



# ELECTRIC VEHICLE PILOT STUDY

RCSCW Governing Board

December 17, 2020

DEC. 17, 2020

REQUEST FOR  
GOVERNING  
BOARD  
APPROVAL



**Electric Vehicle Pilot  
Program / Site Location**



**Potential Future Financial  
Obligations and Liabilities**

# EVOLUTION OF THE PROJECT

- Trolly Service Connecting SCW Recreation Centers (RCSCW Funded)
- Autonomous Vehicle Presentation – European City and Las Vegas Models
- Electric Cars with Drivers Provided – Pilot Program Presentation
- Electric Vehicle Solar Charging Station Needed (RCSCW / AZ Fire)
- Free Use of Electric Powered Cars (10 - 24 Smart Car type vehicles)

# EVOLUTION OF THE PROJECT

- RH Johnson Campus Electric Powered Shuttle Bus
  - Route (Walgreens, Fry's and RH Johnson Recreation Amenities)
  - Evening Shelter / Charging Location TBD
- R.H. Johnson Recreation Center Solar Electric Charging Site Selection

# SIX MONTH PILOT PROGRAM

\$800,000 NEEDED FOR DESIGN, ACQUISITION AND INSTALLATION



Sizable investment for short term project

# UNRESOLVED ISSUES

- Ownership Once Constructed ?
  - Parking Shelter Structure
  - Solar Power Equipment
- Maintenance Responsibilities (long term)?
- Demolition, Removal and Restoration Cost – Contractual Agreement ?
- Insurance and Liability Coverage ?
- Cost Recovery Timeline of (proposed) Ongoing Electrical Vehicle Charging Operation ?
- Management, Operational Procedures, Supervision and Accounting?
- Long-Term Site Selection and Upcoming Master Plan ?



The issue for seniors is not necessarily a lack of a vehicle...



...but a need for physical assistance or the loss of the cognitive ability to drive one.



# PILOT PROGRAM

A pilot program is a small-scale preliminary study

- Evaluate Feasibility
- Duration
- Cost
- Adverse Events
- Improve upon Planning and Design

Prior to the Implementation of a Full-Scale Project



# PUBLIC TRANSPORTATION



# PUBLIC TRANSPORTATION





## LEGAL ISSUE

- Public Funds and Private Property
- Generally, 501(c)(4) organizations do not receive foundation, Federal or tax-supported grants (PPP example)



## MARICOPA ASSOCIATION OF GOVERNMENTS

NORTHWEST VALLEY LOCAL TRANSIT SYSTEM STUDY

FINAL REPORT

JUNE 2013




Sun City West's unincorporated status means that we have no existing dedicated funding source for transit service

In order to ensure that transit service has a reliable revenue source, Sun City West would need to establish a community-specific funding mechanism

Unfortunately, Sun Cities Area Transit (SCAT), is now a defunct service due to funding shortfalls





The relatively high average age of Sun City West residents creates a significant demand for paratransit services, which is expected to remain fairly constant into the future.

