

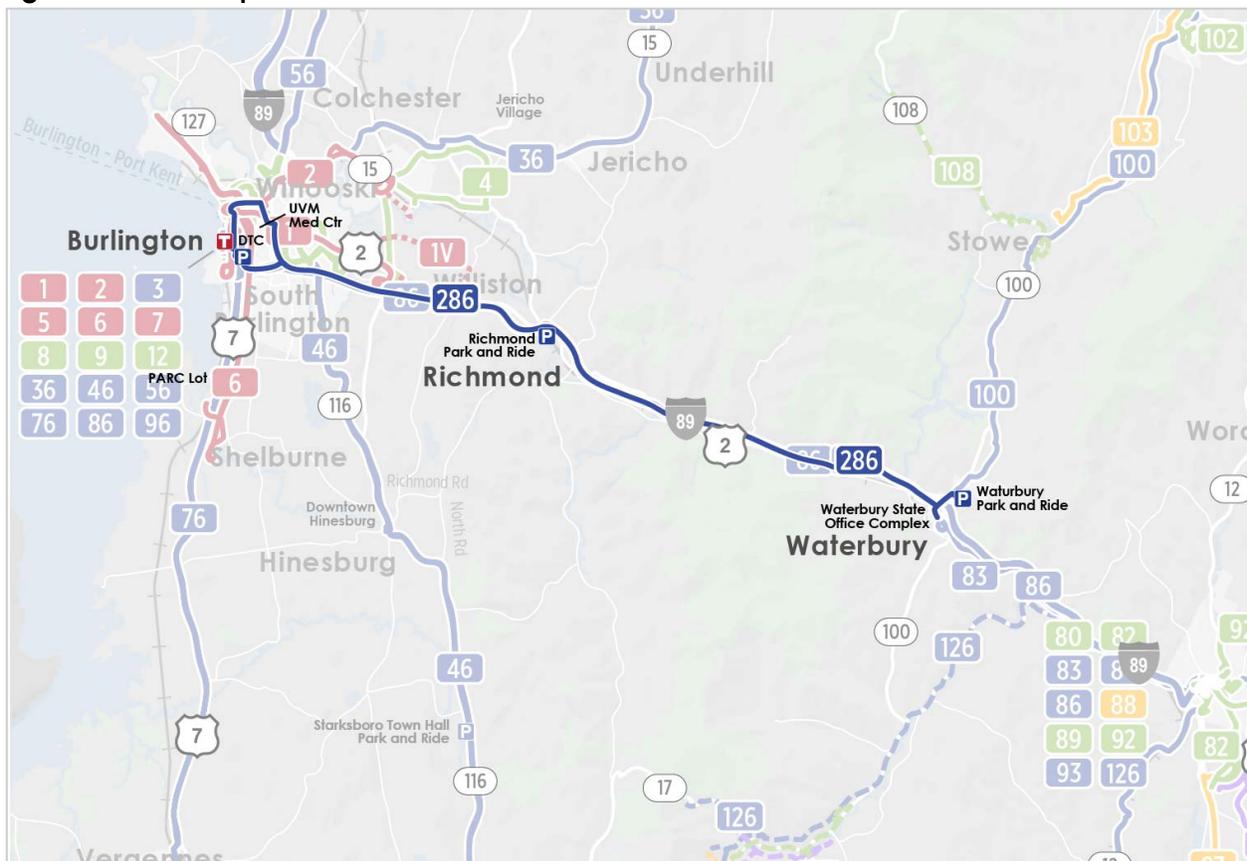
ROUTE 286

Burlington - Waterbury LINK Express

ROUTE OVERVIEW

Route 286 operates between Waterbury and Montpelier via the Richmond Park and Ride Lot (see Figure 1). It is one of three routes that serve the I-89 corridor, the others being Route 83 Waterbury Commuter between Montpelier and Waterbury and Route 86 Montpelier LINK Express, which operates between Burlington and Montpelier.

Figure 1: Route Map



Route 286 operates Monday to Friday and provides two trips in each direction during the AM and PM peak periods (see **Error! Reference source not found.**). Service is scheduled with a primary focus on commuter trips to and from Waterbury, with reverse direction trips scheduled to get buses in place for the Waterbury-oriented service. However, the timing of the Burlington-oriented trips does still provide utility for work trips to and from Burlington and supplements Route 86 Montpelier LINK service:

- Service to and from Waterbury:** AM service is scheduled arrive at the Waterbury State Office Complex at 6:50 AM and 7:40 AM. PM trips depart from Waterbury at 4:25 and 4:45 PM. These trips are generally scheduled to serve state employee work hours.

