

**APRIL 2004**

# **Rapid City Transit Development Plan 2004 – 2008**

**Study Working Paper #2**

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## **6 – TDP GOALS, PERFORMANCE STANDARD, EVALUATION AND RECOMMENDATIONS**

The purpose of this chapter of the Transit Development Plan is to address the identified study needs through development of local goals and performance standards. The goals provide a focus for RTS's mission over the next five years, and the performance standards can be used to gauge RTS's commitment and progress in achieving their mission. Further, an evaluation of the Rapid Transit System current performance relative to stated standards, and specific recommendations to be carried forward into the Implementation Plan (the final chapter of this TDP), are also presented.

Each of the nine needs categories identified during the public input and listening sessions is addressed here, and these proposed system goals and performance are intended to be inclusive of all the reasonably identified needs and issues that were heard during this process.

### **1. Operations and Maintenance**

Goal: Provide Reliable, Safe and Cost-Effective Services to the Public

Performance Standards:

- A. Operating efficiency, as measured by operating expenses per vehicle revenue hour, shall be less than the average of RTS's peer group.
- B. Operating speed (i.e. total miles driven divided by total hours) should be between 10-14 miles per hour.
- C. Schedule adherence, based on on-time, fixed-route performance (i.e. between 0-5 minutes after the schedule time) should be 90 percent for all trips during peak hour and 95 percent for off-peak hours.
- D. Service disruptions, defined as a mechanical breakdowns delaying passengers by five minutes or more, is measured as a system-wide average, with vehicles averaging at least 6,000 miles between road calls. Additionally, the vehicle maintenance schedule should be adhered to.

Evaluation:

Currently, RTS is meeting all performance standards as described above. Operating efficiency, as measured by operating expenses per vehicle revenue hour is well below the average for its peer group (\$36.12 per hour, with a peer average of \$50.09 per hour), and average vehicle speeds on fixed-route service range from 16 to 21 mph. Schedule adherence is also good; however, some late afternoon routes sometimes come close to exceeding time and pulse objectives. Service interruptions due to vehicle breakdowns occur with relative infrequency, averaging one interruption for every 17,600 revenue miles; however both transit staff and riders feel the Bluebird fixed route vehicles have reliability problems.

As discussed earlier, based on citizen input, over 275 trips per day need to be scheduled and as many as 200 calls for paratransit reservations must be responded to daily. The heavy workload and pressures on dispatchers, combined with processing this data manually, can lead to errors, provision of inaccurate information, double bookings, and lost trips. The amount of radio chatter required to inquire about missing passengers or directions to drop-offs or switching trips between drivers is significant. The stress can generate customer service problems. A possible solution to this need, which has been used by many small transit properties, is the purchase and deployment of ITS computer-aided scheduling and dispatching (CAD) software. Five primary components of such a system were identified in the *Rapid City ITS Master Plan*.

1. A customer and reservation database system that confirms eligibility for special services.
2. A scheduling system that generates driver manifests from the reservations for a given day.
3. Communications to send and receive data between the dispatch facility and the individual transit vehicles.
4. Automatic Vehicle Location (AVL) systems to allow dispatchers to efficiently update trip manifests based on a vehicle's current location, allowing real-time scheduling capability.
5. Reporting and planning modules to permit service analysis and financial reporting with a minimum of data re-entry.

Benefits anticipated to accrue with instituting a CAD and AVL components include improved on-time performance, improved level of service, improved schedule adherence, and increases in shared paratransit rides.

An important element of any transit operations and maintenance evaluation is driver practices, workloads, staffing levels, and retention. Overall RTS has 20 drivers and two "floaters" employed on a full-time, part-time, or temporary basis who can operate either fixed-route or paratransit vehicles. Salaries, wages, and fringe benefits constitute 71 percent of the RTS annual budget. Overall, riders consistently agree that RTS offers safe and reliable transportation, and past rider surveys document high satisfaction levels. A great share of the credit for the positive transit service feelings is due to the primary rider/RTS interface – the drivers. Areas for improvement mentioned by customers include: consistency in announcing stops, having the right kind of tickets to sell and sensitivity training. Drivers, based on their comments during the public process, believe there is a need for more Dial-a-Ride drivers, and they feel that they are booked solid with no slack time for catch-up on the paratransit system. Recently, a number of drivers with substantial longevity retired, creating some turnover. Statistics on driver retention are not reported by the FTA, nor is there any known source for national reporting of this information. This is likely due to the fact that employee retention hinges on many

diverse factors, such as wages, working conditions, personal development goals, and health issues. Complicating the ability to make national or even regional generalizations is the fact that wages and working conditions vary system by system, with no national or state standards for wages or working conditions. In discussions with two peer transit systems, average driver tenure ranged from seven to nine years.

#### Recommendations:

1. RTS should maintain its excellent position relative to operations and maintenance standards; currently they are within all stated performance standards.
2. ITS transit applications should be implemented (as described in the recently-completed *Rapid City ITS Master Plan for Integration Strategies*) including dispatch software automating the scheduling process. This would make operations more efficient and service more customer-friendly.
3. Based on final decisions regarding fixed-route restructuring and paratransit service, it is necessary to add one driver to enhance the Dial-a-Ride service and, if system enhancements are approved, one driver to operate the new Rapid City Connector bus service. Also, periodically based on the rider comments, supervisors should convene driver meetings for input and feedback. At such meetings, driver perceptions on route performance, ridership, vehicle needs could be discussed.
4. During snow events, Rapid City needs to treat streets that have bus routes as snow emergency routes in order to clear them as quickly as possible.
5. Drivers should not be allowed to have personal radios on the bus.
6. Drivers should not sell any kind of tickets and should not accept any money or carry any cash. All ticket sales need to occur at the Administration Center.
7. If a Dial-a-Ride bus is needed for “fill-in” service on a fixed-route, signage on the vehicle should indicate clearly to riders this fact, and which route it is serving in order to minimize customer confusion.

## **2. Equipment and Facilities**

Goal: Upgrade Vehicle, Terminal and Ancillary Transit Infrastructure

### Performance Standards:

- A. Vehicles should be replaced in accordance with FTA schedule.
- B. Vehicle loading should not exceed 125 percent of capacity during peak periods.
- C. Shelters should be located at stops with daily boardings of at least 15 passengers or major activity centers and should include a minimum of a 50-square foot area. They should be sited to ADA standards with benches provided and should be maintained on a regular basis.
- D. A terminal maintenance schedule should be developed in order to extend the useful life of the facility.
- E. A bus staging/storage facility should be provided so that the following minimum vehicle conditions can be ensured: route designation signage is correct and visible, body damage is scheduled for immediate repair, vehicle interiors are cleaned daily, and bus washing can be completed indoors.
- F. The Milo Barber Transportation Center should be open during all hours of regularly-scheduled transit service.
- G. The Milo Barber Transportation Center should be a fully-accessible facility.

### Evaluation:

Currently there is no vehicle in regular service in the RTS fleet that is over seven (1996) years old. The Rapid City Transportation Improvement Program (TIP) has programmed vehicle replacement purchases over each of the five funding years. By the end of 2008, the entire RTS fleet currently in regular service will have been replaced. This replacement schedule complies with FTA guidelines. RTS has no issues with passenger loading exceeding vehicle capacity.

It was noted several times during the initial listening sessions held early in the TDP process that the Milo Barber Transportation Center was not open during the entire time the Rapid Ride service was operating, and that this was detrimental to both smooth operations and customer service objectives. Further regarding the terminal's maintenance, it is noted during winter 2004 that roof repairs were required and exterior painting of the facility is necessary. Usually, FTA-funded facilities have a long-term maintenance schedule prepared to maximize the life of the structure. RTS does not have such a plan, although the Transit Manager monitors building needs well. A written maintenance schedule should be established and utilized. This will provide the Transit Manager a budget forecasting tool, as well as help justify future improvements or repairs.

**Shelters:** Based on the performance standard established (shelters located at all stops with over 15 daily boardings/alightings), RTS should have shelters located at the following stops. It is interesting to note that eight of the nine stops currently have some type of passenger shelter in place. Further all RTS bus shelters meet the minimum size standard.

<u>Location</u>	<u>Daily Boardings/Alightings</u>	<u>Currently has shelter?</u>
Wal-Mart	51	Yes
Rushmore Mall	50	Yes <i>(note: Entry way for Mall serves as a shelter for passengers – bench desirable)</i>
Soo San and Range	33	Yes
LaCrosse and Disk	30	Yes <i>(note: shelter is located on LaCrosse Street at the Quality Inn)</i>
4th and New York	28	Yes
Main and St. Joseph	18	Yes
Mt. Rushmore Road and Cathedral Drive	18 <i>(note: served on 3B loop only)</i>	Yes
5th and Texas	16	No
Elm and Fairmont	16	Yes

**Climate-Controlled Storage and Servicing Facility:** RTS currently leases a cold-storage facility to house their vehicles. This facility has no accommodations for routine vehicle upkeep, including vehicle washing, which is currently done in the street. With new water-quality standards soon to be enforced, this activity will no longer be allowed. There is a need for a climate-controlled vehicle storage facility, including a bus washing bay, a secure spare parts and tire storage area, in addition to a small office space. Based on decisions regarding the future disposition of the Milo Barber Transportation Center, future office space for dispatchers and administrative staff may also be needed at this facility.

Two options for a facility are presented below, with one calculation presuming that RTS administrative options continue to be housed at the Milo Barber Transportation Center, and one option presuming that these functions are relocated to the new facility. In both instances, space needs were calculated based on current fleet type (6 full-size buses, and 12 paratransit buses and vans), assuming 25 percent extra capacity, or an overall future fleet size of 23 vehicles. In addition, space was planned for the storage of tires and vehicle parts, as well as a bus-washing bay. Construction

costs were assumed to average \$80 per square foot for vehicle storage space and \$120 per square foot for office and vehicle servicing space (consistent with calculations from a February 2004 study for a *Joint Transit Maintenance and Storage Facility Project* for the Fargo-Moorhead Council of Governments). (NOTE: cost calculations do not include site development or acquisition costs.)

**Maintenance Facility with Limited Administrative Space:** Under this option, it was presumed that a small office and restroom would be provided (320 square feet) with no additional administrative space. Based on very preliminary analysis of space needs and costs, it is suggested that RTS would need a storage facility of approximately 15,000 square feet for this option. Such a facility would cost approximately \$1.3 million.

**Maintenance Facility with Full Administrative Space:** For this option, sufficient space for administrative space was assumed to house all of RTS's administrative and dispatching staff, in addition to drivers. It is suggested that a facility totaling 18,000 square feet would suffice, and would cost approximately \$2 million.