Exhibit 2.2.2 Valley Metro Northwest Dial-A-Ride Service Areas

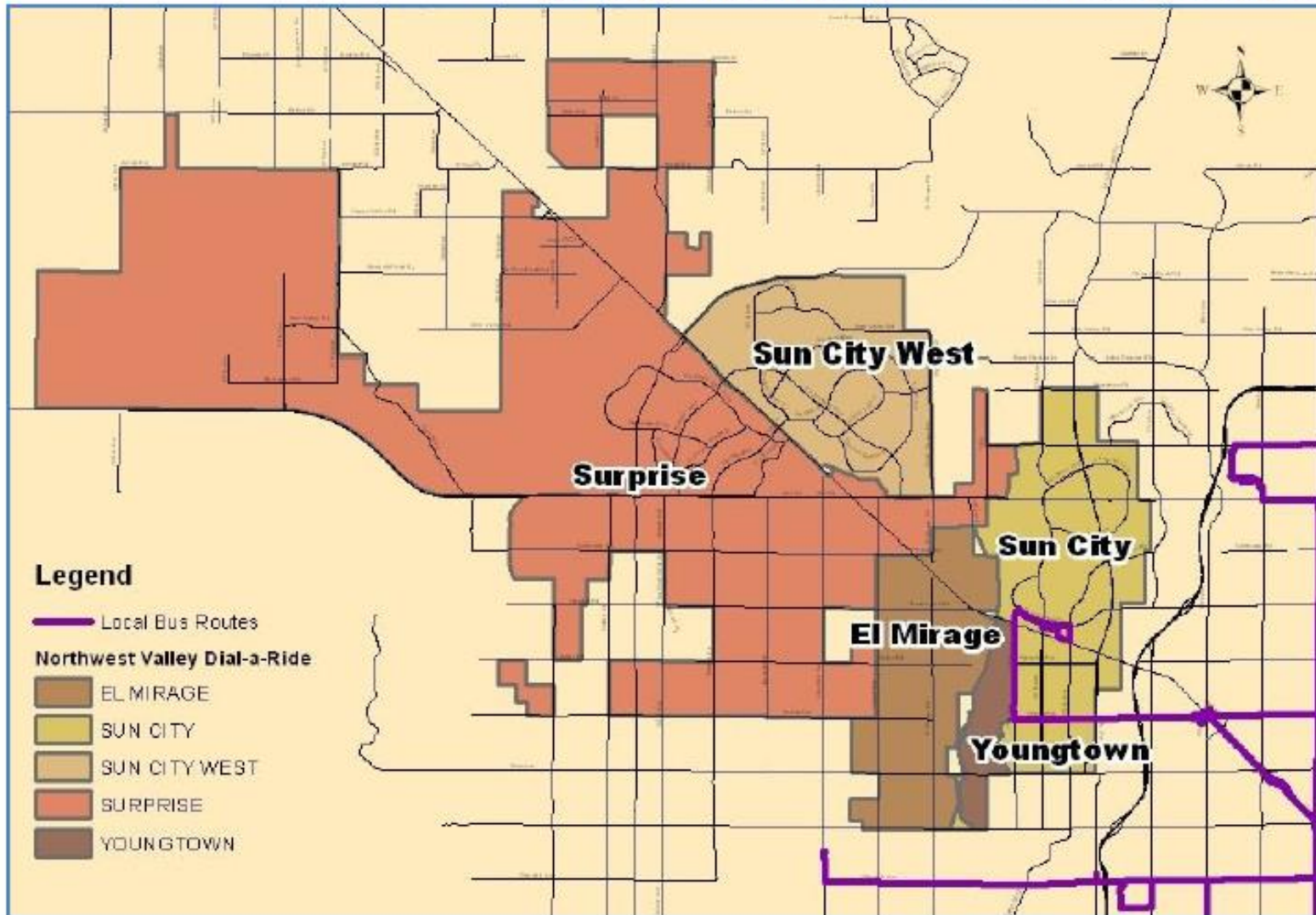


Image courtesy of Valley Metro

# DIAL-A-RIDE



# QUICK NUMBERS

- 17,500 annual requests Northwest Valley Transit Dial – A – Ride service area
- \$4 per trip (one way)
- \$800,000 equates to 200,000 one-way rides
- 2019 Sun City West Dial A Ride serviced 800 rides (4.6%)



## EXISTING CHOICES

- Dial –A –Ride
- Taxi Service
- UBER
- LYFT
- Airport Shuttle
- RCSCW Travel Programs
- Deliveries
- Golf Carts





# FUNCTION AND SERVICE

300,000 rounds of golf equate to 600,000 one-way rides

Allowable on Roads and Turf

Offset Golf Course Amenity Costs

Vehicle Design





# SUN CITY WEST FINDINGS

Community meeting feedback from Sun City West indicate –

- Most vehicular trips are relatively local,
- Most respondents do their traveling for either shopping or recreation
- Many residents indicated that they lived on or near R.H. Johnson Boulevard
- Typical trip distance less than 10 miles
- 52.1% adequate transportation needs being met
- 97.3% do not use public transit

# PUBLIC TRANSPORTATION



# SUBSIDY

A SUM OF MONEY GRANTED BY THE GOVERNMENT OR A PUBLIC BODY TO ASSIST AN INDUSTRY OR BUSINESS SO THAT THE PRICE OF A COMMODITY OR SERVICE MAY REMAIN LOW OR COMPETITIVE

- In 2017, American Transit agencies spent \$66.4 billion providing transportation services
- \$1.21 per passenger mile.
- The net **subsidy** was 91.9 cents per passenger mile.



