



UNITRANS
GENERAL MANAGER'S REPORT
FISCAL YEAR 2018-19

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Fiscal Year 2018-19 Unitrans Service Summary

Executive Summary

Fiscal Year 2018-19 began with financial and staffing challenges and ended with our financial and staffing outlook stronger than ever.

Student Involvement

Unitrans is primarily operated by undergraduate students at UC Davis. Over 90% of all Unitrans employees, including all drivers, are UC Davis undergraduates. This model is unique to Davis and helps keep Unitrans fiscally efficient, friendly, and operationally nimble. Maintaining our student-operated model is one of our core values. We pride ourselves on mentoring our student employees and provide them with learning and leadership opportunities that build upon their education.



Unitrans 2nd Annual Holiday Food Drive

Unitrans student employees and UC Davis undergraduates shined this fiscal year and our campus and city communities felt their support. The following are just a few examples of our student impact.

- In November 2018, the Camp Fire in Paradise, CA closed UC Davis campus for seven days as well as many businesses and schools throughout Davis. Our student employees continued to come to work and we continued to operate uninterrupted public transit service to our community.
- In December 2018, Unitrans held its second annual food drive at the Davis Co-op to benefit the ASUCD Pantry. We received over \$3,000 in food donations.
- In January 2019, Unitrans employees continued to operate buses throughout the city on the evening Davis Police Officer Natalie Corona was fatally shot to ensure our campus and community members could safely return home.
- In February 2019, the undergraduate students championed and passed a student fee measure to place Unitrans on a financially sustainable course so we can sustain public transit service to our city and campus communities.

Finance

This fiscal year began with a joint city and campus task force to review Unitrans' finances and determine how to address the increasing structural deficit due to rising labor costs. Unitrans reduced service during the middle of the day to reduce operating deficits and driver demand. The task force convened in October 2018, met four times, and developed a set of 12 recommendations for the Vice Chancellors of Student Affairs and Finance, Operations, and Administration. The first recommendation to seek increased student fee revenue was placed on the February 2019 ASUCD ballot and was approved by the undergraduate population with 92% of voters approving the fee increase. Student fees directly funding Unitrans will increase from \$34.50 per quarter in FY2018-19 to almost \$72 in FY2022-23 and will then index to inflation. The increased fee will add approximately \$850,000 to Unitrans' FY2019-20 budget.



Fee Referendum Rally

Along with good long-term financial news, Unitrans' year-end budget deficit came in significantly lower than budgeted. Unitrans budgeted a \$478,000 deficit for FY2018-19 but by June 30, 2019, the deficit ended at only \$127,000. Salary expenses were the largest single savings category, coming in \$180,000 under budget due to longer than expected career vacancies in all departments and driver savings from the midday service reduction. Fuel expenses were \$60,000 under budget thanks to our new compressed natural gas contract.

Service and Ridership

As noted above, to reduce operating deficits and driver demand, Unitrans implemented a 5% service reduction in fall 2018 by reducing midday service on the D, G, J, W, and V lines.

Annual ridership declined 7% in FY2018-19 from over four million customer boardings in FY2017-18 to 3.7 million. Factors affecting annual ridership include the midday service reduction, the seven-day campus closure in November 2018 due to the Camp Fire in Paradise, CA, fare and pass price increase implemented on July 1, 2018, and shifting customer transportation preferences with increasing competition from ridesharing and bikeshare services. The seven-day campus closure caused nearly half of the total annual ridership decline.

Capital Projects

Unitrans received two new Alexander Dennis Double Decker Buses in winter 2019. Both buses entered service on April 1, 2019 and increased our modern double decker fleet from two to four buses. The combined cost was \$2 million and paid solely through state grant funding.



Unitrans secured approximately \$3.9 million from the Sacramento Area Council of Governments for electric bus infrastructure. Unitrans seeks to purchase 12-14 new electric buses in 2022-23 to replace old buses. The awarded funding will pay for electrical infrastructure and facility improvements. The total project is expected to cost \$5-6 million in infrastructure and over \$10 million for buses.

Staffing

Fiscal Year 2018-19 began with staffing challenges due the departure of our long time IT manager and administrative assistant. A mechanic also retired mid-year and financial uncertainty led to Unitrans pausing career trainer hiring. As the year progressed though and with the fee initiative passing, we hired a new IT manager, a new administrative assistant, a new mechanic, and we expanded our career trainer workforce from one trainer to four trainers.

Coming Year

With the new student fee measure approved and strong driver staffing projected for fall 2019, we expect FY2019-20 to be a solid year for Unitrans. In FY2019-20, Unitrans will be focused on further improving driver staffing in order to introduce more capacity service for winter 2020, reducing minimum hour requirements for student staff, and securing funding for the electric bus program and facility improvements.

Full FY2018-19 Unitrans Service Narrative and Analysis

Introduction

Fiscal Year 2018-19 began with financial and staffing challenges and ended with our financial and staffing outlook stronger than ever. The following report summarizes key performance trends and progress during FY2018-19.

Unitrans is a public transportation service serving the City of Davis and the University of California, Davis. The service was founded in 1968 by the Associated Students of UC Davis (ASUCD) and continues to be student-driven with over 90% of employees being undergraduate students. Unitrans is operated by ASUCD as part of UC Davis and is a funding partnership between the City of Davis and UC Davis.

Service

In spring 2018, Unitrans received approval from the Unitrans Advisory Committee (UAC) and Davis City Council after a public participation process to increase cash fares and pass prices for the first time in 14 years and also implement service changes. The following summarizes the implemented changes:

- Cash fare increased from \$1.00 to \$1.25 on July 1, 2018
- Unitrans pass prices increased 20% on July 1, 2018
- The V line discontinued fare free service for all customers and implemented standard Unitrans fare policies on August 6, 2018
- Midday weekday academic year service from 11am to 3pm was reduced from 15 minutes to 30 minutes on Unitrans' most popular bus lines – the D, G, J, V, and W lines
- L Line service expanded from every 60 minutes to every 30 minutes during UC Davis Finals Week
- Unitrans launched a new Davis Joint Unified School District student focused pilot line called the S line serving North Davis, West Davis, Davis High School, and Holmes Junior High School
- The T line serving Davis Senior High School was modified to provide direct service to the Wildhorse neighborhood via Moore Boulevard, provide closer service to Holmes Junior High School by operating on J Street, and avoid 14th Street traffic by serving Davis Senior High School via Oak Street
- Summer night service was consolidated to the Memorial Union Bus Terminal instead of being split between the Silo Terminal and Memorial Union Bus Terminal

