

MISTER CAR WASH TANQUE VERDE + BEAR CANYON

CHANGE OF ZONING APPLICATION

APRIL 2024



THE
PLANNING CENTER

PLANNING | LANDSCAPE ARCHITECTURE



MISTER CAR WASH | TANQUE VERDE + BEAR CANYON

CHANGE OF ZONING APPLICATION

Tanque Verde + Bear Canyon
Tucson, Arizona 85749

Submitted to:



CITY OF TUCSON

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MISTER CAR WASH TANQUE VERDE + BEAR CANYON

CHANGE OF ZONING APPLICATION

PART I: INTRODUCTION + POLICY



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I. INTRODUCTION + POLICY

A. PROJECT OVERVIEW

With a distinct identity and access to the larger Tucson Metro Area, the Tanque Verde Valley is a desirable location that many residents are proud to call home. Part of maintaining this desirability is providing residents with services that meet their needs in a manner that fits the area's established character. With this in mind, CWPS Corp. is pleased to present its newest Mister Car Wash site located on Tanque Verde Road, the main western entrance into the Tanque Verde Valley.

On a daily basis, over 30,000 vehicles traverse Tanque Verde Road between Tanque Verde Creek and Bear Canyon Road. The Tanque Verde Valley currently lacks a car wash of sufficient



EXHIBIT I.A: SITE CONTEXT

size to serve the number of people traveling to and from the area. CWPS Corp. seeks to fill this need by serving the Bear Canyon Neighborhood and the larger Tanque Verde Valley with a new Mister Car Wash express car wash facility on Tanque Verde Road, approximately 400 feet west of Bear Canyon Road (refer to the subject property identified on the map above). The approximately 1.4-acre property is an ideal location for this facility as it offers residents a convenient option for cleaning their vehicles, is surrounded by existing commercial uses, and fronts onto an arterial street. In order for this project to proceed, an amendment to the neighborhood plan and a rezoning are necessary.

The property is located within the planning boundaries of the Bear Canyon Neighborhood Plan and is currently designated as 'Commercial,' which supports the proposed express car wash facility. CWPS Corp. is pursuing a plan amendment to provide an exception to a nonresidential implementation technique that requires all uses associated with the car wash to be contained within an enclosed and roofed structure. In conjunction with the plan amendment request, CWPS Corp. is requesting to rezone the site from its current zoning, C-1 (Commercial Zone), to C-2 (Commercial Zone).

Mister Car Wash is a publicly traded company (NYSE) headquartered in Tucson, employing over 7,000 people nationwide and over 600 locally. Mister Car Wash specializes in providing a quality car washing experience anchored in thoughtful site design, state-of-the-art technology, exceptional customer service, and environmentally friendly practices. Over the years, Mister Car Wash has developed a reputation for property stewardship and intends to maintain this site like its other locations. The new Mister Car Wash will develop two vacant under-utilized parcels with a car wash facility compatible with the existing neighborhood commercial center. Its design, including site layout,

architecture, and landscaping complements the surrounding developments and enhances the commercial corridor along Tanque Verde Road. Additional theming elements are also incorporated with the site design to complement and celebrate the neighborhood's history and character while contributing to the aesthetics of the planned Equine District to the west.

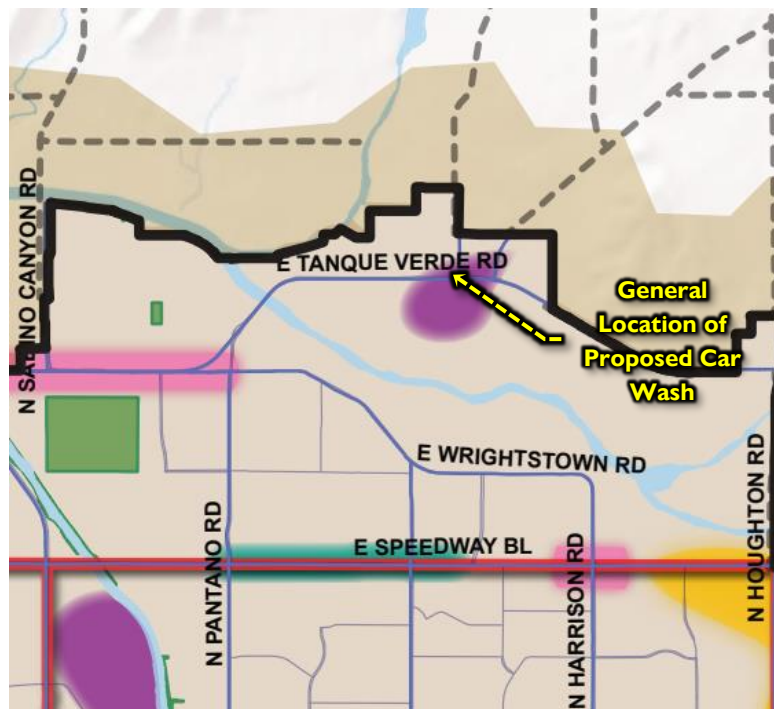
B. APPLICABLE PLANS + ORDINANCES

The proposed Mister Car Wash conforms with policy recommendations outlined in the City of Tucson's General and Sustainability Plan, *Plan Tucson*, and the *Bear Canyon Neighborhood Plan (BCNP)*. Both plans emphasize compatibility between land uses, protecting established neighborhoods, and managing traffic. Since the property is adjacent to Tanque Verde Road, a scenic arterial roadway identified on the *City's Major Streets and Routes (MS&R) Plan*, conformance to the *Major Streets and Routes Setback Zone* and the *Scenic Corridor Zone* are required. *Tucson Resilient Together*, the City of Tucson Climate Action and Adaptation Plan, also offers policy guidance for developing a more climate-resilient community, which is considered in this development.

1. PLAN TUCSON

Plan Tucson provides land use and policy direction for future growth within the city limits based on specific characteristics or 'building blocks.' As shown in the photo below, the subject property is located within a 'Mixed-Use Center' building block. The goal for properties situated in this designation is:

"Mixed-use centers combine a variety of housing options, retail, services, office, and public gathering places, located close to each other, providing occupants of the center and the residents and workers in the surrounding neighborhoods with local access to goods and services. Public transit, bicycles, and walking will get priority in these areas, although cars will still play an important role" (Plan Tucson, 3.145).



The following policies found in Plan Tucson apply to the proposed development.

- *LT28.6.3: Support community commercial and office uses located at the intersections of arterial streets, taking into consideration traffic safety and congestion issues.*
- *LT28.6.4: Support neighborhood commercial uses located at the intersections of arterial streets, arterial and collector streets, or collector street intersections.*
- *LT28.6.13: Protect established residential neighborhoods by supporting compatible development, which may include other residential, mixed-use infill, and appropriate nonresidential uses.*

The new car wash will complete the neighborhood commercial center at the intersection of two arterials, Taque Verde Road and Bear Canyon Road, by filling in two properties that have sat vacant for years. The car wash will also enhance the community's character by improving the street frontage with healthy landscaping, community theming, and aesthetically pleasing architecture. It also provides a convenient location for residents of the Tanque Verde Valley to maintain the appearance of their automobiles.

- *JW3: Increase and promote environmentally sensitive businesses, industries, and technologies, including desert-adapted technologies and goods and services tailored to the special needs of Tucson as a desert community.*
- *WR2: Expand the use of alternative sources of water for potable and non-potable uses, including rainwater, gray water, reclaimed water, effluent, and stormwater.*
- *WR3: Expand effective water efficiency and conservation programs for City operations and for the residential, commercial, and industrial sectors.*

Mister Car Wash has reduced company-wide freshwater consumption by recycling water at the same rate that it is consumed, leading to a much lower level of water consumption in an industry with a typically high consumption rate. Mister Car Wash has also partnered with Project WET, a nonprofit organization, to research water stewardship within the community. A water-efficient drip irrigation system will support landscaping at the new car wash. The site plan also incorporates rainwater harvesting and stormwater retention to effectively manage runoff as an alternative water source for landscaping. These combined efforts demonstrate Mister Car Wash's commitment to promoting sustainable business practices.

- *BC8: Support a safe, distinctive, well-maintained, and attractive community with neighborhoods made up of residences and businesses that contribute to Tucson's quality of life and economic success.*

As a growing national company headquartered in Tucson, Mister Car Wash is committed to enriching Tucson's economy and uplifting the entire community. Each Mister Car Wash location is thoughtfully designed to be an asset for the neighborhood. The onsite staff ensures each location maintains company standards for service, cleanliness, and safety. This diverse group of team members provides a quick, professional, and memorable service to customers in Tucson.

2. BEAR CANYON NEIGHBORHOOD PLAN (BCNP)

The BCNP provides local land use guidance for approximately 925 acres, generally located north of Tanque Verde Creek, west of Houghton Road, and south of Tanque Verde Road (refer to **EXHIBIT I.B.2: BEAR CANYON NEIGHBORHOOD PLAN**).

According to the BCNP General Development Map, the subject property is located in the northwest corner of the plan area within a 'Commercial' designation. The proposed car wash is a nonresidential use and is subject to the plan's nonresidential goals, policies, and implementation techniques. The applicable nonresidential elements are identified below, along with an explanation of how the proposed Mister Car Wash aligns with their intent. This section also identifies the necessary amendments to the BCNP to accommodate the proposed car wash on the property.

BCNP NONRESIDENTIAL USES GOALS + POLICIES

- Goal: *To provide for commercial development which is quality designed, services the local area, and is conveniently located.*

The proposed car wash is thoughtfully designed with high-quality materials and is located near the northwest corner of Tanque Verde Road and Bear Canyon Road. The location off of an arterial street provides residents easy access to clean and detail their vehicles.

- Sub-Goal: *Provide for the nonresidential needs (commercial, office, and governmental service uses) of the area.*

There are currently no car wash facilities in the Tanque Verde Valley of sufficient size to handle the number of vehicles traveling to and from the area on a daily basis. This new Mister Car Wash location provides residents of the Bear Canyon neighborhood and the larger Tanque Verde Valley with a facility capable of meeting this demand.

- Policies :
 - *Promote nonresidential developments in appropriate locations where similar uses exist.*
 - *Discourage commercial uses which do not service neighborhood needs.*
 - *Prohibit strip commercial development.*
 - *Encourage quality-designed and architecturally compatible commercial development to serve neighborhood needs.*
 - *Allow only office or commercial development in areas designated for those uses.*

The proposed car wash is located in an established commercial area and is surrounded by other commercial properties. It infills two vacant properties to complete the neighborhood commercial area designated by the BCNP. The proposed car wash is designed to complement the surrounding commercial development and enhance the community's character through high-quality architecture, landscaping, and theming. It also addresses a local need by providing the neighborhood with a well-equipped facility for automotive cleaning and detailing, a service that is lacking in the area.

- Implementation Techniques:

1. *Locate commercial uses at the intersection of major streets where commercial uses already exist. Neighborhood scale commercial uses should be located at the intersection of arterial streets, if carefully integrated with surrounding uses.*

The proposed Mister Car Wash is located near the northwest corner of the intersection of two arterial roads, Tanque Verde Road and Bear Canyon Road. The property is surrounded by existing commercial development and is designed to seamlessly integrate the car wash into the established commercial corridor.