- **Service to and from Burlington:** AM service arrives at the DTC at 7:45 and 8:40 AM and departs from Burlington at 3:28 PM and 3:43 PM. While, the intervals between these trips are too short for most typical work days, Route 86 Montpelier LINK provides later departures that provide return service to the Richmond and Waterbury Park and Ride lots to serve more regular work hours.

Table 1: Route 286 Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (OUTBOUND/INBOUND)
Monday-Friday	6:05 AM to 5:35 PM	15-55/—/—	4/4
Saturday	—	—	—
Sunday	—	—	—

Frequencies shown are lowest frequencies during Peak/Midday/Evening service times for weekdays. Peak frequencies are calculated for service between 6:00 am – 9:00 am & 3:00 pm – 6:00 pm. Midday service is from 9:00 am – 3:00 pm. Evening service is for service after 6:00 pm. Saturday and Sunday frequencies are shown as AM/PM.

OPERATING PATTERNS

Route 286 also operates with different patterns, with differences largely based on whether trips are serving Burlington or Waterbury commuters:

- **Peak Period Service to and from Waterbury:** AM service begins at the DTC and operates via Pine Street to the PARC Lot and then to the Waterbury State Office Complex and the Waterbury Park and Ride Lot. Both trips also serve the Richmond Park and Ride Lot. PM service operates in the same manner, but in reverse, and only serves the Richmond Park and Ride Lot upon request.
- **Peak Period Service to and from Burlington:** AM service to Burlington begins at the Waterbury Park and Ride Lot and operates via I-89 to UMM Medical Center and then to the DTC and Pine Street at Lakeside Avenue. Both trips stops at the Richmond Park and Ride Lot. PM service operates in reverse, except that the first trip does not stop at the Richmond Park and Ride Lot.

RIDERSHIP

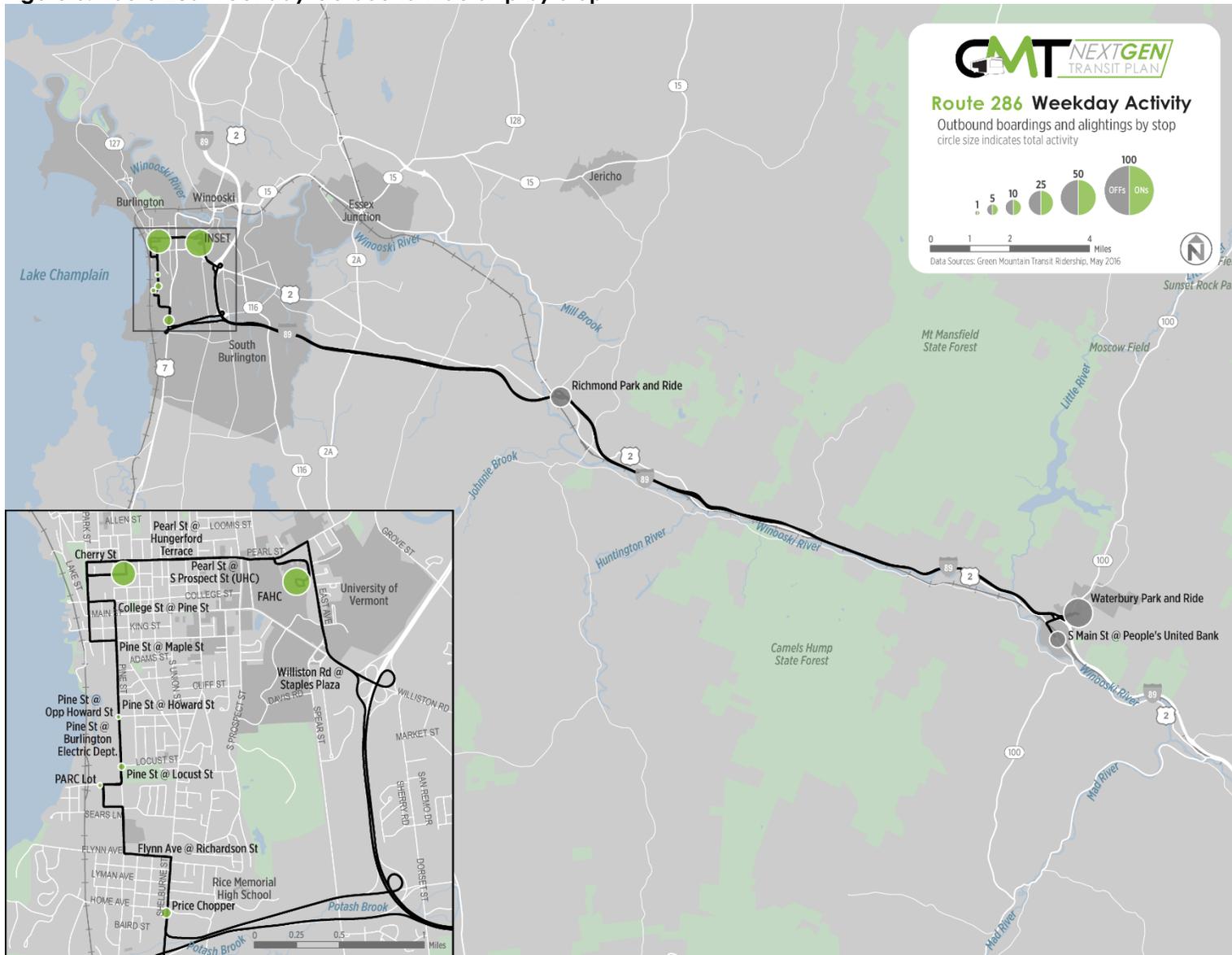
Route 286 carries 82 passengers per weekday, and ranks third out of the 15 Commuter routes.