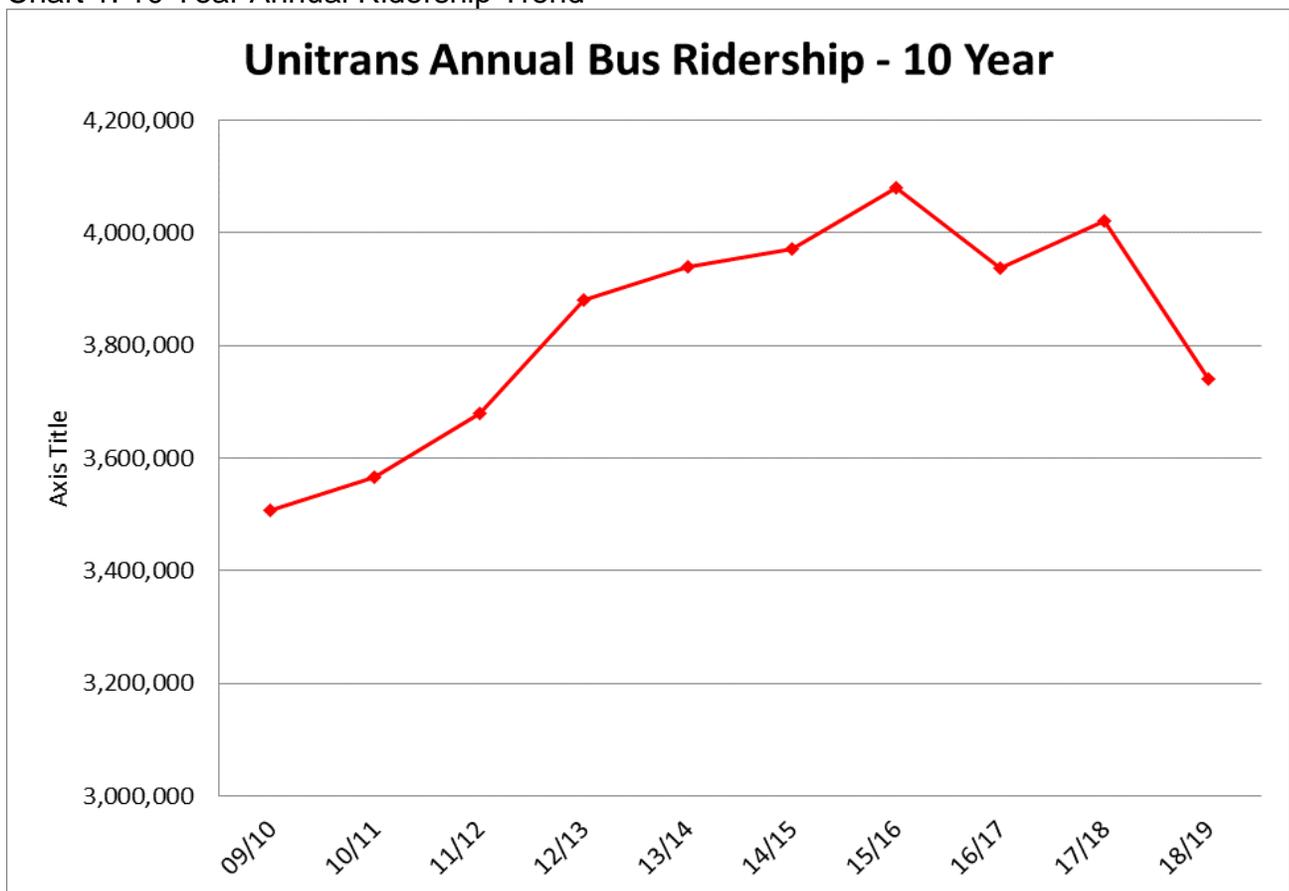
The changes resulted in a 5% decline in scheduled service hours and miles compared to the previous year. The intention of the changes were to reduce operating costs, reduce driver demand, and increase fare revenue.

With the implemented service changes, actual vehicle revenue miles, revenue hours, and total annual trips declined by 5% compared to the previous fiscal year as planned. Unitrans operated approximately 799,000 revenue miles, 75,600 revenue hours, and almost 121,000 total trips for the year.

Total annual ridership fell 7% from over four million passengers in FY2017-18 to 3.74 million in FY2018-19. Ridership fell in 11 of the 12 months for the fiscal year. While we expected a decline in ridership with the service changes, the changes and other factors led to a greater than 5% decline in ridership. In November 2018, the Camp Fire in Paradise, California, closed UC Davis campus for seven business/academic days. With campus closed, Unitrans continued to operate on a reduced schedule however, ridership declined more than 90% compared to regular academic weekdays. Ridership declined an estimated 140,000 boardings during the closure or about 3.4% of annual ridership. The remaining ridership loss is likely due to lower service levels on the D, G, J, W, and V lines as well as the discontinuation of fare free service on the V line and fare increases. Ridership declined significantly on the V & W lines, which were down 16% each year-over-year. The G/J lines were down 14% and the D line was down 9%. All these lines saw a service reduction.

Other factors impacting ridership may include new transportation competition. Ride hailing services such as Uber and Lyft are popular and inexpensive in Davis. Anecdotally, many UC Davis undergraduates take advantage of these new on-demand services to commute to and from campus. Jump Bike also started in Davis last year and offers low priced, on-demand, electric assisted bicycle transportation around Davis and campus.

Chart 1: 10 Year Annual Ridership Trend



Daily Average Ridership

FY2019 annual ridership corresponds to roughly 21,000 average daily boardings during the academic year, a 6.5% decline from FY2018 and the lowest since 2012. Average Friday ridership was down about 7.5% compared to the previous year.

Average weekend boardings declined nearly 20% from almost 2,000 boardings in FY2018 to 1,630 boardings per weekend day on average in FY2019. This is the lowest level since 2014. While the weekend P, Q, and O lines saw increased ridership on the weekends, the weekend G, K, M, and V lines experienced declines.

