

# ***DESIGN REVIEW BOARD HEARING***

**TEP POWER POLES ON SILVERBELL ROAD  
DRB-21-18 / C10-21-08**

**OCTOBER 1, 2021**

**PRESENTED BY:**

**KEVIN O'BRIEN – TEP ENVIRONMENTAL LAND USE PLANNER**



**Tucson Electric Power**

# AGENDA

- **BACKGROUND INFORMATION** – *WHY THIS PROJECT IS NEEDED*
- **SCENIC ROUTE INFORMATION** – *CITY OF TUCSON UNIFIED DEVELOPMENT CODE (UDC)*
- **OVERVIEW OF THE PROJECT AREA AND SCOPE OF WORK** – *PLANNED WORK*
- **DESIGN ELEMENTS** – *MATERIALS AND LANDSCAPING PLAN*



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# Silverbell Road Power Line Relocation

Tucson Electric Power (TEP)  
for City of Tucson Variance Process

## BACKGROUND:

Tucson Electric Power (TEP) is planning to relocate overhead power lines and other equipment in support of a road-widening and transportation improvement project along North Silverbell Road.

The transportation project is being designed and constructed in three phases:

- Phase 1 - Grant Road to Goret Road [Completed]
- **Phase 2 - Goret Road to El Camino del Cerro [In Design]**
- Phase 3 - El Camino del Cerro to Ina Road [Future]

The current focus is Phase 2, where TEP needs to complete electric utility scope of work before the transportation project can proceed.

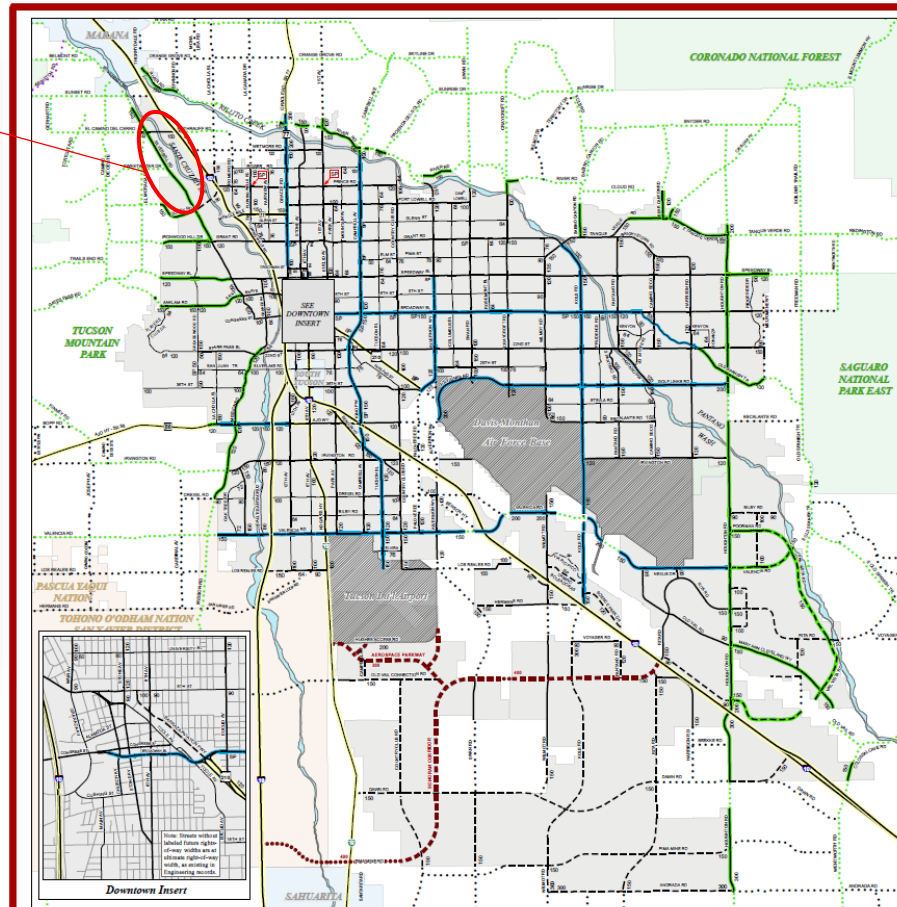
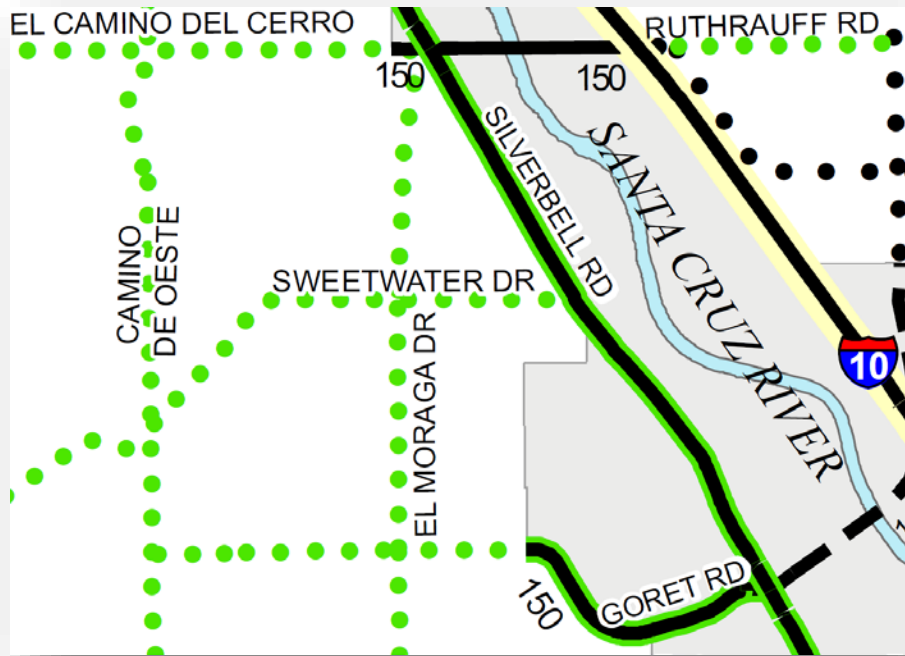


Map Source:  
<http://www.silverbellroad.info/>

# Silverbell Road Power Line Relocation

## Tucson Electric Power (TEP) for City of Tucson Variance Process

SILVERBELL ROAD IS CLASSIFIED AS A SCENIC ARTERIAL STREET BY THE CITY OF TUCSON



### City of Tucson Major Streets and Routes

\*Map Official for City of Tucson Streets Only.  
Contact for Pima County for official street designations within the County.

