



Additional Considerations

ROUTE OPERATIONS AND CONSIDERATIONS

This chapter provides additional guidance on several considerations and changes which affect overall operations for GVT. These include route operations, stops, timing, data collection, and operation of services.

Route Operations

One important aspect of route restructuring is not only where service should be offered, but specific route directions. Figure VIII-1 illustrates the proposed route directions.

Route Timing

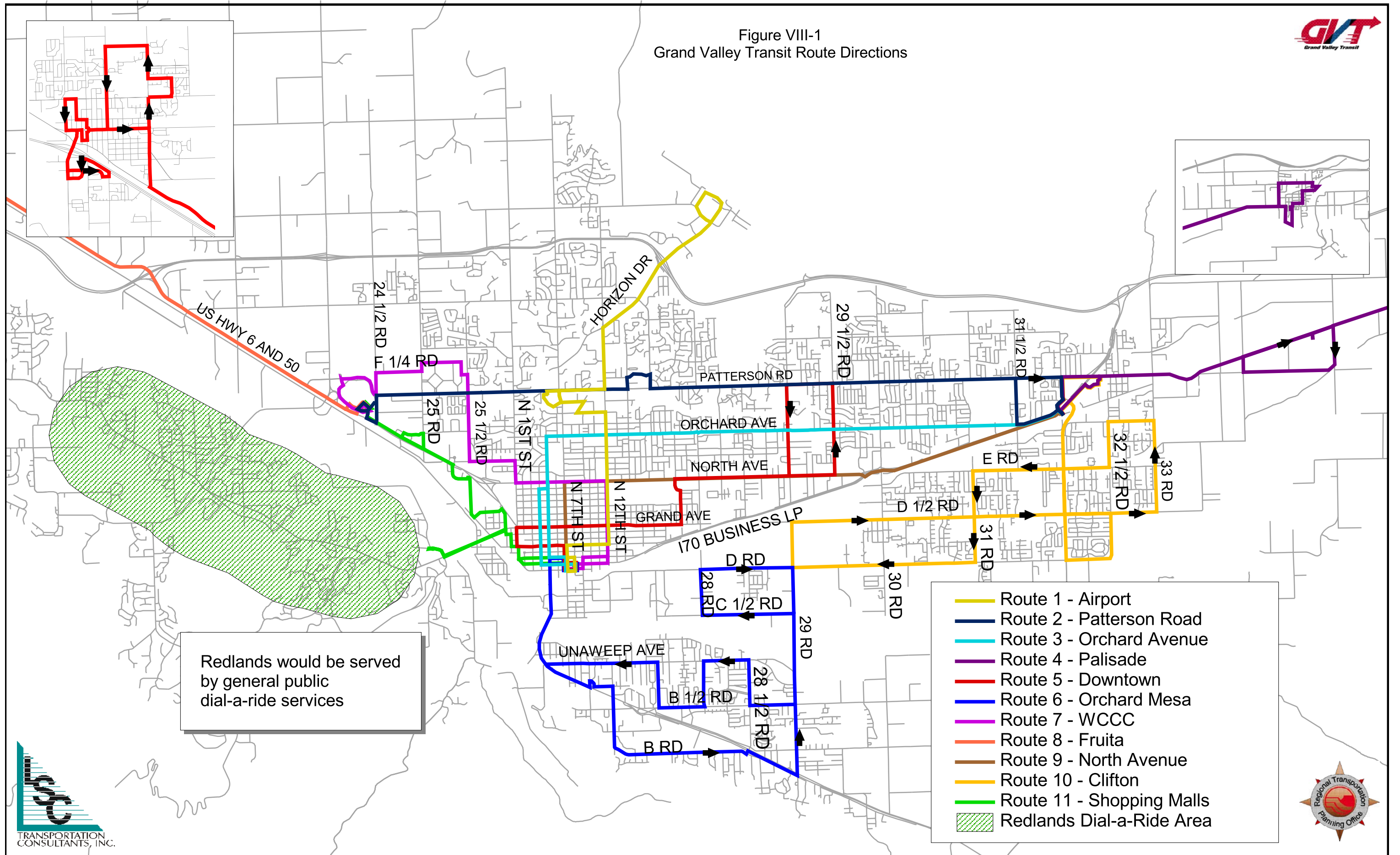
Preliminary route running times were determined from existing route times between scheduled stops, a Geographical Information System, average vehicle speed data, and finally by driving the actual routes with a bus. Final route timing is presented in Appendix E. These schedules present the best estimate of time points, each approximately 10 minutes apart; however, after operating service for some time, time points *may* need to be adjusted given passenger activity and final number of stops.

- Schedules have been adjusted back to 15 minutes past the hour as in the past.
- Timing points are consistently 10 minutes apart.
- Saturday service should be consistent with Monday through Friday service hours (5:15 a.m. until 7:15 p.m.).

