

**CAMINO PÍO DÉCIMO C-112 WELL SITE
SPECIAL EXCEPTION
PRELIMINARY DEVELOPMENT PACKAGE**



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WATER**

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CAMINO PÍO DÉCIMO C-112 SCADA Upgrade Special Exception

2294 North Camino Pío Décimo
Tucson, Arizona 85715

Submitted to:

City of Tucson
Planning & Development Services Department
201 North Stone Avenue
Tucson, Arizona 85701

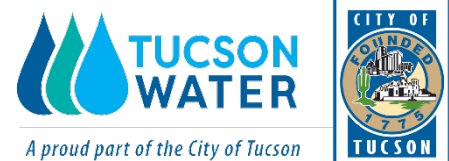
Prepared for:

Tucson Water Department
P.O. Box 27210
Tucson, Arizona 85701-7210
(520) 837-2185

Prepared by:

The Planning Center
2 East Congress Street, Suite 600
Tucson, Arizona 85701
Telephone: (520) 623-6146

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I. INTRODUCTION & POLICY



This document is submitted on behalf of the City of Tucson Water Department (Tucson Water) as a requirement for a Special Exception application for minor technology improvements to the existing well located at 2294 North Camino Pío Décimo. The site is just south of Tanque Verde Road and east of Camino Pío Décimo nestled in an alleyway between Callisto Circle and Edison Street in Township 14 South, Range 15 East, Section 5.

The well site occupies a 0.27-acre parcel owned by the City of Tucson. The parcel is identified by Assessor's Parcel Number (APN) 133-120-70B and is zoned R-3 (Residence Zone). See **Exhibit I.A: Project Location**.

Per Unified Development Code Section 4.8.2, the proposed utility distribution use is permitted as a special exception use within the R-3 Zone upon approval from the Zoning Examiner.

A. Background

Tucson Water's Water Quality and Operations Division have been diligently working to install several technology and instrument upgrades to better monitor water service at more than 200 wells, 61 reservoirs, and 266 sampling stations throughout the Tucson Water service area as part of a long-term water management strategy to improve water quality and delivery services. The Colette Street Well Site (Well D-048) serves as a critical water supply facility within the Tucson Water service area and requires some upgrades to the existing Supervisory Control and Data Acquisition (SCADA) system in the well yard's southwest corner.



The SCADA system is a computerized remote monitoring system that moves water efficiently throughout the community, maintains water pressure, collects water system data, and regulates water monitoring. The upgrades are primarily technology improvements; however, such modifications require adding equipment to the existing well and installing a new shade structure to protect new and existing electrical components. Due to the site's existing zoning and the proposed modifications, it was determined that approval of a special exception was necessary. The new shade structure and the new SCADA system are the only improvements anticipated. No other site modifications are proposed.



Exhibit I.A: Project Location



Legend

-  Well Site
-  Parcels



0 50 100ft

File Name: C-112-Project Location
Source: MapTucson GIS 2020



B. Tucson Water Policy Guidance

Tucson Water has a long-term strategy to improve water system redundancy and upgrade existing infrastructure elements to monitor water service throughout the City's distribution system. Water supply redundancy is being accomplished by drilling replacement wells within the older Central Well Field System. Substantial capital investment has already been made in replacing the 30-year-old SCADA system, and the main central control system hardware and software have already been replaced. The next step involves upgrading the SCADA system capabilities at remote locations, including well sites, booster stations, and reservoirs.

Policy guidance for this work is provided through the 2020 Drought Preparedness and Response Plan. Further authorization for completing upgrades to the SCADA system is also provided in the Department's Capital Improvement Plan budgets. In the early 2000s, Tucson Water discontinued pumping non-renewable groundwater resources and converted to renewable Colorado River water resources. This action has been taken to comply with the 1980 Arizona Groundwater Code, which aims to reduce the over-drafting of local aquifers. One of the consequences of over-drafting aquifers is lowering the water table, ultimately rendering older wells inoperable.

C. Conformance with Plan Tucson and Area Plan

The project site is subject to the policies put forth in the City of Tucson's General and Sustainability Plan, *Plan Tucson*, and the *Pantano East Area Plan*.