Ridership by Stop

Although Route 286's schedule is oriented toward commute trips to and from Waterbury, it is used more heavily for trips to and from Burlington:

- **Inbound**, the heaviest boarding stops are the Waterbury Richmond Park and Ride lots, with 31 and 13 boardings respectively (see Figure 2). These boardings are largely on the AM trips. Only four passengers board at the Waterbury State Office Complex [however, the counts may have been conducted before the Waterbury State Office Complex had completely reopened?]. These boardings were on PM trips.
- **Outbound**, 24 passengers board at Burlington's DTC, and 34 board at UVM Medical Center (see Figure 3). At the Waterbury end, 17 passengers alight at the Richmond Park

Figure 3: Route 286 Weekday Outbound Ridership by Stop



and Ride Lot and 34 alight at the Waterbury Park and Ride Lot. These passengers are largely on PM trips. At total of 11 alight at the State Office Complex, nearly all on AM trips.

Ridership by Trip

As described above, ridership is highest to Burlington in the AM and back in the PM (see Figure 4).

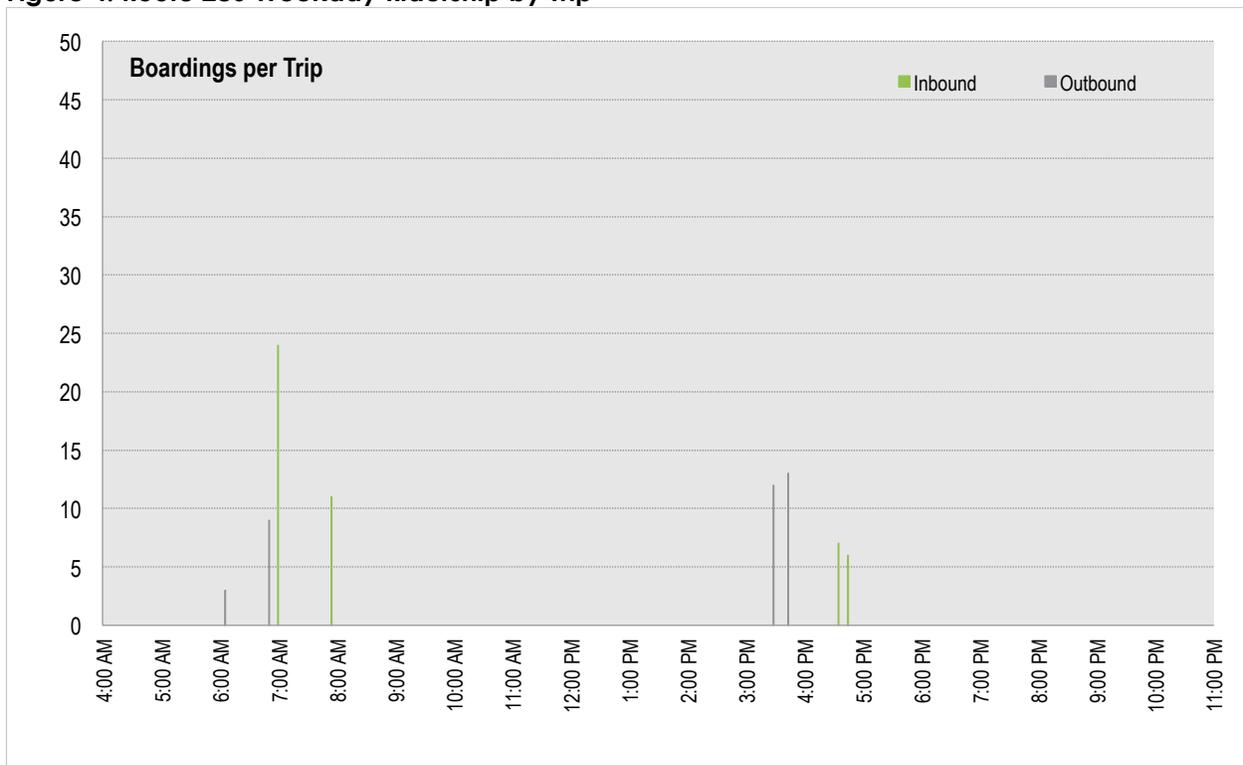
- AM Peak:** The first Burlington-bound trip at 7:00 AM carries the highest ridership, at 24 passengers, but the second trip nearly an hour later at 7:55 AM carries only 11 passengers. These ridership figures suggest that the first trip should depart earlier.

