

# Visalia Transit

## Zero-Emission Bus Rollout Plan



### SECTION A: Transit Agency Information

1. Transit Agency's Name	City of Visalia - Transit (Visalia Transit)
2. Mailing Address	425 E. Oak Ave., Ste. 301 Visalia, CA 93291
3. Name of Transit Agency's Air District	San Joaquin Valley Air Pollution Control District
4. Name of Transit Agency's Air Basin	San Joaquin Valley Air Basin
5. Total Number of Buses in Annual Maximum Service	36 Total (29 Fixed Route; 7 Demand Response)
6. Population of Urbanized Area Transit Agency Services	N/A
7. Contact Information	Angelina DeRossett Transit Manager 425 E. Oak Ave., Ste. 301 Visalia, CA 93291 (559)713-4591 Angelina.DeRossett@visalia.city
8. Is agency part of a Joint Group (13 CCR§2023.1 (d) (3))?	No, Visalia Transit is not part of a joint zero-emission group.

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### SECTION B: Rollout Plan General Information

- 1. Does your transit agency's Rollout Plan have a goal of full transition to zero-emission technologies by 2040 that avoids early retirement of conventional transit buses (13 CCR § 2023.1(d)(1)(A))?**

Yes, Visalia Transit's plan will be 100% ZEB by 2040 without requiring early retirement of conventional transit buses.

- 2. The ICT regulation requires 100% ZEB purchase in 2029. Conventional transit buses that are purchased in 2028 could be delivered in or after 2029. Please explain how your transit agency plans to avoid potential early retirement of conventional buses in order to meet the 2040 goal.**

The City of Visalia and Visalia Transit have strong commitments to carbon neutrality. As the City's local public transit provider, Visalia Transit is committed to purchasing only zero-emission buses (ZEB) starting in 2018 for the local fixed route fleet and 2026 for our cutaway fleet. Visalia Transit plans on replacing each conventionally fueled bus with a ZEB at the end of their useful life. No early retirements are planned, and the entire fleet is scheduled to be zero-emission by 2033, except for the Sequoia Shuttle fleet that services inside the Sequoia National Park and 2 CNG trolley buses operated for special events, depending on funding availability and other challenges.

- 3. When did your transit agency's board or governing body approve the Rollout Plan?**
  - a. Rollout Plan's approval date:** June 19, 2023
  - b. Resolution number:** 2023-\_\_\_\_\_
  - c. Is a copy of the board approved resolution attached to the Rollout Plan submitted to CARB (13 CCR § 2023.1(d) (2))?** TBD

- 4. Please provide contact information for CARB to follow up on details of the Rollout Plan, if needed.**

- a. Contact Name:** Caleb Bowman
- b. Title:** Management Analyst
- c. Phone Number:** (559)713-4594
- d. Email:** [Caleb.Bowman@visalia.city](mailto:Caleb.Bowman@visalia.city)

- 5. Who has created the Rollout Plan? (My transit agency/A consultant)**

This ZEB Rollout Plan for Visalia Transit was created internally, not by a consultant.

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### SECTION C: Technology Portfolio

Visalia Transit intends to deploy Battery Electric Buses (BEBs) as our selected zero-emission bus technology as of FY2022-2023. The transition to a full battery electric bus fleet will be dependent on battery power storage improvements and possible space and power infrastructure constraints. Currently, BEBs have a supposed fully charged range of over 240 miles. However, real-life experience from data on the BEBs Visalia Transit has already placed into service get less than 150 miles between charges. Most daily Visalia Transit vehicle assignments operate for less than 250 miles per day. Visalia Transit’s maximum vehicles in fixed route service, including V-Line, is 29 buses with 83% of vehicles (24 of 29 vehicle assignments) operating between 150-250 miles per day. The average daily mileage was 237 miles. The maximum Visalia Transit FY2022-2023 daily bus mileage is 513 miles which is not within the supposed range the real-life experienced range. Visalia Transit has included additional vehicles in its replacement plan, but battery technology and real-life experienced mileage does not improve over time, fuel cell electric buses or an alternative future ZEB technology or a mixed ZEB technology fleet may need to be considered in the outer years of the fleet replacement plan to ensure a 100% ZEB fleet transition.