1. Plan Tucson

The subject property is within an area designated by *Plan Tucson* as an "Existing Neighborhood." The proposed SCADA upgrade aligns with this designation as it provides a low-impact upgrade to an existing use in a predominantly residential area. The SCADA system upgrade allows Tucson Water to continue to provide a safe and sustainable clean drinking water supply for the community while creating little to no negative impact on neighboring properties. The following policies in *Plan Tucson* support the proposed well site:

- *LT28.1.3 – Improve the appearance of above-ground utilities and structures.*

A new shade structure will be installed to protect electrical equipment and painted to match the existing equipment and shade structure as part of the improvements.

- *LT28.2.12 – Support environmentally sensitive design that protects the integrity of existing neighborhoods, complements adjacent land uses and enhances the overall function and visual quality of the street, adjacent properties, and the community.*

Existing healthy landscape material will remain in place and continue screening the utility equipment from surrounding neighbors.



Other policies that support the SCADA upgrade include:

- *PI1 – Invest in the highest priority needs to manage and maintain public infrastructure and facilities that are fundamental to economic development and to sustaining and enhancing living conditions in the community;*
- *PI2 – Prioritize major public infrastructure investments in developed areas and for improvements of existing infrastructure; and*
- *PI3 – Expand the use of state-of-the-art, cost-effective technologies, and services for public infrastructure and facilities.*

2. Pantano East Area Plan

The Pantano East Area Plan, adopted by Mayor and Council on June 28th, 1982, and amended in 1984, provides policy direction for approximately an eleven-square-mile area on the east side of Tucson. The plan area is bounded by Tanque Verde Road and the Tanque Verde Wash to the north, Golf Links Road on the south, Houghton Road on the east, and Pantano Parkway and the Pantano wash on the west. The well site is located in the northern portion of the area plan planning boundary, just south of East Tanque Verde Road. (see **Exhibit I.B: Location Within Pantano East Area Plan Boundary**).

The *Pantano East Area Plan* intends to provide guidelines for future growth while protecting the existing development in the Pantano East area.

Tucson Water's SCADA improvements to the existing well site conform to the following *Pantano East Area Plan* policies:

- The integrity and style of established neighborhoods shall be preserved and maintained (Residential Policy 1).
 - The new additions to the well site are set back at least 20 feet from the adjacent residential properties. The proposed shade structure is about 9 feet tall and will have a very minimal impact on the character of the existing neighborhood, as it will be screened by the existing masonry walls and vegetation. Additions to the site will remain minimally visible to the public.
- Promote residential infill of vacant land where adequate provisions of streets and utilities are available (Residential Policy 2).
 - The SCADA improvements will allow this site to offer more optimal water service to the area. This, in turn, will promote infill and development to the community in the short and the long term by preparing its utilities to accept potential growth.