# FUNDING

- Donations
- Sponsors
- Proposed Legislation - Propositions
- Federal Programs
- Partnerships with Local Governments
- Owner-Member Fees
- Special Assessments

# PROPOSITION 400

## Prop 400

1/2 cent, 20-year sales tax  
(2006 – 2025)

Needs:

- Finish loop freeway system and expand existing network
- Grow transit program; establish 20-mile light rail system
- Invest in arterial grid network

**BALLOT FORMAT / SAMPLE BALLOT**  
**GENERAL ELECTION**  
NOVEMBER 2, 2004  
MARICOPA COUNTY, ARIZONA

**PROPOSITION 400**

**RELATING TO COUNTY TRANSPORTATION  
EXCISE (SALES) TAXES**

Do you favor the continuation of a county transaction privilege (sales) tax for regional transportation purposes in Maricopa County?

A "YES" vote has the effect of continuing the transaction privilege (sales) tax in Maricopa County for twenty years to provide funding for transportation projects as contained in the regional transportation plan.

A "NO" vote has the effect of rejecting the transaction privilege (sales) tax for transportation purposes in Maricopa County.

YES ☐

NO ☐

**SAMPLE**

Funds expire on December 31, 2025



# OTHER TYPES OF FUNDING

## Federal Transit Authority (Section 5307)

Federal resources available to

- Transit Related Capital Improvements
- Operating Assistance in Urbanized Areas
- Transportation-Related Planning



## Surface Transportation Programs (STP Flexible Funding)

Federal monies used to preserve and improve

- Federal-Aid Highways, Bridges and Tunnel Projects
- Public Roads, Pedestrian and Bicycle Infrastructure
- Transit Capital Projects, including Intercity Bus Terminals

# SUN CITY WEST RECOMMENDATIONS

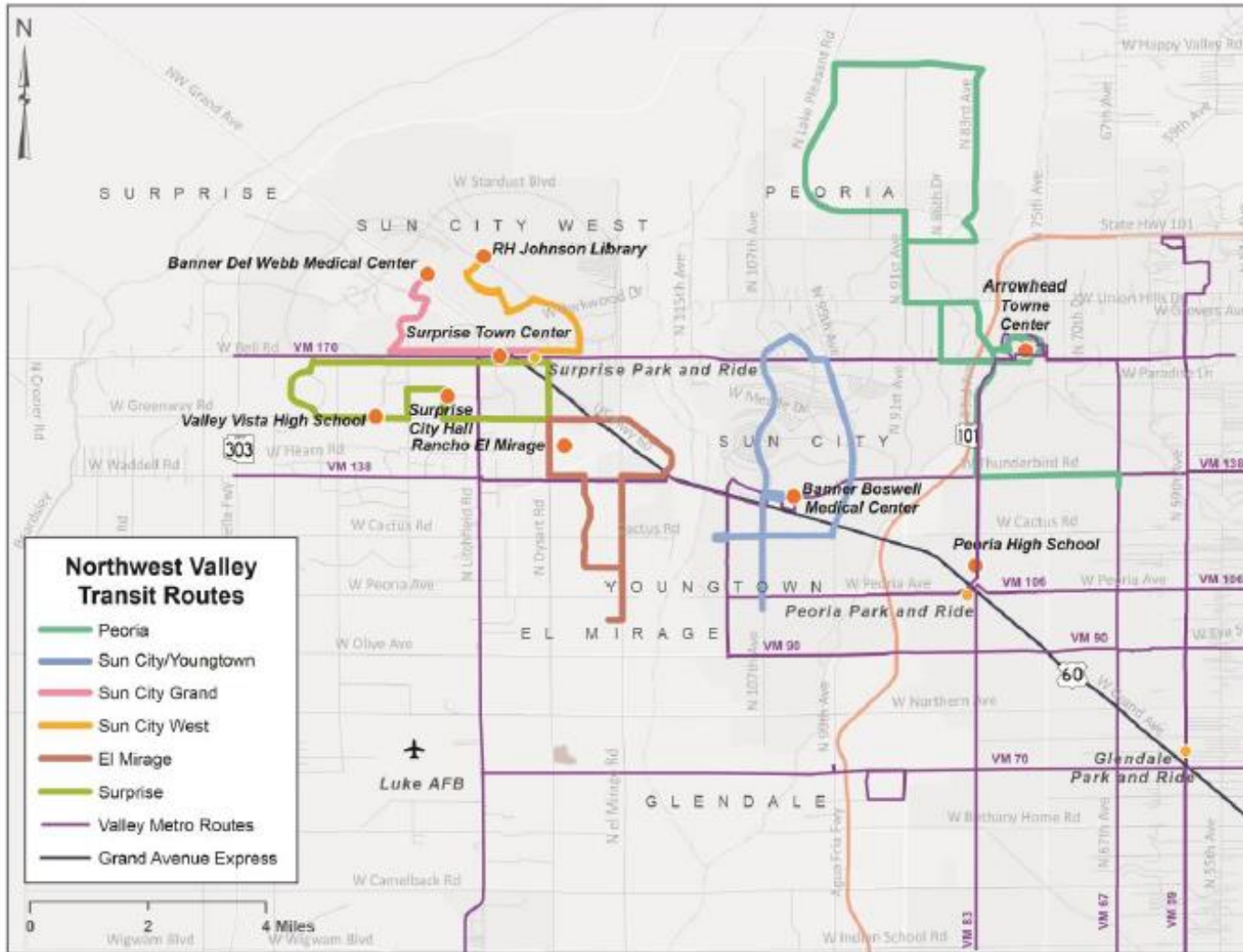
- Create six local deviated fixed- route circulators that respectively serve trip generators within the communities of:
  - El Mirage
  - Peoria
  - Surprise
  - Sun City
  - **Sun City West**
  - Sun City Grand
- Establish an Intergovernmental Cooperative Agreement amongst these communities including Sun City Festival (in the Town of Buckeye), and Youngtown to handle administrative and funding activities for local transit in the Northwest Valley



