



AGENDA

Transit Committee Meeting

Committee Members

Andrew Do, Chairman
Gregory T. Winterbottom, Vice Chairman
Laurie Davies
Steve Jones
Jose F. Moreno
Miguel Pulido
Tim Shaw

Orange County Transportation Authority
Headquarters
550 South Main Street
Board Room – Conf. Room 07
Orange, California
Thursday, March 14, 2019 at 9:00 a.m.

Any person with a disability who requires a modification or accommodation in order to participate in this meeting should contact the OCTA Clerk of the Board, telephone (714) 560-5676, no less than two (2) business days prior to this meeting to enable OCTA to make reasonable arrangements to assure accessibility to this meeting.

Agenda descriptions are intended to give members of the public a general summary of items of business to be transacted or discussed. The posting of the recommended actions does not indicate what action will be taken. The Committee may take any action which it deems to be appropriate on the agenda item and is not limited in any way by the notice of the recommended action.

All documents relative to the items referenced in this agenda are available for public inspection at www.octa.net or through the Clerk of the Board's office at the OCTA Headquarters, 600 South Main Street, Orange, California.

Call to Order

Pledge of Allegiance

Director Jones

1. Public Comments

Special Calendar

There are no Special Calendar matters.



Consent Calendar (Items 2 through 5)

All items on the Consent Calendar are to be approved in one motion unless a Committee Member or a member of the public requests separate action or discussion on a specific item.

2. Approval of Minutes

Approval of the minutes of the Transit Committee meeting of February 14, 2019.

3. Agreement for Pedestrian Access to the Operations Building at the Santa Ana Bus Base

George Olivo/James G. Beil

Overview

On December 27, 2018, the Orange County Transportation Authority Board of Directors issued an invitation for bids for a pedestrian access to the operations building at the Santa Ana Bus Base. Bids were received in accordance with the Orange County Transportation Authority's public works procurement procedures. Board of Directors' approval is requested to execute the agreement.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-8-2098 between the Orange County Transportation Authority and A2Z Construct, Inc., the lowest responsive, responsible bidder, in the amount of \$270,000, for a pedestrian access to the operations building at the Santa Ana Bus Base.

4. Low Carbon Transit Operations Program Recommendations for Fiscal Year 2018-19 Funds

Louis Zhao/Kia Mortazavi

Overview

Funding recommendations are presented for the Low Carbon Transit Operations Program for fiscal year 2018-19 funds that will promote transit ridership growth and reduce greenhouse gas emissions. This program is part of the state Cap-and-Trade Program.



4. (Continued)

Recommendations

- A. Approve the use of \$7,110,976 in fiscal year 2018-19 Low Carbon Transit Operations Program funding for college fare programs and travel training for Fullerton, Golden West, and Santa Ana colleges, and the purchase of zero emission buses, plus related infrastructure, and operating costs for Bravo! Main Street Rapid Bus Service.
- B. Approve Resolution 2019-018, consistent with the Low Carbon Transit Operations Program Guidelines.
- C. Authorize the Chief Executive Officer or his designee to make all necessary amendments to the Federal Transportation Improvement Program, as well as execute any necessary agreements to facilitate the above recommendations.

5. OC Vanpool Program Update Sandy Boyle/Jennifer L. Bergener

Overview

The OC Vanpool Program is a public-private partnership designed to encourage vanpooling in Orange County by providing commuters a convenient transportation option for daily home-to-work trips. The OC Vanpool Program provides a variety of benefits such as emissions reduction, federal funding generation, and broadening the reach of transportation services. The report provides an update on the OC Vanpool Program.

Recommendation

Receive and file as an information item.

Regular Calendar

6. OC Streetcar Project Update Mary Shavaliel/James G. Beil

Overview

The Orange County Transportation Authority is currently underway with the implementation of the OC Streetcar project. This report provides a project update.



6. (Continued)

Recommendation

Receive and file as an information item.

7. Bus Operations Performance Measurements Report for the Second Quarter of Fiscal Year 2018-19

Johnny Dunning, Jr./Jennifer L. Bergener

Overview

The Orange County Transportation Authority operates fixed-route bus and demand-response paratransit service throughout Orange County and into neighboring counties. This report summarizes the year-to-date performance of these transit services provided through the second quarter of fiscal year 2018-19. The established measures of performance gauge the safety, courtesy, reliability, and overall quality of the transit services provided.

Recommendation

Receive and file as an information item.

Discussion Items

8. Project V - City of Mission Viejo Route 182 Update

Christina Moore/Kia Mortazavi

Overview

At the February 14, 2019 Transit Committee meeting, a copy of a response letter from the City of Mission Viejo was distributed related to a funding cancellation notice the City of Mission Viejo received from the Orange County Transportation Authority. The Orange County Transportation Authority cancellation notice communicated the performance issues of community Route 182, funded by Measure M Project V and City of Mission Viejo funds. Route 182 has not met adopted performance standards, despite multiple restructuring efforts. The Transit Committee directed staff to return in March 2019 with an update and response to the issues raised in the City of Mission Viejo's letter.



AGENDA

Transit Committee Meeting

9. Chief Executive Officer's Report

10. Committee Members' Reports

11. Closed Session

There are no Closed Session items scheduled.

12. Adjournment

The next regularly scheduled meeting of this Committee will be held at **9:00 a.m. on Thursday, April 11, 2019**, at the Orange County Transportation Authority Headquarters, 550 South Main Street, Board Room - Conference Room 07, Orange, California.



Committee Members Present

Andrew Do, Chairman
Gregory T. Winterbottom, Vice Chairman
Laurie Davies
Steve Jones
Jose F. Moreno
Miguel Pulido
Tim Shaw

Staff Present

Darrell E. Johnson, Chief Executive Officer
Ken Phipps, Deputy Chief Executive Officer
Laurena Weinert, Clerk of the Board
Sara Meisenheimer, Deputy Clerk of the Board
James Donich, General Counsel
OCTA Staff and members of the General Public

Committee Members Absent

None

Call to Order

The February 14, 2019 regular meeting of the Transit Committee was called to order by Committee Chairman Do at 9:06 a.m.

Pledge of Allegiance

Director Davies led in the Pledge of Allegiance.

1. Public Comments

No public comments were received.

Special Calendar

2. Committee Meeting 2019 Schedule

Darrell E. Johnson, Chief Executive Officer (CEO), led a discussion regarding the 2019 Transit Committee meeting schedule and the only change was removing a second Thursday meeting in the months of February and September.

A motion was made by Committee Vice Chairman Winterbottom, seconded by Director Pulido, and declared passed by those present, to approve the 2019 Transit Committee meeting schedule.

Director Jones was not present to vote on this item.

3. Roles and Responsibilities of the Transit Committee

Darrell E. Johnson, CEO, presented this item and noted there were two proposed changes in the roles and responsibilities.

A discussion ensued regarding technology and how it relates to the transit field.

3. (Continued)

A motion was made by Director Davies, seconded by Director Winterbottom, and declared passed by those present, to approve the Roles and Responsibilities of the Transit Committee.

Director Jones was not present to vote on this item.

Consent Calendar (Item 4)**4. Approval of Minutes**

A motion was made by Director Pulido, seconded by Committee Vice Chairman Winterbottom, and declared passed by those present, to approve the minutes of the Transit Committee meeting of January 10, 2019.

Director Moreno abstained from the vote due to not serving on the Transit Committee at that time.

Director Jones was not present to vote on this item.

Regular Calendar**5. Measure M2 Community-Based Transit Circulators Program Project V Ridership Report**

Darrell E. Johnson, CEO, provided opening comments and introduced Kurt Brotcke, Director of Strategic Planning, and Christina Moore, Senior Transportation Funding Analyst. Mr. Brotcke stated they received a letter from the City of Mission Viejo (Mission Viejo) which was provided to the Members at the dais. Ms. Moore presented a PowerPoint presentation as follows:

- Overview;
- Background;
- Regional Overview;
- Performance Criteria and Monitoring;
- Performance; and
- Next Steps.

A lengthy discussion ensued regarding:

- During the period of April – September, only one special event, a Project V service, was provided in the City of La Habra on July 4th.

5. (Continued)

- The status on the City of Laguna Niguel's application for Project V was highlighted and no call for projects are scheduled in 2019.
- OCTA received a letter from Mission Viejo regarding its Project V service and a discussion ensued regarding:
 - Mission Viejo requested a third round of restructuring.
 - OCTA staff has concerns that Mission Viejo will not achieve 10 passenger boardings per revenue vehicle hour (B/RVH).
 - OCTA staff will be happy to work with Mission Viejo.
 - OCTA proposes cancellation in June 2019 due to low productivity per the agreed-upon performance criteria.
 - Project V criteria was put into place in 2014 to set a performance standard when making a call for projects.
 - Mr. Johnson, CEO, stated he would like to respond to Mission Viejo's letter, have a meeting with them, and give an update at the next Transit Committee meeting.
- Director Moreno expressed his concerns and requested information on Mission Viejo's Project V demographics, what the options are if the service is discontinued, to respond to the letter as soon as possible, and to invite Mission Viejo to the next Transit Committee meeting.
- An overview of the Project V criteria was highlighted to achieve: six passenger B/RVH by the end of year one, 10 passenger B/RVH by the end of year two, Americans with Disabilities Act mandates, and a subsidy cap of no more than \$9 per boarding.
- The County of Orange is currently operating a Local Circulator known as RanchRide in Ladera Ranch.
- Explanation on the variety of services that cities can request in their application for Project V, how special event service tends to perform better than fixed-route service, and encouraging new applicants to find their own contractor for operators and vehicles.
- The Mobile Source Review Committee will not be funding local projects, including the Angels Express this year.
- The City of Anaheim's service was discontinued, but Director Moreno is appreciative of the opportunity.
- The cities determine the fare, the route, and market their own program.
- Director Davies suggested sharing ridership between Laguna Niguel and Mission Viejo especially during the summer months with special events happening.
- Measure M2 Project V funds over a course of 29 years, is \$226 million.
- Examples showing how each service for Project V is different.
- OCTA will follow-up and provide an update with Mission Viejo and the City of Laguna Niguel.

Following the discussion, no action was taken on this receive and file information item.

Discussion Items

6. Hydrogen Fuel Cell Electric Bus Update

Darrell E. Johnson, CEO, provided opening comments and introduced Jennifer Bergner, Chief Operating Officer (COO), and Cliff Thorne, Director of Maintenance and Motorist Services. Mr. Thorne presented a PowerPoint presentation as follows:

- Air Resources Board Requirements;
- Background;
- Fuel-Cell Electric Bus Testing;
- Current Status;
- Hydrogen Fuel-Cell Configuration;
- Fuel Station Configuration;
- Funding Breakdown; and
- Next Steps.

A discussion ensued regarding:

- Fuel delivery, the tanks being above ground, the personal protective equipment that must be worn when handling the fuel, and the cost difference for OCTA to do their own fuel delivery.
- The decision to deliver compressed natural gas in 2007, the current mandate to obtain 100 percent zero emissions buses and understanding the maintenance and operating costs of the bus.
- The battery/electric hydrogen and Air Resources Board (ARB) industry firmly believes the cost of hydrogen cell buses will go down over time.
- Referenced Slide 2 of the PowerPoint, the purchase mandates starting in 2023, and the initial plan OCTA must submit for compliance to ARB. Staff will bring forward to the committees and the Board of Directors, this Spring, on the status of the plan.
- California is the only state that has adopted 100 percent zero-emissions clean transit requirement and OCTA will research for an agency with similar operations.
- OCTA is not committed to a specific hydrogen fuel cell bus (electric or battery), the plan is to assess how each bus will perform in the operating environment.
- Fueling cost would be two to three times more on a miles per gallon equivalent.
- The Green New Deal has not been looked at for funding because it is focused on small grants.
- OCTA is in an early consortium and testing which gives OCTA an advantage to understand its needs better.
- OCTA's goal is to continue to work with the California Transit Association and ARB to ensure opportunities for funding.

6. (Continued)

No action was taken on this information item.

7. Chief Executive Officer's Report

Darrell E. Johnson, CEO, reported on the following:

- This past Tuesday and Wednesday, Mr. Johnson, CEO, was in Sacramento to represent the Self-Help Counties Coalition and he met with the Director of the California Department of Transportation to focus on program and project delivery over the course of 2019. He also attended the Annual California Transportation Symposium to discuss what is ahead for transportation in 2019 and listened to various keynote speakers.
- OCTA is analyzing California's high-speed rail project and it is expected to be discussed at an upcoming Legislative and Communications Committee meeting.
- On Tuesday, February 19th at 10:00 a.m., a dedication event will be held to mark the completion of the parking structure at the Orange Metrolink Station.
- On Tuesday, February 19th, the Measure M2 Bond sale was completed in New York for the Interstate 405 Improvement Project.
- Jennifer L. Bergener, COO, reported that the weather has not had any impacts on OC Bus, Metrolink, or the Pacific Surfliner services. However, the San Clemente area is being watched closely due to previous slides.
- The open space area in Trabuco Canyon that OCTA has acquired is under mandatory evacuation and has a flash flood warning watch and OCTA will continue to monitor it.

8. Committee Members' Reports

Director Shaw requested more information on the Measure M2 Bond sale, and Mr. Johnson, CEO, commented that the interest rate is expected to be at 3.9 percent and by the time of the bond sale, the rate was at 3.14 percent. This is a savings of \$21 million in interest costs.

Director Moreno stated he appreciated OCTA's orientation and is starting to have conversations with students and trustees to initiate a College Bus Pass Program in the north Orange County area with California State University, Fullerton and Fullerton College. Director Moreno also requested to do a round in the Project V grants.



9. Closed Session

There were no Closed Session items scheduled.

10. Adjournment

The meeting adjourned at 10:25 a.m.

The next regularly scheduled meeting of this Committee will be held at **9:00 a.m. on Thursday, March 14, 2019**, at the Orange County Transportation Authority Headquarters, 550 South Main Street, Board Room - Conference Room 07, Orange, California.

ATTEST


Andrew Do
Committee Chairman

Sahara Meisenheimer
Deputy Clerk of the Board



March 14, 2019

To: Transit Committee

From: Darrell E. Johnson, Chief Executive Officer 

Subject: Agreement for Pedestrian Access to the Operations Building at the Santa Ana Bus Base

Overview

On December 27, 2018, the Orange County Transportation Authority Board of Directors issued an invitation for bids for a pedestrian access to the operations building at the Santa Ana Bus Base. Bids were received in accordance with the Orange County Transportation Authority's public works procurement procedures. Board of Directors' approval is requested to execute the agreement.

Recommendation

Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-8-2098 between the Orange County Transportation Authority and A2Z Construct, Inc., the lowest responsive, responsible bidder, in the amount of \$270,000, for a pedestrian access to the operations building at the Santa Ana Bus Base.

Discussion

The Orange County Transportation Authority (OCTA) completed construction of the Santa Ana Bus Base in 2005. The original project did not provide for pedestrian access at the bus base entrance from West MacArthur Boulevard. This project improves current conditions to provide Americans with Disabilities Act-(ADA) compliant pedestrian access at the bus base entrance for employees to access the operations building when using alternative transportation means to arrive at the workplace. The project scope includes a new paved pathway, card access controlled gate, intercom system and related video cameras, safety lighting, striping, and signage to improve employee safety and to reduce risk of pedestrian contact with vehicles entering the facility.

Procurement Approach

This procurement was handled in accordance with OCTA's Board of Directors-approved procedures for public works projects. These procedures, which conform to both federal and state requirements, require that contracts are awarded to the lowest responsive, responsible bidder after a sealed bidding process.

Invitation for Bids (IFB) 8-2098 was released on December 27, 2018, through OCTA's CAMM NET system. The project was advertised on January 1 and 8, 2019, in a newspaper of general circulation. A pre-bid conference and job walk was held on January 8, 2019, and was attended by eight firms. One addendum was issued to provide the pre-bid conference registration sheets and handle administrative issues related to the IFB. On January 31, 2019, two bids were received and publicly opened.

All bids were reviewed by staff from both Contracts Administration and Materials Management and Facilities Engineering departments to ensure compliance with the contract terms and conditions, and technical specifications. The list of bidders and bid amounts is presented below:

<u>Firm and Location</u>	<u>Bid Amount</u>
A2Z Construct Inc. Rancho Santa Margarita, California	\$270,000
CEM Construction Corporation Downey, California	\$318,000

The engineer's estimate for this project was \$325,000. The recommended firm's bid is 17 percent below the engineer's estimate and is considered by staff to be fair and reasonable.

State law requires award to the lowest responsive, responsible bidder. As such, staff recommends award to A2Z Construct Inc., the lowest responsive, responsible bidder, in the amount of \$270,000, for pedestrian access to the operations building at the Santa Ana Bus Base.

Fiscal Impact

The project was included in OCTA's Fiscal Year 2018-19 Budget, Capital Programs Division, Account code 1722-9022-D2126-0KZ, and is funded through local transportation funds.

Summary

Based on the information provided, staff recommends the Board of Directors authorize the Chief Executive Officer to negotiate and execute Agreement No. C-8-2098 between the Orange County Transportation Authority and A2Z Construct Inc., the lowest responsive, responsible bidder, in the amount of \$270,000, for pedestrian access to the operations building at the Santa Ana Bus Base.

Attachment

None.

Prepared by:



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Approved by:



James G. Beil, P.E.
Executive Director, Capital Programs
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March 14, 2019

To: Transit Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Low Carbon Transit Operations Program Recommendations for Fiscal Year 2018-19 Funds

Overview

Funding recommendations are presented for the Low Carbon Transit Operations Program for fiscal year 2018-19 funds that will promote transit ridership growth and reduce greenhouse gas emissions. This program is part of the state Cap-and-Trade Program.

Recommendations

- A. Approve the use of \$7,110,976 in fiscal year 2018-19 Low Carbon Transit Operations Program funding for college fare programs and travel training for Fullerton, Golden West, and Santa Ana colleges, and the purchase of zero emission buses, plus related infrastructure, and operating costs for Bravo! Main Street Rapid Bus Service.
- B. Approve Resolution 2019-018, consistent with the Low Carbon Transit Operations Program Guidelines.
- C. Authorize the Chief Executive Officer or his designee to make all necessary amendments to the Federal Transportation Improvement Program, as well as execute any necessary agreements to facilitate the above recommendations.

Background

The Low Carbon Transit Operations Program (LCTOP) provides funds to transit agencies on a formula basis to support transit operations or capital projects that reduce greenhouse gas (GHG) emissions and improve mobility, with a priority to provide benefit to disadvantaged communities.

Projects may include new or expanded bus or rail services, expanded intermodal transit facilities, equipment acquisition, including upgrade of transit vehicles to support active transportation and encourage ridership (e.g., bicycle racks on buses), fueling, maintenance, and other costs to operate new or expanded transit services or facilities, including fare discount and promotion programs. Fifty percent of the funds must benefit disadvantaged communities, as defined by the state.

For fiscal year (FY) 2018-19, the LCTOP Formula Program will provide \$147 million statewide and will continuously appropriate five percent of the annual auction proceeds in the GHG reduction fund for LCTOP. Based on the January 31, 2019 distribution letter from the State Controller's Office, the Orange County Transportation Authority's (OCTA) share is \$7,110,976.

The California Department of Transportation (Caltrans) issued updated guidelines for the 2018-19 LCTOP in January 2019 and is requesting transit agencies submit projects for Caltrans' confirmation of eligibility by March 29, 2019. Based on the Capital Programming Policies, approved by the OCTA Board of Directors (Board) on February 11, 2019, the funds are to be used for transit operations or capital for expansion of bus transit service, fare reduction programs, and other bus and commuter rail transit efforts that increase ridership and reduce GHG emissions, where 50 percent of the funds provide benefit for passengers in disadvantaged communities.

The 2017-18 LCTOP funds (\$4,787,534) were programmed towards the start-up and operating subsidy of Bravo! 529, which started service in February 2019. Prior use of LCTOP funds is provided in Attachment A.

Discussion

For FY 2018-19, staff is proposing that LCTOP funds be used for continuation and expansion of college fare programs (Fullerton, Golden West, and Santa Ana colleges), related travel training for college students, seniors, and the disabled community, and capital and operating support for the Bravo! Main Street Rapid Bus Service. The program elements are further discussed below.

Beginning in fall 2017, OCTA used LCTOP funds to provide Santa Ana College students enrolled full-time and part-time with a one-year free pass as an incentive to the students to approve a per-semester student transportation fee. The incentive was successful as the students voted to establish the per-semester student fee at \$6.75 for each full-time student and \$5.75 for each part-time student. As a result of this program, OCTA has seen significant ridership increases over the estimated ridership for this cohort before the incentive project.

Based on this success, LCTOP funds are recommended to replicate this model at other colleges including Fullerton College and Golden West College. Also, OCTA can use LCTOP to help pay the fares for the additional increased riders to keep the student contribution affordable. This effort will be combined with travel training to assist the senior and disabled community with using the fixed-route bus system. LCTOP funding for the college pass program and travel training is \$1,685,000.

OCTA recently was awarded a SB 1 (Chapter 5, Statutes of 2017) Solutions for Congested Corridors grant of \$4,330,400 towards the purchase of five zero-emission buses for Bravo! Main Street Rapid Bus Service. Staff is proposing to use an additional \$5,425,976 in LCTOP funds for the required match for the bus purchase (\$1,083,000), related bus depot upgrades and charging infrastructure installation to support battery electric buses (\$1,440,000), and operations (\$2,902,976). This will give OCTA the opportunity to test new battery electric bus technology in revenue service. Contingent on the delivery of vehicles, the service is anticipated to start in FY 2022-23. The proposed LCTOP projects are further described in Attachment B.

This recommendation is consistent with Caltrans' LCTOP Guidelines. Caltrans has requested that the Board approve submittal of the projects and execution of the certifications and assurance, and authorized agent forms through a resolution (Attachment C). The authorized agent form authorizes the Chief Executive Officer, or his designee, to sign documents on behalf of OCTA.

The revised Capital Program Funding Report is pending Board approval and is provided in Attachment D.

Next Steps

With Board approval, staff will submit a request for \$7,110,976 in FY 2018-19 LCTOP funds to Caltrans by March 28, 2019. Caltrans will finalize and submit the statewide list of FY 2018-19 projects to the State Controller's Office (SCO) in June 2019. Caltrans expects the SCO to begin releasing FY 2018-2019 funds to transit agencies for identified projects by June 30, 2019.

Summary

The Board is requested to approve the use FY 2018-19 LCTOP funds for college fare programs and travel training for Fullerton, Goldenwest, and Santa Ana colleges, and capital and operating costs associated with Bravo! Main Street Rapid Bus Service. The Board is further requested to approve a resolution authorizing submittal of the project and execution of the certifications and assurance, and authorized agent forms.

Attachments


- A. Prior Use of Low Carbon Transit Operations Program (LCTOP) Funds, Orange County Transportation Authority
- B. Orange County Transportation Authority, Low Carbon Transit Operations Program, Program of Projects Description
- C. Resolution 2019-018, Authorization for the Execution of the Certifications and Assurances, and Authorized Agent Forms for the Low Carbon Transit Operations Program and for the Execution of the Low Carbon Transit Operations Program Project:, College Fare Program and Travel Training at Fullerton, Santa Ana, and Golden West Colleges, Battery Electric Buses, Bus Depot Upgrades, and Charging Infrastructure, \$7,110,976
- D. Capital Funding Program Report

Prepared by:



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Approved by:



Kia Mortazavi
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**Prior Use of Low Carbon Transit Operations Program (LCTOP) Funds
Orange County Transportation Authority**

Program	Project	Amount
2014-15 LCTOP	Summer Youth Pass 2015	\$ 253,120
2014-15 LCTOP	Summer Youth Pass 2016	\$ 260,660
2014-15 LCTOP	Reduced Fare Day Pass	\$ 843,474
2015-16 LCTOP	Reduced Fare Day Pass	\$ 542,846
2015-16 LCTOP	Purchase six Compressed Natural Gas Buses for Bravo! 529 Express Bus Service	\$ 3,045,578
2016-17 LCTOP	Three-Position Bicycle Racks on Buses	\$ 766,345
2016-17 LCTOP	Fare Adjustment Program (College Pass Pilot)	\$ 886,480
2017-18 LCTOP	Bravo! Route 529 Express Bus Operations (2.5 years)	\$ 4,787,534
Approved Projects Total		\$ 11,386,037

**Orange County Transportation Authority
Low Carbon Transit Operations Program
Program of Projects Description**

College Pass and Travel Training Program

OC Bus 360°, the Orange County Transportation Authority's (OCTA) comprehensive plan to improve bus service from all angles, identifies college students as a key audience for bus service growth. According to OCTA's bus customer satisfaction surveys, work and school are the top trip purposes for bus riders.

OCTA began developing programs for a student-based initiative that would increase ridership by encouraging trial usage among new riders and more frequent ridership among existing riders. The program criteria included selecting a location within a high transit-demand area and identifying funding sources, including college assessed cost-sharing transportation fees, to support the program.

Transit agencies throughout the country have successfully implemented similar student pass programs. The Riverside Transit Agency implemented a two-year pilot pass program that provides free rides to students in the Riverside Community College District. After the free-ride period ended, students voted to pay a fee to continue the program for an additional five years.

Beginning in fall 2017, OCTA provided Santa Ana College (SAC) students, enrolled full- and part-time with a one-year free pass program funded through LCTOP. In May 2017, SAC students voted to pass a per-semester student transportation fee to fund the program from fall 2018 through summer 2020. Using a cost-sharing approach, OCTA established the per-semester student fee at \$6.75 for each full-time student and \$5.75 for each part-time student.