Waterbury-bound ridership is low, at only 3 passengers on the 6:05 AM trip and nine passengers on the 6:50 AM trip. However, higher ridership on the PM peak trips from Waterbury (as described below) indicate that there may have been data errors. [Also, the data may not include ridership to the State Office Complex, which was not fully operational when the data was collected in the first half of 2016?]

- PM Peak:** The two Burlington-bound trips depart very closely with departures at 4:25 and 4:45 PM and were reported to carry seven and six passengers, respectively. This is significantly lower than the counterpart AM ridership, and may indicated data errors.

The two Montpelier-bound trips, which are also clustered closely together with departures at 3:28 and 3:43 PM, carry 12 and 13 riders, respectively.

Figure 4: Route 286 Weekday Ridership by Trip



SERVICE PRODUCTIVITY

Route 286 ranks third out of GMT's 15 Commuter routes in terms of weekday ridership and ranks fourth in terms of ridership per revenue hour (see Route 86 meets the VTrans threshold for cost effectiveness but does not meet the threshold for productivity.

Table 2). On weekdays, the route carries an average of 82 passengers per day, or 11.0 passengers per revenue hour. Route 86 meets the VTrans threshold for cost effectiveness but does not meet the threshold for productivity.

Table 2: Route 286 Service Productivity Statistics

	MONDAY-FRIDAY	SATURDAY	SUNDAY
Average Daily Ridership	82	—	—
Pax/Revenue Service Hour	11.0	—	—
Commuter Average	8.8	—	—
Pax/One-Way Trip	10.3	—	—
VTrans Productivity Threshold	17.35	17.35	17.35
Pax/Revenue Mile	0.3	—	—
Commuter Average	0.4	—	—
Cost/Passenger	\$9.29	—	—
VTrans Effectiveness Threshold	\$10.59	\$10.59	\$10.59

Source: Green Mountain Transit, May 2016; VTrans Performance Reviews (2016)

POTENTIAL SERVICE IMPROVEMENT OPTIONS

Route 286 is designed to serve both Waterbury and Burlington-bound commuters, with its highest ridership being Burlington-bound commuters using the Waterbury and Richmond Park and Ride Lots. In this respect, Route 286 serves as an effective supplement, which also serves those two park and ride lots.

Opportunities to strengthen Route 286 include:

- Reconfigure Route 286 in Conjunction with Changes to Route 86 Montpelier LINK:** Route 86 serves the same markets as Route 286, but also with service to and from Montpelier that makes it a much stronger route. In many respects, Route 286 acts as a complement to Route 86. At the present time, many Route 86 trips are overcrowded, but Route 286 is underutilized. This, in part, is because Route 286's schedule is designed primarily to supplement Route 86 and only secondarily to serve Waterbury commuters. One way to better balance loads would be to operate the each route to more specifically serve their primary markets, which are Burlington – Montpelier commuters for Route 86 and Burlington – Waterbury commuters for Route 286, and to shift and to shift all service to the Waterbury Park and Ride lot from Route 86 to Route 286. This would also make Route 86 faster.
- Increase Service to Three AM and Three PM Trips:** In conjunction with the above, to provide more convenient service and better serve some passengers who now use Route 86, increase the number of round trips provided in the AM and PM from two to three.

- **Revise AM Inbound Schedule:** As described above, the 7:55 AM inbound trip serves only 11 passengers. The trip is scheduled at this time to serve the Waterbury and Richmond Park and Ride lots in lieu of Route 86. Nonetheless, demand could be higher if the trip departed somewhat earlier.

Revise AM Outbound and PM Inbound Schedules: Ridership to and from Waterbury is lower than employment levels (1,200 state employees) and the number of work trips from Burlington would indicate. [It may also be possible that many state employees had not yet moved back into the facility?] Schedules should be reassessed to ensure that they effectively match work schedules, particularly in the PM peak when Route 286's two trips depart only 20 minutes apart.

- **Consolidate Stops in Burlington.** Routes 286 makes several stops on Shelburne Road and Pine Street and circulates through downtown Burlington making additional stops. Making fewer local stops and providing more direct service would save travel time for riders and maintain the integrity of the LINK brand as an express service.