Table 1: Vehicle Mileage Information (FY2022-2023)

Weekday Maximum Buses in Service	29	
Average Milage per Vehicle Assignment	237	
Maximum Daily Milage	513	
# of Assignments 150 Miles or Less	4	14%
# of Assignments 175 Miles or Less	10	34%
# of Assignments 225 Miles or Less	18	62%
# of Assignments 250 Miles or Less	24	83%

This plan assumes that the battery technology will continue to evolve and improve over time and that future BEBs will be able to accommodate a real-life operating range of 200+ miles per charge. Visalia Transit does not plan on opportunity charging or on-route charging at this time.

In addition, the transition to 100% BEBs assumes that the Visalia Transit’s Operation and Maintenance facility power supply infrastructure will be upgraded over time to accommodate charging for the full Visalia Transit bus fleet and that Visalia Transit will be able to accommodate the charging infrastructure within the available facility footprint. Visalia Transit may be required to expand its current facility into the dirt lot owned by Visalia Transit but occupied by City of Visalia’s Solid Watsse department to the southwest corner of the facility to accommodate charging infrastructure. If the facility’s power supply cannot accommodate charging needs or the facility footprint cannot support the charging infrastructure, Visalia Transit may need to consider fuel cell electric buses or future alternative ZEB technology.

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### **SECTION D: Current Bus Fleet Composition and Future Bus Purchases**

Table 2 presents Visalia Transit’s fleet as of spring 2023. The Visalia Transit bus fleet includes two trollies used for special events throughout the year and service as the Jolly Trolley between Thanksgiving and New Year’s Day, which are not planned for replacement or retrofit with ZEB technology at this time.

Table 2: Individual Bus Information of Current Bus Fleet

Bus Model Year	Engine Model Year	Number of Buses	Fuel Type	Bus Type
2004	2004	3	Diesel	Standard
2007	2007	12	Gasoline	Cutaway
2008	2008	2	Gasoline	Cutaway
2008	2009	2	Gasoline	Cutaway
2008	2008	10	CNG	Cutaway
2009	2009	2	CNG	Standard
2010	2010	7	CNG	Standard
2011	2011	6	CNG	Cutaway
2012	2012	6	Diesel Hybrid	Standard
2013	2013	2	Gasoline	Cutaway
2013	2013	6	CNG	Standard
2015	2014	1	Gasoline	Cutaway
2016	2016	3	CNG	Cutaway
2016	2016	7	CNG	Standard
2018	2018	4	CNG	Cutaway
2018	N/A	3	BEB	Standard
2018	2018	2	Diesel Hybrid	Standard
2019	2019	2	CNG	Standard
2021	N/A	4	Electricity	Standard

As stated previously, Visalia Transit started purchasing only ZEB starting in 2018 for the local fixed route fleet and 2026 for our cutaway fleet with full fleet conversion to zero emission technology by 2038, except for the Sequoia Shuttle fleet that services inside the Sequoia National Park and 2 CNG trolley buses operated for special events, depending on funding availability and other challenges.

Table 3 presents the Visalia Transit expected future bus purchases, including the number of buses expected to be purchased by calendar year. The future bus purchase table assumes a 12-year useful life for standard 35’-40’ buses and a 7-year useful life for cutaway vehicles. Note that Table 3 does include fleet expansion to compensate for reduced reliability and range as seen with our already deployed BEBs. The planned replacement year may not exactly correspond to the useful life to spread fleet purchases over many years to create a stable average fleet age. The replacement schedule used to populate to information in Table 3 and Table 4 assumes Visalia Transit will replace buses with like size buses. Visalia Transit staff will

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evaluate vehicle type and size before each order. With micro-transit being an option in the future and the need to reimagine transit within Visalia, there may be a need for small vehicles such as sedans, passenger vans, cutaways, or reducing bus sizes from 35-foot to 30-feet. If the type and size of vehicle needs changes, the project cost will change and this plan will be updated at that time.