Table 1: Average Daily Ridership by Service Type

	FY2019	FY2018	FY2017	FY2016	FY2015	FY2014
Regular Service Mon-Thur	21,006	22,490	22,137	22,448	22,077	22,239
Regular Service Friday	17,052	18,356	17,974	18,375	17,828	17,895
Summer/Break Mon-Thur	6,586	6,758	7,010	7,516	7,189	7,044
Weekend (academic year)	1,630	1,989	1,886	2,078	1,832	1,521

Ridership by Line

All lines operated above the 15 passenger per hour minimum threshold standard in FY2019 except for the pilot S line. Carrying fewer than 15 passengers per hour is one criteria Unitrans uses to determine if a route should be considered for elimination or other service interventions. The pilot S line only carried an average of two passengers per hour, far below the 15 passenger per hour threshold and below the systemwide average of 50 passengers per hour.

While systemwide ridership was down, the news was not all negative. Seven of 20 bus lines experienced increased ridership. The K and O lines experienced a 7% increase in ridership, the P and Q lines experienced a combined 5% increase in ridership, the L line saw a 3% increase, and the A line saw a 2% increase compared to the previous year. The X line, a short weekend only line serving the Tercero Dorms, saw ridership almost double last year however the route was discontinued in August 2019 to allow the companion O line to operate more reliably. The O line carries seven times more passengers per weekend day than the X line.

As discussed earlier, lines that saw a service level reduction also saw a ridership decline. The largest declines were on the V and W lines, both down about 16% each and the C, G, and J lines, each down approximately 14% each. C line ridership may have been impacted by the demolition of Webster Hall and may be impacted more in the coming year with the closure and demolition of Emerson Hall.

Table 2: Ridership by Line

Line	FY19	FY18	% Change	Pass/Hr
A	231,493	227,306	1.8%	41.1
B	130,488	134,367	-2.9%	57.3

Line	FY19	FY18	% Change	Pass/Hr
C	112,676	131,215	-14.1%	49.9
D	264,810	290,931	-9.0%	64.2
E	137,205	146,172	-6.1%	44.3
F	106,616	111,809	-4.6%	42.2
G	379,237	444,114	-14.6%	70.8
J	425,769	494,413	-13.9%	73.5
K	182,132	169,457	7.5%	53.2
L	161,976	157,259	3.0%	29.6
M	153,022	154,809	-1.2%	45.4
P	252,649	238,595	5.9%	30.9
Q	259,039	250,806	3.3%	32.6
S (pilot)	504			2.0
T	8,323	9,151	-9.0%	25.5
V	370,314	438,519	-15.6%	85.8
W	385,426	457,783	-15.8%	65.7
Z	105,990	106,077	-0.1%	26.2
O (Weekend)	30,541	28,574	6.9%	37.8
X (Weekend)	7,078	3,716	90.5%	18.9

The S Line pilot was unsuccessful based on ridership and community interest and as a result, was discontinued at the end of the 2018-19 school year. Typical ridership was two passengers per hour.

Crowding

Unitrans high ridership and productivity also translate to high levels of crowding at peak times, which typically correspond to class start and end times at UC Davis. In FY2019, the percentage of bus trips with over 60 passengers on board (or doubledecker buses with over 100 passengers on board) was 3.5%, less than FY2018 when 4% of trips were overcrowded and the same as FY2017 performance. Looking at time of day, over 20% of our most crowded trips occur during the 8:00am hour and another 14% in the 9:00am hour. The most crowded single trip time is 6:10pm where 9.5% of trips were overcrowded. In response to this, Unitrans is adding a 6:10pm departure on the Z line to help alleviate crowding on the A line and added additional trips on the D, G, J, V, and W lines to help reduce crowding. The A, G, and W lines had the highest percentage of overcrowded trips with 7-8% of trips overcrowded for the year. These three lines have assigned capacity buses (known as trippers) to help alleviate crowding but even with capacity buses added, these lines are still crowded.

Crowding is something that has been a part of Unitrans for decades. However, it degrades the customer experience when a very large number of bus trips are at crush load, and that, in turn, discourages some people from riding the bus at all. Adding capacity services during the most crowded times is costly and requires more drivers and buses.

Safety & Security

Unitrans had three major collisions for the year, all non-preventable based on driver

behavior. Compared to the previous four years, performance was slightly higher than three of four years but significantly lower than two years ago when we had nine major collisions.

In winter 2019, we had our first major collision for the fiscal year. On February 15, 2019 on Hutchison Drive at Dairy Road, a motorist ran a red light and collided with a Unitrans bus. There were no injuries and minor damage to the Unitrans vehicle however the incident vehicle incurred major damage. The collision was non-preventable based on the Unitrans driver’s actions.

Unitrans was involved in a major collision on April 1, 2019. A van fleeing police rear-ended an L line bus on Monarch Lane at Temple Drive in East Davis. The bus had seven customers on board and the driver. There were no reported customer injuries however the driver was injured and the bus had major damage. The collision was non-preventable based on the driver’s actions and our driver acted heroically by ensuring his customers’ safety following the collision.

On May 9, 2019, a Q line bus collided with a motorist making an illegal left hand turn in front of the bus traveling northbound on Arlington at Calaveras. The bus had approximately 55-60 people on board and approximately 10 fell. No injuries were initially reported however claims may be filed.

Table 3: Summary of Major Collisions/Incidents

	Annual Total				
	FY18-19	FY17-18	FY16-17	FY15-16	FY14-15
Total	3	2	9	1	2

In support of reducing collisions at high collision locations, Unitrans staff is working with City staff on capital improvements to the H Street and Third Street intersection. Our largest number of annual collisions occur at this location. We hope to have improvements to the intersection in place by the end of FY2019-20. Staff is also reviewing driver behavior monitoring equipment for buses to better identify risky or problematic driving behaviors. Ideally, we would procure this technology in FY2020-21.

Safety and incident reports are reviewed daily for trends and commonalities. All incidents are followed up with our Safety Manager or an Operations staff person.

On-Time Performance

Overall on-time performance (OTP) continues a steady year-to-year decline. Systemwide on-time performance for FY2018-19 declined from 89% to 88%. Four years ago, systemwide on-time performance was 93%. OTP is defined as a bus arriving at the terminal before the scheduled time or within five minutes of the scheduled time. Arriving more than five minutes late is defined as “late”. OTP declines were driven primarily by fall and winter challenges with increasing traffic and construction on Covell and Cowell Boulevards, on Third Street, and Fifth Street.

Ten lines declined compared to last year, three improved, and three had flat performance. For the improved routes, the C line improved which may be due to lower ridership, the V line improved due to a long term construction reroute which shortened the route in West Village, and the W line improved compared to the previous year due to the previous year having severe reliability impacts due to the construction of the Cowell/Drummond traffic circle. The largest year over year decline occurred on the Q line which declined from 81% on time to only 68% on time. Increasing congestion, namely around Mace Boulevard in the afternoons has taken a toll on the Q line.

