

6. Implementation Plan

This chapter summarizes the impacts of the service recommendations, in terms of service hours and operating costs, and presents the steps required to implement the service recommendations concurrent with the move to Knoxville Station.

Service Recommendations

The estimated changes in annual revenue hours associated with the TDP recommendations and the resulting operating and maintenance (O&M) cost estimates by route are presented in Table 6-1. No capital cost estimates for vehicles are included, as the proposed service modifications result in a net decrease to the peak requirement. Seven less regular and neighborhood service buses would be required in peak service. There would be no increase in the maximum number of trolley buses required.

The projected O&M costs per revenue hour have been developed using KAT's FY 2008 National Transit Database (NTD) report and FY 2009 operator wage rates for each fixed route service classification. Given the nation's current economic downturn, these FY 2008 and FY 2009 costs are assumed to remain constant prior to the opening of Knoxville Station (i.e., no inflation has been assumed).

KAT has four classifications of wage rates for bus operators with adjustments in pay scale for four different route classifications. Total costs per revenue hour (\$66.02), were adjusted to account for the variations in the wage rates. The resulting rounded costs per revenue hour by route classification are as follows:

- Regular Service Routes: \$72.40
- Trolley Service Routes: \$52.75
- T Operator: \$49.75
- Neighborhood Service Operator: \$48.60

Table 6-1 presents the annual estimated revenue hours and estimated O&M costs by route for the proposed TDP route modifications and proposed changes to the downtown trolley system. It should be noted that KAT is refining the actual scheduling of the routes for the August 2010 opening of the transit center and that there may be some change to the overall costs.

Table 6-1
Service Hour and Operating Cost Impacts of Route Recommendations

Current				Future				Change		Comments
Route	Annual Service Hours	Annual Direct O&M Cost	Route	Annual Service Hours	Annual Direct O&M Cost	Annual Service Hours	Annual Direct O&M Cost			
10	Cherokee	3,410	\$165,705	10	Cherokee	3,078	\$149,567	(332)	(\$16,138)	Route 10 is shortened.
11	Kingston Pk.	17,531	\$1,339,342	11	Kingston Pk.	11,991	\$916,112	45	(\$151,799)	Route 11 is shortened to terminate at West Town Mall. The western sections of the route eliminated will be served by the Cedar Bluff Local.
					Cedar Bluff Local	5,585	\$271,431			
12	Western Ave	7,480	\$571,487	12	Combine with 14	-	\$0	(7,480)	(\$571,487)	Route 12 is replaced by Route 14, operating on the existing 12 C alignment.
13	Beaumont	3,641	\$278,203	13	Beaumont	3,641	\$278,203	-	\$0	
14	College St.	4,654	\$355,599	14	College St.	7,125	\$544,350	2,471	\$188,751	Existing 12C becomes Route 14 and maintains the existing Route 12 weekday headways and Saturday headways.
15	West Town Direct	508	\$38,805	15	Eliminate	-	\$0	(508)	(\$38,805)	
20	Central Ave.	7,937	\$606,378	19	Breda Rd	5,020	\$383,528	5,033	\$384,530	Route 19 is the existing Route 20B with some modifications and the same headways.
				20	Clinton Hwy	7,950	\$607,380			Route 20 is the existing Routes 20A and 20C combined. Same headways.
21	Lincoln Pk.	3,696	\$179,626	21	Lincoln Pk.	3,333	\$161,984	(363)	(\$17,642)	Route is shortened.
22	Broadway	9,733	\$743,592	22	Broadway	9,733	\$743,592	-	\$0	Vehicle on-time performance improved.
23	Millertown Pk.	4,883	\$373,076	23	Millertown Pk.	4,883	\$373,076	-	\$0	
30	Washington Ave.	3,592	\$274,417	30	Washington Ave.	3,592	\$274,417	-	\$0	
31	Magnolia	8,659	\$661,580	31	Magnolia	6,668	\$509,416	(1,992)	(\$152,163)	Assumed 23 percent of existing hours are devoted to what will be the Skyline Drive Circulator.
					Skyline Dr. Circulator	1,992	\$96,795	1,992	\$96,795	Skyline Dr Circulator will operate 23 percent of the previous Route 31 hours.

Table 6-1 (continued)
Service Hour and Operating Cost Impacts of Route Recommendations