- Sonoran Corridor & Aviation Parkway
- County Sonoran Corridor
- Arterial Street
- Scenic Arterial Street
- Gateway Arterial
- Collector Street
- Gateway Collector
- Future Arterial Street
- 100 Planned Width
- County Scenic Route
- County Major Route
- Parks and National Forests
- Other Incorporated Areas
- Native American Jurisdictions
- Unincorporated Pima County
- Tucson City Limits
- Future Collector Street
- SP Specific Engineering Plan - See Page 24 of MS&R Plan
- County Scenic, Not Major Route
- STATE & INTERSTATE ROUTE

**NOTES**

- Right-of-way widths are measured at a 10-foot setback and are used to establish the future right-of-way line locations in the Major Streets and Future Subblock Zone, Division 26 of the Zoning Code.
  - a. Within 600 feet of any intersection of two major streets.
  - b. At the location of a change of right-of-way width, where the taper for transition may extend 600 feet from the point of change.
  - c. In locations where the prevailing existing City-owned right-of-way along the block or section is greater.
- Except as provided below, the future right-of-way area is generally measured setback from the nearest corner of the street. It is generally equal to one-half the right-of-way width designated for that street.
- The 10-foot right-of-way width and corner locations may be modified by corridor study maps and street right-of-way improvement plans on file with the Department of Transportation (see Appendix). For such maps or plans, the right-of-way setback is measured from the future right-of-way line as shown on the corridor study map or street right-of-way improvement plan.
- Under the provisions of the MS&R Subblock Zone, no structure, off-street parking, vehicular circulation, off-street loading, or maneuvering space, landscaping, or screening improvements required by the Zoning Code may be constructed, erected, placed, or extended in the future half right-of-way area unless specifically allowed. The future right-of-way area that is not publicly owned may be included in the site coverage calculation and used to meet landscaping requirements or reduce required parking.
- In compliance with the requirements of the MS&R Subblock Zone, plans submitted for the issuance of building permits and development plans and tentative plans submitted for review must show the applicable setback from the future right-of-way line as a condition of approval. In cases of building, a variance may be requested from the MS&R Subblock Zone requirements.

**RIGHT-OF-WAY MEASUREMENT AT INTERSECTIONS FOR STREETS ON M.S. & R MAP**

A square right-of-way width. The City Engineer will determine values B, C, and D when necessary for right-of-way width not in the following table (e.g. a square 150').

	A	B	C	D
64	10	300	300	200
85	100	300	300	200
90	100	300	300	300
100	100	300	300	300
120	150	300	300	300
150	150	N/A	N/A	N/A
200	200	N/A	N/A	N/A

Map Date: 05/27/2016

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ASSOCIATED SECTIONS OF THE CITY OF TUCSON UNIFIED DEVELOPMENT CODE (UDC) PERTAINING TO THE SCENIC CORRIDOR ZONE ARE AS FOLLOWS:

UDC 5.3 SCENIC CORRIDOR ZONE

*UDC 5.3.9 UTILITIES*

*5.3.9 (A) ALL NEW UTILITIES FOR DEVELOPMENT ON PRIVATE PROPERTY AND ON PUBLIC RIGHT-OF-WAY ALONG SCENIC ROUTES SHALL BE UNDERGROUND.*

*5.3.9 (B) UPGRADES AND REINFORCEMENTS OF EXISTING OVERHEAD FACILITIES IS ALLOWED TO THE EXTENT THAT THE TOTAL NUMBER OF ELECTRICAL CIRCUITS OR COMMUNICATION CABLES IS NOT INCREASED.*



