- Combine Route Nos. 2 and 5 south of the transit center. These two routes were among the weakest-performing routes in the evaluation of the transit system in Chapter V. Most of the southern areas previously served by the two individual routes would be served by the newly restructured Route Nos. 2/5S and 7S.

- Shorten Route No. 7 by operating it on Racine Street instead of on Main Street and Grand Avenue. This would eliminate about four miles from the round-trip distance and allow the route to complete the trip from the transit center to the route terminus at Walmart in 30 minutes.

- Establish a southwest transfer point in the Regency Mall area where passengers can conveniently and comfortably transfer between Route Nos. 1, 4, 6, and 7.

- Convert the existing Route No. 86 from a one-way loop to a two-way out-and-back route ("Route No. 6") serving St. Mary's Hospital, Ohio Avenue, and the Regency Mall area.

Other minor route changes proposed under the initial alternatives were designed to equalize route lengths, in order to address on-time performance problems on the longer routes and leave less "dead time" at the ends of the routes. Altogether, the changes would leave some gaps in the service area of the transit system, so that some of the areas currently served would no longer be within one-quarter mile of a local bus route. However, areas that would be unserved under this proposal are areas that showed very low ridership in the route segment analysis in the evaluation of the BUS in Chapter V.

Similar to the preliminary recommended alternative, the initial alternatives did not propose any changes to Route No. 27 in the western portion of the BUS service area as the BUS implemented changes to the route in September 2012. They did, however, include the same possible configuration for combining Route Nos. 20 and 27 that the BUS could consider should Route No. 27 perform poorly despite the changes made in September 2012.

Adjustments to Route Frequency or Service Periods under the Initial Alternatives

Table B-1 presents the proposed adjustments to the route alignments, as well as to the schedules and service hours for all the routes under each initial alternative. Tables B-2 and B-3 present the operating and service characteristics of each of the proposed routes assuming Northern Routes Alternative 1 and Northern Routes Alternative 2, respectively. All routes shown in the two tables would have running times of 30 minutes between the transit center and the outlying route termini, with the exception of Routes 2N,

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Table B-2

OPERATING AND SERVICE CHARACTERISTICS BY ROUTE UNDER THE INITIAL BELLE URBAN SYSTEM ALTERNATIVES: 2013-2017

NORTHERN ROUTES ALTERNATIVE 1 AND SOUTHERN ROUTES ALTERNATIVE

Weekday Service										
			Service Frequency				Buses Required			
Route Number	Round-Trip Route Length (miles)	Service Hours	A.M. Peak Period	Midday Period	P.M. Peak Period	Night Period	A.M. Peak Period	Midday Period	P.M. Peak Period	Night Period
2/5N	11.6	5:40 a.m. – 7:10 p.m.	30	60	30	- -	2	1	2	- -
3/5/1N	10.0	5:40 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
4/5N	11.5	5:40 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
1S	15.2	5:40 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
2/5S	11.4	5:40 a.m. – 6:40 p.m.	30	60	30	- -	2	1	2	- -
3S	14.9	5:10 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
4S	12.9	5:10 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
6	15.1	5:40 a.m. – 10:10 p.m.	60	60	60	60	1	1	1	1
7	13.5	5:40 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
Other[a]	Varies	Varies	N/A	N/A	N/A	N/A	9	1	9	1
Systemwide	- -	- -	- -	- -	- -	- -	26	10	26	8

Saturday Service[b]			
Route Number	Service Hours	Service Frequency	Buses Required
2/5N	6:10 a.m. – 6:40 p.m.	60	1
3/5/1N	5:40 a.m. – 6:40 p.m.	60	1
4/5N	5:40 a.m. – 6:40 p.m.	60	1
1S	5:40 a.m. – 6:40 p.m.	60	1
2/5S	5:40 a.m. – 6:40 p.m.	60	1
3S	5:40 a.m. – 6:40 p.m.	60	1
4S	5:40 a.m. – 6:40 p.m.	60	1
6	5:40 a.m. – 6:40 p.m.	60	1
7	5:40 a.m. – 6:40 p.m.	60	1
Systemwide	- -	- -	9