OCTA is currently working with Fullerton College and Golden West College to offer a similar opportunity. The student enrollment fee may vary as it is based on the specific transit opportunities and demographics of each College. As part of this College Pass Program, OCTA will also make travel training available to new riders.

Bravo! Main Street – Capital and Operating

Bravo! Main Street is identified as one of the 11 corridors in the OC Transit Vision. This corridor runs parallel to State Route 55 and traverses through several disadvantaged communities. The bus service is on Main Street and starts at the Anaheim Regional Transportation Intermodal Center (which provides connections to Metrolink and Amtrak services to Los Angeles, Riverside, San Bernardino, Oceanside, and San Diego), and the route ends at South Coast Metro, a key employment center of the County.

**Orange County Transportation Authority
Low Carbon Transit Operations Program
Program of Projects Description**

OCTA has been awarded a SB 1 (Chapter 5, Statutes 2017) Solutions for Congested Corridors grant of \$4,330,400 towards the purchase of five zero emission buses for Bravo! Main Street Rapid Bus Service. The total cost for these buses is estimated to be \$5,413,400.

Additionally, utility and depot upgrades are necessary to charge the electric buses and, according to Southern California Edison (SCE), the current available energy required at the Garden Grove Base to support this project is currently available through SCE's transformer installed at that location; however, electrical cabling, trenching, dedicated charging stations, smart energy management controllers, and other devices similar in nature are still required.

And, as mandated by existing zero-emission regulations for transit fleets in California, these upgrades can also be considered as the engineering and technical blueprint for potential expansion of zero emission bus technologies and this or other OCTA locations. Purchasing these five buses along with the required infrastructure will allow OCTA to test them along with the hydrogen buses to test how both technologies work within the OC Bus service.

LCTOP funds will also be set aside to contribute to the start-up operating costs for the Bravo! Main Street Rapid Bus Service.

RESOLUTION 2019-018

AUTHORIZATION FOR THE EXECUTION OF THE CERTIFICATIONS AND ASSURANCES, AND AUTHORIZED AGENT FORMS FOR THE LOW CARBON TRANSIT OPERATIONS PROGRAM AND FOR THE EXECUTION OF THE LOW CARBON TRANSIT OPERATIONS PROGRAM PROJECT:

COLLEGE FARE PROGRAM AND TRAVEL TRAINING AT FULLERTON, SANTA ANA, AND GOLDEN WEST COLLEGES, BATTERY ELECTRIC BUSES, BUS DEPOT UPGRADES, AND CHARGING INFRASTRUCTURE, \$7,110,976

WHEREAS, the Orange County Transportation Authority (OCTA) is an eligible project sponsor and may receive state funding from the Low Carbon Transit Operations Program (LCTOP) for transit projects; and

WHEREAS, the statutes related to state-funded transit projects require a local or regional implementing agency to abide by various regulations; and

WHEREAS, SB 862 (Chapter 36, Statutes 2014) named the California Department of Transportation (Caltrans) as the administrative agency for the LCTOP; and

WHEREAS, Caltrans has developed guidelines for the purpose of administering and distributing LCTOP funds to eligible project sponsors (local agencies); and

WHEREAS, OCTA wishes to delegate authorization to execute these documents and any amendments thereto to Darrell Johnson, Chief Executive Officer; and

WHEREAS, OCTA wishes to implement the LCTOP project listed above;

NOW, THEREFORE, BE IT RESOLVED by the OCTA Board of Directors (Board) that the fund recipient agrees to comply with all conditions and requirements set forth in the Certification and Assurances and the Authorized Agent documents and applicable statutes, regulations, and guidelines for all LCTOP-funded transit projects;

NOW THEREFORE, BE IT FURTHER RESOLVED that Darrell Johnson, Chief Executive Officer, or his designee, be authorized to execute all required documents of the LCTOP and any amendments thereto with Caltrans;

NOW, THEREFORE, BE IT RESOLVED by the OCTA Board that the fund recipient agrees to comply with all conditions and requirements set forth in applicable statutes, regulations, and guidelines for all LCTOP-funded transit projects;

NOW, THEREFORE, BE IT FURTHER RESOLVED by the OCTA Board hereby authorizes the submittal of the following project nomination and allocation request to Caltrans in fiscal year (FY) 2018-19 LCTOP funds:

Project Name: College Fare Program and Travel Training at Fullerton, Santa Ana and Golden West Colleges, Battery Electric Buses and Bs Depot Upgrades, and Charging Infrastructure, and Bravo! Main Street Rapid Bus Service Operations.

Amount of LCTOP funds requested: FY 2018-19 LCTOP funding at \$7,110,976

Short Description of Project:

College fare programs and travel training at Fullerton, Santa Ana, and Golden West - \$1,685,000

The College Fare Program provides funding to OCTA to allow college students to ride free for one year and the cover the cost of ridership increases for the life of the program. The program will provide an incentive to a student enrollment fee to pay for future student use of the OC Bus. In addition to college students, travel training will be made available to seniors and disabled to assist in increasing ridership over the three-year period.

Battery electric buses, bus depot upgrades, and charging infrastructure for Bravo! Main Street Rapid Bus Service – \$2,523,000

LCTOP funds will provide match to other grant funds available for the purchase of five zero emission buses for the new Bravo! Main Street Rapid Bus service, as well as provide funding for the required bus depot upgrades and charging infrastructure.

Operations for Bravo! Main Street Rapid Bus Service – \$2,902,976

LCTOP funds are proposed for future Bravo! Main Street service operations. Bravo! Main Street serves residents of the cities of Anaheim, Costa Mesa, Orange, and Santa Ana. Through connections to other OCTA bus service it serves all residents of Orange County.

The projects will reduce greenhouse gas emissions, reduce automobile vehicle miles traveled and as applicable, reach over 50 percent of boardings from disadvantaged communities.

Contributing Sponsor: City of Laguna Beach

ADOPTED, SIGNED AND APPROVED this 25th day of March 2019.

AYES:

NOES:

ABSENT:

ATTEST:

Laurena Weinert
Clerk of the Board

Tim Shaw, Chairman
Orange County Transportation Authority

OCTA Resolution No. 2019-018



Capital Funding Program Report

Pending Board of Directors (Board) Approval - March 14, 2019

Bus Transit Project

Project Title	M Code	Total Funding	State Funds		Federal Funds		Local Funds		
			STIP/Other	State Bonds	RSTP/CMAQ	Other Fed.	M1	M2	Local - Other
Go Local - Step 1	S	\$5,730					\$5,730		
Mobile ticketing equipment	S	\$4,036	\$2,482						\$1,554
Project V Community Circulators	V	\$43,659						\$43,659	
Project W Safe Transit Stops (City)	W	\$1,206						\$1,206	
Project W Safe Transit Stops (OCTA)	W	\$370						\$370	
ACCESS and fixed-route radio systems upgrade		\$22,465		\$16,239		\$4,775			\$1,451
Associated Transportation Improvements		\$556				\$556			
Bus replacement - articulated alternative fuel buses (60')		\$31,105			\$22,250	\$8,855			
Bus replacement (40' and ACCESS)		\$149,009			\$29,198	\$68,139			\$51,672
Capital cost of contracting (ACCESS and contracted fixed-route contracts)		\$305,784				\$142,164			\$163,620
Engine rebuild		\$16,294				\$14,824			\$1,470
FTA Section 5310 Enhanced Mobility of Seniors & Individuals with Disabilities		\$3,657				\$3,657			
FTA Section 5316 Jobs Access and Reverse Commute		\$13,962				\$13,962			
FTA Section 5317 New Freedom		\$6,388				\$6,388			
Goldenwest Transportation Center parking structure		\$4,000			\$3,400				\$600
Goldenwest Transportation Center surface lot		\$2,000		\$1,200					\$800
Heating ventilation unit replacements		\$448	\$67			\$381			
iShuttle replacement buses		\$6,600	\$5,673						\$927
Mobile Source Air Pollution Reduction Review Committee County Transportation Commission Partnership Program		\$2,319	\$176						\$2,143
Non-fixed-route paratransit operations assistance		\$240,952				\$48,486			\$192,466
OCTA Transit Security & Operations Center		\$7,772		\$7,772					
Preventive maintenance - including salaries and benefits (includes ATN & Laguna Beach)		\$147,691				\$147,691			
Purchase (201) 40-foot alternative fuel replacement buses (OCTA)		\$229,384			\$134,670	\$47,696			\$47,018
Purchase replacement paratransit vans		\$58,058				\$44,292			\$13,766
Rideshare/vanpool		\$6,732			\$6,732				
Six Bravo! 529 buses		\$3,595	\$3,046		\$549				
Ten zero emission hydrogen fuel cell buses		\$12,914	\$5,607						\$7,307
Transit Security Program		\$3,997		\$3,997					
Vanpool Program - capital lease		\$12,838			\$12,838				
VSS upgrades at OCTA facilities – Santa Ana, Garden Grove, Anaheim, & Irvine bases and administration		\$1,588		\$628		\$960			
Zero Emission Bravo! Buses (Five Battery Electric) and Bus Infrastructure ¹		\$6,852	\$6,852						
Bus Transit Project Totals		\$1,351,961	\$23,903	\$29,836	\$209,637	\$552,826	\$5,730	\$45,235	\$484,794

State Funding Total	\$53,739
Federal Funding Total	\$762,463
Local Funding Total	\$535,759
Total Funding (000's)	\$1,351,961

Board Action:

1. Add \$2.522 million in LCTOP. Remove CMAQ for \$1.082 million and change name from hydrogen fuel cell buses to zero emission buses.

Acronyms - STIP - State Transportation Improvement Program / RSTP - Regional Surface Transportation Program / CMAQ - Congestion Mitigation Air Quality / M1 - Measure M1 / M2 - Measure M2 / OCTA - Orange County Transportation Authority / FTA - Federal Transit Administration / ATN - Anaheim Transportation Network / VSS - Video Surveillance System / LCTOP - Low Carbon Transit Operations Program



March 14, 2019

To: Transit Committee
From: Darrell E. Johnson, Chief Executive Officer
Subject: OC Vanpool Program Update

A handwritten signature in blue ink, appearing to be "DEJ", is written over the "From:" line of the memo.

Overview

The OC Vanpool Program is a public-private partnership designed to encourage vanpooling in Orange County by providing commuters a convenient transportation option for daily home-to-work trips. The OC Vanpool Program provides a variety of benefits such as emissions reduction, federal funding generation, and broadening the reach of transportation services. The report provides an update on the OC Vanpool Program.

Recommendation

Receive and file as an information item.

Background

Since 2007, the Orange County Transportation Authority's (OCTA) family of transportation services has included a vanpool program, which provides a convenient way for commuters to pool resources to save time and money by sharing a ride. A vanpool is a group of up to 15 people who regularly commute to work in a shared van.

Benefits of the OC Vanpool Program (Program) include:

- Offering commuters a cost-effective transportation option.
- Providing direct, express service between neighborhood collection points and worksites.
- Helping the region achieve air quality goals by offering a convenient alternative to single-occupant vehicle travel.
- Lowering operating cost via a public-private partnership that results in an efficient transportation mode.

- Increasing federal funding for transit; historically, OCTA has received Section 5307 funding at a rate of more than two dollars for every one expended on the Program since its inception.

Discussion

As Orange County's public transportation planning agency and provider, OCTA administers and manages the Program. The Program currently serves 93 Orange County employers at 119 worksites. Fifty percent of the OC Vanpools have been active for five or more years.

During fiscal year 2017-18, OCTA operated 538 vanpools reducing 2,152 single occupant vehicles from Orange County roads and freeways. In addition, an estimate by the South Coast Air Quality Management District staff indicates that these vanpools eliminated 11,506 tons of greenhouse emissions by reducing nearly 35 million single occupant vehicles miles.

The average vanpool one-way trip is 33.5 miles with an average number of 6.6 passengers per vanpool. Thirty-four percent of existing originate from within Orange County; with the remaining 66 percent originating in Los Angeles, Riverside, San Bernardino, or San Diego counties and traveling to Orange County. Most vanpools operate five days a week. The average cost per passenger is \$155 per month after the OC Vanpool subsidy is applied. Vanpool participants have a common destination point and similar work hours.

The Program is administered by OCTA through a public-private partnership with three distinct participants including OCTA, van providers, and vanpool riders.

OCTA's Role**Administration and Reporting**

OCTA contracts with a vanpool provider, currently Enterprise, and provides a \$400 per month, per vehicle subsidy to offset the vanpool rider's vehicle lease cost. Working with Enterprise, OCTA approves vanpool participants, collects vehicle revenue miles, passenger miles, operating expense data, and completes monthly and annual reports to the National Transit Database (NTD). Additionally, OCTA provides the public and employers with step-by-step instructions for finding or starting a vanpool through the website. Lastly, OCTA helps vanpool participants report and comply with the Program requirements to ensure ease of use and continued participation. Specific requirements of the Program related to formation and occupancy are provided in Attachment A.

As Orange County's public transit provider, OCTA generates federal Section 5307 grant funding based on passenger and revenue vehicle miles traveled. These statistics are reported annually in the NTD and form the basis for grant funding.

Outreach and Marketing

OCTA develops and implements marketing and outreach programs to employers and commuters in Orange County. Utilizing a unifying rideshare campaign, OCTA offers two annual promotions – Dump the Pump in June and California Rideshare Week in October. Both promotions help create public awareness and encourage participation in vanpools through advertising, in-person outreach, and promotional incentives. Vanpool marketing campaigns targeting businesses and commuters are conducted through digital advertising, direct mail, in-person meetings, and on-site events.

Vanpool Contractor

OCTA currently contracts with Enterprise to provide vanpool services. These services include: the vehicle, insurance, and maintenance to participants through a lease agreement that can be terminated with a 30-day notice. Enterprise also collects lease payments from participants, advertises and markets the program, coordinates sales activities with OCTA staff, and provides OCTA with data required for NTD reporting.

Vanpool Riders

Vanpool riders lease a vehicle from OCTA's contracted vanpool provider and share the costs of the lease, fuel, tolls, and parking. One person from each vanpool group serves as the driver/coordinator and is responsible to record and report the required monthly NTD data to OCTA.

OCTA requires an initial 70 percent occupancy rate to qualify for the Program. The vanpool group must maintain a minimum 50 percent occupancy level to remain eligible for the \$400 monthly subsidy.

Program Growth and Success

As of December 2018, there were 503 active vanpools. The vanpool program has demonstrated steady growth since 2007, at an average eight percent annual growth rate. The decrease in 2018 was mainly a result of new vanpool programs initiated by the Riverside County Transportation Commission (RCTC) and the San Bernardino County Transportation Authority (SBCTA), which now claim the vanpool miles traveled for the vans traveling to worksites in their counties.

Before RCTC and SBCTA had vanpool programs, OCTA provided subsidies to the vanpools traveling between Orange County, Riverside, or San Bernardino counties, and therefore claimed all the data for NTD reporting. Twenty-one vanpool groups were transferred to RCTC's and eight vanpool groups were transferred to SBCTA's vanpool programs during 2018, based on the vanpool regional agreement.

The success of the Program is demonstrated by the retention record of the Program. There are 104 vanpools, 23 employers, and 211 people who have participated in the Program for more than ten years. Fifty percent of the OC Vanpools have been active for more than five years. The program has shown consistent growth since 2007 (Attachment B).

Last November 2018, 49 representatives from Orange County employers who participate in the Program attended a meeting at OCTA. Resolutions of appreciation were presented to employers who have participated in the Program for ten or more years. Sixteen of the 23 employers were in attendance to accept the resolutions. The meeting also provided staff with an opportunity to showcase the new OC Vanpool website and tools available for employers to promote and manage their programs.


Summary

The OC Vanpool Program is a cost-effective transit mode which provides employers and employees with a reliable and affordable commute option. Vanpools provide air quality benefits by reducing long distance trips and congestion on roads and freeways.

Attachments

- A. OC Vanpool Program Requirements
- B. Maximum Vanpools Operating by Fiscal Year

Prepared by:


Sandy Boyle
Section Manager, OC Vanpool
Program
714-560-5761

Approved by:


Beth McCormick
General Manager, Operations
714-560-5964


Jennifer L. Bergener
Chief Operating Officer, Operations
714-560-5462

OC Vanpool Program Requirements

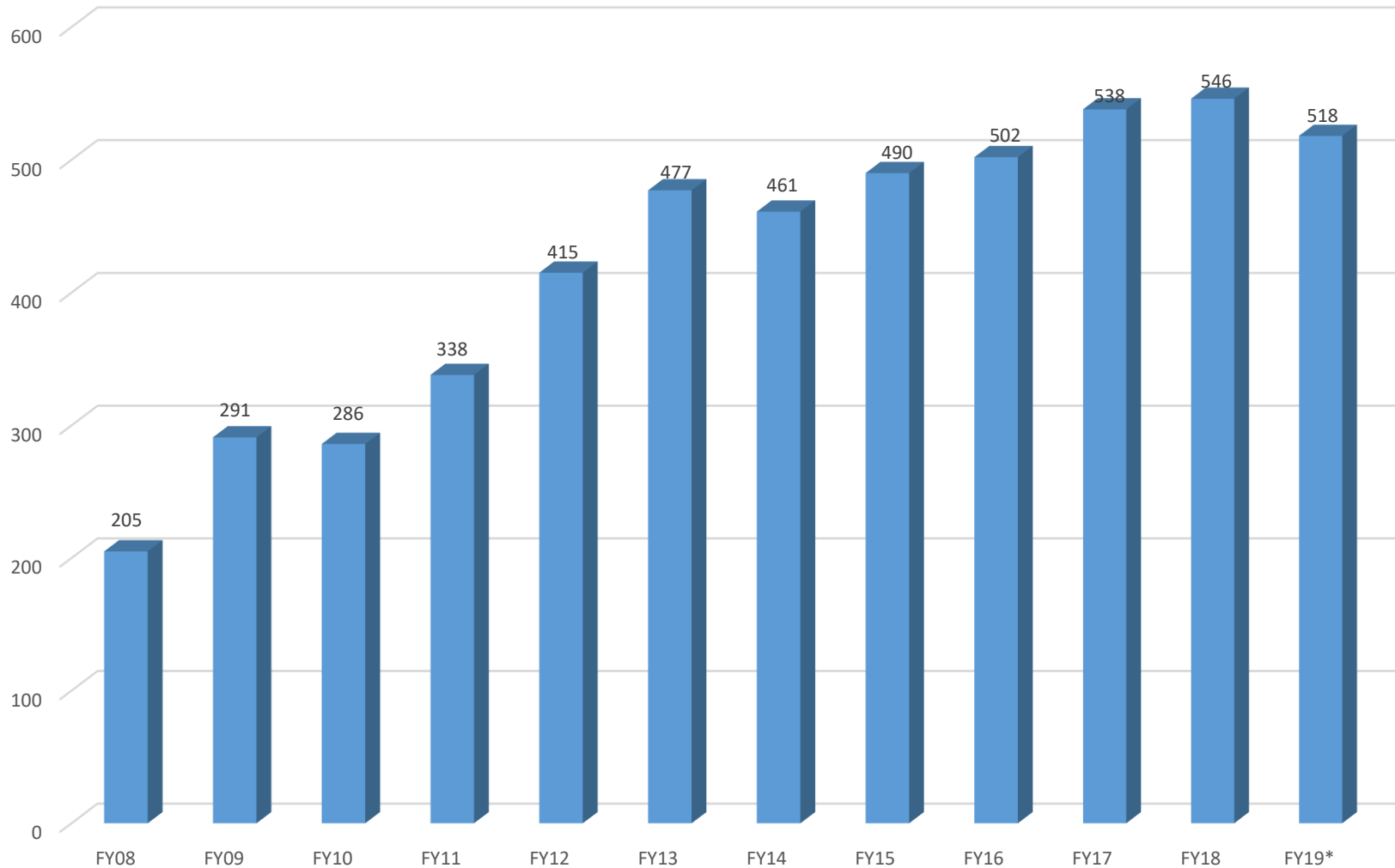
The Federal Transit Administration requires that vehicles used for vanpool purposes have a seating capacity for at least seven and no more than 15 adults (including the driver); and at least 80 percent of the mileage must be for the purposes of transporting commuters in connection with travel between residences and places of employment with a volunteer driver.

There is an initial occupancy requirement of 70 percent to qualify for the OC Vanpool Program. The “occupancy requirement” refers to the percentage of occupied seats in a van by the participants, including the driver who is a commuter member of the vanpool. After the vanpool is approved, the vanpool must maintain a monthly 50 percent occupancy level to remain eligible for the \$400 per month subsidy.

All applicants of the vanpool must submit a participant agreement prior to riding in the vanpool. The participant agreement includes the following requirements:

- Vanpools are required to be open to the public, provided the work schedules and routes are compatible, and be American with Disabilities Act compliant.
- Vanpool route and contact information is entered into a rideshare database for matching interested riders to established vanpools.
- Ridership and expense reports must be submitted monthly. The Orange County Transportation Authority must be notified of changes to passengers and routes.

Maximum Vanpools Operating by Fiscal Year



**Fiscal Year (FY) 2018-19 data represents July through December 2018. Twenty-nine vanpools were transferred to new vanpool programs launched by Riverside County Transportation Commission and San Bernardino County Transportation Authority in FY 2018-19.*



March 14, 2019

To: Transit Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: OC Streetcar Project Update

Overview

The Orange County Transportation Authority is currently underway with the implementation of the OC Streetcar project. This report provides a project update.

Recommendation

Receive and file as an information item.

Background

The Orange County Transportation Authority (OCTA), in cooperation with the cities of Garden Grove and Santa Ana, is implementing a modern streetcar running between the Santa Ana Regional Transportation Center in the City of Santa Ana (City) and the Harbor Boulevard/Westminster Boulevard intersection in the City of Garden Grove (OC Streetcar). The OC Streetcar will improve transit connectivity and accessibility, increase transit options, relieve congestion, and provide benefits to the community and traveling public.

Construction of the 4.15-route-mile (8.3-track-mile) OC Streetcar line will involve complex and specialized work, including the installation of embedded track in streets, overhead catenary system to supply power to the vehicles, stops with canopies, bridges, and a maintenance and storage facility (MSF).

The OC Streetcar includes ten streetcar stops in each direction (four shared center platforms and six side platforms in each direction, for a total of 16 platforms). Each stop includes a canopy, benches, leaning rails, trash cans, lighting, changeable message signs, video cameras, a public address system, and ticket vending machines which will be procured separately. Platforms will be 14 inches high to enable level boarding. Also included are the installations of new traffic signals and transit signal priority at intersections.

The MSF can accommodate up to 15 modern streetcar vehicles and includes OC Streetcar administration, operations, vehicle maintenance, parts storage, and maintenance-of-way. Secured exterior vehicle storage, including a wye-track for turning vehicles end-for-end, a free-standing drive-through vehicle wash, employee parking, and fire department and delivery access will also be included.

On March 26, 2018, the OCTA Board of Directors (Board) awarded a contract to Siemens Industries, Inc. (Siemens) for the manufacture and delivery of eight modern streetcar vehicles, spare parts, and special tools. On September 24, 2018, the OCTA Board awarded the OC Streetcar construction contract to Walsh Construction Company (Walsh). On November 30, 2018, the Federal Transit Administration (FTA) executed the Full Funding Grant Agreement (FFGA) which was a significant milestone as it secured \$149 million in federal New Starts discretionary funding for the OC Streetcar. In February 2019, the FFGA grant was awarded through the FTA Transit Award Management System, which was the final step necessary to begin the drawdown of federal funding.

Discussion

A status of ongoing OC Streetcar activities follows.

Right-of-Way Acquisition

Three parcels were acquired to accommodate the MSF on Fifth Street near Raitt Street. Possession of all property rights required to construct the OC Streetcar was completed on March 4, 2019.

Utility Relocation

There are numerous overhead and underground utilities that require relocation to accommodate the OC Streetcar. Wet utilities (sewer, water, and storm drains) are being relocated by Walsh as part of the construction contract. There are eight private utility companies with relocations underway. Final relocation of the private utilities is expected to be complete by August 2019, with the exception of final AT&T relocations which will take place after the sewer work is complete. OCTA closely coordinates with the utility companies to monitor progress, and work windows were included in the construction contract to minimize conflicts.

Permits

Construction of the OC Streetcar bridge across the Santa Ana River requires permits from two agencies: United States Army Corps of Engineers (Corps) and Orange County Flood Control District (OCFCD). The Corps has committed to

issuing the required permits by mid-March 2019, and OCFDC has committed to issue the required encroachment permit upon final Corps permits being issued.

The City building permit required for construction of the MSF was issued to Walsh on February 27, 2019.

Construction Activities

OCTA executed the construction contract and issued a Limited Notice to Proceed (LNTP) to Walsh on November 19, 2018. The LNTP allowed Walsh to begin preparation of key pre-construction submittals before issuance of the Notice to Proceed with Construction (NTPC). Additionally, federal requirements would not allow OCTA to issue a NTPC until the FFGA was executed. Key deliverables completed during the LNTP include an approved 120-day schedule, a baseline schedule, quality plan, approval of a full-time safety representative, safety plans, and the stormwater pollution prevention program.

The NTPC was issued to Walsh on March 4, 2019. Generally speaking, construction activities will commence on the western half of the alignment, with the focus on preparations for construction of the Santa Ana River and Westminster Avenue bridges, the MSF, storm drain relocations, and sewer and water systems within City streets.