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# Overview Slide 1 of 2

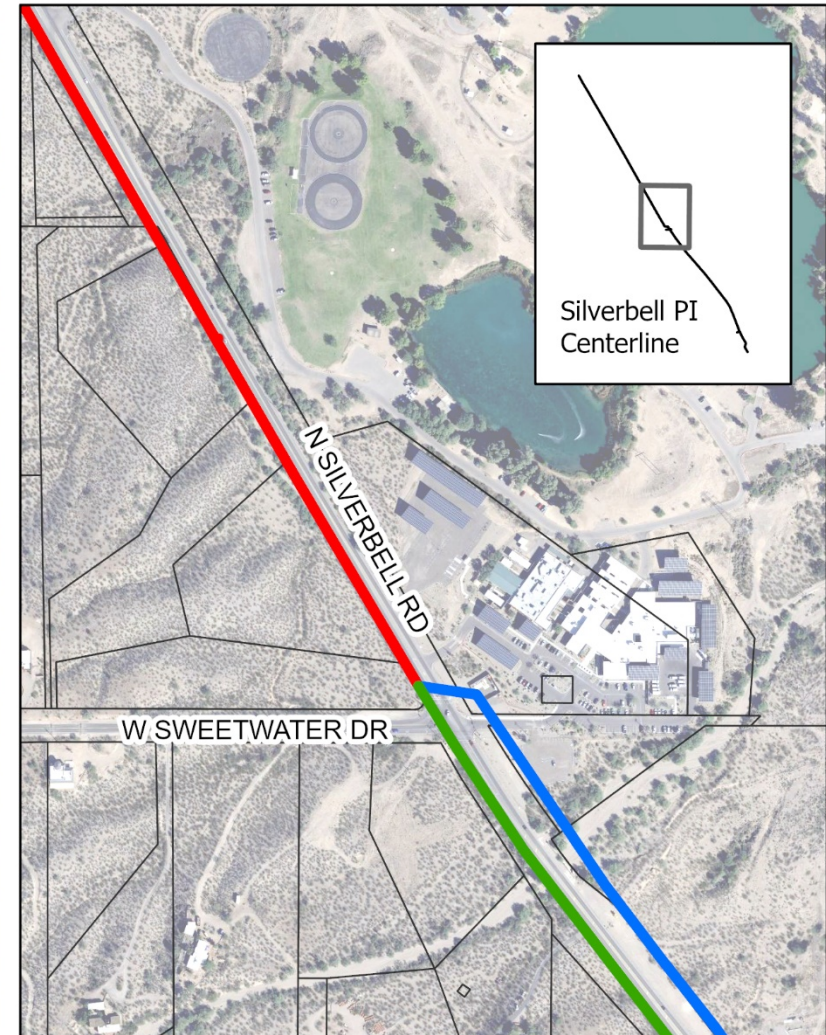
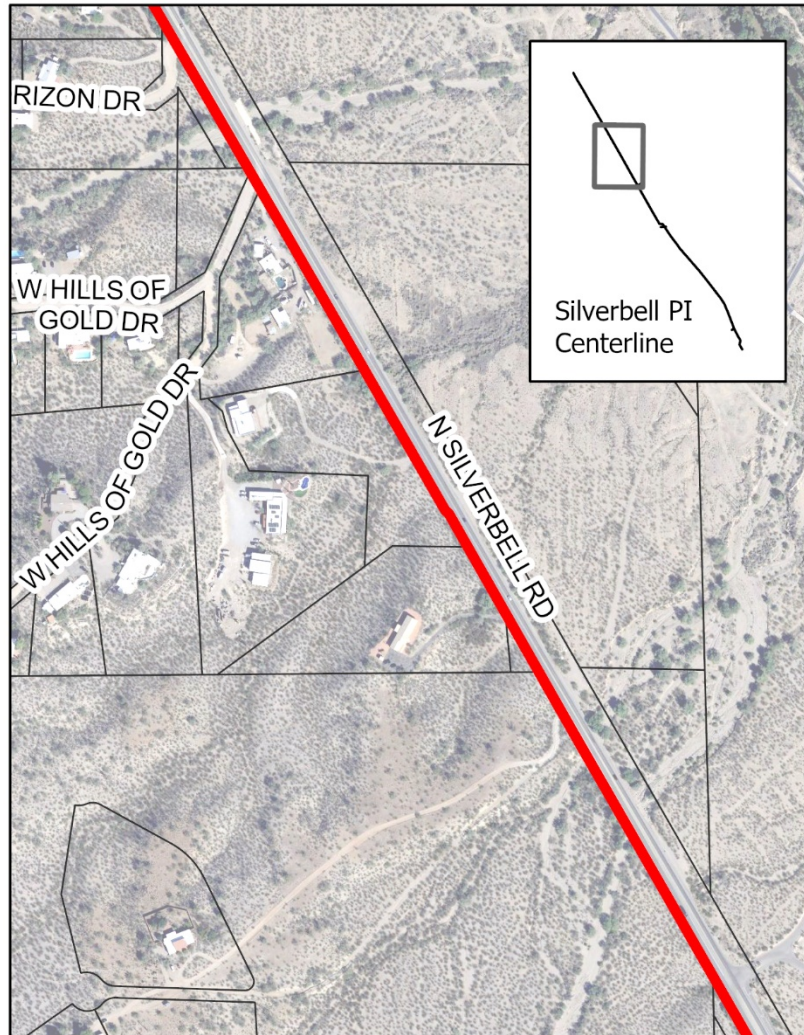
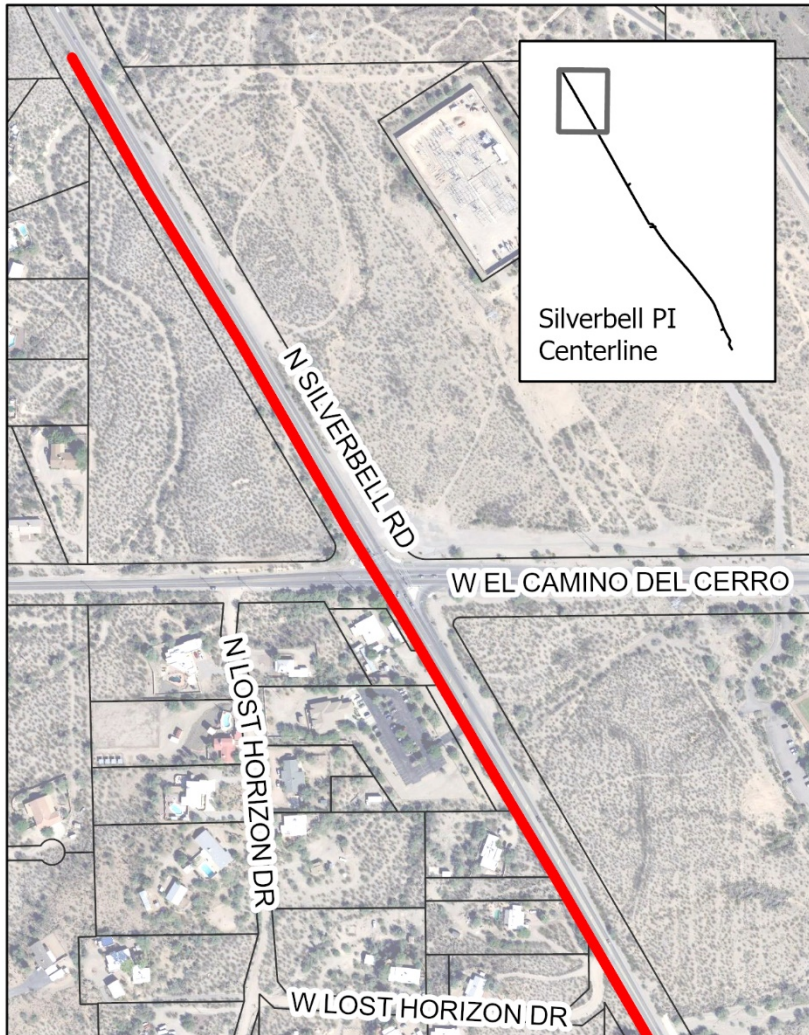
## SCOPE of WORK: TEP Power Line Alignment