Sunday Service[b]			
Route Number	Service Hours	Service Frequency	Buses Required
3/5/1N	9:40 a.m. – 6:40 p.m.	60	1
4/5N	9:40 a.m. – 6:40 p.m.	60	1
1S	9:40 a.m. – 6:40 p.m.	60	1
3S	9:40 a.m. – 6:40 p.m.	60	1
4S	9:40 a.m. – 6:40 p.m.	60	1
6	9:40 a.m. – 6:40 p.m.	60	1
7	9:40 a.m. – 6:40 p.m.	60	1
Systemwide	- -	- -	7

[a]"Other" refers to Route Nos. 20, 27, and 30. These routes would not be changed under any of the initial alternatives.

[b]The Saturday and Sunday round-trip route lengths would not differ significantly from the Weekday round-trip route lengths.

Source: SEWRPC.

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Table B-3

OPERATING AND SERVICE CHARACTERISTICS BY ROUTE
UNDER THE INITIAL BELLE URBAN SYSTEM ALTERNATIVES: 2013-201

NORTHERN ROUTES ALTERNATIVE 2 AND SOUTHERN ROUTES ALTERNATIVE

Weekday Service										
			Service Frequency				Buses Required			
Route Number	Round-Trip Route Length (miles)	Service Hours	A.M. Peak Period	Midday Period	P.M. Peak Period	Night Period	A.M. Peak Period	Midday Period	P.M. Peak Period	Night Period
1N	9.0	5:40 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
2N	7.8	5:40 a.m. – 7:10 p.m.	30	30	30	- -	1	0.5	1	- -
3N	4.3	5:40 a.m. – 10:10 p.m.	30	30	30	30	1	0.5	1	0.5
4N	7.3	5:40 a.m. – 10:10 p.m.	30	30	30	30	1	0.5	1	0.5
5N	5.6	5:40 a.m. – 7:10 p.m.	30	30	30	- -	1	0.5	1	- -
1S	15.2	5:40 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
2/5S	11.4	5:40 a.m. – 6:40 p.m.	30	60	30	- -	2	1	2	- -
3S	14.9	5:10 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
4S	12.9	5:10 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
6	15.1	5:40 a.m. – 10:10 p.m.	60	60	60	60	1	1	1	1
7	13.5	5:40 a.m. – 10:10 p.m.	30	60	30	60	2	1	2	1
Other[a]	Varies	Varies	N/A	N/A	N/A	N/A	9	1	9	1
Systemwide	- -	- -	- -	- -	- -	- -	26	10	26	8

Saturday Service[b]			
Route Number	Service Hours	Service Frequency	Buses Required
1N	5:40 a.m. – 6:40 p.m.	60	1
2N	6:10 a.m. – 6:40 p.m.	30	0.5
3N	5:40 a.m. – 6:40 p.m.	30	0.5
4N	5:40 a.m. – 6:40 p.m.	30	0.5
5N	6:10 a.m. – 6:40 p.m.	30	0.5
1S	5:40 a.m. – 6:40 p.m.	60	1
2/5S	5:40 a.m. – 6:40 p.m.	60	1
3S	5:40 a.m. – 6:40 p.m.	60	1
4S	5:40 a.m. – 6:40 p.m.	60	1
6	5:40 a.m. – 6:40 p.m.	60	1
7	5:40 a.m. – 6:40 p.m.	60	1
Systemwide	- -	- -	9

Sunday Service[b]			
Route Number	Service Hours	Service Frequency	Buses Required
1N	9:40 a.m. – 6:40 p.m.	60	1
3N	9:40 a.m. – 6:40 p.m.	30	0.5
4N	9:40 a.m. – 6:40 p.m.	30	0.5
1S	9:40 a.m. – 6:40 p.m.	60	1
3S	9:40 a.m. – 6:40 p.m.	60	1
4S	9:40 a.m. – 6:40 p.m.	60	1
6	9:40 a.m. – 6:40 p.m.	60	1
7	9:40 a.m. – 6:40 p.m.	60	1
Systemwide	- -	- -	7

[a]"Other" refers to Route Nos. 20, 27, and 30. These routes would not be changed under any of the initial alternatives.