Walsh has 820 days from NTPC (June 1, 2021), to complete Milestone 1, which includes the MSF and a 1.4-mile section of test track from the MSF to the west approach of the Westminster Avenue bridge. This milestone is a critical target to meet the delivery schedule of the first vehicle. Milestone 2, the completion of all track and systems, is scheduled to be completed 910 days from NTPC (August 30, 2021).

Based upon the contractual construction duration of 1,065 days, and allowing sufficient time for integrated testing between the vehicles, infrastructure and systems following the completion of Milestone 2, the estimated revenue service date (RSD) is February 2, 2022. This revised RSD is approximately five months later than the RSD that was provided to the Board in July 2018.

Vehicle Manufacturing and Delivery

On November 12, 2018, an overview of the vehicle design process was provided to the Board. This overview included the status of submittal of key documents, including the schedule, document control process, project management plan, and quality assurance plan. The Board also approved the vehicle exterior design concept to be submitted to Siemens for further modifications as part of the design review process. Since November 2018, the submittals were approved by OCTA and the preliminary design review (PDR) process kicked off in early February 2019. As part of PDR, OCTA and Siemens have begun an iterative

review process where every major component and sub-system of the vehicle is reviewed by OCTA and technical consultants to confirm design compliance to the technical specification. These major elements include the carbody, doors, cab layout, propulsion, auxiliary power, energy absorbing bumpers, and related manuals. During the next six months, comments and revisions will be incorporated into a final design review package for OCTA's final review and approval. The production of the first car shell will be completed in December 2019.

Other key OC Streetcar updates include:

- Received approvals from the California Public Utilities Commission (CPUC) for grade crossings along the alignment,
- Responded to questions on the Operations and Maintenance Request for Proposals,
- Hosted the Safety and Security Review and the Fire Life Safety and Security Committees to direct and track compliance against the CPUC safety certification process and emergency planning/preparedness requirements.

Cost and Contingency

The overall OC Streetcar cost, as included in the FFGA, remains at \$407.7 million. This includes a 10.2 percent overall contingency.

Public Outreach

OCTA has a comprehensive Public Awareness Campaign designed to keep stakeholders, community members, and property owners informed about the OC Streetcar construction activities. Recently OCTA has focused the outreach efforts on community notifications for utility relocation activities, distribution of the Business Resource Guide (BRG), and installation of sidewalk decals along the alignment. OCTA has supported Southern California Edison (SCE) and Southern California Gas (SCG) by providing community notifications about traffic impacts related to relocation efforts; however, planned power outage notifications remain SCE's responsibility. Outreach notifications are provided in English and Spanish.

The BRG was developed with several components, including signage, individual briefings, a resource directory of agencies and organizations that provide low and no cost consulting services, a business spotlight program that will provide exposure through social media and other outlets, and participation in an Eat, Shop, Play Coupon program meant to provide additional customer visibility. Implementation of the BRG is multi-phased. The initial phase included the distribution of a program overview flyer by outreach staff to more than 300 businesses along the alignment. The flyer briefly described the program and invited business owners to make an appointment to review the packet and discuss

its interest. The next phase will include follow up appointments and the distribution of the entire packet to every business owner. These community visits continue to build rapport with business owners, and reinforces OCTA's commitment to provide community members with personal and responsive interactions.

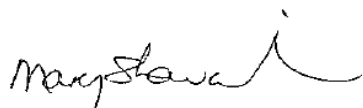
A sidewalk decal was developed in English, Spanish, and Vietnamese to alert pedestrians to upcoming construction and to build awareness of stop locations. Thirty decals were applied to sidewalks along Santa Ana Boulevard, with the exception of 4th Street, as well as a location near the terminus stop at Harbor Boulevard and Westminster Avenue. SCG has begun relocation work that will impact the 4th Street sidewalk areas between Birch Street and French Street. Once SCG's work is concluded, the decals will be installed. Planning is underway for a Stakeholder Working Group and two community meetings in April 2019 to provide information about the OC Streetcar construction activities and milestones. Also under development is a project app that will provide real time information about OC Streetcar construction activities.

Summary

An update on the OC Streetcar project is provided for the Orange County Transportation Authority Board of Directors' review.

Attachment

None.

Prepared by:

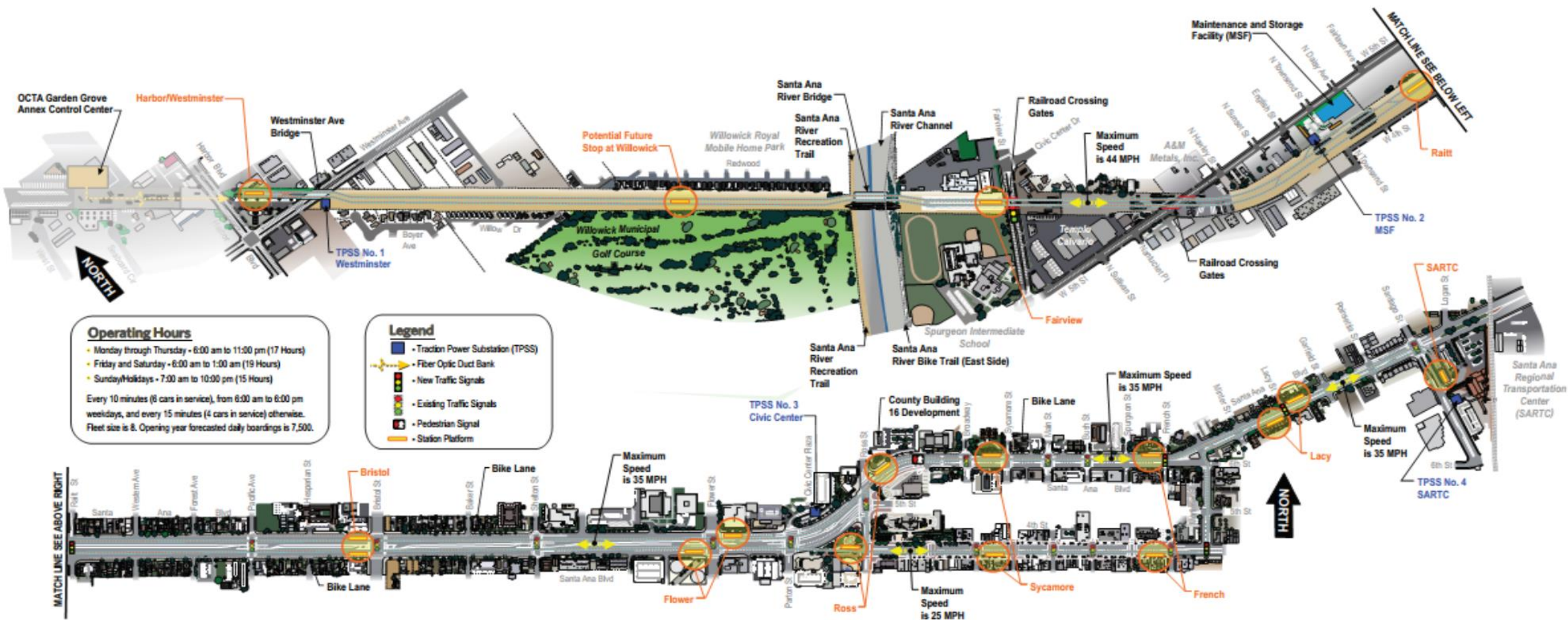
Mary Shavali
Program Manager
(714) 560-5856

Approved by:

James G. Beil, P.E.
Executive Director, Capital Programs
(714) 560-5646

OC Streetcar Project Update

Alignment



Background - Key Dates

Milestone	Completion Date
Environmental Clearance	March 2015
Full Funding Grant Agreement Request Submitted	May 2017
Final Design Complete	December 2017
Vehicle Contract Award	March 2018
Construction Contract Award	September 2018
Full Funding Grant Agreement Executed	November 2018
Notice to Proceed with Construction	March 2019

Project Groundbreaking and Full Funding Grant Agreement



Right-of-Way

- Three parcels were acquired to accommodate the new maintenance and storage facility (MSF) at Fifth Street near Raitt Street
- Possession of all property rights was completed on March 4, 2019



TPSS – Traction Power Substation

Utilities

- Overhead and underground utilities require relocation as part of the project
 - Wet utilities are being relocated by the streetcar construction contractor: water, sewer, and storm drain
 - Eight private utilities are in the process of being relocated
 - Final utility relocation work for the private utilities is expected to be complete by August 2019, with exception of final AT&T relocation after sewer lines are complete



Permits

- Santa Ana River Bridge Permits
 - U.S. Army Corps of Engineers (Corps)
 - Section 404 and 408 permits to be issued in mid March 2019
 - Orange County Flood Control District
 - Encroachment permit upon issuance of Corps permits
- MSF Building Permit
 - Issued by City of Santa Ana (City) on February 27, 2019



Construction

- Key submittals completed
 - Approved 120-day Schedule
 - Baseline Schedule
 - Quality Plan
 - Approval of full-time safety representative, safety plans, and stormwater pollution prevention program
- Construction activities are commencing on the western half of the alignment, focusing on preparations for construction of the Santa Ana River and Westminster Avenue bridges, MSF, storm drain relocations, and sewer and water systems within City streets

Milestone	Actual/Forecast
Contract Execution/Limited Notice to Proceed	November 19, 2018
Notice to Proceed with Construction	March 4, 2019
Milestone 1 – Completion of MSF and 1.5 mile test track (820 days)	June 1, 2021
Milestone 2 – Completion of all track and systems (910 days)	August 30, 2021

Vehicles

- In November 2018, the Board of Directors was presented an overview of the vehicle design process and approved the vehicle exterior design concept
- Preliminary Design Review started in early February 2019
- Final Design Review will be completed in September 2019
- The production of the first car shell will be completed in December 2019

Schedule Status


Milestone	Actual/Forecast
Vehicle Contract Award	March 26, 2018
Vehicle Contract Notice to Proceed	July 31, 2018
Vehicle 1 Delivery	June 9, 2021
Begin Start Up and Integrated Testing	June 9, 2021
All Vehicles Delivered	August 6, 2021
Begin Full System Testing	August 30, 2021



Outreach

- Utility Relocations Notification
- Business Resource Guide
- Sidewalk Decals





Business Resource Program / Programa de Recursos para Negocios

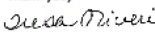
The Orange County Transportation Authority (OCTA) is moving forward into construction later this year with Orange County's first modern streetcar – OC Streetcar. As part of the outreach component for this project, OCTA has developed a resource guide for local businesses. The Business Resource Guide (BRG) will provide support in advance of and during construction. Highlights of the programs and sources include:

La Autoridad de Transporte del Condado de Orange (OCTA, en inglés) está avanzando con la construcción después en este año con el primer tranvía moderno en el Condado de Orange – Tranvía de OC. Como parte del componente de alcance a la comunidad para este proyecto, OCTA ha desarrollado un programa de recursos para negocios locales. La Guía de Recursos para Negocios (Business Resource Guide o BRG en inglés) brindará soporte antes y durante la construcción. Los puntos destacados del programa y recursos incluyen:


Eat, Shop, Play Coupons – Encourages shopping in local businesses. Requires application.	Cupones para comer, Comprar, Jugar – Alienta las compras a negocios locales. Requiere una aplicación.
Business Resource Directory – Provides information regarding training and educational programs for businesses owners.	Directorio de Recursos de Negocios - Proporciona información sobre programas educativos y de capacitación para propietarios de negocios.
Business Spotlight – Features a short story promoting local business. Requires application.	Negocio Destacado - Presenta una breve historia para promocionar un negocio local. Requiere una aplicación.
Project Briefings – Briefings with project team members are available to help answer questions.	Informes del Proyecto - Informes con los miembros del equipo del proyecto están disponibles para ayudar a responder preguntas.
Business Signage – Provides free signage to adjacent businesses in active construction areas. Requires application.	Señalización de Negocios – Provee Señalización gratuita está disponible para negocios adyacentes en sitios de construcción activa. Requiere una aplicación.

Please call the project information number at (877) 7-GoOCSC or (844) 746-6272 to make an appointment to meet with an outreach team member at your business to review the BRG materials and help answer questions.

Por favor llame al número de información del proyecto al (877) 7-GoOCSC o (844) 746-6272 para hacer una cita con el equipo de alcance en su negocio y revisar los materiales del BRG y ayudar a contestar sus preguntas.

Thank you,

Tresa Oliveri
Community Relations Officer

OCStreetcar.com | 550 S. Main Street, P.O. Box 14184, Orange, CA 92683



Other Key Project Updates

- California Public Utilities Commission (CPUC) Approval of Grade Crossings - 11/8/2018
 - Staff are coordinating with CPUC on variance requests for vehicles
- Safety and Security Committee meeting - 2/20/2019
 - Oversight of the design and construction certification process
 - Coordination of requirements, procedures, and other aspects affecting streetcar safety and security
- Responding to questions on the Operations and Maintenance Request for Proposals



March 14, 2019

To: Transit Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Bus Operations Performance Measurements Report for the Second Quarter of Fiscal Year 2018-19

Overview

The Orange County Transportation Authority operates fixed-route bus and demand-response paratransit service throughout Orange County and into neighboring counties. The report summarizes the year-to-date performance of these transit services provided through the second quarter of fiscal year 2018-19. The established measures of performance gauge the safety, courtesy, reliability, and overall quality of the public transit services provided.

Recommendation

Receive and file as an information item.

Background

The Orange County Transportation Authority (OCTA) operates a countywide network of local, community, rail connector, and express bus routes serving over 5,000 bus stops. These fixed-route bus (OC Bus) services operate in a 798 square-mile area, serving more than three million residents in 34 cities and unincorporated areas, with connections to transit services in Orange, Los Angeles, and Riverside counties. OC Bus service operated by OCTA is referred to as directly-operated fixed-route service (DOFR), while routes operated under contract are referred to as contracted fixed-route service (CFR). Using a contract operator, OCTA also provides OC ACCESS, a federally mandated paratransit service, which is a shared-ride program available for people unable to use the OC Bus service because of functional limitations. Performance measures for both OC Bus and OC ACCESS services are summarized and reported quarterly to the OCTA Board of Directors.

Discussion

The report provides an update on the performance of the OC Bus and OC ACCESS services by presenting the current trends and comparisons with OCTA-established performance standards for transit system safety, courtesy, and reliability. OCTA counts preventable vehicle accidents to evaluate system safety, customer complaints to assess courtesy, and uses both on-time performance (OTP) and miles between road calls (MBRC) to measure service reliability. The report includes year-to-date performance through the second quarter (October/November/December) of fiscal year (FY) 2018-19.

- Safety – Both OC Bus and OC ACCESS continue to exhibit strong performance in this area, exceeding the accident frequency standard of no more than one accident per 100,000 miles traveled.
- Customer Service – Customer service is measured by evaluating the number of valid customer complaints received. During this quarter, both DOFR and CFR performed above the prescribed standards of no more than one complaint per 20,000 riders carried on DOFR, and no more than one complaint per 7,000 riders carried on CFR. OC ACCESS continued to exceed the standard of no more than one valid complaint for every 667 riders carried. These measures indicate strong, positive customer satisfaction.
- Reliability – OTP for OC Bus and OC ACCESS service was below target. Fixed-route OTP performance can be attributed to several factors, including vehicle reliability, driver behavior, high passenger loads, construction, and dynamic traffic conditions. Each service change provides staff with an opportunity to address changes in traffic patterns and impacts to service created by long-term construction projects through the scheduling process. To address other elements impacting OTP, corrective actions implemented to date include conducting route-level analyses to identify specific trouble points, conducting on-board evaluations, conducting on-site timepoint observations, communicating with drivers on problem routes, and coordinating with the various construction project teams to identify impacts to OTP and minimize them during construction.

MBRC for OC Bus service came in below standard, while OC ACCESS exceeded the standard. The completion of the 98 near-zero engine repowers at the end of the second quarter of FY 2018-19 has helped vehicle reliability for both DOFR and CFR. In addition, to address vehicle reliability for CFR, the contractor continues to provide additional

maintenance training, implement a more rigorous quality control process to improve vehicle repair procedures, and maintain corporate support and presence in the maintenance shop. These actions are expected to yield observable improvements in MBRC for CFR in the third quarter of FY 2018-19.

The report also includes:

- An assessment of the efficiency of OCTA transit operations based on industry standards for ridership, productivity, farebox recovery, and cost per revenue vehicle hour;
- A review of contractor performance for CFR and OC ACCESS services;
- A route-level performance evaluation that includes subsidy per boarding, revenue per boarding, and resource allocation (buses);
- A status report on the service adjustments implemented under the OC Bus 360° Program; and
- A summary of OC Flex performance.

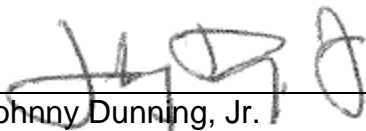
Summary

Through the second quarter of FY 2018-19, the OC ACCESS program continues to show good performance in all areas. The performance of OC Bus service exceeds the safety and customer service standards, but continues to perform below the reliability standards. OCTA staff continue to focus on improvements in service reliability as detailed in the report. Service efficiency and route performance remain stable as OC Bus 360° implementation continues. In addition to tracking the established key performance indicators, staff will continue to manage the service contracts pursuant to contract requirements and work to identify other strategies to improve overall system performance.

Attachment

- A. Bus Operations Performance Measurements Report, Second Quarter, Fiscal Year 2018-19

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Bus Operations Performance Measurements Report



Second Quarter
Fiscal Year 2018-19

About This Report

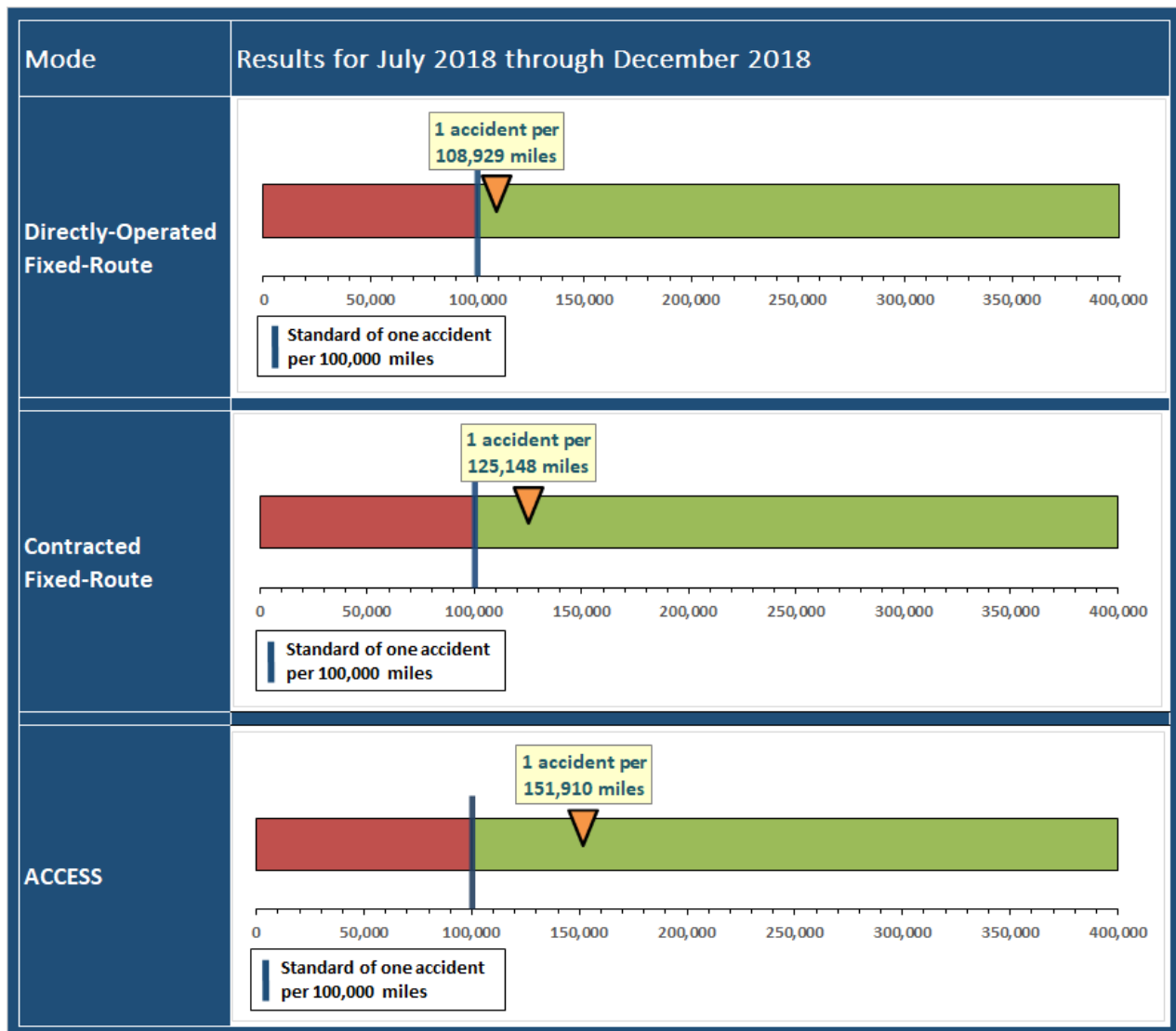
The Orange County Transportation Authority (OCTA) operates a countywide network of over 59 routes including local, community, rail connector, and express bus routes serving over 5,000 bus stops known as OC Bus. OCTA also operates paratransit service (OC ACCESS), a shared-ride program available for people unable to use the standard OC Bus service because of functional limitations. OC Bus service is provided through both direct operations by OCTA referred to as directly-operated fixed-route (DOFR) and contracted operations referred to as contracted fixed-route (CFR). The OC ACCESS service is a contract-operated demand-response service required by the Americans with Disabilities Act that is complementary to the fixed-route service and predominately accounts for the overall paratransit services operated by OCTA. These three services make up the bus transit system and are evaluated by the performance measurements summarized in this report.

This report tracks bus system safety, as measured by vehicle accidents; courtesy, as measured by customer complaints; and reliability, as measured by on-time performance (OTP) and miles between road calls (MBRC). Along with these metrics, industry-standard measurements are tracked to assess OCTA bus operations; these measurements include ridership, productivity, farebox recovery ratio (FRR), and cost per revenue vehicle hour (RVH). Graphs accompany the details of each indicator showing the standards or goals and the values for the current reporting period. The following sections provide performance information for OC Bus service, DOFR and CFR, and OC ACCESS service.

Safety: Preventable Vehicle Accidents

OCTA is committed to the safe delivery of the OC Bus service. The safety standard for DOFR, CFR, and OC ACCESS services is no more than one preventable vehicle accident per 100,000 miles. Preventable vehicle accidents are defined as incidents when physical contact occurs between vehicles used for public transit and other vehicles, objects, or pedestrians, and where a coach operator failed to do everything reasonable to prevent the accident.

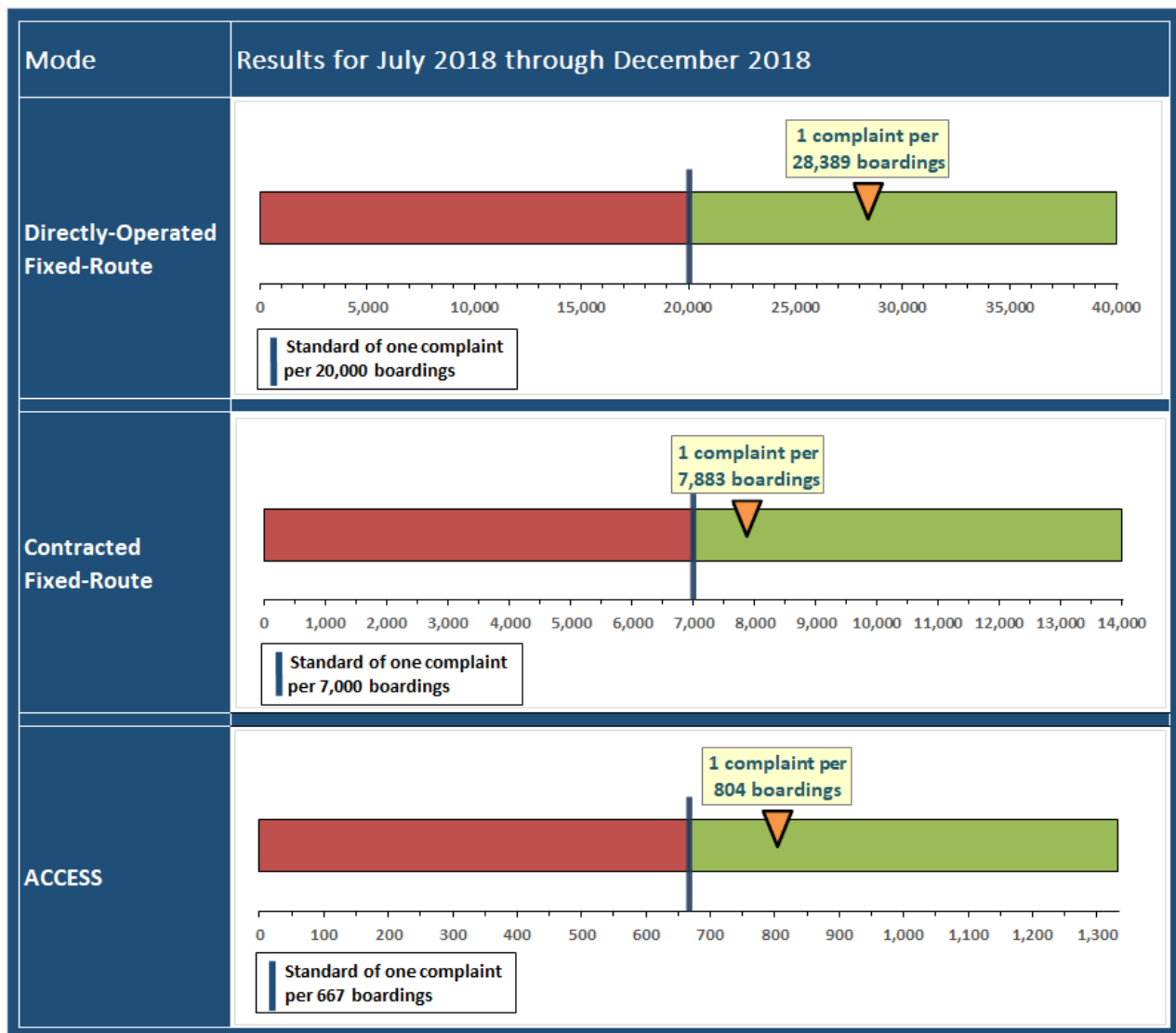
All modes of service exceeded the safety standard through the second quarter of fiscal year (FY) 2018-19 with less than one accident per 100,000 miles.