### Project Power Lines

- Existing Rebuild
- Relocation
- Existing Remove



NOT TO SCALE



# Overview Slide 2 of 2

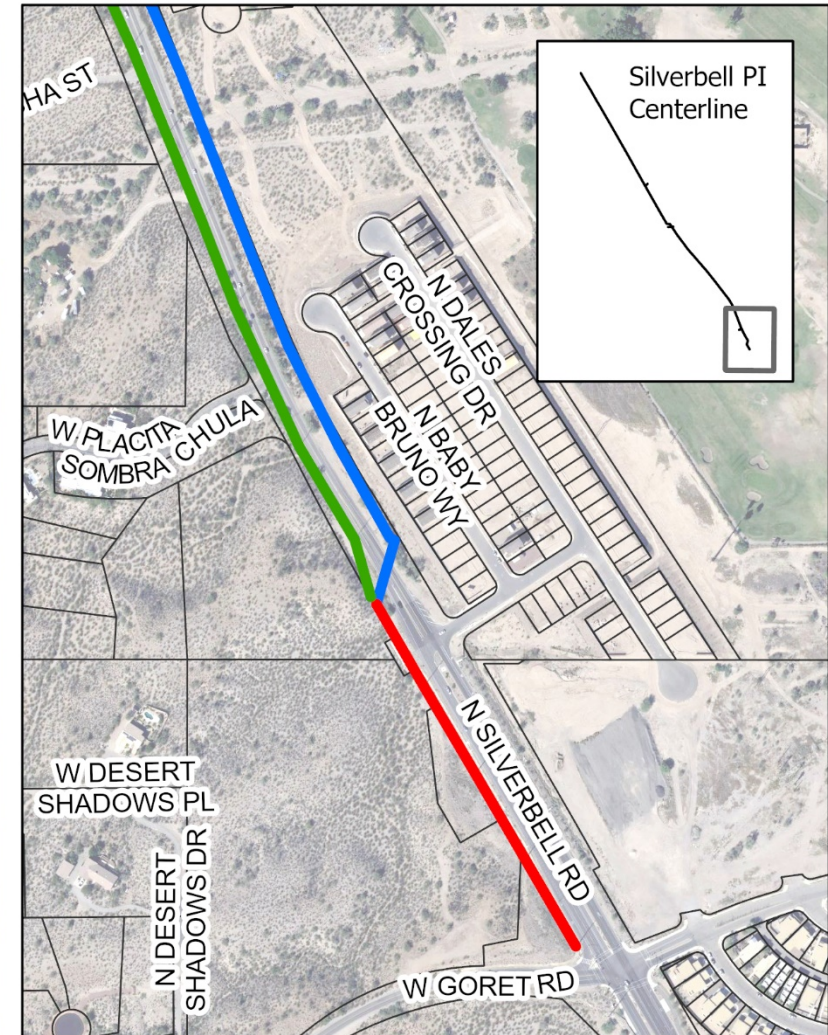
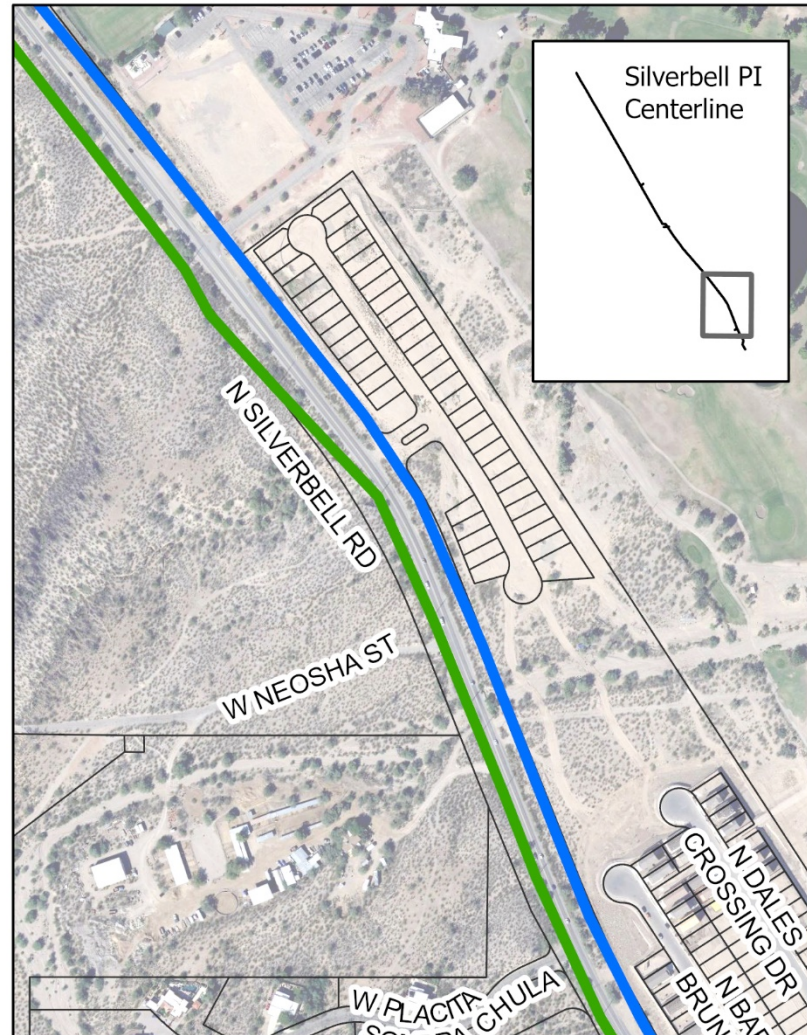
## SCOPE of WORK: TEP Power Line Alignment