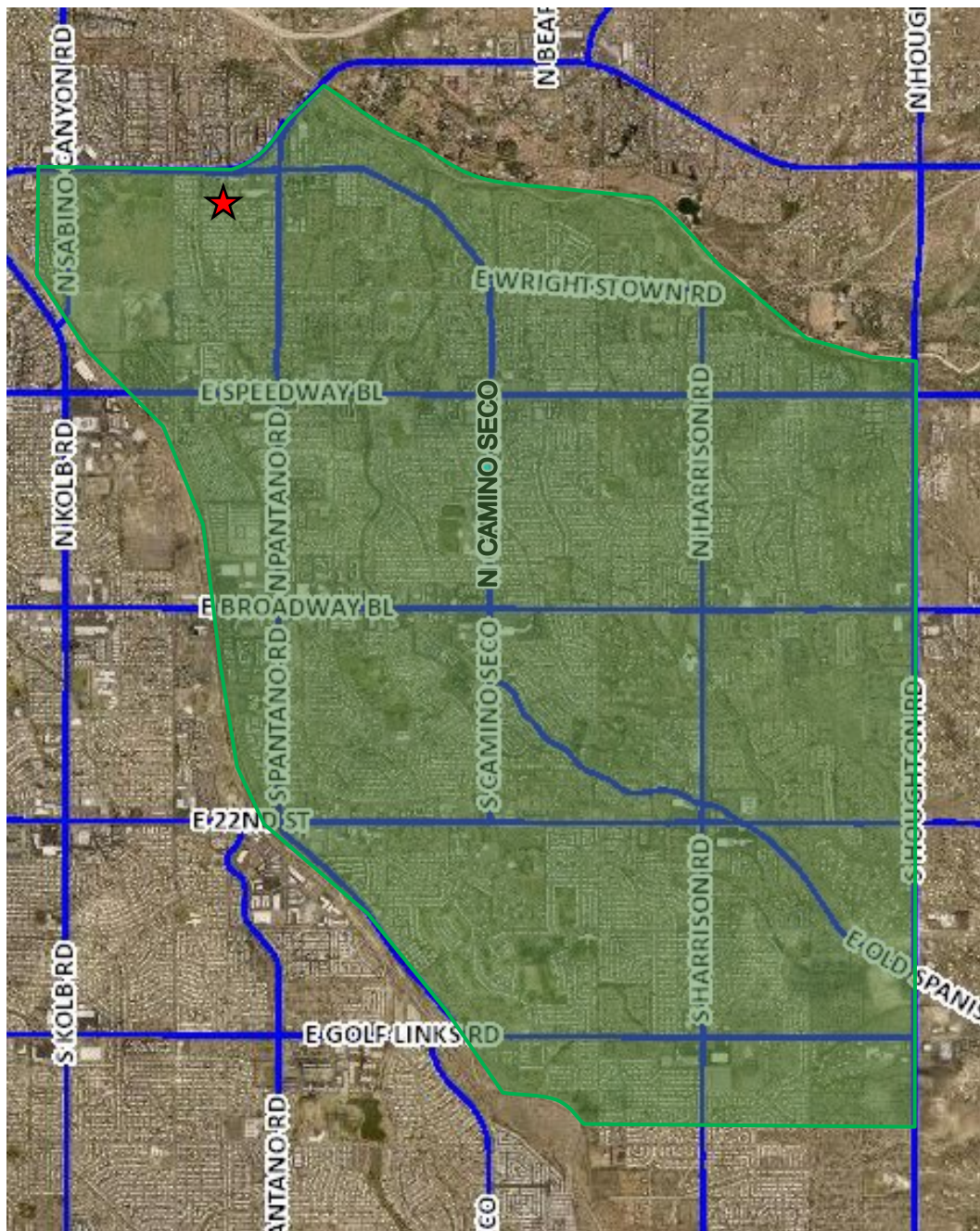
- Ensure compatibility with existing land uses by requiring appropriate design elements (fences, walls, vegetation, etc.) during the rezoning and development review processes when locating multi-family dwellings and nonresidential uses within proximity of established neighborhoods (Residential Policy 3).
 - To ensure compatibility with adjacent residences, the existing wall and healthy vegetation surrounding the site will remain.

D. Conflicts with Adopted City Ordinances or Policy



The proposed utility use does not conflict with the *Pantano East Area Plan* or *Plan Tucson*. The proposed use is permitted by the City of Tucson Unified Development Code pending the approval of the special exception application.



Exhibit I.B: Location within Pantano East Area Plan Boundary



Legend

-  Well Site
-  Pantano East Area Plan
-  Major Streets



File Name: C-112-Area Plan
Source: MapTucson GIS 2020



II. SITE ANALYSIS



A. General Information

1. Project Location

The area subject to this request is a 0.27-acre city-owned parcel located at 2294 Camino Pío Décimo, identified by APN 133-120-70B. The site is located in an service alleyway within the Pío Décimo Neighborhood (see **Exhibit I.A: Project Location**).

2. Onsite Land Uses

As demonstrated on **Exhibit II.C: Existing Conditions**, the site contains the following:

- One well (Active C-112)
- Electrical control components w/ existing 8' shade structure;
- Communication antenna (20' in height);
- Chlorine building;
- 6' chain link access gate
- 5.5' masonry block wall
- 5,000-gallon hydrotank; and
- Piping and other necessary equipment to properly function the well.

