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The Regional Municipality of Durham Report

To:	Durham Region Transit Executive Committee
From:	General Manager, Durham Region Transit
Report:	#2024-DRT-13
Date:	September 4, 2024

Subject:

General Manager's Report – September 2024

Recommendation:

That the Transit Executive Committee recommends

That this report be received for information.

Report:

1. Purpose

1.1 This report is submitted at each Transit Executive Committee (TEC), for information.

2. Background

2.1 The General Manager Report provides regular updates on key performance measures and summaries of current activities and transit issues in Attachment #1.

3. Previous Reports and Decisions

3.1 Not applicable

4. Financial

4.1 There are no financial impacts associated with this report.

5. Relationship to Strategic Plan

5.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

a. Service Excellence

6. Conclusion

6.1 For additional information, contact: Bill Holmes, General Manager, at 905-668-7711, extension 3700.

7. Attachments

Attachment #1: General Manager's Report – September 2024

Respectfully submitted,

Original Signed by

Bill Holmes
General Manager, DRT

Recommended for Presentation to Committee

Original Signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

General Manager's Report
September 4, 2024
TEC
Attachment #1

Performance Measures Dashboard

Safety

Key performance indicator	Description	Latest Measure	Current	Target[1]	Current Variance to Target (per cent)	YTD Status[2] (per cent)
Collisions	Number preventable collisions per 100,000 km	July	0.43	0.07	✗ 1.473	✗ 18.3

Ridership

Ridership (x1,000)	Number passengers	July	1,027	814	✓ 26.1	✓ 29.3
PRESTO Ridership	Customers paying using PRESTO (per cent)	July	92.5	88.9	✓ 3.6	✓ 2.0
Bus full occurrences	Number operator reported occurrences	July	171	59	✗ 190	✗ 63.5
Demand Responsive						
Ridership - Specialized	Number customer trips	July	13,035	9,881	✓ 31.9	✓ 25.6
Unaccommodated Rate - Specialized	Trip requests not scheduled (per cent)	July	7.06	0.05	✗ 7.01	✗ 6.65
Ridership – On Demand	Number customer trips	July	10,602	11,360	✗ -6.7	⚑ -2.7
Unaccommodated Rate – On Demand	Trip requests not scheduled (per cent)	July	41.63	N/A	N/A	N/A

Service Delivery

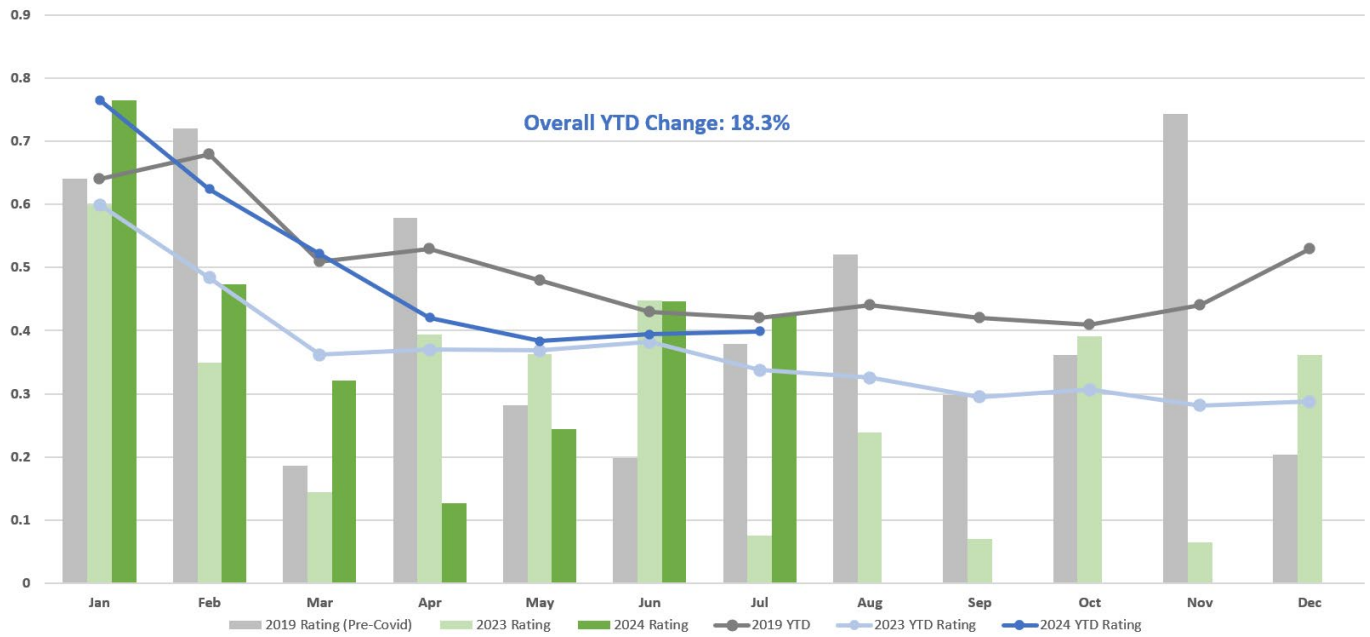
Scheduled						
On time performance	On-time departures from all stops (per cent)	Service Period 2[3]	68.4	69.3	✗ -0.9	⚑ 0
Service availability	Scheduled service delivered (per cent)	Service Period 2[3]	98.6	98.8	⚑ -0.2	⚑ -0.4
Mean Distance Between Failure (MDBF)	Average number of revenue service kilometres between occurrences of vehicle defects impacting service (revenue service kilometers)	July	11,506	8,498	✓ 35.4	✗ -24.4

Demand Responsive						
Service Availability – Demand Response	Planned Service Delivered (per cent)	July	99.7	N/A	N/A	N/A
On time performance – Specialized	On-time customer pickups (per cent)	July	84.1	N/A	N/A	N/A
On time performance – On Demand	On-time customer pickups (per cent)	July	89.5	N/A	N/A	N/A
Service availability – Specialized	Average difference in requested trip time vs. booked trip time (minutes)	July	12:51	N/A	N/A	N/A
Service availability – On Demand	Average difference in requested trip time vs. booked trip time (minutes)	July	18:26	N/A	N/A	N/A

[1]Target is 2023 measure for the same period
[2]Year to Date (YTD) compared to previous year
[3]July 8, 2024 through June 23, 2024

Safety

Preventable collisions rate per 100,000 km



Definition: A preventable collision is one in which the driver failed to do everything reasonable to avoid the collision. The preventable collision rate is the number of preventable collisions per 100,000 kilometres of travel for all Durham Region Transit (DRT) vehicles.

A collision may not be reportable to police based on the Highway Traffic Act, but for DRT purposes all collisions are documented and investigated. DRT's objective is to reduce annual preventable collisions by ten per cent relative to the previous year.

Analysis

The preventable collision rate for July was 0.43 compared to 0.07 for the same month in 2023. Year to rate remains higher than last year by 18.6 per cent.

Action Plan

The Safety and Training group and Occupational Health and Safety Committee continue to investigate root causes of preventable collisions and implement the appropriate mitigation measures.

Ridership

Scheduled transit

Definition: Ridership is the sum of all passenger trips. A passenger trip is a one-way trip from origin to destination regardless of the number of transfers that may be required.