### Project Power Lines

- Existing
- Relocation
- Existing Remove



NOT TO SCALE



1. North of El Camino del Cerro – looking Southwesterly on Silverbell Road

# VISUAL SIMULATIONS



CURRENT



DESIGNED



2. North of Sweetwater Drive – looking generally South on Silverbell

# VISUAL SIMULATIONS



CURRENT



DESIGNED

3. North of Avenida Albor – looking West-Southwesterly on Silverbell

# VISUAL SIMULATIONS



CURRENT



DESIGNED

4. Near Kippy Trail (north of Goret Road) – looking North on Silverbell

# VISUAL SIMULATIONS



CURRENT



DESIGNED

# Project Scope of Work (Distribution) Overview Slide 1 of 2

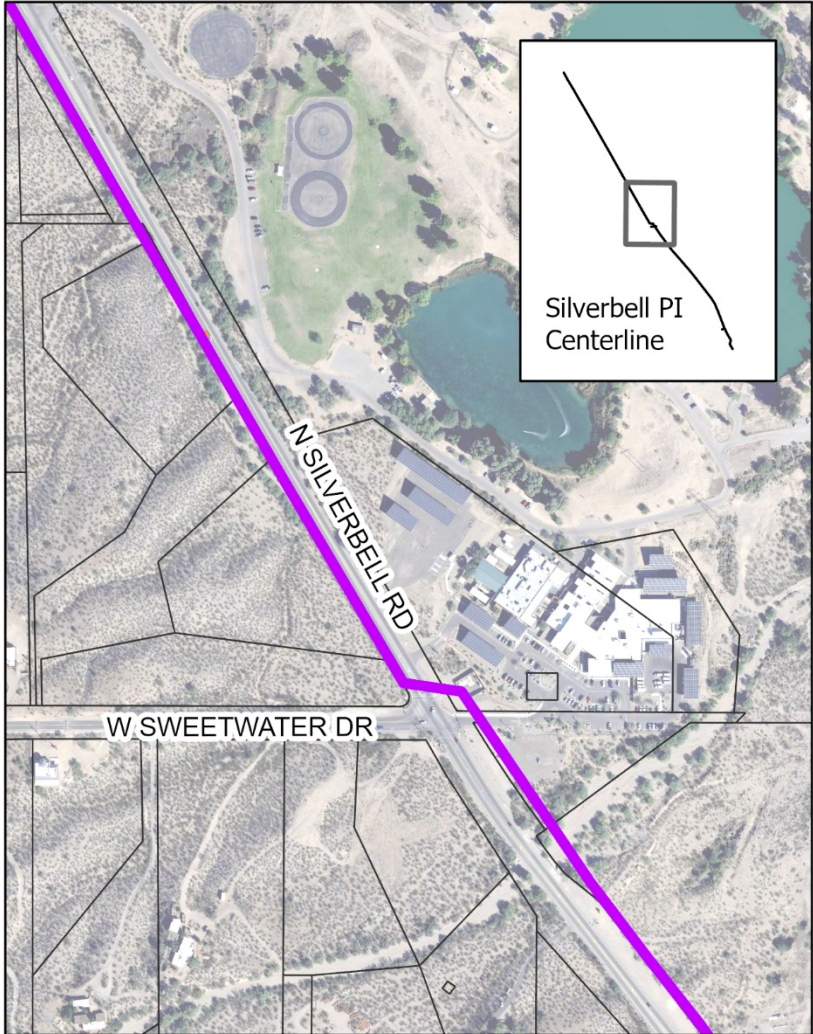
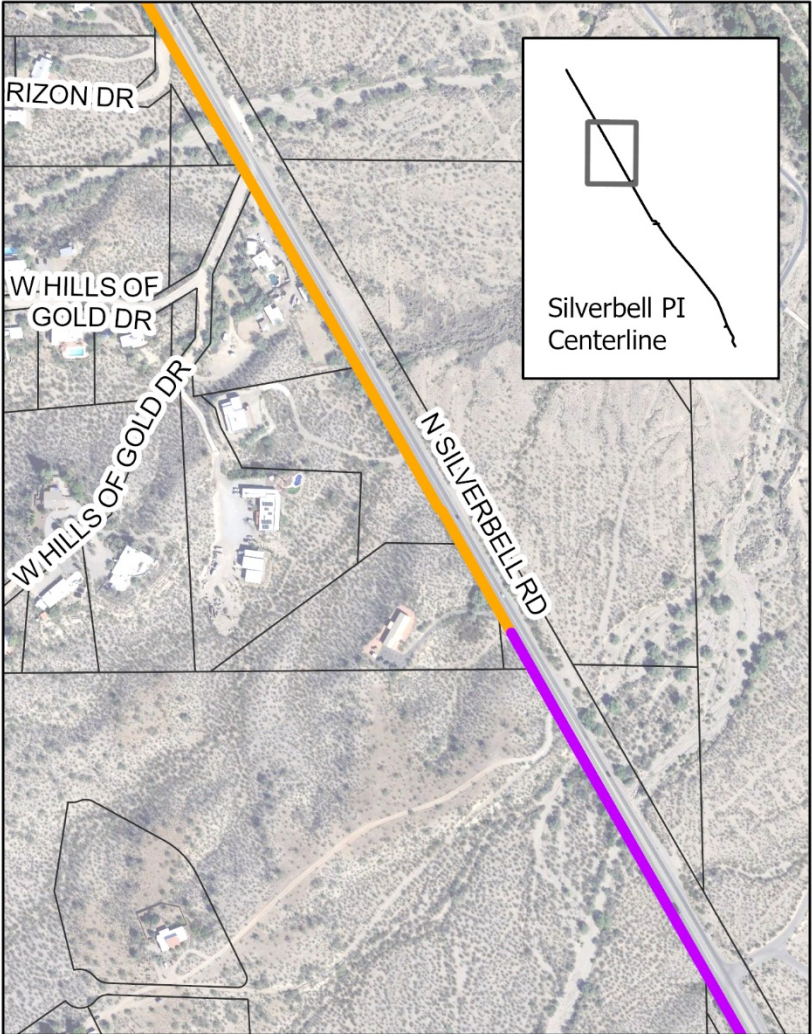
Distribution Power Lines

