



**ALTA VISTA WELL SITE (B-045C)
SPECIAL EXCEPTION
PRELIMINARY DEVELOPMENT PACKAGE**



Tucson Water Well Site (B-045C)

Special Exception

2700 East Alta Vista Street
Tucson, Arizona 85716

SPECIAL EXCEPTION
Preliminary Development Plan
SE- 21-11 Date 7-19-21
Planning & Development Services

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ALTA VISTA WELL SITE (B-052B)
SPECIAL EXCEPTION
I. INTRODUCTION



Introduction

This document is submitted on behalf of the City of Tucson Water Department (Tucson Water) as a requirement for the special exception and design review board applications for a 0.24-acre parcel located at 2700 E Alta Vista Street. The site is situated between East Alta Vista Street and East Sylvia Street. The purpose of this special exception is to allow Tucson Water to drill and equip a new well on the already functioning well site.

The project site, currently zoned R-2 (Residence Zone), is located within Township 13S, Range 14E, Section 32, and identified by Assessor Parcel Number (APN) 112-07-0180. In accordance with Unified Development Code Section 4.8.4 (Permitted Uses: Urban Residential Zones), the proposed utility distribution use is permitted as a special exception use within the R-2 (residence) zone, upon approval from the Zoning Examiner.

A. Background

Well B-045A was drilled on this site in 1948 to provide water to the Grant Road Park Subdivision. In 1966, Well B-045A was deepened from 235' to 355' in hopes of establishing more capacity to better serve the community. Due to inefficiencies, Well B-045A was replaced with a new well (B-045B) and was placed out of service in 1977. In the early 2000's, the well site was improved to have a sound mitigating enclosure (current enclosure of the well yard). In 2015, Well B-045B was taken out of service for a brief period of time to upgrade the equipment in hopes of lengthening the well's life space. Due to a decline in production, Well B-045B will be taken out of service once the new well (B-045C) is in operation. As part of Tucson Water's long-term water management strategy, Well B-045C will be drilled to replace the older Well B-045B on-site and provide increased capacity and redundancy in the water delivery system. The purpose of this request is to drill and equip Well B-045C with the necessary equipment in order to continually provide exceptional water service.

To provide the anticipated benefit to the community, the following improvements are necessary to manage the operation of the new well. They include first drilling well B-045C, and then constructing a 100 square foot (SF) electrical control building to house sensitive equipment from natural elements and upgrading the existing communication antenna, 5,000-gallon hydrotank, and other essential technology and equipment. The well yard will be enclosed with an 8-foot decorative masonry wall. Additionally, a landscape border will be provided along Alta Vista Street to enhance the overall aesthetic of the streetscape. The existing perimeter screening around the well site will largely remain as it is today.

B. Tucson Water Policy Guidance

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 over-drafting of local aquifers. One of the consequences of over-drafting aquifers is lowering the water table, rendering older wells inoperable.

A long-term water management strategy designed to provide redundancy in water delivery abilities is now being implemented as a means of addressing long term climate change issues and concerns about drought in the Colorado River basin. As a result, Tucson Water is replacing many of the existing or retired older Central Wellfield wells. Many of these wells were taken out of



production in the early 2000s as the use of Colorado River water increased. Tucson Water is currently replacing many of these wells so that they can be used to provide continuity of water service. Tucson Water is also working to increase system capacity within the midtown area to supplement existing wells that are declining to produce sufficient water quality. These improvements are critical for Tucson Water to be prepared in the event of a failure in the Colorado River system or the infrastructure which delivers recovered Colorado River water from the Avra Valley west of Tucson.

Policy guidance on this action is provided in the (Draft) 2020 Drought Preparedness and Response Plan, and funding has also been allocated in the Capital Improvement Program Budget. This includes the drilling and equipping of replacement wells and connecting them to the distribution system.

C. Conformance with Plan Tucson and Area Plan

The project site is subject to the policy laid forth in the City of Tucson's General and Sustainability Plan, *Plan Tucson*, and the Cragin-Keeling Area Plan.

1. Plan Tucson

The subject property is located within an area designated by *Plan Tucson* as an "Existing Neighborhood." The re-established well site aligns with this designation as it continues a low-impact development on a parcel already serving that use. This well site allows Tucson Water to continue to provide a safe and sustainable clean drinking water supply for the community. The following policies in *Plan Tucson* support the proposed well site:

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

The well site's visual appearance will be improved by installing a landscape border along Alta Vista Street containing drought-tolerant trees, shrubs, and groundcovers. Furthermore, a new 8-foot decorative masonry wall will be built along the perimeter of the well yard. Internal to the yard, a 100 square-foot (SF) control building built out of concrete (roof) and CMU block finished with a tan 'Dryvit' stucco, which closely emulates the color of the hydro tank and other equipment, and nicely blends with the tan privacy slats that will be inserted in the access gates. The structure and equipment have been strategically positioned onsite to minimize noise and visual impacts to the greatest extent feasible.