Courtesy: Customer Complaints

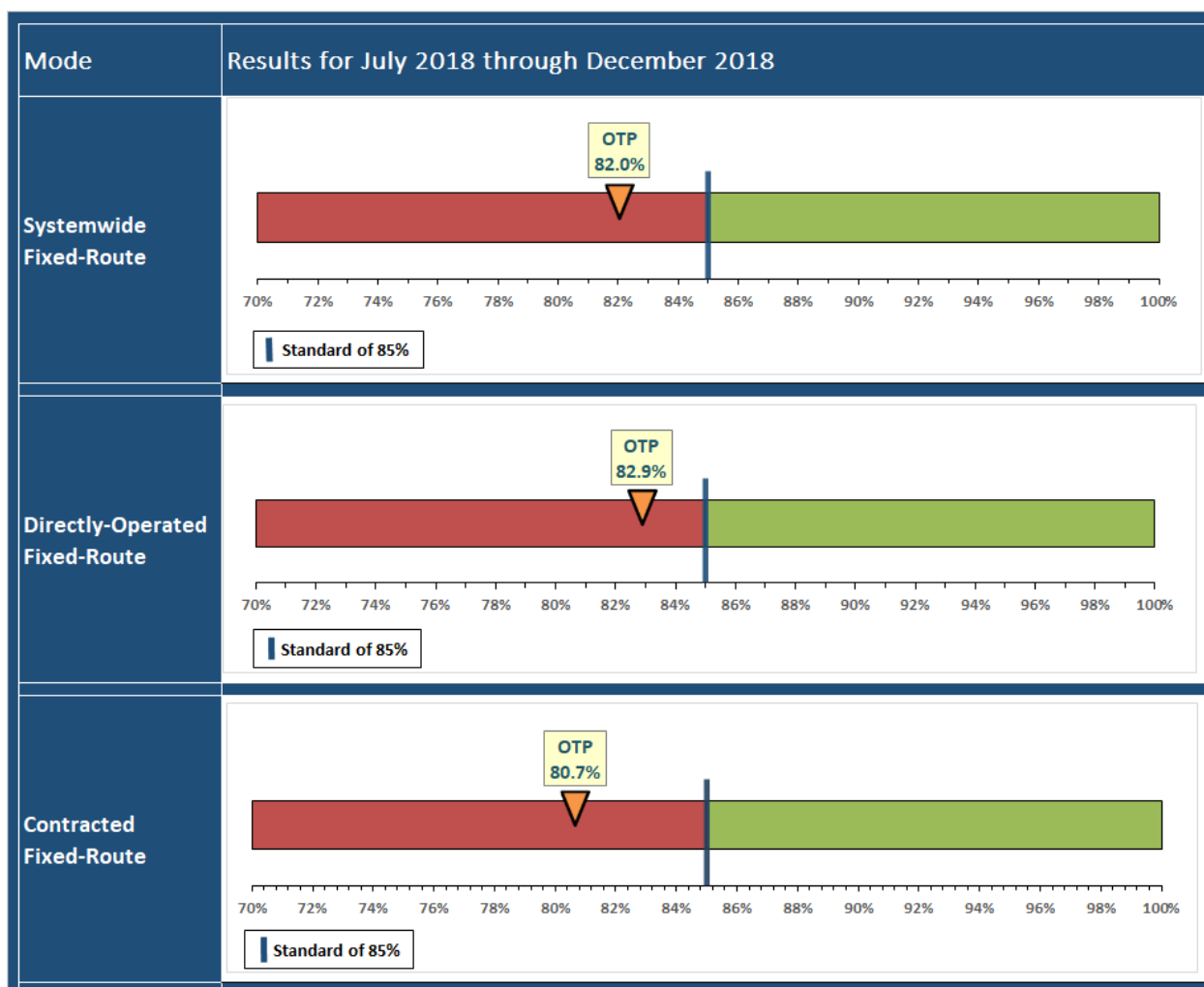
OCTA strives to achieve the highest level of customer satisfaction in delivery of services. The performance standard for customer satisfaction is courtesy as measured by the number of complaints received. Customer complaints are counts of incidents when a rider reports dissatisfaction with the service. The standard adopted by OCTA for OC Bus service operated by OCTA is no more than one customer complaint per 20,000 boardings; the standard for contracted OC Bus service is no more than one complaint per 7,000 boardings; and the standard for OC ACCESS is no more than one complaint per 667 boardings.

Through the second quarter of FY 2018-19, all modes of service exceeded the courtesy standard with less than one complaint per 20,000, 7,000, and 667 boardings, respectively.



Reliability: On-Time Performance

Reliability is vital to a successful transportation network. Reliability for OCTA is measured in part by OTP. OTP is a measure of performance which evaluates the schedule adherence of an OC bus operating in revenue service according to a published schedule. Schedule adherence is tracked by monitoring the departures of vehicles from time points, which are designated locations on a route used to control vehicle spacing as shown in the published schedule. For OC Bus service, a trip is considered on time if it departs the time point anywhere from zero minutes early to no more than five minutes late. OCTA's fixed-route system standard for OTP is 85 percent. For OC ACCESS service, OTP is a measure of performance evaluating a revenue vehicle's adherence to a scheduled pick-up time for transportation on a demand response trip. A trip is considered on-time if the vehicle arrives within a 30-minute window. The OC ACCESS OTP standard is 94 percent. Both OC Bus and OC ACCESS failed to meet the standard.

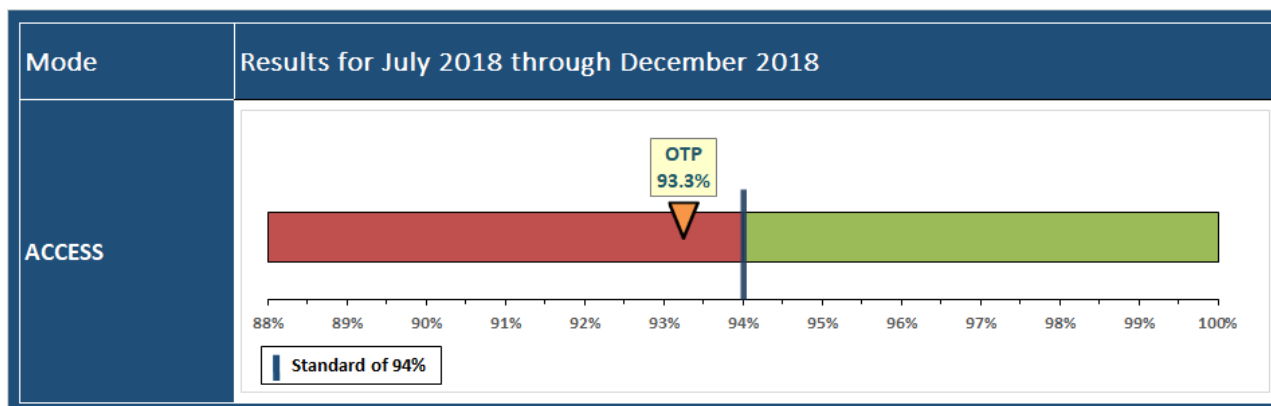


Through the second quarter of FY 2018-19, systemwide fixed-route OTP was 82.0 percent, 3.0 percent below the standard. This marks a 0.2 percent drop from the previous quarter and a 2.1 percent drop from the same quarter last year. The OTP for DOFR OC Bus service completed the second quarter at 82.9 percent, 1.7 percent lower than the same quarter last year which was 84.6 percent. The OTP for CFR OC Bus service fell by 0.4 percent compared to last quarter and fell by 2.7 percent compared to the same quarter last year.

In addition to the seasonal traffic patterns, major construction projects affecting local streets and roads (e.g., Interstate 405 Project - Bridge Demolition) played a role in the recent dip in OTP. Specifically, several routes had notable drops in OTP when compared to the same time last year. The table below lists several routes with notable OTP impacts and the associated construction projects.

Route	OTP (FY2017-18)	OTP (FY2018-19)	Change	Construction Project
47 - Fullerton - Balboa	87.2%	81.7%	-5.5%	Superior Avenue/Hospital Road - Construction; Fiber-optic work along Haster Street between Katella Avenue/Orangewood Avenue
66 - Huntington Beach - Irvine	88.8%	82.8%	-6.0%	I-405 Bridge demolition @ McFadden Avenue, lane reduction
59 - Anaheim - Irvine	78.1%	73.8%	-4.3%	Orange Transportation Center Parking Structure Project
50 - Long Beach - Orange	86.8%	84.4%	-2.4%	Katella Avenue water main replacement project: Disneyland Drive - Haster Street; Anaheim Boulevard
71 - Yorba Linda - Newport Beach	81.2%	75.4%	-5.9%	Superior Avenue/Hospital Road - Construction
178 - Huntington Beach - Irvine	86.3%	79.0%	-7.3%	Garfield Street Closure: construction detour July/August 2018

OCTA staff continues to coordinate with the various project teams to advise of the timeline for service changes and other service impacts during construction to minimize the effects on OTP.



The OTP for OC ACCESS service ended the quarter at 93.3 percent, 0.7 percent below the standard. The OC ACCESS OTP dropped by 0.8 percent from last quarter and one percent from the 94.3 percent reported during the same period last year.

During the second quarter, growing demand for OC ACCESS put increasing pressure on the contract operator to meet all trip requests, resulting in missed trips and lower OTP. Fortunately, additional capacity became available through the supplemental taxi provider, providing some relief for the growing demand and, as a result, in December, OTP improved. In addition, during the third quarter, the contract operator began to evaluate and optimize the routing on the subscription trips which will help improve OTP on this portion of the service. OCTA staff will continue to monitor service deployment in the third quarter to ensure contractor efforts are working to attain performance standards.

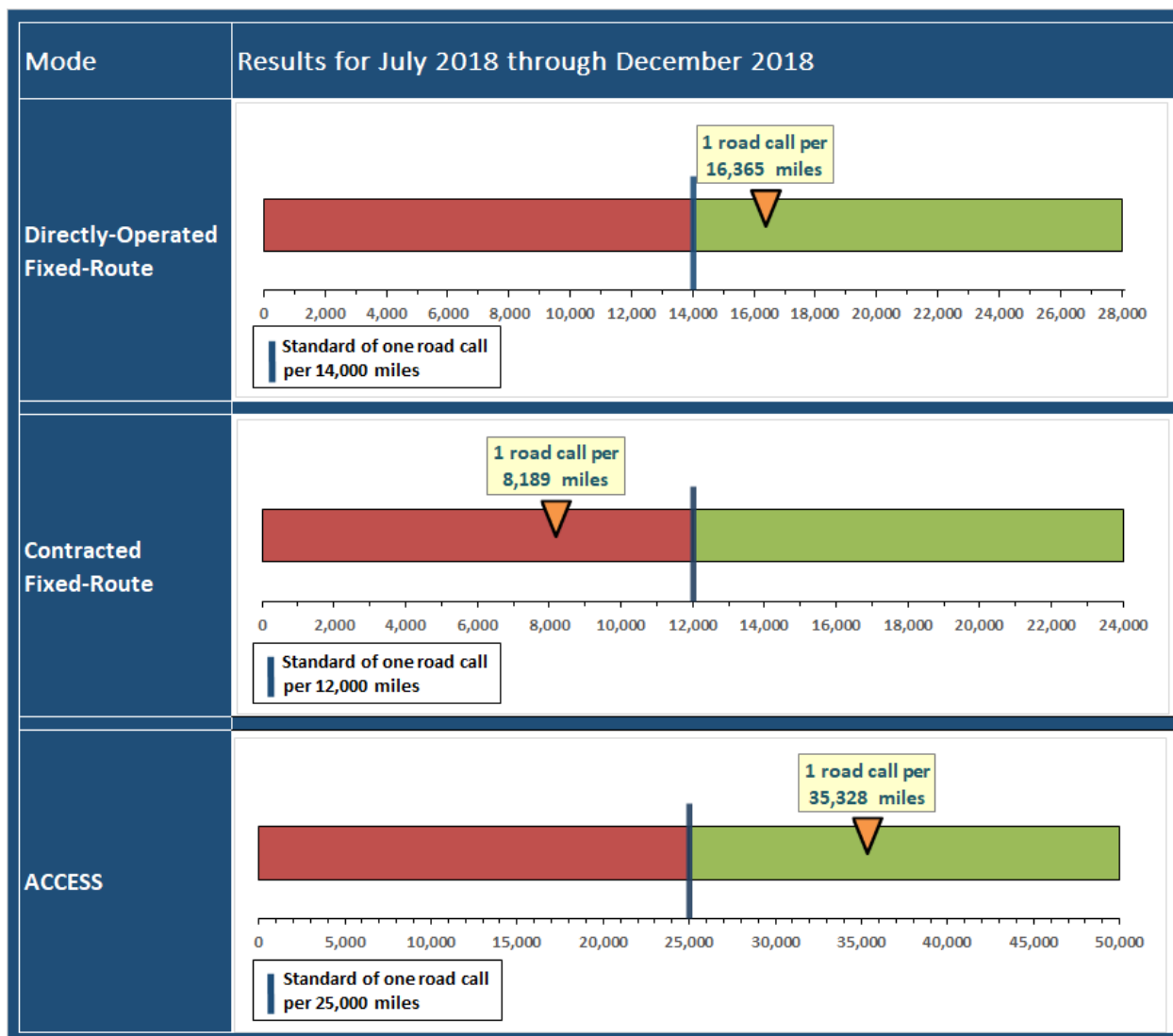
Reliability: Miles Between Road Calls

MBRC is a vehicle reliability performance indicator that measures the average distance in miles that a transit vehicle travels before failure of a vital component forces removal of the vehicle from service. Valid mechanical road calls usually cause a delay or cancellation in service. OCTA has adopted standards for the MBRC for DOFR, CFR and OC ACCESS services. These standards vary to align with the specific type of service being provided and account for the variability inherent to each of these services, including the vehicles assigned. The specific standards as adopted by OCTA are 14,000 MBRC for DOFR OC Bus service; 12,000 MBRC for CFR OC Bus service; and 25,000 MBRC for OC ACCESS

Through the second quarter of FY 2018-19, OC Bus services continue to improve in this performance measure. DOFR OC Bus service performed above standard, averaging 16,365 vehicle MBRC, a 7.7 percent increase over last quarter and 27.2 percent increase over the second quarter of last year. The increase in MBRC can be partially credited to a midlife engine replacement campaign that was completed during the second quarter. In addition, the continued work with the vehicle manufacturer to address warranty-related failures and seasonal variations have helped reduce road calls.

MBRC for the CFR OC Bus service was below standard at 8,189 MBRC through the second quarter of FY 2018-19. This marks a 9.5 percent improvement over the 7,477 MBRC reported last quarter. Efforts to improve MBRC are on-going and include the implementation of additional maintenance training, as well as a more rigorous quality control process to improve vehicle repair procedures. These actions, in addition to recent staff changes, corporate staff presence in the maintenance shop, and the completion of the 98 near-zero engine repowers in the second quarter of FY 2018-19, are expected to yield observable improvements in the contractor's MBRC in the third quarter of FY 2018-19.

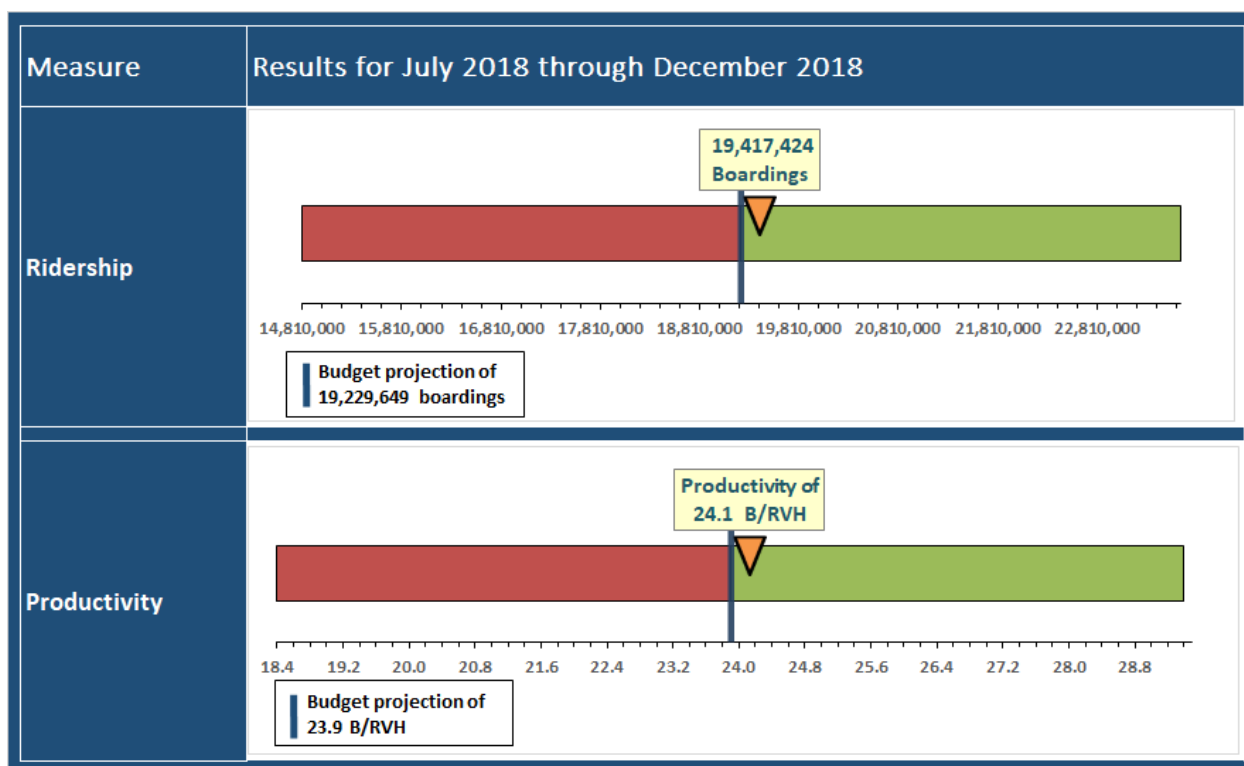
The MBRC for OC ACCESS service exceeded the standard, with 35,328 miles between road calls.



Ridership and Productivity – OC Bus

Ridership (or boardings) is the number of rides taken by passengers using public transit and is influenced by level of service provided, weather, economy, and seasonal variations in demand. Productivity is an industry measure that counts the average number of boardings for each RVH that is operated. An RVH is any 60-minute increment of time that a vehicle is available for passengers within the scheduled hours of service, excluding deadhead (a non-revenue movement of a transit vehicle to position it for service). Boardings per RVH (B/RVH) is calculated by taking the boardings and dividing it by the number of RVH operated.

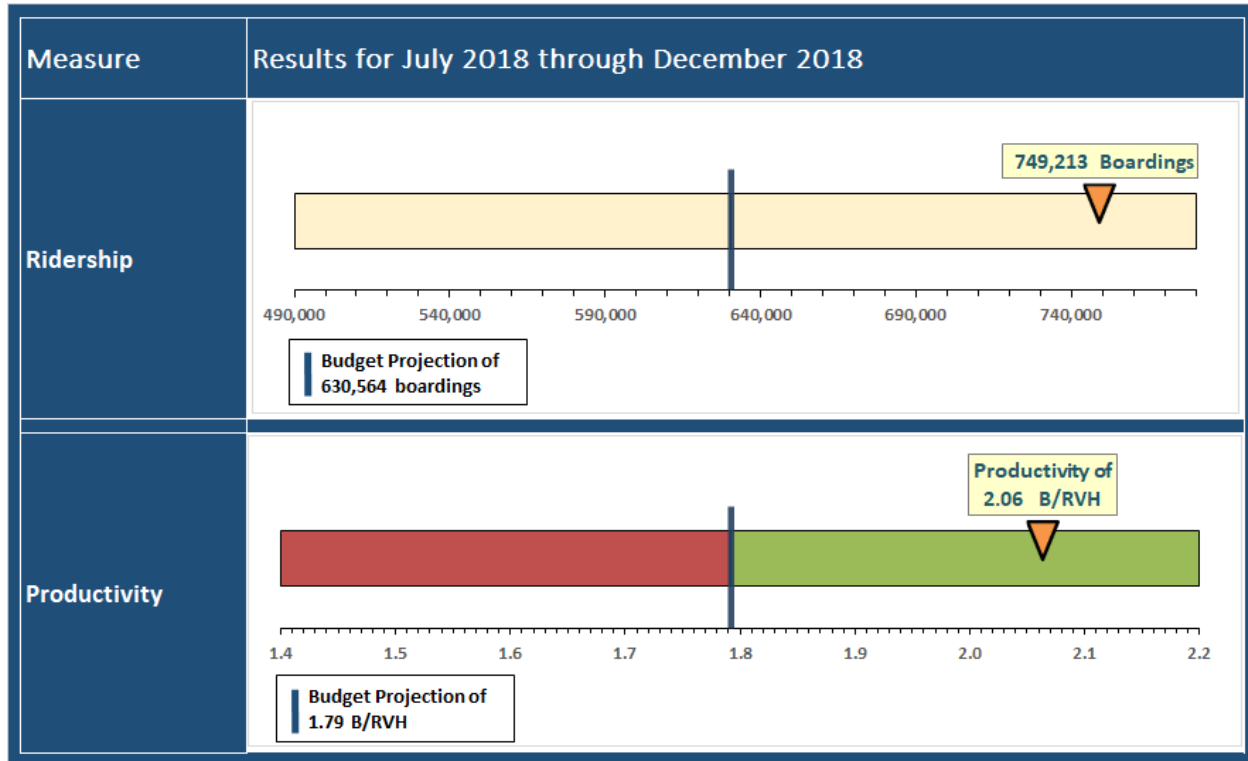
The FY 2018-19 approved budget was developed with the assumption that boardings would decrease by 2.3 percent from FY 2017-18 actuals. Through the second quarter of FY 2018-19, both ridership and productivity for OC Bus service are better than expected as performance exceeded the approved budgeted projections by 1.0 percent.



Ridership and Productivity – OC ACCESS

(Primary Service Provider and Supplemental Taxi)

Through the second quarter of FY 2018-19, the ridership and productivity trends for OC ACCESS continue to indicate increasing demand for this service. Ridership and productivity for the quarter exceeded budgeted projections by 18.8 percent and 15.1 percent, respectively. This is consistent with the trend reported for the previous quarter.



Contractor Performance: Fixed-Route

Per Agreement No. C-4-1737 between OCTA and First Transit, Inc. (First Transit), additional measures are tracked to ensure the CFR OC Bus service meets the standards for safety, customer service, and reliability. When the contractor's monthly or quarterly performance exceeds the standard as set forth in the agreement, financial incentives are paid to the contractor; conversely, when the monthly or quarterly performance of the contractor is below the standard as set forth in the agreement, penalties are assessed and must be paid to OCTA by the contractor.

Through the second quarter of FY 2018-19, the overall performance of the contracted OC Bus service as determined by the performance categories outlined in the contract was above standard for the measures of safety and courtesy; however, reliability was below standard.

Table 1 provides the penalties and incentives assessed to the contractor, by quarter, for FY 2018-19. The incentives paid to date, a total of \$12,200, reflect good performance related to courtesy. Through the second quarter, the total penalties assessed to the contractor total \$430,724, of which \$168,683 was assessed from October through December. These assessed penalties were largely due to poor performance in preventive maintenance (\$174,524 to date) and missed trips (\$147,000 to date).