[b]The Saturday and Sunday round-trip route lengths would not differ significantly from the Weekday round-trip route lengths.

Source: SEWRPC.

3N, 4N, and 5N in Table B-3, which would have running times of 15 minutes. Route Nos. 20 and 27 would continue to be operated as they do as of September 2012 and Route No. 30 would continue to provide service to and from middle and high schools. The following key points can be made about the proposed frequency and service periods for the routes under the initial alternatives:

- Nearly all of the regular routes would have morning and afternoon peak service frequencies of 30 minutes, with off-peak service frequencies of 60 minutes. The exceptions would be Route Nos. 2N, 3N, 4N, and 5N under Northern Routes Alternative 2 with service frequencies of 30 minutes all day (due to their 15 minute running times between the transit center and the outlying route termini) and Route No. 6 under the Southern Routes Alternative with 60-minute service frequencies all day.

- Under Northern Routes Alternative 1, where all the reconfigured northern and southern routes would be on a 60-minute round-trip schedule, the routes would be combined so that the longest routes serving the southern portion of the City (Route Nos. 1S and 3S) would be paired with the shortest routes serving the northern part of the City (Route Nos. 3/5/1N and 4/5N). The benefit of this pairing would be to provide drivers with sufficient recovery time at least once every hour to maintain a higher level of on-time performance on the longer southern routes.

- Under Northern Routes Alternative 2, the four northern routes that would be on a 30-minute round-trip schedule would be combined so that the longest routes (Route Nos. 2N and 4N) would be paired with the shortest routes (Route Nos. 3N and 5N), allowing one bus to operate each route pair. Route No. 1N and all southern routes would then operate as individual routes providing out-and-back service between the transit center and their respective termini.

- The reduced service hours established in January 2012 would be maintained[1]. On weeknights, the last trips would leave the transit center at 9:10 p.m. On Saturdays and Sundays, the last trips would leave the transit center at 6:10 p.m.

- Under the 2012 transit service schedule, a total of 28 buses are required during weekday peak service. Under each alternative, the number of buses required for weekday peak service would be reduced to 26 due to the combination of Route Nos. 2 and 5 and the elimination of the northern

[1] *Prior to the January 2012 service cuts, the last trips for most of the BUS routes left the transit center at 11:40 p.m. on weeknights. On Saturdays, the last trips left at 10:10 p.m.; on Sundays, at 6:40 p.m.*

portion of Route No. 1. The number of buses required on Saturdays would decrease from 11 to nine, and the number of buses required on Sundays would decrease from nine to seven.

Similar to the preliminary recommended alternative, the initial alternatives suggested that the proposed changes should all be implemented at the same time in order to maintain service to all areas currently served by the routes and maintain the pulse schedule system. The initial alternatives assumed all changes would occur in January, 2013.

Performance Measures and Costs of the Initial Alternatives

Commission staff developed forecasts of ridership, operating costs, operating revenues, and transit assistance needs of the transit system under the initially proposed alternatives, using the assumptions summarized in Figure B-1. Table B-4 shows the systemwide performance measures and costs for the proposed transit system alternatives, with the levels of service and ridership expected to be approximately equivalent regardless of which northern routes alternative is implemented. Under the initial alternatives, the transit system would undergo some significant changes in performance measures and costs:

- The transit system's annual revenue miles (888,000) and revenue hours (67,200) of fixed-route service would be about 15-20 percent lower than the service levels in the 2012 budget (1,039,000 revenue miles and 81,200 revenue hours). Most of the decrease in service levels is due to the reductions in midday service frequency and the combination of Route Nos. 2 and 5.