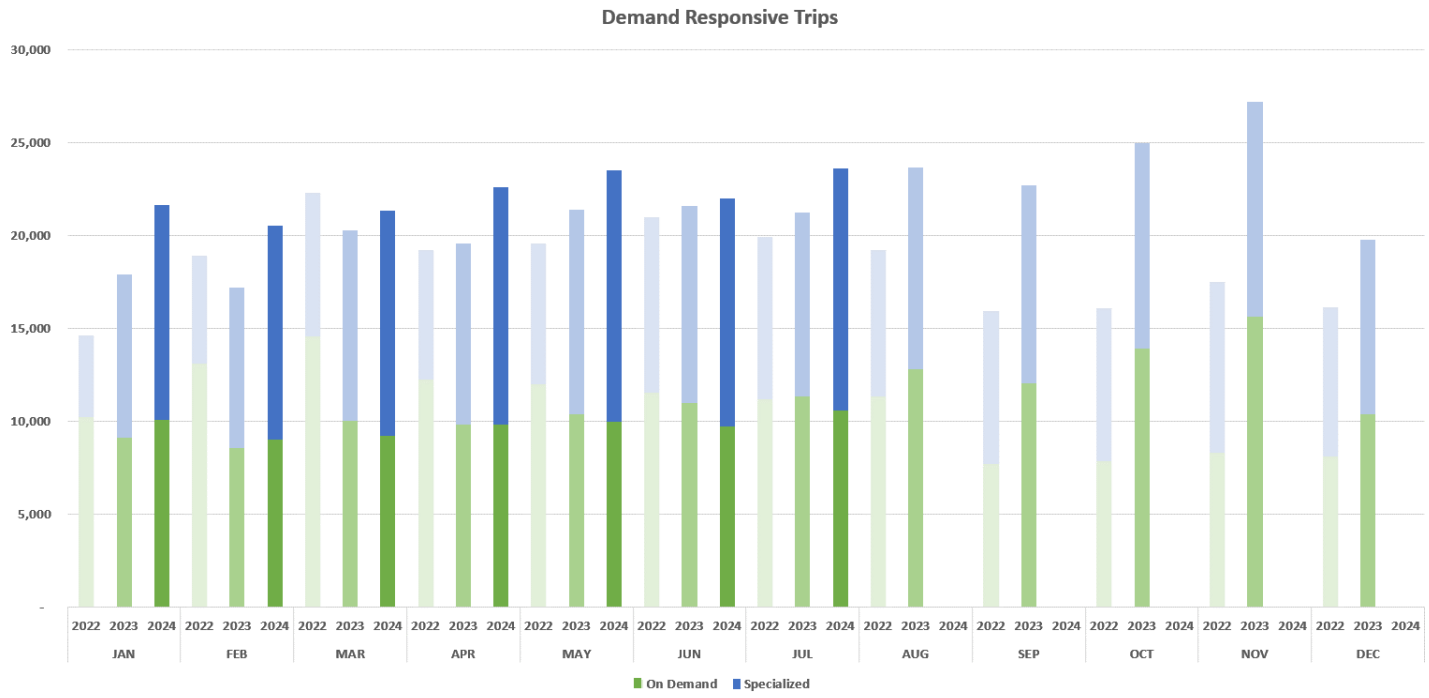
Results

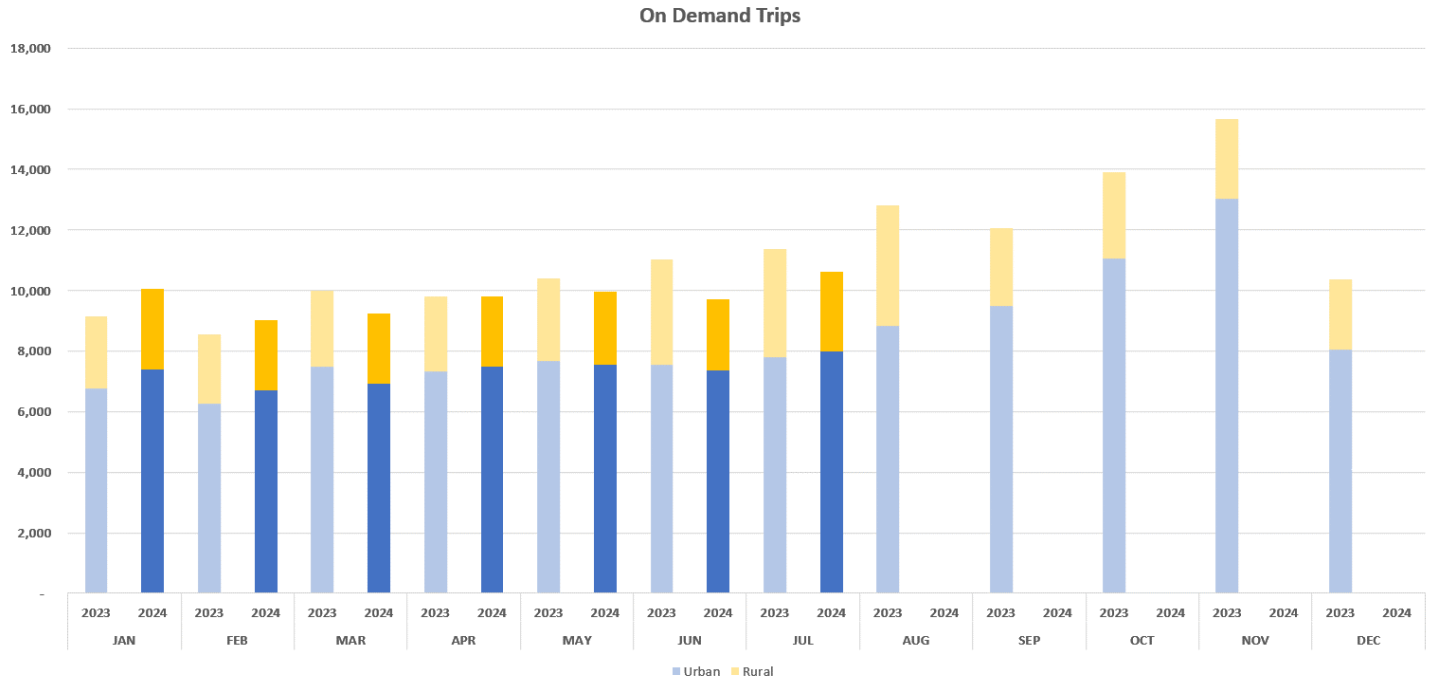
July ridership on scheduled service was approximately 1.1 million, 26 per cent higher than the same month in 2023, and approximately 29 per cent higher than the pre-pandemic period. For the first time in the history of DRT, monthly ridership in July exceeded one million. Year to date, 2024 ridership is 20 per cent higher than 2019, and 29 per cent higher than 2023.

Action Plan

DRT continue to recruit and train staff to deliver the 44,405 new annual revenue service hours approved in the 2024 budget. Most new service hours are planned to be implemented starting at the September service change. Some service enhancements will be delayed until later in the year when new bus operators are available to deliver the service.

