

ADDENDUM MATERIAL

DATE 12/7/21

ITEM NO. A006



MEMORANDUM

Date: December 10, 2021

To: The Honorable Chair and Members
Pima County Board of Supervisors

From: Jan Leshner 
Acting County Administrator

Re: **Undergrounding Utilities on Scenic Routes**

The Board discussed potential regulation related to undergrounding new and existing utility lines and equipment along Scenic Routes as requested by District 5 at the December 7, 2021 Board of Supervisors Meeting. Direction was given to staff to provide additional information on the topics outlined below.

What are Scenic Routes?

Scenic Routes are designated in Pima County Code § 18.77.040 and have for purpose to preserve and enhance the visual resources of the natural and built environment in order to:

1. Protect property values and the character of neighborhoods;
2. Protect and enhance the unique character of a community, including vegetation, architecture and geology;
3. Protect and enhance the economic value of tourism; and
4. Protect natural resources.

Title 18 of the Pima County Code contains zoning requirements for structures along designated Scenic Routes pertaining to size, setbacks and appearance. Routes are designated through Board action with the last update included as part of the 2015 Pima Prospers Comprehensive Plan adoption. Attached is a map of designated Scenic Routes.

How has undergrounding been handled in the past?

Staff is not aware of any transmission lines that have been placed underground along Pima County rights-of-way. Typically, undergrounding of electric lines within road right-of-way is limited to low voltage distribution (13kV and under) that provide service laterals to residential and commercial property abutting the right-of-way.

What are current codes and practices related to these facilities?

Pima County Code § 10.50.070 relates to facilities within rights-of-way:

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If a user has above ground facilities in a specific area within the public right-of-way that county determines must be undergrounded for the public safety, county may require the facilities to be undergrounded and the cost of such undergrounding shall be the sole responsibility of the user. If county determines that it would be advantageous for user's facilities to be placed underground, county may initiate a collaborative effort with the user to explore undergrounding options and related costs, and may, upon mutual agreement, enter into a separate agreement with the user to accomplish the undergrounding project.

Pima County Code § 18.77.040(E)(5) relates to new utilities along Scenic Routes:

- a. *All new utility lines along scenic routes shall be underground unless the line is a 46KV or greater transmission line. New utility poles are not permitted unless a waiver has been approved under Section 18.07.030(H)(7) or the poles are needed for a 46KV or greater transmission line.*
- b. *Utility facilities constructed or installed pursuant to a certificate of environmental compatibility issued prior to the adoption of this section under the authority of A.R.S. Title 40, Chapter 2, Article 6.2, are exempt from the provisions of this section.*
- c. *Where possible, existing poles shall be used to provide the required transition to underground service to new developments adjacent to scenic routes. However, a new pole set in line with the existing overhead system, when necessary to serve approved new developments, is not deemed to be a new utility. Upgrades and reinforcements of existing overhead transmission utilities are allowed to the extent that the total number of cables is not increased.*
- d. *Location of underground utility lines shall be planned and joint-trenched where possible to minimize the disturbance of vegetation.*
- e. *Exceptions:*
 - 1) *Section 18.77.040(E)(5)(a) does not apply to individual residential lots not part of a subdivision plat.*
 - 2) *The planning official may grant an exemption from Section 18.77.040(E)(5)(a) upon a finding that it would impose an unreasonable economic hardship or that the site lacks scenic quality. The petitioner may appeal the planning official's decision to the board of supervisors.*

It is unclear whether the County could force a utility to underground new utilities in accordance with these sections based both legal constraints as well as easement rights which establish rights for utilities to install and maintain poles. This section has to date only been applied to developers pulling power into new developments.

Improvement Districts are established under A.R.S. Title 48, Chapter 6 and can include underground utility districts. A district is a taxing entity comprising the property owners within the district. Improvement Districts also captured in Pima County Code Chapter 10.48. To date, no underground districts have been established in Pima County.