Table 3: Future Bus Purchases

Timeline (year)	Total No. Buses Purchase	ZEB Purchases				Conventional Bus Purchases			
		No.	% of ZEB	ZEB Bus Type(s)	ZEB Fuel Type(s)	No.	% Conv.	Type(s) of Conv. Buses	Fuel Type(s) of Conv. Buses
CY2023	4	4	100%	- 2 Standard - 2 Passenger Van	- 4 Electricity (Depot)	0	0%		
CY2024	15	2	13%	- 2 Standard	- 2 Electricity (Depot)	13	87%	- 3 Standard - 10 Cutaways	- 3 Deisel Hybrid - 5 CNG - 5 Unleaded
CY2025	19	10	53%	- 6 Standard - 4 Cutaways	- 10 Electricity (Depot)	9	47%	- 9 Cutaways	- 1 CNG - 8 Unleaded
CY2026	10	10	100%	- 6 Standard - 4 Cutaways	- 10 Battery Electric (Depot)	0	0%		
CY2027	9	9	100%	- 6 Standard - 3 Cutaways	- 9 Electricity (Depot)	0	0%		
CY2028	10	10	100%	- 6 Standard - 4 Cutaways	- 10 Electricity (Depot)	0	0%		
CY2029	9	9	100%	- 6 Standard - 2 Passenger Van - 1 Cutaway	- 9 Electricity (Depot)	0	0%		
CY2030	6	6	100%	- 6 Standard	- 6 Electricity (Depot)	0	0%		
CY2031	8	8	100%	- 6 Standard - 2 Cutaway	- 8 Electricity (Depot)	0	0%		
CY2032	11	11	100%	- 6 Standard - 5 Cutaways	- 11 Electricity (Depot)	0	0%		
CY2033	7	7	100%	- 6 Standard - 1 Cutaways	- 11 Electricity (Depot)		0%		

Table 4 presents the estimated cost per vehicle based on the most current vehicle cost information that Visalia Transit has available with an inflation assumption of 3% each year.

Table 4: Range and Estimated Costs of Future ZEB Purchases

Timeline (year)	No. of ZEBs	ZEB Bus Type(s)	Estimated Cost of Each Bus
CY2023	4	- 2 Standard BEB - 2 Passenger Van BEB	- \$1,112,319 - \$130,000
CY2024	2	- 2 Standard BEB	- \$1,240,429

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Timeline (year)	No. of ZEBs	ZEB Bus Type(s)	Estimated Cost of Each Bus
CY2025	10	- 6 Standard BEB - 4 Cutaways BEB	- \$1,227,642 - \$321,028
CY2026	10	- 6 Standard BEB - 4 Cutaways BEB	- \$1,315,971 - \$330,659
CY2027	9	- 6 Standard BEB - 3 Cutaways BEB	- \$1,355,450 - \$340,579
CY2028	10	- 6 Standard BEB - 4 Cutaways BEB	- \$1,396,114 - \$350,796
CY2029	9	- 6 Standard BEB - 2 Passenger BEB - 1 Cutaway BEB	- \$1,437,997 - \$155,228 - \$361,320
CY2030	6	- 6 Standard BEB	- \$1,481,137
CY2031	8	- 6 Standard BEB - 2 Cutaway BEB	- \$1,525,571 - \$383,325
CY2032	11	- 6 Standard BEB - 5 Cutaways BEB	- \$1,571,338 - \$394,825
CY2033	7	- 6 Standard BEB - 1 Cutaways BEB	- \$1,618,478 - \$406,670

Visalia Transit is not considering converting any of our conventional buses in service to ZEBs. Visalia Transit plans to replace buses with ZEBs once they have met their useful life.

### **SECTION E: Facilities and Infrastructure Modifications**

Visalia Transit has one facility – our Operations and Maintenance Facility located at 525 N. Cain St., Visalia, CA 93292. The facility is where all buses park and where all operations, maintenance, and fueling is performed.

The Visalia Transit facility has a parking capacity of up to 112 buses and has property to the west for expansion. As Visalia Transit prepares for a future 100% battery electric bus fleet, a consultant will be hired to provide conceptual parking plans and cost estimates for electric bus charging infrastructure. The conceptual plans will review how chargers and infrastructure could be arranged to accommodate a future full battery electric bus fleet in 2033. Based on the current facility footprint and infrastructure needs to accommodate electric chargers for each bus, the Visalia Transit facility footprint may need to be expanded or parking capacity may be reduced.