Demand Response Transit





On Demand Trip Service Areas Breakdown

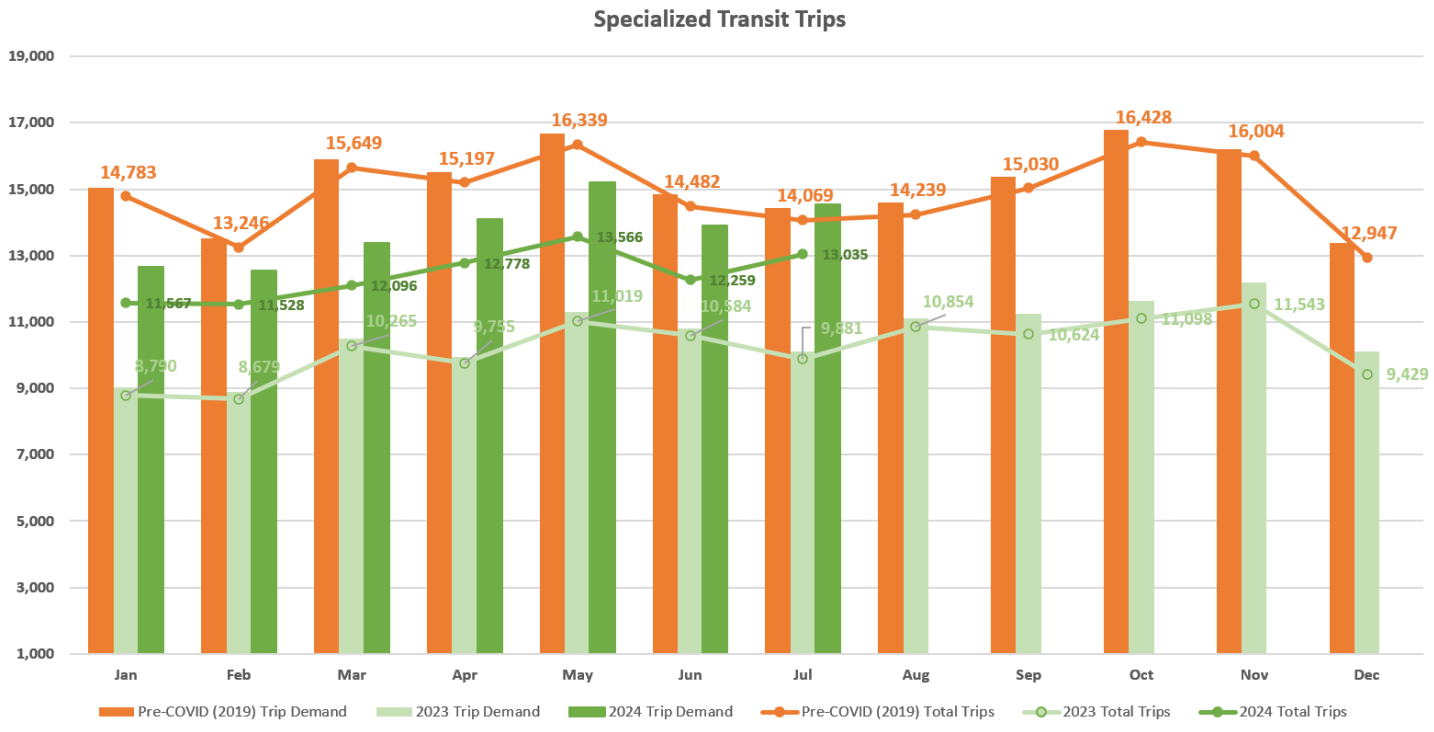
		JUL 2024	YTD 2024
RURAL	Uxbridge	198	1,708
	Brock	631	4,504
	Scugog	508	3,331
	Pickering	293	2,099
	Ajax	23	159
	Whitby	32	149
	Oshawa	34	280
	Clarington	894	4,761

		JUL 2024	YTD 2024
URBAN	Uxbridge	393	3,127
	Scugog	535	3,911
	Pickering	923	6,763
	Ajax	729	5,571
	Whitby	1,873	10,797
	Oshawa	1,564	9,022
	Clarington	1,972	12,206

Specialized Trip Service Areas Breakdown

		JUL 2024	YTD 2024
RURAL	Uxbridge	16	119
	Brock	50	348
	Scugog	98	746
	Pickering	22	101
	Ajax	3	8
	Whitby	95	596
	Oshawa	-	54
	Clarington	133	905

		JUL 2024	YTD 2024
URBAN	Uxbridge	76	382
	Scugog	85	704
	Pickering	1,717	10,757
	Ajax	2,446	15,872
	Whitby	2,786	19,761
	Oshawa	4,221	27,925
	Clarington	958	6,579
	Toronto-Yo	329	1972



Definitions:

Trips: A trip is considered a one-way passenger trip from origin to destination, regardless of the number of transfers that may be required.

Results

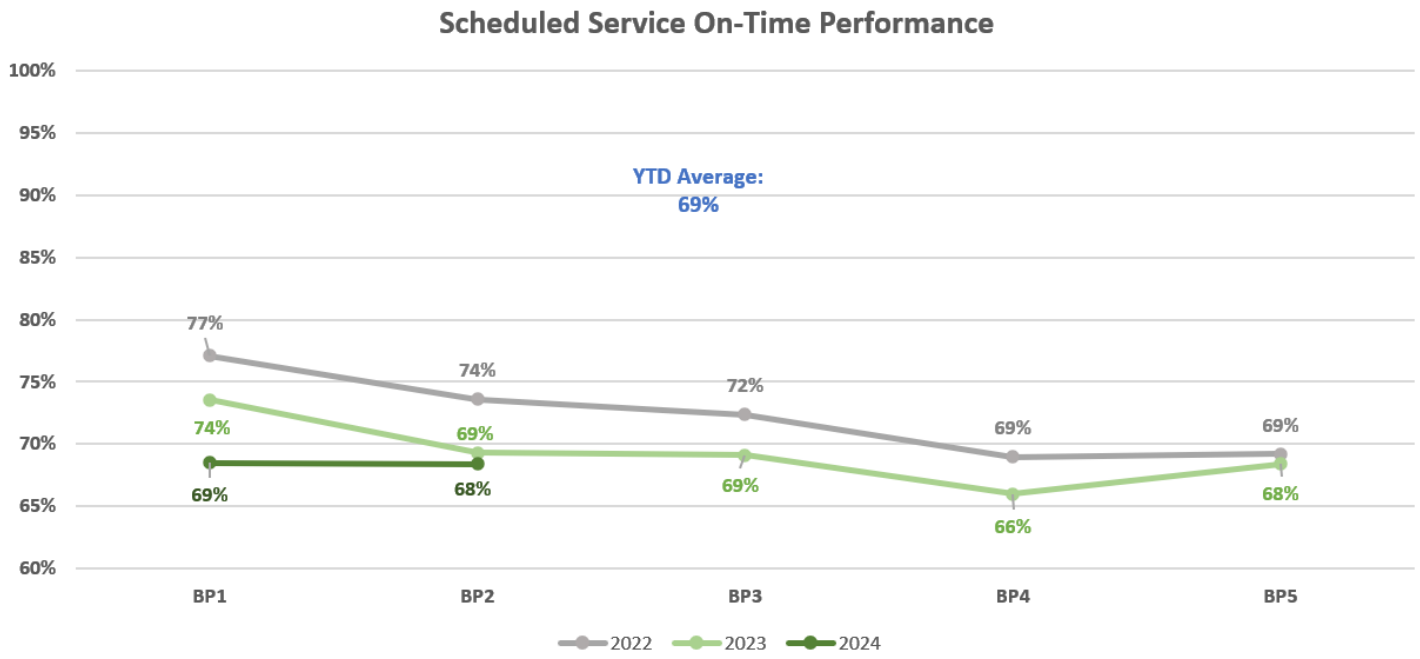
On Demand services delivered a total of 23,637 trips in July 2024, including 13,035 trips for customers registered with Specialized transit.