3. Surrounding Zoning and Land Uses

Adjacent properties vary between R-1, R-2, and R-3 zoning (Residence Zones). The site itself is zoned R-3 along with the properties directly to the north and northwest. Properties to the east are zoned R-2 while the properties to the south are zoned R-1. The closest structure to the well yard is located on the property to the east about 25 feet from the well yard. The properties to the south are separated from the site by a 16-foot alleyway that serves as parking access and trash collection for the properties east and west of the well site.

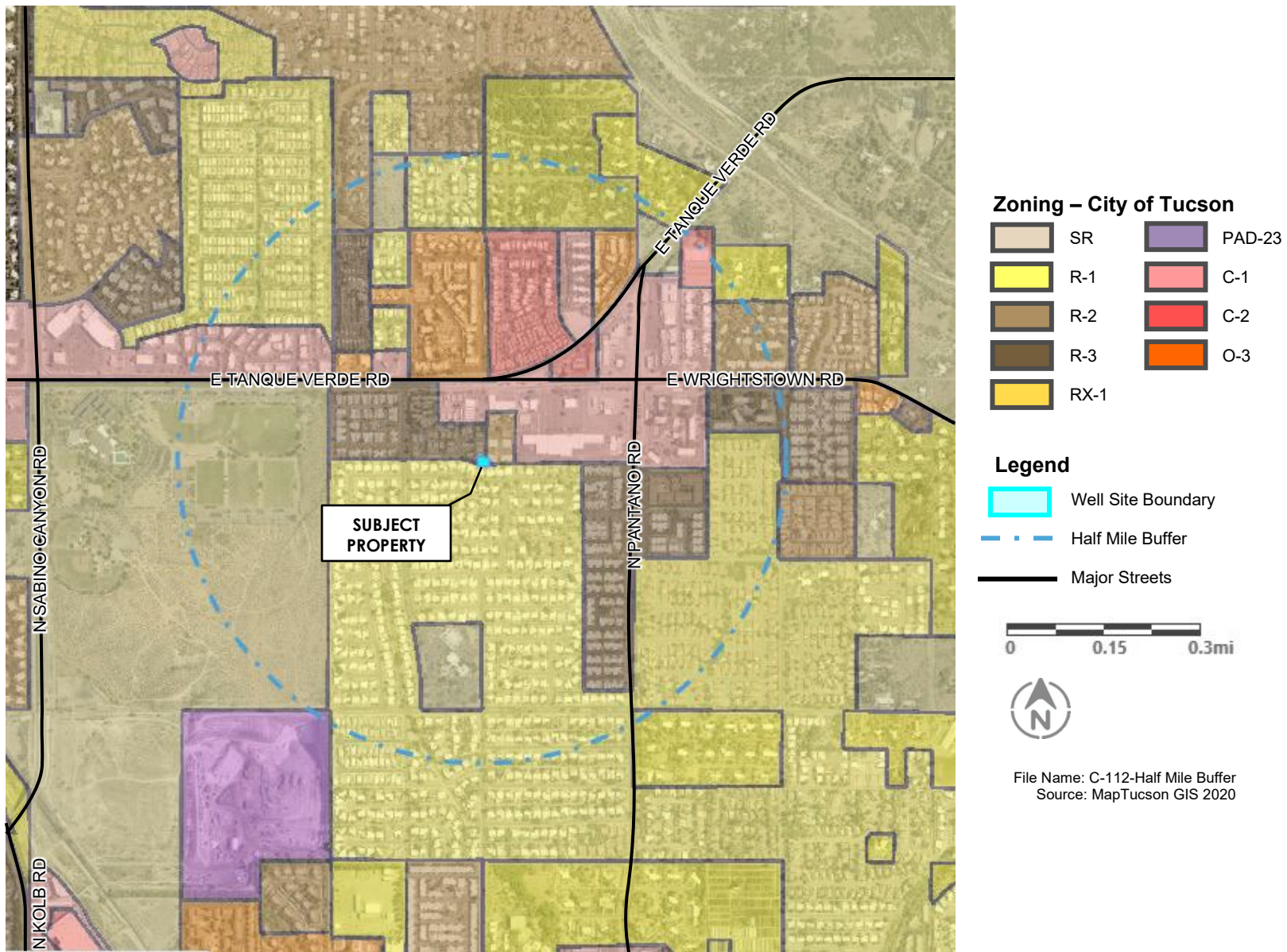
Refer to **Exhibit II.D: Surrounding Zoning and Land Uses** and **Exhibit II.E: Site Photos**.