In FY2020, Unitrans may consider significant route changes on the A, P, Q, and Z lines to help reduce travel times and improve performance in East Davis.

Table 4: FY2019 On-Time Performance by Line

Line	FY	FY	FY	FY
	2019	2018	2017	2016
A	85%	91%	90%	92%
B	92%	95%	97%	98%
C	96%	94%	97%	98%
D	92%	93%	96%	98%
E	70%	82%	87%	88%
F	87%	91%	96%	97%
G	96%	98%	96%	97%
J	89%	89%	89%	91%
K	88%	94%	94%	95%
L	97%	99%	99%	99%
M	83%	90%	88%	83%
P	80%	87%	87%	91%
Q	68%	81%	80%	81%
V	96%	93%	97%	98%
W	90%	83%	89%	86%
Z	90%	91%	97%	98%
All Lines	88%	89%	92%	93%

Customer Service

Overall customer complaints declined 9% in FY2019 compared to FY2018 and have declined for four years in a row. Performance improved in all customer complaint categories except for “Late” arrivals and “Pass Ups”. Late complaints were up 36% compared to last year from 14 complaints to 19 complaints and pass up complaints were up 42% from 31 to 44 complaints. With on-time performance declining, an increase in late is expected and pass up complaints were concentrated on lines with service reductions.

Complaints regarding unsafe driving declined 12% from 73 to 64 complaints however

this category still makes up the largest portion of all complaints.

For FY2020, Unitrans added a validity status to determine which complaints are valid or invalid. For this report and previous performance, we do not have the ability to track valid versus invalid complaints as determined by staff.

Table 5: Summary of Customer Service Forms FY2019

	FY2019	FY2018	FY2017	FY2016
ADA	0	6	5	3
Driving	64	73	83	60
Early	5	8	8	6
Late	19	14	29	34
No Show	7	11	10	8
Pass Up	44	31	45	46
Other	23	28	23	37
Route Suggestion	0	3	4	1
Schedule Suggestion	1	5	5	1
Stop Suggestion	2	2	1	0
Other Suggestion	4	4	6	7
Total by type	169	185	219	203
Commendations	4	10	7	4
Total complaints/suggestion forms	173	195	226	207

Maintenance

Unitrans has a fleet of 48 active buses including three vintage London double decker buses, four modern double decker buses, and 40 single deck buses. Most of the Unitrans bus fleet is over 10 years old and is either past its retirement age or approaching its retirement age. The average age of the fleet (less the vintage buses) is over nine years old. The Federal Transit Administration defines the useful life of a bus as 12 years.

With an aging fleet comes increased maintenance and roadcalls (also known as loss of service breakdowns). In FY2019, Unitrans experienced 102 roadcalls, a 20% increase compared to the previous year. Buses that are 10 years or older accounted for 75% of the total loss of service road calls. To improve fleet performance, maintenance personnel are focusing in on component failures to identify trends and replace parts fleetwide before they fail on multiple vehicles. In addition, Unitrans secured funding to perform engine replacement on 13 buses. The project is expected to kick off in FY2020 and should greatly improve performance on the rehabilitated vehicles.

Unitrans performs safety and performance preventative maintenance checks every 3,000 miles per vehicle and Unitrans exceeds its performance standard that 95% of all PMs occur within 10% of the 3,000 mile window. Of the 364 preventative maintenance checks required in FY2019, 362 or 99.4% occurred inside of Unitrans' maintenance standard.

Financial Results

Unitrans' fiscal performance in FY2019 was better than originally projected. The budgeted deficit for the year was approximately \$478,000 and the final year-end deficit was \$127,000. The lower than expected deficit was due to two primary reasons:

1. Unitrans budgeted for more service hours than were delivered. The FY2018-19 budget included midday 15 minute service on the D, G, J, W, and V lines however Unitrans eliminated that service due to financial uncertainty entering the 2018-19 academic year. As a result of the service cut, expenses came in lower.
2. Career staff salary and benefits expenses were lower than expected. Unitrans had longer than expected vacancies for administrative assistant and IT manager positions, had an unexpected retirement in maintenance, and was not able to fill one budgeted trainer position due to financial uncertainty. These led to lower salary expenses than budgeted.

Unitrans budgeted \$5.57 million in revenues, \$6.05 million in expenditures, and a deficit of approximately \$478,000 to be taken from the operating reserves. The reserve had a balance of \$1.9 million at the beginning of FY2018.

Fiscal Year 2019 ended with a \$127,000 budget deficit. Revenues came in approximately at budget or \$5.58 million. By revenue category, cash and pass sales were 18% lower than expected. In FY 2018-19, we implemented a 20% increase in pass prices and a 25% increase in the cash fare. We also had a record 30+ days of Spare the Air free fare days and a seven-day campus closure. These factors affected this line item. On the upside, student fee revenue and TDA revenue came in approximately 3% higher than expected each. To mitigate fare-free days, Unitrans

changed its fare-free policy to only offer fare-free service on the first 15 Spare the Air days of the year.

Expenditures were approximately \$5.71 million, lower than the \$6.05 million budget. The primary factor affecting budgeted expenses is salary and benefit savings. This year we had unexpected 4-5 month vacancies for a mechanic and an administrative assistant, a longer than expected vacancy in IT, a budgeted trainer was not permitted to be filled until the end of the fiscal year, and we operated 5% fewer annual driver hours. Maintenance expenses were approximately 10% lower than budgeted due to fuel expenses coming in lower than expected with our new fuel contract and carbon offset credits.

Unitrans' operating reserve is approximately \$1.8 million as of June 30, 2019 or about three months of expenses in reserves. This is our target and is an industry standard for small transit operations.