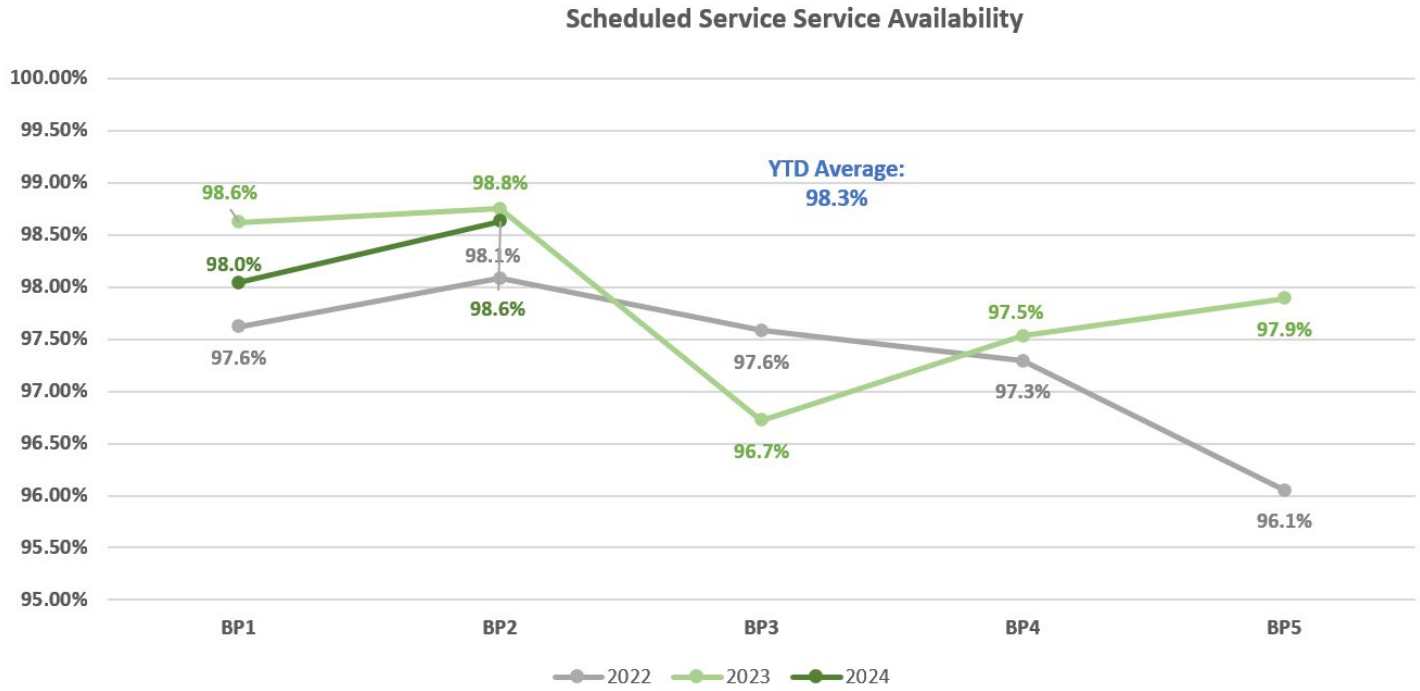
Action Plan

Ridership continues to be strong across the On Demand Network, with demand for services continuing to exceed capacity. The additional Demand revenue service hours approved in the 2024 budget are planned to be implemented through the fall as vehicles arrive and are placed into service.

Service Delivery

On Time Performance and Availability (conventional)





Definition

On Time Performance (OTP) is a measure of the per centage of buses departing a bus stop no more than zero minutes early and five minutes late. The annual OTP target is 80 per cent. OTP is reported for each service period.

Service availability is a measure of the actual service delivered by DRT as a per centage of scheduled revenue service. The service availability target is 99.5 per cent. Service availability is reported for each service period.

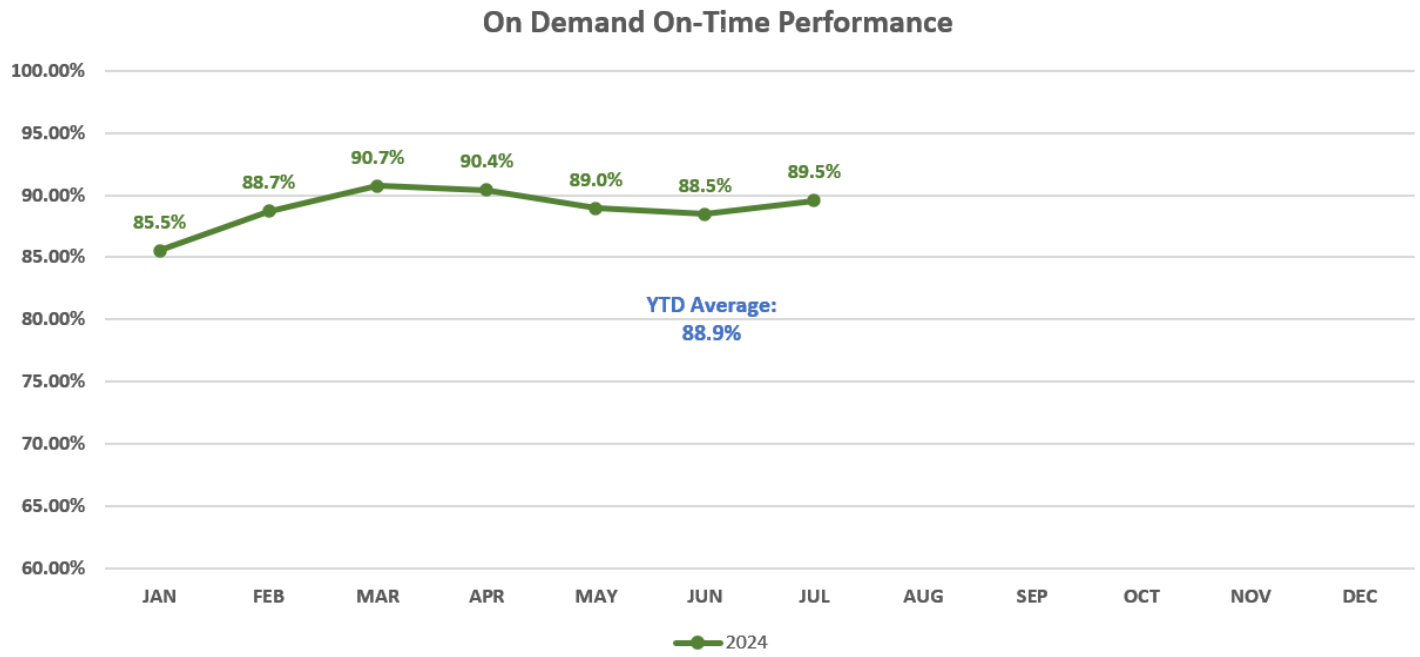
Results

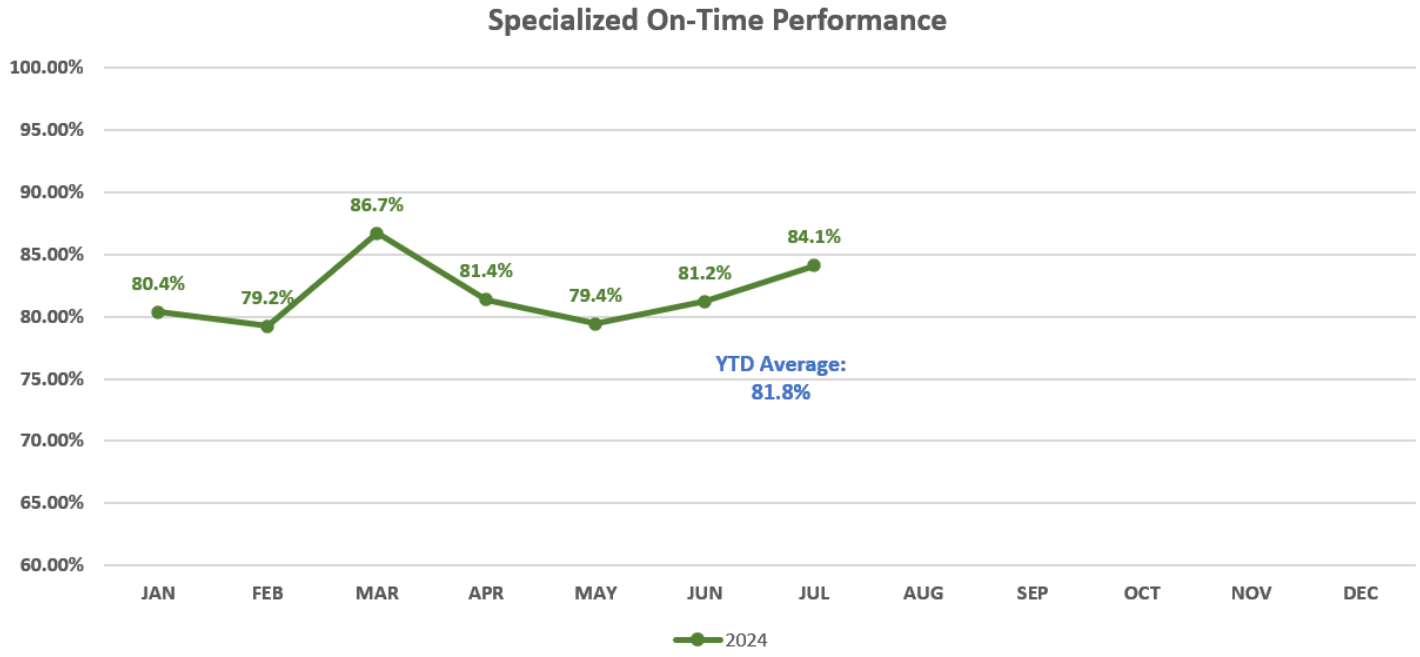
OTP for board period two was 68.4 per cent. Congestion on main traffic corridors continues to impact the transit network, with Service Availability for board period two at 98.6 per cent, compared to 98.8 per cent for the same month in 2023.