2. *Present area of Bear Canyon Road, Catalina Highway, and Tanque Verde Road should be considered the local Neighborhood Center*
 - a. *Local Neighborhood Center should allow a mixture of business and professional office use.*
 - b. *The most intensive zoning classification allowed should generally be the most restrictive commercial zone.*

The identified Neighborhood Center is largely built out except for the two vacant parcels that comprise the proposed car wash site. This facility fills the vacancy to enhance the Neighborhood Center with a needed service. While an express car wash is currently permitted on this site as a special exception use, the use-specific standards associated with the C-1 Zone are based on antiquated car wash models and do not align with modern express car wash configurations or operations. For instance, the use-specific standards suggest that the tunnel can be no more than 50 feet in length and that the facility must be “coin-operated.” The requested C-2 Zone allows Mister Car to design the facility in accordance with industry best practices while providing a neighborhood-level business that contributes to the overall composition of the existing commercial center.

4. *Require new nonresidential uses to have ingress-egress exclusively at arterial streets.*

Ingress and egress for the new car wash are solely provided from Tanque Verde Road.

5. *Encourage new nonresidential projects and any proposed expansion of existing nonresidential uses to provide architectural continuity with, and gradual transition to, the surrounding residential developments.*

The new car wash facility maintains architectural continuity by continuing the single-story development pattern of the existing commercial corridor. The site is designed with the main car wash structure located towards the rear of the property and set farther away from Tanque Verde Road than adjacent developments. The site will also incorporate landscaping, screening, and theming to ensure continuity and transition along the Tanque Verde corridor.

7. *Utilize low-profile parking lot light fixtures in all new nonresidential development.*

Light fixtures provided onsite will be low-profile and shielded downward to prevent light trespass on surrounding properties.

8. *Encourage the existing, new, and incomplete commercial areas to implement a landscape plan with a mixture of tree sizes to include mature trees and to represent the best practices of landscape architecture.*

As this project progresses into the next phase of development, a landscape plan will be implemented to incorporate existing vegetation along with new plant material to create a cohesive landscape design that beautifies the property and enhances the neighborhood's aesthetics.

10. *Maximum building height allowed is two stories, not to exceed 30 feet, or the height limit imposed by the zoning classification affecting the property, whichever is more restrictive.*

The main car wash structure is one story in height and does not exceed the 30-foot threshold. The canopy covering the payment kiosks is less than 18 feet in height.

11. *Consider select community commercial uses which are:*

a. *Compatible in meeting the retail and service needs of the Bear Canyon area.*

The proposed Mister Car Wash provides the neighborhood with an express car wash facility capable of cleaning multiple cars, a service that is lacking in the neighborhood and the larger Tanque Verde Valley.

b. *Must be located in a shopping center, and use should be oriented to the interior of that center:*

i. *Building is located a minimum of 100 feet from the right-of-way line of a scenic route.*

ii. *Building is located a minimum of 350 feet from suburban and low-density residentially zoned land parcels.*

The proposed car wash is in a commercial area established by the BCNP that consists of a conglomerate of commercial uses, including a self-storage facility, a hardware store, a fuel service station with a convenience store that serve the surrounding neighborhood. The neighborhood center is configured in such a way that the proposed car wash facility will be oriented toward the center and tucked away from the roadway and the adjacent properties. The proposed car wash satisfies the other location requirements as the buildings/structures are setback over 100 feet from Tanque Verde Road, a scenic route. The proposed kiosk canopy structure is within 350 feet of a suburban/low-density residentially zoned property. This property is located northwest of the adjacent self-storage facility. However, the property was rezoned to R-3 Residential in 2022 (Case Number: C9-21-14) and combined with

another R-3 zoned property in 2023 to form parcel 114-51-206B. As such, when the zoning is perfected for the property the setback will no longer apply to the car wash facility.

c. *Designed in conformance with the following elements:*

- i. *Masonry and landscaping screen be provided where appropriate to abate noise and eliminate negative impacts on surrounding uses.*

A masonry wall currently exists along the northern and western property lines and will remain as this site develops. The proposed car wash tunnel and the vacuum turbines will be housed inside structures made of masonry and other abating materials to screen them from view and reduce noise impacts. Landscaping will also be provided throughout the site and adjacent to the roadway to further mitigate noise impacts and screen the use.

A noise impact study that was prepared in conjunction with this request suggests that with the proposed site configuration, selected building materials and landscaping, noise generated from the proposed car wash will be effectively mitigated and poses no impacts on the adjacent properties.

- ii. *Enhanced landscaping (trees, shrubs, and ground cover) be provided around the building/perimeter or pad.*

Landscaping will be provided around the building to complement its architecture and enhance the site's appearance.

- iii. *Building color, facade, and signage be designed to be compatible with related shopping center.*

The building is designed to complement the surrounding commercial development using similar architectural features, materials, and finishes. Signage will also be integrated into the building and the site in a similar manner to the surrounding commercial uses.

- iv. *Primary access must be available from two (2) arterial streets fronting a shopping center.*

Access to the neighborhood center is provided from Bear Canyon Road and Tanque Verde Road. However, due to separate ownership, utility and drainage easements, and conflicts with vehicular maneuverability and existing loading zone, the site's ability to connect to Bear Canyon Road is severely limited. As such, this site is entirely accessed from Tanque Verde Road.

d. *Uses not involving billboards.*

No billboards are proposed with this development.

e. *Uses not involving outside storage or display of merchandise or goods except:*

- i. *Plant nurseries and*
- ii. *Home improvement rental equipment and supplies*

Both exceptions are to be screened from adjacent properties and streets by landscaping and decorative fencing or masonry walls. Landscaping and screening plans for outside storage or display areas will be submitted to the Master Neighborhood Association for review and comment.

No outside storage or merchandise displays are proposed as part of this development.

- f. *Not noise intrusive.*

The facility is designed to protect neighboring businesses from noise intrusion by siting the car wash building towards the center and rear of the property and placing the vacuum turbines in masonry enclosures. As demonstrated in the accompanying noise study, the proposed car wash is not noise intrusive and is compatible with its surroundings.

- g. *Completely contained within an enclosed and roofed structure, except as noted in 11.e, above.*

While the car wash tunnel is fully contained within an enclosed and roofed structure, other components, such as the payment kiosks and the vacuum turbines and hoses, are not entirely contained or roofed. As such, an exception to this implementation technique is being pursued. To meet the intent of this technique, which is to ensure that noise trespass is minimized and the use is entirely screened from view, a natural landscape border combined with a custom-made screen and enhanced landscaping will be provided along Tanque Verde Road, with additional landscaping provided along the perimeter of the site and adjacent to the buildings.

The proposed Mister Car Wash supports other BCNP goals and policies beyond those found under the Nonresidential category. These additional goals and policies include:

BCNP TRANSPORTATION POLICIES

- *Implementation Techniques:*

1. *Design major transportation improvements so that existing land uses are buffered from potentially negative impacts. Where improvements result in the loss of natural vegetation, revegetation will be required in accordance with the adopted Major Streets and Routes Plan.*
- 3.b. *Provide for pedestrian ways in all new development except where densities are RX-1 or less.*
5. *The landscape buffer strip between public rights-of-way and required walls or screens shall be landscaped with low pollen, drought-resistant vegetation*

The new Mister Car Wash is located along Tanque Verde Road, which is designated as a scenic corridor. The facility is designed to improve the scenic quality and function of the corridor by:

- Providing a 30-foot natural buffer to separate and buffer the car wash from Tanque Verde Road
- Installing additional landscaping, screening, and theming north of the required 30-foot natural landscape border.
- Improving the neighborhood's pedestrian connectivity with a new sidewalk along the property's frontage

ENVIRONMENT

- Policies:

- *Preserve and enhance the natural vegetation in the area.*
- *Promote water conservation.*

- Implementation Techniques:

2. *Any development should be done to ensure maximum enhancement of groundwater recharge.*
5. *Landscaping and park facilities should emphasize the use of drought-resistant native or adaptive plants.*
6. *Encourage the use of water-saving methods such as drip irrigation.*

Mister Car Wash's commitment to environmental stewardship and sustainability is demonstrated through the design and operation of each of its locations. This new location will protect native vegetation through a native plant inventory that will identify individual plants on site for protection and relocation. This inventory will inform the facility's landscape plan. Landscaping will utilize native and drought-tolerant plants as well as a water-efficient drip irrigation system. The site will also be designed to incorporate green stormwater infrastructure and will direct and store stormwater into basins and landscape areas to increase groundwater recharge. The facility will also use environmentally friendly cleaners and recycle water with each wash to reduce water usage.

An Environmental Resource Report is also required for rezonings within the Bear Canyon Neighborhood Plan. See Mister Car Wash Tanque Verde Environmental Resource Report submitted under a separate cover.

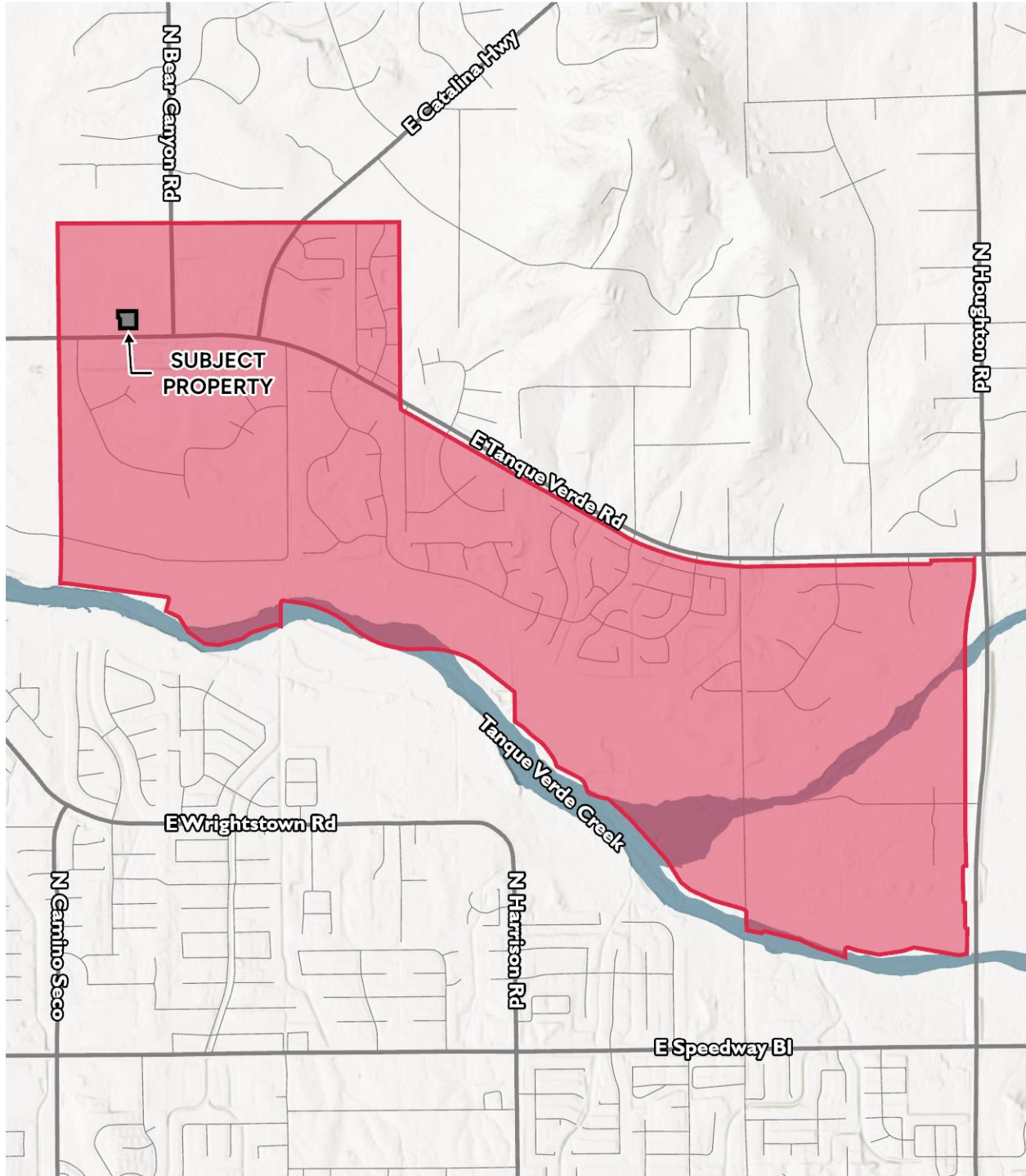
3. PLAN AMENDMENT REQUEST

As previously alluded to, an exception to Implementation Technique 11.g is necessary to accommodate the proposed car wash facility as not all component necessary for the operation are completely contained within a enclosed or roofed structure. The plan amendment proposes to modify Implementation Technique 11.g to read:

“Completely contained within an enclosed and roofed structure, except as noted in 11.e above;

- 1) Exception to Section g: Parcels 114-51-200B and 114-51-200C is exempt from Implementation Technique 11.g, and is subject to the following. All uses associated with an express car wash are to be screened from adjacent properties and streets by landscaping and decorative fencing or masonry wall.”