#### Recommendations:

1. RTS should continue their planned program of vehicle replacement, consistent with FTA guidelines. As the Bluebird buses cycle out of the fleet, they should be replaced with some other vehicle, as these have not performed to customer or staff expectations. Future vehicle procurements should consider low-floor, medium-sized buses (up to 30 feet).
2. RTS should construct shelters at stops with daily boardings of at least 15 passengers or major activity centers and design these according to industry-accepted and ADA standards. Consideration should be given to siting these shelters at locations with long-term service viability and not in areas subject to service change.
3. A facility maintenance plan should be completed and adhered to. This plan should identify routine maintenance needs and costs, and a schedule for accomplishing identified activities, all aimed at extending the useful life of the facility.
4. A construction feasibility study should be conducted to determine more exactly the space needs, costs and other considerations for a RTS climate-controlled storage facility. If the project is found feasible, then it is recommended that
5. The Milo Barber Transportation Center should be open during all hours of regularly-scheduled transit service; therefore, it should be open by 6:30 am and remain open until 6:00 pm. If it is not feasible to open the entire terminal during these hours, perhaps the vestibule at the front door could be opened to provide customers some waiting space out of the elements. The Center should also be made fully accessible to accommodate special needs users.

### 3. Routes and Service

Goal: Restore Ridership Levels and Identify Opportunities to Effectively Expand the Ridership Base and Service

#### Performance Standards:

- A. No fixed route should have a directness ratio of more than 1.70 (i.e. no route should be 70 percent longer than the direct path between its termini and its most distant outlying scheduled time point). Further, concerning a single-seat ride standard, no more than 25 percent of all passengers should have to make a transfer to complete their trip.
- B. Service effectiveness should be monitored by measuring passenger trips per vehicle revenue hour, and Rapid Ride should out-perform its peer-group transit properties.
- C. Passenger productivity is measured by examining the number of passenger trips by vehicle revenue miles of service, and Rapid Ride should outperform its peer group on this measure.
- D. Service coverage area should include all major employers of 100 employees or more, and at least 80 percent of all known target areas (i.e. high-density housing, medical and training facilities, shopping centers, low-moderate income areas, etc.) should fall within one-quarter mile of the fixed-route network.
- E. Ancillary private and non-profit urban and rural transit services should be coordinated with major Rapid Ride bus stops and passenger shelters or at the Milo Barber Terminal.
- F. Routes will generally operate only upon public streets, with “front-door” service to potential trip generators only provided on an exception basis.
- G. Routes will operate primarily on arterial and collector streets.
- H. Able-bodied persons within the city limits will be eligible for Dial-a-Ride service if space permits, and if they reside more than  $\frac{3}{4}$  mile or more from a transit route.

#### Evaluation:

Discussion of routes and recommendations for route changes are described in detail in the following chapter of the TDP. A brief discussion of policy issues and performance standards regarding routes and services is provided here.

Currently, neither Rapid Ride nor RTS’s Dial-a-Ride meets performance standards for service effectiveness or passenger productivity; both are below the average of their peer systems in these categories. Also, Routes 2 and 4 do not meet the directness ratio



criterion of 1.7, which means they tend toward a circuitous travel pattern. Further, approximately 28 percent of all Rapid Ride riders currently make transfers to complete their journey, which slightly exceeds the standard. Fixed-route service does operate on arterial and collectors streets, and it currently does deviate for special needs on some routes. “Front door” service to potential trip generators is provided on a special exception basis, but all routes normally operate only on public streets. RTS service policies allow for able-bodied persons to use RTS’s Dial-a-Ride service provided they live more than 3/4 mile from fixed-route service. Finally, no formal provisions have been made with rural transit services to pulse at the terminal or Rapid Ride bus stops.

A major objective for RTS is to reverse the recent decline in fixed route ridership. Some of this decline can be attributed to the substantial road construction underway in the City over the last few years and some can be tied to the discontinuation of school tripper service. However, a significant amount of public and rider input indicated that the current A & B lap system and the 35-minute headway were confusing and adversely affected ridership. The A & B flow innovation was added in 2001 in an effort to better serve riders. The primary objectives of the lap concept were to: 1) increase ridership; 2) reduce rider times; and, 3) improve safety (by serving both sides of the street so riders could avoid crossing busy arterial roadways. However, the restructured route system discussed in the next chapter has abandoned this configuration to return to a simpler, four-route system, as well as instituting 30-minute headways, which will make schedules simpler and easier to understand for riders. Citizen input also requested longer hours of service, more days of service, evening service, expanded geographical coverage and greater route frequency for Rapid Ride. The proposed 30-minute headways also will provide more service (viz., 23 runs per day vs. the current 20).

The major paratransit service issue that arose early in the planning process was the loss of Saturday Dial-a-Ride service due to municipal financial constraints. However, during the planning process, the City Council and RTS have reinstated Saturday service. Other paratransit service enhancements were requested (many similar to those noted for Rapid Ride). The ability of RTS to make any of these service improvements is dependent upon the financial situation of the City over the next few years.

#### Recommendations:

1. RTS should continue to monitor progress toward meeting service effectiveness and passenger productivity, in addition to route-based measures described above. A proposed new route structure is described and depicted in the following chapter of this TDP. It is anticipated that implementation of these new route configurations will positively influence the outcome for these performance standards.
2. RTS’s potential service area should continue to be defined as that area within the city limits. As developing areas of the city are annexed, service expansion to these areas should be considered insofar as such service would continue to allow RTS to meet specified performance standards for operating efficiency and route productivity.

3. The Transit Manager should receive a copy of major site development concepts proposed in Rapid City so he can review them for potential transit service implications and considerations and report this information back to the City Planning Commission prior to subdivision and platting approvals.

#### **4. Elderly and Persons with Disabilities**

Goal: Provide User-friendly, Cost Effective Dial-A-Ride Service

Performance Standards:

- A. Dial-a-Ride operating methods should, at a minimum, encompass the following:
  - Annual sensitivity training for drivers and dispatchers;
  - An understandable eligibility process and rules that define mental and physical (including vision) impairments, certified by a doctor or other professional, an appeals process, and an explanation of alternative options; and,
  - Issuance of ADA paratransit eligibility cards.
- B. ADA compliance must be maintained (i.e. paratransit fares no more than twice fixed-route fares, complimentary service area – within three-quarter mile of all fixed routes, same hours of service, etc.)
- C. Dial-a-Ride scheduling procedures should include:
  - Prior-day advance reservations, but no earlier than seven days ahead of the planned trip.
  - An on-time arrival defined as 15-minutes plus or minus the scheduled pick-up.
  - Registering a no-show if the rider is not present within five minutes of the on-time arrival.
  - Suspending service for a week to an individual who has more than four unexcused or cancelled no-shows within one month.
  - Reservation of trips should be accommodated from 7:00 a.m. to 6:00 p.m., the times of bus service, with the ability to access a TTY phone system via a relay with State communications systems. The current system, using a telephone rollover during times when dispatchers are not on duty or when they are busy on another call should be re-evaluated in light of customer feedback.
  - Counting Dial-a-Ride ridership based on passengers transported, not cancellations.
- D. Fleet levels should be maintained such that ridership averages at least 2.5 riders per revenue hour and trip demands/refusals are less than one percent.
- E. Dial-a-Ride cost per vehicle mile and cost per revenue hour should not exceed the average of Rapid City's peer transit group as assessed annually.

## Evaluation:

Perceptions of insensitivity can create powerful feelings of unease. Of course, perceptions vary widely based on individual circumstances, and what may be viewed as respectful behavior by one person could easily be interpreted as insensitive behavior by another. Sensitivity training may be a means of ensuring that, to the extent possible, RTS drivers and administrators can avoid perceptions of insensitivity as voiced by some customers during listening sessions. RTS does currently comply with ADA standards for accessibility and fares and there is a process in place, using a standardized form, for determining eligibility for RTS's Dial-a-Ride service. Once notified of eligibility, cards documenting this status are issued to riders. According to transit staff, if a citizen is denied eligibility, information is available on how they may appeal this decision. Citizen input indicated that it would be a more positive situation if transit staff had a list of alternative public or private services that could be suggested to persons who did not meet eligibility criteria. Compilation of such a list is recommended. Detailed information on using Dial-a-Ride service is available on the city's Web site and in other printed media describing reservations procedures, policies, and information useful to riders. However, while RTS has made these affirmative efforts, some of the customer's have expressed a lack of knowledge regarding their availability. Greater staff outreach to promote rider's understanding of these special services (i.e. large print route maps, Braille, etc.) will improve customer needs.

Many of RTS's current procedures are in conformance with performance standards described above, however, there are some shortfalls to be addressed dealing with reservations policies, subscription service, and staff availability. Since 1990, RTS has had a "no-show" policy describing penalties for riders who schedule rides and then fail to show up. This may be slightly amended, based on the performance standard, to make the rider penalty cover a reduced period of time (one week versus 30 days). RTS currently counts cancellation as a ride. This is an uncommon practice and it affects the validity of ridership counts. Another procedure that drew comments from riders was the RTS reservation phone system dispatch process. Customers desired expanded hours for the dispatchers to take reservations, as many indicated frustration with the answering service system, which begins after 4:00 pm. Additionally, dispatchers noted extremely heavy workloads and the need for more staff as it is not uncommon for over 200 calls to come in in a day. Dispatch software is available which could streamline service, reduce workloads, and increase efficiency. The Transit Manager is very interested in this improvement and it is strongly supported by the City's recently approved ITS Deployment Plan; however, recent City financial cuts required this time to be deferred in the Transit Capital Budget. This issue is discussed further under Operations and Maintenance.

RTS's Dial-a-Ride system is currently meeting the performance standards described above based on operational characteristics (passengers per revenue hour, and costs). Regarding elderly and handicapped fixed-route issues, transit staff desire better methods to ascertain the eligibility of youth, elderly and handicapped persons for the FTA mandated half-price fares. Research indicates that similar transit systems use a special user card system, which is periodically renewed. The cards are issued from the Transit Administration office and document qualified riders.

## Recommendations:

1. Institute sensitivity training for all RTS drivers and dispatchers, with a goal of having all staff attend such training by the end of 2005. Determine an appropriate timeline for follow-up training.
2. Modify existing Dial-a-Ride scheduling procedures to include the following criteria:
  - Prior-day advance reservations, but no earlier than seven days ahead of the planned trip.
  - An on-time arrival defined as 15-minutes plus or minus the scheduled pick-up.
  - A no-show is registered if the rider is not present within five minutes of the on-time arrival.
  - If the individual has more than four unexcused or cancelled no-shows within one month, they can be suspended from using the service for a week.
  - Reservation of trips should be accommodated from 7:00 a.m. to 6:00 p.m., the times of bus service, with the ability to access a TTY phone system via a relay with State communications systems. The current system, using a telephone rollover during times when dispatchers are not on duty or when they are busy on another call should be re-evaluated in light of customer feedback.
  - Ridership counts for Dial-a-Ride service should include only those passengers transported, not to include cancellations.

## 5. Fares

Goal: Maintain a Fare Structure that is Equitable, per Federal Requirements, and Generates Sufficient Revenue for the System without Significant Effects on Ridership

### Performance Standards:

- A. Farebox recovery, the percentage of operating costs that is received through passenger fares, should be at least 20 percent of operating expenses, and all fixed routes should have a farebox recovery ratio that is equal to at least 75 percent of the system average.
- B. The fare structure should be reviewed no less than every five years to assess the need for changes in policy, fares, discounts, etc.
- C. Special fares should be considered for target market groups, such as youth, downtown-bound travelers, and tourists.