Action Plan

DRT continue to experience service impacts from trips operating at maximum passenger capacity, congestion and construction projects. Some planned trips are cancelled when a route is operating excessively late to enable subsequent planned trips to remain on schedule. Trip cancellations, which reduces service availability, impact customers through less route capacity, longer wait times, and longer travel times due to missed connections. When fully implemented, the new 2024 revenue service hours will improve OTP and service availability for customers.

On Time Performance (Demand Responsive)





Definition

On Time Performance – Demand Response: Measures the percentage of customer pickups that occur as scheduled up to 5 minutes after the pick-up window. OTP – Demand Response is measured monthly, with a target of 80 per cent.

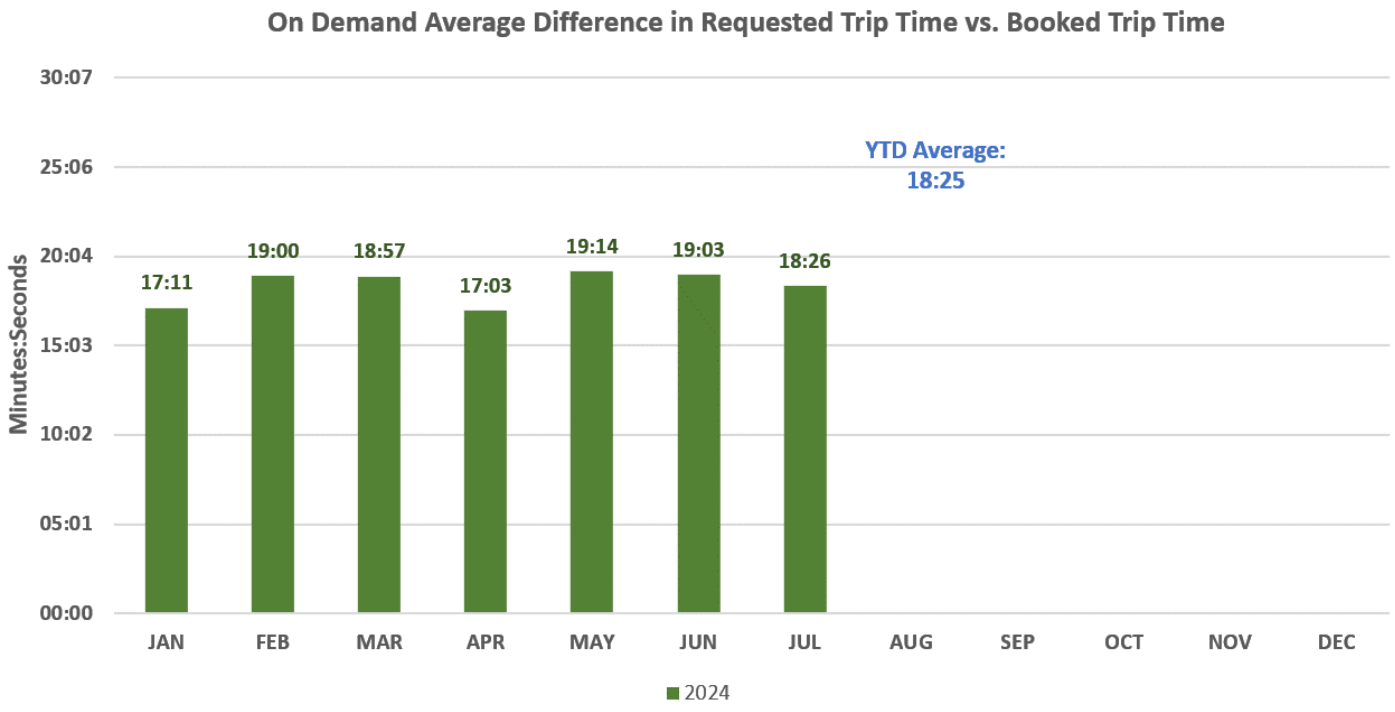
Results

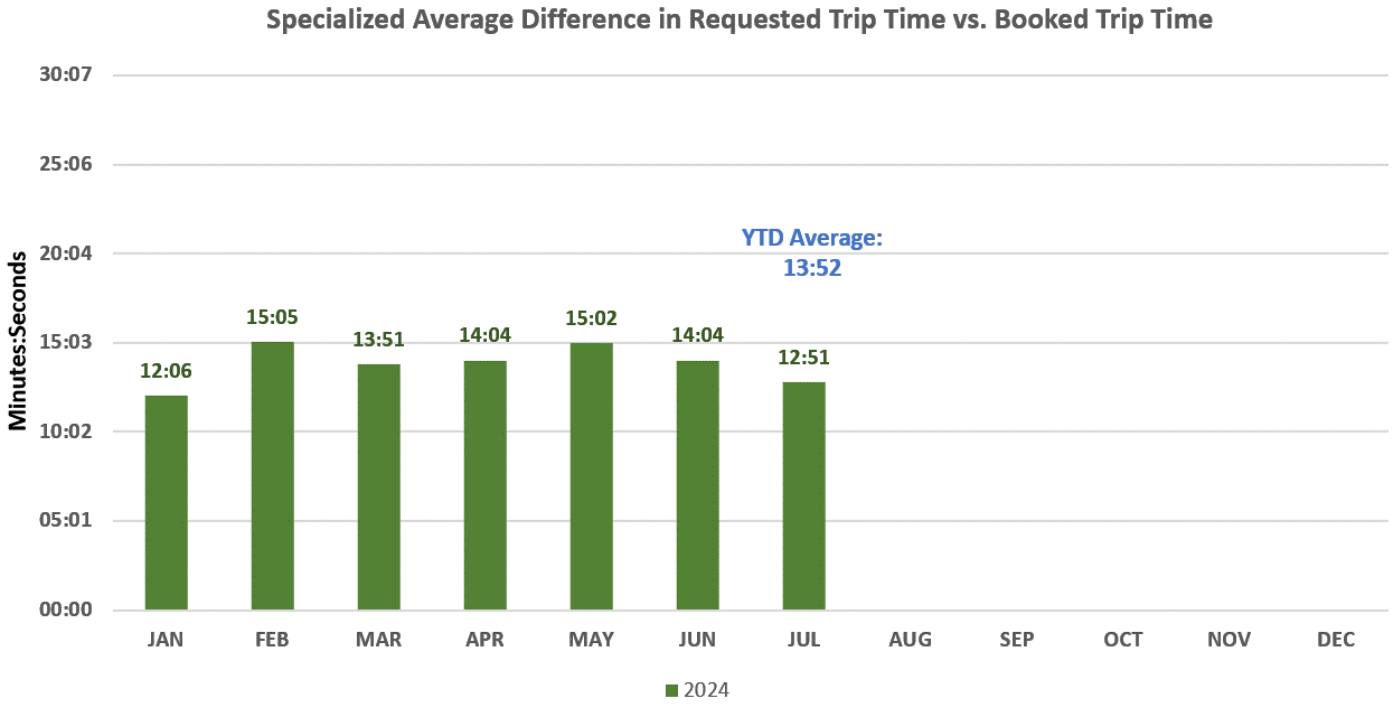
OTP – Demand Response for July 2024 was 89.5 per cent for On Demand trips, and 84.1 per cent for specialized transit trips.

