

# ATTACHMENT B

**Minnesota Valley Transit Authority  
Title VI Monitoring Report**



**April 2020**

## Title VI Monitoring Report

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### I. Summary

The purpose of this monitoring report is to assess and compare the vehicles, availability, scheduling, and quality of Minnesota Valley Transit Authority (MVTA) services as required by Federal Transit Administration (FTA) Circular 4702.1B. As of January 2020, the MVTA Title VI Plan identifies six categories of quantitative review to fulfill the FTA requirement:

- Vehicle Load – Compares the number of passengers to the number of seats
- Vehicle Headway – Identifies the amount of time between vehicles
- On-Time Performance – Measures trips completed as scheduled
- Service Availability – Measures the distribution/availability of service
- Vehicle Assignment – Identifies vehicles placed into service
- Transit Amenities – Counts the number of items of comfort, safety, or convenience

MVTA has an annual ridership of 2.8 million, with a daily ridership of nearly 10,000, and operates a total of 32 routes. Approximately 65% of MVTA's ridership is on express/commuter-focused routes with the remaining 35% on local routes. These routes all serve the seven MVTA partner cities of Apple Valley, Burnsville, Eagan, Prior Lake, Rosemount, Savage, and Shakopee, and two partner counties of Dakota and Scott, as well as downtown Minneapolis, downtown St. Paul, and the University of Minnesota. MVTA manages two bus garages with an active fleet of 169 buses.

For purposes of this report, MVTA service is categorized by 19 commuter routes that operate during the peak period in the peak direction, 8 local routes, 3 feeder/community routes, and 2 transitway routes. These five service type classifications were identified through MVTA's 2010 Service Improvement Plan public process. Of the 31 routes, 12 are classified as minority routes and 19 are non-minority.

Analysis of MVTA Systemwide Service Standards and Policies found no potential for adverse impacts on minority routes. To confirm the findings, MVTA applied the four-fifths rule throughout the report to further compare minority and non-minority routes.

The findings on the following pages describe how the design of MVTA's service, with a split between local and express service, contributes to the results. MVTA's local service provides the most access to minority populations and uses smaller buses with less frequent, all day service compared to express services that rely on highways, use larger buses, and operate only during the peak periods.

## II. Title VI Compliance

MVTA provides equal opportunities for all individuals to access services and programs in compliance with Title VI of the Civil Rights Act of 1964 which states:

*"No persons in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

MVTA is committed to ensuring that no person is excluded from participation in, or denied the benefits of its services, transit planning, and decision-making process, on the basis of race, color, or national origin.

As directed by FTA Circular 4702.1B, transit providers in an urbanized area of more than 200,000 who receive federal funding and operate at least 50 peak vehicles must monitor service standards and policies. The monitoring review assesses and compares services provided to minority and non-minority populations to determine potential for adverse or disproportionate impacts. A monitoring review must be conducted every 3 years, at a minimum.

This review evaluates the potential for adverse impacts by using a 100% sample of minority and non-minority routes and then applying MVTA's Systemwide Service Standards and Policies. For the purposes of this review, MVTA defined a minority route as *"a route that has at least 50% of its total revenue mileage in a Census block or block group, or traffic analysis zone(s) with a percentage of minority population that exceeds the percentage of minority population in the transit service area"* (FTA Circular 4702.1B).

### III. Methodology

- Sample size: MVTA used a 100% sample of its 32 routes.
- Data sources:
  - 2010 US Census block groups & 2017 5-year American Community Survey (ACS)
  - MVTA Ridership and Customer Service Databases
  - MVTA bus stop, bus shelter, transit station, and park & ride inventories
  - MVTA vehicle logs
  - MVTA schedules, effective 9/14/2019
  - MVTA Title VI Systemwide Service Standards and Policies
  - MVTA's Disparate Impact/Disproportionate Burden Policy; MVTA applied the Four-Fifths Rule to further compare minority and non-minority routes throughout the monitoring report. The Four-Fifths Rule is used to determine potential for disparate impacts to minority populations and/or disproportionate burdens to low-income populations. The Four-Fifths Rule indicates evidence of inequality if:
    - 1) Benefits are being provided to minority or low-income populations at a rate less than 80% (four-fifths) of the benefits being provided to non-minority or non-low-income populations.
    - 2) Adverse effects are being borne by non-minority or non-low-income populations at a rate less than 80% (four-fifths) of the adverse effects being borne by minority or low-income populations.
- To identify minority routes, MVTA conducted an evaluation of route distances using Geographic Information Systems (GIS), distances contained within MVTA's scheduling software, as well as a manual review of routing to confirm classifications.
- To compare route performance to service standards and policies, the following calculations were used:
  - Vehicle Load: Ridership by trip divided by seated capacity by vehicle type. Analysis includes evaluation of maximum load and average load by vehicle type.
  - Vehicle Headway: Review of MVTA service schedules for the base period, peak period, and weekends.
  - On-Time Performance: MVTA penalty and incentive program reports and Customer Service Database documentation.
  - Service Availability: Mileage between designated stops with additional review of stops greater than 0.5 miles apart.
  - Vehicle Assignment: Evaluation of vehicles in service by day and route, substitutions by vehicle type and route, and vehicle sizes by route.
  - Transit Amenities: Inventory of the number of transit amenities (designated bus stops, bus shelters, transit stations, and park and rides) served by each route.

