



CITY OF NORMAN, OK CITY COUNCIL COMMUNITY PLANNING & TRANSPORTATION COMMITTEE MEETING

Municipal Building, Executive Conference Room, 201 West Gray, Norman,
OK 73069

Thursday, April 25, 2024 at 4:00 PM

AGENDA

It is the policy of the City of Norman that no person or groups of persons shall on the grounds of race, color, religion, ancestry, national origin, age, place of birth, sex, sexual orientation, gender identity or expression, familial status, marital status, including marriage to a person of the same sex, disability, relation, or genetic information, be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination in employment activities or in all programs, services, or activities administered by the City, its recipients, sub-recipients, and contractors. In the event of any comments, complaints, modifications, accommodations, alternative formats, and auxiliary aids and services regarding accessibility or inclusion, please contact the ADA Technician at 405-366-5424, Relay Service: 711. To better serve you, five (5) business days' advance notice is preferred.

CALL TO ORDER

AGENDA ITEMS

1. PUBLIC TRANSIT REPORT.
2. DISCUSSION REGARDING BRIDGE STANDARDS.

ADJOURNMENT



MEMO TO: Council Community Planning and Transportation Committee

FROM: Taylor Johnson, Transit and Parking Program Manager

THROUGH: Scott Sturtz P.E., CFM, Interim Director of Public Works

DATE: April 25, 2024

SUBJECT: Public Transportation Monthly Report

Purpose

The Public Transportation Monthly Report provides updates to City Council on public transit related items. In addition to the updates provided below, attached is the EMBARK Norman Performance Report and the Norman On-Demand Performance Report for the previous month. These reports provide updates on key metrics associated with the operations of each respective transit system.

Updates

Go Norman Transit Plan (City of Norman Transit Long Range Plan Update)

- The Go Norman Transit Plan was approved by resolution by Council on June 22nd, 2021. Staff are continuing to move forward on the next steps as recommended in the plan. Recent work includes:
 - Fleet Maintenance & Vehicle Procurement (upgrades and standardization)
 - City Fleet Maintenance staff continue to ensure that the transit fleet is in operational condition each morning for line up, despite the age of the vehicles that the City inherited.
 - The City's Transit Fleet includes 27 revenue vehicles, 13 in the fixed-route fleet and 14 in the paratransit fleet. There are ongoing purchases for replacement vehicles in progress, and once all of these ordered vehicles have been delivered it is expected the City will only have 9 out of 27 (3 out of 13 in the fixed route fleet; 6 out of 14 in the paratransit fleet) of the revenue vehicles used in the City's transit fleet which have met their useful life and are eligible to be retired according to FTA requirements. Staff are working to place an order for an additional 6 paratransit vehicles which will, when delivered, leave 3 fixed-route vehicles remaining in the transit revenue fleet in need of replacement.
 - The City is currently finalizing the purchase of 5 paratransit vans, after multiple warranty inspection delays. The first of these is expected to go into service by the end of April. The remaining units are expected to pass inspection and go into service soon after. Below is background on this purchase:
 - On December 14, 2021 the City Council passed and adopted resolution R-2122-72 transferring \$346,703 from the Capital Fund Balance to be matched with \$122,812 from the Public Transit and Parking Fund to be used to replace 5 paratransit vehicles in the Transit Fleet for a total of \$469,515.
 - Due to ongoing supply chain issues the price of the vehicles had increased, however staff were able to identify additional FTA grant funding allocated to Norman to supplement the cost increase and decrease the amount of local match that was provided from the Public Transit and Parking Fund. Resolution R-2122-98 was approved by Council on March 8, 2022 transferring an additional \$149,454 (for a total cost of \$584,655) to cover the cost increase. FTA grant OK-2020-026 will be amended to \$496,157 leaving a local match of \$88,508 (a reduction in the local matching funds of \$34,304.)
 - On June 26, 2023, the FTA awarded the City's grant application to the FTA's Bus and Bus Facilities (5339b) and Low- or No-Emissions Grants program to purchase 6 CNG cutaway buses for fleet replacement. Staff are currently working on developing specifications for these vehicles and anticipate bringing a request to Council this spring for acceptance of the grant and procurement of these vehicles.
 - On February 9, 2024 the City Manager approved the purchase of two support vehicles on the state contract using funds available in the Public Transportation Fund which were budgeted for vehicle replacement.

New Route Network

City Transit staff continue to monitor and ensure the smooth transition to the new route network by working with other City staff, EMBARK staff, citizens, local organizations, and Councilmembers to identify and resolve concerns arising from the new route network.

Service Expansion Priorities

Now that the new route network has been implemented, City Transit staff are reviewing and evaluating the next priorities recommended by the Go Norman Transit Plan. The first three expansion

office memorandum



office memorandum

recommendations from a total of eight recommendations are as follows:

- Priority 1: Sunday Service – This service expansion responds to rider requests for Sunday service. Sunday service span and trip frequencies would match Saturday service levels. Sunday transit service is currently being tested as part of the Norman On-Demand microtransit pilot program.
- Priority 2: Increased Frequency on Route 112 – This service expansion upgrades the trip frequency of Route 112 (West Lindsey) from 60 minutes to 30 minutes. Ridership on this route has increased 75-110% since the new route network was implemented. Staff have submitted a budget request for FYE 2025 to implement this service expansion, which has been approved in the preliminary budget.
- Priority 3: Increased Frequency on Route 110 – This service expansion upgrades the trip frequency of Route 110 (Main St/24th Ave NW) from 60 minutes to 30 minutes. While ridership for this route has decreased 40% since the new route network was implemented, the planned developments along 24th Ave NW are expected to increase ridership along this route as well.

Grants

- Staff continue to research eligible grants to support existing operations, vehicle needs, and future improvements.
- On December 12, 2023 Council approved contract K-2324-105 with the Oklahoma Department of Transportation (ODOT), accepting funds from the fiscal year 2024 State of Oklahoma Public Transit Revolving Fund. This allocation is based on mileage from the previous fiscal year and the City of Norman was allocated \$207,400 for fiscal year 2024.
- On February 15, 2024, the Association of Central Oklahoma Governments (ACOG) awarded The City of Norman \$1,078,880 in Public Fleet Conversion Grant Program funding which will require a local match of \$269,270 (which has been identified in the Public Transportation Fund) to install pantograph EV bus charging infrastructure at the Norman Transit Center. This overhead infrastructure will allow the City's battery electric buses to rapidly recharge while stopped at the Transit Center during operation thereby extending the time before these EV buses need to return to the Transit maintenance facility to fully recharge. The total cost of this project is estimated to be \$1,348,600.