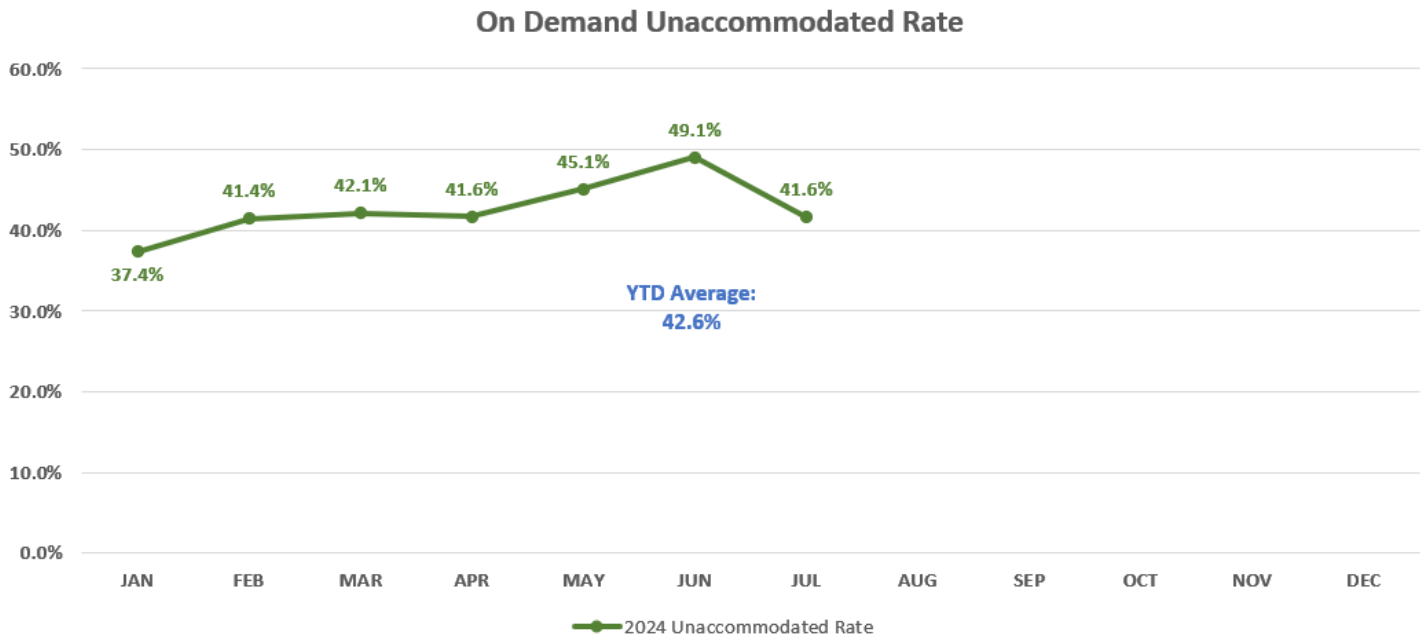
Action Plan

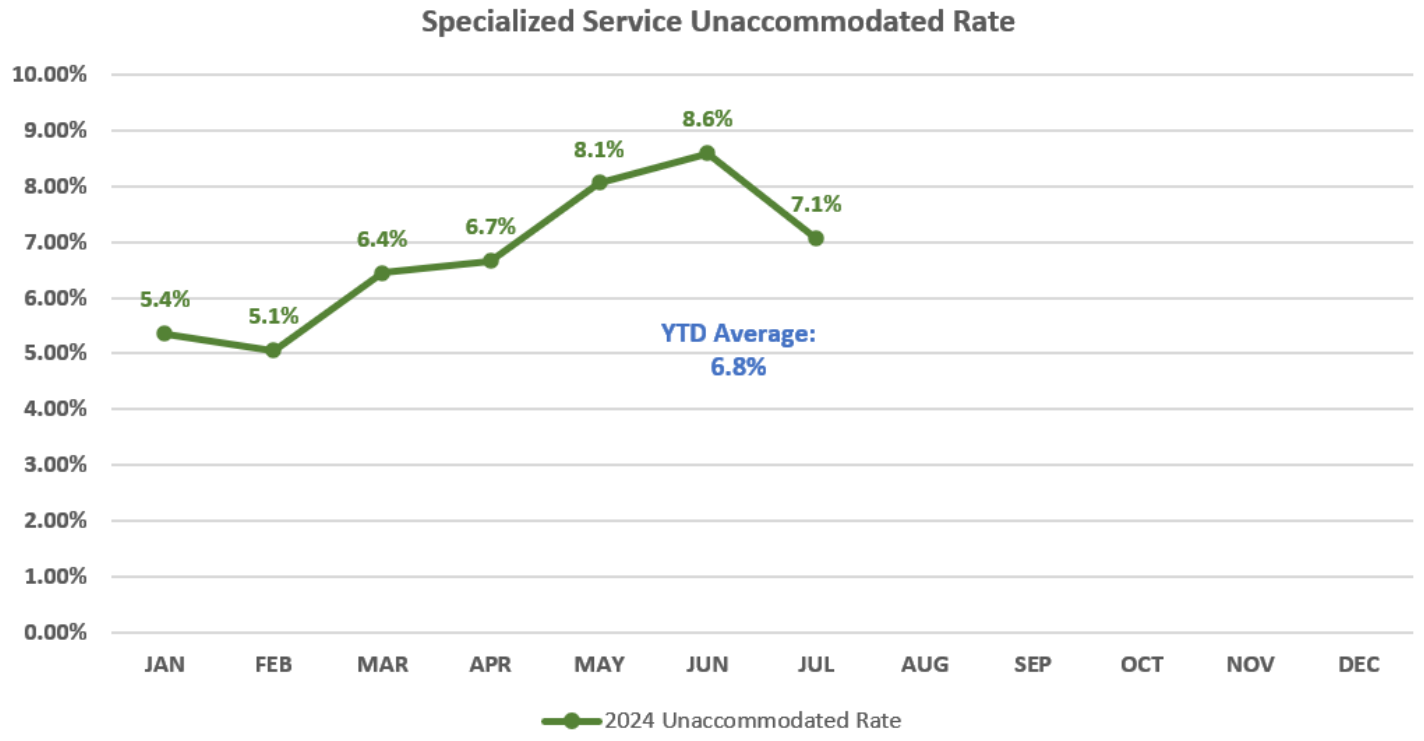
While the there are less trips delivered following the January 2024 adjustments to system parameters, reliability of scheduled On Demands trips has improved. DRT continue to monitor OTP – Demand Response trends throughout 2024 and will review the current performance target for 2025.

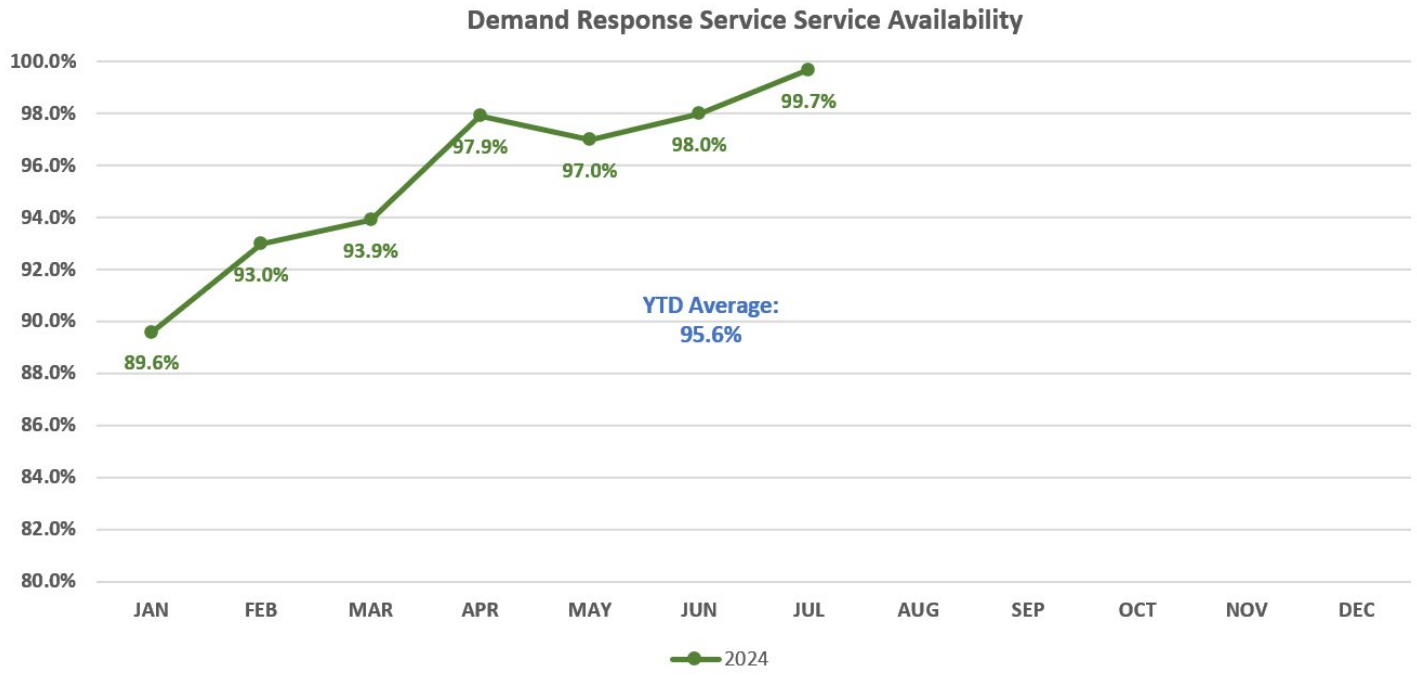
Service Availability (Demand Responsive)