# DEVIATED FIXED- ROUTE CIRCULATORS

This proposed circulator route serving Sun City West would connect residents with the RH Johnson Recreation Center and the Surprise Park and Ride.

### Exhibit 1.1.1 Circulator Routes and Valley Metro Service for All Implementation Phases



# DEVIATED FIXED- ROUTE CIRCULATORS



# PROPOSED CIRCULATOR ROUTES

- The proposed route passes through some of Sun City West's commercial corridors along Meeker Boulevard and Camino Del Sol.
- One potential drawback to the route as proposed is that it does not connect to the Banner Del Webb Medical Center.
- The circulator could be rerouted to serve Banner Del Webb without affecting operations but doing so would require eliminating the connection to the R.H. Johnson Recreation Center.



# DEVIATED FIXED- ROUTE CIRCULATORS

- The Sun City West circulator would be a deviated fixed-route service, allowing it to deviate from its normal route by up to a quarter of a mile to pick up passengers
- Deviated fixed-route service reduce costs by waiving the ADA Dial A Ride service requirements that apply to normal fixed-route service

## SUN CITY WEST

Exhibit 4.2.3 Sun City West Recommendations

Term	Recommendation	Source	Project Cost (total)	Share	Funding
Near-term	Establish a Cooperative Agreement with other study area communities	Community meetings	Potential increase in administrative expenses.	TBD	TBD
Near-term	Establish a deviated fixed-route circulator connecting key destinations in Sun City West and Sun City	Community survey	\$2,199,450 for first five years	All	Prop 400, FTA Section 5307, STP Flexible Funding
Mid-term	Extend Valley Metro Route 170 along Bell Rd. to Sun City West		TBD by Valley Metro		

# AMENITIES TYPICALLY ASSOCIATED WITH TRANSIT

- Signage
- Information Posts
- Benches
- Shelters
- Trash Receptacles





# SOLAR VEHICLE / SHUTTLE BUS PILOT PROGRAM

A **pilot program** is a small-scale preliminary study prior to performance of a full-scale project.