- *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.*

The landscape border along Alta Vista Street will incorporate tolerant native vegetation, drought-tolerant trees, shrubs, and groundcovers consistent with the plant materials found in the neighborhood to preserve its overall character. Tan privacy slats (colored similar to the control building, hydro



tank, and other equipment onsite) will be inserted in the proposed chain-link access gates adjacent to Alta Vista Street to soften the utility use as seen from the street perspective.

Other policies that support the expanded well site 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. Cragin-Keeling Area Plan

Mayor and Council adopted the Cragin-Keeling Area Plan (CKAP) in March of 1990 to guide future development of an area that encompasses 2.96 square miles in the north-central portion of the city. The plan area is “L-shaped,” with the “L” lying on its back along Grant Road and its foot running north along Stone Avenue. The area is bounded by Prince Road, First Avenue and Fort Lowell Road on the north, Grant Road on the south, Country Club Road on the east and Stone Avenue on the west (see *Exhibit I: Location Within Area Plan Boundary*).

The goal of the CKAP is to preserve and protect the integrity of and to improve established low- to medium density neighborhoods. The existing well site has been a part of the neighborhood since the 1960s. Improvements to the well site are intended to maintain the neighborhood's integrity while enhancing water delivery service in the area. As such, Tucson Water's new well and the associated improvements to the existing well site conform to the *Cragin-Keeling Area Plan* by:

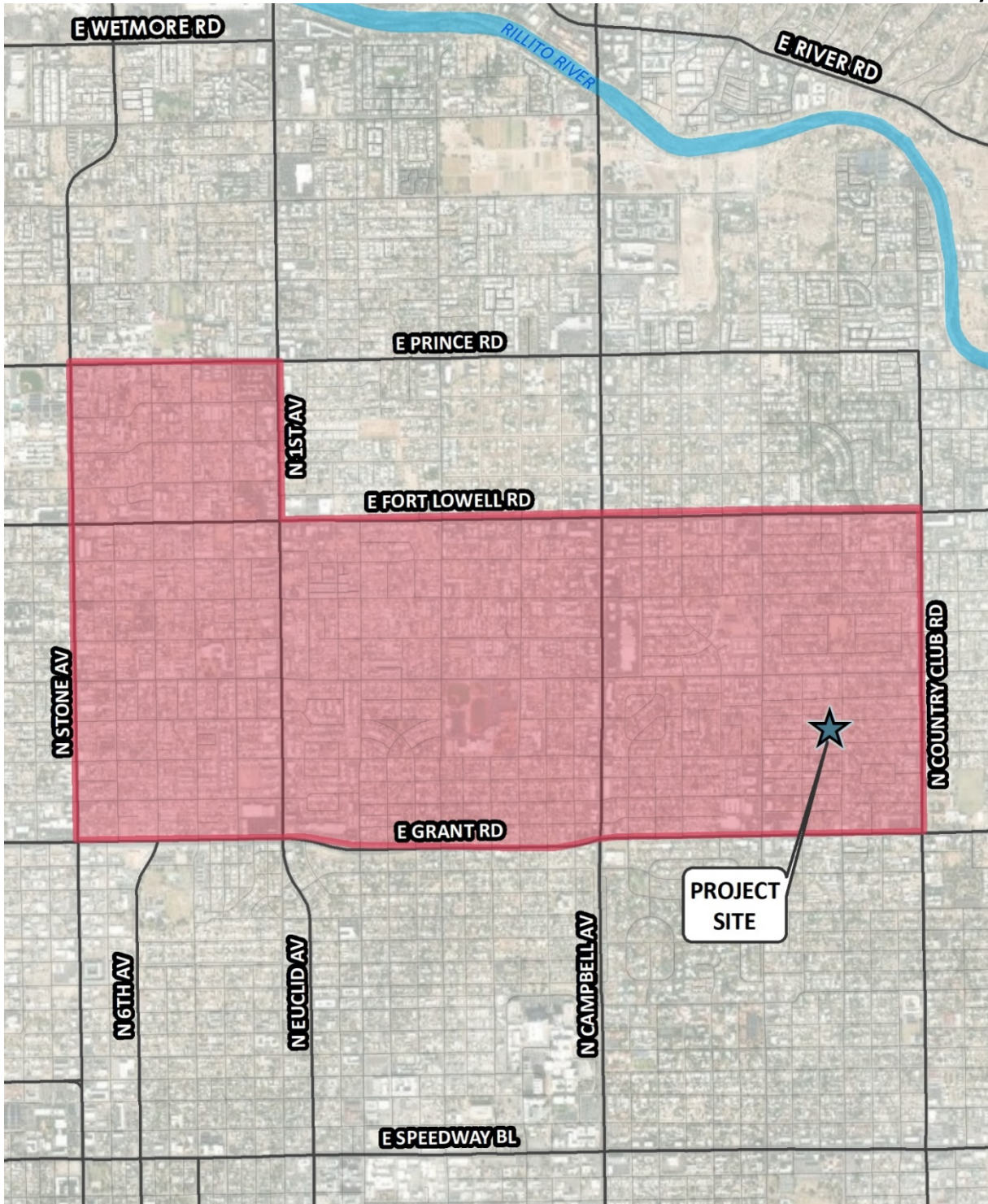
- Generating minimal traffic so that traffic generated by the well site will not overburden the street systems of the area.
- Enhancing the existing screening of the well yard with an 8-foot decorative masonry wall to minimize the visual impact on neighboring properties.
- Providing 20-foot setbacks from the property line.
- Preserving existing view corridors of the mountains.