Microtransit Pilot Program with Via Transportation – Norman On-Demand

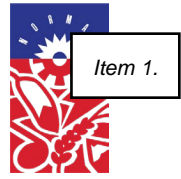
- Following a study to determine the best plan for establishing a microtransit pilot program in the City of Norman, staff conducted a competitive bid process for a turnkey pilot program. The proposal from Via Transportation was determined to be the best suited to the needs of Norman. Contract K-2223-164 with Via Transportation was approved unanimously by council on June 27, 2023.
- After discovering the University of Oklahoma was interested in collaborating on microtransit services with the renewal of their SafeRide program, staff worked to amend the agreement with Via to include that collaboration. On August 8, 2023 Council approved both Amendment 1 to contract K-2223-164, and Contract K-2324-50 with the University of Oklahoma for microtransit services.
- Website updates and the end user app both went live on August 16, 2023 and the microtransit service launched as planned on August 21, 2023. More details can be found in the attached monthly performance report for this service, named Norman On-Demand.
- A review of this pilot program was presented for Council's consideration at the Council study session on February 27, 2024, and staff are following up on feedback to expand the program for the remaining of the existing contract and to renew the contract into FY25.

Conclusion

Thank you for your review of these updates and attached monthly performance reports. Staff are prepared to answer any questions you may have.

Attached:

1. EMBARK Norman Performance Report for March 2024.
2. Norman On-Demand Performance Report for March 2024.



PERFORMANCE REPORT

Transit System Report

March 2024

Purpose

The Transit System Report provides a summary of both internal indicators and performance measures used to evaluate the performance of the EMBARK transportation system for the City of Norman. The internal indicators are mainly used by staff to compare performance to previous periods whereas, the performance measures having

specific targets are more outcome-based and are included in EMBARK's strategic business plan to help demonstrate accomplishments given the resources that are provided. The internal indicators and performance measures included in this report address ridership, dependability, safety and align with EMBARK's mission.

Total Ridership

Total ridership for EMBARK Norman in March 2024 was 33,836 compared to 32,539 in March 2023. The average total daily ridership was 1,301 for March 2024, a 7.97% increase from 1,205 in March 2023. Fiscal-year-to-date ridership is 303,003 passengers, a 26.39% increase from the March 2023 YTD total of 239,738.

The fixed-route service totaled 31,961 for March 2024 compared to 30,515 for March 2023. Average fixed-route daily ridership for March 2024 was 1,232 compared to 1,132 for March 2023, an 8.83% increase. Passengers with bicycles or similar means of travel totaled 747, compared to 782 for March 2023. Passengers with wheelchairs or other mobility devices totaled 523, compared to 281 for March 2023.

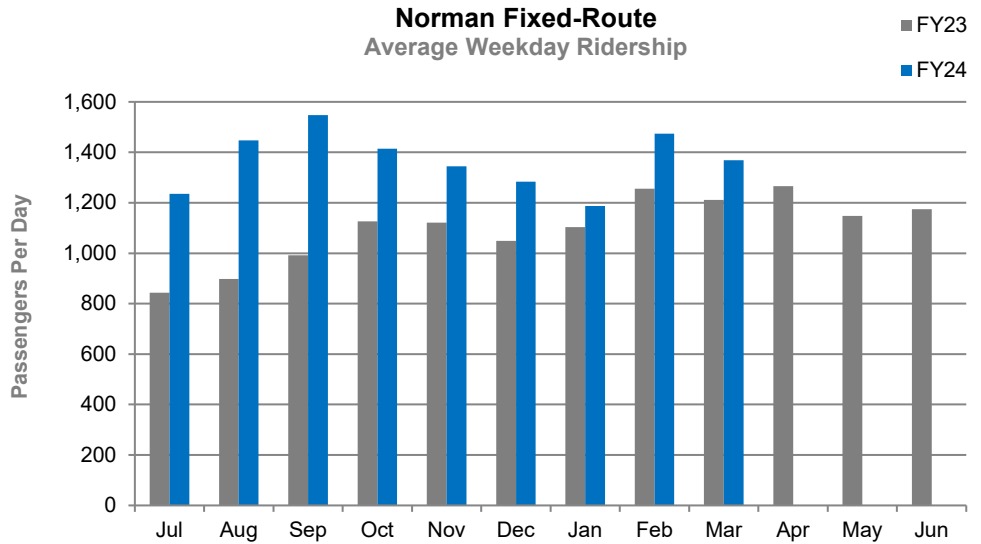
PLUS ridership totaled 1,875 for March 2024, compared to 2,024 for March 2023. The average total PLUS ridership was 72 for March 2024, compared to 75 for March 2023, a 4.00% decrease. Passengers with wheelchairs or other mobility devices totaled 364 for March 2024, compared to 375 for March 2023, a 2.93% decrease.

Norman Transit Services	Mar FY24	Mar FY23	+/- Mar FY23
Fixed Routes (M-F)	28,661	27,809	3.06%
110 - Main Street	2,723	5,357	-49.17%
111 - Lindsey East	15,902	12,826	23.98%
112 - Lindsey West	6,330	3,442	83.90%
120 - West Norman*	N/A	212	N/A
121 - Alameda	1,980	5,946	-66.70%
122 - Rock Creek**	1,683	N/A	N/A
144 - Social Security	43	26	65.38%
Fixed Routes (Sat)	3,300	2,706	21.95%
110 - Main Street	347	602	-42.36%
111 - Lindsey East	1,743	1,057	64.90%
112 - Lindsey West	858	310	176.77%
121 - Alameda	158	737	-78.56%
122 - Rock Creek**	194	N/A	N/A
PLUS ADA Service	1,875	2,024	-7.36%
PLUS (M-F)	1,778	1,932	-7.97%
PLUS (Sat)	97	92	5.43%
Bikes	747	782	-4.48%
Wheelchair	523	281	86.12%
PLUS Wheelchair	364	375	-2.93%
*Route 120 ended service on 10/14/2023			
**Route 122 began service on 10/16/2023			

Fixed Route Weekday Ridership

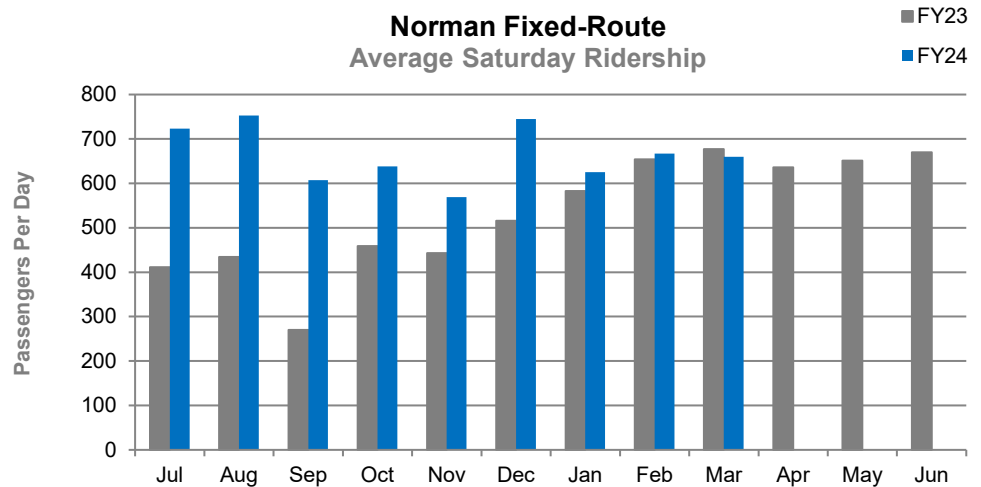
Total fixed-route weekday ridership for March 2024 was 28,661, a 3.06% increase from 27,809 in March 2023. Average weekday passenger ridership totaled 1,368 in March 2024; a 12.96% increase compared to 1,211 for March 2023. The average RPSH was 18.21.