### Evaluation:

RTS is currently meeting the performance standards described above for farebox recovery on both their Dial-a-Ride and fixed-route services. They are outperforming their peer systems, with a 24 percent recovery rate on Rapid Ride, and a 22 percent recovery rate on their Dial-a-Ride service. There is no discount fare coupon book program in place, nor are there special fares aimed at enticing targeted market segments like youth, tourist, rural transit users, or downtown shoppers. RTS does provide a monthly pass discount (\$25 for adults and \$15 for students). Since the inception of fixed-route service in Rapid City (1992), fares have remained stable at \$1.00 per one-way trip. Paratransit fare increases have been phased in during mid-to-late 1990s (from \$1.00 to \$1.25 in June 1995 to \$1.50 in June 1996 to the present \$2.00 in January 1997).

### Recommendations:

1. RTS, in partnership with stakeholder, should examine alternative pricing strategies to reach target market groups, such as youth, downtown-bound travelers, and tourists.
2. Given the current system focus on increasing ridership, no increases in current fixed route or paratransit fares are recommended. It is a well-accepted fact in the transit industry that raising fares translates into decreased ridership. This is not to say that fare increases are never warranted; when increasing services they may even be necessary. RTS's fare structure should continue be reviewed no less than every five years to assess the need for change. A good rule of thumb for future consideration in weighing benefits of fare increases against the costs of the potential for lost ridership is that for every one percent increase in fare there is a corresponding 0.33 percent decrease in ridership, or a one-third elasticity standard.
3. Continue to issue route transfers at no additional cost to users, allowing only one transfer per trip.

## **6. Customer Service**

**Goal:** Foster Greater Understanding, Cooperation and Partnerships among Transit Staff and User Groups and Others to Attain Mutual Objectives

### **Performance Standards:**

- A. A brief, “quick-read”-type, annual transit report should be prepared, put on the system’s web site and presented to the Transit Advisory Board with public and user groups invited, to discuss past performance, emerging issues and system objectives for the upcoming year.
- B. Staff outreach efforts, meant to promote transit objectives should be completed quarterly among diverse interests (i.e. transit-dependent groups, City Public Works/SDDOT, social service agencies, policy leaders, and the business community), and more opportunities for direct user participation in policy development should be encouraged.
- C. Any route and/or service restructuring shall be presented to the community in general, and to current users in particular, prior to implementation.
- D. Annual customer satisfaction surveys should be conducted.
- E. A suggestion box should be located at the Milo Barber Center for users to provide input on an ongoing basis.

### **Evaluation:**

Ensuring good customer service is critical to the mission of every transit agency. Customer service can mean many different things to many different people, making it a difficult standard to measure. Currently, RTS has several products aimed at communicating their services to a variety of different customers. These include schedules and route maps printed in Braille and large-print formats, written Dial-a-Ride eligibility criteria available for the general public, and a link on the city website providing information on Dial-a-Ride and fixed-routes services, including route maps and schedules. However, perceptions exist in the community, and were expressed during the listening sessions held early in the public process indicating there is room for improvement by RTS in the realm of customer service. Customer satisfaction surveys have been conducted with some regularity in the past by RTS, and these, in addition to feedback received during future TDP planning processes should serve as a bellwether for measuring how RTS is meeting performance standards proposed for this service goal. A link to RTS system information is currently provided on the “front page” of the city’s Website and provides a great communications tool. More use could be made of it by RTS, with a broader range of information available online.

Overall, while drivers, supervisors and administrative staff are regularly making efforts to promote customer service, these efforts should be made more visible in terms of responding to rider’s needs, building relationships and new opportunities for enhanced

communication and cooperation, and offering interactive customer participation in matters of system development.

#### Recommendations:

1. In order to keep customers and other stakeholders informed of RTS's operations and service, an easy-to-read, annual transit report should be prepared. This document can be loaded onto the city's Website and presented to the Transit Advisory Board with public and user groups invited, to discuss past performance, emerging issues and system objectives for the upcoming year.
2. RTS should post ADA eligibility criteria online complementing information they currently have available on Dial-a-Ride service. Depending on resources, RTS should investigate the feasibility of allowing people to register for Dial-a-Ride eligibility online. There may also be opportunity to provide customers with opportunities to submit service inquiries and other comments by e-mail via a link on the city Website.
3. Route and/or service restructuring concepts should be presented to the community in general, and to current users in particular, prior to implementation.
4. Annual customer satisfaction surveys should be conducted and the results presented to the Transit Advisory Board, with an annual Action Plan approved, implemented, and monitored to measure RTS's success in responding to rider and citizen input.
5. As part of the annual action plan to promote customer service, transit staff should commit to quarterly outreach meetings with diverse groups to obtain feedback and solicit concepts on system opportunities.
6. Additional special needs representatives should be added to the Transit Advisory Board to make direct user participation in RTS's policy and program development.
7. A suggestion box should be located in a highly visible place in the Milo Barber Transportation Center for customer comments, and a process for documenting input (a bulletin board in the Terminal, the transit Web site, etc.) should be established to demonstrate RTS's commitment to customer satisfaction.



## 7. Marketing

Goal: Promote Rapid Ride's Positive Image and Expand Marketing and Education Programs

Performance Standards:

- A. A marketing campaign program should be prepared annually with monthly events identified and evaluated (successful programs retained/expanded and ineffective ones replaced with new ideas).
- B. Any route restructuring should be preceded by a coordinated set of marketing activities (new bus stop signs, relocated shelters, educational information on changes, temporary fare incentives, local media coverage, new route maps and timetables, etc.).
- C. RTS, consistent with peer city systems, should dedicate three to five percent (3 - 5%) of their total annual operating budget to marketing activities (time and materials).

Evaluation:

As noted during the listening sessions, RTS's marketing budget is currently very low, approximately \$12,000 annually. Adequate marketing of services to potential customers is critical to build ridership base. Marketing efforts should be primarily directed to RTS's existing customer base. Promotional materials can also be developed for new audiences, for example, commuters, students, tourists, and others.

In view of the anticipated route restructuring for Rapid Ride, RTS should initiate a marketing campaign to inform the public of these changes. In preparation for the changes, the following minimum activities should be undertaken:

- Relocate or install bus stop signs, shelters, benches, etc. to reflect the new routes.
- Hand out notices to all residents, schools, and businesses along the revised routes explaining the new scheduling and bus service.
- Prepare notices and display them in all buses as well as the Milo Barber Transportation Center explaining the new fixed-route service.
- Implement a fare promotion program to offer reduced or even free fares for the first several days of the inaugural week of the revised service.
- Work with local media (i.e. newspaper, TV, radio bulletins) to communicate the pending service changes; issue press releases for news stories.
- Update the RTS system maps and timetables to reflect the revised services.

Another promotional aspect that could be enhanced is general transit marketing. RTS should develop a strategy to promote ridership on the system. The strategy should first include a program for insuring the successful implementation of the new route and schedule recommendations. Once the new service is implemented, the next marketing phase should be directed at enhancing the basic communications methods of the RTS by more dynamic and innovative approaches. Some approaches successfully utilized elsewhere in the industry include:

- Direct mail program targeted at groups with the greatest potential for increased transit use. These groups would be offered an incentive to utilize public transit.
- Fare incentive programs to attract residents to either utilize service or to increase their currently use. (i.e. Ride the Bus For Free Days.)
- Rider contests and other promotional programs in order to maintain a high awareness of transit.
- A directed “outreach program” where senior citizen groups, students, mall shoppers and employees at major employment centers are visited by a “RTS Fair” in order to promote transit.

In terms of general marketing needs, the RTS staff could also explore marketing incentives which could be implemented over the next few years. These marketing incentives are geared toward improving the quality of the bus riders’ experience and toward increasing overall system ridership. These marketing initiatives are as follows:

- Every quarter conduct some form of active marketing effort, theme or project.
- Try to get a news media story every quarter, such as human interest stories about customers, drivers, safety records, new vehicles, etc.
- Provide an information display case and a bench in every bus shelter.
- Be certain all bus shelters have the system schedule posted and ride information with a RTS telephone number and Web site address.
- Prepare stickers (which can be updated, as warranted) with the route number and times a bus serves a particular stop to be placed on the back of every bus stop sign.
- Promote the accessibility features of Rapid Ride.
- List construction detours or marketing promotions on the RTS Web site.
- Prepare an outdoor display schedule for important target areas (i.e. Baken Park Shopping Center, Rushmore Mall, schools, City Hall and major employment centers).
- Develop a Rider’s Guide.
- Provide exterior schedule displays at the terminal.
- Update the “How to Ride” presentation as a training tool to be used for on-site workshops (especially geared towards senior citizens).
- Transit staff can “Train the Trainer” to draw upon associated human service or job service personnel to expand the ‘marketeers’.

- Look for opportunities to provide service to community events.
- Work with rural and special service providers to educate potential users when they come to Rapid City and devise a special fare program for these user groups.
- Look for opportunities to provide services to visitors by marketing to hotels and other tourist attractions.

A key component of a successful marketing program is the development of a written action plan with a follow-up review to identify successful programs that should be pursued again. Also to assure sufficient staff time is available to implement the action plan and to supplement transit employees efforts, college students, possibly with business or advertising majors, could be periodically hired. If coordinated with college professors, these services may be secured at low or not cost, as part of an internship.

#### Recommendations:

1. Marketing should be a key component of TDP implementation, with a three-fold objective: 1) to build and maintain awareness in the community of transit services, 2) to expand RTS's customer base, and 3) to communicate service changes and other key information to RTS's existing customers.
2. RTS should prepare annually a marketing campaign plan identifying key messages to communicate to customers, appropriate media for communicating these messages, and potential resources to use to implement their campaign. Part of this effort should involve identifying resources available from other sources to assist RTS in this effort.
3. All marketing materials and other informational materials, including a riders' guide, information on fares, discounts, and ADA eligibility and other information related to system use, should be posted online. Other innovative means of using Web site technology can include a link allowing riders and members of the community to submit comments on service or questions regarding service to RTS staff. These comments and questions can be used in future service planning and marketing activities.
4. RTS should develop a Riders Guide as other similarly-sized systems, including Sioux Falls Transit, have done. This can be in the format of a tri-fold brochure available on-board buses, at the Milo Barber Transportation Center, local area libraries and other venues with likely transit riders. This Riders Guide would be a practical tool for persons who have never ridden transit before, and would also serve as a marketing tool enhancing awareness of RTS' services.

## 8. Funding

Goal: Maintain a Stable Base of Funding and Expand Local Match Resources

Performance Standards:

- A. Sufficient local revenue should be committed to fulfill base operations and capital costs over the five year, TDP planning horizon.
- B. New sources of local and state assistance should be identified and secured to accomplish recommended transit service expansion and capital facility needs, as well as capture anticipated increases in federal assistance.

Evaluation:

Rapid City's 2004-2008 Transportation Improvement Program (TIP) identifies approximately \$6.8 million in total transit expenditures over the 5-year planning horizon, averaging approximately \$1.36M a year. Of this, approximately, \$2.4 M will be local funds with fares covering about 41 percent of these costs. This funding is sufficient to cover forecasted needs based on current levels of transit service provision; however, if service expansions are considered, then additional funds will have to be identified.