D. Conflicts with Adopted City Ordinances or Policy

The proposed utility use does not conflict with the *Cragin-Keeling 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.



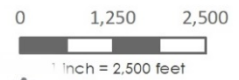
Exhibit I: Location Within Area Plan Boundary



Legend

- ★ Project Location
- Cragin-Keeling Area Plan

- Major Street
- Local Street



Name: area_plan_6x8
Pima County GIS 2020





**ALTA VISTA WELL SITE (B-052B)
SPECIAL EXCEPTION
II. SITE ANALYSIS**



A. General Information

1. Project Location

The site subject to this request is a 0.24-acre property located at 2700 E Alta Vista Street, identified by APN 112-07-0180. The property is situated between Alta Vista Street and Sylvia Street (see *Exhibit II.A.1: Project Location*). The parcel is categorized as a single-family residential lot located within the Country Glenn Neighborhood. The site is approximately 120' west of Treat Avenue.

2. Boundary Dimensions

The subject property is generally rectangular with a length of approximately 130' and a width of roughly 100' with a 30' by 50' notched portion on the southeast corner of the site (see *Exhibit II.A.1: Project Location*).

Exhibit II.A.1: Project Location



3. Onsite and Adjacent Land Uses

The 0.24-acre well site is currently zoned R-2 and contains the former wells (B-045A and B-045B), an electrical rack and 6' shade structures, a 20' communication antenna, a 5,000-gallon hydrotank, and a disinfection system. The perimeter screening that surrounds the well site generally consists of 5- to 7-foot block walls or chain-link fences (with wooden or plastic privacy slats) on neighboring properties. The internal well yard is approximately 0.06 acres and is covered with gravel. Primary ingress/egress to the site is provided at one access point on East Alta Vista Street. *Refer to Exhibit II.A.2.a: Current Site Conditions and Exhibit II.A.2.b: Site Photos.*

The properties surrounding the existing well site are zoned R-2 and consist of one- and two-story single-family residences.

Refer to Exhibit II.A.2.c: Zoning and Land Uses.