Table 1:	Performance Categories	FY19 Q1	FY19 Q2	FY19 Q3	FY19 Q4	FYTD 19
Penalties	On-Time Performance	\$ (7,000)	\$ (9,000)			\$ (16,000)
	Valid Complaints: Per 7,000 boardings	\$ (2,900)	\$ -			\$ (2,900)
	Unreported Accident	\$ (20,000)	\$ (20,000)			\$ (40,000)
	Accident Frequency Ratio	\$ -	\$ -			\$ -
	Key Positions	\$ -	\$ (29,000)			\$ (29,000)
	CHP Terminal Inspections	\$ -	\$ -			\$ -
	Reports	\$ -	\$ -			\$ -
	Preventive Maintenance	\$ (137,841)	\$ (36,683)			\$ (174,524)
	Road Calls	\$ (14,300)	\$ (7,000)			\$ (21,300)
	Vehicle Damage: Per vehicle per day	\$ -	\$ -			\$ -
	Missed Trips	\$ (80,000)	\$ (67,000)			\$ (147,000)
	Total	\$ (262,041)	\$ (168,683)			\$ (430,724)
Incentives	On-Time Performance	\$ -	\$ -			\$ -
	Valid Complaints: Per 7,000 boardings	\$ 3,200	\$ 9,000			\$ 12,200
	Accident Frequency Ratio	\$ -	\$ -			\$ -
	Total	\$ 3,200	\$ 9,000			\$ 12,200
Prior Periods Adjustment	Road Calls	\$ (100)	\$ -			\$ (100)
	Key Position	\$ -	\$ 25,182			
	Total	\$ (100)	\$ 25,182			\$ 25,082
All	Total	\$ (258,941)	\$ (134,501)			\$ (393,442)

Contractor Performance: OC ACCESS

(Primary Service Provider and Supplemental Taxi)

Per Agreement No. C-2-1865 between OCTA and MV Transportation, Inc. (MV), additional measures are tracked to ensure the OC ACCESS meets the standards for safety, customer service, and reliability. When the contractor's monthly or quarterly performance exceeds the standard as set forth in the agreement, financial incentives are paid to the contractor; conversely, when the monthly or quarterly performance of the contractor is below the standard as set forth in the agreement, penalties are assessed and must be paid to OCTA by the contractor.

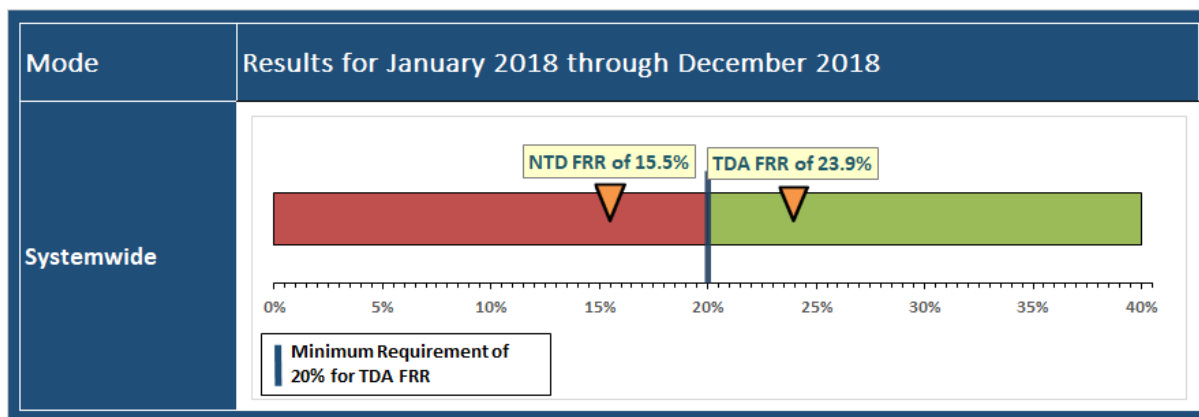
As presented in this report, the overall performance of the contractor providing OC ACCESS service through the second quarter of FY 2018-19 is above standard for all measures. Table 2 below lists, by quarter, the penalties and incentives assessed to the OC ACCESS contractor as established in the agreement. Through the second quarter, there were no incentives awarded to the contractor, but \$183,525 in penalties were assessed for call center hold times, excessively late trips, OTP, productivity, and missed trips.

Table 2: Performance Categories		FY19 Q1	FY19 Q2	FY19 Q3	FY19 Q4	FYTD 19
Penalties	Passenger Productivity	\$ -	\$ (10,000)			\$ (10,000)
	On-Time Performance	\$ (10,000)	\$ (20,000)			\$ (30,000)
	Customer Comments	\$ -	\$ (3,800)			\$ (3,800)
	Call Center Hold Times	\$ (33,000)	\$ (33,000)			\$ (66,000)
	Excessively Late Trips	\$ (10,000)	\$ (30,000)			\$ (40,000)
	Missed Trips	\$ (5,000)	\$ (10,000)			\$ (15,000)
	Unreported Accident	\$ -	\$ (5,000)			\$ (5,000)
	Preventive Maintenance	\$ (13,725)	\$ -			\$ (13,725)
	Road calls	\$ -	\$ -			\$ -
	Reports	\$ -	\$ -			\$ -
	Key Positions	\$ -	\$ -			\$ -
	CHP Terminal Inspections	\$ -	\$ -			
	Vehicle Damage	\$ -	\$ -			
	Total	\$ (71,725)	\$ (111,800)			\$ (183,525)
Incentives	Passenger Productivity	\$ -	\$ -			\$ -
	On-Time Performance	\$ -	\$ -			\$ -
	Excessively Late Trips	\$ -	\$ -			\$ -
	Missed Trips	\$ -	\$ -			\$ -
	Total	\$ -	\$ -			\$ -
Prior Periods	Customer Comments	\$ 1,100	\$ -			\$ 1,100
Adjustment	Total	\$ 1,100	\$ -			\$ 1,100
All	Total	\$ (70,625)	\$ (111,800)			\$ (182,425)

Farebox Recovery Ratio

Farebox Recovery Ratio (FRR) is a measure of the proportion of operating costs recovered by passenger fares, calculated by dividing the farebox revenue by total operating expenses. A minimum FRR of 20 percent for all service is required by the Transportation Development Act in order for transit agencies to receive the state sales tax available for public transit purposes. In an effort to normalize seasonal fluctuations, data shown below reflects actuals over the last 12 months from January 2018 through December 2018.

FRR, based on the National Transit Database definition in which only passenger fares are included under revenue, did not meet the 20 percent goal. However, as a result of the passage of Senate Bill No. 508 (SB 508), OCTA was able to adjust the FRR to include local funds. SB 508 states, "If fare revenues are insufficient to meet the applicable ratio of fare revenues to operating cost required by this article, an operator may satisfy that requirement by supplementing its fare revenues with local funds. As used in this section, "local funds" are any non-federal or non-state grant funds or other revenue generated by, earned by, or distributed to an operator." After incorporating property tax revenue, advertising revenue, and Measure M fare stabilization, the adjusted FRR was 23.9 percent, a drop of 0.7 percent from the previous quarter and a 1.5 percent drop from the same quarter last year.



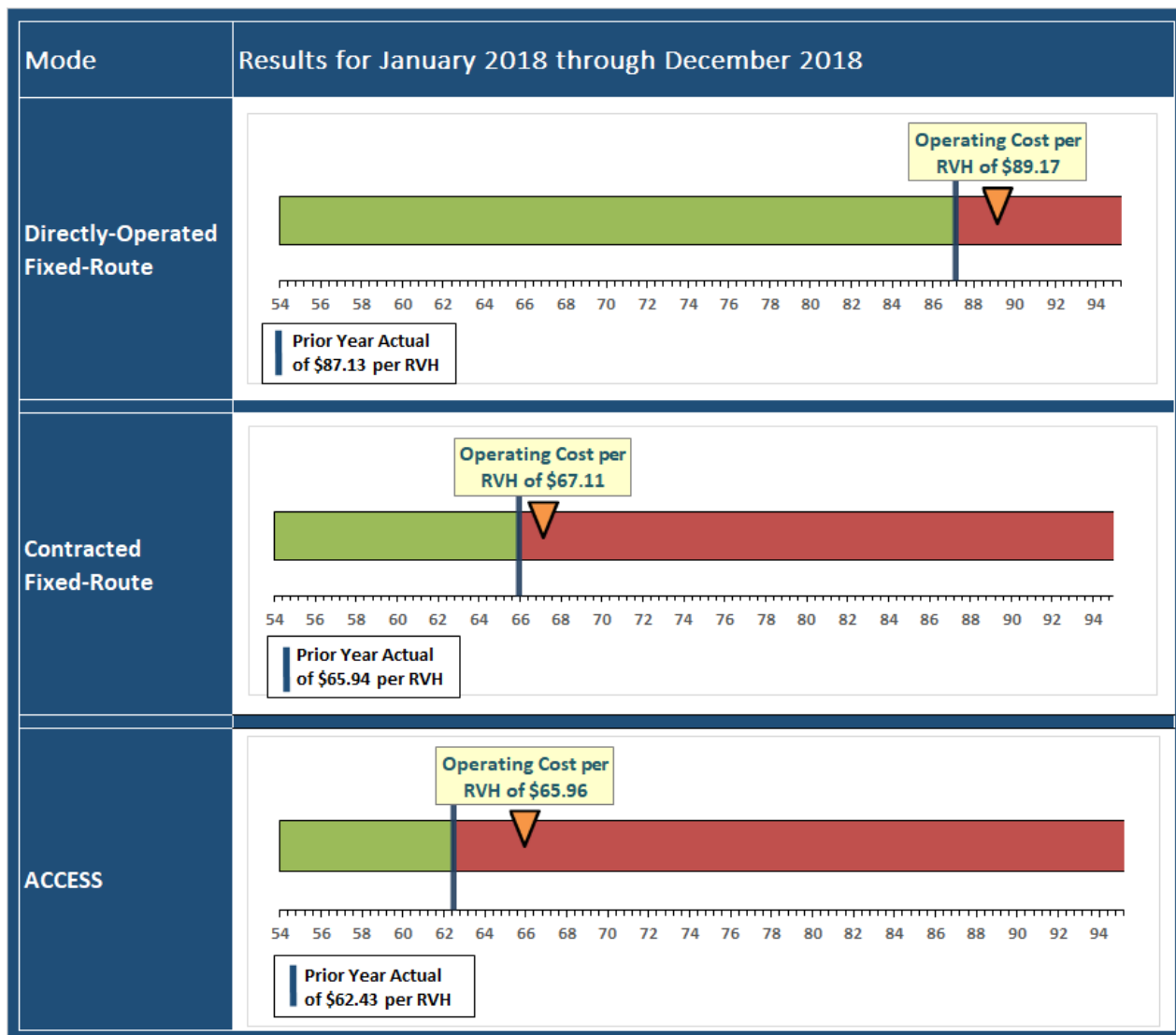
Note:

- National Transit Database (NTD) FRR consists of only passenger fares
- Transportation Development Act (TDA) FRR includes passenger fares, property tax revenue, advertising revenue and Measure M fare stabilization

Operating Cost per Revenue Vehicle Hour

Cost per RVH is one of the industry standards used to measure the cost efficiency of transit service. It is derived by dividing operating expenses by RVH. In order to provide a more comparable illustration, all metrics below are calculated based on direct operating cost, which excludes capital, general administrative, and other overhead costs.

Similar to the FRR, the statistics below depict actuals over the last 12 months. All modes operated at a higher cost per RVH than the same 12-month period of the prior year, with 2.3 percent increase in DOFR, 1.8 percent increase in CFR, and 5.7 percent increase in OC ACCESS. The increase in DOFR was primarily due to the execution of the new labor agreement for Coach Operators, including a signing bonus that was expensed in May 2018, along with a salary increase. The increases in CFR and OC ACCESS cost per RVH were primarily associated with the increase in the contracted rates as included in First Transit and MV agreements for each new fiscal year. Another factor that contributed to the increase in OC ACCESS cost is the increase in gasoline prices.



Performance Evaluation by Route

Continuing efforts are underway to better understand, evaluate, and improve route performance. Performance evaluation is important because it provides:

- A better understanding of where resources are being applied;
- A measure of how well services are being delivered;
- A measure of how well these services are used; and
- An objective basis for decisions regarding future service changes and service deployment.

The tables on the following pages summarize route-level performance through the second quarter in FY 2018-19. The first three tables present the route-level performance sorted by routes with the highest net subsidy per boarding to routes with a lower net subsidy per boarding, and the remaining three tables present the same information sorted by routes that have the highest boardings to routes with a lower level of boardings.

A route guide listing all of the routes and their points of origins and destinations is provided after the route-level performance tables. Route types are grouped by route numbers as follows:

- Routes 1 to 99: Local routes
- Routes 100 to 199: Community routes
- Routes 200 to 299: Intra-county express routes
- Routes 400 to 499: Stationlink routes
- Routes 500 to 599: Bravo! routes
- *Routes 600 to 699: Seasonal routes (these are not included on the following charts)*
- Routes 700 to 799: Inter-county express routes



OCTA Operating Statistics By Route for Local and Community Services (Sorted by Subsidy per Boarding)
Fiscal Year 2018-19 Through Q2

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count			
														40 FT	32 FT	60 FT	FT
021	N	8.1%	\$ 12.45	\$ 7.09	\$ 4.36	\$ 1.00	\$ 1.01	33,315	\$ 113.47	\$ 69.91	\$ 8.35	9.11	3,657	2	-	-	-
085	S	9.0%	11.78	6.72	4.13	0.93	1.08	36,886	105.41	67.83	8.59	10.84	4,059	2	-	-	-
001	S	7.9%	11.06	6.43	4.09	0.54	0.90	291,036	152.03	96.50	9.32	13.31	21,859	9	-	-	-
087	S	8.8%	10.94	6.26	3.85	0.83	0.97	34,491	111.10	69.43	7.40	10.03	3,440	-	2	-	-
076	C	9.5%	9.96	5.63	3.58	0.75	0.96	44,553	137.98	86.53	11.75	13.56	3,285	2	-	-	-
153	N	10.3%	9.62	5.67	3.40	0.55	1.04	60,872	104.28	67.56	8.53	10.31	5,906	2	-	-	-
178	C	10.9%	9.13	5.26	3.16	0.71	1.03	47,134	104.92	67.71	8.44	11.11	4,242	2	-	-	-
177	S	13.0%	8.23	4.73	2.84	0.66	1.13	43,420	104.53	67.66	8.10	12.02	3,612	-	2	-	-
083	C	11.8%	7.43	4.21	2.68	0.54	0.92	322,836	146.38	92.76	8.08	18.73	17,238	11	-	-	-
086	C	13.4%	7.26	4.08	2.51	0.67	1.02	75,064	104.92	67.76	8.11	13.78	5,446	3	-	-	-
167	C	13.7%	7.19	4.08	2.45	0.66	1.03	101,491	104.43	67.57	8.81	13.79	7,358	4	-	-	-
091	S	14.8%	7.04	4.01	2.46	0.57	1.12	204,396	106.38	68.24	7.39	14.01	14,584	7	-	-	-
024	N	14.8%	6.83	3.75	2.30	0.78	1.05	64,167	104.28	67.57	8.17	14.66	4,376	3	-	-	-
090	S	15.8%	6.65	3.63	2.23	0.79	1.10	168,077	109.09	68.87	7.29	15.67	10,724	8	-	-	8
050	N	12.5%	6.35	3.62	2.30	0.43	0.85	620,801	156.78	98.65	13.40	23.16	26,810	2	-	-	-
129	N	15.7%	6.34	3.60	2.16	0.58	1.07	100,248	106.30	67.99	8.78	15.58	6,435	3	-	-	-
079	C	14.7%	6.24	3.59	2.20	0.45	1.00	220,172	104.64	67.58	9.22	15.41	14,284	6	-	-	-
056	N	12.9%	6.14	3.59	2.28	0.27	0.87	214,119	142.22	89.17	13.52	21.12	10,138	4	-	-	-
143	N	15.2%	6.08	3.58	2.15	0.35	1.02	95,206	104.38	67.53	9.21	15.46	6,158	2	-	-	-
082	S	19.0%	6.04	3.00	1.84	1.20	1.33	41,573	118.26	71.08	8.37	19.80	2,100	3	-	-	-
560	C	14.2%	5.98	3.32	2.11	0.55	0.90	394,901	147.83	92.85	12.76	23.39	16,883	13	-	-	-
059	C	15.8%	5.89	3.30	2.03	0.56	1.00	280,989	108.46	68.49	9.66	17.12	16,410	9	-	-	-
089	S	16.1%	5.80	3.28	2.01	0.51	1.01	181,344	104.90	67.72	8.44	16.65	10,893	6	-	-	-
055	C	16.5%	5.65	3.22	2.05	0.38	1.04	663,151	144.05	90.39	12.85	22.83	29,043	15	-	-	-
054	N	15.0%	5.63	3.16	2.01	0.46	0.91	611,553	143.37	89.99	12.98	23.54	25,982	17	-	-	-
150	C	17.8%	5.59	3.04	1.82	0.73	1.05	90,771	108.23	68.28	10.68	18.32	4,955	4	-	-	-
072	C	15.7%	5.58	3.17	2.02	0.39	0.96	255,074	138.67	87.12	11.19	22.54	11,316	6	-	-	-
025	N	17.0%	5.44	3.05	1.87	0.52	1.01	192,137	105.77	67.91	8.78	17.85	10,765	5	-	-	-
071	N	16.8%	5.30	3.05	1.87	0.38	1.00	354,705	105.13	67.81	8.40	17.76	19,967	8	-	-	-
037	N	15.7%	5.25	2.99	1.90	0.36	0.91	558,609	143.28	89.97	11.68	24.66	22,528	12	-	-	-
026	N	16.4%	5.22	3.02	1.86	0.34	0.96	222,651	106.36	67.88	10.42	18.23	12,214	4	-	-	-
029	N	17.1%	4.73	2.73	1.74	0.26	0.92	1,006,915	144.36	90.71	12.39	26.83	37,536	16	-	-	-
030	N	17.8%	4.53	2.59	1.59	0.35	0.90	332,236	104.59	67.70	8.08	20.60	16,131	7	-	-	-
047	C	19.3%	4.46	2.55	1.62	0.29	1.00	1,080,896	143.29	89.88	12.82	27.67	39,063	18	-	-	-
035	N	18.6%	4.36	2.39	1.47	0.50	0.88	414,853	108.02	68.36	9.41	22.81	18,184	13	-	-	-
543	N	18.6%	4.33	2.44	1.55	0.34	0.91	491,809	145.07	91.09	13.02	29.56	16,636	10	-	-	-
070	C	20.3%	4.19	2.34	1.44	0.41	0.96	482,079	109.81	68.95	8.88	23.18	20,800	12	-	-	-
057	C	20.1%	4.12	2.31	1.47	0.34	0.95	1,024,426	149.95	94.14	14.05	31.69	32,329	-	-	14	-
033	N	18.8%	4.03	2.32	1.42	0.29	0.86	201,160	105.14	67.76	8.51	22.86	8,800	4	-	-	-
060	C	19.0%	3.95	2.29	1.46	0.20	0.88	983,920	143.33	90.06	12.45	31.01	31,734	10	-	-	-
053X	C	20.7%	3.93	2.23	1.42	0.28	0.95	329,731	130.62	81.69	12.67	28.43	11,597	6	-	-	-
046	N	21.8%	3.84	2.14	1.32	0.38	0.96	327,800	105.26	67.77	9.11	23.80	13,774	8	-	-	-
043	N	21.7%	3.72	2.12	1.35	0.25	0.96	1,080,786	140.46	87.93	14.04	31.78	34,004	16	-	-	-
053	C	21.0%	3.70	2.11	1.34	0.25	0.92	732,763	146.79	91.92	15.71	33.64	21,785	12	-	-	-
038	N	21.0%	3.70	2.07	1.27	0.36	0.89	557,892	107.23	68.24	8.79	25.39	21,969	12	-	-	-
057X	C	23.8%	3.43	1.89	1.20	0.34	0.97	568,134	130.76	81.84	12.22	32.21	17,641	-	-	8	-
042	N	22.7%	3.21	1.82	1.12	0.27	0.96	780,045	106.25	67.98	9.55	27.97	27,892	13	-	-	-
066	C	24.1%	3.20	1.84	1.17	0.19	0.96	1,048,701	141.71	88.77	13.94	35.67	29,400	11	-	-	-
064	C	24.4%	2.89	1.66	1.05	0.18	0.87	796,063	142.14	89.01	14.64	39.67	20,067	10	-	-	-
064X	C	25.5%	2.76	1.57	1.00	0.19	0.88	311,402	130.64	81.73	12.52	37.79	8,241	4	-	-	-

- (1) Total bus count (426) is based on PM weekday equipment requirements.
(2) Bus count for routes 53X, 57X and 64X are estimated based on total route 53, 57 and 64 equipment requirements.
(3) C under Zone is Central County, N is North County and S is South County.
VSH - vehicle service hour
CostVSH - cost per vehicle service hour
BoardVSH - boardings per vehicle service hour



OCTA Operating Statistics By Route for Express Service (Sorted by Subsidy per Boarding)
Fiscal Year 2018-19 Through Q2

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
														40 FT	32 FT	60 FT
211	C	2.0%	\$ 59.11	\$ 29.04	\$ 22.79	\$ 7.28	\$ 1.04	7,845	\$ 146.02	\$ 99.79	\$ 8.57	2.76	2,841	-	4	-
213	N	2.3%	48.78	22.79	17.89	8.10	0.95	7,059	165.85	105.48	9.63	3.98	1,772	-	4	-
721	N	4.8%	41.40	23.03	13.88	4.49	1.86	11,127	226.47	145.42	8.81	5.84	1,905	3	-	-
701	C	8.0%	30.48	16.33	9.84	4.31	2.26	11,588	259.82	166.59	10.81	9.14	1,268	3	-	-
206	C	4.1%	29.69	12.89	10.12	6.68	0.99	6,420	177.13	114.96	9.29	7.38	870	-	3	-
794	C	22.5%	24.71	11.60	9.10	4.01	6.02	16,632	222.72	156.10	8.34	8.33	1,996	4	-	-

(1) Total bus count (426) is based on PM weekday equipment requirements.

(2) C under Zone is Central County, N is North County and S is South County.



OCTA Operating Statistics By Route for Stationlink Service (Sorted by Subsidy per Boarding)
Fiscal Year 2018-19 Through Q2

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
														40 FT	32 FT	60 FT
463	C	4.1%	28.09	\$ 11.80	\$ 10.39	\$ 5.90	\$ 0.96	11,306	\$ 171.95	\$ 110.16	\$ 16.57	7.43	1,522	4	-	-
480	C	8.6%	12.52	5.33	4.70	2.49	0.94	13,383	172.03	110.36	14.76	15.68	854	2	-	-
453	N	8.6%	11.13	4.73	4.16	2.24	0.84	14,912	177.01	111.33	26.47	18.20	819	2	-	-
472	C	10.4%	10.84	4.09	3.60	3.15	0.89	18,498	165.17	108.61	13.80	19.24	962	4	-	-
473	C	12.4%	8.98	3.75	3.30	1.93	1.00	21,548	177.33	111.01	15.93	22.02	979	2	-	-
462	C	12.6%	7.72	3.63	3.20	0.89	0.98	18,673	159.99	106.97	23.01	20.48	912	1	-	-

(1) Total bus count (426) is based on PM weekday equipment requirements.

(2) C under Zone is Central County, N is North County and S is South County.