Table 6: FY2019 Financial Summary

	Budget	Actual	% Difference
UCD Undergraduate Fee	\$2,720,000	\$2,800,000	3%
Cash Fares and Pass Sales	\$280,000	\$230,000	-18%
Advertising Revenue	\$36,000	\$31,000	14%
Miscellaneous Revenue	\$80,000	\$44,000	-45%
City of Davis TDA	\$760,000	\$780,000	3%
FTA Operating Assistance	\$1,700,000	\$1,700,000	0%
Total Revenues	\$5,576,000	\$5,585,000	0.2%
Operations Labor	\$2,740,000	\$2,664,000	-3%
Operations Expenses	\$207,000	\$172,000	-17%
Maintenance Labor	\$1,271,000	\$1,224,000	-4%
Maintenance Expenses	\$852,000	\$758,000	-11%
Administration Labor	\$602,000	\$544,000	10%
Administration Expenses	\$207,000	\$175,000	-15%
Yolobus Access	\$175,000	\$175,000	0%
Total Expenditures	\$6,054,000	\$5,683,000	-6%
Net Revenues - From Reserves	-\$478,000	-\$127,000	-73%

University Sponsored Review and Joint City/University Financial Task Force

In October 2018, the University led task force to review Unitrans' finances and provide recommendations on a path forward to resolve the deficit convened and held four meetings between October 2018 and February 2019. The task force was comprised of University, ASUCD, and City staff. At the final meeting in February, the task force reviewed draft recommendations and set a 30-day review period to finalize the recommendations. The review period concluded on March 28, 2019 and the recommendations were sent to Associate Vice Chancellors in Student Affairs for final review and transmittal to the Vice Chancellor of Student Affairs and Vice Chancellor of

Finance, Operations and Administration. Recommendations are attached to this document for your information.

Fiscal Year 2020 Outlook

On February 22, 2019, the Unitrans Winter 2019 Fee Referendum passed with over 36% of undergraduates participating in the election and a 92% yes vote. Starting in fall 2019, Unitrans operations financial support will increase by \$10 per undergraduate per quarter for academic year 2019-2020 and by an additional \$6 per quarter each academic year until academic year 2023-2024 when the fee indexes to inflation.

Table 7: Quarterly Student Fee

Category	2008- Today	2020	2021	2022	2023	2024+
Operations	\$29.00	\$39.00	\$45.00	\$51.00	\$57.00	+CPI
Capital	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	+CPI
Return to Student Aid	\$1.50	\$4.83	\$6.83	\$8.83	\$10.83	+CPI
Total Quarterly Fee	\$34.50	\$47.83	\$55.83	\$63.83	\$71.83	+CPI

The fee was established at a lower level than needed to make Unitrans budget neutral for 2019-20. Unitrans is projecting \$6.43 million in revenues for next fiscal year and \$6.68 million in expenditures. The fee referendum is expected to generate an additional \$850,000 in revenue in FY2020. Expenditures will increase approximately \$600,000 due to the addition of full-time trainers, an additional mechanic supervisor, and the minimum wage increase. As a result, Unitrans is expecting a projected \$250,000 deficit next fiscal year, which the operating reserve can absorb. In 2020-21, Unitrans expects to operate in the black for the first time in three years.

Capital Funding Outlook

Capital reserve funds remain adequate for approximately two years, but securing adequate funds for fleet replacement needs will be an ongoing challenge, especially in FY2022 when 14 buses are beyond their retirement age. Unitrans has secured almost \$4 million to install electric charging infrastructure to transition the fleet from fossil fuel based vehicles to battery electric vehicles for these 14 buses but has not secured any of the estimated \$10 million for the battery electric buses themselves. Unitrans will need significant capital funding for fleet replacement and electric infrastructure in the coming years. The full capital plan is laid out in the financial chapter of the City of Davis Short Range Transit Plan (SRTP), which was adopted by the City Council in September 2014.

See <http://unitrans.ucdavis.edu/wp-content/uploads/2014/09/City-of-Davis-Final-Draft-SRTP.pdf>.

Capital Programs

Bus Replacement Program

On April 1, 2019 two new double decker buses entered revenue service. The buses are used to increase high capacity bus service on the B and G lines and to more reliably provide double decker service on the J and V lines. The project cost was approximately \$2 million and was funded through a combination of Congestion Mitigation Air Quality (CMAQ) and Public Transportation Modernization, Improvement, and Service Enhancement Account Program (PTMISEA) funds made available through the City. No student fees were used for these buses.

New Cutaways/Mini-Buses: In April 2018, we started the process to purchase two new low-floor cutaways to replace our two 2003 cutaways. These vehicles were purchased using a contract with the California Transit Association, the same contract that the City of Davis uses for Davis Community Transit vehicles. The vehicles arrived on April 17, 2019. The project cost is approximately \$340,000.

New Single Deck Buses: Using a joint procurement with Omnitrans in San Bernardino, California, Unitrans is replacing five compressed natural gas (CNG) buses that are beyond their useful life with five new New Flyer 40' CNG buses. New Flyer received the purchase order in June 2019 and we expect the buses to arrive winter 2020. The total cost estimate is \$3.3 million.



Bus Rehabilitation

Unitrans was awarded \$1.2 million in Federal State of Good Repair funding to rehabilitate our aging 2009 New Flyer single deck bus fleet. This funding will be used to rehabilitate up to 13 buses and help extend the useful life of these vehicles as well as increase passenger capacity through seating improvements inside the buses. A request of proposals will be released at the end of the 2019 calendar year to contract with a business to perform this important work.

Electric Bus Program & Other Facility Improvements

In support of University, City, and State goals to reduce our carbon footprint, Unitrans staff started working with the University's Design Construction Management (DCM) department to engineer electric charging infrastructure with the goal of electrifying 14 buses by FY2022-23. In addition to electric charging infrastructure, Unitrans' Operations and Maintenance Facility is in need of rehabilitation including replacing 15-year-old pavement that is severely degraded, implement stormwater run-off contamination mitigation measures, and possibly removing and replacing an underground diesel storage tank. The full electric infrastructure and facility rehabilitation project is expected to cost \$5-\$6 million.

Conceptual engineering was completed in FY2019 and engineering work began in early FY2020 with the goal of being shovel ready by early FY2021.

Unitrans was awarded \$3.9 million in funding for the electric infrastructure and charging stations and is aggressively pursuing funding for the battery electric buses. Staff will continue to prioritize funding this project.

Compressed Natural Gas Facility

The compressor replacement project started on July 16, 2018 and was substantially completed in March 2019. The project replaces two 1995 natural gas compressors which are beyond their useful life and suffering from reliability issues with new compressors. We are currently working through issues with the new compressors. Some shake out testing and issues were expected and we are working with the contractor and DCM to resolve these issues prior to providing final payment. The total project cost was \$1.2 million.