Spring break at the University of Oklahoma occurred from 3/18 to 3/22.



Fixed Route Saturday Ridership

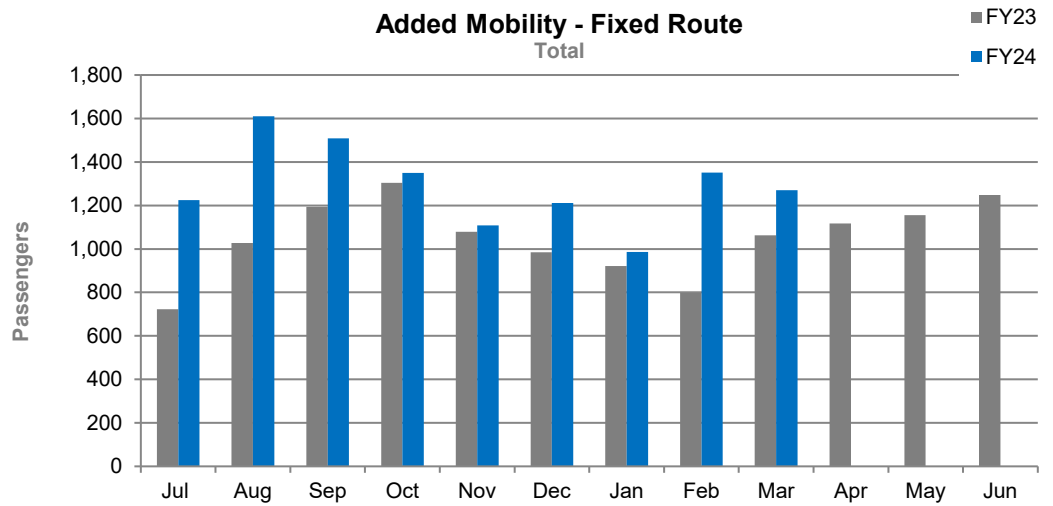
Total fixed-route Saturday ridership for March 2024 was 3,300, a 21.95% increase from 2,706 in March 2023. Average Saturday passenger ridership totaled 660 for March 2024, a 2.51% decrease from 677 in March 2023. The average RPSH was 14.99.



Added Mobility – Fixed Route

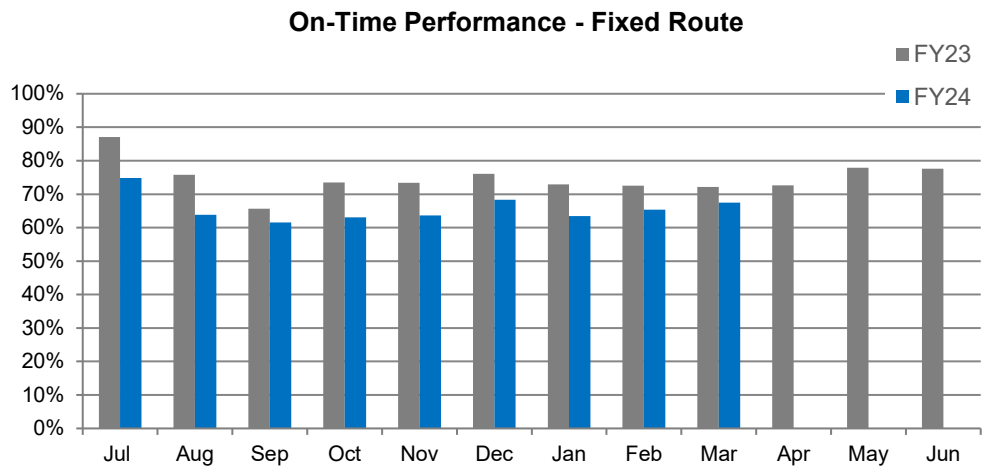
Total passengers with added mobility, such as bikes and wheelchairs, totaled 1,270 for March 2024, a 19.47% increase from 1,063 in March 2023.

Bike passengers totaled 747, a 4.48% decrease from 782 in March 2023. Wheelchair passengers totaled 523, a 86.12% increase from 281 in March 2023.



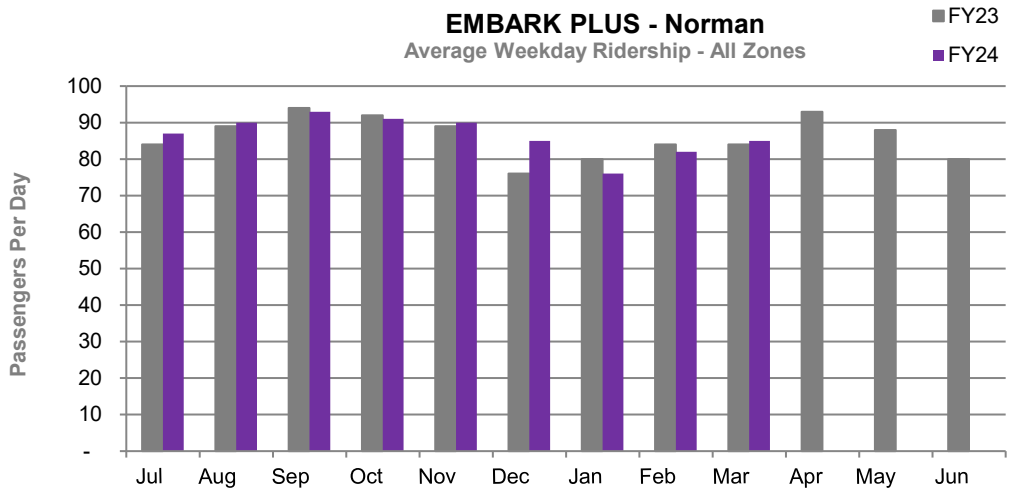
On-Time Performance – Fixed Route

Cumulative on-time performance for fixed-route buses was 67.5% in March 2024, a 4.70% decrease from 72.2% in March 2023.



