

Dutchess County Bus Service Expansion Feasibility Study
Executive Summary

1. Purpose

The Dutchess County Bus Service Expansion Feasibility Study was completed to determine the feasibility of expanding Dutchess County bus services within the City of Poughkeepsie, without adding additional costs to Dutchess County. The study also sought to determine the feasibility for Dutchess County to realize a positive financial return if it became the sole public bus operator in the City. The study was administered by Dutchess County, through the Poughkeepsie-Dutchess County Transportation Council (PDCTC): the designated Metropolitan Planning Organization (MPO) for Dutchess County.

A financial and operational review of the City of Poughkeepsie bus system was completed as part of the study, including an analysis of staffing, capital equipment, and compliance with federal and State requirements. It also included a service analysis of the City of Poughkeepsie bus system, comparing it to services already provided by the County and recommending timetable and route adjustments to existing LOOP bus routes that will serve City residents without adding additional costs to Dutchess County.

2. Background

Dutchess County is served by two publicly-operated bus systems: the Dutchess County Mass Transit (LOOP) system and the City of Poughkeepsie bus system. The Dutchess County system primarily serves the suburban and rural areas of the County, connecting these areas to the urbanized core, while the City system serves the urbanized area in and around Poughkeepsie. The study included a review of current bus services provided by the City of Poughkeepsie:

- The City operates six routes in and around the City and Town of Poughkeepsie, and a small part of Hyde Park. All routes operate Monday-Friday, with the Main Street, Northside, Southside, and Galleria routes operating on Saturdays. There is no Sunday service.
- The City maintains 9 transit buses (6 diesel-electric hybrids and 3 regular diesel buses) and the system is supported by 11 full-time employees consisting of 9.5 full time equivalent (FTE) drivers, one mechanic, 0.3 FTE for non-vehicle maintenance, and 0.2 FTE for general administration.
- The Main Street and Northside routes are the best performing routes, accounting for over half of the City’s average annual ridership. In contrast, the Shopper’s Special and Special routes are the worst performing, each declining in ridership over the past five years.

City of Poughkeepsie Bus System: Total Passengers by Route (2008-2012)

	Galleria	Main Street	Northside	Southside	Shopper	Special	Total
2008	75,543	125,885	102,509	68,303	28,146	23,481	423,867
2009	79,590	123,602	107,231	70,384	31,626	21,497	433,930
2010	76,401	124,321	122,086	71,647	23,897	20,809	439,161
2011	63,152	115,519	100,891	66,577	18,178	16,538	380,855
2012	70,145	114,606	101,981	70,592	25,276	12,949	395,549
5-Year Average	72,966	120,787	106,940	69,501	25,425	19,055	414,672

Dutchess County Bus Service Expansion Feasibility Study
Executive Summary

3. Financial Review

The financial performance review of the City of Poughkeepsie bus system covered items related to the provision of bus service by the City. The objective of this task was to identify the total expenses, revenues, and net costs associated with providing bus service in the City. Key findings from the review included the following:

- The City’s budgeted cost for the bus system was approx. \$1.4 million annually from 2010-2012.
- Year end reconciliations indicated that actual costs were higher than originally budgeted; coupled with lower expected revenues, this resulted in annual shortfalls from 2010-2012.
- Annual farebox revenue (collected fares) averaged \$364,000 from 2010-2012.
- Personnel cost (salaries, wages, and benefits) were the largest expenses for the City Bus System, averaging approx. \$894,000 annually from 2010-2012.

City of Poughkeepsie Bus System: Budget Data (2010-2012)

	2010	2011	2012
Total Budgeted	\$1,414,920	\$1,401,947	\$1,479,917
Total Cost	\$1,704,864	\$1,857,296	\$1,542,751
Total Revenue	\$1,160,711	\$1,189,939	\$958,227
Balance	-\$544,153	-\$667,357	-\$584,524

4. Operational Review

As part of the study, an operational review of the City of Poughkeepsie bus system was completed, assessing the nature and performance of bus services provided by the City. A key task was to identify redundancies in administrative or maintenance support between the City and LOOP.

