## ATTACHMENT F VEHICLE ASSIGNMENT STANDARDS

The current vehicle assignment policy is shown in Figure F-1 as adopted in December 2011. The policy ensures that vehicles are assigned in accordance with service requirements.

# Figure F-1 Vehicle Assignment Policy

### <u>Buses</u>

Buses will be assigned to individual facilities on the basis of vehicle size requirements for lines supported by each facility.

#### Light Rail

Light rail cars will be assigned to individual lines on the basis of compatibility of vehicle controllers with each line's signal system. The number of vehicle types/manufacturers will be kept to no more than two at any facility to minimize parts storage and maximize maintenance expertise.

#### Heavy Rail

This assignment policy is not applicable to heavy rail as the Red and Purple Lines operate out of the same division and both employ the same vehicle type.

All buses are assigned to individual lines in accordance with this policy. The resulting distribution of vehicles as of January 2016 (the time of the last major service change prior to the conduct of this evaluation) is displayed in Tables F-1 and F-2.

Table F-2
Fleet Distribution by Minority Bus Lines Classification – Jan 2016

	# of Peak Buses	Average Age	Average # of Seats	
Minority Lines	1,566	7.77	43.4	
non-Minority Lines	368	6.88	43.1	
Combined	1,934	7.60	43.3	

The Minority average bus age is 2.2% higher than the peak fleet average, however the non-Minority average bus age is 9.5% less than the peak fleet average. The adopted standard for what would constitute a disparate impact is a difference greater than 10%. Because the average age of buses assigned to minority lines is significantly older than the age of buses assigned to non-minority lines there is a disparate impact.

With delivery over the last year of approximately 800 new buses, and with the full opening of new bus Division 13, the implementation of the June 2016 Service Change Program bus assignments were significantly realigned. Because of this the assignment analysis was redone using June 2016 bus assignments. The results are shown in Table F-3. It can be seen that there is no longer a disparate impact.

Table F-3
Fleet Distribution by Minority Bus Lines Classification – June 2016

# of Peak Buses	Average Age	Average # of Seats	
1,548	6.87	43.5	
384	7.04	43.1	
1,932	6.91	43.4	

Heavy rail vehicle assignment is constrained as both the Red and Purple lines are operated out of Division 20. There are 104 vehicles averaging 19.1 years old. Light rail vehicles support the operation of four rail lines from five facilities. Assignment of light rail vehicles is summarized in Table F-3 as of May 5, 2016.

Table F-4
Light Rail Vehicle Assignments

	# of Vehicles	Average Age	
Blue Line	69	21.8	
Green Line	29	14.8	
Gold Line	62	5.2	
Expo Line	26	19.8	
	186	14.9	

All light rail vehicles are originally provided with 76 seats. Vehicles assigned to the Blue, Green and Gold Lines have five seats removed to accommodate bicycles and other bulky items. The fleet is currently in transition as new car deliveries are being processed and will continue at least through 2017. As of May 5, 2016, 15 of these vehicles had been accepted and placed into service. The total order, including options, is anticipated to be 235 vehicles – a portion will replace older vehicles and some will support further expansion of the system including the Regional Connector and the Crenshaw Line.

The current distribution of vehicles by age is distorted because the Metro Gold Line received almost all of the initially accepted new vehicles to support the Azusa Extension that opened in March 2016; since then over 20 have been delivered and distributed between the Expo and Gold Lines. The Blue and Expo Lines will receive a large complement of new vehicles as they are accepted to support the Expo Extension that opened in late May 2016. Because the current vehicle distribution will be undergoing significant change over the next few months it would be inappropriate to draw any conclusions regarding disparate impacts at this time. It is known that the newest cars currently under construction over the next two years will be assigned to replace the

original Blue Line cars placed into service in 1991. All rail lines are classified as minority lines.

A draft of the proposed Rail Vehicle Management Plan proposes a new standard for rail vehicle assignment. It is proposed that *no line shall have an average fleet age greater than 20% of the average for the mode*. By that standard the Blue and Expo lines would be disparately impacted based upon the March fleet data, though the addition of the Expo Line Santa Monica Extension and the introduction of the remaining 220 new light rail vehicles are not reflected in this analysis. However, three years from now when the next tri-annual audit is conducted, the new cars will be placed on the proper lines to meet the rail vehicle assignment standard.