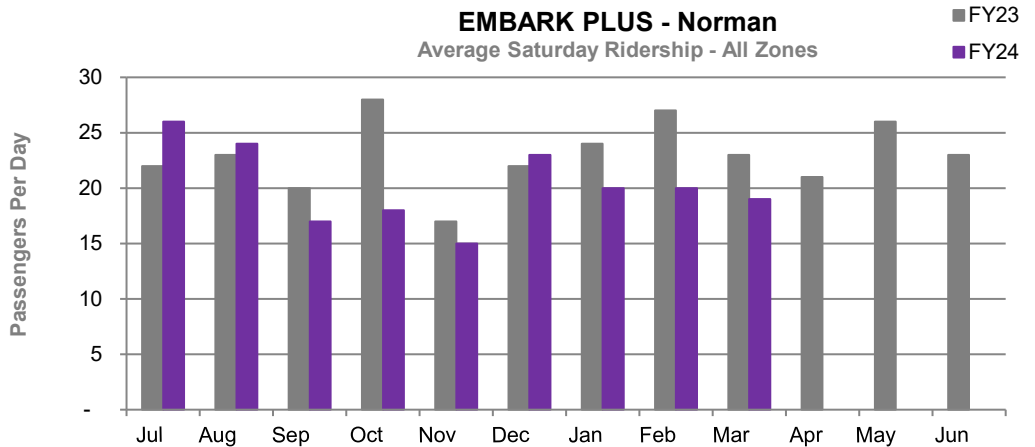
PLUS Weekday

Total PLUS weekday ridership for March 2024 was 1,778, a 7.97% decrease from 1,932 in March 2023. Average weekday passenger ridership totaled 85 for March 2024, a 1.19% increase from the March 2023 average of 84. RPSH was 1.22.



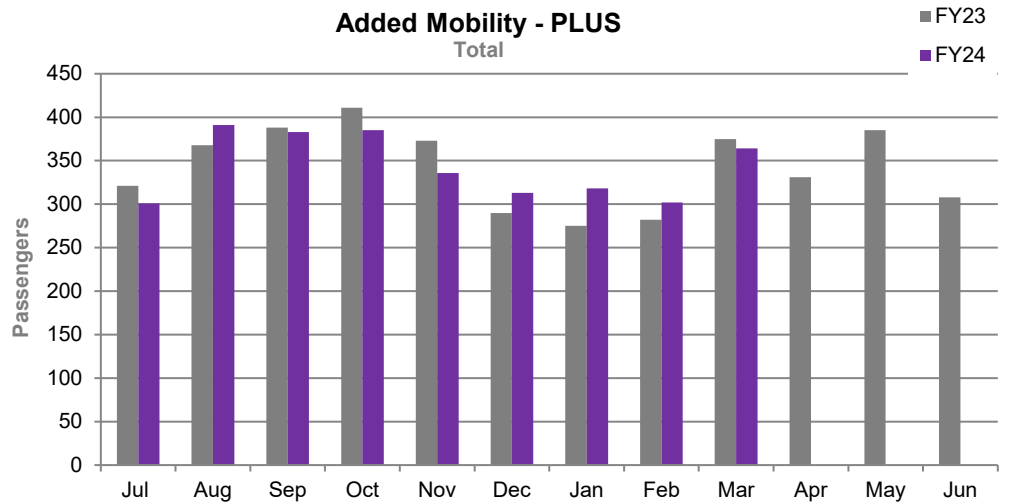
PLUS Saturday

Total PLUS Saturday ridership for March 2024 was 97, a 5.43% increase from 92 in March 2023. Average Saturday passenger ridership totaled 19 for March 2024, a 17.39% decrease from 23 in March 2023. RPSH was 1.41.



Added Mobility - PLUS

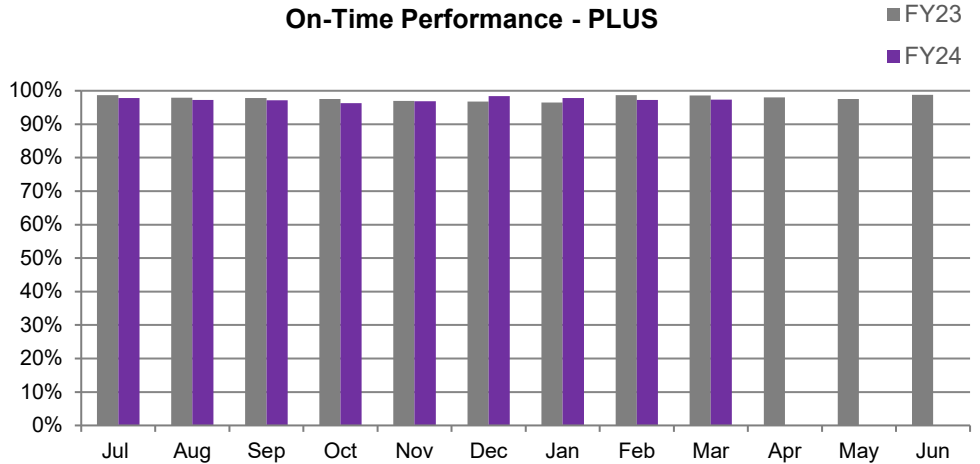
PLUS passengers with added mobility totaled 364 for March 2024, a 2.93% decrease from 375 in March 2023.



On-Time Performance - PLUS

Cumulative on-time performance for PLUS buses was 97.31%, a 1.28% decrease from 98.59% in March 2023.

Weekday on-time performance in the primary zone was 97.34%, a 1.21% decrease from 98.55% in March 2023. Weekday on-time performance in the secondary zone was 96.94%, a 1.40% decrease from 98.34% in March 2023. Saturday on-time performance was 98.84%, a 1.16% decrease from 100.00% in March 2023.



PLUS Weekday Service Summary	Mar FY24	Mar FY23	+/- Mar FY23		PLUS Saturday Service Summary	Mar FY24	Mar FY23	+/- Mar FY23
Total Passengers	1,778	1,932	-7.97%		Total Passengers	97	92	5.43%
Total Trips	1,699	1,821	-6.70%		Total Trips	86	91	-5.49%
Trips Daily Average	81	79	2.53%		Trips Daily Average	22	23	-4.35%
Trips Requested	1,747	1,835	-4.80%		Trips Requested	86	94	-8.51%
Denied Trips	48	14	242.86%		Denied Trips	0	3	-300.00%
Capacity Denials	0	0	0.00%		Capacity Denials	0	0	0.00%
No Show	22	21	4.76%		No Show	0	2	-200.00%

PLUS Applications	Mar FY24	Mar FY23	+/- Mar FY23
New Applications	8	18	-55.56%
Renewals Received	5	20	-75.00%
Applications Approved	9	26	-65.38%
Applications Denied	0	1	-100.00%

Summary of Services Table: March 2024

The table below provides daily averages for the number of passengers carried by many of the services offered by EMBARK Norman. The year-to-date (YTD) figures are cumulative totals.