Finally, State law provides a process for owners to petition public service corporations to convert to underground service described under A.R.S. § 40-343. If approved, it allows the public utility to place a lien or assessment against each lot or parcel for the cost of converting utilities to underground service.

Cost of undergrounding

Tucson Electric Power estimates that undergrounding generally costs 13.5 times the cost of overhead lines. The increase is due to the type of insulation material necessary, the fact that underground lines cannot carry as much current as overhead ones, and significantly increased construction and maintenance costs. Independent sources indicate that constructing underground transmission lines are from 4 to 14 times more expensive than overhead lines. This amount, however, does not account for increased maintenance costs.

Input from utility companies

Tucson Electric Power has provided the following information:

While most of Tucson Electric Power's electric distribution lines are installed on poles above ground, some are built underground to comply with engineering and/or safety requirements or at customers' request. Customers who request underground installation of facilities that would otherwise be built overhead must pay the differential cost for below ground construction.

Generally speaking, overhead distribution lines are more cost-effective than underground lines. It costs more to build and maintain underground lines, though below ground installations are sometimes unavoidable due to existing conditions. TEP does not install transmission or sub-transmission lines underground. TEP will install distribution lines underground at the request of a customer, developer or other party if those parties agrees to pay the additional cost. This practice avoids passing along unnecessary costs to customers through our rates. It also ensures that all customers are not asked to subsidize a discretionary expenditure that primarily benefits residents of one small area of our service territory.

TEP has stated that the only underground lines on its system are lower-voltage distribution lines paid by developers or other parties.

Process for considering new regulation

A robust effort developing new regulation to require undergrounding of utilities along scenic routes would take a minimum of six months to complete and would include public hearings to capture stakeholder input.

Steps would include:

1. Board direction to staff to expand undergrounding regulation along scenic routes.
2. Staff in concert with the County Attorney's Office would examine detailed regulatory options, statutory authorities and case law.
3. Staff would assemble stakeholders to include neighborhood associations, utilities, conservation groups and development community, and engage in discussion, capturing input.
4. If determined viable, staff would draft ordinances and circulate these for review to stakeholders.
5. Draft ordinances would be proposed for Board consideration. Pima County Code Title 18 proposed amendments would first reviewed by the Planning and Zoning Commission.

Additional public policy considerations

The 2015 Pima Prospers Plan has an energy element that focused primarily on solar installations. The next comprehensive plan update, required to be completed by 2025, could focus on elements of the electrical grid including reliability, technology improvements, and options for undergrounding of utilities as we migrate to more direct-current generation and consumption.

Pima County could also consider policy alternatives to include promoting undergrounding utilities through incentive agreements with utilities, contracts during capital improvement projects or assistance to individual lot owners that require an extension of service to their property on a scenic route.

Please let me know if you require additional information.

Attachment

- c: Carmine DeBonis, Jr., Deputy County Administrator for Public Works
Yves Khawam, PhD, Assistant County Administrator for Public Works
Carla Blackwell, Director, Development Services
Ana Olivares, Director, Transportation

PIMA COUNTY

Scenic Routes Plan

Exhibit B

Co-14-14-02
 Map re-adopted August 17, 2015 by
 Ordinance No. 2015-32
 P.C. Zoning Code Sec. 18.77.030 and 18.77.040

Map previously amended:
 6/18/96; 12/16/97; 5/19/98; 10/6/98; 6/15/99;
 12/14/99; 5/16/00; 12/19/00; 4/2/02; 11/18/03;
 5/18/04; 4/15/08; 9/13/09; 2/2/10; 3/8/11; 10/7/14

Web address:
<http://gis.pima.gov/maps/majscenic/>



LEGEND

TRANSPORTATION PLAN SYMBOLS

- Scenic, Major Route
- Scenic, Not Major Route
- Scenic, State or Interstate Highway

OTHER MAP SYMBOLS

- Current Street
- Prominent River or Wash
- Incorporated City or Town
- Tribal Land
- National Forest or Natural Preserve