EXHIBIT I.B.2: BEAR CANYON NEIGHBORHOOD PLAN



LEGEND

-  Subject Property
-  Bear Canyon Neighborhood Plan
-  Major Wash
-  Major Streets
-  Streets



SOURCE: Pima County GIS
PROJECT: MCW-05 All Maps
FILE NAME: Area Plan Map DATE: 12/11/2023

4. MAJOR STREETS + ROUTES SETBACK ZONE / SCENIC CORRIDOR ZONE

The City of Tucson Major Streets and Routes (MS&R) Plan provides comprehensive guidance on the City's transportation network with respect to roadway widths and classifications and land use coordination to ensure safe and efficient circulation throughout the City of Tucson. Because the property is located along Tanque Verde Road, an MS&R Scenic Arterial Street, the Major Streets and Routes Setback Zone and Scenic Corridor Zone (SCZ) apply. The proposed car wash conforms to these overlay zones by:

- Maintaining the existing 150-foot right-of-way width for Tanque Verde Road;
- Providing a setback greater than three times the building height;
- Providing a 30-foot natural buffer area landscape border and limiting disturbances in the buffer to less than 20%;
- Installing additional landscaping north of the natural border that will be enhanced to drought-tolerant plant species and green stormwater infrastructure; and
- Preserving view corridors that have a combined width of at least 20% of the street frontage.

5. TUCSON RESILIENT TOGETHER

Tucson Resilient Together is the City of Tucson's climate action and adaptation plan, which provides a policy framework aimed at reducing the overall impacts of greenhouse gas emissions to create a more sustainable city that can adequately respond to a changing climate.

The proposed Mister Car Wash furthers the following policies, goals, and actions presented within *Tucson Resilient Together*:

- [CR2.5](#): *Create climate-resilient design codes and standards for residential, commercial and institutional, and industrial buildings, including standards for landscaping (e.g., tree canopy, green infrastructure) and architecture (e.g., passive design to support thermal comfort and air quality)*
- [CR-3.1](#): *Advance the Tucson Million Trees initiative with a continued focus on native and contextually appropriate tree species, tree equity, and water conservation around Tucson.*

Mister Car Wash's commitment to the environment is evident by its sustainable business practices, and the overall development of this site will help progress the climate strategies and actions of *Tucson Resilient Together*. Specifically, Mister Car Wash's high-quality architecture and choice of building materials, use of stormwater harvesting, and the planting of landscaping in common and parking areas all contribute to a reduction in the urban heat island effect and support climate-resilient design. The trees planted onsite will also directly contribute to the Tucson Million Trees initiative.

C. CONFLICTS WITH ADOPTED CITY ORDINANCES OR POLICIES

Upon approval of the proposed amendment to the Bear Canyon Neighborhood Plan, the new Mister Car Wash facility will conform to all adopted city ordinances and policies.

MISTER CAR WASH TANQUE VERDE + BEAR CANYON

CHANGE OF ZONING APPLICATION

PART II: SITE ANALYSIS



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II. SITE ANALYSIS

The purpose of *Part II: Site Analysis* is to highlight the site’s physical characteristics, identify opportunities and constraints, and provide analysis that will guide development to be sensitive to the site and its surroundings. Information for this section was prepared per the City of Tucson Unified Development Code (UDC) and compiled from various sources, including site visits, referencing topographic, hydrological, archaeological, and traffic studies, and correspondence with the property owner and city staff.

A. GENERAL INFORMATION

1. PROJECT LOCATION

The proposed Mister Car Wash site consists of two parcels, totaling approximately 1.4 acres, located near the northwest corner of East Tanque Verde Road and North Bear Canyon Road in the City of Tucson in Township 13 South, Range 15 East, Section 34.

EXHIBIT II.A.1: PROJECT LOCATION outlines the project boundary and provides the property’s dimensions, while the following table provides details for each parcel subject to this request.

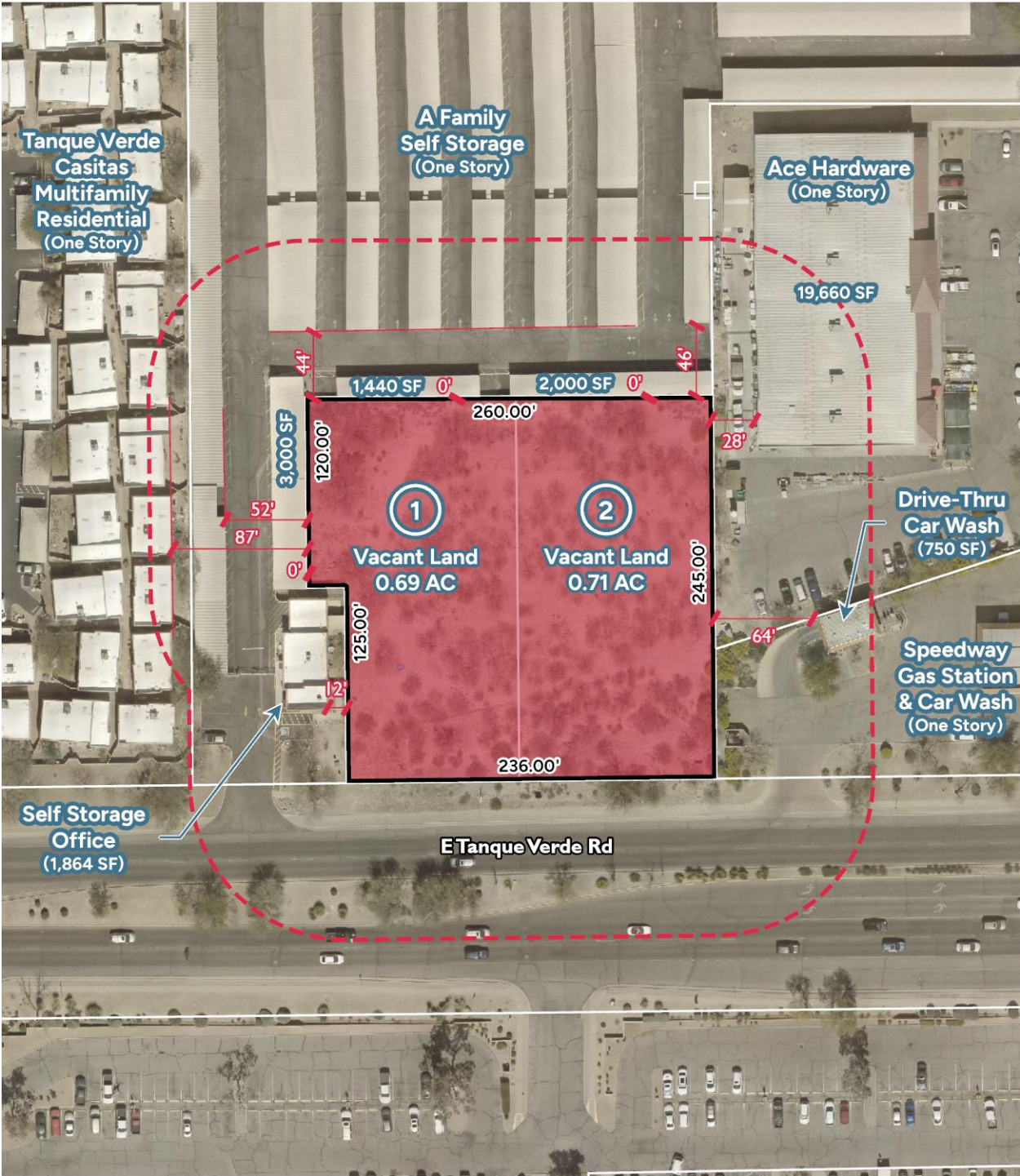
PARCEL ID	ASSESSOR PARCEL NUMBER	ADDRESS	ACREAGE
1	114-51-200C	No Situs Address	0.69
2	114-51-200B	No Situs Address	0.71
			1.40

2. EXISTING LAND USES + STRUCTURES

Land uses within a half mile of the property are a mix of single-family homes, multifamily developments, commercial (retail, storage, and restaurants), institutional uses, and vacant land (refer to **EXHIBIT I.A: SITE CONTEXT**).

The property is vacant, with neither of the two parcels having been developed. Properties within 100 feet are mostly commercial. A self-storage facility abuts the property’s north and west boundary. A hardware store and gas station with a convenience store border the eastern property boundary. The accessory single-service car wash tunnel is the only building on the gas station parcel within 100 feet of the subject property. A multifamily development consisting of single-story casita units lies west of the adjacent self-storage facility and are the only residential units within 100 feet of the property. Tanque Verde Road runs along the southern boundary. (see **EXHIBIT II.A.1: PROJECT LOCATION**).