- The City’s average operating expense per vehicle revenue hour was \$133 in 2011. This was higher than LOOP at \$107/hr and Ulster County at \$90/hr (national average was \$120/hr).
- The City’s average cost per passenger was \$4.54 in 2011, compared to \$9.41 for LOOP, which are both lower than Ulster County (\$12.02) and Putnam County (\$10.58).

City & County Bus Operational Statistics (2010-2011)

	City of Poughkeepsie		Dutchess County*	
	2010	2011	2010	2011
Total Vehicle Miles	196,588	185,900	881,401	745,647
Total Vehicle Hours	15,881	14,200	50,133	39,247
Total Vehicle Revenue Hours	15,275	13,950	39,839	32,994
Unlinked Passenger Trips	423,632	409,168	409,544	376,470
Cost per Passenger	\$3.16	\$4.54	\$8.31	\$9.41

* Does not include demand-response services such as Dial-a-Ride or Flex.

5. Service Review

The study included a comparison of bus services offered by the City of Poughkeepsie and LOOP, covering the following subtasks:

- Comparing LOOP and City routes and timetables, identifying overlapping or redundant services and potential service gaps.
- Identifying transit services provided by the City that are not currently provided by LOOP.
- Conducting an assessment of what City-related service recommendations in the 2009 Dutchess County Transit Development Plan are still valid.
- Identifying locations currently not served by the City that should be included on the LOOP system if it were to become the sole public bus provider (e.g. senior/low income housing, hospitals, or treatment centers).

As part of this service review, the project team completed a series of interviews with key stakeholders associated with the Dutchess County and City of Poughkeepsie bus systems (e.g. Council/Planning Department staff, transit managers, and operations personnel). In addition, the project team interviewed eight stakeholder groups, including local colleges and residential centers, to gather feedback on how the bus systems were being used in and around the City.

In general, Dutchess County LOOP operates as an inter-municipal corridor service, whereas the City operates as an intra-city service that uses local streets and some major roads to serve individual locations. Specific service related findings included the following:

Route Redundancies

There are clear redundancies between the two systems; in a number of cases, the two systems serve similar destinations, often travelling on the same road and at the same times:

- Route 9 South: from Main and Market to the Galleria and South Hills Malls. The City's Galleria route provides service to the malls, as do LOOP Routes A and B.
- Route 9 North: from Main and Market to Marist College, DCC, the Culinary Institute of America, and Hyde Park Stop-and-Shop. The City's Northside and LOOP Route C provide service to these areas.
- Central City Corridor: from Main and Market to Raymond Ave along the arterial (LOOP Routes D and E) and Main Street (City Main Street), and between Raymond Ave. and Poughkeepsie Stop-and-Shop/Adams on Route 44 (LOOP Route D and City Main Street and Shopper's Special).

Dutchess County Bus Service Expansion Feasibility Study

Executive Summary

System Differences

Although there are some similarities between the two systems, there are clear differences in routings:

- Most City bus routes end by 3:30 p.m. on Saturday, whereas many LOOP routes operate in the evening hours (LOOP A operates until almost midnight on Saturdays).
- Some City routes (e.g. Main Street and Northside) travel long distances that increase travel times for destinations in close proximity to one another.
- LOOP does not provide fixed route service in the northern and southern parts of the City, nor travels on Main Street.
- Some LOOP routes do not provide internal access to shopping plazas on Routes 9 and 44.
- LOOP does not serve Vassar Brothers Medical Center.
- LOOP routes are not configured to support student transportation to schools in the Poughkeepsie City School District.

Opportunities

Expanding bus service in the Poughkeepsie area creates opportunities:

- The Vassar College reimbursement model, where students and staff ride for free and the College reimburses the City, could be applied to Marist College, Dutchess Community College, and the Culinary Institute of America, which would potentially increase ridership and add revenue.
- Increasing bus frequencies to the transit hub on Market Street, and in turn, allowing more transfers to the Galleria Mall would be a beneficial improvement.
- Consistent with preliminary work from the Waterfront Strategy, a dedicated bus shuttle between the Market Street transit hub to the Poughkeepsie Train Station and Waryas Park would be more efficient than routing current LOOP buses to the station.