Exhibit II.A.2.a: Current Site Conditions

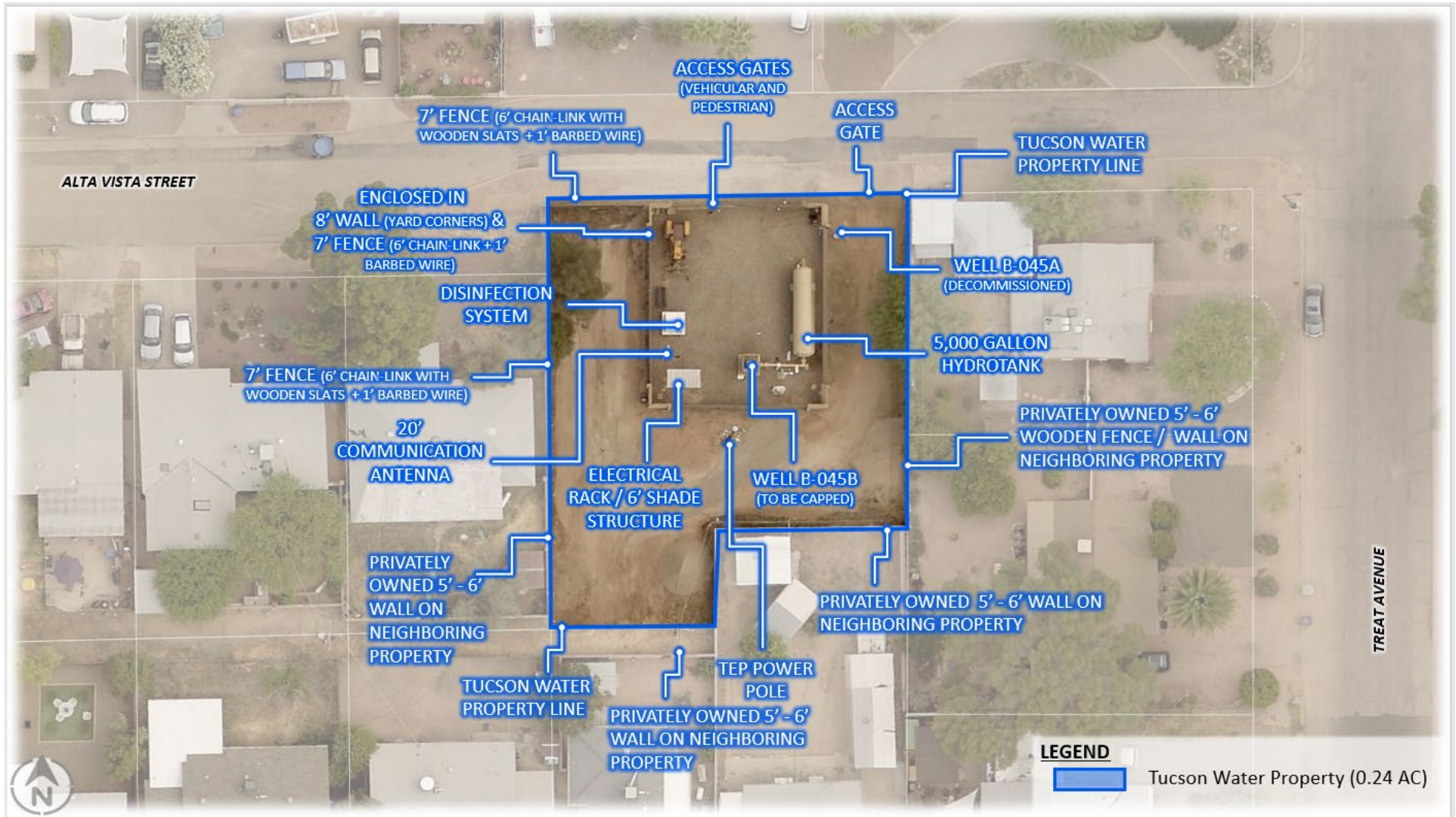


Exhibit II.A.2.b: Site Photos



Exhibit II.A.2.b: Site Photos (continued)



Exhibit II.A.2.b: Site Photos (continued)