EXHIBIT II.A.1: PROJECT LOCATION



- LEGEND**
- Subject Property
 - 100-Foot Radius
 - Parcels



SOURCE: Pima County GIS
 PROJECT: MCW-05 All Maps
 FILE NAME: Project Location DATE: 12/11/2023

3. EXISTING ZONING

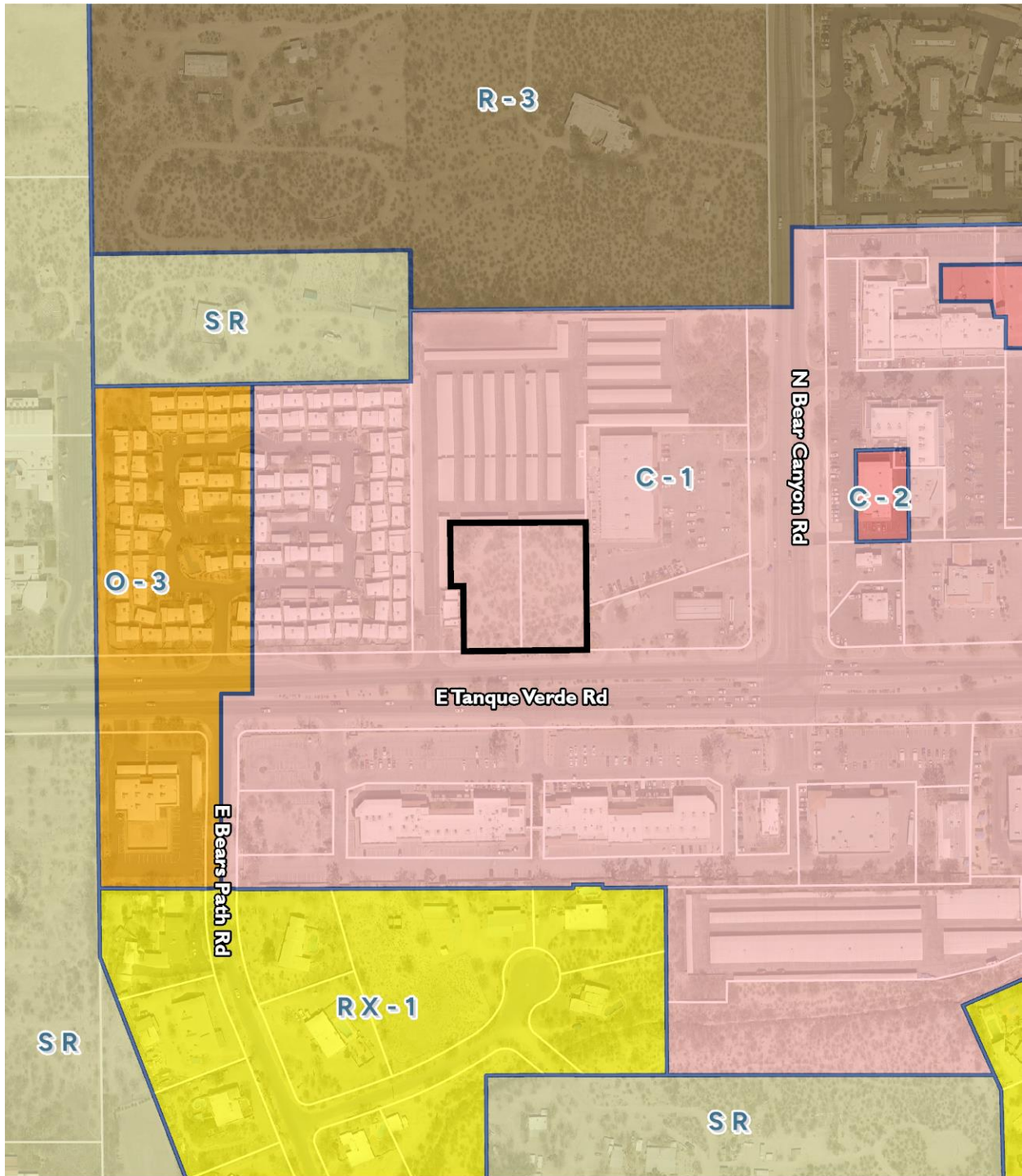
The proposed car wash site is currently zoned C-1. As shown in **EXHIBIT II.A.3: EXISTING ZONING** and outlined in the table below, properties immediately adjacent to the site are zoned for commercial uses under the C-1 Commercial Zone.

DIRECTION	ZONING
North	C-1 (Commercial Zone)
East	C-1 (Commercial Zone)
South	C-1 (Commercial Zone)
West	C-1 (Commercial Zone)









4. EXISTING BILLBOARD

There are no billboards on either parcel.

EXHIBIT II.A.3: EXISTING ZONING



LEGEND

	Subject Property		C-2
	Parcels		O-3
	R-3		RX-1
	C-1		SR



SOURCE: Pima County GIS
 PROJECT: MCW-05 All Maps
 FILE NAME: Zoning Map DATE: 12/12/2023

B. CIRCULATION + TRIPS

1. EXISTING STREETS ABUTTING THE SITE

East Tanque Verde Road abuts the south side of the Mister Car Wash property. East Tanque Verde Road is classified as a scenic arterial street in the Major Streets and Routes (MS&R) Plan, with an existing and planned right-of-way of 150 feet. It contains four lanes, a raised median, curbs, striped bike lanes, intermittent sidewalks, and has a posted speed limit of 40 miles per hour (mph). No right-of-way dedications are required for the proposed car wash.

2. EXISTING + PROPOSED CURB CUTS

Currently, no curb cuts serve the Mister Car Wash site.

As shown in **EXHIBIT III.A: PRELIMINARY DEVELOPMENT PLAN**, two curb cuts are planned to provide ingress to and egress from Tanque Verde Road.

3. DECELERATION LANES + TURN LANES

No turn lanes or deceleration lanes are required to support the proposed self-service car wash.

4. PROPOSED IMPROVEMENTS WITHIN THE RIGHT-OF-WAY

Aside from the proposed curb cuts to access the property, a new sidewalk is the only other proposed improvement within the right-of-way.

5. TRANSPORTATION CHARACTERISTICS WITHIN ONE MILE

Exhibit II.B.2: CIRCULATION depicts all major streets, traffic signals, public transit stops, bike lanes, and park-and-ride facilities within a one-mile radius of the site.

The property sits on the north side of East Tanque Verde Road, approximately 350 feet west of the Tanque Verde/Bear Canyon intersection.

The property is served by Sun Tran's Catalina Hwy-Downtown Express (Line 109X), which runs along Tanque Verde Road and terminates on north Catalina Highway. The nearest bus stops are located on Tanque Verde Road, approximately 900 feet west of the property.

The table below provides the existing traffic counts per the Pima Association of Governments (PAG) for all major streets within one-mile of the property.

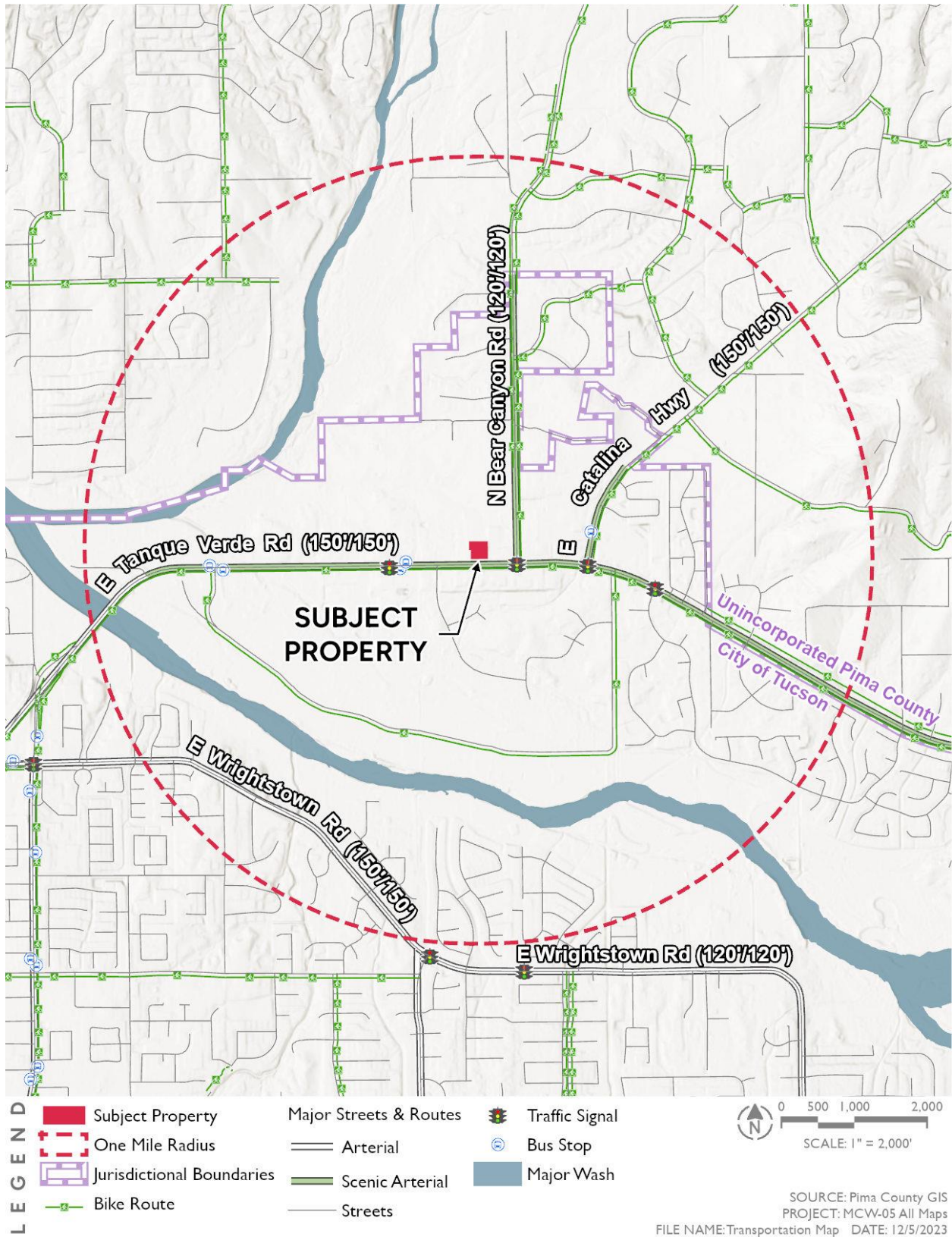
STREET	TRAFFIC COUNT	LOCATION ID
Tanque Verde Road	33,486	B-506
Bear Canyon Road	7,427	A-356
Catalina Highway	14,421	PCX-312
Wrightstown Road	10,234	A-152

Source: Pima Association of Governments, 2022

6. AVERAGE DAILY TRIPS

The vacant property currently generates no traffic. The new Mister Car Wash location is expected to generate 775 trips per day with an a.m. peak of 20 inbound and 19 outbound and a p.m. peak of 39 inbound and 39 outbound. The existing level of service for the surrounding roads will remain unchanged by the new car wash. Refer to the Traffic Impact Assessment prepared by LSA submitted under separate cover.

EXHIBIT II.B.2: CIRCULATION



C. CULTURAL RESOURCES

SWCA Environmental Consultants conducted a record search for archeological surveys conducted within the vicinity of the property. The property has not been previously surveyed. Twenty-three surveys have been conducted within one-mile of the property, with four archaeological sites being present in the area. See **APPENDIX C: ARCHAEOLOGICAL RECORDS REVIEW** for the full report, including recommendations.

D. PRE-DEVELOPMENT HYDROLOGY

There are no existing drainageways that flow through the site or receive direct flow from the site, as shown in **EXHIBIT II.D.1: EXISTING HYDROLOGY + DRAINAGE CONDITIONS**. Stormwater runoff from the site sheet flows from delineated Basin 1, as shown in **EXHIBIT II.D.2: EXISTING CONDITIONS**, and ultimately into the Sabino Creek.

The site is not located within the 100-year floodplain as shown on **EXHIBIT II.D.3: FEMA FIRM**.

There are no drainageways subject to the provisions of ERZ (Environmental Resource Zone) or WASH (Watercourse Amenities, Safety & Habitats) ordinances within the site that receive flow from the site or flow onto the site, nor does the site lie within any areas regulated by the ERZ, or WASH. The Sabino Creek, however, is regulated by WASH.

There is an erosion hazard setback north of the site, but not within the project boundary.

The PIMA County PC-HYDRO V7 was used to calculate existing peak flows entering and leaving the site. The calculations are shown on the Hydrologic Data Sheets. Basin 1 is 1.31 acres and has 13.2 cfs of flow in the 100-year storm event. Basin 2 is 0.083 acres and has 0.8 cfs of flow in the 100-year storm event. Basin 3 is 0.019 acres and has 0.2 cfs in the 100-year storm event. See **APPENDIX D: HYDROLOGIC DATA SHEETS**.