Exhibit II.C: Existing Conditions



Exhibit II.D: Surrounding Zoning and Land Uses



B. Circulation & Trips

The well site is accessed via Camino Pío Décimo by way of Tanque Verde Road/ Wrightstown Road. Tanque Verde Road is a six-lane road with a raised median and curbs, lane striping, and a dedicated bike lane in either direction. Camino Pío Décimo is a four-lane road with striped lanes along with a striped median and raised curbs. Both streets feature sidewalks on at least one side of the road. Wrightstown varies between a four-lane and a two-lane road that features lane striping, raised curbs, occasional sidewalks, and a striped median with raised medians at intersections.

Primary ingress/egress is from Camino Pío Décimo via an alleyway that connects through to East Tanque Verde Lane. Vehicular access to the well yard is provided through a locked vehicular access gate on the yard's southern border. This access point will remain in current configuration.

The only trips generated for this well site are those generated for routine maintenance. As such, the proposed improvements will have no significant traffic impacts on the existing street network.

C. Cultural Resources

The well site has been in use for decades, with numerous improvements and maintenance occurring over time. The site is also fully graded. Given this, it is unlikely any significant cultural resources are present on the site.

D. Hydrology & Drainage

The site has been entirely graded, and the internal yard has been covered with gravel to prevent erosion. The subject property is not located within the FEMA 100-year floodplain. It does it contain any drainageways subject to the Environmental Resource Zone (ERZ) provisions, Watercourse Amenities, Safety, and Habitat (WASH) ordinance, or erosion hazard setback areas. The proposed shade structure addition will not alter the current drainage of the site in a significant manner.



E. Views

A painted masonry wall encloses the well yard. It is 6 feet in height. The existing vegetation on the site's east, west, and north sides screen the property and will not be altered in the SCADA upgrade process. See **Exhibit II.E: Site Photos**.

As shown on **Exhibit II.C: Existing Conditions**, two onsite structures currently extend above the wall/fence; the existing shade structure (approximately 6.59 feet in height) and a communications antenna (approximately 20 feet in height). Both structures are low-profile and currently do not pose significant impacts to the views from neighboring properties. The new shade structure will not pose any impacts for adjacent neighbors as it will be constructed with a similar low-profile design and painted to blend with the other equipment onsite.

The existing healthy vegetation (on neighboring properties) will remain unaltered and will continue to screen well equipment from neighboring views.



Exhibit II.E.1: Site Photos



Exhibit II.E.2: Site Photos (continued)

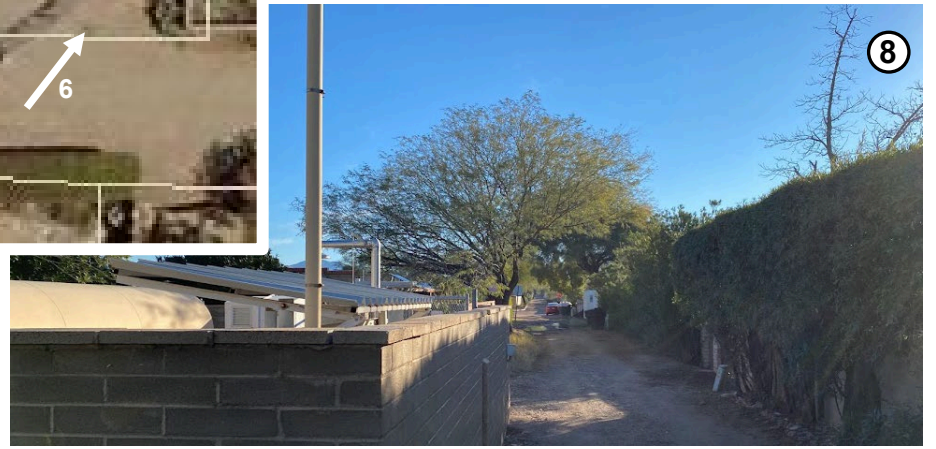


Exhibit II.E.3: Site Photos (continued)



III. PLAN PROPOSAL



A. Site Layout

As demonstrated in **Exhibit III.F: Preliminary Development Plan (PDP)**, the proposed improvements consist of constructing an additional shade structure to protect the new SCADA upgrades, repairing or replacing existing equipment, and installing SCADA upgrades.