On Demand Unaccommodated Rate
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
37.4%
41.4%
42.1%
41.6%
45.1%
49.1%
41.6%
YTD Average:
42.6%
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
2024 Unaccommodated Rate


Specialized Service Unaccommodated Rate
10.00%
9.00%
8.00%
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
5.4%
5.1%
6.4%
6.7%
8.1%
8.6%
7.1%
YTD Average:
6.8%
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
2024 Unaccommodated Rate



Definition

Service Availability – Demand Response: Service Availability – Demand Response is reflected through three metrics.

Variance between Requested and Actual Booked Pick-up Time: Average difference between the pick-up time requested and actual booked pick-up time. This metric measures how closely a trip can be scheduled to the customer's preferred time. This metric is measured monthly, with a target of 15 minutes.

Unaccommodated Rate: Per cent of requested customer trips that were unable to be scheduled due to lack of capacity, within the service guideline trip scheduling parameter of 30 minutes for Urban and 60 minutes for Rural service areas (relative to pick-up time requested by customer).

An appropriate target for this metric is being developed in consideration of the investments planned in the DRT Transit Service and Financing Strategy (2023-2032), and the approved 2024 budget.

Service Availability: Actual On Demand service hours delivered as a per centage of scheduled On Demand service hours. The service availability target is 99.5 per cent. Service availability for Demand Response service is reported monthly.

Results

Variance between Requested and Actual Booked Pick-up Time

The variance between requested and actual booked pick-up time in July for On Demand trips was 18.4 minutes. For specialized transit trips, the variance was 12.8 minutes.

Unaccommodated Rate

The unaccommodated rate for July On Demand trips was 41.6 per cent, and 7.1 per cent for specialized transit trips. The continued high unaccommodated rates are influenced by the increase in demand for transit services and current service capacity.

Service Availability

Service availability for July 2024 was 99.7 per cent, the first time On Demand has exceeded the 99.5 per cent target. The trend of increased trips delivered since January is a result of improved service availability.

Action Plan

Staff continue to review the new metrics for On Demand and are actively engaged with the service provider to improve service performance. Implementation of the 15,260 additional On Demand service hours approved in the 2024 budget occur gradually over the next few months as resources are secured (drivers and vehicles), which will improve capacity and significantly influence reliability.

Updates

1. **Fare Integration and recent TTC collective bargaining agreement**

   The Toronto Transit Commission (TTC) and the Amalgamated Transit Union (ATU) recently ratified their collective agreement. The details of the agreement were widely communicated in the media, including impacts to planned service integration across the 905 boundaries. Service Integration has been a key deliverable at the Ministry of Transportation Fare and Service Integration Collaboration Table, which resulted in revisions to the City of Toronto Act. Based on the TTC collective agreement with UNIFOR, the planned service integration pilot programs with MiWay and York Region Transit will continue, however, further service integration plans are likely impacted. DRT will continue to operate within the City of Toronto under the existing “closed door” policy.

2. **Service change summary, September 3, 2024**

   Effective Tuesday September 3, 2024, DRT implemented a series of new routes, service reinstatements, and investments to improvement reliability. The enhancements address some gaps in the current DRT network including service to areas with a significant walk distance to transit stops, improving reliability of scheduled service, improving On Demand capacity, and implementing new routes to key high-growth areas including Seaton, and South Bowmanville.

   Enhancements included the following.

   - Reinstated bi-directional 902 service to Bowmanville along Highway 2, and extend Route 502 to operate through South Bowmanville
   - Reinstated midday service on Routes 301, and 319
   - Implemented two-way service on Route 227, extending to serve the Lake Driveway and South Ajax industrial areas
   - Reinstated Route 211 during weekday peak period.
   - Implemented evening service on Routes 409/419 through Whitby and Oshawa.
   - Implemented new Route 118 serving the Whites Road corridor in Pickering, connecting Pickering Parkway Terminal and Seaton
   - Adjusted several routes to improve service reliability
   - Allocated articulated buses to Route 901 to enhance capacity
   - Deployed approximately 13,000 annual service hours during the fall to support On Demand capacity, including vehicles dedicated to serving rural areas

   DRT was unable to secure the required number of operating staff for September to fully implement the revenue service hours approved in the 2024 budget. Additional service hours will be launched as staff become available through the fall. Further enhancements include the following.

   - Return 15-minute peak service to PULSE 915 and 916
   - New route serving west Whitby including the Des Newman and Coronation corridors
   - Evening service on Routes 409/419 through Whitby and Oshawa.

- Additional service on Stevenson Road in Oshawa
- Weekend service to Seaton

3. **Launch of PRESTO in Apple Wallet**

   PRESTO in Apple Wallet launched July 16, 2024 on DRT, the TTC, all 905 transit agencies, GO Transit and UP Express.

   Now, customers can add a virtual PRESTO card to Apple Wallet and tap to ride transit with their iPhone or Apple Watch. This is the first time in Canada that a transit card is available in Apple Wallet, making it even easier to take transit in Durham and across the region.

   PRESTO in Apple Wallet provides customers with many of the same benefits as the classic card such as fare type concessions (youth, post-secondary student, adult and senior) and discounts, as well as a number of added ones.

   Customers can instantly add funds to a PRESTO card in Apple Wallet from the PRESTO app or directly in Apple Wallet, as well as purchase transit passes from the PRESTO app and add them to their PRESTO card in Apple Wallet, without needing to visit an in-person location to do so.

   Customers can acquire a new digital PRESTO card at no cost or convert their existing plastic PRESTO card to transfer their balance and account settings such as fare type. PRESTO in Apple Wallet is also different from a plastic card in several ways (offers real time updates, Express Mode capabilities, no card issuance fee).

   Along with the new option to tap with PRESTO in Apple Wallet, customers can tap their credit or debit cards (physical or digital), digital PRESTO cards in Google Wallet, or their classic PRESTO cards to pay their fare. Taken together, this menu of new payment options means customers have more options than ever to pay their fare across the region.

4. **Collaborating to continuously improve On Demand Service**

   In Spring 2023, DRT partnered with the Transit Analytics Lab at the University of Toronto to conduct in-depth research on On Demand service and ridership. This collaboration aligns with DRT's commitment to continuous improvement and leading innovation in transit services.

   This collaboration led to a research article submitted to the Journal of Transportation Research Part A for publication that analyzed factors influencing On Demand transit demand across urban and rural service areas. Using detailed DRT trip and service data, the study developed prediction models to identify key drivers of ridership. These insights aim to inform service policies and planning strategies, addressing current gaps in transit provision.