Based on the future fleet purchasing timeline and parking and infrastructure, the electric charging infrastructure construction plan is split into three phases.

Phase 1: Constructed and installed the chargers and infrastructure for an initial 17 battery electric bus roll-out. The underground and power infrastructure were completed in 2018 and the chargers are installed as buses were purchased. Currently Visalia Transit has 8 chargers installed with 4 more scheduled in CY2023/2024. This will accommodate the current Visalia Transit bus fleet and planned battery electric bus purchases through 2025. The total project cost was \$865,000.

Phase 2: Will be to expand the Visalia Transit facility infrastructure to accommodate 62-65 additional bus charging stations. Phase 2 is contingent on the City of Visalia allowing Transit to expand into the dirt lot to the west of the bus storage yard that is currently being used by Solid Waste department. This plan would accommodate possible future fleet expansion and account for any parking loss from charging infrastructure in the main Visalia Transit bus parking area located in the southwest corner of the bus storage yard. This phase is scheduled to start in CY2025 with completion in CY2027 to accommodate the arrival of new battery electric buses in CY2027. Visalia Transit will need to solicit a consultant to assess our current infrastructure and the future need for a 100% BEB fleet by 2025. No estimated project cost currently for this project.

Phase 3: Expand charging infrastructure into the southwest half of the Visalia Transit facility and will support a full 100% battery electric bus fleet. This phase is planned for 2030-2033 when future fleet purchases require additional chargers. To reduce possible parking loss by chargers, Visalia Transit staff will be reviewing the feasibility of conductive charging.

In addition to the on-site improvements, Visalia Transit may need to upgrade other electrical infrastructure to accommodate the electrical load to charge the bus fleet.

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Table 5: Facilities Information and Construction Timeline

Division/ Facility Name	Address	Main Function(s)	Type(s) of Infrastructure	Service Capacity	Needs Upgrade? (Yes/No)	Estimated Construction Timeline
Visalia Transit Operations & Bus Yard	525 N. Cain St, Visalia, CA 93292	Bus Operations, Maintenance, & Storage	Electric Chargers (Depot Chargers Only)	112 Buses	Yes	Phase 1: Support 17 Buses (Complete)  Phase 2: Support 62-65 Buses (CY2025- CY2027)  Phase 3: Support Charging for Remained of Fleet (CY2030- CY2032)

All buses dispatched from the Visalia Transit Operations and Maintenance Facility are currently gasoline, CNG, diesel, and battery electric. Future fleet purchases are planned to be 100% battery electric by 2033. However, Visalia Transit may still have three diesel hybrid conventional buses that operate our Sequoia Shuttle service inside the Sequoia National Park and 2 CNG trolley buses operated for special events.

The Visalia Transit service area is not located in an NOx Exempt Area.

Visalia Transit’s electric utility provider is Southern California Edison (SCE). The City of Visalia, Visalia Transit, and SCE coordinate as needed.

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### Section F: Providing Service in Disadvantaged Communities

Visalia Transit currently services 11 disadvantaged communities and will continue for the foreseeable future. Visalia Transit buses service all areas of Goshen, Visalia, Farmersville, and Exeter. As buses are replaced, they will service disadvantaged communities providing cleaner, quieter service to the local ridership.

The disadvantaged community's Census Tracts located within Visalia Transit's service area are:

- 6107000900
- 6107001003
- 6107001004
- 6107001100
- 6107001200
- 6107001302
- 6107001701
- 6107001602
- 6107001601
- 6107001502
- 6107002304

### **Section G: Workforce Training**

The transition to an all-ZEB fleet will significantly alter Visalia Transit service and operations due to different maintenance needs, operational best practices, and the change in technology. The conversion to battery electric buses from the existing traditional internal combustion engine is logistically complicated and will impact all aspects of Visalia Transit's transit service.