Shade Structure

This plan proposes installing a similar shade structure as the existing one over the second control panel to protect it from the elements. The new shade structure will be about 9 feet tall, cover approximately 40 square feet, and be painted to match the existing shade structure. The shade structure will be set back less than one foot from the western property boundary.



Circulation

Tucson Water technicians will enter the site through the existing vehicular gate on the southeastern corner of the well yard to service the equipment as necessary. Onsite parking is provided for technicians, eliminating the need for on-street parking.

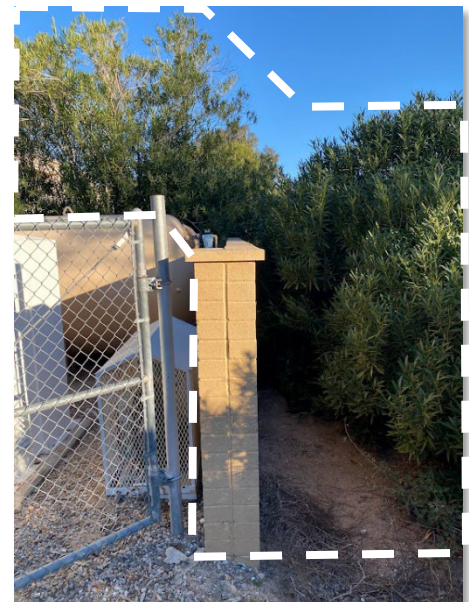


Landscape and Screening

Existing vegetation on neighboring properties will remain in place and will continue to screen the well from view.



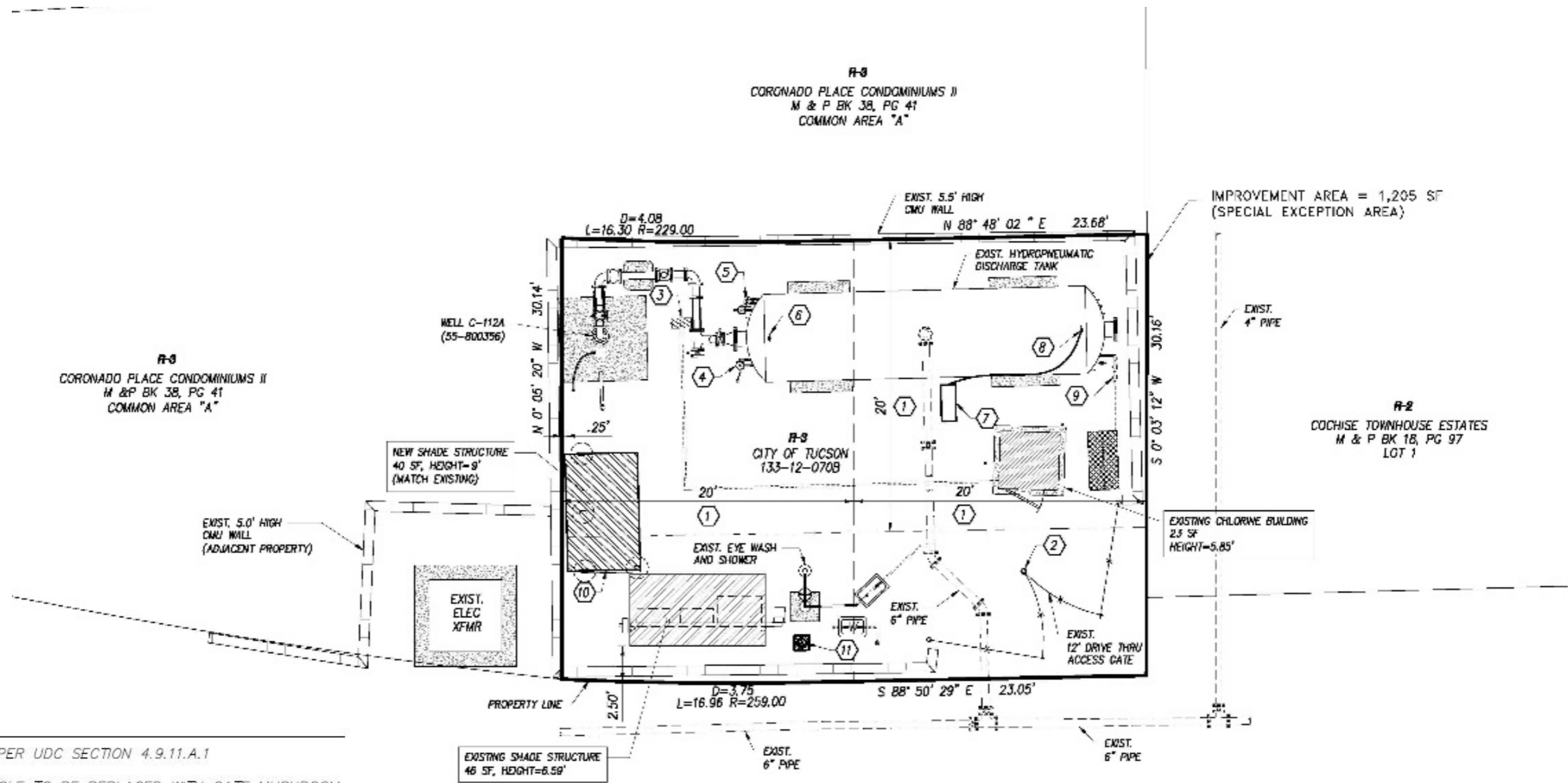
The 5.5-foot masonry brick screens the majority of the perimeter of the site, completed with the chain link gate on the southeast portion.



