

Transit Level of Service

El Paso MPO

El Paso Metropolitan Planning Organization, as part of their continuous effort to analyze various performance measures with the goal of providing a transportation system that serves the public, has conducted an analysis based on a system-wide transit level of service. This analysis, which is discussed in further detail in the Congestion Management Process Report from 2019, consists on analyzing the on-time performance for each active route in the city. On-time performance is a percentage value used to indicate whether buses arrive or depart late, on time, or early. In this case, the level of service for each route was determined using the threshold from the Transit Capacity and Quality of Service Manual as shown in Fig. 1. This threshold works in the same way a letter grade works, “A” represents the best possible level of service while “F” represents an unacceptable level of service. From the figure presented, it can be observed that in order for a route to obtain a level of service of “A” at least 95% of arrivals need to be classified as on-time.

In order to complete the analysis, the MPO coordinated with Sun Metro to gather the on-time performance for each route for each year in which the analysis was performed. This time it was decided to complete the analysis for 2018, 2019, and 2021 to be able to observe the trends in terms of levels of service for each route. It should be noted that 2020 was excluded from this analysis as COVID-19 and lockdowns had a major impact on traffic levels and transit usage, which would result in unrealistic values.



It is important to mention that while this analysis is based on the yearly values for each route, Sun Metro has developed a [website](#) in which the user is able to obtain live information regarding the status of each route. The information the user is able to see includes the time (in minutes) each route is set to arrive late or early in addition to showing the percent capacity each line has at the time.

On-time Performance	Passenger Perspective	Operator Perspective (System Level)
95–100% A	<ul style="list-style-type: none"> Passenger making one round trip per weekday with no transfers experiences one not-on-time vehicle every 2 weeks 	<ul style="list-style-type: none"> Achievable by transit services operating below capacity on a grade-separated guideway not shared with non-transit vehicles, with few infrastructure or vehicle problems
90–94% B	<ul style="list-style-type: none"> Passenger making one round trip per weekday with no transfers experiences one not-on-time vehicle every week 	<ul style="list-style-type: none"> Achievable by transit services operating on a grade-separated guideway not shared with non-transit vehicles
80–89% C	<ul style="list-style-type: none"> Passenger making one round trip per weekday with no transfers experiences up to two not-on-time vehicles every week 	<ul style="list-style-type: none"> Typical range for commuter rail that shares track with freight rail Typical range for light rail with some street running Achievable by bus services in small- to mid-sized cities
70–79% D	<ul style="list-style-type: none"> Passenger making one round trip per weekday with no transfers experiences up to three not-on-time vehicles every week Passenger making one round trip per weekday with a transfer experiences a not-on-time vehicle every day 	<ul style="list-style-type: none"> Typical range for light rail with a majority of street running Achievable by bus services in large cities
<70% F	<ul style="list-style-type: none"> Service likely to be perceived as highly unreliable 	<ul style="list-style-type: none"> May be best possible result for mixed-traffic operations in congested CBDs

Figure 1-Level of Service Criteria

Once the information was obtained and analyzed, all the routes were divided by areas as it is done already by Sun Metro, in order to better understand the different needs for improvement in each of the different areas of the city. Below is an example of the analysis made for the Northeast region. In this example we are presented with all the routes that have been active during the analysis period in addition to the corresponding on-time performance. Lastly, using the criteria from the Transit Capacity and Quality of Service Manual, a Level of Service (LOS) was determined. After observing the results, a clear trend appears as the level of service for all the routes improve year by year, meaning that by 2021 all routes had a level of service of “B”.