Existing drainage patterns are shown in **EXHIBIT II.D.2: EXISTING CONDITIONS**. The site is made up of two drainage basins, with Basin 1 sheet flowing northwest off the site, presumably into the existing storm sewer, and Basin 2, which sheet flows south onto Tanque Verde Road. There were no existing drainage reports or plans to confirm this on the City of Tucson property search site. Basin 3 is a portion of the neighboring development to the east that flows onto the site. This basin area has been delineated and shown on a sheet from the Ace Hardware development plan set on **EXHIBIT II.D.2: EXISTING CONDITIONS**.

The City Floodplain Ordinance, Article VIII, Section 29-12 of the Tucson Code, WASH, or ERZ are not applicable to this site as previously mentioned.

EXHIBIT II.D.1: EXISTING HYDROLOGY + DRAINAGE CONDITIONS

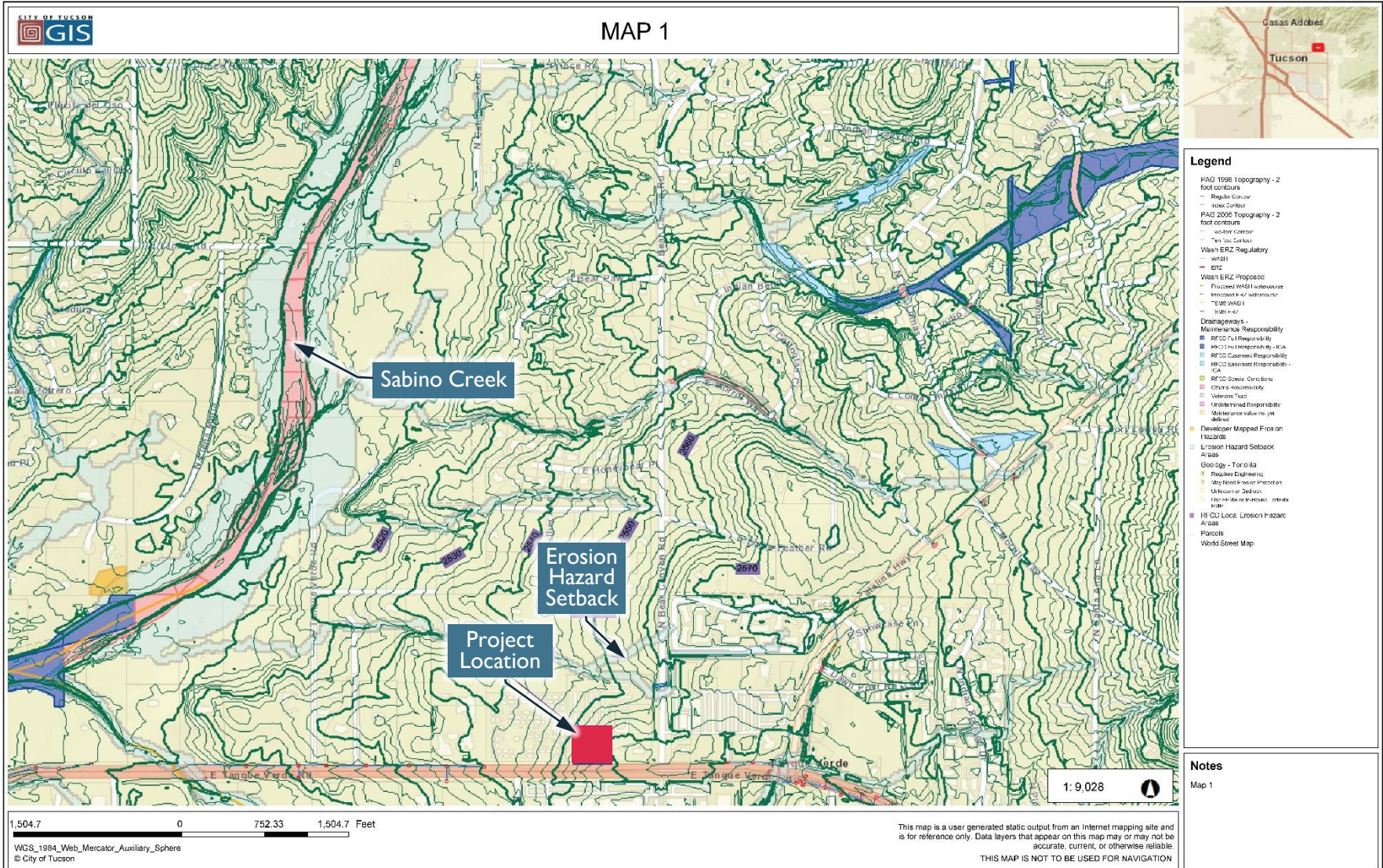


EXHIBIT II.D.1: EXISTING HYDROLOGY + DRAINAGE CONDITIONS (CONTINUED)

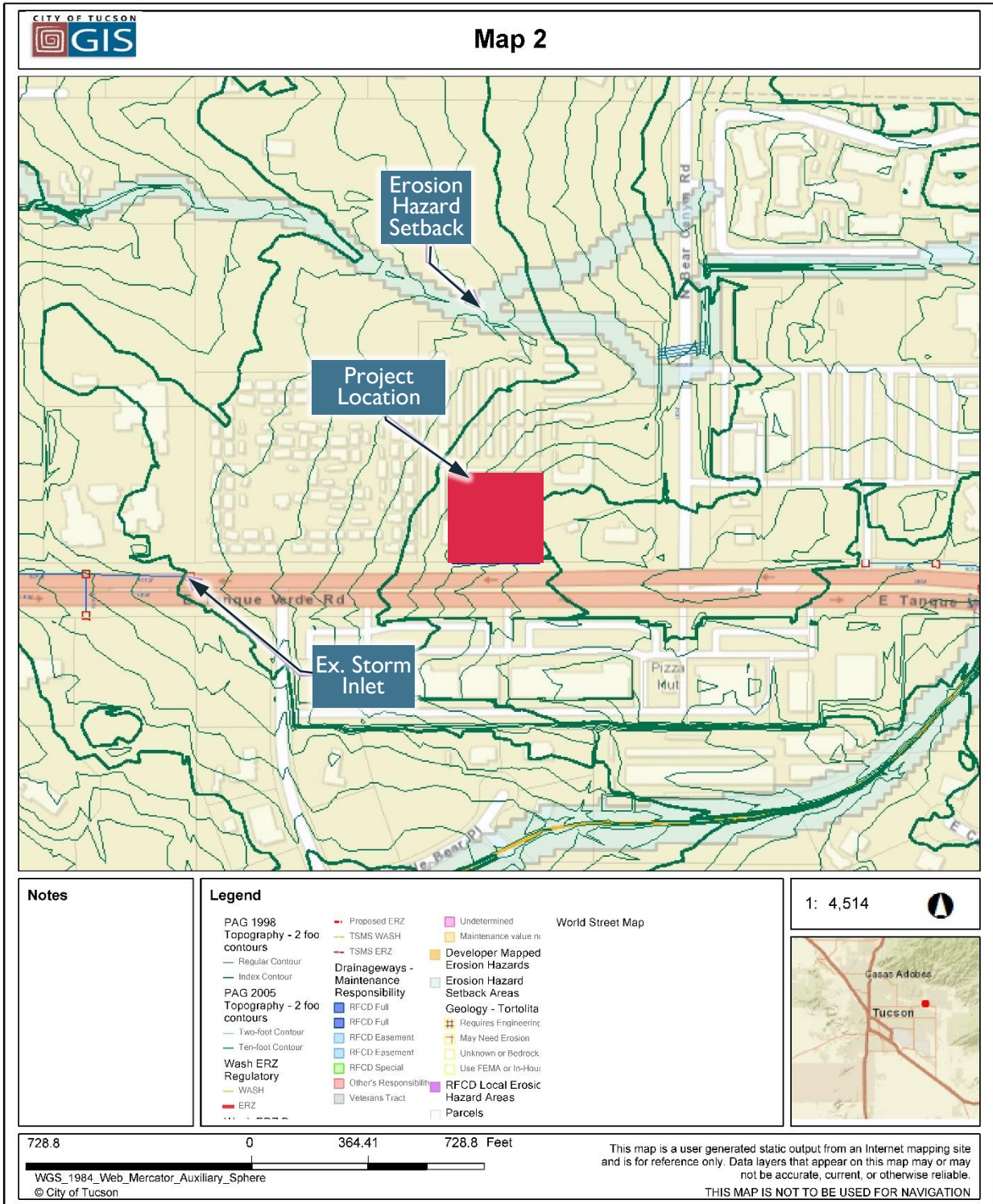


EXHIBIT II.D.2: EXISTING CONDITIONS

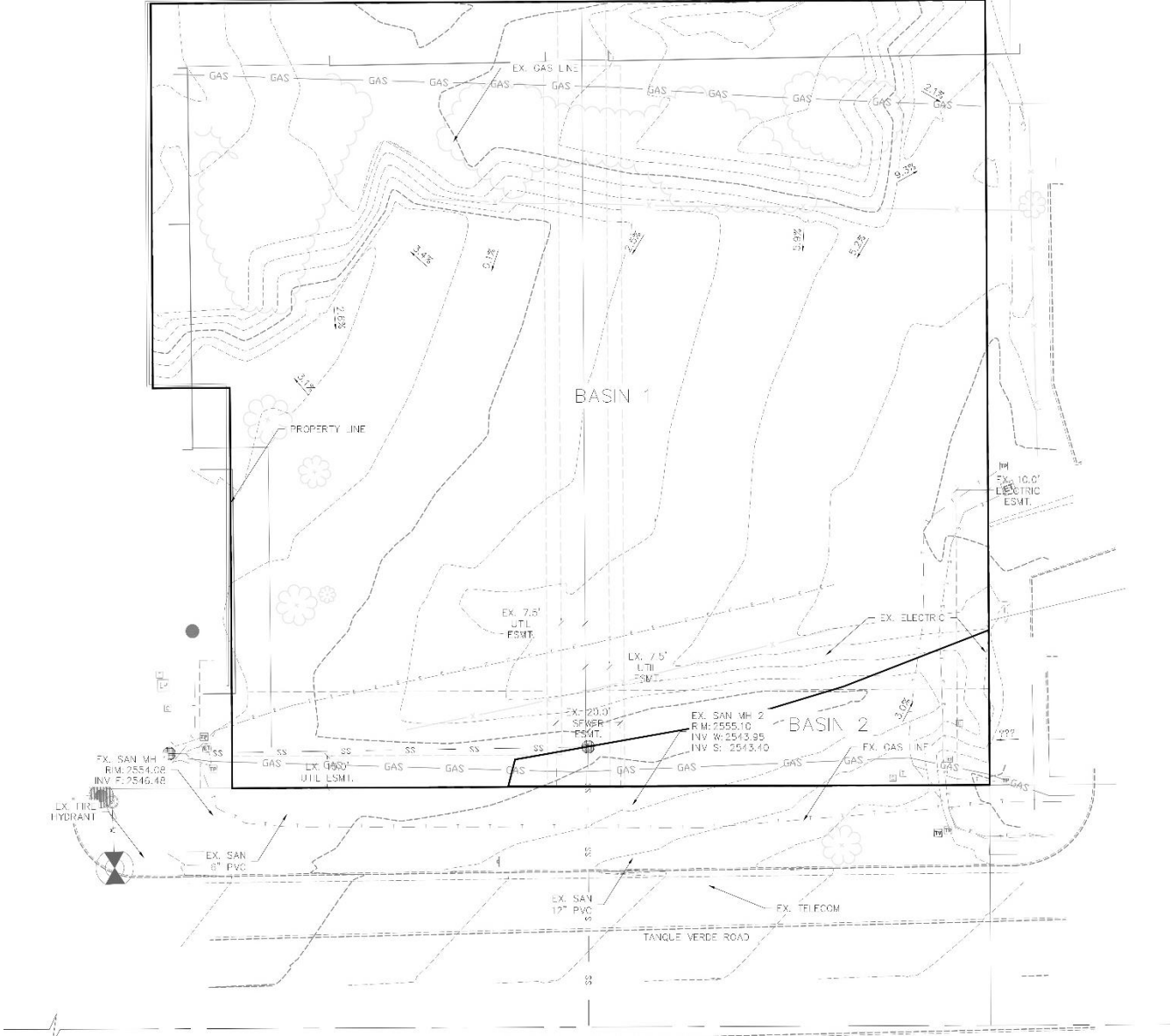


EXHIBIT II.D.2: EXISTING CONDITIONS (CONTINUED)