EMBARK Norman Service Summary	ADP Mar FY24	FY24 YTD	FY23 YTD	Service Profile	Mar FY24	Mar FY23
Fixed Routes (M-F)	1,368	259,071	203,291	Weekdays	21	23
Fixed Routes (Sat)	660	26,675	19,172	Saturdays	5	4
PLUS (M-F)	85	16,449	16,384	Gamedays	0	0
-Zone 1*	62	12,149	13,796	Holidays	0	0
-Zone 2**	23	4,300	2,588	Weather	1	3
PLUS (Sat)***	24	808	891	Fiscal YTD Days	230	230
				Cal. YTD Days	77	76

*Requires ¼ mile

**Operates only on Weekdays until 7:00 pm

***Operates only in Zone 1

Strategic Performance Measures

MEASURE	FY 24 YTD	FY 24 Targets	
# of Norman fixed-route passenger trips provided	285,746	251,881	■
# of Norman paratransit trips provided	17,257	21,000	■
% of on-time Norman paratransit pick-ups	97.21%	98.58%	●
# of Norman bus passengers per service hour, cumulative	18.68	13.04	■
# of Norman bus passengers per day, average	1,232	800*	●
% of Norman required paratransit pick-ups denied due to capacity	0.00%**	0.00%*	●
% of on-time fixed-route arrivals	65.72%	80.94%	◆

*These targets are not being tracked in LFR but can be found in the KPI spreadsheet.

**One denial due to capacity was recorded for FY23

Glossary

- **Added Mobility** – Wheelchairs, bicycles, scooters, and other devices used by passengers in conjunction with transit
- **ADP** – Average Daily Passengers
- **ADR** – Average Daily Ridership
- **AVG** – Average
- **Fixed Route** – Regular bus service
- **FY23** – The fiscal year 2023. Lasted from 7/1/2022 to 6/30/2023
- **FY24** – The fiscal year 2024. Lasting from 7/1/2023 to 6/30/2024
- **FY YTD** – Fiscal Year, Year to Date
- **KPI** – Spreadsheet used to record and compare all data used in the monthly report
- **LFR** – "Leading for Results," EMBARK's internal performance measurements and targets
- **OTP** – On-time performance
- **Paratransit** – ADA vehicle service for seniors and other clients with special needs
- **PAX** – Passenger
- **PLUS** – Brand name for EMBARK Paratransit service
- **RPSH** – Riders per service hour
- **SAT** – Saturday
- **WKD** – Weekday
- **YOY** – Year-over-year, used to compare the previous year's performance when available
- **ZONE 1** – Primary zone for PLUS operation
- **ZONE 2** – Secondary zone for PLUS operation



Performance Report

Microtransit Pilot Program Performance Report

March 2023

Purpose

The Microtransit Pilot Program Performance Report provides a summary of service performance measures used to evaluate the performance of the Norman On-Demand microtransit transportation system for the City of Norman. The performance measures used by staff may change over the course of the pilot program. Initially we will be comparing the key performance indicator goals that were outlined in the request for proposals (RFP) to the data provided from Via for the Norman On-Demand program. These indicators and performance measures include average walking distance, maximum walking distance, average rider wait time, maximum rider wait time, and the percentage of ride requests completed within 20 minute wait time.

Service Profile, Hours, and Pricing

Norman On-Demand is a pilot microtransit service which launched for late night and Sunday service in core Norman on August 21, 2023. Norman On-Demand is a turnkey service provided by TransitTech provider Via. The Norman On-Demand app is available on the Apple App Store and the Google Play Store. This service compliments existing public transit service by extending service into the late night hours and during the day on Sundays for a small fee. Because this is a pilot program, there may be changes to service area, hours of operations, or other aspects of the service while the City focuses the program to efficiently serve the needs and desires of our community.

Service Hours		Pricing	
Monday-Wednesday	7pm – 1am	First Passenger	\$2.00
Thursday-Saturday	7pm – 3am	Each Additional Passenger	\$1.00
OU SafeRide: Thursday-Saturday	10pm – 3am	OU SafeRide (OU Students using OU email address during SafeRide hours)	Free
Sunday	10am – 6pm		
<i>ADA/Wheelchair Accessible Vehicles available upon request.</i>			

Key Performance Indicator Measures

Measure	Target	March	Service to Date (8/21/23 – 3/31/24)
Average Walking Distance	<0.10 miles	0.06 miles	0.07 miles
Maximum Walking Distance	0.25 miles	0.25 miles	0.32 miles
Average Rider Wait Time*	<15 min	25.4 min	22.7 min
Maximum Rider Wait Time*	20 min	86.7 min*	86.7 min*
Percentage of Ride Requests Completed Within 20min. Wait Time	>80%	46.73%**	53.7%**

*OU has requested longer available wait times for OU students during SafeRide hours (up to a 2 hour max). This affects the original goal of 20 minutes that was identified in the original Request for Proposals.

**Number of ride requests with 'Completed' status that have a wait time of 20 minutes or less as a percentage of the total number of ride requests with 'Completed' status. This data is skewed by longer available wait times for OU students during SafeRide hours.

Additional Performance Measures

Ridership

Norman On-Demand completed 2,662 rides in March 2024, which is a 1.6% increase from the February 2024 total of 2,619. There were a total of 26 completed trips that

Ridership	March	Service to Date (8/21/23 – 3/31/24)
Total number of passengers	2,662	18,532
Total number of Trips Completed	1,759	11,603
# of Completed Trips Requesting WAV	26	143
Ridership Per Service Hour (RPSH)	5.7	5.8

requested a wheelchair accessible vehicle (WAV) in the month of March. Ridership per service hour (RPSH) is a ratio of the number of riders making use of the service in relation to how much service is being provided (i.e. one vehicle providing one hour of service would be one 'service hour').

Rider Experience

The system includes an automated feedback process where all ride ratings with four stars or fewer that have actual written feedback attached are reviewed by customer support agents. Poor ride ratings alone are not categorized as complaints. Two rider complaints were reported to Via in the month of March both regarding driver behavior.

Rider Experience	March	Service to Date (8/21/23 – 3/31/24)
Average Ride Duration	8.7 min	8.9 min
Average Ride Distance	2.7 miles	2.9 miles
Average Ride Rating	4.8 (out of 5 stars)	4.9 (out of 5 stars)

Program Engagement and Rider Growth

Since the Norman On-Demand App launched on August 21, 2023, 4,393 individual accounts have been created, which is a 2.9% increase over the February 2024 service to date total of 4,268. Of these accounts a little more than two in five, or 45.9%, have utilized the service at least once. Approximately 22.4% or 984 active accounts have completed more than five rides. Riders are also able to call 405-643-8638 to schedule rides without using the App.