Regarding new and future forms of revenue, RTS has benefited from recent increases in federal funding. The new federal transportation reauthorization is expected to be approved by Congress in 2004 and every indication is that transit funding will continue to increase in the next five years. However, to fully utilize these funds, the City will have to provide matching local funds or securing other public/private revenue. A major task for RTS staff over the TDP's five-year planning horizon will be to seek and secure new forms of revenue that are suitable as local match. If sufficient new funding can be realized, a number of the desired transit service enhancements identified during this study can be implemented.

The following opportunities represent a few suggestions for new local funding that could be explored:

- State assistance to RTS has remained stable at approximately \$28,500 per year. In North Dakota, all transit properties, urban and rural, organized and successfully mounted an effort to increase the vehicle license fee by \$0.50. The revenue was dedicated and annually allocated, by an agreed upon formula, to transit systems in the state. This may be a method to increase state assistance, which is important, since state funds are eligible as federal match.
- There may be opportunities for RTS to expand their service base and revenues by seeking full reimbursement from state/federal agencies for transportation Medicaid clients. Sioux Falls Transit provides Medicaid patients rides to clinics, pharmacies, therapists, or other medical-trip destinations. (VA patients may also qualify.) Billing is submitted to the state for reimbursement, which is currently set at \$14.50

per one-way trip and \$11.40 for a shared-ride per one-way trip. In discussions with staff at Sioux Falls Transit, the system of billing was integrated into their regular financial system. Information is entered into an Excel spreadsheet, which is then merged into the claim form submitted to the state. It should be noted that, although staff indicated great ease in using this billing process, it is abetted by their automated dispatching software system. Although recommended as part of the Rapid City ITS Master Planning process, such an automated system is not currently in place at RTS, but is recommended as part of this Plan.

- A somewhat similar approach would be to initiate discussions with various human service agencies that currently provide some form of transit service in-house. RTS could offer public transit service for a set amount, thereby relieving the agencies of their current transit responsibilities and costs. While some of these agencies may use volunteer drivers, they still would achieve savings from eliminating insurance, fuel, capital costs, etc. A share of these savings could then be used to pay for RTS's service contract. The YMCA and Boys and Girls Clubs of America are possible candidates for such a proposal. As an additional benefit, such measures tend to gradually and willingly end service fragmentation, which evolves when too many non-profit agencies and the public transit system all are involved in transit.
- RTS could also seek a small annual allocation of the City's CDBG federal funds, which are uniquely eligible to be used as local match against other forms of federal assistance. CDBG funds are meant to assist low and moderate-income persons and a significant portion of RTS's ridership meets this criteria. Since RTS serves this target population's mobility and travel-to-work needs, it would be reasonable to seek such funding for the services RTS already provides.
- Of course, increased ridership will also increase farebox revenue, which can provide a substantial amount of local matching funds over time. The new route system recommended by this TDP may help generate new fare revenue.
- While Pennington County's budget is no doubt as tight as the City's, it may be possible to obtain a small annual County contribution to the RTS, since City residents also pay County taxes.
- Donations from service clubs, fraternal groups, charitable organizations or family trusts, or opportunities for business tax deductions are also possible, especially for specific transit uses (i.e. vehicles, land, buildings, and equipment). The Milo Barber Transportation Center is, in fact, just such an example.
- Corporate advertising can also generate revenue. For example, in Fargo, the regional creamery advertises its milk products by paying the City to paint some of its transit coaches to resemble milk cartons traveling on wheels.

With the leveraging power of local funds, it does not take great amounts to have an impact. For example, transit capital costs are typically split 80 percent federal and 20 percent local. So that \$15,000 of new local revenue leverages \$60,000 of federal funds, for a total amount of \$75,000. The actions of RTS staff to find new and innovative local and state funding sources will be very important to the future growth of the system.

**Recommendations:**

1. The City Council should, at the least, continue its current level of local funding to maintain and operate the RTS at present levels.
2. New local funding opportunities should be explored by RTS. With the potential for a significant increase in federal resources through TEA-LU (the six-year federal transportation funding package), new state and local opportunities to leverage these federal funds should be identified.
3. Opportunities to partner with stakeholders and receive funding for service offered should be explored. Potential partners include technical and professional colleges, major employers, and service organizations such as the YMCA and Boys and Girls Clubs of America.

## **9. State and Federal Mandates**

Need: Complex and Changing Grantor Requirements

Goal: Compliance with all Applicable Rules and Policies

### Performance Standards:

- A. FTA triennial reviews should be satisfactory and any deficiencies should be resolved within six months.
- B. All federal and state reporting requirements should be submitted in a timely fashion.

### Evaluation:

RTS's last FTA triennial review was completed in 2001, and a new review process has begun. In the past, RTS's reviews have been satisfactory and all minor deficiencies have been quickly resolved. As noted in Chapter 4, anticipated new federal requirements that will affect RTS pertain to added security and safety provisions, and encouragement of ITS deployment by transit systems. Further, all federal and state reporting requirements required by RTS are being submitted in a timely fashion.

### Recommendations:

- 1. RTS should continue to strive for satisfactory triennial reviews and, concluding the next review process, resolve any identified deficiencies within six months of the report publication.
- 2. RTS should continue their history of timely and accurate federal and state reporting.

## **7 – Service Plan**

This section describes changes to RTS services, including fixed-route (Rapid Ride) and Dial-a-Ride. Changes to the existing route structure are summarized, in addition to opportunities for service expansion.

### **RECOMMENDED RAPID RIDE SERVICES**

Recommendations for changes in RTS routes and services resulted from input gathered at public listening sessions, as well as analysis of current system performance. A number of alternative route options were evaluated for potential implementation. Fixed-route recommendations are discussed separately from Dial-a-Ride recommendations.

#### **1. Revise Route Structure to Eliminate the A/B Configuration**

The four-route configuration currently in place is a pulse-based system incorporating alternating loops in an attempt to provide broad access to Rapid Ride's fixed-route services. As a result, each route is given an "A" and a "B" designation which relates to clockwise or counterclockwise travel; service along the route alternates between the "A" and "B" loops throughout the day.







The A and B routes were designed to provide access to as much of the community as possible, while maintaining a 35-minute scheduling frequency. As a result, they incorporate broad loops that are more area-based as opposed to corridor-based. This type of route configuration works well if a rider is being dropped off along the early stages of the route after leaving the pulse point (the Milo Barber Transportation Center), but for riders that will be dropped off beyond the halfway mark, additional time will be incurred as the route proceeds along the loop. In theory, such users would be better served by waiting for the next loop bus traveling in the opposite direction; however, the additional wait time (at least another 35-minutes until the next bus) most likely exceeds the added ride time. As a result, route directness suffered under the "A/B" configuration, with riders essentially being asked to incur either extra ride time to get to their destination or accept extra wait time for a bus going more directly to their destination. In either case, this configuration has presented challenges for potential users.

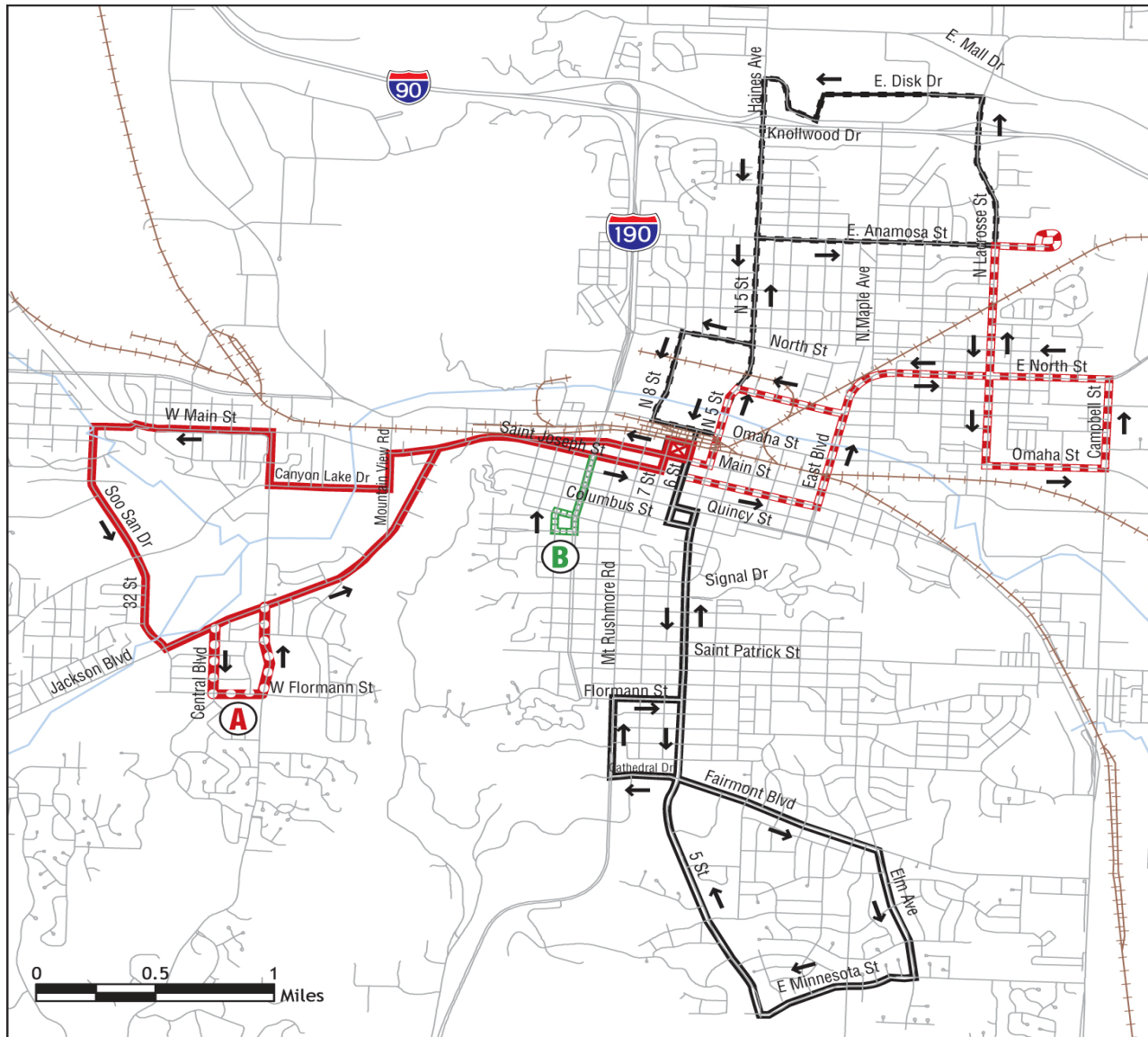
**Recommendation:** The recommendation is to continue to provide four fixed routes within the community, but to reconfigure them to be somewhat more corridor-based. This will improve the directness of the routes, providing faster travel times to the most popular destinations. All four routes should continue to be pulsed (arrive and depart at the same time) at the Milo Barber Transportation Center. Figure 7-1 shows the recommended configuration of these four routes.