Bus Stop Rehabilitation

In FY2018, Unitrans cataloged and prioritized replacing aging plexiglass paneled shelters through the city. In FY2019, Unitrans staff worked with the City to secure the encroachment permit to replace shelters at 20 locations across the city and procured the replacement shelters. The project is projected to cost \$138,000 in parts and materials and \$50,000-\$75,000 in installation costs.

Construction is expected to take approximately two months and will start in fall 2019. Replacement of another 20 shelters is prioritized for early FY2021.

2018-19 Highlights and Accomplishments

Financial Stability: On February 22, 2019, the Unitrans Winter 2019 Fee Referendum passed with over 36% of undergraduates participating in the election and a 92% yes vote. The measure is expected to bring in an additional \$850,000 in funding in FY2020 and provide a stable financial footing for Unitrans' future. The University and City also entered into a new State funding agreement which will increase State funding through the City by \$25,000 per year during economic expansion years.

FY2019 Budget Deficit Lower than Expected: The FY2019 year-end budget deficit was projected to be approximately \$478,000 but came in at approximately \$127,000 due to lower expenditures related to lower salary expenses and fuel costs.

Fleet Replacement: Unitrans received two new modern double decker buses, increasing the number of modern double decker buses from two to four buses. Unitrans also replaced two early 2000s cutaway buses with two new low floor cutaways. Five new compressed natural gas buses are expected to arrive in winter 2020 to improve Unitrans service.

Electric Buses: With support from the City and University, Unitrans secured \$3.9 million in funding for electric bus charging infrastructure. Conceptual engineering was

completed in FY2019 and Unitrans is working on final engineering with the goal of being shovel ready to construct 14 electric charging stations in FY2021.

Safety: Major safety incidents were on par with performance last fiscal year and were much lower than FY2017. Unitrans staff worked with campus partners to provide clearer pavement markings on Hutchison Drive and Howard Way to provide clearer lane positioning guidance to avoid tree/bus conflicts, installed improved lighting at our facility to improve safety and security, and is working with the City of Davis to reduce collisions at H Street and Third Street, our #1 collision location.

Regulatory Successes: Unitrans had its triennial Transportation Development Act (TDA) State Funding audit. The audit had no findings. Unitrans also completed another flawless California Highway Patrol compliance audit.

Staffing Improvements: In FY2019, Unitrans hired three new career trainers to prepare us for changes in federal regulations regarding driver training. Unitrans now has four full time career trainers supported by 15 student driver trainers. Together, we are ready to meet 2020 federal regulation changes and establish a stable driver-training pipeline moving forward.

Objectives for FY2020 and Beyond

- **Hiring Strategy**: Continue to implement strategies to hire freshmen and sophomore driver candidates in order to reduce annual turnover, reduce uncovered shifts, and implement additional winter capacity services.
- **Electric Bus Program**: Complete engineering for 14 electric charging stations, stormwater mitigation, and paving rehabilitation and prepare to advertise the work. Aggressively pursue funding for up to 14 battery electric buses and facility rehabilitation.
- **Student Staff Engagement**: Provide leadership learning opportunities for interested Unitrans student employees including leadership retreat, small working groups to solve issues, and field trips to transit related businesses that employ UC Davis and Unitrans alumni.
- **Amtrak Access Support**: Support and learn from the City's Civic Lab project to provide subsidized rideshare service options to access the Davis Amtrak Station. Support City efforts to address perceived demand for transit service to the Amtrak Station and Downtown Davis in a budget neutral manner.
- **Career Vacancies**: Hire a new maintenance supervisor and assess the need for a new dedicated career position to support hiring, payroll, and human resources.
- **Service and Schedule Changes**: Review passenger loads, on-time performance, budget, and workforce projections to provide a stable, efficient, and effective

service plan for FY2020-21. This will include reviewing and addressing P and Q line performance issues and preparing for increased residential density in West Village and on Fifth Street near the Post Office.

Appendix A: Unitrans Operating Characteristics FY2019

Line/Description	Annual One-Way Passenger Trips	Annual Operating Cost (Note 1)	Annual Ridership Revenue (Note 2)	Revenue Vehicle Hours	Revenue Vehicle Miles
A-Line: Downtown / Fifth St. / Alhambra (Silo Terminal)	231,493	\$422,777	\$187,409	5,593	55,417
B-Line: Sycamore/ Drake (MU Terminal)	130,488	\$170,840	\$105,639	2,260	21,769
C-Line: Sycamore / Wake Forest (Silo Terminal)	112,676	\$169,477	\$91,219	2,242	16,913
D-Line: Lake Blvd. / Arlington (Silo Terminal)	264,810	\$309,419	\$214,382	4,094	52,821
E-Line: Downtown / F Street / J Street (MU Terminal)	137,205	\$232,192	\$111,077	3,072	25,489
F-Line: Oak / E. Alvarado / Anderson (MU Terminal)	106,616	\$189,633	\$86,313	2,509	31,329
G-Line: Anderson / Alvarado / N. Sycamore (MU Terminal)	379,237	\$401,940	\$307,018	5,318	51,907
J-Line: Anderson / Alvarado / N. Sycamore (Silo Terminal)	425,769	\$434,607	\$344,689	5,750	57,196
K-Line: Lake Blvd. / Arlington (MU Terminal)	182,132	\$256,806	\$147,448	3,398	35,856
L-Line: E. 8th St. / Pole Line / Moore / Loyola (Silo Terminal)	161,976	\$410,688	\$131,131	5,433	47,009
M-Line: B St / Cowell / Drew (MU Terminal)	153,022	\$252,648	\$123,882	3,343	31,805
P-Line: Davis Perimeter Via South Davis (MU Terminal)	252,649	\$612,774	\$204,536	8,107	110,085
Q-Line: Davis Perimeter Via West Davis (MU Terminal)	259,039	\$596,512	\$209,710	7,892	108,284
S-Line: Davis High via North & West Davis	504	\$18,851	\$408	249	3,117
T-Line: Davis High via South & East Davis	8,323	\$24,450	\$6,738	323	3,982
V-Line: West Village (Silo Terminal)	370,314	\$323,609	\$299,794	4,281	36,929
W-Line: Cowell/Lillard/Drummond (Silo Terminal)	385,426	\$439,959	\$312,028	5,821	51,975
Z-Line: 5th St. / Amtrak / (Memorial Union)	105,990	\$303,090	\$85,806	4,010	36,142
Weekend O-Line: Downtown / 2nd / 5th / Target	30,541	\$60,581	\$24,725	801	10,291
Weekend X-Line: La Rue / Tercero / MU Terminal	7,078	\$28,114	\$5,730	372	3,728
Amtrak Shuttle and Undesignated Trippers	36,494	\$53,676	\$29,544	710	6,964
Overall Total	3,741,782	\$5,712,643	\$3,029,226	75,578	799,008

Note 1: Operating costs allocated by each route's proportion of annual vehicle service hours (total excludes pass through funds to YCTD).