Visalia Transit and City of Visalia has and will continue to take advantage of training from the bus manufacturers and station suppliers, including maintenance and operations training, station operations and fueling safety, first responder training, and other trainings that the technology providers may offer. Original equipment manufacturer (OEM) training provides critical information on operations and maintenance aspects specific to the equipment model procured. Additionally, many procurement contracts include train-the-trainer courses through which small numbers of agency staff are trained and subsequently train agency colleagues. This method provides a cost-efficient opportunity to provide widespread agency training on new equipment and technologies. For initial battery electric bus roll-out, Proterra Inc. provided operator training materials and extensive hands-on maintenance training and materials. Visalia Transit utilized a train the trainer model.

For operations, training management developed, and trained staff based on OEM information and provided familiarization training to all drivers. Types of internal driver training courses include Driver Refreshers, Bus Familiarization, New Operator, and New Bus Training. Bus driver training incorporates pre-trip inspections, door operation, emergency equipment operation, steering, operational concerns, DMV pre-trips, bus components and other related bus functions, and operations technology. Transit supervisors received additional troubleshooting training and emergency procedure training.

Maintenance mechanic training embodied imperative technical bumper to bumper training focusing on preventive maintenance, high voltage hazards, personal protective equipment (PPE), component training, lock-out/tag-out inspections, diagnostic/troubleshooting, and charging source training. Proficiency in high voltage safety and proper use of PPE is required to minimize the risk of electrical shocks and arc flashes. Initial roll-out training by Proterra was a multi-day program that all career mechanics were required to attend. Student mechanics will be trained by Visalia Transit contractor career maintenance staff.

Charging infrastructure training incorporated emergency shut off procedures and monitoring systems and was provided by the OEM (Proterra). Transit supervisor training was focused on how to connect and disconnect buses safely from chargers and emergency procedures whereas maintenance training provided more background on day-to-day charger operations and monitoring.

Visalia Transit staff will work with the OEM to provide City of Visalia first responders training on emergency procedures for the battery electric buses. Refresher training will occur as needed or requested by the City's first responders.

### Section H: Potential Funding Sources

- Federal Highway Administration
  - Congestion Mitigation and Air Quality Improvement (CMAQ) Program
- Federal Transit Administration
  - FTA 5307 Urbanized Area Formula Funds
  - FTA 5339 Bus and Bus Facilities Formula Program
  - FTA 5339(b) Bus & Bus Facilities
  - FTA 5339(c) Low or No Emission Vehicle
  - FTA 5307 Urbanized Area Formula Funding
- California Air Resources Board
  - Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project
  - State Volkswagen Settlement Mitigation
  - Carl Moyer Memorial Air Quality Standards Attainment Program
  - Cap-and-Trade Funding
  - Low Carbon Fuel Standard
- California Transportation Commission
  - Solution for Congested Corridor Programs
- California Department of Transportation
  - Low Carbon Transit Operations Program
  - Transportation Development Act
  - Transit and Intercity Rail Capital Program
  - Transportation Development Credits
  - Southern California Edison Ready Charge Program
  - State Senate Bill 1 – State of Good Repair (SGR) Funding
- California Energy Commission
- San Joaquin Valley Air Pollution Control District

### **Section I: Start-up and Scale-up Challenges**

The most significant challenge facing transit agencies through the start-up and scale-up phases of the zero-emission transition is the financial requirements. ZEBs are more expensive to procure, and new infrastructure is required to operate and maintain the vehicles. Financial support from the federal, state, and local governments will be necessary to achieve the targets in the Innovative Clean Transit (ICT) regulation targets. The price gap between ZEBs and CNG buses is expected to reduce over time as manufacturing scales up and technology improves, so financial incentives are particularly important in the near-to mid-term.

The per vehicle cost of buses is impacted by procurement volumes. With each agency placing orders individually over the next few years, this continues to pressure costs. It may be possible to reduce the per vehicle cost through a state-led bulk procurement of BEBs and/or FCEBs that could incorporate demand from many agencies.

Funding should also be made available for workforce training. To ensure a successful transition, agencies must prepare staff for the correct operation and maintenance of ZEBs. While ZEBs require less maintenance than conventional buses because they include fewer moving parts, they require new protocols and procedures to ensure safe and successful operation. The use of regenerative braking also alters ideal driving characteristics. Drivers must be adequately trained to ensure vehicles are operating at optimal performance.