## IV. Assessment

The six sections below describe the assessment and findings of MVTA's service monitoring review. Analysis is based on service levels effective September 14, 2019, and uses raw ridership and vehicle data from October 2019.

### Vehicle Load

As part of the monitoring report, MVTA reviewed buses in service and ridership levels on all routes. The table below shows average ridership, average load, and actual maximum load by vehicle type and route classification. Loads are calculated by dividing ridership by the seated capacity of each vehicle type. The maximum load factor represents the maximum capacity of each MVTA vehicle.

**MVTA Vehicle Loads**

Vehicle Type	Max Load Factor	Minority Routes				Non-Minority Routes		
		Average Ridership	Average Load	Actual Max Load	Four-Fifths (80%)	Average Ridership	Average Load	Actual Max Load
16' to 20'	1.59	2.3	0.2	1.1	<b>0.9</b>	--	--	--
35'	1.69	3.5	0.1	0.7	<b>0.6</b>	12.4	0.4	0.6
40'	1.92	4.9	0.1	1.0	<b>0.8</b>	15.3	0.4	1.4
45'	1.28	7.2	0.1	0.2	<b>0.2</b>	19.6	0.3	1.3
40' BRT	1.97	--	--	--	--	9.4	0.3	1.1

Sources: MVTA ridership database and vehicle capacities (October 2019)

Note: There are no minority routes with a first trip on a 45' coach bus or that use 40' bus-rapid-transit vehicles

#### Findings

- Actual maximum loads for both minority and non-minority routes are below MVTA's maximum load factor threshold for all rides in October 2019.
- While there are no disproportionate burdens or benefits regarding vehicle loads, the four-fifths rule was applied to the actual maximum loads on minority routes to further compare MVTA service. The actual maximum loads on non-minority routes were then compared to the four-fifths threshold. There is one vehicle type, medium buses (35'), that shows potential for adverse impacts with the actual maximum load on non-minority routes (0.6) occurring at a rate exactly equal to 80% of the minority route load, which indicates similar crowding on minority route buses of this size.
  - Ten of MVTA's eleven local routes are classified as minority routes. Local routes use small buses to navigate a tighter street network and nearly all of MVTA's local routes are designed to use 16', 20', or 35' buses. Further, all blocks scheduled to operate with small buses each weekday in October 2019 are on minority routes. Overall, there is a much greater level of smaller bus service on minority routes.

## Vehicle Headway

MVTA provides weekday service on all 31 routes and provides weekend service on 5 routes. The Vehicle Headways table shows MVTA's service standard along with the actual service frequency (minutes between trips) for minority and non-minority routes by service type and service period.

**MVTA Vehicle Headways**

Service Type	Service Standard			Minority Routes			Non-Minority Routes		
	Base	Peak	Weekend	Base	Peak	Weekend	Base	Peak	Weekend
<b>Local</b>	60	60	60 *	30 to 60	30 to 60	60 *	60	30 to 60	*
<b>Commuter/Express</b>	120 *	60	60 *	60 *	30 to 60	60 *	60 to 120 **	4 to 60	*
<b>Feeder</b>	60 *	60	*	*	30 to 60	*	*	*	*
<b>Community</b>	60	60 *	*	60	60 *	*	*	*	*
<b>Transitway</b>	60	30	30 *	15 to 30	15	30	30 to 60	15 to 30	*

Source: MVTA schedules effective 9/14/2019 Notes: Peak hours are from 6:00 am to 9:00 am and 3:00 pm to 6:30 pm

\* MVTA's service standards indicate that either service at the frequency shown or no service are acceptable

\*\* Indicates service on Route 475 only

### **Findings**

- All headways on minority and non-minority routes meet or exceed MVTA's service standard; therefore, there is no disparate impact on minority populations related to vehicle headways.
- The average span of weekday service on minority routes, with 15 hours of service, exceeds the 8-hour span on non-minority routes. Minority routes provide an average of 17 hours of service on weekends. There are currently no non-minority routes that provide service on weekends.
- There is only one period where headways on minority routes are less than service levels on non-minority routes: Peak commuter/express service, because headways are shortest on the I-35W and Cedar Avenue corridors, which are primarily served by non-minority routes.