**FIGURE 7-1  
PROPOSED RTS  
SYSTEM MAP**

**Rapid City  
Transit  
Development  
Plan**

-  **Route 1**
  -  **Route 2**
  -  **Route 3**
  -  **Route 4**
  -  **Loop A**
  -  **Loop B**
- (Alternate between Loop A and Loop B each hour)



0 0.5 1 Miles

## 2. Revise the Service Frequency to 30 minutes

The current route configuration uses a 35-minute peak frequency so that an A or B loop leaves the Milo Barber Transportation Center every 35 minutes. This frequency was established in order to extend the routes as far as possible to serve the greatest geographic area within a reasonable operating speed. Although this did meet the objective of expanding service area, an unintended result was a schedule that is difficult for riders to recall (viz., at 35-minute frequencies, there is no even timepoint, such as every half hour, for riders to recall). When coupled with the A and B loop configuration, which results in buses stopping on alternating sides of the street as they complete their loops, remembering which side of the street to be on to catch the bus and when the bus will arrive can be quite challenging.

**Recommendation:** The recommendation is to reconfigure the four routes so that the system can operate with 30-minute service frequencies. In so doing, several benefits will result. Assuming the service day remains as it is presently, 6:30 a.m. to 6:00 p.m., a total of 23 round trips will be provided for each bus route compared to the current system which produces 20 total loop trips per route per day. In order to provide 30-minute service frequencies, RTS will have to decrease route lengths slightly, resulting in a slightly reduced geographic area served; however, the resulting benefits of increased service and a more customer-friendly system schedule far outweigh any associated drawbacks.

## 3. Maintain the Time Period of Fixed-Route Service Operation

RTS fixed-route service currently operates between 6:30 a.m. and 6:00 p.m., Monday through Friday. There was some input received during the evaluation process suggesting an extension of service hours later into the evening and even on weekends was warranted. However, given the current pattern of system use, it is likely that any extension of service hours would be very lightly used. As such, it is uncertain that this service could meet suggested performance standards.

**Recommendation:** RTS should maintain their current hours of service between 6:30 a.m. and 6:00 p.m., Monday through Friday. If the community continues to hear that later evening or weekend general public transportation is needed, it is recommended that an evaluation of other service options be explored. Such options might include expansion of the Dial-a-Ride system service hours for the general Rapid City population or a user-side subsidy using alternative providers such as taxis with reimbursement set on a per trip basis by the City. These techniques allow for providing service commensurate with actual demand while more directly controlling costs.

#### 4. Operate Fixed-Route Services in the Most Trip-Productive Portions of the Community

Fixed-route service tends to perform better in areas of high population density or in areas where transit dependent populations are located. The current fixed-route system covers a significant portion of the community in an effort to provide travel opportunities to all. However, the need to extend service to more and more travel generators has led to a circuitous route design and undesirable service frequencies.

**Recommendation:** It is recommended that RTS fixed-route services be concentrated in those portions of the community with the highest population density and the greatest concentrations of transit dependents. As opportunities arise, expansion of the fixed-route system should be considered, but any new routes initiated should reach the performance levels of the core routes within a year of implementation.

If general public transit services are desired in growth areas, or where new travel generators are developed, the community should evaluate options to best serve these areas. Fixed-route services should be considered only if desired population density or target markets are identified, and established route/operational performance standards are met. If these conditions are not met, other service options, such as Dial-a-Ride or a user-side subsidy, should be considered.

#### 5. Operate Fixed Routes in a Direct Manner

The current route design results from a desire to serve as much of the community as possible while conserving as many resources as possible, in this instance vehicles. As a result, long loops evolved covering lots of territory with one vehicle but leading to very indirect travel for most riders. Transit service that is highly regarded in other communities tends to be much more direct in its design – using corridor-based routes as opposed to broad loops. Loops are often inevitable in service design in order to ensure good community coverage, but the goal should be to use them sparingly to provide high levels of directness for riders.

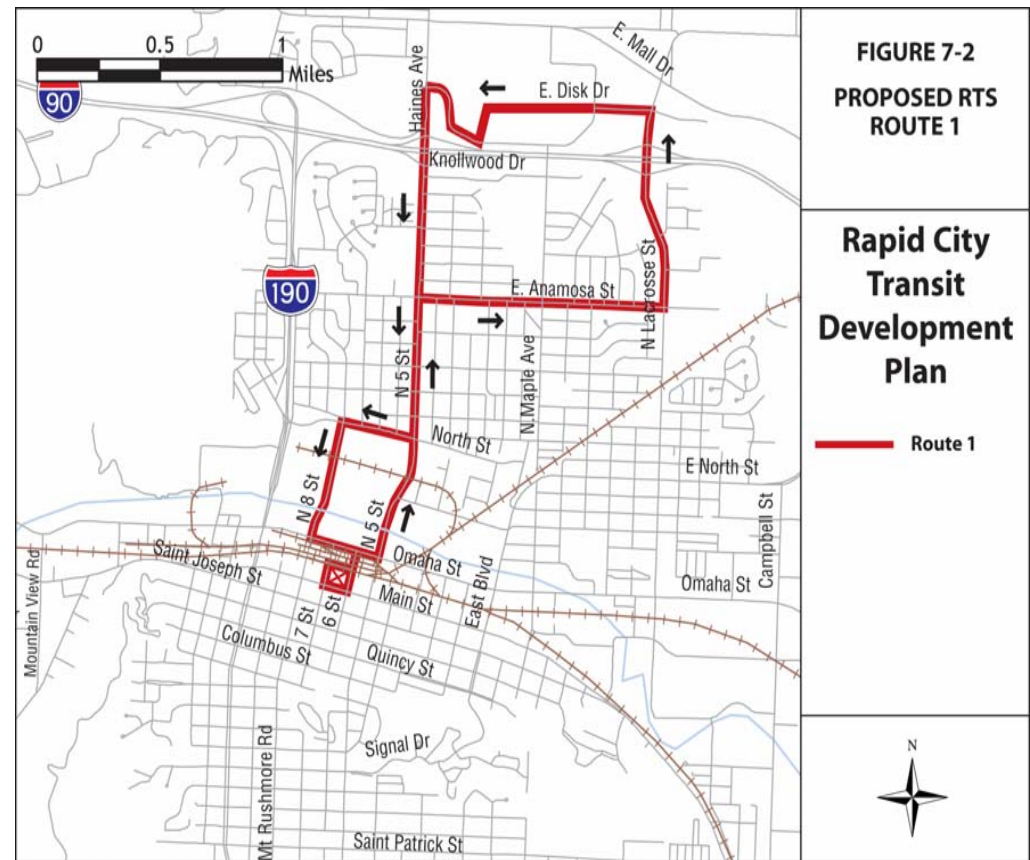
**Recommendation:** It is recommended that future route design strongly consider the principles of directness. As a result, the fixed-route system can not be expected to provide “front door” service to all travel generators in the community. Deviations off the main route, although often viewed as desirable by some target markets, usually end up causing more delay for other riders than the time savings they generate for the special market group.

## 6. Route Revisions

Recommended RTS fixed-route revisions are summarized, by route, as follows. Routes are depicted in Figures 7-2 through 7-5.

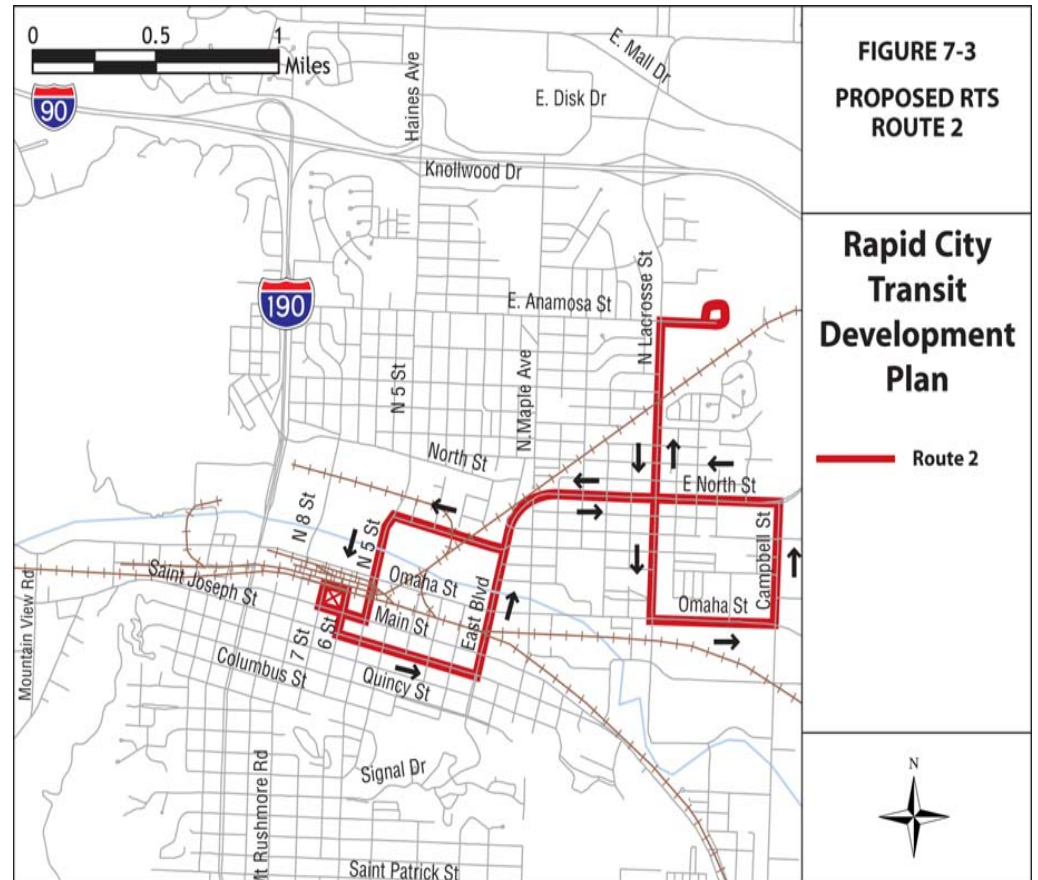
### Route #1

- **Service Area:** Northern Rapid City
- **Anchors:** The Milo Barber Transportation Center and the Rushmore Shopping Mall
- **Primary Corridor:** 5th Street and Haines Avenue
- **Route Length:** 6.4 miles
- **Estimated Running Time:**
- **Service Frequency:** 30-minutes beginning and ending at the Milo Barber Transportation Center
- **Number of Vehicles Required:** 1
- **Hours of Operation:** 6:30 a.m. to 6:00 p.m. Monday through Friday
- **Route Timepoints:**
  - 5 minutes: Anamosa Street and Maple Avenue
  - 10 minutes: Rushmore Shopping Mall
  - 15 minutes: Anamosa Street and Haines Avenue
- **Route-Accessible Points of Interest:**
  - Minneuzahan Senior Center
  - North Middle School
  - Knollwood Elementary
  - Wal-Mart
  - Rushmore Shopping Mall
  - Central High School
  - Rushmore Plaza Civic Center