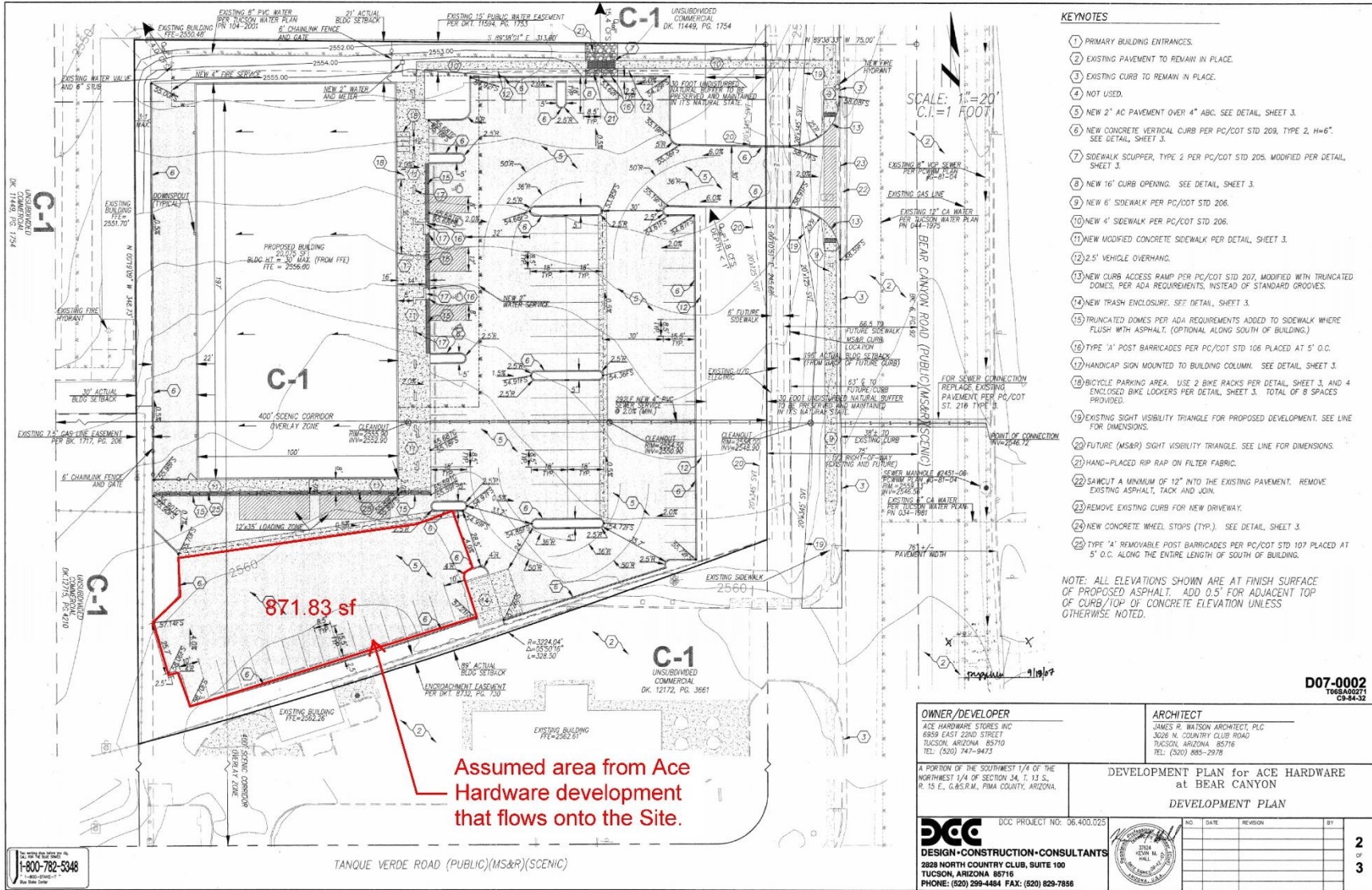
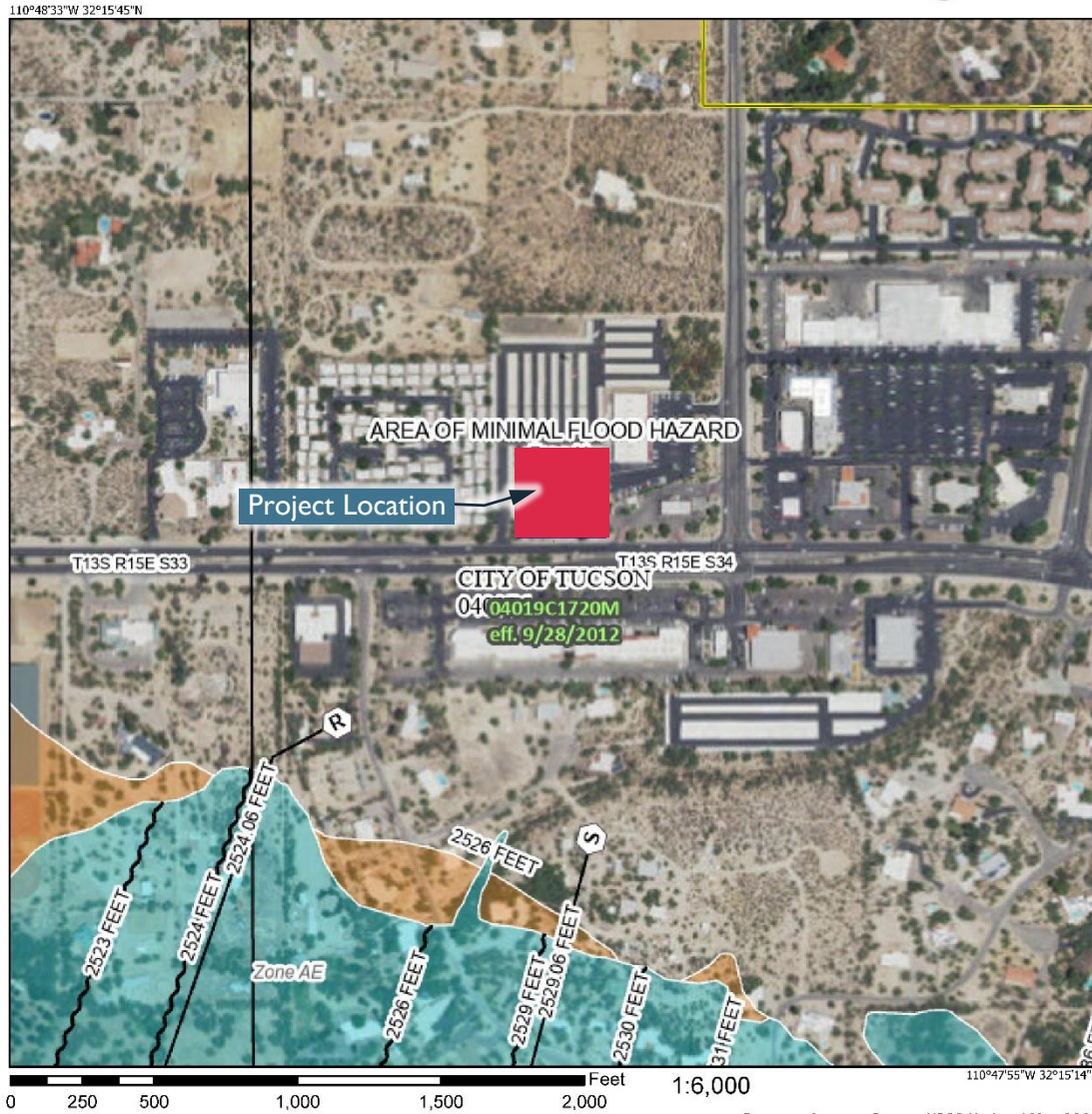


EXHIBIT II.D.3: FEMA FIRM



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS**
 - Without Base Flood Elevation (BFE)
Zone A, V, A99
 - With BFE or Depth Zone AE, AO, AH, VE, AR
 - Regulatory Floodway

- OTHER AREAS OF FLOOD HAZARD**
 - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
 - Future Conditions 1% Annual Chance Flood Hazard Zone X
 - Area with Reduced Flood Risk due to Levee. See Notes, Zone X
 - Area with Flood Risk due to Levee Zone D

- OTHER AREAS**
 - NO SCREEN Area of Minimal Flood Hazard Zone X
 - Effective LOMRs
 - Area of Undetermined Flood Hazard Zone D

- GENERAL STRUCTURES**
 - Channel, Culvert, or Storm Sewer
 - Levee, Dike, or Floodwall

- OTHER FEATURES**
 - 20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
 - 17.5 Coastal Transect
 - Coastal Transect
 - Base Flood Elevation Line (BFE)
 - Limit of Study
 - Jurisdiction Boundary
 - Coastal Transect Baseline
 - Profile Baseline
 - Hydrographic Feature

- MAP PANELS**
 - Digital Data Available
 - No Digital Data Available
 - Unmapped

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/13/2023 at 10:31 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