2018	On-Time Performance	LOS
35 - Northgate Via Dyer	91%	B
37 - Northgate Via Dyer		
43 - Montalvo Park Via Dyer	81%	D
44 - Sean Haggerty Via Mccombs	88%	C
46 - Northeast Circulator/Rushing		
207 - Dyer BRIO		

Figure 2- 2018 Level of Service

2019	On-Time Performance	LOS
35 - Northgate Via Dyer	96%	A
37 - Northgate Via Dyer		
43 - Montalvo Park Via Dyer	86%	C
44 - Sean Haggerty Via Mccombs	89%	C
46 - Northeast Circulator/Rushing	90%	B
207 - Dyer BRIO	97%	A

Figure 3- 2019 Level of Service

2021	On-Time Performance	LOS
35 - 5 Points via Dyer	99%	A
37 - Northgate Via Dyer	98%	A
43 - Montalvo Park Via Dyer	97%	A
44 - Sean Haggerty Via Mccombs	95%	A
46 - North Hills Circulator/Rushing	90%	B
207 - Dyer BRIO	97%	A

Figure 4- 2021 Level of Service

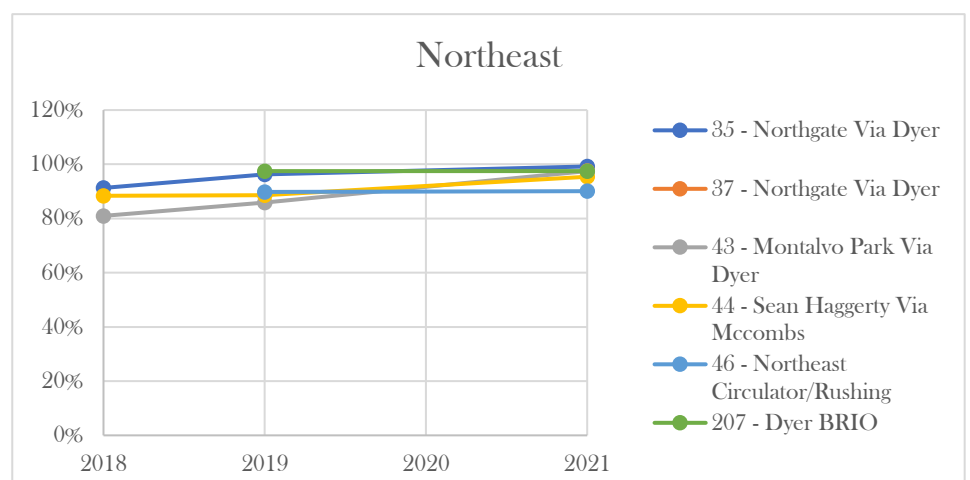


Figure 5-Northeast Level of Service Trends

* The routes that have not been analyzed for on-time performance is because no information could be found for said routes in the desired year

Below we have presented a summary of the analysis performed for all the different routes, in a similar way to the one previously discussed, dividing them by area for ease of identification.

2018	On-Time Performance	LOS
10 - Sunset Heights/UTEP	96%	A
11 - Mesita Via Kern Place	91%	B
12 - Doniphan Circulator	92%	B
13 - Coronado Hills Circulator	97%	A
14 - Westwind	96%	A
15 - Mesa	96%	A
16 - Upper Valley Circulator	97%	A
19 - Resler Circulator	98%	A
205 - Mesa BRIO	94%	B

2019	On-Time Performance	LOS
10 - Sunset Heights/UTEP	96%	A
11 - Mesita Via Kern Place	93%	B
12 - Doniphan Circulator	91%	B
13 - Coronado Hills Circulator	96%	A
14 - Westwind	94%	B
15 - Mesa	95%	A
16 - Upper Valley Circulator	97%	A
19 - Resler Circulator	92%	B
205 - Mesa BRIO	97%	A

2021	On-Time Performance	LOS
10 - Sunset Heights/UTEP	87%	C
11 - Mesita Via Kern Place		
12 - Doniphan Circulator	96%	A
13 - Coronado Hills Circulator	93%	B
14 - Westwind	94%	B
15 - Mesa	90%	B
16 - Upper Valley Circulator	99%	A
19 - Resler Circulator	96%	A
205 - Mesa BRIO	94%	B

Westside On-Time Performance 2018-2021

2018	On-Time Performance	LOS
21 - Chelmont Via Raynolds	94%	B
24 - Delta Via Second Ward	90%	B
25 - University Medical/Cielo Vista	96%	A

2019	On-Time Performance	LOS
21 - Chelmont Via Raynolds	94%	B
24 - Delta Via Second Ward	95%	A
25 - University Medical/Cielo Vista	93%	B