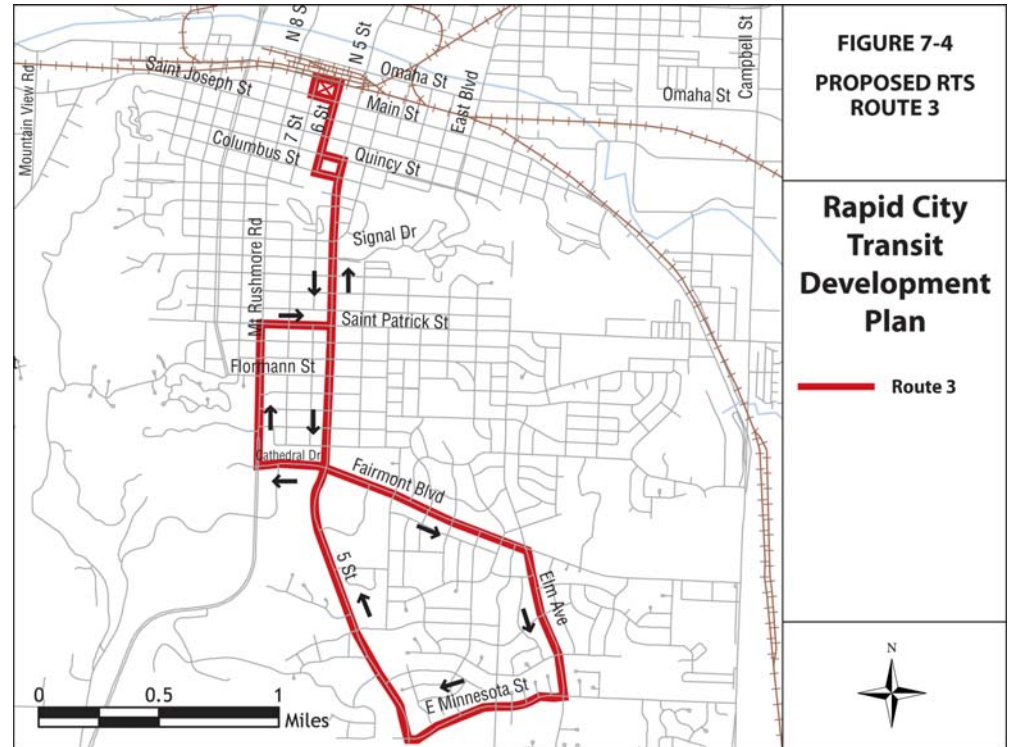
## Route #2

- **Service Area:** Eastern Rapid City
- **Anchors:** Milo Barber Center and Wal-Mart
- **Primary Corridors:** North Street and LaCrosse Street
- **Route Length:** 7.3 miles
- **Estimated Running Time:**
- **Service Frequency:** 30-minutes beginning and ending at the Milo Barber Transportation Center
- **Number of Vehicles Required:** 1
- **Hours of Operation:** 6:30 a.m. to 6:00 p.m. Monday through Friday
- **Route Timepoints:**
  - 5 minutes: East Boulevard and Omaha Street
  - 10 minutes: Omaha Street and Campbell Street
  - 15 minutes: Wal-Mart
  - 20 minutes: East Boulevard and New York Street
- **Route-Accessible Points of Interest:**
  - Pennington County Courthouse
  - U.S. Post Office
  - Department of Social Services
  - K-Mart
  - Wal-Mart
  - Community Health Center
  - Roosevelt Park
  - SD Job Service
  - Journey Museum / Boys Club / River Ridge High Rise
  - *NOTE:* The new swimming pool will be served by this route through route deviation (call in advance or inform the driver upon boarding).



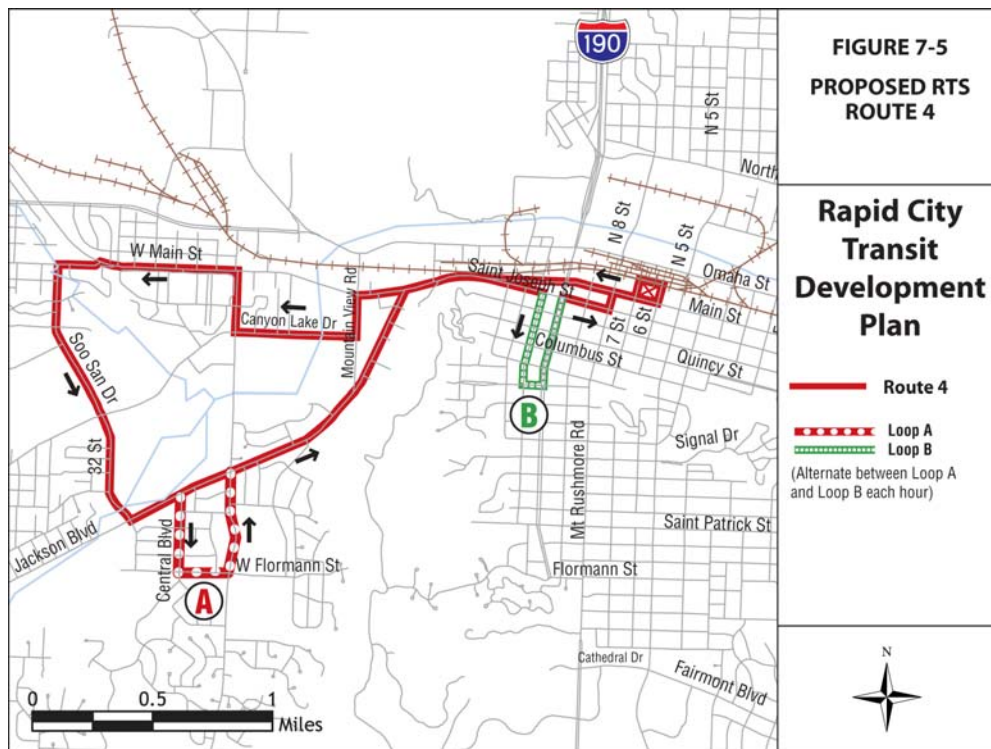
### Route #3

- **Service Area:** Southern Rapid City
- **Anchors:** Milo Barber Transportation Center and Rapid City Regional Hospital
- **Primary Corridor:** 5th Street
- **Route Length:** 7.4 miles
- **Estimated Running Time:** 23 minutes
- **Service Frequency:** 30-minutes beginning and ending at the Milo Barber Transportation Center
- **Number of Vehicles Required:** 1
- **Hours of Operation:** 6:30 a.m. to 6:00 p.m. Monday through Friday
- **Route Timepoints:**
  - 5 minutes: 5th Street and Cathedral Drive (Regional Hospital)
  - 10 minutes: Minnesota Street and Parkview Drive
  - 15 minutes: Safeway
- **Route-Accessible Points of Interest:**
  - South Park Elementary
  - Valley View High Rise
  - Rapid City Regional Hospital
  - West Hills Village
  - Parkview Swimming Pool
  - Safeway
  - Rapid City Public Library



## Route #4

- **Service Area:** Western Rapid City
- **Anchors:** Milo Barber Transportation Center and Soo San Hospital
- **Primary Corridor:** Main Street
- **Route Length:** 7.1 miles (Loop A), 7.6 miles (Loop B)
- **Estimated Running Time:** 23 minutes (Loop A), 24 minutes (Loop B)
- **Loop Configuration:** This route will have two alternate loops that will be served by alternating trips throughout the day. Loop A will provide service to the residential area between Jackson Boulevard and Sheridan Lake Road. Loop B will provide service to the West Park Apartments.
- **Service Frequency:** 30-minutes beginning and ending at the Milo Barber Transportation Center
- **Number of Vehicles Required:** 1
- **Hours of Operation:** 6:30 a.m. to 6:00 p.m. Monday through Friday
- **Route Timepoints:**
  - 5 minutes: Canyon Lake Drive and Mountain View Road
  - 10 minutes: Soo San Hospital
  - 15 minutes: Jackson Boulevard and Mountain View Road
- **Route-Accessible Points of Interest:**
  - West Safeway
  - Pennington County Housing / Jackson Heights High Rise
  - Regional Hospital West
  - Canyon Lake Elementary
  - Soo San Hospital
  - West Middle School



- Black Hills Workshop
- West Family Thrift Center
- Camp Rapid
- Baken Park
- West Park Apartments (alternating trips)

## RECOMMENDATIONS FOR DIAL-A-RIDE SERVICE

The Rapid City Dial-a-Ride provides very economical service to the community. If anything, the service is too successful as user demand on weekdays readily fills available service hours. Demand levels on Saturday are quite a bit lower, but this may be related to the more limited amount of Saturday service currently available. However, drivers do report very little slack time within daily schedules and that trip reservations are arranged very tightly. As a result, Dial-a-Ride service is probably operating at its maximum level, given the fleet resources currently committed and the limits of the manual (one-person) trip reservation, scheduling, and dispatching system.

**Recommendation:** In order to provide opportunities to expand Dial-a-Ride service, it is recommended that one additional vehicle be added to the fleet and made available during peak times, Monday through Friday. Also, to accommodate the expected increase in trip reservations, and to better handle existing reservations and dispatching needs, it is recommended that RTS procure a computerized scheduling and dispatching system.

## SYSTEM IMPACTS OF ROUTE RECOMMENDATIONS

### System Miles

Annual service miles will increase slightly with implementation of the four, core-system Rapid Ride routes. With implementation of the Rapid City Connector, annual service miles will increase by approximately 19 percent, to 186,875.

**TABLE 7-1**  
**Change in RTS Annual System Miles**

	<b>Existing</b>	<b>Future</b>
Route 1	34,500	36,800
Route 2	38,500	41,975
Route 3	42,500	42,550
Route 4	44,500	40,825
<b>Sub-Total</b>	<b>160,000</b>	<b>162,150</b>
Rapid City Connector (Route #5)	0	28,250
<b>Total</b>	<b>160,000</b>	<b>190,400</b>

### Operating Costs

Annual system operating costs would rise slightly with implementation of route restructuring on the four, core-system routes in addition to adding one vehicle to enhance ADA-oriented Dial-a-Ride service. Existing system costs will increase approximately 16 percent with initiation of the Rapid City Connector (Route #5) service, to an annual system total of \$1,185,004.



**TABLE 7-2**  
**Change in RTS Annual Operating Costs (Rapid Ride and Dial-a-Ride)**

	<b>Existing (2003)</b>	<b>Future (2005)</b>
Rapid Ride	\$475,277	\$499,325
Dial-a-Ride	\$514,883	\$613,439
<b>Sub-Total</b>	<b>\$990,160</b>	<b>\$1,112,764</b>
Rapid City Connector (Route #5)	\$0	\$72,240
<b>Total</b>	<b>\$990,160</b>	<b>\$1,185,004</b>

## ROUTE DIRECTNESS

Transit route directness is one of the recommended performance standards prescribed for the RTS transit route system (see Chapter 6, Section 3). The recommended standard is that no fixed route should have a directness ratio of more than 1.70 (i.e. no route should be 70 percent longer than the direct path between its termini and its most distant outlying scheduled time point). It should be noted that the restructured Route #2 and the south loop of Route #5 (the Rapid City Connector) exceed this standard at 2.0 and 1.8 respectively. However, these routes, especially Route #2, were especially configured to reach identified major activity generators and community facilities and their configuration, although circuitous, was deemed necessary for this reason.