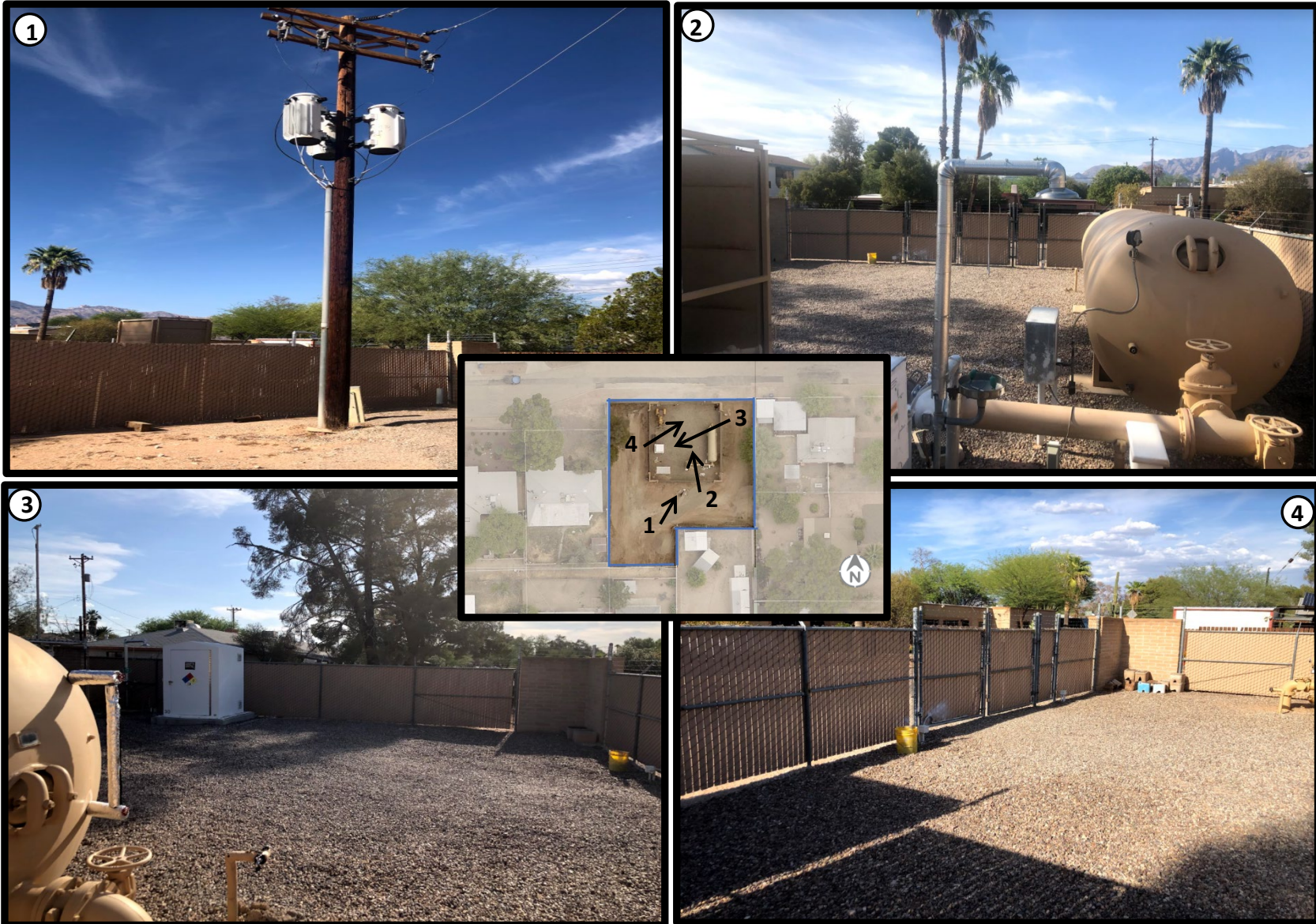





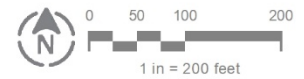


Exhibit II.A.2.c: Zoning and Land Uses



Legend

 Subject Property	Zoning
 Parcel	 R-1
 500 foot Radius	 R-2



File Name: COT-31_landuse_6x8
Source: Pima County GIS, 2020



B. Circulation and Trips

The subject parcel is located on Alta Vista Street, approximately 400' south of Glenn Street. Alta Vista Street is a minor local road with a right-of-way width of 60'. Glenn Street is classified as a Collector with a right-of-way width of 90'. Grant Road is the nearest arterial street as classified by the City of Tucson's *Major Streets and Routes Plan*. It has a proposed right-of-way of 120' and consists of six (6) vehicular travel lanes; three (3) lanes in each direction with a central raised median. The speed limit is 40 miles per hour (mph) in both directions, and the roadway is equipped with curbs, gutters, sidewalks, and bicycle lanes on both sides.

Access to the well yard is provided from Alta Vista Street via existing vehicle and pedestrian gates along the northern border of the well yard. Given that the proposed use generates no traffic, except for trips generated as a result of routine maintenance, it is anticipated there will be no noticeable impact on the surrounding street network.

C. Cultural Resources

Given the age of the well and the numerous grading activities that have occurred on the property since the original drilling in the late-1940s, it is unlikely that cultural resources of significance would be found on the site.

D. Hydrology & Drainage

Considering that the site has been entirely graded and the impervious surfaces associated with the proposed well expansion are minimal, it is anticipated that this site's natural drainage conditions will largely remain in their current state.

The subject property is not located within a 100-year floodplain. It does not contain any drainageways subject to the Environmental Resource Zone (ERZ) provisions, Watercourse Amenities, Safety, and Habitat (WASH) ordinance, or erosion hazard setback areas.

E. Views

The well yard is currently enclosed with a 7-foot tall chain-link fence with privacy slat / masonry wall (at the corners). On the property line, the site is enclosed by a privately owned 6' wooden fence on the neighboring property to the east, a privately owned 6' wall on the neighboring property to the south and southwest, and a 7' chain-link fence with wooden slats on the property to the west. The screening treatment on the property line will remain as it exists today. Given that the well site and the yard are currently enclosed and contain similar features to what is proposed with the improvements, it is anticipated that views from neighboring properties will be minimally impacted.