   Key findings to date from the research article include the following:

A. On Demand transit ridership increases in areas with:

   - Higher population density
   - More diverse land use (mix of residential, commercial, etc.)
   - Higher employment rates
   - A larger proportion of senior residents (65+ years old)

   This suggests that On Demand service may be most successful when deployed in busy, mixed-use areas with lots of working people and seniors.

B. Unsurprisingly, On Demand ridership decreases in areas with higher median income and more vehicles owned per household. This suggests that wealthier areas and areas where most people own cars may not be ideal for On Demand services.

C. On Demand service appears to complement rather than compete with fixed-route/scheduled transit, filling gaps in existing transit networks rather than replacing traditional bus services, particularly in areas with fewer scheduled service bus stops and for "first mile/last mile" connection to regular transit routes.

D. Service reliability is crucial for On Demand success and for retaining and growing ridership. Longer wait times typically translate into a decrease in ridership.

E. On Demand service shows promise in addressing transit equity issues by improving access for underserved communities: Higher use was seen in areas with more visible minorities and lower incomes, as well as in rural areas with historically lower transit use.

The Transit Analytics Lab team is working on modeling and predicting On Demand trip cancellations and their associated risk levels on transit operations next to inform a conference paper for the Transportation Research Board. We look forward to sharing these findings and the published research article when available.

5. Arrival of first six battery electric buses

Durham Region Transit, as part of its commitment to reducing green-house gas emissions, has begun the fleet electrification process with a six-vehicle pilot, beginning Fall 2024. These six vehicles represent the first of multiple phases of electrification, pending future budgets and funding from other levels of government for subsequent phases.

These first vehicles will operate from the Raleigh depot in Oshawa where dedicated parking spaces and chargers will be available to support daily operation. Initial vehicle assignments will be focused on routes where vehicles will experience high loads, regular stopping, and long cycle times, including but not limited to 900-series frequent transit routes throughout the Region. Over time, these vehicles will be reassigned to other routes so that their performance under different

conditions can be evaluated. Initial vehicle assignments are limited to 225 kilometres before returning to the garage, based on conservative estimates of battery capacity.

The routes selected are expected to be well within the operational range of the vehicles. DRT Planning and maintenance staff will use data collected to inform future deployments, suitability for longer daily assignments, and long-term electrification planning. Below is an image of the first electric bus received over the summer.

6. Revised 2023 Bus Order

The approved 2023 budget included financing of the DRT 10-year Service and Financing Study, specifically the purchase of 22 battery-electric buses and associated charging equipment and infrastructure. DRT and the Region have continued to advocate to Infrastructure Canada for over a year to respond to DRT's application to the Zero Emission Transit Fund (ZETF), but to no avail. DRT must proceed to order the 2023 growth buses or risk being unable to deliver service plan commitments to meet ridership projections for September 2025.

Based on DRT's plan to transition to a zero-emission bus fleet, DRT maintains a $62M loan financing agreement with the Canada Infrastructure Bank (CIB) to purchase up to 98 battery-electric buses by 2027. It is important that DRT maximize the purchase of electric buses to leverage this critical financing, and to demonstrate to CIB that DRT remains committed to the agreement and the fleet transition plan.

The 2023 capital budget included the following:

- 22 electrics buses and ITS equipment ($22.6 million in development charge and provincial gas tax financing, $12.8 million loan financing from CIB)
- Charging infrastructure and equipment ($2.5 million Regional reserve financing, $2.5 million grant financing under the ZETF program)

The estimates for the charging infrastructure and equipment were prepared over two years ago and do not reflect current pricing. In the absence of ZETF funding and cost escalation of the buses, equipment and infrastructure, an estimated $7.8M of additional capital financing by the Region would be required to purchase the 22 electric buses and associated infrastructure and equipment.

In consultation with Finance, DRT evaluated available options to maximize the number of buses that can be purchased within the approved budget while still advancing the Region's electrification strategy. To achieve this objective, under the summer recess provision of the Budget Management Policy, the Region's CAO and Treasurer approved an allocation of $2,799,851 in federal Canada Community Building Fund financing. This has facilitated DRT to order seven regular diesel buses and seven regular electric buses. Unfortunately, the required approach for bus purchases partially deviates from the Region's climate emergency commitments and action plans, and DRT's plan for transitioning to a fully electric bus fleet by 2037. However, DRT is maximizing funding for zero emission buses in the absence of dedicated Federal or Provincial funding.

DRT and the Region continue their advocacy efforts encouraging the Zero Emission Transit Fund Program and Infrastructure Canada to make a decision on DRT's ZETF application which is a critical funding source to DRT's E-Mission zero program.

7. Updated definition for Demand Response Unaccommodated rate

Further to additional operational experience with the new Via demand response platform and understanding how customers are interacting with the trip booking function, the definition for Demand Response Unaccommodated rate will be revised effective the October reporting cycle. The current reporting of unaccommodated rate is inflated. A number of customers are submitting repeat trip requests for the same trip for which the customer has been advised that there is no capacity to provide the trip. A few customers contribute to a significant portion of the duplicate trip requests, in some cases up to 15-20 requests for the same trip.

Moving forward the unaccommodated rate will continue to be defined as the per cent of single customer trip requests unable to be scheduled due to lack of capacity. Trip requests submitted within 24 hours of the original trip request that:

a) are the same as the original request;
b) include a change to the pick-up and/or drop off time within 30 minutes of the original; and/or
c) include changes to the destination within 100 metres of the original location,

will be considered a single unaccommodated trip. The Unaccommodated Rate will also include scheduled trips that DRT was unable to deliver.

Below are examples demonstrating the revisions to the unaccommodated trip data.

Table 1: Example of trip requests submitted by the same customer which will be considered one unaccommodated trip request

Trip request submitted	**Requested Pickup time**	**Requested Destination**	**Trip Status**
September 4, 7.30am	September 5, 8.00am	Joe's Grocery Store	"Seat Unavailable"
September 4, 1.00pm	September 5, 8.25am	Joe's Grocery Store	"Seat Unavailable"
September 4, 5.00pm	September 5, 8.30am	Joe's Grocery Store	"Seat Unavailable"
September 5, 6.00am	September 5, 8.30am	Main Street Pharmacy (75 meters from Joe's Grocery Store)	"Seat Unavailable"

Table 2: Example of trips requests submitted by the same customer which will be considered as separate unaccommodated trip requests.

Trip request submitted	Requested Pickup time	Requested Destination	Trip Status
September 9, 4.00pm	September 9, 7.00pm	Joe's Grocery Store	"Seat Unavailable"
September 9, 4.30pm	September 9, 7.40pm	Joe's Grocery Store	"Seat Unavailable"
September 9, 4.45pm	September 9, 8.30pm	Joe's Grocery Store	"Seat Unavailable"
September 9, 6.00pm	September 9, 8.30pm	Main Street Post Office (550 meters from Joe's Grocery Store)	"Seat Unavailable"

8. Pre-budget approval of critical smart bus on-board device [final wording pending Committee and financing decision]

DRT's Smart Bus system provides real-time bus information through a current device that uses 3G capabilities. DRT was recently advised that cellular carriers will cease their 3G services in 2025, with Rogers, DRT's current service provider, sunsetting their 3G service as early as March 31, 2025. Without cellular connection from the fleet, DRT is unable to use real-time information to manage service, and customers will be unable to leverage real-time data and applications to manage their travel.

The INIT COPILOTpc2 devices equipped on DRT buses rely on 3G connectivity and will no longer function after the 3G service has been discontinued. DRT is required to replace COPILOTpc2 devices with COPILOTpc3 devices.

The lead time for the proprietary INIT COPILOTpc3 to be manufactured and shipped is approximately months from the time of ordering. To mitigate the risk of disruption to operations and customers, the devices must be ordered in September. Staff are preparing a report for the next meeting of the Committee of the Whole, seeking pre-budget approval for the COPILOTpc3.