A challenge facing long-term transition planning is the uncertainty around performance and availability of zero-emission paratransit. Little data is available to forecast vehicle performance or cost. Pilot scale deployment of FCEBs and BEBs in these transit applications would benefit the industry by providing key insights into vehicle operation.

It is imperative that CARB provide funding to transit agencies across the state to support the transition to zero-emission vehicles. As fleets are transitioned, agency capital and operating budgets will increase, and funding will be required to maintain the level of service provided to residents. In addition to funding support for bus and infrastructure purchases, CARB should support training/educational programs as well as deployment of new bus platforms like paratransit vehicles.

As Visalia Transit implements future zero emission vehicles beyond Phase 1, Visalia Transit expects numerous challenges. Funding is the primary driver that may impact timeline however other challenges may impact our ability to rely solely on battery electric bus technology and may require Visalia Transit to consider fuel cell electric buses or future alternative zero emission technology.

***Funding:*** Visalia Transit relies on a mix of formula and discretionary funding for capital programs. Implementation of a 100% zero emission bus fleet will require a significant capital investment. Funding is often subject to economic conditions and as a result, can be unpredictable resulting in uncertainty in our ability to meet the timelines presented in this plan.

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Power Supply: Future charging demand and facility power needs may require upgrading Visalia Transit's Operation & Maintenance facility power infrastructure. The feasibility of upgrading electrical infrastructure is unknown currently. If power supply in future years becomes an issue, alternatives to a 100% battery electric bus fleet may need to be considered.

Vehicle Range Expectations: While 14% of current Visalia Transit's vehicle assignments are projected to be comfortably supported by today's battery electric bus technology, the plan assumes battery range will improve over time. If this does not occur, Visalia Transit will need to consider fuel cell electric buses or other future technologies.

## Appendix I 10- Year (2023-2033) Replacement Schedule

Equip #	Year	Manufacturer	Age	Rplc. Yr.	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Fixed Route Fleet</b>															
6270	2008	Orion	15	2020	\$ 1,112,319										
6272	2008	Orion	15	2020	\$ 1,112,319										
6287	2010	Orion	13	2022		\$ 1,240,429									
6288	2010	Orion	13	2022		\$ 1,240,429									
6274	2008	Orion	15	2020			\$ 1,277,642								
6268	2008	Orion	15	2020			\$ 1,277,642								
6289	2010	Orion	13	2022			\$ 1,277,642								
6283	2010	Orion	13	2022			\$ 1,277,642								
6276	2008	Orion	15	2020				\$ 1,315,971							
6273	2008	Orion	15	2020				\$ 1,315,971							
6269	2008	Orion	15	2020				\$ 1,315,971							
6271	2008	Orion	15	2020				\$ 1,315,971							
6284	2010	Orion	13	2022					\$ 1,355,450						
6286	2010	Orion	13	2022					\$ 1,355,450						
6293	2009	Orion	14	2021					\$ 1,355,450						
6292	2009	Orion	14	2021					\$ 1,355,450						
6267	2008	Orion	15	2020						\$ 1,396,114					
6285	2010	Orion	13	2022						\$ 1,396,114					
1302	2013	Gillig	10	2025						\$ 1,396,114					
1301	2013	Gillig	10	2025						\$ 1,396,114					
1303	2013	Gillig	10	2025						\$ 1,396,114					
1602	2016	Gillig	7	2028							\$ 1,437,997				
1304	2013	Gillig	10	2025							\$ 1,437,997				
1601	2016	Gillig	7	2028							\$ 1,437,997				
1604	2016	Gillig	7	2028							\$ 1,437,997				
1607	2016	Gillig	7	2028							\$ 1,437,997				
1603	2016	Gillig	7	2028								\$ 1,481,137			
1605	2016	Gillig	7	2028								\$ 1,481,137			
1606	2016	Gillig	7	2028								\$ 1,481,137			
1801	2018	Proterra	5	2030									\$ 1,525,571		
1803	2018	Proterra	5	2030									\$ 1,525,571		
1802	2018	Proterra	5	2030									\$ 1,525,571		
2103	2021	Proterra	2	2033											\$ 1,618,478
2101	2021	Proterra	2	2033											\$ 1,618,478
2102	2021	Proterra	2	2033											\$ 1,618,478
2104	2021	Proterra	2	2033											\$ 1,618,478
FR Add. 1	2025	35' BEB	-2	2037			\$ 1,277,642								
FR Add. 2	2025	35' BEB	-2	2037			\$ 1,277,642								
FR Add. 3	2026	35' BEB	-3	2038				\$ 1,315,971							
FR Add. 4	2026	35' BEB	-3	2038				\$ 1,315,971							
FR Add. 5	2027	35' BEB	-4	2039					\$ 1,355,450						
FR Add. 6	2027	35' BEB	-4	2039					\$ 1,355,450						