## ENHANCING AREA COVERAGE AND SERVICE TO SPECIAL AREAS

The revision of RTS's Rapid Ride fixed-route system is intended to provide a solid base of corridor-oriented operations from which to grow as opportunities permit. However, by repositioning the routes, some destinations within the community are not easily served. As a result, an option for enhancing geographic coverage and increasing service to high-density population areas is presented below:

### Rapid City Connector (Route #5)

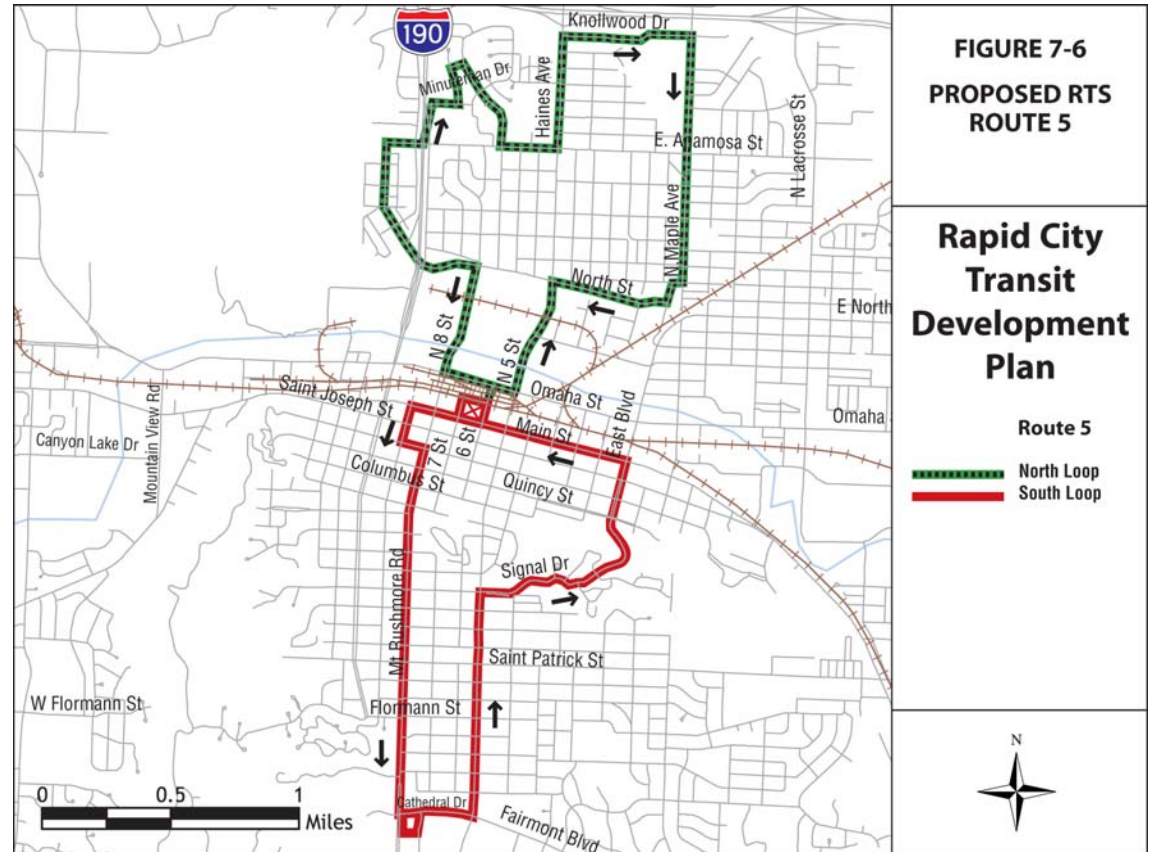
An additional route, called the Rapid City Connector or Route #5, is proposed to provide enhanced service to areas north and south of the downtown in the highest density portions of the community (see Figure 7-6). This route would have distinct north and south loops connected at the Milo Barber Transportation Center. One bus would operate to provide service at 60-minute service frequencies, with service alternating between the north and south loops throughout the day. (The North Loop is 5.6 miles long and the South Loop is 5.7 miles long.) The intent of this route would be to serve more community destinations. It is recommended that this service be provided for a time period somewhat abbreviated than that now provided by Rapid Ride service. Rapid City Connector service would operate from 8:00 a.m. to 4:00 p.m. Monday through Friday. Since service frequency and hours would differ from core Rapid Ride service, it is recommended that a unique vehicle be used to distinguish this service from other Rapid Ride services. One option to consider is using a smaller capacity, trolley replica vehicle. This type of vehicle is used extensively in other communities to signify a type of special service and could be available to provide service for other community events as opportunities arise.

Key points of interest accessible from Route 5, South Loop, include:

- YMCA
- Federal Building
- West Park Apartments
- Safeway
- Medical Center
- Rapid City Regional Hospital
- Valley View High Rise
- Star Village
- U.S. Post Office
- Pennington County Courthouse

Key points of interest accessible from Route 5, North Loop, include:

- Minneuzahan Senior Center
- Girl's Club
- Horace Mann Elementary
- Lakota College
- North Middle School
- General Beadle Elementary
- SD Job Service
- Central High School
- Rushmore Plaza Civic Center



## **8 – Implementation Plan**

This chapter translates the recommendations resulting from analysis of transit needs in Rapid City, as well as analysis of RTS's current operating characteristics, into an implementation plan, including costs by funding year. The goal is to provide a working document laying out all policy and financial implications resulting from this TDP's recommendations. Included here are capital projects, such as replacing outmoded vehicles and upgrading facilities, and funding strategies to implement them. Finally, this implementation plan describes the time period in which implementation of recommendations is anticipated to occur, whether in the short- or mid-term, as described in the context of the five-year planning cycle of this TDP.

### **VEHICLE NEEDS**

During the course of Rapid City's current (2004-2008) transportation improvement program, the entire fleet of RTS vehicles (six fixed-route and 10 paratransit vehicles) will be replaced. One additional vehicle will need to be purchased in order to implement recommendations in this TDP, namely an expansion of Dial-a-Ride service to meet growing ADA, paratransit needs.

### **BUS STOP AND PASSENGER SHELTER IMPROVEMENTS**

Of the high-use transit stops currently noted in the RTS system, only one (5th and Texas) is not already provided with a passenger shelter meeting ADA criteria. It is estimated that a total of 14 passenger shelters will need to be relocated due to the recommended changes to Rapid Ride route structure. One of these relocated structures can be installed at 5th and Texas. When relocating the remainder of the passenger shelters, it is recommended that RTS do a boarding and alighting count; at least six months after route changes have taken place, to determine high-use transit stops and install the relocated passenger shelters at these locations.

### **SYSTEM AND FACILITY ENHANCEMENTS**

Construction of a storage facility to shelter RTS vehicles from the often harsh South Dakota weather has been a need noted since the 1991 Rapid City TDP. It is recommended that such a facility be constructed over the course of the five-year planning period, and that it include room for RTS's administrative and dispatching staff, in addition to a driver locker room and other administrative space. Enough indoor storage space should be provided to house a fleet including 23 vehicles (8 fixed-route buses and 15 paratransit vehicles). The preliminary cost estimate for such a facility is \$2 million, although it should be noted that this does not account for any site acquisition or development work. This project is listed as a mid-term (2006-2007) TDP recommendation. A short-term (2004-2005) recommendation is for RTS to engage a consultant to complete a feasibility study analyzing cost, site, and other issues related to this project in greater detail.

Another major recommended capital investment is the purchase of computer-aided scheduling and dispatching system. The current, 2004-2008 Rapid City Transportation Improvement Plan (TIP) includes \$50,000 in funding year 2004 to purchase dispatching software. It must be noted that this initial purchase of software is not sufficient to make a CAD system operational. In addition to this purchase, RTS will need to obtain hardware, including servers and in-vehicle hardware.

There are two options for RTS to explore in purchasing a CAD system, as described below.

- Straight procurement, in which RTS purchases a system, installed and hosted on-site, would cost \$80,000 in year one for system design, procurement and installation. Ongoing annual maintenance costs would total approximately \$15,000.
- A hosted application for a CAD system may be possible for RTS. In this instance, server hardware and software would be located off-site and RTS would pay a monthly fee to the host client for access. Under this scenario, RTS would pay \$34,000 for system design, installation and purchase of workstations, and approximately \$1,200 for server access. Ongoing annual maintenance, including a fee for server access, would total approximately \$15,600.

It is recommended that a full CAD system be implemented in the short term (2004-2005). At this time, not enough is known about the two system options (straight procurement vs. a hosted application), to recommend one option or another. According to preliminary information received from vendors and summarized above, it would appear that there are some cost-savings associated with the hosted application option. However, more information needs to be gathered concerning the vendor responsiveness of this option, specifically in turnaround times, or mapping to understand whether there are any dis-benefits associated with the cost savings. It is recommended that sufficient additional analysis be undertaken to determine which approach is the best for RTS and Rapid City.

## SHORT-TERM (2004-2005) POLICY RECOMMENDATIONS

Policy recommendations, recommended for implementation in the short-term, but for which no fiscal impacts are anticipated, are summarized below.

1. RTS should maintain its excellent position relative to operations and maintenance standards; currently they are within all stated performance standards.
2. Based on final decisions regarding fixed-route restructuring and paratransit service, it is necessary to add one driver to the current Dial-a-Ride service and, if system enhancements are approved, one driver to operate the new Rapid City Connector bus service. Also, periodically based on the rider comments, supervisors should convene driver meetings for input and feedback. At such meetings, driver perceptions on route performance, ridership, vehicle needs could be discussed.

3. During snow events, Rapid City needs to treat streets that have bus routes as snow emergency routes in order to clear them as quickly as possible.
4. Drivers should not be allowed to have personal radios on the bus.
5. Drivers should not sell any kind of tickets and should not accept any money or carry any cash. All ticket sales need to occur at the Administration Center.
6. If a Dial-a-Ride bus is needed for “fill-in” service on a fixed-route, signage on the vehicle should indicate clearly to riders this fact, and which route it is serving in order to minimize customer confusion.
7. A construction feasibility study should be conducted to determine more exactly the space needs, costs, and other considerations for an RTS climate-controlled storage facility.
8. RTS should construct shelters at stops with daily boardings of at least 15 passengers or major activity centers and design these according to industry-accepted and ADA standards. Consideration should be given to siting these shelters at locations with a long-term service viability and not in areas subject to service change.
9. A facility maintenance plan should be completed and adhered to for the Milo Barber Transportation Center. This plan should identify routine maintenance needs and costs, and a schedule for accomplishing identified activities, all aimed at extending the useful life of the facility.
10. The Milo Barber Transportation Center should be open during all hours of regularly-scheduled transit service; therefore, it should be open by 6:30 am and remain open until 6:00 pm. If it is not feasible to open the entire terminal during these hours, perhaps the vestibule area at the front door could be opened to provide customers some waiting space that is out of the elements. The Center should also be made fully accessible to accommodate special needs users.
11. RTS should continue to monitor progress toward meeting service effectiveness and passenger productivity.
12. RTS’s potential service area should continue to be defined as that area within the city limits. As developing areas of the city are annexed, service expansion to these areas should be considered insofar as such service would continue to allow RTS to meet specified performance standards for operating efficiency and route productivity.
13. The Transit Manager should receive a copy of major site development concepts proposed in Rapid City so he can review them for potential transit service implications and considerations and report this information back to the City Planning Commission prior to subdivision and platting approvals.