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ALTA VISTA (B-045C)

SPECIAL EXCEPTION

III. PLAN PROPOSAL



A. Site Layout

The purpose of this request is to allow Tucson Water to drill a new well (Well B-045C) within a slightly expanded well yard on the subject property which has functioned with a well since the late-19400's. The proposed site improvements are permitted as a Special Exception use in the existing Residence Zone (R-2) and require a Zoning Examiner Special Exception Procedure, per section 3.4.3. of the Unified Development Code.

As shown on *Exhibit III.A: Preliminary Development Plan*, Tucson Water proposes to drill a new well, and construct or install the following improvements on the site to improve water delivery service. It should be noted that upon completion of the described improvements, Well B-045A and B-045B will no longer utilized for production purposes, however, they will remain and may be continued to be used for water level and quality monitoring purposes.

Currently the well yard (the internal well area on the site) makes up approximately 0.06 acres of the total well site. With improvements to the well yard, and the installation of a new 8' decorative masonry wall, the total acreage of the well yard will increase to 0.07 acres of the total 0.24 acres.



Control Building

A 100 square-foot (10' x 10') control building, similar to the example shown in the photo to the right, will be constructed in the northwestern portion of the site, approximately 21' from the western property boundary and about 20' from the southern border. The control building houses the well's monitoring system, communication equipment, and a pump.



The control building will be a maximum of 9'-8" in height and built with concrete (roof), and CMU masonry block finished with a tan 'Dryvit' stucco that matches the color of the equipment and privacy slats that will be inserted in the access gates. The control building will have a single door that opens to the east, and a small A/C unit, similar to those mounted on residential homes, will be mounted on the building's exterior. The A/C unit and equipment inside are anticipated to be minimally heard from adjacent properties.

Communication Antenna

A communication antenna will be installed south of the proposed control building (refer to the image to left). The location of the communication has been selected to integrate the antenna with the control building visually. The antenna



consists of a 2" low-profile steel mast that extends to a maximum of 20' in height and is set back approximately 26' from the western boundary and about 30' from the northern boundary. The communication antenna will be finished in an earth-toned paint color. The communication antennae's radio will link the well site to the respective master station radio and the existing microwave system operated by the City of Tucson Communications Division.

Hydro Tank with Air Compressor

A 5,000-gallon hydro tank with a small air compressor, similar to that shown in the image to the right, will be installed in the existing well yard, and will run lengthwise along the eastern wall. The hydro tank stores water circulating through the system while the air compressor intermittently pumps air through the system for short periods throughout the day. Given modern technology, the air



compressor is not expected to pose significant noise impacts on the adjacent property owners. Tucson Water is committed to working with the neighbors in the unlikely event that noise generated from the air compressor creates future issues for the adjacent property owners.

Screening Improvements

Screening surrounding the well site will remain largely as it is today. The perimeter of the subject property is enclosed by privately owned fences and walls on neighboring properties on the east, south and west sides of the property. A small portion of the existing chain-link fence with wooden slats on the northwest corner is currently owned by Tucson Water. A portion of the fence will be removed along the north property line and replaced with post-and-cable bollards. The wooden slats on the remaining fence (along the eastern property line) will be replaced with new tan vinyl slats similar to those inserted in the access gates on the western portion of the fence while the north side of the fence will be replaced with bollards. The well yard on the property is currently surrounded by a 7' chain link fences with tan privacy slats and decorative masonry walls on each corner of the property. With the exception of pedestrian and vehicle gates on the northern and southern borders of the well yard, the existing chain-link fence will be replaced with an 8' decorative masonry wall.

Landscape Improvements

Two 13' x 25' and 13' x 12' (minimum) landscape border will be installed adjacent to Alta Vista Street. The landscape border on Alta Vista Street will feature drought-tolerant plant material typical to the desert southwest and neighborhood. The property outside of the well yard will remain as it is for maintenance access for existing utilities and easements located on the site.