Equip #	Year	Manufacturer	Age	Rplc. Yr.	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
FR Add. 7	2028	35' BEB	-5	2040						\$ 1,396,114					
<b>TOTAL</b>	<b>43</b>														
<b>V-Line</b>															
1930	2019	Gillig	4	2031								\$ 1,481,137			
1931	2019	Gillig	4	2031								\$ 1,481,137			
VL Add. 1	2029	40' BEB									\$ 1,437,997				
<b>TOTAL</b>	<b>3</b>														
<b>Sequoia Shuttle</b>															
6257	2004	Gillig	19	2016		\$ 901,765									
6258	2004	Gillig	19	2016		\$ 901,765									
6259	2004	Gillig	19	2016		\$ 901,765									
1201	2012	Gillig	11	2024										\$ 1,571,338	
1202	2012	Gillig	11	2024										\$ 1,571,338	
1203	2012	Gillig	11	2024										\$ 1,571,338	
1204	2012	Gillig	11	2024										\$ 1,571,338	
1205	2012	Gillig	11	2024										\$ 1,571,338	
1206	2012	Gillig	11	2024										\$ 1,571,338	
1820	2018	Gillig	5	2030											\$ 1,618,478
1821	2018	Gillig	5	2030											\$ 1,618,478
SEKI Add.1	2030	35' BEB	-7	2042								\$ 1,481,137			
SEKI Add.2	2031	35' BEB	-8	2043									\$ 1,525,571		
SEKI Add.3	2031	35' BEB	-8	2043									\$ 1,525,571		
SEKI Add.4	2031	35' BEB	-8	2043									\$ 1,525,571		
<b>TOTAL</b>	<b>15</b>														
<b>Count</b>	<b>61</b>														
				Fixed Route Count	2	2	6	6	6	6	5	3	3	0	4
				V-Line Count	0	0	0	0	0	0	1	2	0	0	0
				SEKI Count	0	3	0	0	0	0	0	1	3	6	2
				Total Buses	2	5	6	6	6	6	6	6	6	6	6
				Fixed Route Cost	\$ 2,224,637	\$ 2,480,858	\$ 7,665,851	\$ 7,895,827	\$ 8,132,702	\$ 8,376,683	\$ 7,189,986	\$ 4,443,411	\$ 4,576,714	\$ -	\$ 6,473,914
				V-Line Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,437,997	\$ 2,962,274	\$ -	\$ -	\$ -
				SEKI Cost	\$ -	\$ 2,705,295	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,481,137	\$ 4,576,714	\$ 9,428,030	\$ 3,236,957
				Total Cost	\$ 2,224,637	\$ 5,186,153	\$ 7,665,851	\$ 7,895,827	\$ 8,132,702	\$ 8,376,683	\$ 8,627,983	\$ 8,886,823	\$ 9,153,427	\$ 9,428,030	\$ 9,710,871