One wire to

Three Wires



NOT TO SCALE



# Project Scope of Work (Distribution) Overview Slide 2 of 2

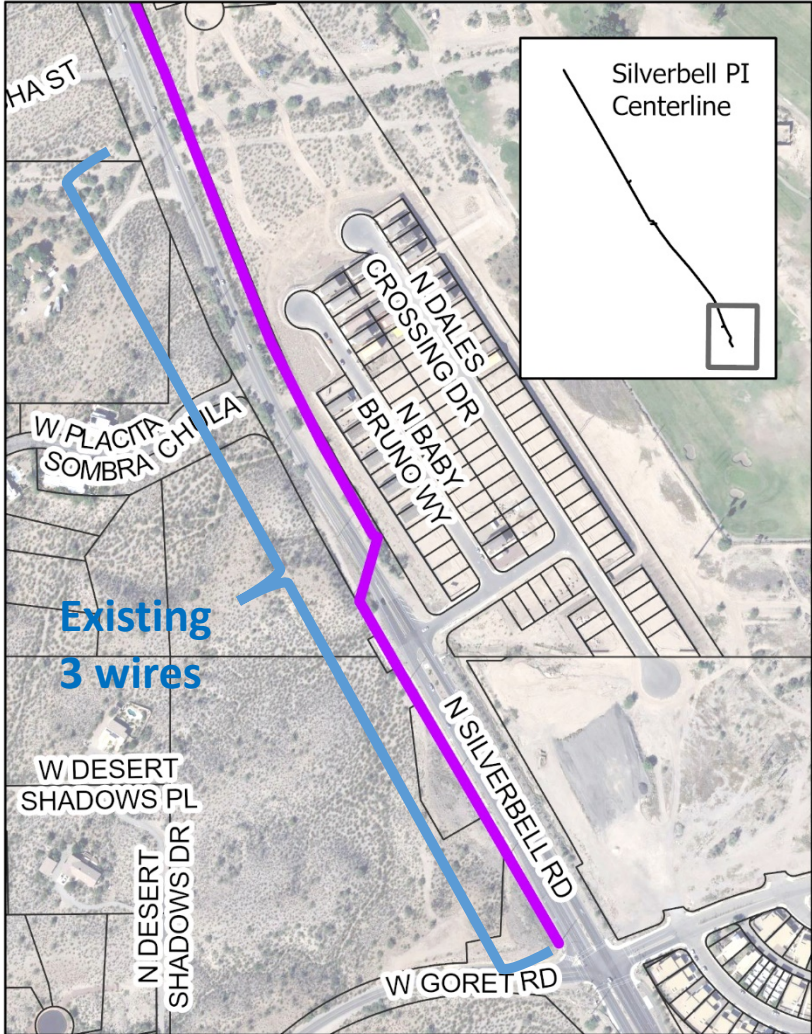
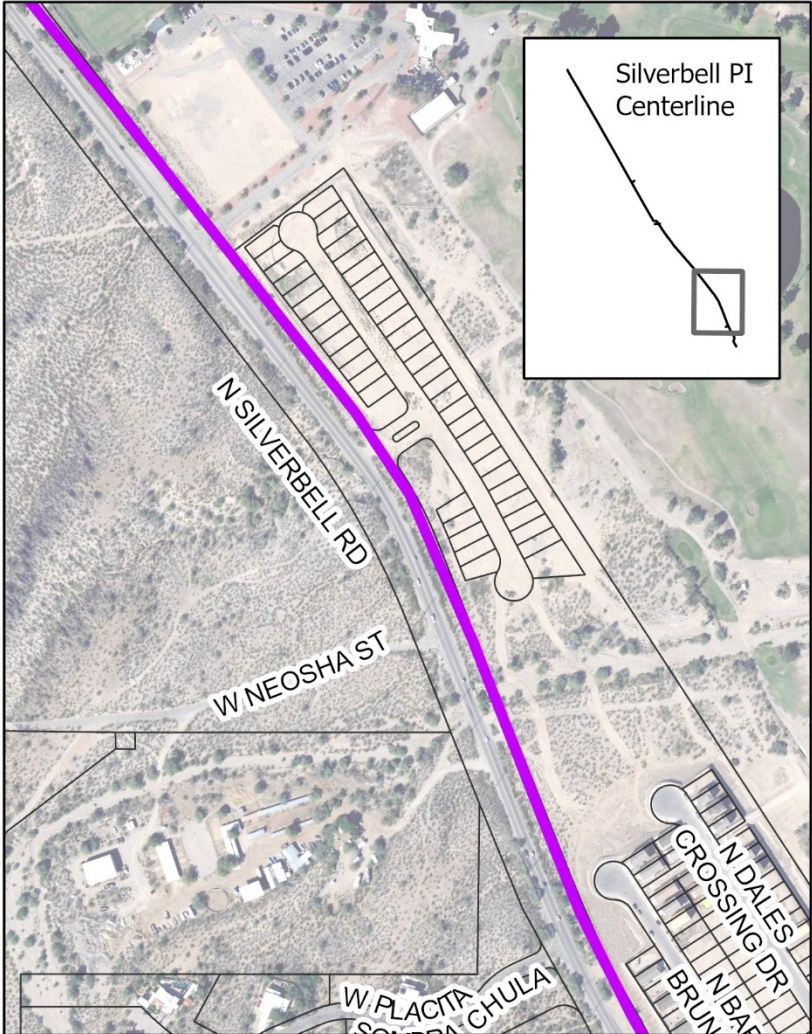
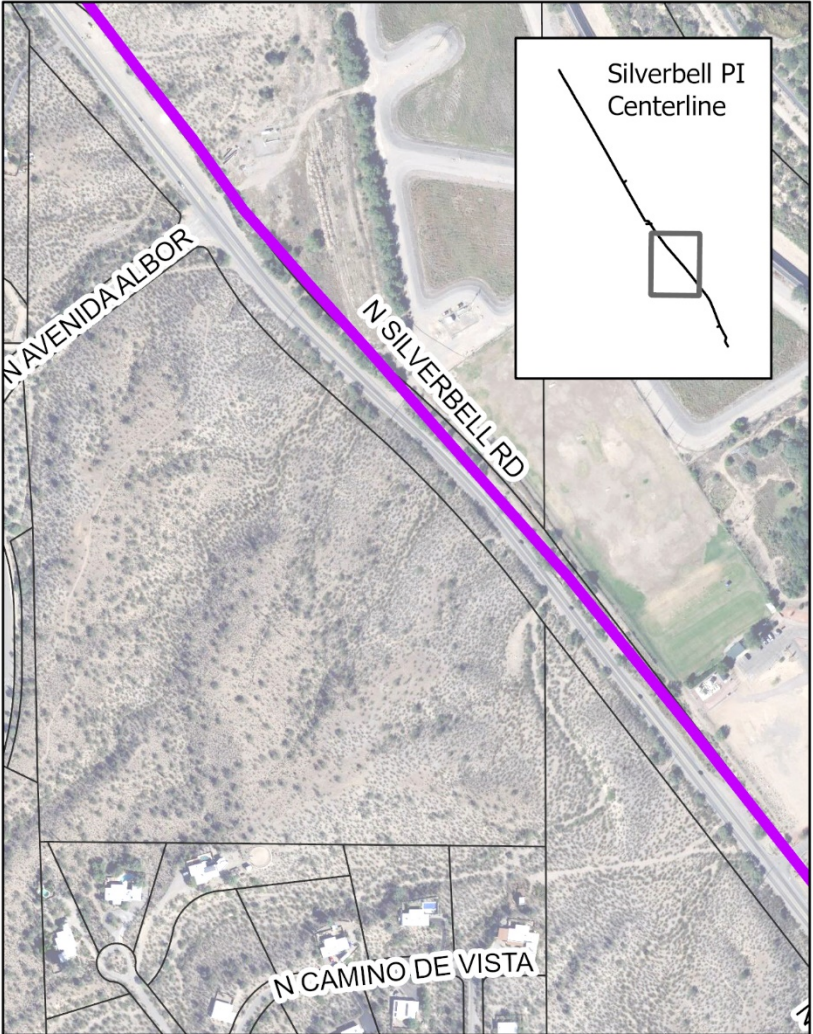
Distribution Power Lines