Engagement – Service to Date (8/21/23 – 3/31/24)		
App Accounts Created Since Launch	4,393	
OU Accounts	N/A	N/A
Active Accounts*	2,827	64.4%
Rider Accounts**	2,016	45.9%
Repeat Rider Accounts***	1,566	35.6%
*accounts where user has engaged with ride requests at least once **accounts with at least 1 completed ride ***accounts with at least 2 completed rides		

Accidents and Vehicles

No accidents were reported in the month of March. All incidents are reported to City of Norman Transit staff in a timely manner by our provider Via.

Four out of five vehicles were in active service during the month of February, which meets the target fleet availability.

Bridge Standards

Community Planning and Transportation Committee

April 25, 2024

Agenda

- FHWA National Bridge Inspection Standards
- Inspection Process and Example
- City of Norman Inventory
- Typical bridges design in Norman
- Program update

FHWA National Bridge Inspection Standards (NBIS)

- Originally published in 1971, creating the first nationally coordinated bridge inspection program
- Requires inspection of bridges on all public roads on and off federal highways
- Sets inspection intervals for bridges and includes guidance for more rigorous risk based intervals
- Establishes inspection procedures and qualifications of the personnel performing inspections
- Standardized documentation and reporting that include load posting



Inspection process

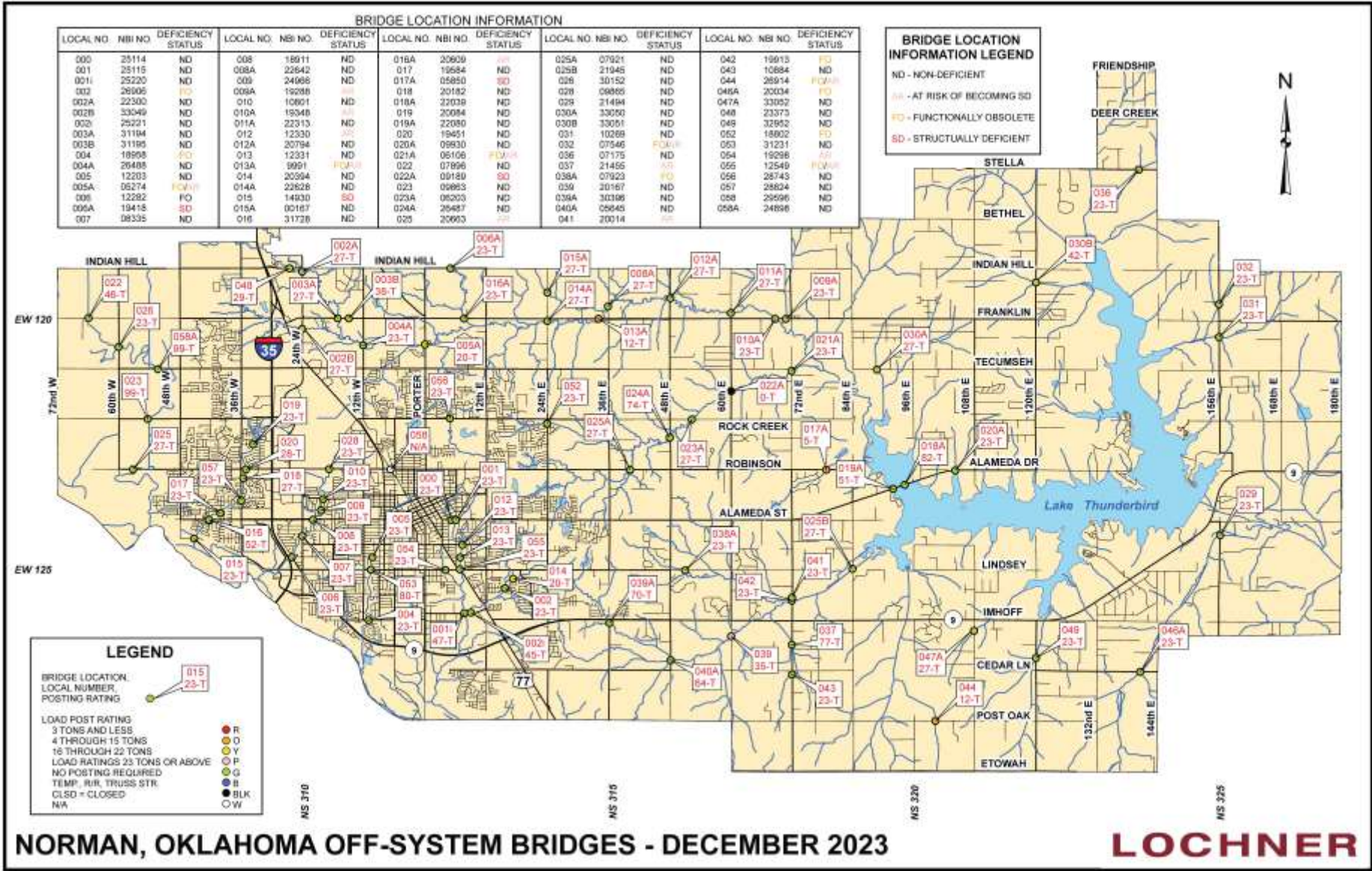
- Oklahoma Department of Transportation (ODOT) implements and manages NBIS inventory and reporting statewide
- Inspection consultants are vetted by the state on a biennial basis
- Local governments select a single firm from the pool provided through state selection
- Inspections are completed on biennial basis
- Some bridges require more rigorous inspection cycle established by NBIS
- Biennial report provided to the City detailing the condition and ratings