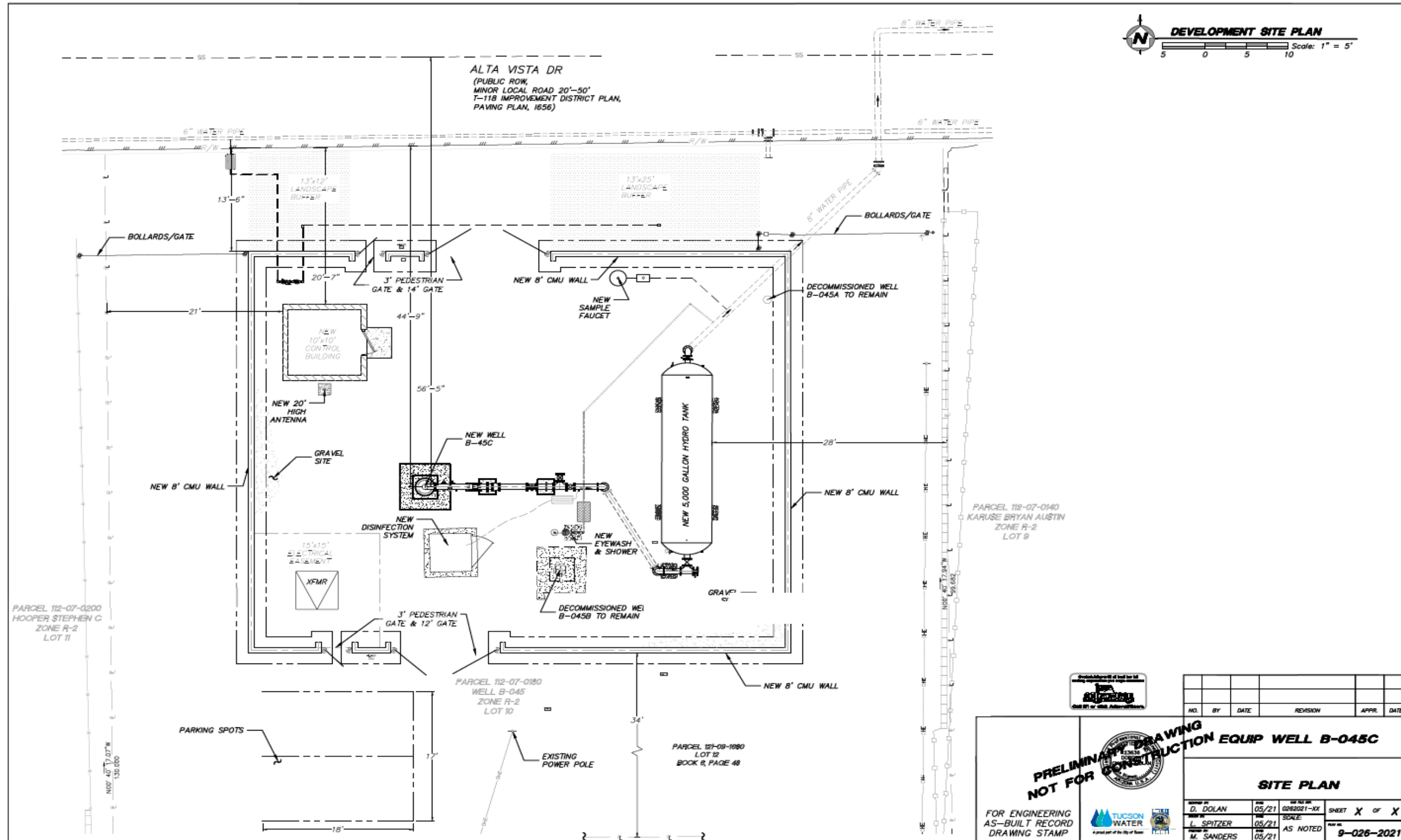


Other Site Improvements

Other improvements anticipated to occur on the site include the following:

- Replacement of the existing disinfection system in the center of the site
- Installing a new submersible (underground) pump, piping, and other equipment necessary for the well to properly function.
- Installation of post-and-cable bollards and access gates between the well yard and perimeter fencing on the property line to prevent unwanted trespass on the property.
- Installation of two parking spaces on the well site, eliminating on-street parking of maintenance vehicles.





**PRELIMINARY DRAWING
NOT FOR CONSTRUCTION**

CONSTRUCTION EQUIP WELL B-045C

SITE PLAN

NO.	BY	DATE	REVISION	APPR.	DATE

FOR ENGINEERING AS-BUILT RECORD DRAWING STAMP

TUCSON WATER

DESIGNED BY D. DOLAN	DATE 05/21	CHECKED BY L. SPITZER	DATE 05/21	SCALE AS NOTED	SHEET X OF X
APPROVED BY M. SANDERS	DATE 05/21				9-026-2021

B. Design Compatibility

1. Design Criteria

The well site is currently enclosed by existing private fences and walls on the property's eastern, southern and western borders, as well as by a 7' chain-link fence with wooden slats owned by Tucson Water on the northeastern corner of the property. The screening along the property line will remain as it is with the exception of the portion of fencing owned by Tucson Water. The existing wooden slats will be replaced with tan vinyl slats to emulate the treatment of access gates to the well yard. The existing 7' chain-link fencing surrounding the well yard will be entirely replaced with an 8' decorative masonry wall with the exception of the pedestrian and vehicular gates on the northern and southern border of the well yard.