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Figure VIII-1
Grand Valley Transit Route Directions



Redlands would be served by general public dial-a-ride services

- Route 1 - Airport
- Route 2 - Patterson Road
- Route 3 - Orchard Avenue
- Route 4 - Palisade
- Route 5 - Downtown
- Route 6 - Orchard Mesa
- Route 7 - WCCC
- Route 8 - Fruita
- Route 9 - North Avenue
- Route 10 - Clifton
- Route 11 - Shopping Malls
- Redlands Dial-a-Ride Area

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GVT Transit Route Stops

Currently, GVT operates on a fixed-stop basis. Designated bus stops throughout the community provide a number of advantages. They provide consistency for where passengers will be picked up or dropped off, and they eliminate the need to stop every block, especially on arterials. Signing also provides visibility for the transit system and serves as a marketing tool. GVT should designate fixed stops on all major arterials and at major intersections. Several factors go into designing where stops should be placed. Designated stops can be spaced up to approximately one-quarter mile between stops. Stops farther apart increase bus travel speed on routes. However, a balance between route timing and ridership along the routes should be kept in mind when designing the placement of designated stops. The more stops, the lower the travel speed, but inversely, the possible higher number of riders. Factors to be considered include the spacing of cross streets, the availability of pedestrian access, and the location of major trip generators.



At this time, numerous existing shelters may need to be moved or removed. However, future demands may warrant the installation of new shelters throughout the system. At this time, no new shelters are required, but thought should be given to key locations, such as the schools, for shelter placement. These areas should be given a high priority for new shelters.

Fare Structure

Currently, as part of meeting FTA requirements, GVT offers a discount for disabled patrons during non-peak times. It is LSC's recommendation that this discount be continued throughout the day, removing the reference to certain times. This restriction causes confusion and frustration for passengers and drivers, which may lead to arguments. This may increase ridership during the peak hours as well.

TRANSIT DATA COLLECTION

LSC recommends that GVT revise data collection efforts. Individual route data should be kept separate from systemwide data. Monthly reports should be com-

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piled from the separate route information. Financial data are required to evaluate performance measures such as the operating cost per hour of service and the cost per passenger-trip.

Related fiscal performance measure categories may include:

Subsidy/Passenger: Total cost less fares divided by the number of passengers. A good indicator of the public cost of providing service, better than farebox recovery ratio. Measure of cost-effectiveness. (Subsidy/passenger)

Cost/Hour: Annual operating cost divided by the number of revenue-hours. Good measure of efficiency. (Cost/hour)

Cost/Mile: Annual operating cost divided by the number of revenue-miles. Good measure of efficiency. (Cost/mile)

Administrative Cost Ratio: The system administrative cost divided by the operating budget expressed as a percentage. Good indicator of administrative overhead. (Admin. Cost Ratio)

DATABASE FORMAT

Several options are available for storing the data. The recommended approach is to set up databases in Microsoft Access to record passenger data. A separate database should be set up for routine passenger data and a second for the boarding and alighting counts.

Onboard survey data can be entered into a database such as Access or a spreadsheet program such as Excel.

STANDARD REPORTS

GVT should continue to provide monthly performance reports. The reports should include performance data for the current month, the same month in the previous year, year-to-date performance, and the prior year-to-date performance. Information which should be reported includes passenger boardings by route, passengers per revenue-hour by route, total passengers by fare category, total passengers, and system passengers per revenue-hour. Financial information should be reported including the operating cost and the cost per passenger. The average fare should be calculated and reported based on operating costs and passenger

counts. These data should be kept for each route separately and then combined into the monthly systemwide report.

Performance Monitoring Categories

Transit performance measures serve as a guide to finding out how a transit system performs. Performance measures define the type of data to be collected and provide the tools necessary to identify transit system deficiencies and opportunities.

It is worth noting that criteria used for the selection of performance measures include the following:

- Be measurable.
- Have a clear and intuitive meaning, so that it is understandable to those who will use it and to non-transportation professionals.
- Be acceptable and useful to transportation professionals.
- Be comparable across time and between geographical areas.
- Have a strong functional relationship to actual system operations, so that once changes occur in system operations, changes to the system can readily be determined.
- Provide the most cost-effective means of data collection.
- Where appropriate, be based on statistically sound measurement techniques.
- Be consistent with measures identified for other systems.

The following are other performance measures that should be used.

Passengers/Hour: Number of total monthly and annual passengers divided by the corresponding revenue-hours. (Passengers/hour)

Passengers/Mile: Number of total annual passengers divided by the annual revenue-miles. (Passengers/mile)

Trips/Capita: Total annual trips divided by the population of the area served—A reasonable measure of the level of transit service, although the population within the service area (and the service area) must be determined. (Trips/capita)

Vehicle-Miles/Service Area: A good measure of the level of service being provided. The service area must be realistically identified. For example, a county system may say it serves the entire county, but in fact much of the county is very rural and service is never provided. (Vehicle-miles/service area)