Oklahoma Dept. of Transportation - Bridge Inspection Report

NR No.: 22300	Structure No.: 14N3100E1190002	Local ID: 002A	Dist. Rating: SS 90	NO
Bridge Description: 205. FC 6648		INSPECTION		
1. State: Oklahoma 2. Division: Division 3 3. County: CLEVELAND 4. City: NORMAN Address: Unknown 5a. On/Under: Route On Structure 5b. Kind of Hwy: City Street 5c. Lvl of Strc: Mainline 5d. Route No.: N3108 5e. Dir. Side: N/A (N/S)		7. Facility Carried: 247H AVE NW 8. Foot: LITTLE RIVER 9. S: S 1 S INDIAN HILLS RD 11. Mile Post: 2.883 mi 12. LRCS: / Sub Mile / 13. Entance: 35' 17" 33.35" 17. Longitude: 287' 28" 28.31" 18. Border: Unknown (P) 19. Responsible: 000 20. Border Bridge#: Unknown		
STRUCTURE TYPE AND MATERIALS		CLASSIFICATION		
43ab. Main Span: PG Conc. / Stringer/Girder 44ab. Appr. Span: N/A / Not Applicable (P) 45. # of Main Spans: 1 46. # of Appr. Spans: 2 167. Deck Type: Concrete-Cast-in-Place 108a. Wearing Surface: Waffle/Reinforced Concrete 108b. Membrane: None 108c. Deck Protection: None		13. Base Hwy Mat: Not on Base Network 20. Toll Facility: On free road 21. Outside: City 22. Owner: City 23. Function Class: 19 Urban Local 24. Highway Class: 19 Urban Local 25. Def. Hwy: Not a STRAIGHT way 26. Def. Hwy: Not a STRAIGHT way 27. Parallel Str: No [bridge exists] 102. Traffic Dir: 2-way traffic 103. Temp. Str: Not Applicable (P) 104. Hwy System: Not on NHS 105. Pav. Land Hwy: N/A (N/S) 110. Defective Hwy: Not a STRAIGHT way 112. NB-S Length: Long Enough		
AGE AND SERVICE		CONDITION		
18. Debitr Length: 0.0 mi 27. Year BtE: 1989 28ab. Lanes extend: 2 / 0 29. ADT: 2,000 30. Year of ADT: 2020 42ab. Type of Div extend: Highway / Waterway		58. Deck: 7 Good 62. Culvert: N/A (N/S) 61. Chain/Chan. Proc.: 8 Protected 59. Sup.: 7 Good 60. Sub a Satisfactory 63. Pier: N/A (N/S) 64. Abut: 3 Fair 65. Ret. Wall: 3 Fair 66. Ret. Wall: 3 Fair 67. Ret. Wall: 3 Fair 68. Ret. Wall: 3 Fair 69. Ret. Wall: 3 Fair 70. Ret. Wall: 3 Fair 71. Ret. Wall: 3 Fair 72. Ret. Wall: 3 Fair 73. Ret. Wall: 3 Fair 74. Ret. Wall: 3 Fair 75. Ret. Wall: 3 Fair 76. Ret. Wall: 3 Fair 77. Ret. Wall: 3 Fair 78. Ret. Wall: 3 Fair 79. Ret. Wall: 3 Fair 80. Ret. Wall: 3 Fair 81. Ret. Wall: 3 Fair 82. Ret. Wall: 3 Fair 83. Ret. Wall: 3 Fair 84. Ret. Wall: 3 Fair 85. Ret. Wall: 3 Fair 86. Ret. Wall: 3 Fair 87. Ret. Wall: 3 Fair 88. Ret. Wall: 3 Fair 89. Ret. Wall: 3 Fair 90. Ret. Wall: 3 Fair 91. Ret. Wall: 3 Fair 92. Ret. Wall: 3 Fair 93. Ret. Wall: 3 Fair 94. Ret. Wall: 3 Fair 95. Ret. Wall: 3 Fair 96. Ret. Wall: 3 Fair 97. Ret. Wall: 3 Fair 98. Ret. Wall: 3 Fair 99. Ret. Wall: 3 Fair 100. Ret. Wall: 3 Fair		
SPACING DATA		LOAD RATING AND POSTING		
10. Vert. Clearance: 89.09 ft 32. Appr Ray WtE: 32.59 ft 33. Median: No median 34. Slope: 0.00 35. Street: Paved 47. Horizontal Cur: 32.75 ft 48. Length Max Span: 83.57 ft 49. Street Length: 95.14 ft		31. Design Load: M 18 (H 20) 41. Post. Status: 4 Open, no restriction 70. Posting: 5 Allow Legal Loads 63. Op / 95. In. Rating Meth: 2 AS Allowable Stress / 2 AS Allowable Stress 84. Operating Rating (tons): 27.00 48.10 9.00 0.00 0.00 85. Inventory Rating (tons): 20.00 38.00		
INSPECTION DATA		APPROVAL		
200c. Temperature: 68 200d. Weather: Clear 201. Struct. St. ASTM Devg: -1.7 ft 202. Water Membrane: -1 Date Installed: 01/01/1991 203. Type Exp. Device: Other 204. Type of Rating: 76-1 205. Material Quantity: -1.00 206a. Type of Abutment: Skew/Flg 206b. Type of Pier Found: - / 210. Foundation Elev.: -1.00 -1.00 -1.00 -1.00 -1.00 -1.00 211. Wkr. Sert. Pct. Spc: None Date Installed: 01/01/1991 211c. Stone Replaced 211d. Date: 213. Utilities Attached:		37a. Brdg. Rail: 1 Meets Standards 37b. Transition: 1 Meets Standards 37c. Appr. Rail: 1 Meets Standards 37d. Appr. Rail End: 8 Satisfactory 37e. Str. Evaluation: 8 Equal Min. Criteria 88. Deck Girth: 5 Above Tolerable 89. Vert. Plat. Under: Not applicable (N/A) 71. Waterway Action: 8 Equal Decorable 72. Appr. Alignment: 7 Above Min. Criteria 113. Scour Critical: 8 Stable Above Footer 94. Bridge Cost: \$310,000 95. Roadway Cost: \$170,000 96. Total Cost: \$495,000 97. Year Cost Est.: 2015 75. Type of Work: 31 Rep-Load Capacity 76. Length of Improvement: 126.1 ft 114. Future ADT: 2,800 115. Yr of Future ADT: 2040 26. Max. Control: Permit Not Required 38. Vert. Clearance: 0.0 ft 40. Horiz. Clearance: 0.0 ft 21. Pier Protect.: Not Applicable (P) 116. LR Bridge Vert. Cl.: 0.0 ft 244. Open Lengths: 245. Gider Depth: 246. Type of Overlay: NA 247. Overlay Thickness: 248. Overlay Date: 01/01/1991 249. Overlay Depth Changed: 1" 247. Protective Systems: 248. # Field Splices of Corrosion: 249. Scour-Cl. PCA Exchd? No 249. Inevad: 248. Piers off Found in COOT File: 248. Scour Elev. in COOT File: 249. Interchange of Intersection: 249. Interchange Milepost: -1.00		