Note 2: Ridership revenue includes fares plus ASUCD fee allocated by each route's proportion of total ridership.

Appendix B: Unitrans Performance Indicators, FY2018

Line/Description	Subsidy Per One-Way Passenger-Trip	Ridership Recovery Ratio	Passenger Trips Per Revenue Vehicle Hour	Passenger Trips Per Revenue Vehicle Mile
A-Line: Downtown / Fifth St. / Alhambra (Silo Terminal)	\$1.02	44%	41	4.2
B-Line: Sycamore/ Drake (MU Terminal)	\$0.50	62%	58	6.0
C-Line: Sycamore / Wake Forest (Silo Terminal)	\$0.69	54%	50	6.7
D-Line: Lake Blvd. / Arlington (Silo Terminal)	\$0.36	69%	65	5.0
E-Line: Downtown / F Street / J Street (MU Terminal)	\$0.88	48%	45	5.4
F-Line: Oak / E. Alvarado / Anderson (MU Terminal)	\$0.97	46%	42	3.4
G-Line: Anderson / Alvarado / N. Sycamore (MU Terminal)	\$0.25	76%	71	7.3
J-Line: Anderson / Alvarado / N. Sycamore (Silo Terminal)	\$0.21	79%	74	7.4
K-Line: Lake Blvd. / Arlington (MU Terminal)	\$0.60	57%	54	5.1
L-Line: E. 8th St. / Pole Line / Moore / Loyola (Silo Terminal)	\$1.73	32%	30	3.4
M-Line: B St / Cowell / Drew (MU Terminal)	\$0.84	49%	46	4.8
P-Line: Davis Perimeter Via South Davis (MU Terminal)	\$1.62	33%	31	2.3
Q-Line: Davis Perimeter Via West Davis (MU Terminal)	\$1.49	35%	33	2.4
S-Line: Davis High via North & West Davis	\$36.59	2%	2	0.2
T-Line: Davis High	\$2.13	28%	26	2.1
V-Line: West Village (Silo Terminal)	\$0.06	93%	86	10.0
W-Line: Cowell/Lillard/Drummond (Silo Terminal)	\$0.33	71%	66	7.4
Z-Line: 5th St. / Amtrak / (Memorial Union)	\$2.05	28%	26	2.9
Weekend O-Line: Downtown / 2nd / 5th / Target	\$1.17	41%	38	3.0
Weekend X-Line: La Rue / Tercero / MU Term.	\$3.16	20%	19	1.9
Overall Total	\$0.72	53%	50	4.7
<i>Standard from City of Davis Short Range Transit Plan</i>	<i>N/A</i>	<i>53% systemwide; consider changes if <20%</i>	<i>50 systemwide; consider changes if <20</i>	<i>N/A</i>

Appendix C: Unitrans Goals, Objectives, Performance Measures, and Standards Based on the City of Davis Short-Range Transit Plan

Goal	Objective	Performance Measure	Standard	FY2018-19 Performance	Met?
Effectiveness	Convenience	% of student dwelling units within 1/4 mile of transit stop	90%	Over 95% of all Davis residents are within 1/4 mile	Yes
		% of major activity centers within 1/8 of transit stop	90%	94%	Yes
		Peak-hour service frequencies for routes >=60 pass/hour	15-minute service	D, J, V, W are >60; all have 15" frequency	Yes
	Reliability	% within 5" of scheduled time	90%	88%	No
		Number of missed trips	<1/day	N/A	N/A
		Vehicle miles between road calls	20,000	FY18: 9,949 FY19: 7,833	No
	Safety	Miles between preventable major accidents	100,000	266,336	Yes
		Injuries per 100,000 boardings	<=1	< 1	Yes
		Safety meetings	Quarterly	Yes, quarterly meetings	Yes
	Attractiveness	Annual ridership growth	>= population growth	FY19: Ridership -7.0% Student population +2.3% City of Davis population <1%	No
		Provide accurate and timely information	Schedules stocked on vehicles and thru community	Yes	Yes
Efficiency	Cost Efficiency	Change in Op cost / rev hour	<= CPI	FY 17-FY18: \$72.83 to \$75.59 = +3.8% CPI +3.7% (most recent from Dept of Ind Relations)	Approximately Equal
	Productivity	Passengers per rev veh hr	40	50	Yes
		Individual route productivity	Consider changes if less than 15	S line eliminated due to low ridership. Only 2/hour	Yes
	Maintenance	% of PMs completed w/in 300 miles of scheduled	95%	99.4%	Yes
		Wash exterior and sweep interior	Ext. wash 2/week Interior: Daily	Yes, Exterior – 1/week; Interiors - Daily	Yes
		Cost Recovery	% of annual cost from fares	60%	53%
Integration/ Coordination	Shared Facilities	Study feasibility of timed transfer terminal	Upgrade Silo and MU Terminals	Completed	Yes
	Coordinate service and fares	Waiting times between buses at transfer locations	Local <=10" Regional <= 20"	Yes. Waiting times within standard; fares fully integrated	Yes
	Paratransit coordination	Coordinate Unitrans service with ADA services	Ongoing coordination	Regular meetings with DCT and YCTD for coordination	Yes

Goal	Objective	Performance Measure	Standard	FY2018-19 Performance	Met?
	Inclusion of transit w/general plans	Transit service considered in plans and development review	Ongoing coordination	Close coordination with City of Davis, UCD ORMP, and SACOG	Yes
Accessibility	Wheelchair lifts	% vehicles with lifts or ramps	100% of single-deck buses	100% of single-deck buses; 97% of trips; 97% of miles	Yes
	Special needs	% known concentrations of senior and disabled residents with transit service	100%	Yes	Yes
	Capacity	Peak loading conditions not to exceed 150% of seats	95% of bus trips. 90% of bus riders on trips <60	96.5% of bus trips 91.5% of bus riders	Yes
	Identify gaps	Meet w/ interest groups and respond to comments	Respond to requests; resolve w/in 6 months	Yes, requests also gathered at Unitrans Adv Comm and Unmet needs hearings	Yes

APPENDIX D: Unitrans Workgroup Recommendations

Unitrans Workgroup Recommendations April 2019

In response to the Audit and Management Advisory Services (AMAS) May 2018 audit report observations, the Unitrans Workgroup recommends the following:

AMAS Report Observations:

- Review opportunities for additional sources of revenue and make a determination of how to acquire additional funds to support Unitrans operations.
- Submit a plan of action to campus senior leadership to remedy the ongoing operational deficit and reduction in reserves.