2021	On-Time Performance	LOS
21 - Chelmont Via Raynolds	97%	A
24 - Delta Via Second Ward	95%	A
25 - University Medical/Cielo Vista	90%	B

South Central On-Time Performance 2018-2021

2018	On-Time Performance	LOS
32 - Logan Heights/Piedras	96%	A
33 - Government Hill Via Bassett	97%	A
34 - Medical Center Via Cliff	98%	A
36 - Beaumont Hospital/Highland	97%	A

2019	On-Time Performance	LOS
32 - Logan Heights/Piedras	95%	A
33 - Government Hill Via Bassett	96%	A
34 - Medical Center Via Cliff	97%	A
36 - Beaumont Hospital/Highland	97%	A

2021	On-Time Performance	LOS
32 - 5 Points/Piedras/Ft Bliss	91%	B
33 - Government Hill Via Bassett	96%	A
34 - Medical Center Via Cliff	98%	A
36 - Beaumont Hospital/Highland	98%	A

North Central On-Time Performance 2018-2021

2018	On-Time Performance	LOS
50 - Montana	96%	A
51 - Edgemere	93%	B
52 - Pebble Hills	93%	B
53 - Montwood	94%	B
54 - RC Poe Via Montwood		
56 - RC Poe/Far East Circulator		
58 - Montana/Turner	94%	B
72 - Vista Del Sol	97%	A
74 - Rojas	95%	A

2019	On-Time Performance	LOS
50 - Montana	95%	A
51 - Edgemere	86%	C
52 - Pebble Hills	85%	C
53 - Montwood	90%	B
54 - RC Poe Via Montwood		
56 - RC Poe/Far East Circulator		
58 - Montana/Turner	97%	A
72 - Vista Del Sol	87%	C
74 - Rojas	88%	C

2021	On-Time Performance	LOS
50 - Montana	88%	C
51 - RC Poe Via Edgemere	93%	B
52 - RC Poe Via Pebble Hills	88%	C
53 - George Dieter Via Montwood	92%	B
54 - RC Poe Via Montwood	93%	B
56 - RC Poe/Far East Circulator	85%	C
58 - Montana/Turner	96%	A
72 - Vista Del Sol	97%	A
74 - Pelicano/Rojas	91%	B

Eastside On-Time Performance 2018-2021

2018	On-Time Performance	LOS
60 - Zaragoza Bridge Circulator	94%	B
61 - Ysleta Via Alameda	93%	B
62 - Pasodale Via Lakeside	96%	A
63 - Loma Terrace Via Zaragoza	97%	A
64 - Mission Valley via Alameda		
65 - Hacienda Via Carolina	96%	A
66 - Lancaster Via North Loop	95%	A
67 - Yarbrough	93%	B
68 - Lee Trevino	83%	D
69 - George Dieter		
86 - Boredaux via North Loop		
206 - Alameda BRIO		

2019	On-Time Performance	LOS
60 - Zaragoza Bridge Circulator	97%	A
61 - Ysleta Via Alameda	90%	B
62 - Pasodale Via Lakeside	96%	A
63 - Loma Terrace Via Zaragoza	97%	A
64 - Mission Valley via Alameda		
65 - Hacienda Via Carolina	94%	B
66 - Lancaster Via North Loop	94%	B
67 - Yarbrough	87%	C
68 - Lee Trevino	83%	D
69 - George Dieter		
86 - Boredaux via North Loop		
206 - Alameda BRIO	98%	A

2021	On-Time Performance	LOS
60 - Zaragoza Bridge Circulator	99%	A
61 - DTC Via Alameda	90%	B
62 - GovtDistrict Via Lakeside	93%	B
63 - MissionValley via Eastside Terminal	93%	B
64 - Mission Valley via Alameda	81%	D
65 - Valle Verde via Paisano	98%	A
66 - Valle Verde via North Loop	94%	B
67 - Yarbrough	96%	A
68 - Lee Trevino	83%	D
69 - George Dieter	92%	B
86 - Boredaux via North Loop	94%	B
206 - Alameda BRIO	97%	A

Mission Valley On-Time Performance
2018-2021