14. Sensitivity training for all RTS drivers and dispatchers should be instituted, with a goal of having all staff attend such training by the end of 2005. Determine an appropriate timeline for follow-up training.
15. Dial-a-Ride scheduling procedures should be modified to include the following criteria:
  - Prior-day advance reservations, but no earlier than seven days ahead of the planned trip.
  - An “on-time” arrival defined as 15-minutes plus or minus the scheduled pick-up.
  - A “no-show” is registered if the rider is not present within five minutes of the on-time arrival.
  - If the individual has more than four unexcused or cancelled “no-shows” within one month, they can be suspended from using the service for a week.
  - Reservation of trips should be accommodated during times of bus service, with the ability to access a TTY phone system via a relay with State communications systems. The current system, using a telephone rollover during times when dispatchers are not on duty or when they are busy on another call should be re-evaluated in light of customer feedback.
  - Ridership counts for Dial-a-Ride service should include only those passengers transported, not cancellations.
16. RTS, in partnership with stakeholder, should examine alternative pricing strategies to reach target market groups, such as youth, downtown-bound travelers, and tourists.
17. Given the current system focus on increasing ridership, no increases in current fixed route or paratransit fares are recommended.
18. Route transfers should continue to be issued at no additional cost to users, allowing only one transfer per trip.
19. In order to keep customers and other stakeholders informed of RTS’s operations and service, an easy-to-read, annual transit report should be prepared. This document can be loaded onto the city’s Website and presented to the Transit Advisory Board with public and user groups invited, to discuss past performance, emerging issues and system objectives for the upcoming year.
20. Route and/or service restructuring concepts should be presented to the community in general, and to current users in particular, prior to implementation.

21. Annual customer satisfaction surveys should be conducted and the results presented to the Transit Advisory Board, with an annual Action Plan approved, implemented, and monitored to measure RTS's success in responding to rider and citizen input.
22. As part of the annual action plan to promote customer service, transit staff should commit to quarterly outreach meetings with diverse groups to obtain feedback and solicit concepts on system opportunities.
23. Additional special needs representatives should be added to the Transit Advisory Board to make direct user participation in RTS's policy and program development.
24. A suggestion box should be located in a highly visible place in the Milo Barber Transportation Center for customer comments, and a process for documenting input (a bulletin board in the Terminal, the transit Web site, etc.) should be established to demonstrate RTS's commitment to customer satisfaction.
25. Marketing should be a key component of TDP implementation, with a three-fold objective: 1) to build and maintain awareness in the community of transit services, 2) to expand RTS's customer base, and 3) to communicate service changes and other key information to RTS's existing customers.
26. RTS should prepare annually a marketing campaign plan identifying key messages to communicate to customers, appropriate media for communicating these messages, and potential resources to use to implement their campaign. Part of this effort should involve identifying resources available from other sources to assist RTS in this effort.
27. RTS should develop a Rider's Guide as other similarly sized systems, such as Sioux Falls Transit, have done. This can be in the format of tri-fold brochure available onboard buses, at the Milo Barber Transportation Center, local area libraries, and other venues with likely transit riders. This Rider's Guide would be a practical tool for persons who have never ridden transit buses before, and would also serve as a marketing tool enhancing awareness of RTS's services.
28. The City Council should, at the least, continue its current level of local funding to maintain and operate the RTS at present levels.
29. New local funding opportunities should be explored by RTS. With the potential for a significant increase in federal resources through TEA-LU (the six-year federal transportation funding package), new state and local opportunities to leverage these federal funds should be identified.
30. Opportunities to partner with stakeholders and receive funding for service offered should be explored. Potential partners include technical and professional colleges, major employers, and service organizations such as the YMCA and Boys and Girls Clubs of America.

31. RTS should continue to strive for satisfactory triennial reviews and, concluding the next review process, resolve any identified deficiencies within six months of the report publication.
32. RTS should continue their history of timely and accurate federal and state reporting.

#### MID-TERM (2006-2007) POLICY RECOMMENDATIONS

1. RTS should continue their planned program of vehicle replacement, consistent with FTA guidelines. As the Bluebird buses cycle out of the fleet, they should be replaced, as these have not performed to customer or staff expectations. Future vehicle procurements should consider low-floor, medium-sized buses (up to 30 feet).
2. RTS should post ADA eligibility criteria online complementing information they currently have available on Dial-a-Ride service. Depending on resources, RTS should investigate the feasibility of allowing people to register for Dial-a-Ride eligibility online. There may also be opportunity to provide customers with opportunities to submit service inquiries and other comments by e-mail via a link on the city Website.
3. All marketing materials and other informational materials, including a riders' guide, information on fares, discounts, and ADA eligibility and other information related to system use, should be posted online. Other innovative means of using Web site technology can include a link allowing riders and members of the community to submit comments on service or questions regarding service to RTS staff. These comments and questions can be used in future service planning and marketing activities.



## CAPITAL PLAN SUMMARY

The plan outlined below in Table 8-1 summarizes anticipated capital expenses and forecast revenues for RTS over the five-year planning period. The majority of these expenses will be paid for by Federal funding sources; however, finding matching funds is critical in order to fully leverage Federal dollars.

**TABLE 8-1  
RTS Five-Year Capital Plan**

<b>Capital Costs</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>Total</b>
<b>Fixed-Route Vehicles<sup>(1)</sup></b>	\$-----	\$-----	\$1,560,000 <sup>(4)</sup>	\$-----	\$-----	\$1,560,000
<b>Rapid City Connector Vehicle<sup>(1)</sup></b>	\$-----	\$200,000	\$-----	\$-----	\$-----	\$200,000
<b>Dial-a-Ride Vehicles<sup>(1)</sup></b>	\$105,000	\$180,000 <sup>(3)</sup>	\$125,000	\$130,000	\$135,000	\$675,000
<b>New Facility Construction<sup>(2)</sup></b>	\$-----	\$-----	\$2,000,000	\$-----	\$-----	\$2,000,000
<b>Purchase CAD Software<sup>(2)</sup></b>	\$80,000	\$-----	\$-----	\$-----	\$-----	\$80,000
<b>Total Capital Costs</b>	<b>\$185,000</b>	<b>\$380,000</b>	<b>\$3,685,000</b>	<b>\$130,000</b>	<b>\$135,000</b>	<b>\$4,515,000</b>
<b>Capital Revenues</b>						
<b>Local Funds</b>	\$33,850	\$64,600	\$684,450	\$22,100	\$22,950	\$829,950
<b>FTA Capital Assistance Grant</b>	\$151,150	\$315,400	\$2,998,500	\$107,900	\$112,050	\$3,685,050
<b>Total Capital Revenues</b>	<b>\$185,000</b>	<b>\$380,000</b>	<b>\$3,685,000</b>	<b>\$130,000</b>	<b>\$135,000</b>	<b>\$4,515,000</b>

1. Federal / Local cost share for vehicles assumed at 83/17.
2. Federal / Local cost share for other capital improvements assumed at 80/20.
3. NOTE: Purchase of two Dial-a-Ride vehicles is assumed for every funding year, with the exception of 2005, when one additional vehicle will be purchased to implement enhanced Dial-a-Ride service.
4. Six Gillig buses will be purchased in year 2006.

## FINANCIAL PLAN

This section of the TDP presents a comprehensive picture of anticipated costs and revenues associated with all of RTS's operations over the five-year planning horizon. Current budget figures are the basis for future projections, with assumptions used in developing cost and revenue projections outlined below. Future operating cost projections are based on the number of service miles anticipated to result from proposed Rapid Ride route changes. The most significant service modification is the proposed Rapid City Connector (Route #5), which will provide enhanced service to areas north and south of the downtown in the highest density portions of the community. The cost of this service in 2005, when it is recommended for implementation, will be approximately \$75,000.

Assumptions used in developing the financial plan are discussed below:

- An inflationary factor of three percent per year, consistent with recent trends.
- Marketing costs are anticipated to increase to \$30,000 in 2004-2005 to cover the expanded marketing activities recommended in the TDP.
- RTS ridership is anticipated to increase by two percent per year, consistent with forecast rates of Rapid City population growth.
- Fare prices will remain unchanged for Rapid Ride services; Dial-a-Ride fares will remain unchanged for ADA eligible riders, but will increase to \$2.50 for general public riders.
- Advertising revenues will increase by approximately two percent per year.

**TABLE 8-2  
RTS Financial Plan**

Cost	2004	2005	2006	2007	2008
<b>Fixed Route Operating Cost<sup>(1)</sup></b>	\$475,902	\$525,645 <sup>(2)</sup>	\$543,865	\$562,876	\$582,642
<b>Fixed Route Capital Maintenance</b>	\$38,880	\$43,680	\$44,990	\$46,340	\$47,730
<b>Rapid City Connector</b>	\$0	\$74,407	\$76,639	\$78,938	\$81,307
<b>Paratransit Operating Cost</b>	\$488,209	\$566,119 <sup>(3)</sup>	\$583,102	\$600,596	\$618,613
<b>Paratransit Capital Maintenance</b>	\$42,120	\$47,320	\$48,740	\$50,202	\$51,708
Total Operating Cost	\$1,045,111	\$1,257,171	\$1,297,336	\$1,338,952	\$1,382,000
<b>Capital Projects</b>	\$185,000	\$380,000	\$3,685,000	\$130,000	\$135,000
<b>Total System Costs</b>	<b>\$1,230,111</b>	<b>\$1,637,171</b>	<b>\$4,982,336</b>	<b>1,468,952</b>	<b>1,517,000</b>
<b>Revenue</b>					
<b>Federal Assistance</b>					
- FTA Capital Assistance Grant (5307 and 5309)	\$151,150	\$315,400	\$2,998,550	\$107,900	\$112,050
- FTA Capital Maintenance	\$64,800	\$72,800	\$74,984	\$77,234	\$79,551
- FTA Operating Assistance	\$364,498	\$463,176	\$479,497	\$496,451	\$514,034
<b>Local Funds</b>					
- Capital Assistance	\$33,850	\$64,600	\$686,450	\$22,100	\$22,950
- Capital Maintenance	\$16,200	\$18,200	\$18,746	\$19,308	\$19,888
- Operating Assistance	\$336,073	\$434,751	\$451,072	\$468,026	\$485,609
<b>SD State Assistance</b>	\$28,425	\$28,425	\$28,425	\$28,425	\$28,425
<b>Advertising</b>	\$12,900	\$13,160	\$13,420	\$13,690	\$13,960
<b>Passenger Fares</b>	\$222,215	\$226,659	\$231,193	\$235,817	\$240,533
<b>Total System Revenues</b>	<b>\$1,230,111</b>	<b>\$1,637,171</b>	<b>\$4,982,336</b>	<b>1,468,952</b>	<b>1,517,000</b>
<b>Net Surplus/Deficit</b>	\$ -	\$ -	\$ -	\$ -	\$ -

(1) Includes marketing costs of \$30,000 in 2004, \$35,000 in 2005, \$38,500 in 2006, \$42,350, and \$46,500.

(2) Includes \$35,000 to relocate passenger shelters.

(3) Assumes operation of one additional paratransit vehicle at \$67,200 annually.