One wire to

Three Wires



NOT TO SCALE



# Constraints to Undergrounding Electric Utilities along Silverbell Road

*Physical circumstances limit technical feasibility of underground construction*

1) SIGNIFICANT ARCHAEOLOGICAL RESOURCES

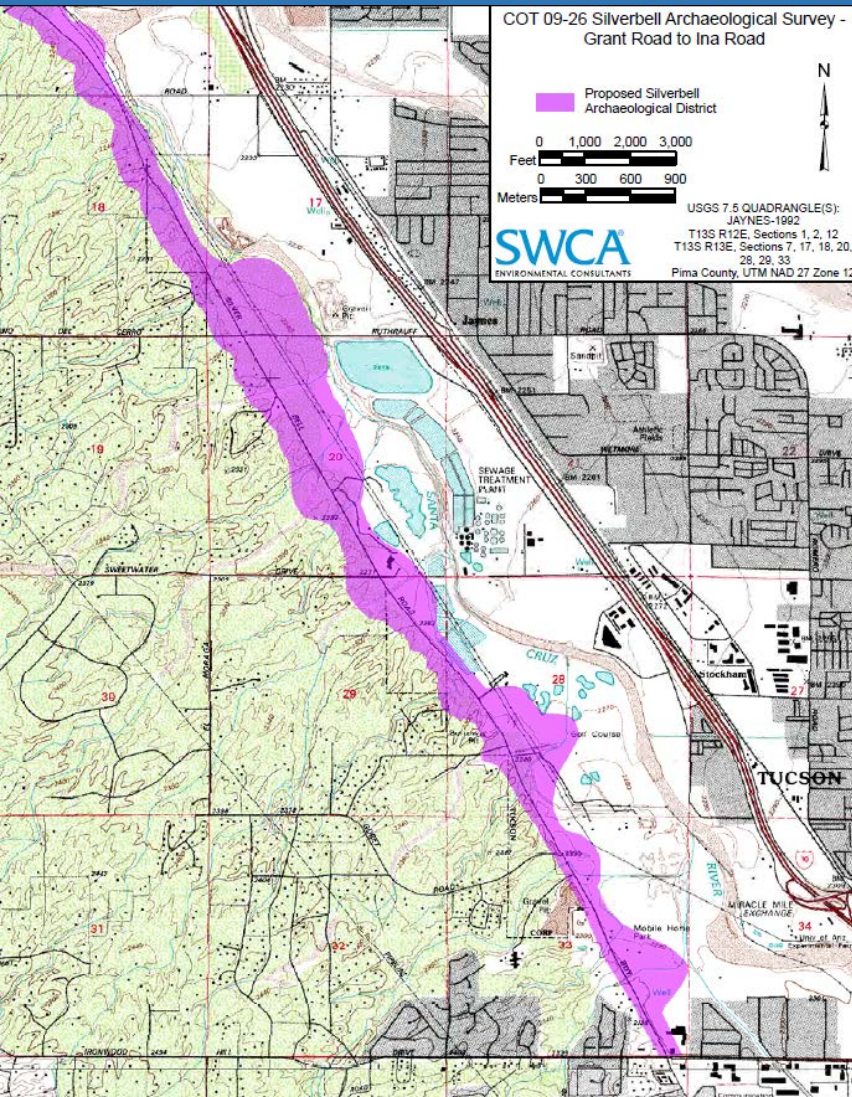
2) SANTA CRUZ RIVER FLOODPLAIN AND TRIBUTARY WASHES



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Silverbell Road is within an archaeologically rich area with a high density of sites, as evidenced by the Proposed Silverbell Archaeological District seen in purple. (State Historic Preservation Office, 2016)



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# Silverbell Road Power Line Relocation

## Cultural Resource Information

- The archaeological record shows continuous, important Early Agricultural period sites along Silverbell Road within the Santa Cruz River floodplain
- Artifacts and burials have a very high likelihood of presence, which poses risks to the resources and the project
- TEP and project stakeholders have designed an overhead utility along Silverbell Road to avoid unnecessary impacts to valuable archeological resources