Additionally, landscaping will be provided in the landscape border along Alta Vista Street Boulevard in accordance with the UDC to effectively blend the utility use in with the surrounding residences. The proposed electrical control building and antenna have been thoughtfully positioned onsite so that they are screened from neighboring properties by the proposed vegetation in the landscape buffer and the proposed masonry wall.

The electrical control building will be constructed using concrete masonry. The building walls will be stuccoes with 'Dryvit' and painted tan in a manner compatible with the surrounding area and that is consistent with other Tucson Water well sites throughout the city. Colors, materials, and styles will be complementary to surrounding existing development. Highly reflective materials are not proposed on this site and shall be avoided when possible.

2. Applicable Use Specific Standards

The proposed utility distribution system use of the subject property requires that all activities on the site will be conducted in conformance with applicable use specific standards outlined in UDC Section 4.9.11.A.1, .2, .5, .8, .9, and .11 to the greatest extent feasible.

- *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.*

The subject property and surrounding properties are zoned R-2 (Residence Zone). As demonstrated on the PDP, the well, electrical control building, hydro tank and communication antenna have been set back at least 20' from all property lines. The control building and onsite facilities have been strategically positioned on site and are anticipated to minimally, if at all, disturb the adjacent neighbors.

- *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.A: Preliminary Development Plan*, the existing perimeter screening (chain-link fence or masonry wall) is the basis for setback measurements.

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

The proposed well site will not have any permanent service or storage yards associated with the use.

- *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.*

An application will be submitted to the DRB to ensure the electrical control building and the site's overall 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.*

The well yard will be surrounded by an 8' decorative masonry wall and will have pedestrian and vehicle gates on the northern and southern borders of the well yard that consist of a 7' chain-link fence with tan vinyl privacy slats. The existing screening on the property line is provided by privately-owned fences and walls on neighboring properties and will largely remain as is with the exception of a small portion of fencing owned by Tucson Water on the northeast corner of the property line which will be refreshed with new vinyl privacy slats that match the equipment in the yard.

The structure housing the electrical controls for the well's operation will be enclosed by four walls. The well is submersible and operates underground, reducing or eliminating potential nuisance associated with noise during operation.

- *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 of no greater than 138 kilovolts.*

The well site will solely be utilized for water pumping and storage facilities.



3. Building Setbacks

As shown on *Exhibit III.A: Preliminary Development Plan*, the proposed well, twelve-inch water line, electrical/control building, antenna, hydro tank with air compressor, disinfection system and parking areas have all been set back a minimum of 20' from the property boundaries.

4. Transition of Building Heights

The proposed well site will require the construction of a 100 SF foot building to house sensitive equipment associated with the well that is 9'-8" in height. A communications antenna will be installed onsite and will be a maximum of 20'. The proposed electrical control building and antenna have been thoughtfully positioned onsite so that they are as far as possible away from the neighboring homes and are screened by the proposed masonry wall, the perimeter screening on the property line and vegetation on the neighboring properties.

5. Landscaping & Screening

Landscape will take the form of two landscape borders (13x25' and 13x12') on the northern property boundary to screen the site from Alta Vista Street. The landscape border will feature drought-tolerant plant species typical to the desert Southwest and the neighborhood.

The existing walls/fences along the property line will remain as they exist today with the exception of a small portion of fencing owned by Tucson Water on the northeast corner of the property line which will be replaced with tan privacy slats. An 8' decorative masonry wall will be built around the well yard. It is anticipated that the wall will be built to the City of Tucson typical standard featuring masonry material with smooth and split-face finishes and earth tone colors. The structures onsite that will extend above the perimeter wall/fences' height are the 100 SF control building and communications antenna used for well operation. The electrical/control building will be 9'-8" in height, and the antenna will be approximately 20' in height. With the addition of an at least 20' building setback from the property, the well's equipment will have minimal view impacts.

6. Vehicular Use Areas

The well site accommodates the minimum parking standards outlined in UDC Section 7.4.4. The Utilities Use Group requires one parking space per 500 SF of Gross Floor Area (GFA), with a minimum of 2 parking spaces per facility. As demonstrated on the PDP, the proposed site plan provides two parking spaces south of the new well location, which are set back at least 10' from the southern property boundary.

K. Post-Development Hydrology

Considering that the site has been entirely graded and the impervious surfaces associated with the proposed well site are minimal, the natural drainage conditions of this site will largely remain in their current condition. The site will be engineered to ensure that water is properly conveyed, so the adjacent properties are not adversely impacted.



L. Utilities

All utilities necessary for the operation of the well site are provided on site.