6. Service Recommendations

The recommended bus routings for the expanded LOOP service create a corridor based, hub-and-spoke system for the Poughkeepsie service area, which is consistent with the current service structure employed elsewhere by LOOP. The recommendations include minor modifications to existing LOOP routes and the creation of four new LOOP routes.

- LOOP Routes A and B offer direct service between the transit hub and Galleria/South Hills Malls in the Town of Poughkeepsie, providing extensive coverage along Route 9 south of the City. The study recommends that these routes be enhanced slightly by providing direct access to major shopping plazas on Route 9 (e.g. Hudson and Poughkeepsie Plazas).
- LOOP Route C provides service from the transit hub to Route 9 destinations north of the City. The study recommends that this route be improved by providing direct access to Marist College

Dutchess County Bus Service Expansion Feasibility Study

Executive Summary

and the Hyde Park Stop-and-Shop. The study recommends that Dutchess Community College (DCC) be served by a separate route, thus negating the need for Route C to detour off of Route 9 for service at DCC and thus building time in the schedule to provide direct access to Marist College and the Stop and Shop.

- LOOP service in the west-central part of the City should be streamlined by removing the Poughkeepsie train station as a regular stop on LOOP Routes A, B, C, D, and E, easing bus congestion at the train station. This would also build time in the Route A, B, C, and D schedules to provide direct access to major shopping centers on Route 9 and 44.
- In conjunction with the above recommendation, create a dedicated lower Main St. shuttle bus between the transit hub, Poughkeepsie train station, and Waryas Park. Such a service should provide frequent time stops (e.g. every 15 minutes) , which would be a more reliable mechanism to connect the downtown with the waterfront.
- Expand LOOP service in the central part of the City by serving the Main St. corridor from the transit hub to South Grand Ave. and then Fulton St. to Vassar College, with follow-on service to Adams, Stop-and-Shop, and Kmart on Route 44. LOOP Route D could also provide occasional direct service to the Kmart, Stop and Shop, and Adams as it travels on Route 44 to and from the City, while LOOP Route E should maintain its current east-west service on Route 44/55 (Arterial).
- Expand LOOP service in the northern part of the City by creating a corridor service between the transit hub and DCC in the Town of Poughkeepsie, with stops at Saint Francis Hospital and the Poughkeepsie Housing Authority.
- Expand LOOP service in the southern part of the City by creating a route that travels along Hooker Ave between the transit hub and Vassar College; this would include regular service to Vassar Brothers and alternating service to the Fox Hill and Saint Simeon housing developments.
- Fixed route service should be reinforced by Dial-A-Ride services already provided in the City and Town of Poughkeepsie. These services could be expanded by the municipalities above the three days a week currently provided.

Based on these recommendations, the study proposes the creation of four new LOOP routes that would significantly expand its service in the Poughkeepsie area:

- Route H: providing service from the transit hub to Vassar College, Adams, Stop-and-Shop, and Kmart, using Main and Fulton St., Collegeview Ave., Fairmont St., and Route 44.
- Route I: providing service from the transit hub to Saint Francis Hospital, DCC, and the Poughkeepsie Housing Authority, using Washington Ave., E. Cedar St., Pendell Rd., Creek Rd., and Smith St.
- Route J: providing service from the transit hub to Vassar Brothers Medical Center, Saint Simeon/Fox Hill housing developments, and Vassar College, using Jefferson St., South Ave., Montgomery St., Hooker Ave., and Raymond Ave.
- Route K: providing service on lower Main St. from the transit hub to the Poughkeepsie train station, using Mansion St., Donegan Pl., and Main St.

Dutchess County Bus Service Expansion Feasibility Study

Executive Summary

Each route would operate six days per week (Monday-Saturday), with no service on Sunday. The routes would operate approximately 15 hours per day, with most service starting at 7:00 a.m. and ending at 10:00 p.m. All but Route K would have 60 minute service intervals between time stops; Route K would use a 15 minute service intervals to maintain frequent service between downtown and the train station. Each route would use one bus at any one time. Given the service spans, days in operation per year, and number of buses needed, each route would require 5,000 vehicle hours (4,545 revenue hours) to implement.