Unitrans Workgroup Recommendations:

1. **Pursue the Unitrans Winter 2019 Undergraduate Fee Referendum.** To allow Unitrans to compensate student employees in accordance to the State of California mandatory minimum wage increase law (Senate Bill 3; Leno, Chapter 4, Statutes of 2016) that took effect on January 1, 2017, effective fall 2019, request a \$13.33 increase to the undergraduate quarterly Unitrans Fee of \$6.00, followed by a \$24.00 increase to be implemented gradually over three years, followed by CPI adjustments thereafter. The fee increase will allow Unitrans to provide continued unlimited bus service and maintain current service levels. In addition, the fee increase also allow Unitrans to expand extra capacity bus service to improve access, upgrade maintenance practices to reduce breakdowns, and enhance staff training to comply with additional Federal requirements. The passage of this referendum requires voter turnout equal to at least twenty percent (20%) of the undergraduate student population and at least a sixty percent (60%) affirmative vote for approval.

Unitrans Winter 2019 Undergraduate Fee Referendum Approved: 10,465 voters participated in the election, which is equivalent to 36.9% of registered UC Davis undergraduates eligible to vote in the election. This number exceeds the 20% minimum threshold requirement outlined in Policies Applying to Campus Activities, Organizations and Students (PACAOS) 80.00. Of the 10,465 students who participated in the election, 10,215 cast a vote on the Unitrans Fee referendum. Of those who voted on the referendum, 9,589 (93.9%) voted in favor, exceeding the 60% requirement.

2. **Pursue a future Unitrans Graduate Student Association (GSA) Fee Referendum** to provide unlimited access to Unitrans bus service for GSA students and to reduce the overall Unitrans fee for all UC Davis registered undergraduate and GSA students. If supported by GSA, implement an alternative fee structure plan for undergraduate students that reduces their quarterly Unitrans fee.
3. **Pursue increased advertising, sponsorship, and gift revenue.**

Currently, Unitrans' student-led interior and exterior advertising sales program contribute approximately \$40,000 in revenues for Fiscal Year (FY) 2019. In order to maximize advertising, sponsorship, and gift revenue potential, the Workgroup recommends exploring an expanded advertising and sponsorship program including large exterior ads and wraps on the buses and installation of electric screens at terminals supported by staff/student resources or an outside vendor as well as explore maximizing gift revenue through alumni.

4. **Evaluate transportation funding models used at UC Los Angeles and UC Irvine for campus shuttle services** to determine if UC Davis should pursue similar funding relationships with private/public partnerships such as Greystar in West Village. At both UCLA and UCI, third party property managers provide direct funding for shuttle services that directly serve their residents.
5. **Evaluate transportation funding opportunities with new and/or existing off-campus apartment housing for undergraduate and graduate students served directly by Unitrans to directly fund Unitrans service.** Models could include assessing larger transportation impact fees to fund public transit service or one-time capital purchases beyond simple measures such as installing a bus stop, on-going annual bus pass funding for residents similar to new low-income housing developments in Davis, etc.
6. **Support transportation demand management (TDM) planning efforts through UC Davis' Transportation Services department to:**
 - a. Review class and work schedules to reduce the impacts of peak transportation demands on Unitrans as well as the campus transportation network. Spreading peak transportation demand and peak traffic impacts could result in significant Unitrans operating budget savings.
 - b. Provide direct funding to expand Unitrans fare-free service to all UC Davis affiliates beyond undergraduates.
7. **Pursue planning efforts that maximize Unitrans routing efficiency, prioritize mass transit access, and reduce operating costs.** For example, because there is not a connection between West Village and West Davis neighborhoods via Russell Boulevard, Unitrans must operate two bus lines to serve both areas, doubling its operating costs. Connecting West Davis and West Village could allow efficient mass transit without a significant annual financial investment.
8. **Support campus and city projects that prioritize transit service such as improved traffic signal technology that prioritizes transit, boarding islands on major corridors, etc. and low cost technology to simplify fare collection.** Reducing bus stop dwell times and start to finish running times for Unitrans routes will result in shorter trip times and lower operating costs.

AMAS Report Observation:

- Submit a plan of action to campus senior leadership addressing the long-term capital needs of Unitrans.

Unitrans Workgroup Recommendations:

9. **Include Unitrans' 10-year capital program in the Division of Student Affairs capital planning and funding process.** Unitrans prepares and regularly updates a 10-year capital program and aggressively pursues local, regional, state, and federal funding to support the program.

AMAS Report Observation:

- Review and determine whether Unitrans' strategies adequately address the high attrition rate and impact of new rules for graduating students.

Unitrans Workgroup Recommendations:

10. Continue to implement human resources and training strategies to address high attrition rate including focusing hiring on freshmen and sophomores, tracking student employee graduation dates quarterly to inform the hiring and training plan, and implementing stricter weekly minimum work hour requirements for driver trainees. Unitrans has implemented a number of measures to reduce attrition in Academic Year 2018-19.

AMAS Report Observation:

- Review and determine whether Unitrans' collision mitigation measures and strategies adequately address the rate of collisions.

Unitrans Workgroup Recommendations:

11. Continue to implement the following collision reduction strategies:

- a. Review collision trends and high-collision locations quarterly implementing strategies to reduce collisions like lane reconfigurations, driver-training improvements, re-routing buses, etc.
- b. Review and evaluate driver behavior after all collisions. Implement driver retraining or discipline as needed.
- c. Work collaboratively with campus Risk Management to review claims and to identify potential areas of improvements to reduce risk.

AMAS Report Observation:

- Provide evidence that relevant Long Range Development Plan (LRDP) documents and reports have been incorporated into the scope of the Unitrans Workgroup.

Recommendation:

12. Completed. The Unitrans Workgroup have incorporated the LRDP into its meeting agendas and recommendations relating to transportation demand management relevant to the LRDP. Matt Dulcich, Director of Environmental Planning, who oversees the campus' LRDP, was a contributing member of the Unitrans Workgroup.