Equip #	Year	Manufacture	Ag	Rplc. Yr.	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Dial-A-Ride</b>															
1106	2011	Elkhart	12	2018		\$ 201,983								\$ 394,825	
1105	2011	Elkhart	12	2018		\$ 201,983								\$ 394,825	
1102	2011	Elkhart	12	2018		\$ 201,983								\$ 394,825	
1104	2011	Elkhart	12	2018		\$ 201,983								\$ 394,825	
1101	2011	Elkhart	12	2018		\$ 201,983								\$ 394,825	
1103	2011	Elkhart	12	2018			\$ 208,042								\$ 406,670
1951	2018	Strarcraft	5	2025						\$ 350,796					
1950	2018	Strarcraft	5	2025						\$ 350,796					
1952	2018	Strarcraft	5	2025									\$ 383,325		
1953	2018	Strarcraft	5	2025									\$ 383,325		
DAR Add. 1	2023	Pass. Van	0	2028	\$ 130,000						\$ 155,228				

Equip #	Year	Manufacture	Ag	Rplc. Yr.		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
DAR Add. 2	2023	Pass. Van	0	2028		\$ 130,000						\$ 155,228				
<b>TOTAL</b>	<b>12</b>															
<b>V-Line</b>																
1502	2016	Strarcraft	7	2023					\$ 330,659							
1501	2016	Strarcraft	7	2023						\$ 340,579						
1503	2016	Strarcraft	7	2023							\$ 350,796					
VL Add. 1	2026	E450	-3	2033					\$ 330,659							
<b>TOTAL</b>	<b>4</b>															
<b>Sequoia Shuttle</b>																
124	2007	Strarcraft	16	2014			\$ 153,882									
123	2007	Strarcraft	16	2014			\$ 153,882									
122	2007	Strarcraft	16	2014			\$ 153,882									
110	2007	Strarcraft	16	2014			\$ 153,882									
121	2007	Strarcraft	16	2014			\$ 153,882									
106	2007	Strarcraft	16	2014				\$ 158,498								
114	2008	Strarcraft	15	2015				\$ 158,498								
113	2007	Strarcraft	16	2014				\$ 158,498								
116	2008	Strarcraft	15	2015				\$ 158,498								
107	2007	Strarcraft	16	2014				\$ 158,498								
115	2008	Strarcraft	15	2015				\$ 158,498								
111	2007	Strarcraft	16	2014				\$ 158,498								
108	2007	Elkhart	16	2014				\$ 158,498								
112	2007	Elkhart	16	2014					\$ 330,659							
117	2008	Strarcraft	15	2015					\$ 330,659							
109	2007	Glaval	16	2014							\$ 350,796					
118	2013	Glaval	10	2020						\$ 340,579						
119	2013	Glaval	10	2020						\$ 340,579						
120	2015	Glaval	8	2022								\$ 361,320				
SEKI Add. 1	2025	E450	-2	2032				\$ 321,028								
SEKI Add. 2	2025	E450	-2	2032				\$ 321,028								
SEKI Add. 3	2025	E450	-2	2032				\$ 321,028								
SEKI Add. 4	2025	E450	-2	2032				\$ 321,028								
<b>TOTAL</b>	<b>23</b>															
<b>Count</b>	<b>39</b>															
					Fixed Route Count	2	5	1	0	0	2	2	0	2	5	1
					V-Line Count	0	0	0	2	1	1	0	0	0	0	0
					SEKI Count	0	5	12	2	2	1	1	0	0	0	0
					Total Buses	2	10	13	4	3	4	3	0	2	5	1
					Fixed Route Cost	\$ 260,000	\$1,009,915	\$ 208,042	\$ -	\$ -	\$ 701,592	\$ 310,456	\$ -	\$ 766,650	\$1,974,125	\$ 406,670
					V-Line Cost	\$ -	\$ -	\$ -	\$ 661,318	\$ 340,579	\$ 350,796	\$ -	\$ -	\$ -	\$ -	\$ -
					SEKI Cost	\$ -	\$ 769,410	\$2,552,096	\$ 661,318	\$ 681,158	\$ 350,796	\$ 361,320	\$ -	\$ -	\$ -	\$ -
					Total Cost	\$ 260,000	\$1,779,325	\$2,760,138	\$1,322,636	\$1,021,737	\$1,403,184	\$ 671,776	\$ -	\$ 766,650	\$1,974,125	\$ 406,670

**Appendix II**  
**City of Visalia Council Resolution**