- Ridership on the system is estimated to decline by about 9 percent, from 1,059,000 in 2012 to 959,000 in 2013. About half of the passengers affected by the proposed service cuts are likely to be able to continue to use the transit system by making their trips at a different time. The transit system is forecast to carry about 1.1 passengers per vehicle-hour and 14 passengers per vehicle-mile of service provided, which is slightly more efficient than the existing transit system. The increase in efficiency is due to the elimination of long layover times on evenings and weekends, the reduction of service during periods that had low ridership, and the combination and elimination of low-ridership routes.

- The total cost of operating the transit system with the proposed service changes is estimated to decrease by about 13 percent in the first year, from $7.14 million in the 2012 budget to $6.20 million in 2013. About $1.43 million, or about 23 percent, would be recovered by passenger fares and other revenues including advertising, leaving about $4.78 million in needed public assistance

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Figure B-1

ASSUMPTIONS USED IN DEVELOPING FORECASTS OF RIDERSHIP, EXPENSES, AND REVENUES FOR THE INITIAL BELLE URBAN SYSTEM ALTERNATIVES: 2013-2017

Commission staff developed forecasts of ridership, expenses, and revenues under the initial transit system alternatives for the years 2013-2017 based on the following assumptions:

- The proposed routing alignments and service changes would be in effect for the entire calendar year 2013. The City of Racine may choose to implement the changes before or after that date, but this assumption makes it easier to compare service levels from year to year.

- For every 1 percent increase in fares, ridership would decrease by 0.43 percent. For every 1 percent decrease in revenue miles of service, ridership would decrease by 0.5 percent. These measures of elasticity of demand for transit service have been established through many studies and are widely accepted in the transit industry. These measures of elasticity of demand for transit service were applied to the ridership on the system during different periods of the day. Most of the proposed service reductions would occur during the midday period, which has lower ridership than the morning and afternoon peak periods.

- The operating cost per revenue vehicle hour of fixed-route service would be expected to increase by about 5 percent during 2013 (due to the system's contraction) followed by increases of 1.5 percent per year over the five-year planning period (due to inflation). On average, the operating expense per vehicle hour on the Belle Urban System increased by 1.5 percent annually between 2007 and 2011. The operating expense per unit of service tends to increase during system contraction because, even though the transit system is providing less service, there are still fixed costs that must be paid, including salaries for the system's dispatching, administrative, and mechanic positions.

- Fares would not be increased above the January 2012 levels.

- The combination of Federal Section 5307 and State Section 85.20 transit operating assistance funds will be available to cover 55.3 percent of the system's operating expenses in 2012. The share of operating expenses covered by State and Federal transit assistance funds will decrease to 55.0 percent in 2013 and remain flat throughout the five-year planning period.

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Table B-4

ESTIMATED OPERATING EXPENSES, REVENUES, AND PUBLIC ASSISTANCE FOR THE INITIAL BELLE URBAN SYSTEM ALTERNATIVES: 2013-2017

Characteristic	2011 Estimate	2012 Budgeted	Forecast[a] 2013	Forecast[a] 2017
Fixed-Route Annual Service				
Revenue Vehicle-Miles	1,120,000	1,039,000	888,000	888,000
Revenue Vehicle Hours	88,000	81,200	67,200	67,200
Systemwide Ridership				
Revenue Passengers	1,217,000	1,059,000	959,000	1,008,000
Passengers per Revenue Vehicle-Mile	1.09	1.02	1.08	1.14
Passengers per Revenue Vehicle-Hour	13.8	13.0	14.3	15.0
Systemwide Operating Costs, Revenues, and Assistance				
Operating Expenses	$7,567,000	$7,141,000	$6,203,000	$6,584,000
Passenger and Other Revenues	1,712,000	1,647,000	1,426,000	1,496,000
Required Public Assistance	5,855,000	5,494,000	4,777,000	5,088,000
Farebox Recovery (percent)	22.6	23.1	23.0	22.7
Sources of Public Assistance				
Federal	$2,445,000	$2,132,000	$1,928,000	$2,046,000
State	2,049,000	1,816,000	1,484,000	1,575,000
Federal/State Share of Operating Expenses (percent)	58.6	55.3	55.0	55.0
Local				
City of Racine	$1,100,000	$1,101,000	$901,000	$971,000
Town of Yorkville	6,000	5,000	7,000	7,000
Village of Caledonia	29,000	29,000	25,000	26,000
Village of Mt. Pleasant	173,000	174,000	153,000	164,000
Village of Sturtevant	53,000	52,000	39,000	41,000
Other[b]	- -	185,000	240,000	258,000
Subtotal Local Assistance	$1,361,000	$1,546,000	$1,365,000	$1,467,000
Total	$5,855,000	$5,494,000	$4,777,000	$5,088,000
Per Passenger Trip Data				
Operating Costs	$6.22	$6.74	$6.47	$6.53
Total Public Assistance	$4.81	$5.19	$4.98	$5.05