Existing screening around the entire perimeter of the well yard will remain.



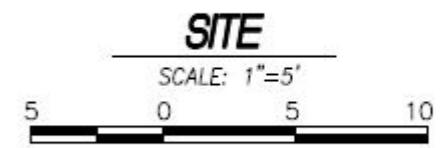
Exhibit III.A: Preliminary Development Plan



SITE KEYNOTES

1. PERIMETER YARD: 20' PER UDC SECTION 4.9.11.A.1
2. EXISTING GATE POST HOLE TO BE REPLACED WITH GATE MUSHROOM STOP
3. NEW DISINFECTION CONTAINMENT BOX ASSEMBLY
4. K-TEK LIQUID LEVEL ASSEMBLY
5. INSTALL PRESSURE GAUGE ASSEMBLY
6. RECONFIGURED POP SAFETY PRESSURE RELIEF VALVES
7. NEW PRESSURE CONTROL ASSEMBLY
8. NEW HYDRAULIC HOSE CONNECTION
9. NEW OIL SEPARATORS & PIPING ASSEMBLY
10. NEW SHADE STRUCTURE W/SUN SHADE (MATCH EXISTING SHADE STRUCTURE HEIGHT)
11. NEW ANTENNA, POST & FOUNDATION

16' ALLEY
BK 20, PG 80



B. Design Compatibility

This Special Exception request allows Tucson Water to provide upgrades to the well's SCADA system and to install a new shade structure to protect a new electrical control panel. While individual well components may be replaced or added, the overall site layout maintains its current configuration (with the exception of the antenna relocation within the site) and preserves existing screening and landscaping. The proposed shade structure is situated in the southwest corner of the well yard next to the existing shade structure and electrical controls. The new shade structure will be constructed of similar materials as the existing one. Vehicular access and parking will remain in the same configuration.

The proposed utility distribution system is appropriate within the R-3 zone when special consideration is given to minimize the adverse impacts of the use on adjacent properties. The following lists the applicable use-specific standards as required by the UDC for utility distribution systems in the R-3 zone and demonstrates how the SCADA control building meets the intent of all applicable use specific standards outlined in UDC Section 4.9.11.A.1, .2, .5, .8, .9, and .11.

1. Applicable Use-Specific Standards

- **Use Specific Standard 4.9.11.A.1:** *The setback of the facility, including walls or equipment, shall be 20 feet from any adjacent residential zone.*

Exhibit III.F: Preliminary Development Plan demonstrates that the new shade structure will be located on the well yard's western boundary in the southwest corner of the yard. The existing well and associated equipment will remain in the same configuration as they have been for decades though some pieces may be replaced or added onto as part of the SCADA upgrade. Due to the existing configuration of the site and the size of the property, a 20-foot setback cannot be achieved. As such, Tucson Water requests relief from this use-specific standard. However, the existing masonry wall screens the new shade structure from the adjacent properties.