## On-Time Performance

MVTA measures on-time performance by the number of missed trips, with a standard of 1 or fewer per month. MVTA reported 4 missed trips in the three-year period since the last Triennial Review, from January 1, 2016, through December 31, 2019. The missed trips were on Route 460 and METRO Red Line.

As automatic vehicle location technologies continue to be installed on MVTA's entire fleet, an on-time percentage threshold will be used in place of the missed trips count.

### **Finding**

- No significant impact on minority populations regarding missed trips.

### **Service Availability**

MVTA operates eight designated stop routes, with bus stops typically placed 0.5 miles apart. The remaining routes operate with a flag system where riders wave for the driver to stop anywhere along the route. MVTA has nearly 200 bus stops located on minority routes and 50 bus stops located on non-minority routes. The table below shows the average distances between stops on minority and non-minority routes.

**MVTA Average Distance between Designated Stops**

	<b>Service Standard (miles)</b>	<b>Average Distance (miles)</b>	<b>Four-Fifths (80%)</b>
<b>Minority Routes</b>	0.5	0.29	<b>0.23</b>
<b>Non-Minority Routes</b>	0.5	0.37	

Source: MVTA bus stop inventory effective 9/14/2019

#### **Findings**

- The average distance between all MVTA bus stops in the MVTA service area is less than 0.5 miles apart; therefore, there is no disparate impact on minority populations regarding service availability.

### **Vehicle Assignment**

All buses in MVTA's fleet are owned by the Metropolitan Council and meet the standards and replacement plan identified in the Regional Vehicle Fleet Policy. The average age of MVTA's fleet is 7.2 years.

MVTA's service is unique in that a private provider operates all services. MVTA does not assign specific buses to a route but rather assigns a vehicle type. MVTA's provider then designates buses based on availability and random garage line up. The table below identifies the actual vehicles operated based on service type.

**MVTA Vehicle Assignments**

	<b>Service Policy</b>		<b>Actual Operations</b>	
	<b>Min Vehicle Size</b>	<b>Max Vehicle Size</b>	<b>Min Vehicle Size</b>	<b>Max Vehicle Size</b>
<b>Local</b>				
Minority	16'	40'	16'	40'
Non-Minority	16'	40'	40'	40'
<b>Commuter/Express</b>				
Minority	35'	45'	35'	45'
Non-Minority	35'	45'	35'	45'
<b>Feeder</b>				
Minority	16'	40'	16'	40'
Non-Minority	16'	40'	--	--
<b>Community</b>				
Minority	16'	35'	16'	16'
Non-Minority	16'	35'	--	--
<b>Transitway</b>				
Minority	40'	45'	40'	40'
Non-Minority	40'	45'	40'	45'

Source: MVTA vehicle logs (October 2019)

For the sample period reviewed, there were 127 instances where the bus type operated varied from the bus type scheduled. In 119 situations, a larger or equal bus type was used. In the remaining 8 situations a smaller bus type was used; these situations were analyzed further. MVTA's review of bus substitution impacts on minority and non-minority routes is included in the findings below.

**Findings**

- All actual vehicle assignments are within the thresholds identified by the MVTA Vehicle Assignment Service Policy; therefore, there is no disparate impact on minority populations regarding vehicle assignments.
- Of the 8 vehicle substitutions where a smaller bus type was used, all substitutions were on non-minority routes. No minority-route buses were substituted with smaller buses for the sample period reviewed.
- The average age of a bus running on a minority route was 5.8 years, while the average age of a non-minority route bus was 5.2, within the four-fifths threshold of 4.6 years.

**Transit Amenities**

MVTA maintains designated bus stops on 8 routes and at 22 bus shelters, 6 transit stations, and 8 park and rides. All categories of transit amenities have the components identified in MVTA's Title VI Plan. To determine the number of amenities, the total number of stops along each route and the number of routes serving each facility type were identified. On average there is access to 15.7 amenities on minority routes compared to 6.5 on non-minority routes. The table below shows the average number of amenities by category.

**Average Number of Amenities per Route**

<b>Amenity</b>	<b>Minority Routes</b>	<b>Non-Minority Routes</b>	<b>Four-Fifths (80%)</b>
<b>Designated Bus Stops</b>	15.7	6.5	<b>5.2</b>
<b>Bus Shelters</b>	12.2	4.2	<b>3.4</b>
<b>Transit Stations</b>	1.8	0.4	<b>0.3</b>
<b>Park and Rides</b>	1.3	1.1	<b>0.9</b>

Sources: MVTA bus shelter inventory, designated stop listing, & facility review

**Findings**

- Overall, amenities available on minority routes exceed those on non-minority routes by a 5:2 ratio; therefore, there is no disparate impact on minority populations regarding transit amenities.