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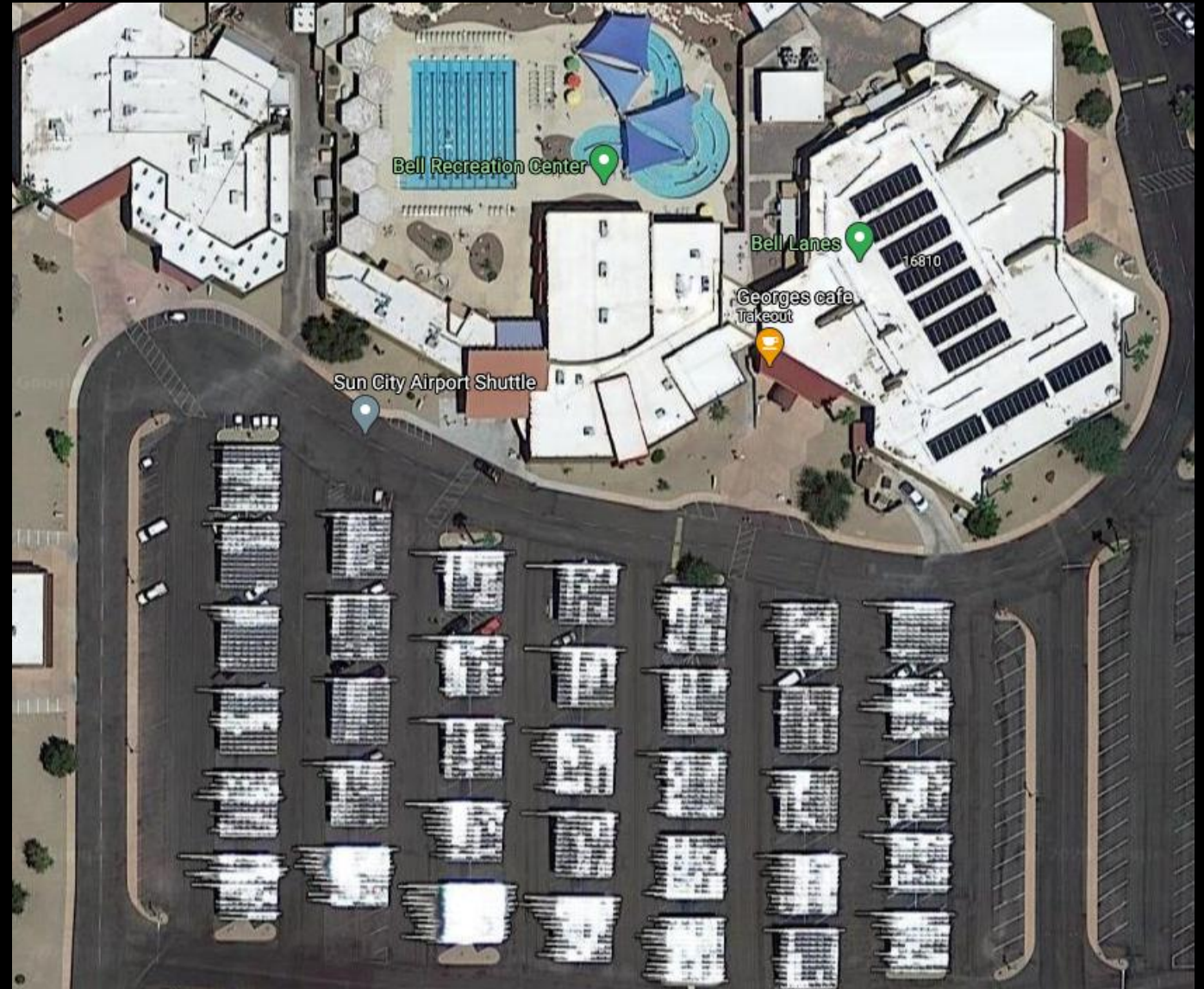
...but a need for physical assistance or the loss of the cognitive ability to drive one.





# EXISTING SOLAR INFRASTRUCTURE

- Bell Recreation Center located 6.7 Miles from RH Johnson
- Sun City is also non-profit and not eligible for any tax credits for photovoltaic (PV) solar systems



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