[a] *The year 2013 and 2017 forecasts of ridership, revenues, and costs were based on the assumptions presented in Figure B-1.*

[b] *Other sources of local public assistance include the Racine Unified School District and a local radio station. Prior to the year 2012 budget, the amount that the Racine Unified School District paid the transit system for student transportation was counted under "passenger revenues". In the year 2012 budget and later, this contribution is counted under Local Public Assistance. This change will not affect State or Federal funding levels, but will make the transit system's farebox recovery rate appear lower than it actually is.*

Source: City of Racine and SEWRPC.

in 2013. By the end of the five-year planning period in 2017, the increases in operating costs per revenue hour of transit service would increase total operating expenses of the transit system to about $6.58 million. The amount of money recovered from passenger fares and other revenues would increase slightly, leaving about $5.09 million in needed public assistance in 2017.

- Federal and State funds may be expected to provide about 55.0 percent ($3.41 million) of the total operating expenses in 2013. The remaining public assistance needed ($1.52 million, or 22 percent) would be provided by local sources, including the City of Racine, the surrounding municipalities served by transit, and the Racine Unified School District. By the end of the five-year planning period in 2017, Federal and State funds may be expected to provide about $3.62 million of the total operating expenses. Local sources would likely need to increase their contributions to $1.47 million (22 percent of expenses) in order to make up the gap in public assistance needed.

Capital Needs for the Belle Urban System under the Initial Alternatives

The capital needs for the preliminary recommended alternative assumes that the BUS will retain 38 full-sized buses in its fleet. Under the initially proposed alternatives, the BUS would need to maintain an active fleet of between 34 and 36 buses for its fixed-route service. Despite this slight reduction in buses, the necessary capital investments over the next five years under the initial alternatives would be essentially the same as that of the preliminary recommended alternative, including maintainenance of the transit system facilities and establishing a southwest transfer point in the Regency Mall area. The Federal share for capital funding over the five-year period would be approximately 80 percent, or $8.78 million. The City of Racine's projected local share would be $2.20 million.

Options for Service Improvements or Additional Service Reductions or Fare Increases

All of the potential service improvements identified and evaluated for the preliminary recommended alternative in Chapter VI, which could be considered should additional funding become available, would still be applicable under the initially proposed alternatives. These would include adding service on the new Route No. 6, providing service to the Village of Sturtevant, establishing express bus service between the Cities of Racine and Kenosha, and extending Saturday service hours to 9:40 p.m. All of the further service reductions and fare increases identified and evaluated in Chapter VI, should the City determine that it become necessary to further reduce the local funding that it provides to the transit system over the planning period, would also still be applicable. These would include eliminating Route No. 2/5 on Saturdays, eliminating Route No. 1S after 6:30 p.m. on weeknights, eliminating Route No. 1S on

Saturdays and/or Sundays, and increasing cash fares by $0.25 (about 12 percent). The City could also still evaluate after implementation of the proposed alternatives whether to reduce weeknight and/or weekend service on the newly-revised Route No. 6, depending on the performance of that new route. The option to cut back regular routes from operating with 30-minute service frequencies during peak periods to operating with 60-minute service frequencies during all time periods would also still be applicable under the initially proposed alternatives.