Oklahoma Dept. of Transportation - Bridge Inspection Report

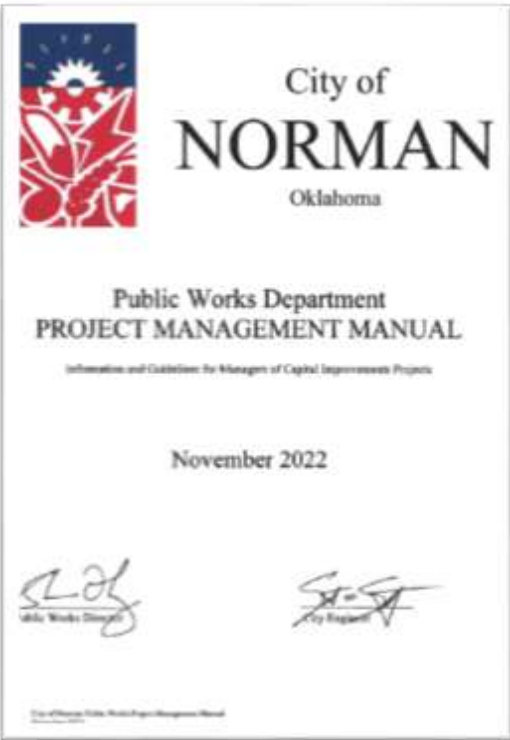
NR No.: 22300	Structure No.: 14N3100E1190002	Local ID: 002A	Dist. Rating: SS 90	NO							
Inspector Date: 10/1/2023		Inspector Name: Wayne Roesner		Digitally signed by Wayne Roesner (It) DN: c=US, o=Oklahoma Department of Transportation, ou=Oklahoma Department of Transportation, cn=Wayne Roesner (It) Date: 2023.12.13 10:22:19 -0500							
Invoice No.: 14N3141023		Inspected With: Lukas Overts									
BRIDGE NOTES:											
INSPECTION NOTES: 981023											
Wear north bank erosion											
ELEMENT CONDITION STATE DATA											
Elem. / Eno	Description	Unit	Total Qty	% 1	Qty. 1	% 2	Qty. 2	% 3	Qty. 3	% 4	Qty. 4
12 / 4	Rc Concrete Deck	sq ft	3,940.00	100%	3,929.00	0%	11.00	0%	0.00	0%	0.00
Hairline to small diagonal & transverse cracks moderate in density present through-out. A few random moderate cracks. Wear is exposing aggregate.											
109 / 4	Pra. Opn. Spans-Stringer	ft	241.00	100%	241.00	0%	0.00	0%	0.00	0%	0.00
Look good											
215 / 4	Rc Conc. Abutment	ft	89.00	91%	83.00	1%	1.00	7%	0.00	0%	0.00
South abutment has minor spall with exposed rebar under west beam. Hairline vertical cracks exist between beams #2 & #3. North abutment has minor spalls & cracks in bridge wall. Backfills and beams are water stained.											
382 / 4	Compression Joint Seal	ft	28.00	83%	23.00	0%	0.00	17%	0.00	0%	0.00
Joint is filled at ends and pulling up rubber											
319 / 4	Expansion Bearing	each	9.00	0%	0.00	100%	9.00	0%	0.00	0%	0.00
FX - Exterior pads under north abutment are cracked & deteriorating. Expansion bearing on south abutment are bulging and deteriorated.											
321 / 4	Rc Conc. Bridge Rating	ft	140.00	100%	140.00	0%	0.00	0%	0.00	0%	0.00
Hairline vertical & diagonal cracks present on both bridge rails											
819 / 4	PG Conc. Sert. Sert. SP	ft	40.00	100%	40.00	0%	0.00	0%	0.00	0%	0.00
-											
859 / 4	Grp	each	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00
No cracking observed											
879 / 1	Concrete Wingwall	each	4.00	100%	4.00	0%	0.00	0%	0.00	0%	0.00
Torn back wings have hairline vertical cracks											
916 / 4	St. Bearing Assembly	each	9.00	0%	0.00	70%	6.00	20%	0.00	0%	0.00
FX - West bolt & nut on bearing #2 on the north abutment are heavily rusted & starting to enlarge. All anchor bolts and nuts showing moderate rust.											
958 / 4	Concrete Choking CP	each	1.00	100%	1.00	0%	0.00	0%	0.00	0%	0.00
Cracks are minor in size & density & few random moderate cracks towards north end											



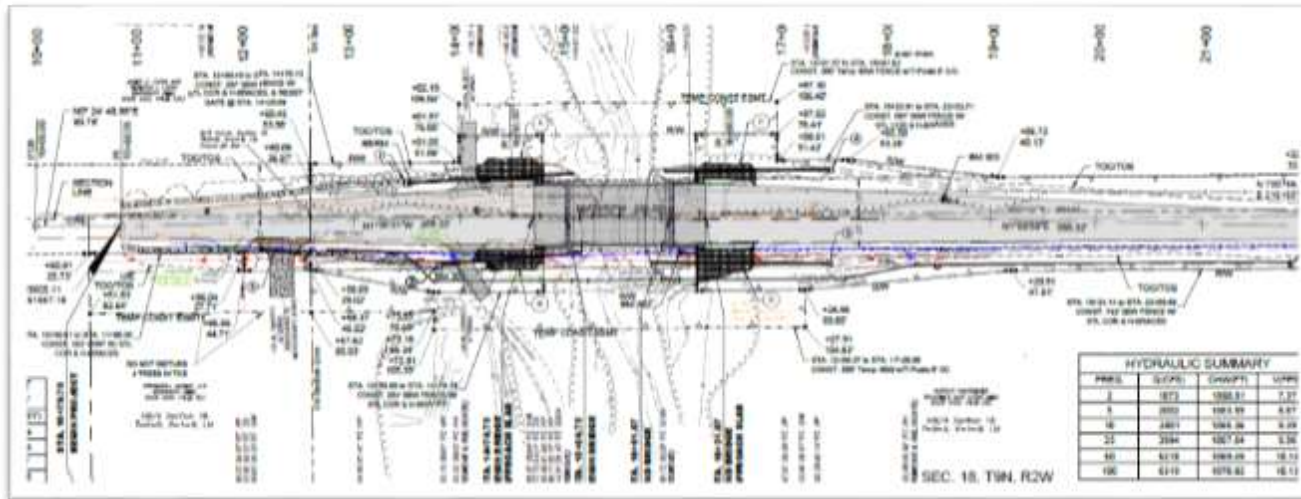
Typical Structure Design in Norman



Design Overview



- The Public Works Department has an established project management manual that sets detailed process for project planning, organization, consultant selection, design, utility coordination, construction procurement and contract administration.
- The City follows Federal and State design criteria for bridge structures.



Preliminary Engineering Report
 Parker Avenue over Little River

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Design Standards

- Bridge design standards and guidelines
 - Federal Highway Administration (FHWA)
 - American Association of State Highway Transportation Officials (AASHTO)
 - Oklahoma Department of Transportation (ODOT)
- Consultants are selected with adequate knowledge and expertise in structural requirements for bridges.
- All structures must meet Floodplain Regulations regarding hydraulics.
- Engineering Design Criteria
 - 5011.G “Bridges shall be designed in accordance with AASHTO/ODOT criteria.”



U.S. Department of Transportation

Federal Highway Administration



Programming Overview

CIP Bridge maintenance program

- \$1 Million dollars allocated annually for general maintenance
- Goal to perform general maintenance at all bridge locations within the next 5 years



Bridge maintenance bond program

- \$50 Million dollars
- 10 year construction cycle
- Year 1 projects shovel ready and scheduled for bid in early May
- Designs underway on upcoming projects

QUESTIONS?



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