- **Use-Specific Standard 4.9.11.A.2:** *Where a facility is not enclosed within a building, the surrounding screen shall be used as the building wall for the purposes of setbacks.*

As demonstrated in **Exhibit III.F: Preliminary Development Plan**, the well yard is enclosed by masonry brick and a chain link gate. The SCADA system will be entirely contained within the well yard and the configuration of the well yard will remain unaltered by the SCADA upgrade. The well yard is too small to meet the required setbacks if enforced from the fence.



The new shade structure is at least 20 feet from the nearest residential structure. The new shade structure will be entirely contained by the masonry brick wall and the general configuration of the well site will remain unaltered, so it should be deemed permissible for this site.

- **Use-Specific Standard 4.9.11.A.5:** *The use shall not have any service or storage yards.*

No permanent service or storage yards are proposed with this special exception application.

- **Use-Specific Standard 4.9.11.A.8:** *Any building housing such facility shall be in keeping with the character of the zone in which it is located. The Design Review Board (DRB) shall review all applications and make recommendations to the Zoning Examiner. The DRB shall review architectural style, building elevations, materials on exterior facades, color schemes, new mechanical equipment locations, light of outdoor areas, window locations and types, screening, landscaping, vehicular use areas, and other contributing design features.*

If deemed necessary, an application will be submitted to the DRB to ensure the new shade structure design is compatible with the surrounding neighborhood.

- **Use-Specific Standard 4.9.11.A.9:** *The use shall be located wholly within an enclosed building or within an area enclosed on all sides with a masonry wall or compact evergreen hedge, not less than six feet nor more than ten feet, in height.*

Exhibit III.F: Preliminary Development Plan demonstrates that the SCADA upgrade and new shade structure will be located within the well yard which is entirely enclosed by an existing 6-foot masonry brick wall.

- **Use-Specific Standard 4.9.11.A.11:** *The use shall be limited to water pumping and storage facilities, telephone exchanges, and power substations with an input voltage no greater than 138 kilovolts.*

The improvement area and entire well site are solely used for water pumping and distribution facilities. No other uses are proposed.

2. Building Setbacks

Exhibit III.F: Preliminary Development Plan shows that the proposed shade structure will be set back at least 30 feet (plus the alleyway buffer and additional walls) from the nearest residential structure. The existing well



equipment and structures will remain in their current configuration. Existing walls around the well yard and surrounding vegetative screening will minimize any impacts created by the new structure.

3. Transition of Building Heights

The proposed shade structure will be approximately 9 feet tall and located next to the existing shade structure in the southeast corner of the well yard. The new shade structure will be constructed with similar materials as the existing shade structure onsite. Because the proposed structure is screened by a 5.5-foot masonry brick, and other nearby properties utilize screening and walls that are similar in height, views of the 9-foot-tall shade structure will be negligible. The location and materials of the new shade structure ensure it will blend in with the existing one to further minimize impacts on neighboring views.

4. Landscaping & Screening

The existing perimeter walls will remain in place. Given the size of the site and the potential conflicts with installing landscaping internal to the yard, no landscaping will be provided. However, there is significant vegetation on the adjacent properties that will remain in place and continue to screen the well yard.

5. Vehicular Use Areas

The well site accommodates the minimum parking standards outlined in UDC Section 7.4.4. The Utilities Use Group requires one (1) parking space per 500 square feet of Gross Floor Area (GFA), with a minimum of two (2) parking spaces per facility. Space within the well yard via the vehicular gate and on the site's northern portion, outside the well yard, provides ample space for motor vehicle parking.

C. Post-Development Hydrology

The new shade structure is the only new impervious surface proposed. Runoff from such a small structure, approximately 40 square feet, will be minimal and contained onsite. The site's natural drainage condition will remain in its current state with no adverse impacts created by the proposed improvements.

D. Utilities

All utilities necessary for the well to properly function currently exist on the property.