E. SCHOOLS, RECREATION + CULTURAL FACILITIES

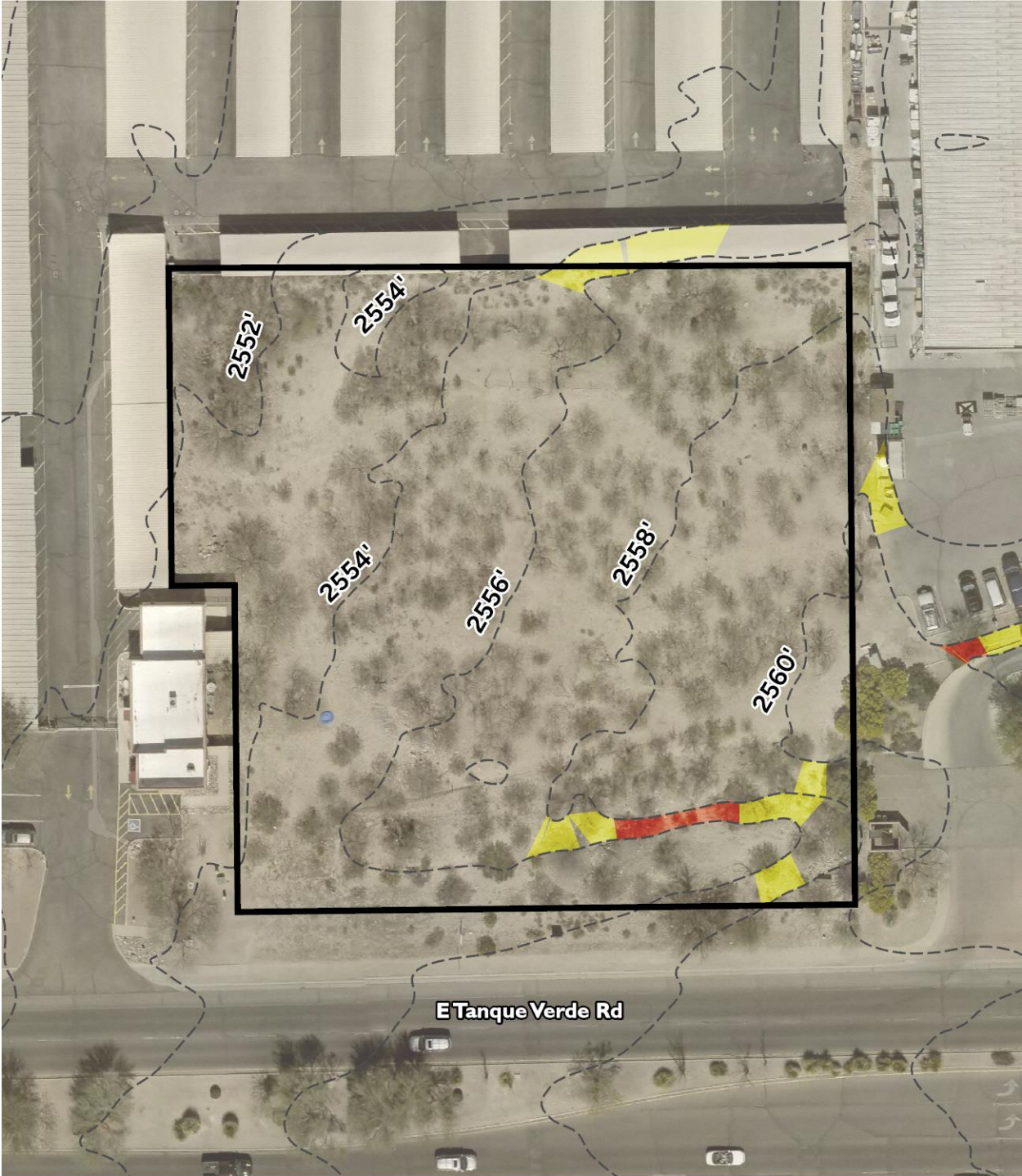
No schools, parks, trails, or public lands adjoin the project site, and no adjacent property proposes such uses. The nearest cultural facility is the Kirk-Bear Canyon public library, which is located at the northeast corner of the Tanque Verde Road/Bear Canyon Road intersection.

F. SOILS

According to the USGS Web Soil Survey, the site is entirely composed of Palos Verdes-Jaynes complex, 2% to 8% slopes, which is suitable for the proposed commercial development. There are no identified landfills or hazardous material sites within one mile of the site.

G. TOPOGRAPHY

The existing topography in the general area of the site slopes at approximately 3% to 4% from east to west and ultimately into the Sabino Creek. The site is not subject to the Hillside Development Zone (HDZ). Refer to **EXHIBIT II.G: TOPOGRAPHY** for a depiction of the topographic characteristics of the site.



LEGEND

- Subject Property
- 2' Contours
- Slope 15 - 25%
- Slope 25% or higher



SOURCE: Pima County GIS
PROJECT: MCW-05 All Maps
FILE NAME: Topography Map DATE: 12/12/2023

H. UTILITIES

1. SEWER

Pima County Regional Wastewater Reclamation Department currently serves the Mister Car Wash site. As shown in **EXHIBIT II.H.1: EXISTING SEWER CONNECTION**, the site is served by an existing eight-inch line pipe on the south side of the property at manhole 3897-02.

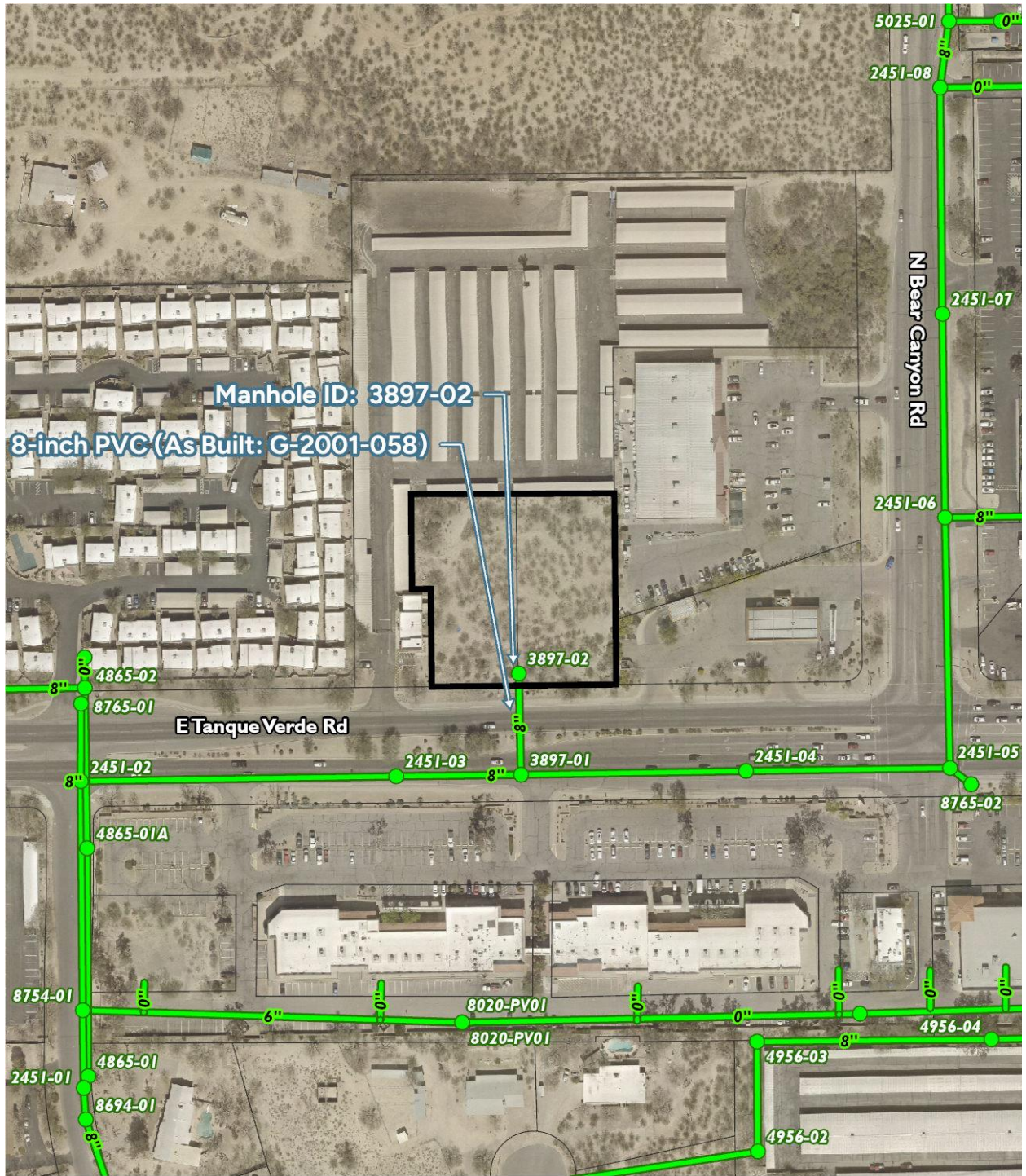
2. WATER

The site is within Tucson Water's obligated service area.

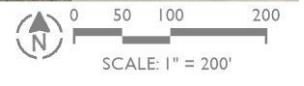
3. ELECTRICITY

Tucson Electric Power (TEP) is the electric power provider in the project area.

EXHIBIT II.H: EXISTING SEWER CONNECTION



- LEGEND**
- Subject Property
 - Parcels
 - Existing Manhole
 - Existing Sewer Network



SOURCE: Pima County GIS
 PROJECT: MCW-05 All Maps
 FILE NAME: Utility Map DATE: 12/4/2023

I. VEGETATION + SCREENING

1. EXISTING VEGETATION ONSITE

Vegetation onsite consists of desert scrub mainly dominated by mesquite (*Velutina sp.*) and creosote (*Larrea tridentata*), with several whitethorn acacia (*Acacia constricta*) and palo verde (*Cercidium sp.*) trees dispersed across the site. Other species include fishhook barrel cactus (*Ferocactus wislizeni*), burroweed (*Ambrosia dumosa*), and desert broom (*Baccharis sarothroides*). There are no vegetative areas of significant wildlife, scenic, or screening value onsite.

2. EXISTING LANDSCAPING+ SCREENING

There is no landscaping on the property. Screening is provided along the northern and western boundary by a masonry wall that separates the property from the adjacent self-storage facility. The eastern property boundary is largely unscreened, except for a small section of chain-link fence behind the Ace Hardware store at the northeast corner of the property.

J. VIEWS

The property is located along a commercial corridor with views to and from the site primarily constrained by adjacent businesses. The self-storage buildings along the property boundary obscure views from the property to the north and west. The back side of the Ace Hardware store also obscures views from the northeast corner of the property. The most prominent views beyond the corridor are of the Santa Catalina Mountains to the north. Please see **EXHIBIT II.J.1: SITE PHOTO LOCATIONS** and **EXHIBIT II.J.2: SITE PHOTOS**.

EXHIBIT II.J.1: SITE PHOTO LOCATIONS



LEGEND

-  Subject Property
-  Photo Location
-  Parcels



SOURCE: Pima County GIS
PROJECT: MCW-05 All Maps
FILE NAME: Views Map DATE: 12/11/2023
PATH: I:\Projects\MCW-05\GIS_Mapping\MCW-05\MCW-05 All Maps\MCW-05 All Maps.aprx

EXHIBIT II.J.2: SITE PHOTOS



PHOTO #1: View of the adjacent self-storage facility from the northwest portion of the property looking west.



PHOTO #2: View of Catalina Mountains and the adjacent self-storage facility from the northwest portion of the site looking north.

EXHIBIT II.J.2: SITE PHOTOS (CONTINUED)



PHOTO #3: View of the adjacent self-storage facility from the northwest portion of the site looking southwest.



PHOTO #4: View of Catalina Mountains and the adjacent self-storage facility from the northeast portion of the site looking north.

EXHIBIT II.J.2: SITE PHOTOS (CONTINUED)



PHOTO #5: View of the backside of the adjacent hardware store from the northeast portion of the site looking east.



PHOTO #6: View of western property line from the southwest property corner looking north at the adjacent self-storage facility and the Catalina Mountains.

EXHIBIT II.J.2: SITE PHOTOS (CONTINUED)



PHOTO #7: View of the Tanque Verde Road frontage looking east from the southwest property corner.



PHOTO #8: View of the Tanque Verde Road frontage looking west from the southeast property corner.

EXHIBIT II.J.2: SITE PHOTOS (CONTINUED)



PHOTO #9: View of the adjacent gas station and accessory car wash tunnel from the southeast property corner looking northeast.



PHOTO #10: View of the property and the Catalina Mountains from the south side of Tanque Verde Road looking north.