7. Conclusion

Based on the operational estimates associated with the proposed new routes and the marginal operating costs for LOOP, the study has determined that the County could expand its service in the City without adding costs to the County – however, this could only occur under a set of prearranged conditions, the most notable being the transfer of capital equipment at no cost to the County and the use of the City’s share of federal transit funding. These conditions would also enable the County to realize a positive balance, albeit a relatively small amount. The following prerequisites would have to be met for the expanded service:

- The cost estimates are predicated on the transfer of needed equipment from the City at no cost to the County. At a minimum, Dutchess County LOOP would require the transfer of six heavy-duty buses, a service support vehicle, and compatible farebox/radio equipment to implement the new service. Without this transfer, the County would not be able to expand its service at no additional cost, let alone realize a positive financial return.
- All City liabilities associated with the Federal Transit Administration (FTA) and State funded equipment would need to remain with the City and not transfer to Dutchess County. The City would also be required to meet federal and State requirements for the proper transfer and/or disposal of FTA funded equipment. This would include associated debt services and open FTA grants.
- Ongoing maintenance of the new transit hub would remain with the City.
- Dutchess County LOOP would require nine additional drivers and one mechanic to implement the four new routes.

Operational and Financial Estimates

The study estimates that the four new routes would cost over \$1.211 million to implement, with each route costing approximately \$300,000 per year to operate. These costs are determined in most part by the number of vehicle hours needed to operate each route, with hourly driver salaries being the largest cost center. Hence, differences in distance, as reflected in vehicle miles, are less important than the number of hours each vehicle is in service.

The potential number of passenger was estimated by assuming a 50 percent capture rate of existing City passengers (approximately 14.1 passengers per hour), which was applied to each route’s

Dutchess County Bus Service Expansion Feasibility Study

Executive Summary

comparable share of total passengers. The estimates indicate the possibility of the new LOOP routes supporting 256,000 passengers in the first year. In all likelihood, the number of passengers would increase in subsequent years as people become more familiar with the system. The cost estimate does not account for transition costs to a single provider, including items such as installing radios and fareboxes, repainting buses, and staff time to develop new schedules and market the service.

Accordingly, the study estimated total revenue generated by the new routes at \$1.255 million; these stem from federal, State, and farebox sources. The estimated federal revenue assumes that the County would receive the City's share of FTA Section 5307 funds (approximately \$531,000 per year), while the revenue estimate assumes State Operating Assistance (STOA) would continue to be reimbursed at the rate of \$0.405 per passenger and \$0.69 per vehicle mile. Federal and State revenues would be complemented by farebox revenue from the new routes, estimated at approximately \$320,000 per year. Additional STOA and farebox revenue would come from former City Galleria route passengers using Routes A and B to travel to the Galleria and South Hills Malls. The estimated farebox revenue is based on a regular/reduced fare split of 50/50 percent, as per City fare recovery data. Additional revenue from Vassar College is also included.

Benefits

The benefits of expanding LOOP service, in conjunction with the City ceasing bus operations, include the following:

- A single public bus operator would improve the delivery of transit service and streamline the programming of federal and State transit funding.
- Economies of scale would reduce the cost to provide bus service, as evidenced by the lower operating costs of LOOP compared to the City.
- The City would no longer need to provide local funds to operate a standalone bus system.
- The new LOOP routes would provide longer service spans compared to the City system, typically three hours longer than current City routes. On an annual basis, this would equate to an additional 4,000 hours of service for the City.
- The City downtown and train station would be better connected with more frequent bus service.
- Most LOOP routes would realize operational improvements since they would no longer have to serve the train station. This would also reduce bus congestion at the station.
- Saint Francis Hospital and Vassar Brothers Medical Center would gain more frequent service, including direct access to Saint Francis for passengers.
- Dutchess Community College would gain more frequent service.
- Route C would no longer detour off of Route 9, enabling it to provide direct access to Marist College and the Hyde Park Stop-and-Shop.

8. Next Steps

The findings from this study will be forwarded to the County and City for review and consideration. Needless to say, any expansion of LOOP service in the City will require close coordination among all responsible entities, including FTA and NYSDOT. Implementation will ultimately rest with the responsible executive and legislative bodies of the County and City.