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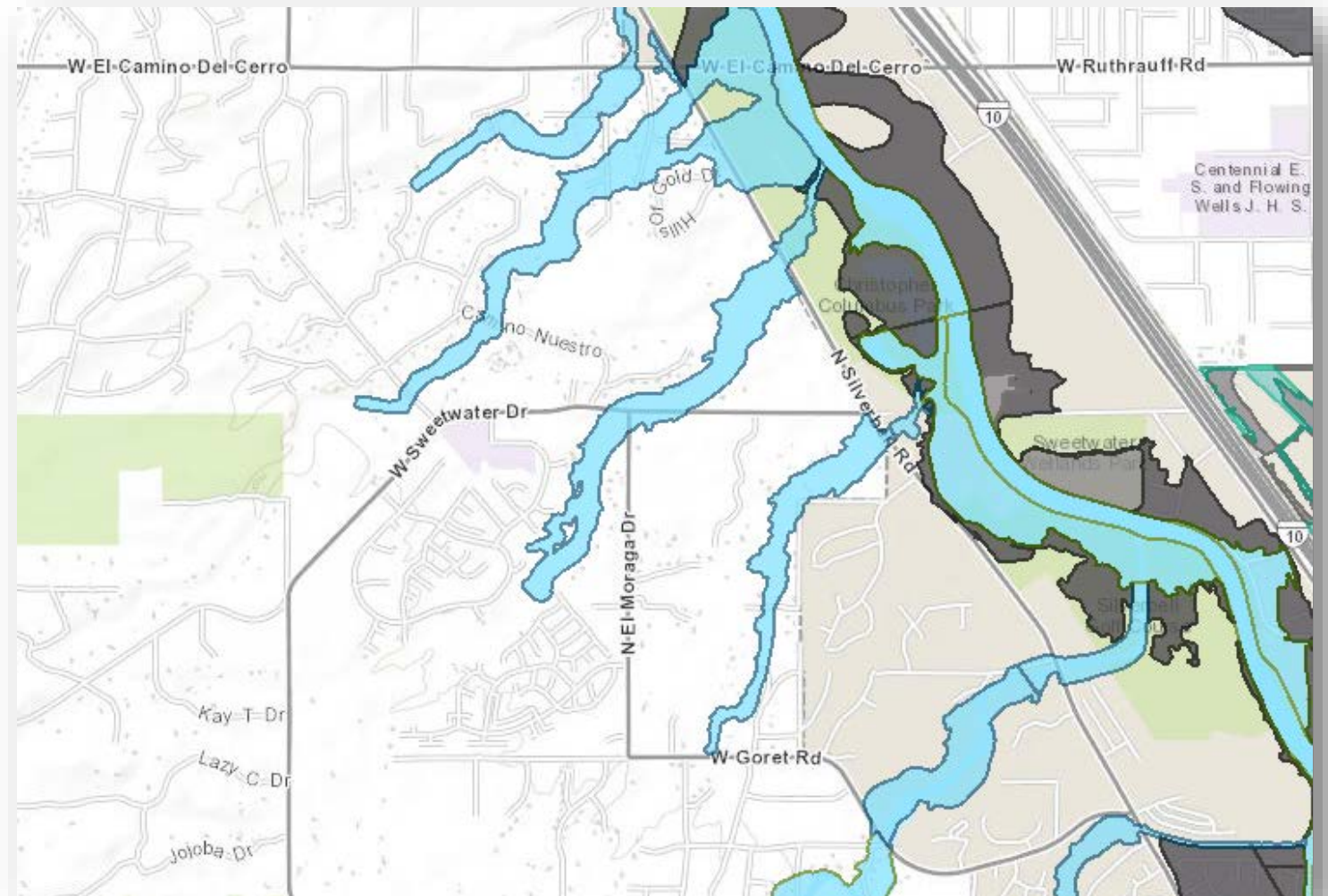


# Silverbell Road Power Line Relocation

## Floodplain

### FLOODPLAIN IN PROJECT AREA

- FEMA floodplain
  - A Zones
    - ZONE A
    - ZONE AE
    - ZONE AH
    - ZONE AO
  - X Zones
    - Areas of 100-year flood
    - Areas of 500-year flood



# EXISTING CONDITIONS

POLES ARE A MIX OF DIFFERENT MATERIAL TYPES (E.G., WOOD AND STEEL)

DIFFERENT POLES FROM DIFFERENT TIME PERIODS

VARYING CONFIGURATIONS OF EQUIPMENT



# PROPOSED MATERIALS

## WEATHERING STEEL POLE STRUCTURES

*Material is consistent with material used in art installations along Tucson rights of way, for example*



# LANDSCAPING

TEP WORKING COLLABORATIVELY WITH CITY OF TUCSON PER LANDSCAPING PLAN

WE HAVE THE DATA AND PLANS FROM CITY OF TUCSON/MCGANN & ASSOC., AND HAVE RESOURCES ENGAGED

## McGann & Associates Inc. Landscape Architects and Planners

6814 North Oracle Road, Suite 210 Tucson, Arizona 85704  
Telephone: (520) 297-9540 Fax: (520) 297-9545

Civil Engineers

EP2 GROUP  
8710 N. THORMYDALE ROAD STE 140  
TUCSON, AZ 85742  
Telephone (520) 408-1400

CITY OF TUCSON DEPARTMENT OF TRANSPORTATION / ENGINEERING DIVISION

### SILVERBELL ROAD - PHASE 2 EL CAMINO DEL CERRO TO GORET ROAD IMPROVEMENT PLANS NATIVE PLANT PRESERVATION PLAN



CONSTRUCTION AND PLANTED WITHIN THE PROJECT LIMIT AT THE END OF CONSTRUCTION. SEE LANDSCAPE PLANS FOR FINAL LOCATIONS.

SYMBOL LEGEND AND KEY			
PLANT	PRESERVE IN PLACE	TRANSPLANT ON-SITE	REMOVE FROM SITE
TREE			
SHRUB			
CACTUS			

TREE 770  
771  
774  
775  
776  
779  
782  
785  
TREE 292  
SHRUB 291

DEPARTMENT OF TRANSPORTATION/ENGINEERING



SILVERBELL ROAD  
EL CAMINO DEL CERRO TO GORET ROAD  
N11 NATIVE PLANT PRESERVATION PLAN – AREA 10

# CLOSING

## TEP WORKING WITH THE CITY OF TUCSON FOR SUCCESS OF THE SILVERBELL ROAD PROJECT

- TEP and the City have worked collaboratively to develop an integrated project plan
- Planned work will greatly improve the safety, functionality, and aesthetics of Silverbell Road
- Electric utility infrastructure is integrated with transportation design for a more cohesive, consistent, and modernized Silverbell Road corridor



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