OCTA Operating Statistics By Route for Local and Community Services (Sorted by Boardings)
Fiscal Year 2018-19 Through Q2

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
														40 FT	32 FT	60 FT
047	C	19.3%	\$ 4.46	\$ 2.55	\$ 1.62	\$ 0.29	\$ 1.00	1,080,896	\$ 143.29	\$ 89.88	\$ 12.82	27.67	39,063	18	-	-
043	N	21.7%	3.72	2.12	1.35	0.25	0.96	1,080,786	140.46	87.93	13.04	31.78	34,004	16	-	-
066	C	24.1%	3.20	1.84	1.17	0.19	0.96	1,048,701	141.71	88.77	13.94	35.67	29,400	11	-	-
057	C	20.1%	4.12	2.31	1.47	0.34	0.95	1,024,428	149.95	94.14	14.05	31.69	32,329	-	-	14
029	N	17.1%	4.73	2.73	1.74	0.26	0.92	1,006,915	144.36	90.71	12.39	26.83	37,536	16	-	-
060	C	19.0%	3.95	2.29	1.46	0.20	0.88	983,920	143.33	90.06	12.45	31.01	31,734	10	-	-
064	C	24.4%	2.89	1.66	1.05	0.18	0.87	796,063	142.14	89.01	14.64	39.67	20,067	10	-	-
042	N	22.7%	3.21	1.82	1.12	0.27	0.86	780,045	106.25	67.98	9.55	27.97	27,892	13	-	-
053	C	21.0%	3.70	2.11	1.34	0.25	0.92	732,763	146.79	91.92	15.71	33.64	21,785	12	-	-
055	C	16.5%	5.65	3.22	2.05	0.38	1.04	663,151	144.05	90.39	12.85	22.83	29,043	15	-	-
050	N	12.5%	6.35	3.62	2.30	0.43	0.85	620,801	156.78	98.65	13.40	23.16	26,810	2	-	8
054	N	15.0%	5.63	3.16	2.01	0.46	0.91	611,563	143.37	89.99	12.98	23.54	25,982	17	-	-
057X	C	23.8%	3.43	1.89	1.20	0.34	0.97	588,134	130.76	81.84	12.22	32.21	17,641	-	-	8
038	N	21.0%	3.70	2.07	1.27	0.36	0.89	557,892	107.23	68.24	8.79	25.39	21,969	12	-	-
037	N	15.7%	5.25	2.99	1.90	0.36	0.91	555,609	143.28	89.97	11.68	24.66	22,528	12	-	-
543	N	18.6%	4.33	2.44	1.55	0.34	0.91	491,809	145.07	91.09	13.02	29.56	16,636	10	-	-
070	C	20.3%	4.19	2.34	1.47	0.41	0.96	482,079	109.81	68.95	8.88	23.18	20,800	12	-	-
035	N	18.6%	4.36	2.39	1.44	0.50	0.88	414,863	108.02	68.36	9.41	22.81	18,184	13	-	-
560	C	14.2%	5.98	3.32	2.11	0.55	0.90	394,901	147.83	92.85	12.76	23.39	16,883	13	-	-
071	N	16.8%	5.30	3.05	1.87	0.38	1.00	354,705	105.13	67.81	8.40	17.76	19,967	8	-	-
030	N	17.8%	4.53	2.59	1.59	0.35	0.90	332,236	104.59	67.70	8.08	20.60	16,131	7	-	-
063X	C	20.7%	3.93	2.23	1.42	0.28	0.95	329,731	130.62	81.69	12.67	28.43	11,597	6	-	-
046	N	21.8%	3.84	2.14	1.32	0.38	0.96	327,800	105.26	67.77	9.11	23.80	13,774	8	-	-
083	C	11.8%	7.43	4.21	2.68	0.54	0.92	322,836	146.38	92.76	8.08	18.73	17,238	11	-	-
064X	C	25.5%	2.76	1.57	1.00	0.19	0.88	311,402	130.64	81.73	12.52	37.79	8,241	4	-	-
001	S	7.9%	11.06	6.43	4.09	0.54	0.90	291,036	152.03	96.50	9.32	13.31	21,859	9	-	-
059	C	15.8%	5.89	3.30	2.03	0.56	1.00	280,989	108.46	68.49	9.66	17.12	16,410	9	-	-
072	C	15.7%	5.58	3.17	2.02	0.39	0.96	255,074	138.67	87.12	11.19	22.54	11,316	6	-	-
026	N	16.4%	5.22	3.02	1.86	0.34	0.96	222,651	106.36	67.88	10.42	18.23	12,214	4	-	-
079	C	14.7%	6.24	3.59	2.20	0.45	1.00	220,172	104.64	67.58	9.22	15.41	14,284	6	-	-
056	N	12.9%	6.14	3.59	2.28	0.27	0.87	214,119	142.22	88.17	13.52	21.12	10,138	4	-	-
091	S	14.8%	7.04	4.01	2.46	0.57	1.12	204,396	106.38	68.24	7.39	14.01	14,584	7	-	-
033	N	18.8%	4.03	2.32	1.42	0.29	0.86	201,160	105.14	67.76	8.51	22.86	8,800	4	-	-
025	N	17.0%	5.44	3.05	1.87	0.52	1.01	192,137	105.77	67.91	8.78	17.85	10,765	5	-	-
089	S	16.1%	5.80	3.28	2.01	0.51	1.01	181,344	104.90	67.72	8.44	16.65	10,893	6	-	-
090	S	15.8%	6.65	3.63	2.23	0.79	1.10	188,077	109.09	68.87	7.29	15.67	10,724	8	-	-
167	C	13.7%	7.19	4.08	2.45	0.66	1.03	101,491	104.43	67.57	8.81	13.79	7,358	4	-	-
129	N	15.7%	6.34	3.60	2.16	0.58	1.07	100,248	106.30	67.99	8.78	15.58	6,435	3	-	-
143	N	15.2%	6.08	3.58	2.15	0.35	1.02	95,206	104.38	67.53	9.21	15.46	6,158	2	-	-
150	C	17.8%	5.59	3.04	1.82	0.73	1.05	90,771	108.23	68.28	10.68	18.32	4,955	4	-	-
086	C	13.4%	7.26	4.08	2.51	0.67	1.02	75,064	104.92	67.76	8.11	13.78	5,446	3	-	-
024	N	14.8%	6.83	3.75	2.30	0.78	1.05	64,167	104.28	67.57	8.17	14.66	4,376	3	-	-
153	N	10.3%	9.62	5.67	3.40	0.55	1.04	60,872	104.28	67.56	8.53	10.31	5,906	2	-	-
078	C	10.9%	9.13	5.26	3.16	0.71	1.03	47,134	104.92	67.71	8.44	11.11	4,242	2	-	-
076	C	9.5%	9.96	5.63	3.58	0.75	0.96	44,553	137.98	86.53	11.75	13.56	3,285	2	-	-
177	S	13.0%	8.23	4.73	2.84	0.66	1.13	43,420	104.53	67.66	8.10	12.02	3,612	-	2	-
082	S	19.0%	6.04	3.00	1.84	1.20	1.13	41,573	118.26	71.08	8.37	19.80	2,100	3	-	-
085	S	9.0%	11.78	6.72	4.13	0.93	1.08	35,886	105.41	67.83	8.59	8.84	4,059	2	-	-
087	S	8.8%	10.94	6.26	3.85	0.83	0.97	34,491	111.10	68.43	7.40	10.03	3,440	-	2	-
021	N	8.1%	12.45	7.09	4.36	1.00	1.01	33,315	113.47	68.91	8.35	9.11	3,657	2	-	-

- (1) Total bus count (426) is based on PM weekday equipment requirements.
(2) Bus count for routes 53X, 57X and 64X are estimated based on total route 53, 57 and 64 equipment requirements.
(3) C under Zone is Central County, N is North County and S is South County.



OCTA Operating Statistics By Route for Express Service (Sorted by Boardings)
Fiscal Year 2018-19 Through Q2

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
														40 FT	32 FT	60 FT
794	C	22.5%	\$ 24.71	\$ 11.60	\$ 9.10	\$ 4.01	\$ 6.02	16,632	\$ 222.72	\$ 156.10	\$ 8.34	8.33	1,996	4	-	-
701	C	8.0%	30.48	16.33	9.84	4.31	2.26	11,588	259.82	166.59	10.81	9.14	1,268	3	-	-
721	N	4.8%	41.40	23.03	13.88	4.49	1.86	11,127	226.47	145.42	8.81	5.84	1,905	3	-	-
211	C	2.0%	59.11	29.04	22.79	7.28	1.04	7,845	146.02	99.79	8.57	2.76	2,841	-	4	-
213	N	2.3%	48.78	22.79	17.89	8.10	0.95	7,059	165.85	105.48	9.63	3.98	1,772	-	4	-
206	C	4.1%	29.69	12.89	10.12	6.68	0.99	6,420	177.13	114.96	9.29	7.38	870	-	3	-

(1) Total bus count (426) is based on PM weekday equipment requirements.

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OCTA Operating Statistics By Route for Stationlink Service (Sorted by Boardings)
Fiscal Year 2018-19 Through Q2

Route	Zone	Farebox	Subsidy per Boarding	Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	VSH	Bus Count		
														40 FT	32 FT	60 FT
473	C	12.4%	\$ 8.98	\$ 3.75	\$ 3.30	\$ 1.93	\$ 1.00	21,548	\$ 177.33	\$ 111.01	\$ 15.93	22.02	979	2	-	-
462	C	12.6%	7.72	3.63	3.20	0.89	0.98	18,673	159.99	106.97	23.01	20.48	912	1	-	-
472	C	10.4%	10.84	4.09	3.60	3.15	0.89	18,498	165.17	108.61	13.80	19.24	962	4	-	-
453	N	8.6%	11.13	4.73	4.16	2.24	0.84	14,912	177.01	111.33	26.47	18.20	819	2	-	-
480	C	8.6%	12.52	5.33	4.70	2.49	0.94	13,383	172.03	110.36	14.76	15.68	854	2	-	-
463	C	4.1%	28.09	11.80	10.39	5.90	0.96	11,306	171.95	110.16	16.57	7.43	1,522	4	-	-

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Route Reference Table

Route	Route Description	Main Street	Route Category
1	Long Beach - San Clemente	via Pacific Coast Hwy	LOCAL
21	Buena Park - Sunset Beach	via Valley View St/ Bolsa Chica Rd	LOCAL
24	Buena Park - Orange	via Malvern Ave/ Chapman Ave/ Tustin Ave	LOCAL
25	Fullerton - Huntington Beach	via Knott Ave/ Goldenwest St	LOCAL
26	Fullerton - Placentia	via Commonwealth Ave/ Yorba Linda Blvd	LOCAL
29	La Habra - Huntington Beach	via Beach Blvd	LOCAL
30	Cerritos - Anaheim	via Orangethorpe Ave	LOCAL
33	Fullerton - Huntington Beach	via Magnolia St	LOCAL
35	Fullerton - Costa Mesa	via Brookhurst St	LOCAL
37	La Habra - Fountain Valley	via Euclid St	LOCAL
38	Lakewood - Anaheim Hills	via Del Amo Blvd/ La Palma Ave	LOCAL
42	Seal Beach - Orange	via Seal Beach Blvd/ Los Alamitos Blvd/ Lincoln Ave	LOCAL
43	Fullerton - Costa Mesa	via Harbor Blvd	LOCAL
46	Los Alamitos - Orange	via Ball Road/ Taft Ave	LOCAL
47	Fullerton - Balboa	via Anaheim Blvd/ Fairview St	LOCAL
50	Long Beach - Orange	via Katella Ave	LOCAL
53/53X	Anaheim - Irvine	via Main St	LOCAL
54	Garden Grove - Orange	via Chapman Ave	LOCAL
55	Santa Ana - Newport Beach	via Standard Ave/ Bristol St/ Fairview St/ 17th St	LOCAL
56	Garden Grove - Orange	via Garden Grove Blvd	LOCAL
57/57X	Brea - Newport Beach	via State College Blvd/ Bristol St	LOCAL
59	Anaheim - Irvine	via Kraemer Blvd/ Glassell St/ Grand Ave/ Von Karman Ave	LOCAL
60	Long Beach - Tustin	via Westminster Ave/ 17th St	LOCAL
64/64X	Huntington Beach - Tustin	via Bolsa Ave/ 1st St	LOCAL
66	Huntington Beach - Irvine	via McFadden Ave/ Walnut Ave	LOCAL
70	Sunset Beach - Tustin	via Edinger Ave	LOCAL
71	Yorba Linda - Newport Beach	via Tustin Ave/ Red Hill Ave/ Newport Blvd	LOCAL
72	Sunset Beach - Tustin	via Warner Ave	LOCAL
76	Huntington Beach - John Wayne Airport	via Talbert Ave/ MacArthur Blvd	LOCAL
79	Tustin - Newport Beach	via Bryan Ave/ Culver Dr/ University Ave	LOCAL
82	Foothill Ranch - Rancho Santa Margarita	via Portola Pkwy/ Santa Margarita Pkwy	LOCAL
83	Anaheim - Laguna Hills	via 5 Fwy/ Main St	LOCAL
85	Mission Viejo - Laguna Niguel	via Marguerite Pkwy/ Crown Valley Pkwy	LOCAL
86	Costa Mesa - Mission Viejo	via Alton Pkwy/ Jeronimo Rd	LOCAL
87	Rancho Santa Margarita - Laguna Niguel	via Alicia Pkwy	LOCAL
89	Mission Viejo - Laguna Beach	via El Toro Rd/ Laguna Canyon Rd	LOCAL
90	Tustin - Dana Point	via Irvine Center Dr/ Moulton Pkwy/ Golden Lantern St	LOCAL
91	Laguna Hills - San Clemente	via Paseo de Valencia/ Camino Capistrano/ Del Obispo St	LOCAL
129	La Habra - Anaheim	via La Habra Blvd/ Brea Blvd/ Birch St/ Kraemer Blvd	COMMUNITY
143	La Habra - Brea	via Whittier Blvd/ Harbor Blvd/ Brea Blvd/ Birch St	COMMUNITY
150	Santa Ana - Costa Mesa	via Fairview St/ Flower St	COMMUNITY
153	Brea - Anaheim	via Placentia Ave	COMMUNITY
167	Orange - Irvine	via Irvine Ave/ Hewes St/ Jeffrey Rd	COMMUNITY
177	Foothill Ranch - Laguna Hills	via Lake Forest Dr/ Muirlands Blvd/ Los Alisos Blvd	COMMUNITY
178	Huntington Beach - Irvine	via Adams Ave/ Birch St/ Campus Dr	COMMUNITY
206	Santa Ana - Lake Forest Express	via 5 Fwy	EXPRESS BUS
211	Huntington Beach - Irvine Express	via 405 Fwy	EXPRESS BUS
213	Brea - Irvine Express	via 55 Fwy	EXPRESS BUS
453	Orange Transportation Center - St. Joseph's Hospital	via Chapman Ave/ Main St/ La Veta Ave	STATIONLINK
462	Santa Ana Regional transportation Center - Civic Center	via Santa Ana Blvd/ Civic Center Dr	STATIONLINK
463	Santa Ana Regional transportation Center - Hutton Centre	via Grand Ave	STATIONLINK
472	Tustin Metrolink Station - Irvine Business Complex	via Edinger Ave/ Red Hill Ave/ Campus Dr/ Jamboree Rd	STATIONLINK
473	Tustin Metrolink Station - U.C.I.	via Edinger Ave/ Harvard Ave	STATIONLINK
480	Irvine Metrolink Station - Lake Forest	via Alton Pkwy/ Bake Pkwy/ Lake Forest Dr	STATIONLINK
543	Fullerton Transportation Center - Santa Ana	via Harbor Blvd	BRAVO
560	Santa Ana - Long Beach	via 17th St/ Westminster Blvd	BRAVO
701	Huntington Beach - Los Angeles Express	via 405 Fwy/ 605 Fwy/ 105 Fwy/ 110 Fwy	EXPRESS BUS
721	Fullerton - Los Angeles Express	via 110 Fwy/ 91 Fwy	EXPRESS BUS
794	Riverside / Corona - South Coast Metro Express	via 91 Fwy/ 55 Fwy	EXPRESS BUS

OC Bus 360° Plan: Performance to Date

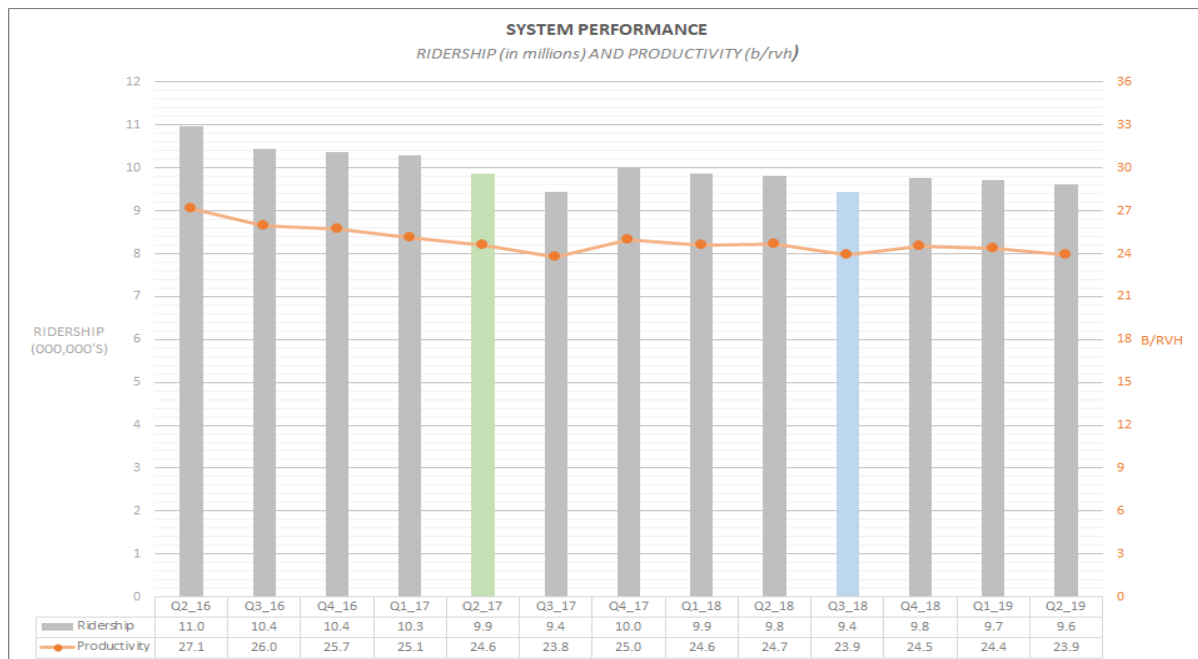
To address declining bus ridership, the OCTA Board of Directors (Board) endorsed a comprehensive action plan known as OC Bus 360° plan in 2015. This effort included a comprehensive review of current and former rider perceptions, a peer review panel that reviewed OCTA's performance and plans, new branding and marketing tactics tied to rider needs, upgraded bus routes and services to better match demand and capacity, technology solutions to improve passenger experience, and pricing, as well as other revenue changes to stimulate ridership and provide new funding.

Extensive work was invested by OCTA divisions to implement the OC Bus 360 plan°. These efforts included:

- Implementation of new and faster bus routes;
- Redeployment of services in June 2016, October 2016, October 2017, and February 2018, to improve efficiencies and build ridership;
- Competitively-awarded grants to local agencies through Project V for transit services tailored to community needs;
- Implementation of a promotional fare and college pass program;
- Rollout of new technologies, such as mobile ticketing, real-time bus arrival information, a microtransit service; and
- Extensive marketing, public outreach, and promotional campaigns.

Impact of the Service Changes

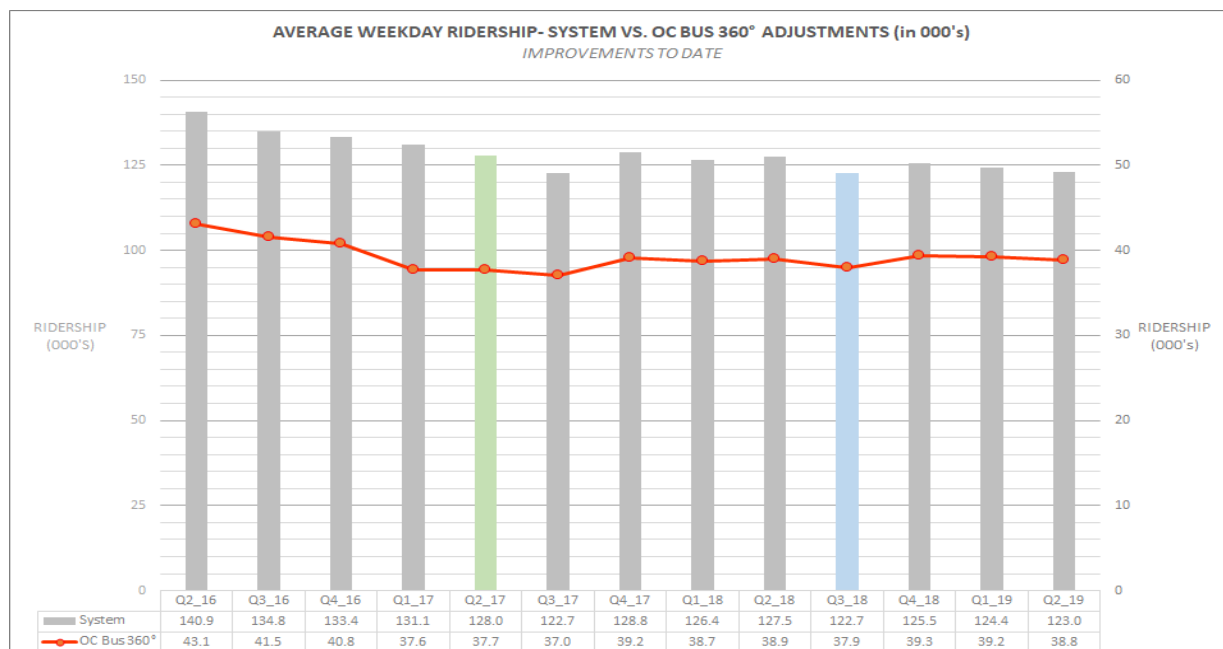
Of the series of approved bus service changes under the OC Bus 360° Plan, the changes implemented in October 2016 and February 2018 were the most significant and tracked for overall OC Bus 360° plan impact. Provided below is a series of charts that show overall system performance over the last 13 quarters and the impact of these route adjustments (*October 2016 marked by green bar; February 2018 marked by blue bar*). In this review, performance is measured by change in average weekday boardings for routes that were improved and average B/RVH for routes that were reduced. This analysis is necessary and on-going to gauge the effectiveness of the recommended changes and the overall OC Bus 360° plan. The trend of overall system ridership and productivity is provided on the following chart.



Through the second quarter of FY 2018-19, ridership and productivity are down compared to last quarter, but constant with respect to the quarterly trend over the past two years since the October 2016 service change.

- Ridership was 1.1 percent lower than the previous quarter, and 2.2 percent lower than the same quarter last year.
- Productivity over the second quarter fell by 1.8 percent from last quarter and was 3.1 percent lower than the same quarter last year.

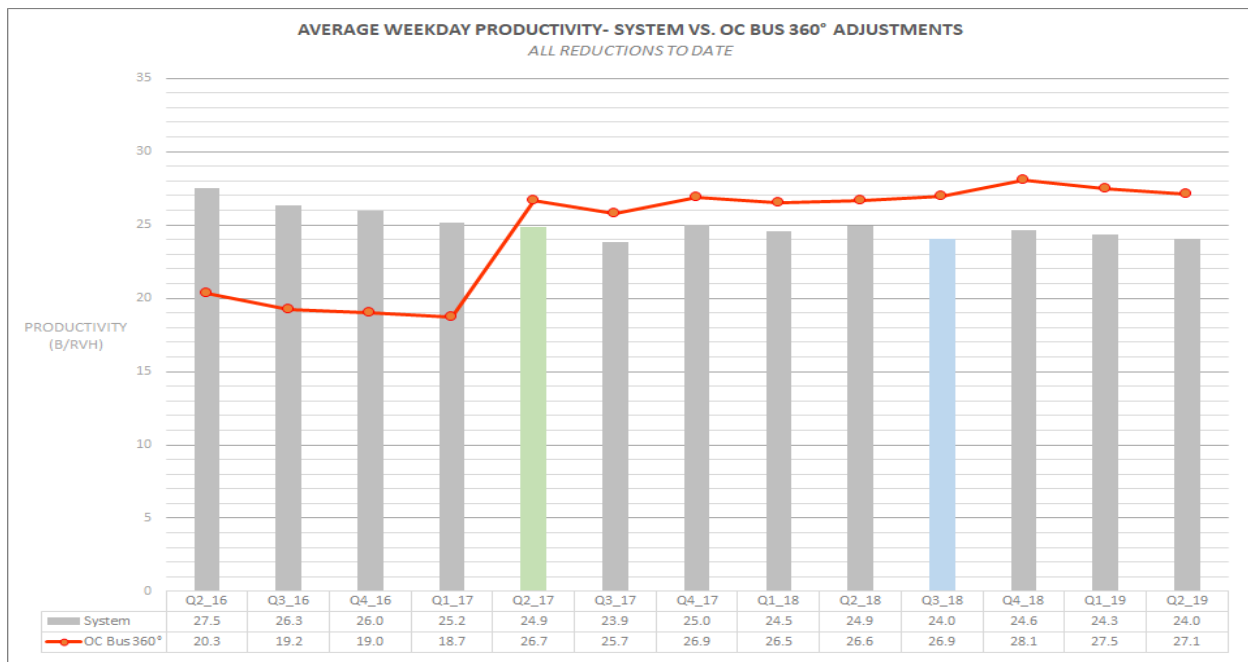
The impacts of the adjustments implemented under the OC Bus 360° plan remain steady. The following chart compares the system trend against the group of routes improved under the OC Bus 360° plan.



Comparing the results of the second quarter of FY 2018-19 with the second quarter of FY 2017-18, systemwide average weekday ridership fell by 3.6 percent, while the improved routes dropped slightly by 0.3 percent.

Improved system and route productivity are the goals for services that are *reduced* or *eliminated* under the OC Bus 360° Plan – making low performing routes more productive.

The following chart compares the system productivity trend against the productivity of the group of routes that were reduced/eliminated in October 2016 and February 2018.



During the second quarter of FY 2018-19, productivity for the collective reductions continue to trend above the system average. The system average for weekday productivity was 24.0 B/RVH, while the productivity for the reduced services was 27.1, a difference of 12.6 percent

Other OC Bus 360° Initiatives

OC Flex Pilot Program

OC Flex is an on-demand, curb-to-curb service that began in October 2018 as a one-year pilot. The OC Flex pilot was implemented in two specific areas that, to date, have been unable to productively support fixed-route bus service. One zone includes parts of Huntington Beach and Westminster, while the other zone includes parts of Aliso Viejo, Laguna Niguel, and Mission Viejo. The service is provided through a contract with Keolis. The service introduces a new vehicle type and is consistent with the OC Bus 360 Program as it will test new rider markets while matching resources with demand. Rides are primarily booked using a mobile app on a smart phone, but trips may also be booked by phone through the Keolis reservation center. Inside each OC Flex zone, riders are able to take unlimited rides to work, school, for recreation, entertainment, or other purposes for \$4.50 per day using the OC Flex mobile app, or \$5.00 per day if paying cash onboard. Riders are also able to transfer between OC Flex and OC Bus to create a first mile

and last mile service connection to regional OC Bus service, as well as Metrolink commuter rail service. Over the course of the pilot, OCTA staff will be tracking ridership, productivity, average wait times, shared rides, and customer satisfaction. Staff will provide the Board with an update after six months of service and an annual report after completion of the pilot project. The evaluation after one year of operation will help determine if one or both pilot zones should continue to operate and if this service model should be considered for additional areas.

Through the second quarter, OC Flex showed weekly incremental growth in ridership. Staff is currently evaluating rider trends, potential adjustments, and promotional opportunities to increase demand and attract new rider markets.

