Route	22,506	13,191	14,924												
Total	28,036	16,417	17,916												
Deadhead Savings	11,618		UPDATE 10-16-18												
percent savings	41.4%														
DR savings	2,304														
percent	41.7%														
Fixed Savings	9,314														
percent	41.4%														

Cost Savings From Reduced Deadhead Miles			
Assumptions Fuel Savings		Assumptions Capital and Maintenance Savings	
Daily Miles		Daily Miles	
Annual Miles	11,618	Annual Miles	11,618
Years	40	Annual Maintenance	\$3,000
Total Miles	464,720	6 years of Maintenance	\$18,000
Fuel Efficiency (MPG)	3.5	Cost of Vehicle	\$80,000
Gallons Used Per Year	3,319.43	Total Cost of Vehicle with Maintenance	\$100,000
Inflation	3%	Useful Life Miles	150,000
		Cost Per Mile	0.67
		Inflation	3%
TOTAL	\$ 600,694	TOTAL	\$ 584,008
Fuel Cost	Fuel Savings	Capital and Maintenance Savings	
2.4	\$7,967		\$7,745
2.5	\$8,206		\$7,978
2.5	\$8,452		\$8,217
2.6	\$8,705		\$8,464
2.7	\$8,967		\$8,717
2.8	\$9,236		\$8,979
2.9	\$9,513		\$9,248
3.0	\$9,798		\$9,526
3.0	\$10,092		\$9,812
3.1	\$10,395		\$10,106
3.2	\$10,706		\$10,409
3.3	\$11,028		\$10,721
3.4	\$11,359		\$11,043
3.5	\$11,699		\$11,374
3.6	\$12,050		\$11,716
3.7	\$12,412		\$12,067
3.9	\$12,784		\$12,429
4.0	\$13,168		\$12,802
4.1	\$13,563		\$13,186
4.2	\$13,970		\$13,581
4.3	\$14,389		\$13,989
4.5	\$14,820		\$14,409
4.6	\$15,265		\$14,841
4.7	\$15,723		\$15,286
4.9	\$16,195		\$15,745
5.0	\$16,680		\$16,217
5.2	\$17,181		\$16,704
5.3	\$17,696		\$17,205
5.5	\$18,227		\$17,721
5.7	\$18,774		\$18,252
5.8	\$19,337		\$18,800
6.0	\$19,917		\$19,364
6.2	\$20,515		\$19,945
6.4	\$21,130		\$20,543
6.6	\$21,764		\$21,160
6.8	\$22,417		\$21,794
7.0	\$23,090		\$22,448
7.2	\$23,782		\$23,122
7.4	\$24,496		\$23,815
7.6	\$25,231		\$24,530
	\$600,694		\$584,008

Moving the operations center from Angleton to Lake Jackson and establishing a maintenance facility and activity shared with the City of Lake Jackson rather than contracted out to several local garages will save Connect Transit in both reduced deadhead mileage and reduced maintenance expenditures. Being located near the center of the SBCT service area rather than at its northern extremity saves mileage to 3 of 4 local routes and allows both a shorter access to the intercity route and the opportunity to start its service day earlier without adding to the service operating cost. Current deadhead mileage was calculated for the Angleton location and deadhead mileage for the proposed Lake Jackson location. The savings was then monetized based on the fuel and maintenance savings annually over the useful life of the facilities.

Eliminating most contract maintenance services will reduce the annual cost and improve supervision and quality control.