Current				Future				Change		Comments
Route	Annual Service Hours	Annual Direct O&M Cost	Route	Annual Service Hours	Annual Direct O&M Cost	Annual Service Hours	Annual Direct O&M Cost			
32	Dandridge	7,685	\$587,103	32	Dandridge	7,685	\$587,103	-	\$0	
33	MLK	5,749	\$439,199	33	MLK	10,682	\$816,105	4,933	\$376,906	Route nearly doubles in length to serve Knoxville Center and replace existing 90A/B service.
40	South Knox	7,061	\$539,485	40	South Knox	7,061	\$539,485	-	\$0	
41	Chapman Hwy.	6,963	\$531,969	41	Chapman Hwy.	6,963	\$531,969	-	\$0	
42	Ft. Sanders/ UT Hospital	7,350	\$561,540	42	Ft. Sanders/ UT Hospital	7,350	\$561,540	-	\$0	
43	University Heights Apts.	1,829	\$139,697	43	University Heights Apts.	1,829	\$139,697	-	\$0	
44	Gateway at Knox Apts.	1,749	\$133,624	44	Gateway at Knox Apts.	1,749	\$133,624	-	\$0	
50	UT Services	54,218	\$2,697,349	50	UT Services	54,218	\$2,697,349	-	\$0	
80	Blue Line Trolley	8,253	\$435,346	80	Blue Line Trolley	5,300	\$279,575	(2,953)	(\$155,771)	Blue Trolley is realigned, making a more efficient route.
82	Orange Line Trolley	11,962	\$631,019	82	Orange Line Trolley	13,600	\$717,400	1,638	\$86,381	Orange Trolley is realigned to allow passengers to get to other downtown locations without going to UT first.
84	Green Line Trolley	1,749	\$92,260	84	Green Line Trolley	-	\$0	(1,749)	(\$92,260)	Green Trolley is eliminated.
86	Late Line Trolley	1,383	\$72,964	86	Late Line Trolley	1,383	\$72,964	-	\$0	
				87	Red Line Trolley	5,300	\$279,575	5,300	\$279,575	Red Trolley is added.
90	Crosstown	17,358	\$1,326,133	90	Crosstown	10,752	\$821,453	(6,606)	(\$504,680)	Route 90 is shortened and converted to an east/west route that operates between Knoxville Center and West Town Mall without going downtown.
#	Sutherland Ave.	-	\$0	#	Sutherland Ave.	3,584	\$273,818	3,584	\$273,818	The Sutherland Ave. route replaces service eliminated on the south portion of Route 90A/B.
100	Halls Express	461	\$35,233	100	Halls Express	461	\$35,233	-	\$0	

Table 6-1 (continued)
Service Hour and Operating Cost Impacts of Route Recommendations

Current				Future				Change		Comments
Route	Annual Service Hours	Annual Direct O&M Cost	Route	Annual Service Hours	Annual Direct O&M Cost	Annual Service Hours	Annual Direct O&M Cost			
101	Cedar Bluff Express	1,492	\$113,977	101	Cedar Bluff Express	1,492	\$113,977	-	\$0	
102	Farragut Express	1,948	\$148,824	102	Farragut Express	1,948	\$148,824	-	\$0	
	Total	212,934	\$14,073,530		Total	215,947	\$14,059,540	3,013	(\$13,990)	

Discontinued Routes			
87	Red Line Trolley	2,419	127,612.80
103	Oak Ridge Express	2,016	154,022.40
104	Dtwn/Oak Ridge Express	799	61,031.38
		218,168	14,416,196
vs. FY 2008 KAT Report			
		218,176	

TDP Next Steps

In August 2010, KAT is scheduled to open Knoxville Station, its new off-street transit center in downtown Knoxville. The move to the new station will involve the re-routing and scheduling of more than 20 routes. Concurrently, the TDP service recommendations, including regular service, neighborhood service, and trolley service routes, are also proposed for implementation. These combined activities will warrant a significant change in scheduling structure, likely resulting in new interlining strategies.

The move to Knoxville Station will be a complex and challenging process over the next 13 months. To ensure a successful move, a schedule of activities has been developed, as shown in Table 6-2.

Table 6-2
Timeline for Implementation of TDP Recommendations

2009	
July	■ Run all routes from TDP recommendation for timing and mileage
August	■ Design routes and schedules based upon KTA guidelines ■ KTA committee updates of progress
September	■ Cost analysis of routes and revisions
October	
November	■ Finalize route proposals ■ Run proposed routes to confirm viability
December	■ Prepare information for public and board
2010	
January	■ Schedule public meetings and outreach ■ Meet with all operators ■ Introduce routes to board
February	■ Public meetings ■ Schedule board workshop, if necessary
March	■ KTA public hearing
April	■ Final public meeting ■ KTA vote
May	■ Schedule revisions
June	■ Run cut
July	■ Run cut ■ Operator pick
August	■ Begin operations from Knoxville Station August 16, 2010

The schedule begins with a route-by-route analysis requiring the following steps:

1. Run all routes per the TDP recommendations in the appropriate vehicle (some with both bus and van to determine an average percent difference in run time) during peak congestion to determine run time and mileage, taking into consideration stop time, estimated number of stops, etc.

2. Using the running time analysis, develop interlining strategies for weekday (including evening), Saturday and Sunday service schedules that allow for prescribed layover and recovery times. Route streamlining will also be considered as an alternative to achieve desired running times where feasible.
3. Assess cost impacts of the proposed routes and revisions.
4. Finalize proposals, including interlines, based on KAT's fiscal constraints, and run all routes to confirm viability.
5. Compile route information for presentation to the KAT Board and public and make any final changes to the plan.

The remaining activities are standard processes that are engaged in a typical service change. It will be critical that KAT adhere to the recommended timeline to ensure the successful opening of Knoxville Station, as well as the multiple service changes that are scheduled to occur concurrently.

Beyond Knoxville Station

Following the opening of Knoxville Station, route adjustments should be held to a minimum for at least one year, to allow sufficient time for passengers to adjust to the changes and for ridership levels and patterns to mature. Regular service monitoring will be particularly important during this time period.

Future service changes will be largely dictated by passenger needs and revenue projections, including farebox revenues and federal, state, and local funding levels. Rather than route alignment adjustments, priorities for future service changes may include frequency improvements from hourly to half-hourly service on select routes, span of service expansion, and expansion of weekend service.

Additionally, the Downtown Transit Plan identified a possible future trolley route along Gay Street, connecting Broadway-Central Emory Place, historic Gay Street, and the Knoxville South Waterfront area. Timing and exact route alignment of this route will be dependent on the proposed reconstruction of the Henley Street bridge, as well as the proposed redevelopment of the South Waterfront.