College Pass Program

The College Pass Program started in August 2017, with students from Santa Ana College and continuing education students from Santa Ana College and Santiago Canyon College. In August 2018, the program expanded to include all students from Santiago Canyon College. The College Pass Program uses a shared cost strategy where all students pay a transportation fee, whether they ride or not. These fees are collected by the colleges after students voted to support the fees. Starting in August 2018, students are able to participate in the program by using the OC Bus mobile app, as an alternative to their student ID.

Since the program started, from August 2017 to December 31, 2018, the College Pass Program has reported 1.7 million boardings with 9,920 unique participating students. In the Fall 2018 semester reporting period, Santa Ana College student boardings increased by 10.2 percent from the Fall 2017 semester, along with a 21.2 percent increase in the number of Santa Ana College students participating in the program.

The college pass program has stabilized the ridership on the routes that directly serve Santa Ana College and Santiago Canyon College, and other routes that connect students from across the county. A survey will be conducted at a later date to continue to evaluate the program and determine new riders from participating colleges.

College Pass Program Statistics:

- *Fall 2017 Semester (August – Feb) SAC Boardings 334,224*
- *Fall 2018 Semester (August – Feb) SAC Boardings 368,252*
- *Fall 2017 SAC Participating* students 3,366*
- *Fall 2018 SAC Participating* students 4,079*

**Participating means that the student has used their pass during the term*

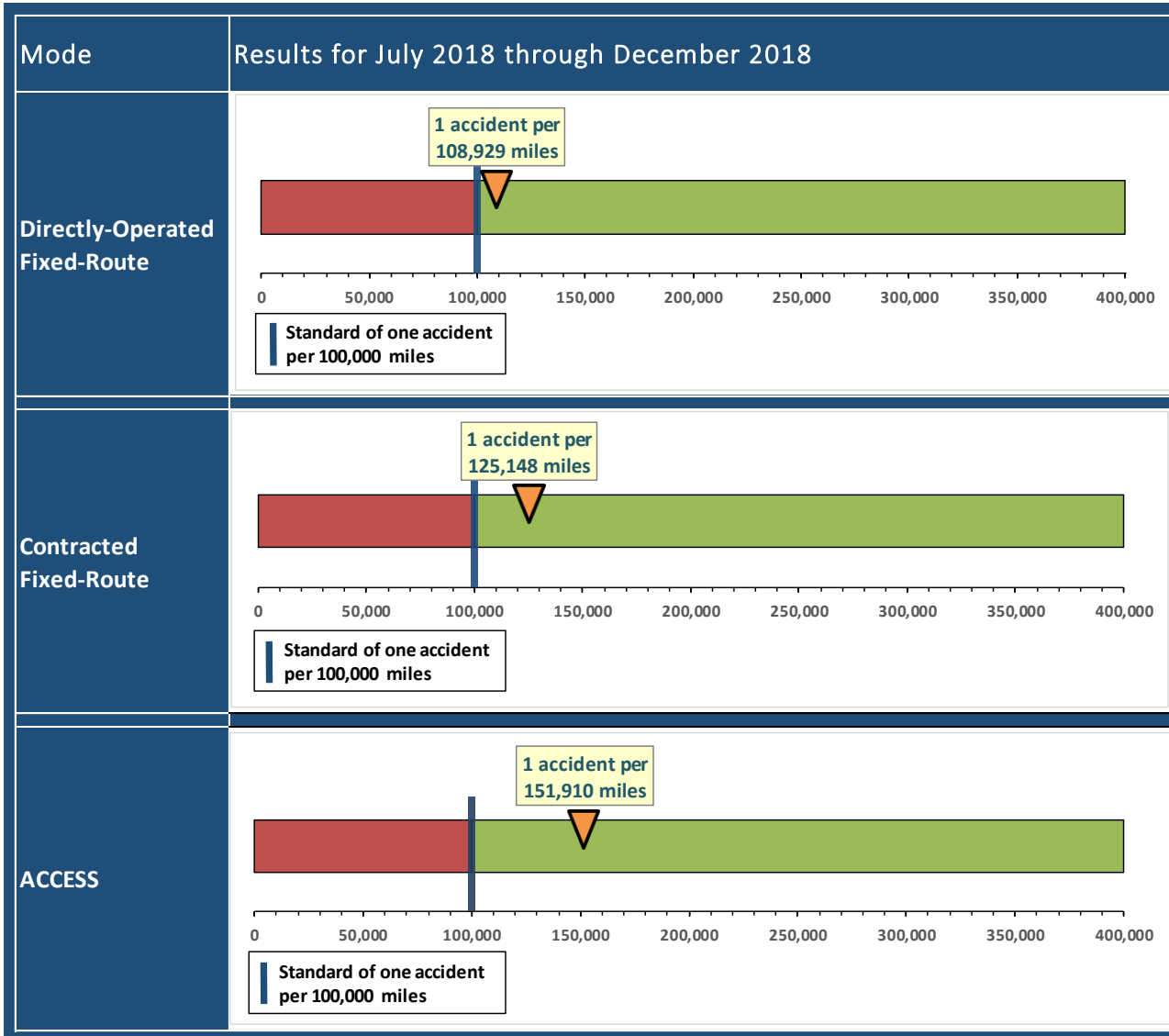
BUS OPERATIONS PERFORMANCE MEASUREMENTS REPORT

**Second Quarter
Fiscal Year 2018-19**

Performance Measurements

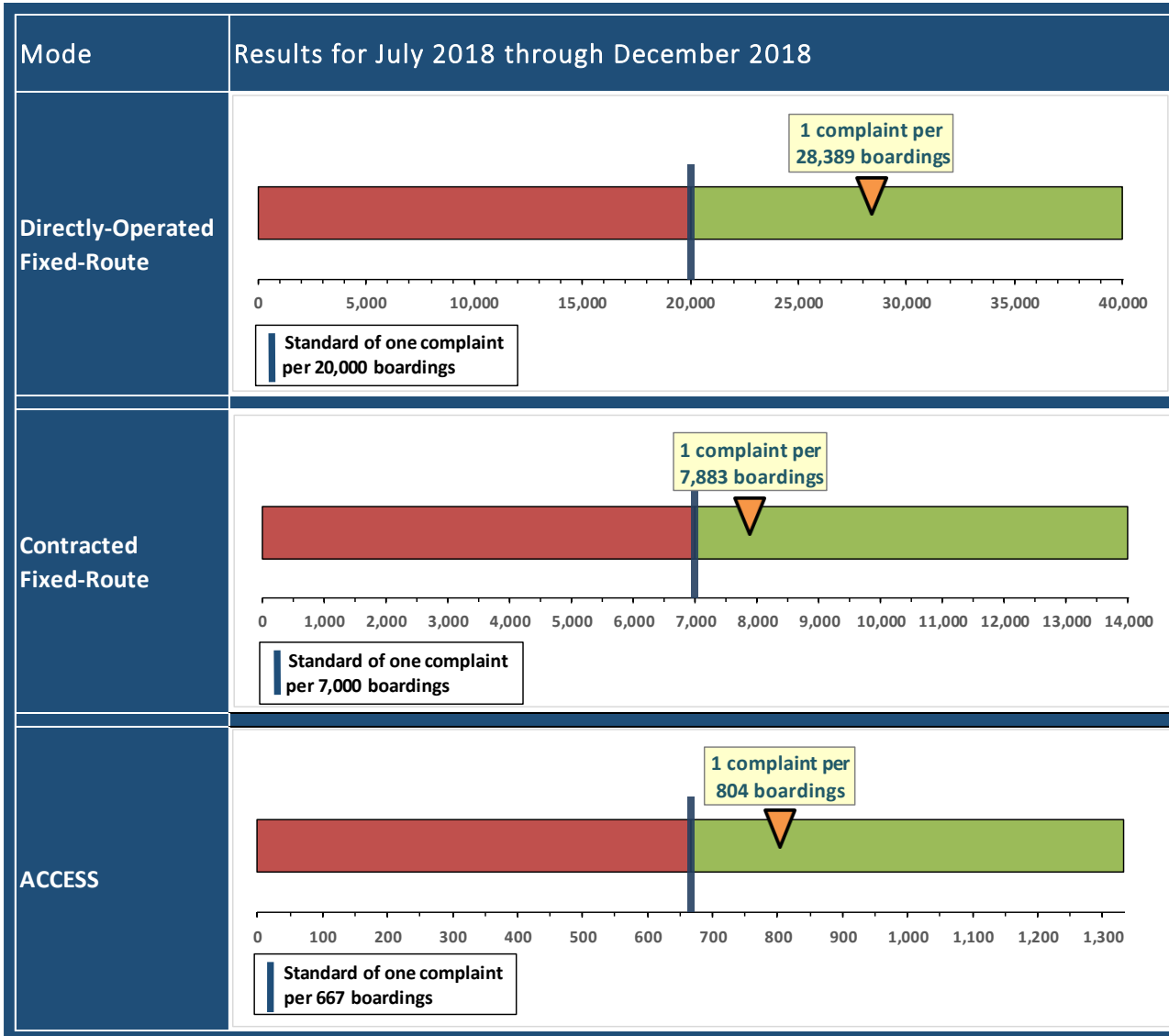
- Safety – Preventable Vehicle Accidents
- Courtesy – Customer Complaints
- Reliability – On-Time Performance (OTP) and Miles Between Road Calls (MBRC)
- Ridership and Productivity
- Farebox Recovery Ratio (FRR)
- Operating Cost per Revenue Vehicle Hour (RVH)
- Performance by Route

Safety



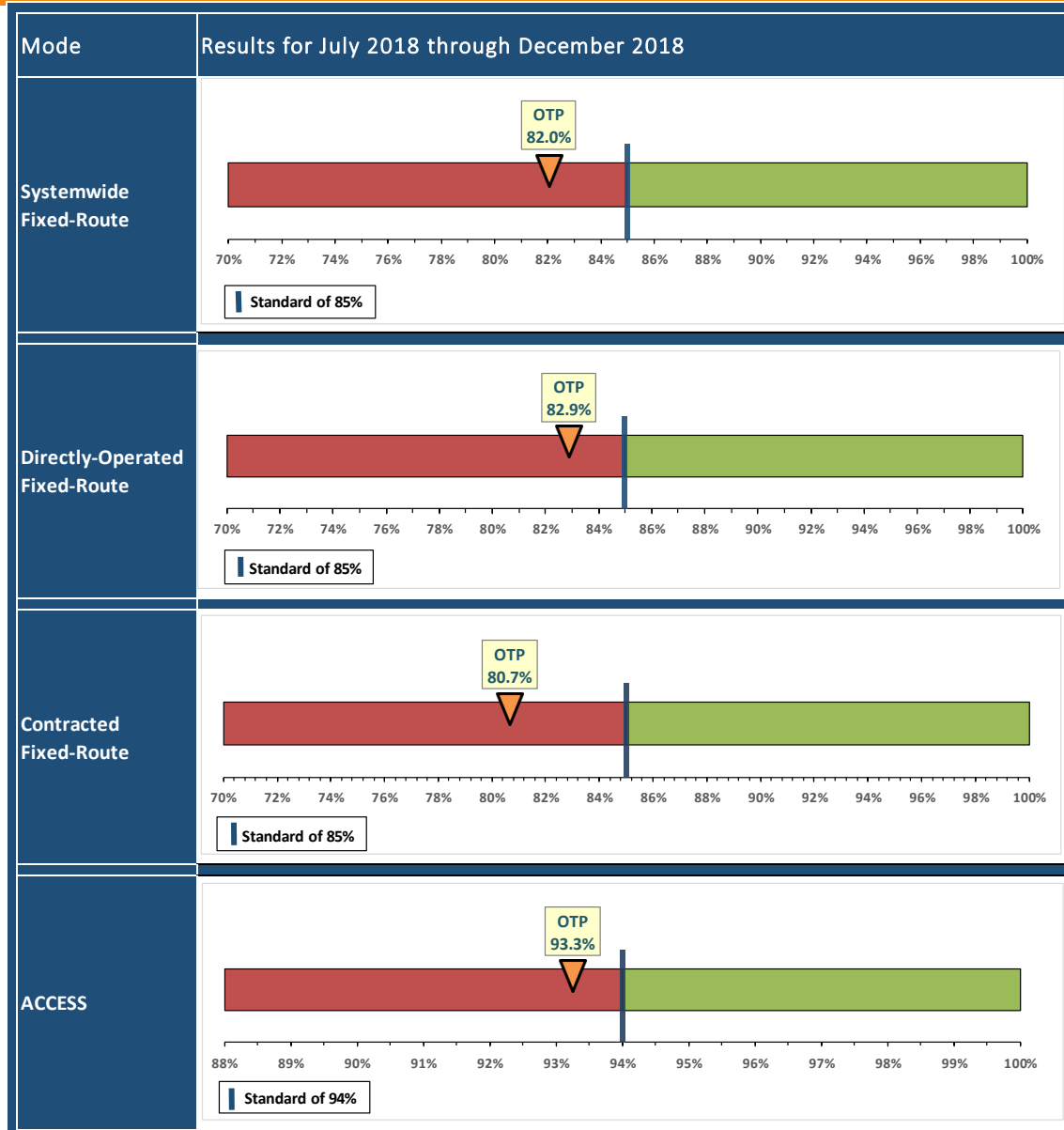
- All three modes of service exceeded the safety standard

Courtesy



- All three modes of service exceeded the courtesy standard

Reliability-OTP

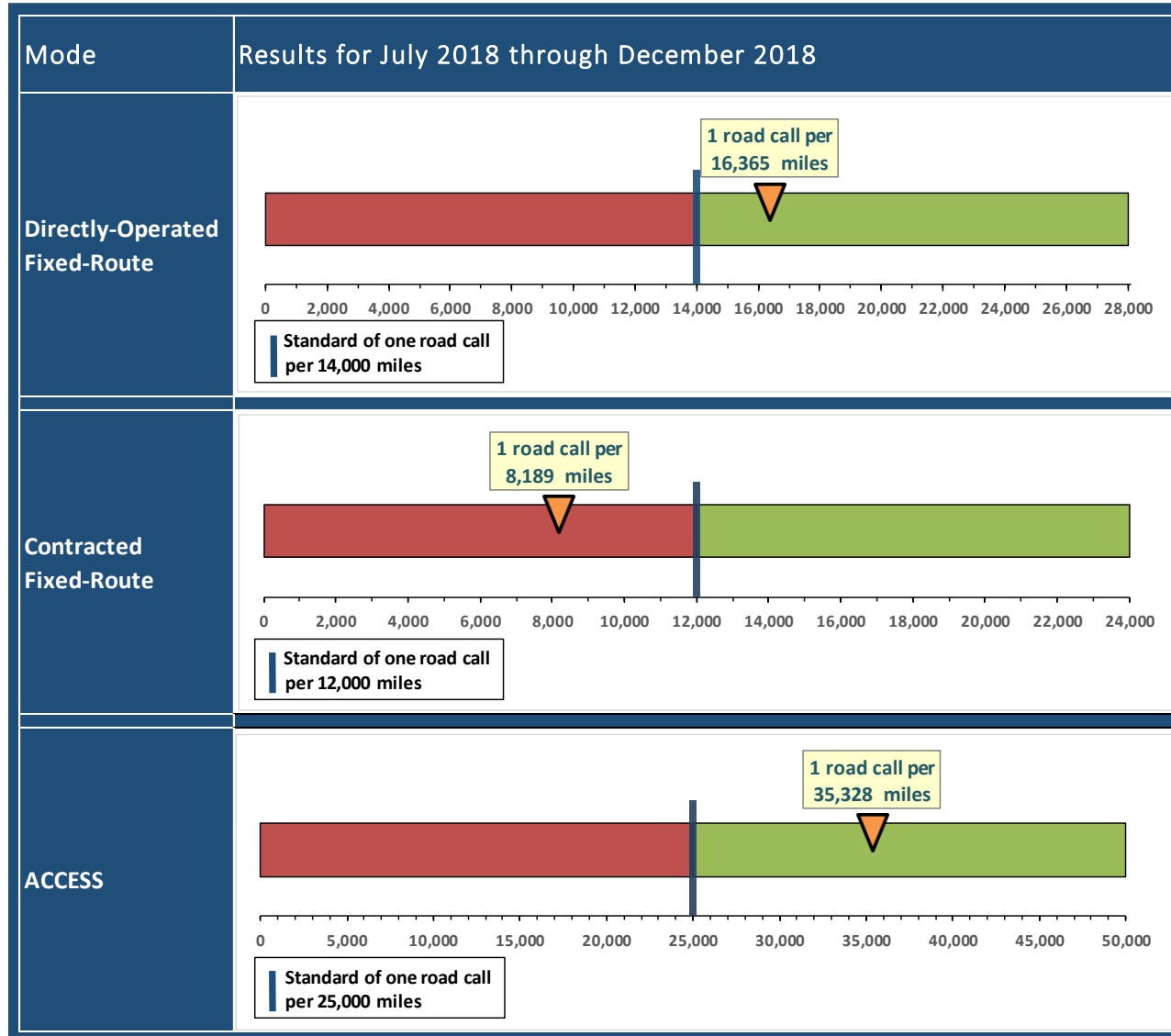


- Systemwide fixed-route service was three percent below the standard
- Directly-operated fixed-route (DOFR) service was 2.1 percent below the standard
- Contracted fixed-route (CFR) service was within 4.3 percent below the standard
- OC ACCESS service was 0.7 percent below the standard

Routes Impacted by Construction

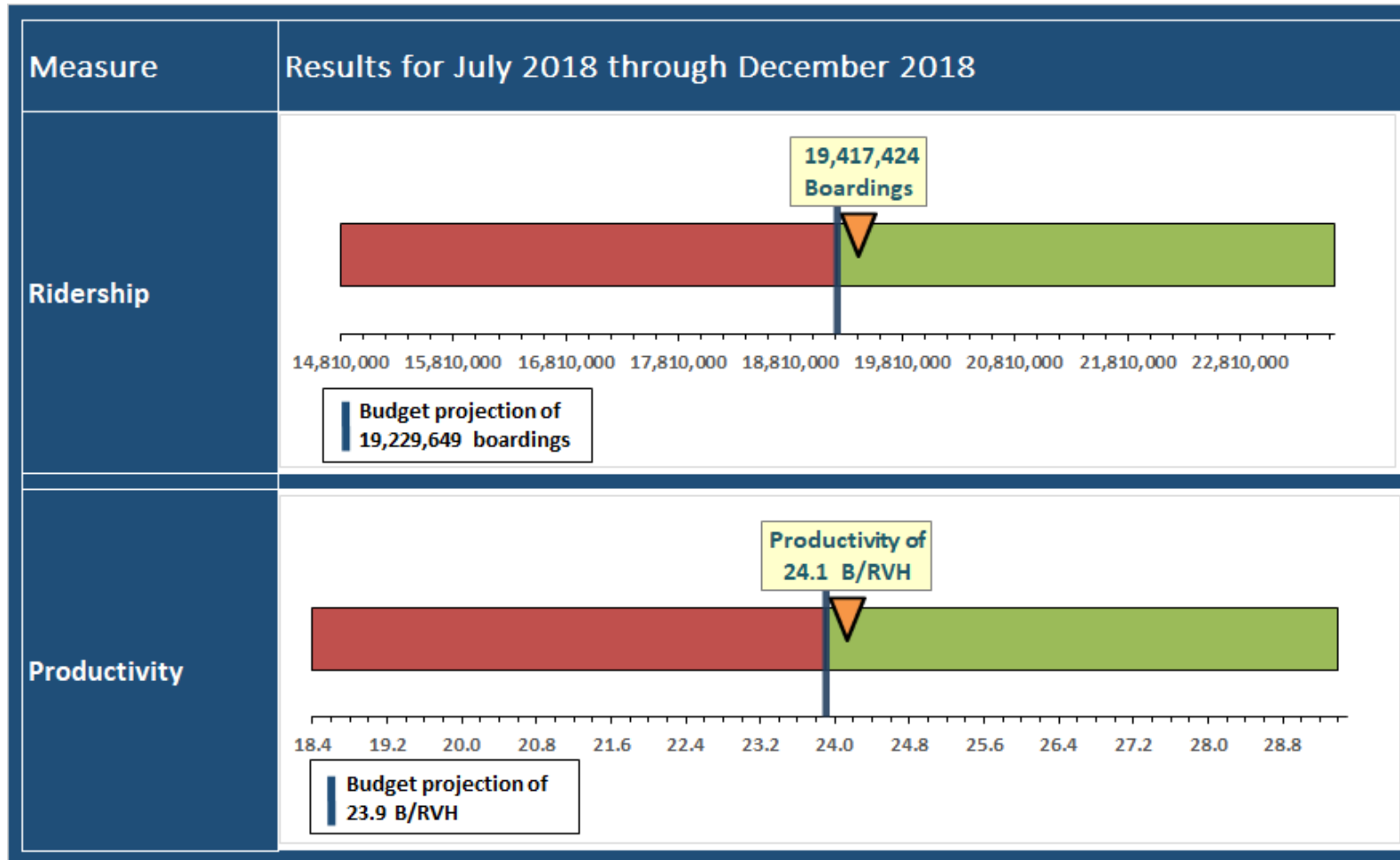
Route	OTP (FY2017-18)	OTP (FY2018-19)	Change	Construction Project
47 - Fullerton - Balboa	87.2%	81.7%	-5.5%	Superior Avenue/Hospital Road - Construction; Fiber-optic work along Haster Street between Katella Avenue/Orangewood Avenue
66 - Huntington Beach - Irvine	88.8%	82.8%	-6.0%	I-405 Bridge demolition @ McFadden Avenue, lane reduction
59 - Anaheim - Irvine	78.1%	73.8%	-4.3%	Orange Transportation Center Parking Structure Project
50 - Long Beach - Orange	86.8%	84.4%	-2.4%	Katella Avenue water main replacement project: Disneyland Drive - Haster Street; Anaheim Boulevard
71 - Yorba Linda - Newport Beach	81.2%	75.4%	-5.9%	Superior Avenue/Hospital Road - Construction Garfield Street Closure: construction detour July/August
178 - Huntington Beach - Irvine	86.3%	79.0%	-7.3%	2018

Reliability-MBRC



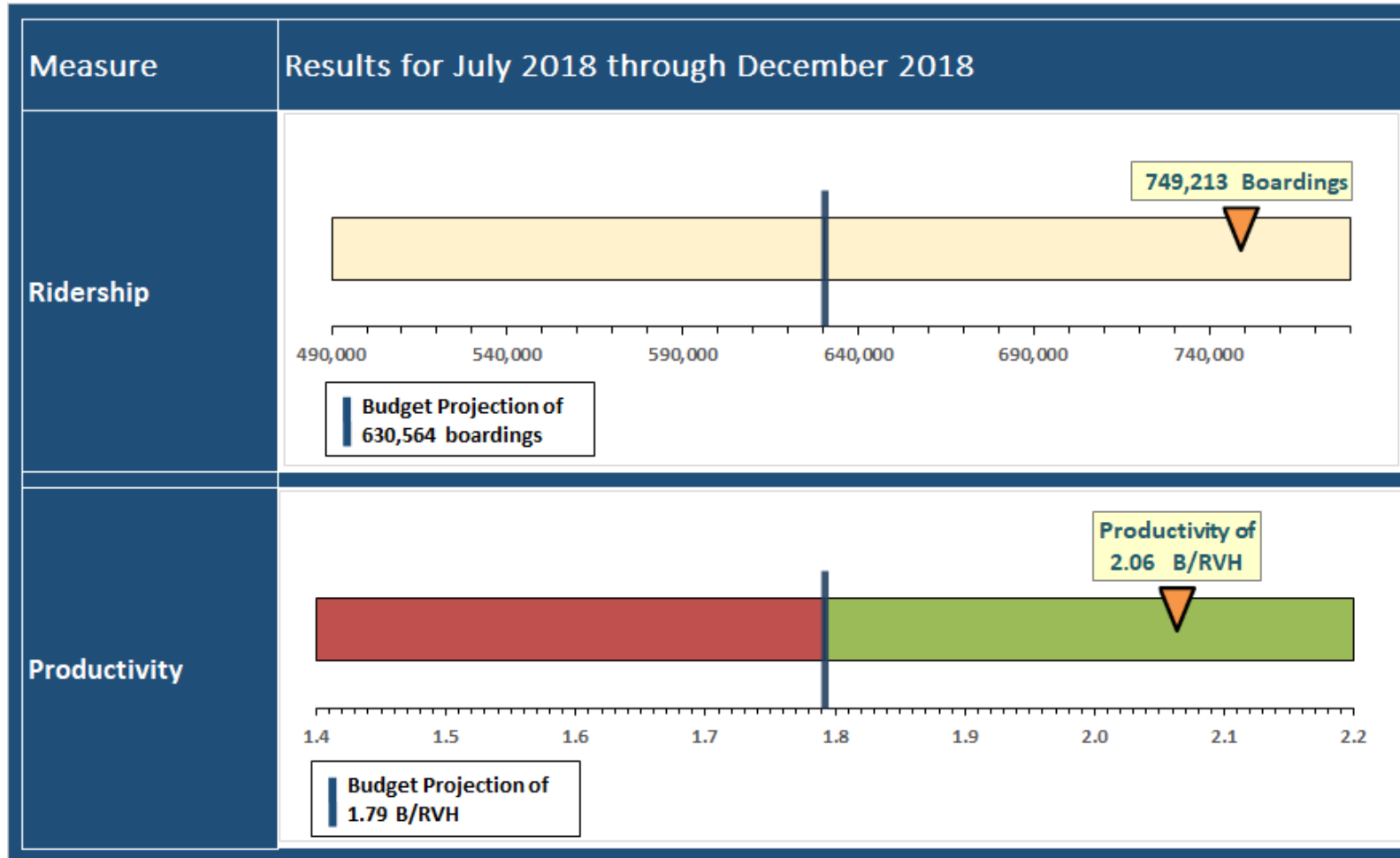
- DOFR and OC ACCESS services exceeded the MBRC standard
- CFR did not meet the standard
- Continued to focus on vehicle reliability:
 - Provided additional maintenance training
 - Implemented more rigorous quality control processes to improve vehicle repair procedures
 - Maintained corporate support and presence in maintenance shop

Fixed-Route-Ridership and Productivity



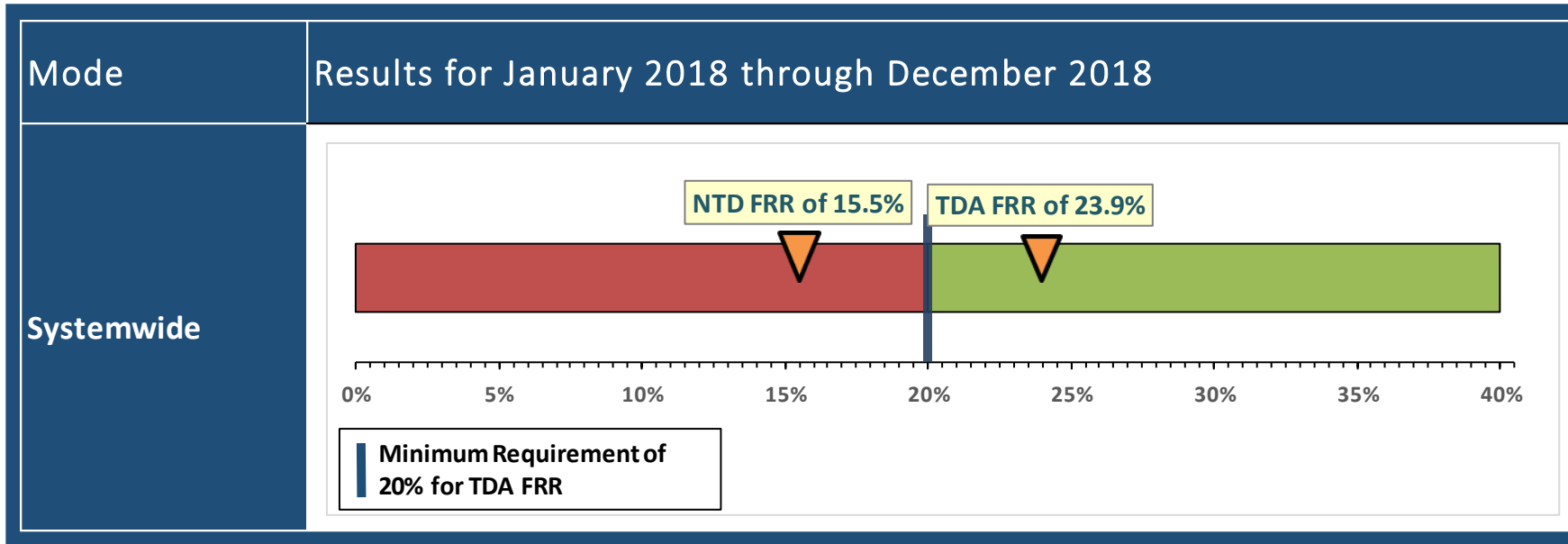
- Fixed-route service was above the budget projection for ridership and productivity

OC ACCESS-Ridership and Productivity



- OC ACCESS service exceeded budget projections for ridership and productivity

Farebox Recovery Ratio

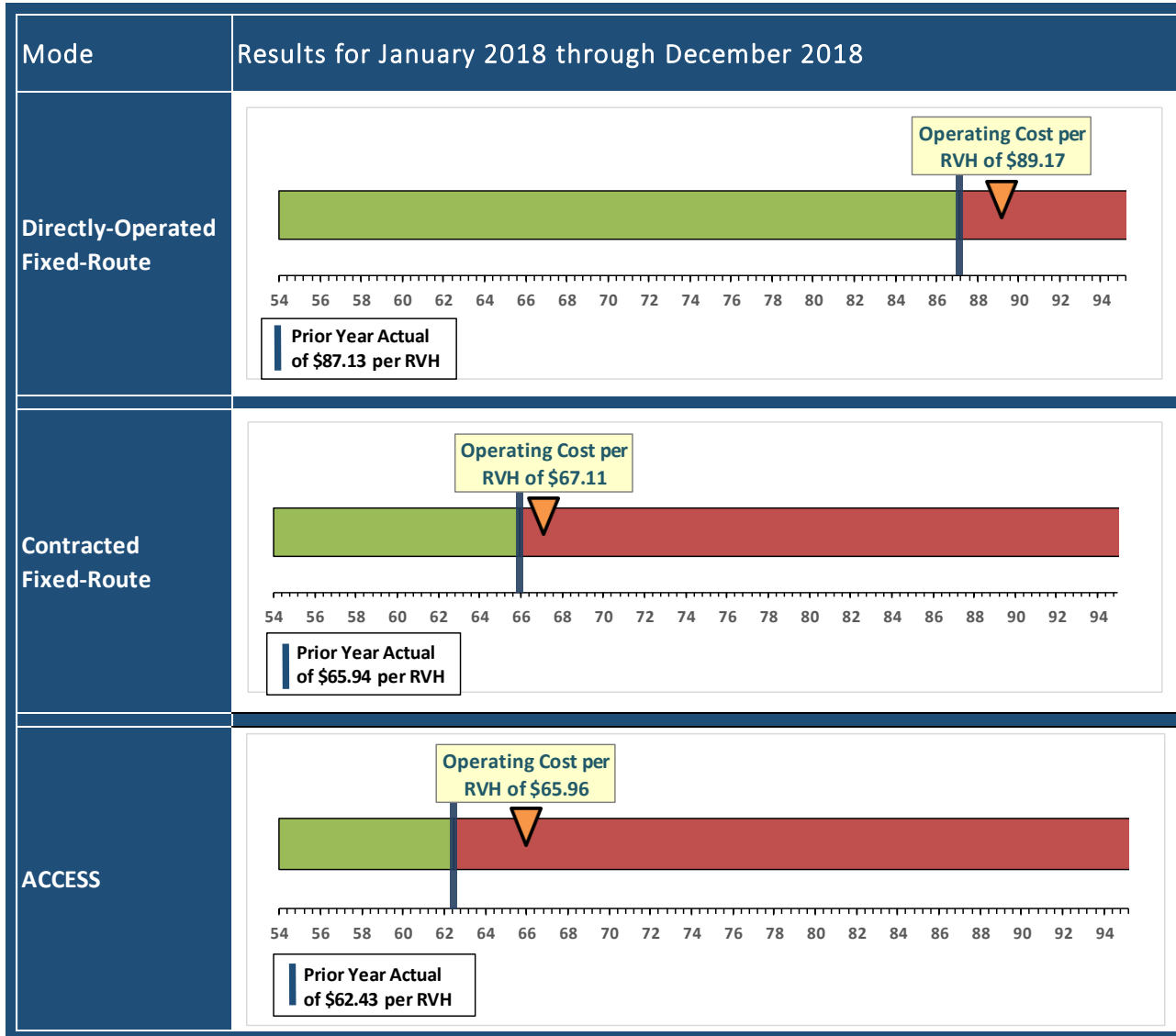


Note:

- National Transit Database (NTD) FRR consists of only passenger fares
- Transportation Development Act (TDA) FRR includes passenger fares, property tax revenue, advertising revenue and Measure M fare stabilization

- NTD FRR was 4.5 percent under the standard, and
- TDA FRR exceeded the standard by 3.9 percent

Cost per RVH



- DOFR operating cost increased 2.3 percent from the prior year actuals
- CFR operating cost increased 1.8 percent from the prior year actuals
- OC ACCESS operating cost increased 5.7 percent from the prior year actuals

Performance: Local Routes

Route	Farebox	Subsidy per Boarding	Boardings	BoardVSH	VSH	40 FT	32 FT	60 FT
021	8.1%	\$ 12.45	33,315	9.11	3,657	2	-	-
085	9.0%	11.78	35,886	8.84	4,059	2	-	-
001	7.9%	11.06	291,036	13.31	21,859	9	-	-
087	8.8%	10.94	34,491	10.03	3,440	-	2	-
076	9.5%	9.96	44,553	13.56	3,285	2	-	-
083	11.8%	7.43	322,836	18.73	17,238	11	-	-
086	13.4%	7.26	75,064	13.78	5,446	3	-	-
091	14.8%	7.04	204,396	14.01	14,584	7	-	-
024	14.8%	6.83	64,167	14.66	4,376	3	-	-
090	15.8%	6.65	168,077	15.67	10,724	8	-	-
050	12.5%	6.35	620,801	23.16	26,810	2	-	8
079	14.7%	6.24	220,172	15.41	14,284	6	-	-
056	12.9%	6.14	214,119	21.12	10,138	4	-	-
082	19.0%	6.04	41,573	19.80	2,100	3	-	-
560	14.2%	5.98	394,901	23.39	16,883	13	-	-
059	15.8%	5.89	280,989	17.12	16,410	9	-	-
089	16.1%	5.80	181,344	16.65	10,893	6	-	-
055	16.5%	5.65	663,151	22.83	29,043	15	-	-
054	15.0%	5.63	611,553	23.54	25,982	17	-	-
072	15.7%	5.58	255,074	22.54	11,316	6	-	-
025	17.0%	5.44	192,137	17.85	10,765	5	-	-
071	16.8%	5.30	354,705	17.76	19,967	8	-	-

VSH - vehicle service hour

BoardVSH - boardings per vehicle service hour

Route	Farebox	Subsidy per Boarding	Boardings	BoardVSH	VSH	40 FT	32 FT	60 FT
037	15.7%	\$ 5.25	555,609	24.66	22,528	12	-	-
026	16.4%	5.22	222,651	18.23	12,214	4	-	-
029	17.1%	4.73	1,006,915	26.83	37,536	16	-	-
030	17.8%	4.53	332,236	20.60	16,131	7	-	-
047	19.3%	4.46	1,080,896	27.67	39,063	18	-	-
035	18.6%	4.36	414,853	22.81	18,184	13	-	-
543	18.6%	4.33	491,809	29.56	16,636	10	-	-
070	20.3%	4.19	482,079	23.18	20,800	12	-	-
057	20.1%	4.12	1,024,426	31.69	32,329	-	-	14
033	18.8%	4.03	201,160	22.86	8,800	4	-	-
060	19.0%	3.95	983,920	31.01	31,734	10	-	-
053X	20.7%	3.93	329,731	28.43	11,597	6	-	-
046	21.8%	3.84	327,800	23.80	13,774	8	-	-
043	21.7%	3.72	1,080,786	31.78	34,004	16	-	-
053	21.0%	3.70	732,763	33.64	21,785	12	-	-
038	21.0%	3.70	557,892	25.39	21,969	12	-	-
057X	23.8%	3.43	568,134	32.21	17,641	-	-	8
042	22.7%	3.21	780,045	27.97	27,892	13	-	-
066	24.1%	3.20	1,048,701	35.67	29,400	11	-	-
064	24.4%	2.89	796,063	39.67	20,067	10	-	-
064X	25.5%	2.76	311,402	37.79	8,241	4	-	-

Performance: Community Routes

Route	Farebox	Subsidy per Boarding	Boardings	BoardVSH	VSH	40 FT	32 FT	60 FT
153	10.3%	\$ 9.62	60,872	10.31	5,906	2	-	-
178	10.9%	9.13	47,134	11.11	4,242	2	-	-
177	13.0%	8.23	43,420	12.02	3,612	-	2	-
167	13.7%	7.19	101,491	13.79	7,358	4	-	-
129	15.7%	6.34	100,248	15.58	6,435	3	-	-
143	15.2%	6.08	95,206	15.46	6,158	2	-	-
150	17.8%	5.59	90,771	18.32	4,955	4	-	-

Performance: Express/Stationlink Routes

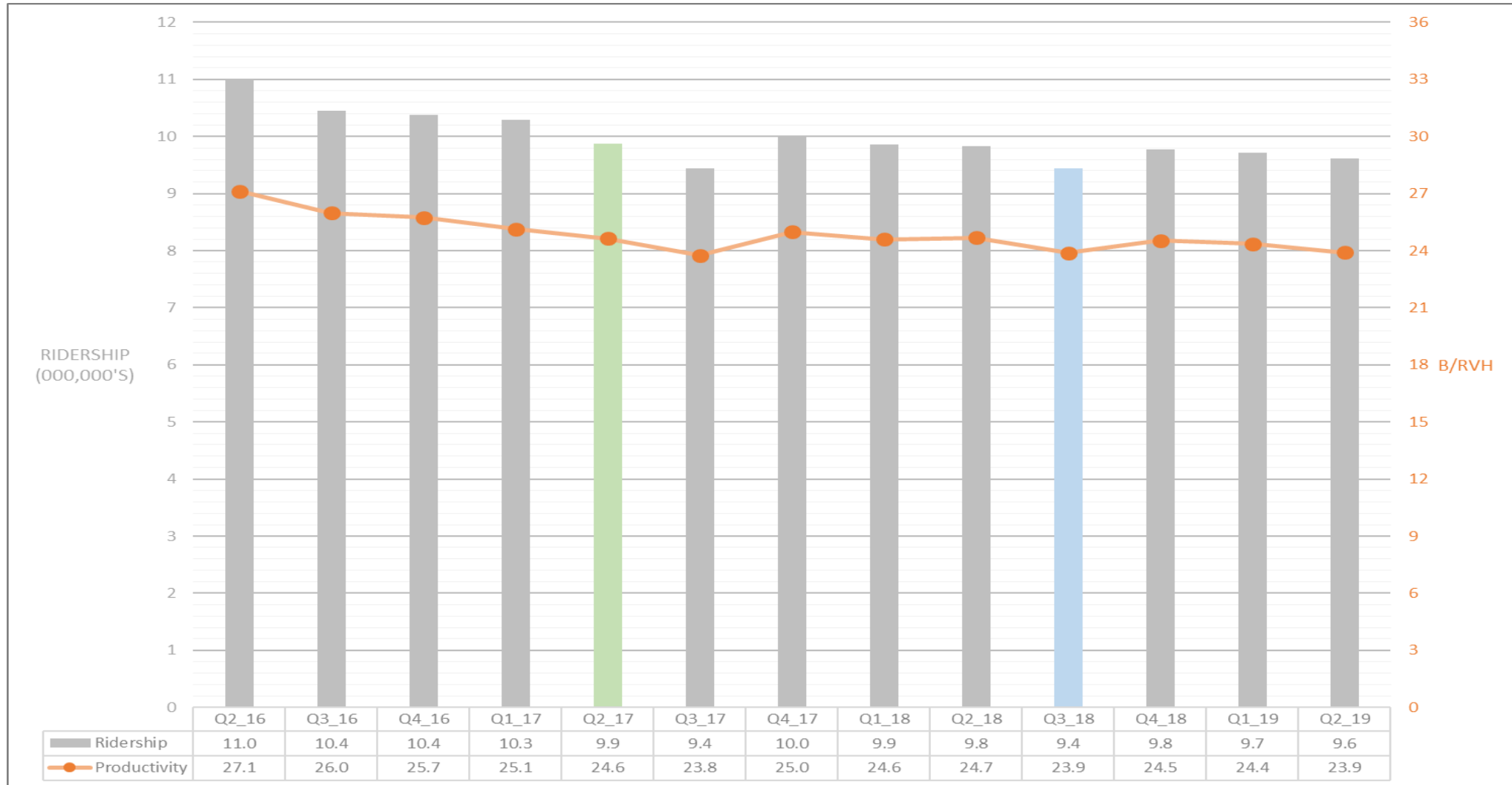
Route	Farebox	Subsidy per Boarding	Boardings	BoardVSH	VSH	40 FT	32 FT	60 FT
211	2.0%	\$ 59.11	7,845	2.76	2,841	-	4	-
213	2.3%	48.78	7,059	3.98	1,772	-	4	-
721	4.8%	41.40	11,127	5.84	1,905	3	-	-
701	8.0%	30.48	11,588	9.14	1,268	3	-	-
206	4.1%	29.69	6,420	7.38	870	-	3	-
794	22.5%	24.71	16,632	8.33	1,996	4	-	-

Route	Farebox	Subsidy per Boarding	Boardings	BoardVSH	VSH	40 FT	32 FT	60 FT
463	4.1%	\$ 28.09	11,306	7.43	1,522	4	-	-
480	8.6%	12.52	13,383	15.68	854	2	-	-
453	8.6%	11.13	14,912	18.20	819	2	-	-
472	10.4%	10.84	18,498	19.24	962	4	-	-
473	12.4%	8.98	21,548	22.02	979	2	-	-
462	12.6%	7.72	18,673	20.48	912	1	-	-

BUS OPERATIONS PERFORMANCE AND OC BUS 360°

Performance: System-wide Trends

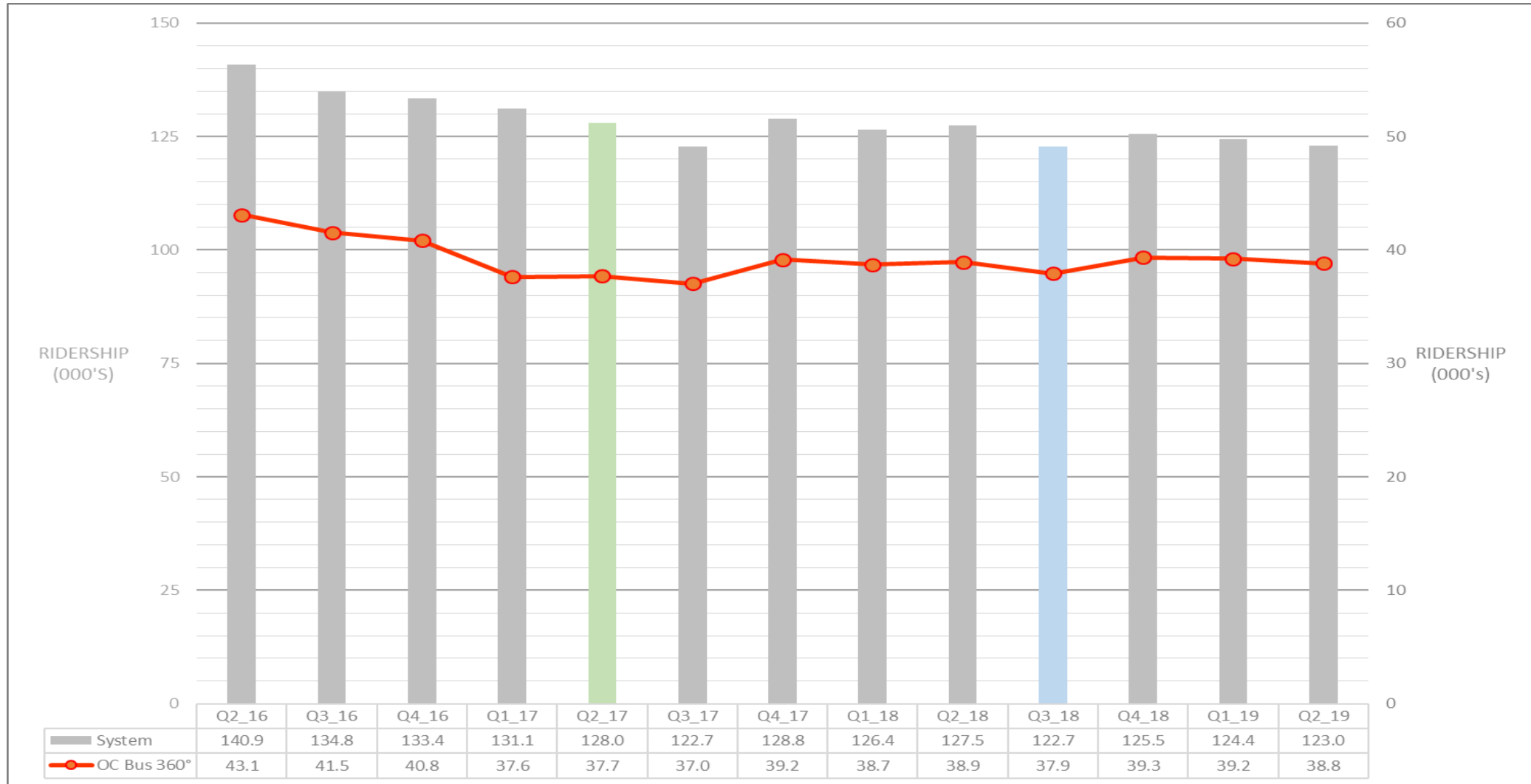
RIDERSHIP and PRODUCTIVITY: 13-Quarter Trend



B/RVH - boardings per revenue vehicle hour

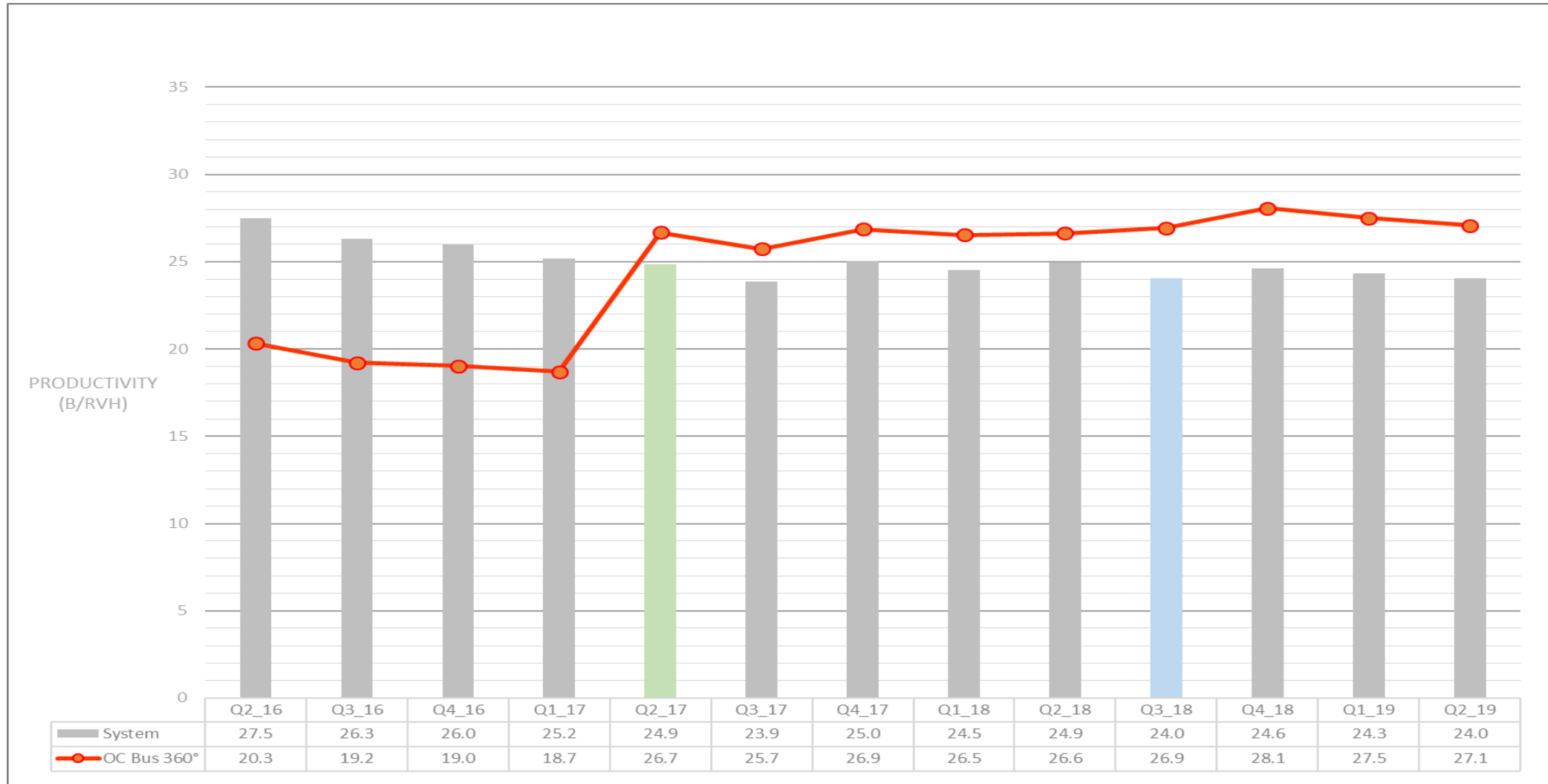
Performance: OC Bus 360° Improvements

Average Weekday RIDERSHIP – System vs. OC Bus 360° Route Improvements To Date



Performance: OC Bus 360° Reductions

Average Weekday PRODUCTIVITY – System vs. OC Bus 360° Route Reductions/Eliminations To Date



B/RVH - boardings per revenue vehicle hour

Future Reports

May 9, 2019, Transit Committee

June Service Change

Micro-transit pilot program six-month review, OC Flex

June 13, 2019, Transit Committee

Third Quarter Bus Operations Performance Measurements Report