MISTER CAR WASH TANQUE VERDE + BEAR CANYON

CHANGE OF ZONING APPLICATION

PART III: PLAN PROPOSAL



THE
PLANNING CENTER

PLANNING | LANDSCAPE ARCHITECTURE



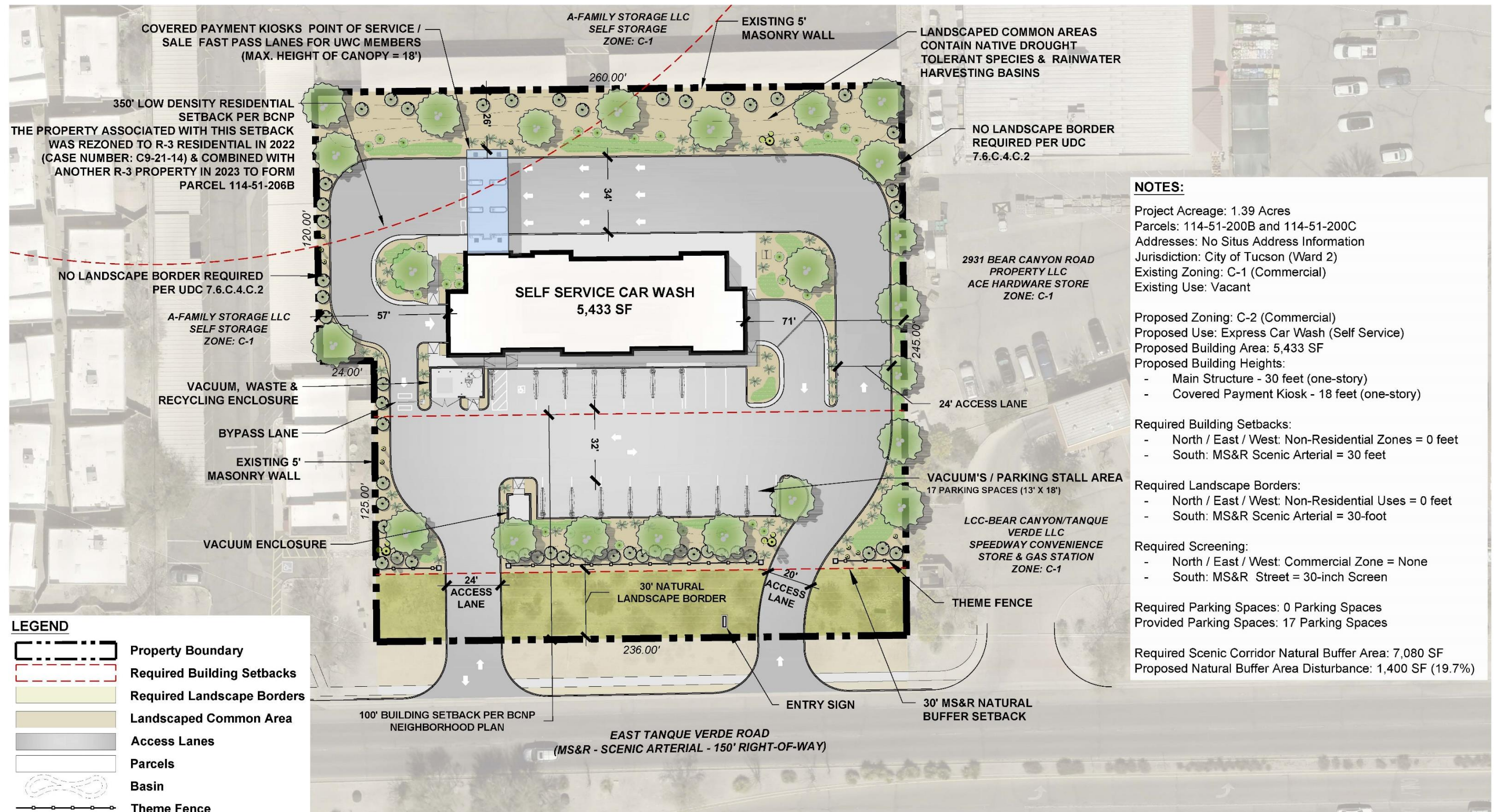
III. PLAN PROPOSAL

Mister Car Wash is proposing a new express car wash to serve the Tanque Verde Valley, which currently lacks a facility with sufficient capacity to serve residents in the area. The new location is on an approximately 1.4-acre property located near the northwest corner of Tanque Verde Road and Bear Canyon Road. The property consists of two parcels that are both zoned C-1 (Commercial). Although the car wash use is allowed as a Special Exception under the current zoning, the associated Use-specific Standards do not align with a modern express car wash facility. For this reason, Mister Car Wash is seeking to rezone the property from C-1 (Commercial) to C-2 (Commercial) to facilitate the construction of a new express car wash facility. This development will replace the vacant property with a needed service along a major arterial street in an established commercial area of the Bear Canyon Neighborhood.

The purpose of *Part III: Plan Proposal* is to demonstrate the proposed project's compatibility with surrounding uses, properties, and neighborhoods by explaining project features and design, including building layout, height, the transition of intensity, landscaping and screening, traffic, and lighting.

A. BUILDING LAYOUT

Mister Car Wash proposes to construct a single-tunnel car wash in the center of the property over 120 feet north of Tanque Verde Road. The tunnel is approximately 5,433 square feet with a maximum height of 30 feet. A parking area with 17 parking stalls/vacuum stalls separates the car wash tunnel from Tanque Verde Road. Like other new Mister Car Wash facilities, this site will employ state-of-the-art vacuum technology and house all vacuum motors in concealed enclosures, which significantly minimizes the noise generated by the vacuums to a comparable level to a common household appliance. A roughly 18-foot tall canopy will cover the payment kiosks north of the car wash tunnel. This canopy is set back about 25 feet from the northern property line and covers an approximately 825 square-foot area. Parking area access lanes provide circulation around the perimeter of the site and through the parking area. Refer to **EXHIBIT III.A: PRELIMINARY DEVELOPMENT PLAN**.



B. DESIGN COMPATIBILITY

The new Mister Car Wash facility is separated from the surrounding residential development by existing commercial uses on the north, east, and west sides. The proposed car wash is fully compatible with the surrounding commercial development. Compatibility has been ensured by locating the car wash operations away from the Tanque Verde Road frontage, utilizing building materials that complement the neighborhood, installing green stormwater infrastructure and desert-adapted landscaping, and incorporating theming that celebrates and contributes to the planned Equine District to the west.

1. MITIGATION ENSURING THE PRIVACY OF ADJACENT RESIDENCES

No residences abut the property, as the car wash is surrounded by commercial development on three sides and a major arterial street to the south. The adjacent self-storage facility to the west separates the property from the nearest residential units. No other homes are within 100 feet of the property. Although the self-storage facility provides a buffer between the car wash and residences to the west, Mister Car Wash will ensure these residents' privacy by containing vehicle washing within the car wash tunnel with the exit oriented towards the eastern property boundary. Additional privacy measures include installing new landscaping, maintaining existing screening, and enclosing mechanical equipment to minimize noise. Mister Car Wash also conducted a noise study to identify potential impacts on surrounding properties and further demonstrated that through the facility's design, incorporating mitigation measures into the new facility's site design. See **APPENDIX A: NOISE IMPACT STUDY**.

2. DESIGN CRITERIA

The site will feature a single-tunnel car wash, a canopy covering payment kiosks, a parking/vacuum stall area, and two small enclosures that house vacuum equipment. Structures will use materials that complement and conform to local desert aesthetics, including but not limited to brick, concrete, steel, and wood siding. The building design will also conform to the Mister Car Wash company color palette, which features navy blue, gold, white, and other earth-toned colors.

The parking/vacuum stall area and the new queuing lanes will be finished with concrete or asphalt surfaces. Drought-tolerant vegetation and rainwater harvesting basins will be integrated throughout the site in parking and landscape areas. Additional theming elements will be incorporated into a decorative screen north of the natural landscape border. The screen will help contribute to the aesthetic delineation for travelers entering the planned Equine District to the west.

EXHIBIT III.B.2: STYLES, COLORS + MATERIALS demonstrates the architectural styles, color palettes, and high-quality site design anticipated to be included at this location. **APPENDIX B: CONCEPTUAL RENDERINGS** provide illustrations of what the proposed facility intends to be modeled after.

EXHIBIT III.B.2: STYLES, COLORS + MATERIALS



Example of Mister Car Wash building materials and company color palette.



Proposed landscape and decorative screen north of the natural landscape border along Tanque Verde Road.

3. CONSERVATION + URBAN HEAT ISLAND EFFECT REDUCTION

Environmental stewardship, particularly water conservation, is at the core of Mister Car Wash's corporate mission. As Mister Car Wash is focused on finding innovative solutions to reduce water usage, they have partnered with the global nonprofit Project WET to provide customers with educational resources on water conservation. This facility will also utilize environmentally friendly cleaning chemicals and a reverse osmosis water system that recycles water used for washing vehicles and ultimately reduces draw upon the municipal water system. Non-reflective materials, using concrete rather than asphalt for parking areas and access lanes, and drought-tolerant trees mitigate the urban heat island effect. The single tunnel car wash will be designed with a varied roofline that slopes in several locations to differentiate the visual plane and direct stormwater runoff towards rainwater harvesting basins.

4. SITE + BUILDING CONFIGURATION

As shown in **EXHIBIT III.A: PRELIMINARY DEVELOPMENT PLAN**, the proposed single-tunnel car wash, payment kiosks and canopy, and vacuum enclosures are positioned on the site in a manner that exceeds all minimum setback requirements. The following table depicts the required and provided setbacks for the structures nearest to each respective property boundary. The single-tunnel car wash is over 120 feet from the southern property line and approximately 140 feet from the nearest residence to the west.

DIRECTION	ADJACENT ZONING OR STREET	REQUIRED SETBACK	PROVIDED SETBACK
North	C-1	0 Feet	Tunnel – 126 Feet Kiosk Canopy – 25 feet
South	MS&R Scenic Arterial	Tunnel (30 Feet Tall x 3) – 90 Feet	Tunnel – 126 Feet
East	C-1	0 Feet	71 Feet
West	C-1	0 Feet	57 Feet

5. TRANSITION OF BUILDING HEIGHTS + NUMBER OF STORIES

The site has been designed to respect the scenic corridor, Tanque Verde Road, and complement the surrounding commercial development by matching the overall building scale. The main structure, the car wash tunnel, will be set back farther from Tanque Verde than the adjacent commercial buildings to the east and west. Like the surrounding properties, the car wash tunnel will be one story in height. The tunnel has a varied roofline with different heights and pitches that break up the building's mass. The car wash tunnel will be approximately 30 feet in height, while the kiosk canopy is 18 feet in height, which is located north of the car wash tunnel, away from the street frontage. The canopies over the parking/vacuum area will also be one story in height. This configuration places the tallest structure in the center of the property, ensuring a consistent building height across the commercial center that matches the commercial corridor.

6. TRANSITION OF DENSITIES

The proposed Mister Car Wash seamlessly integrates into the commercial district along the Tanque Verde/Bear Canyon/Catalina Highway corridor, aligning with the existing commercial intensity of the area. By replacing two vacant properties, the car wash fills a void in the commercial center and provides a needed service for residents. Moreover, the site improvements enhance the scenic beauty of the Tanque Verde corridor, incorporating community-inspired design elements that showcase the neighborhood's character.

7. LANDSCAPE + SCREENING

Landscaping and screening will be provided in a natural border adjacent to Tanque Verde Road. Additional landscaping will be provided north of this natural border and throughout the remainder

of the site near the parking areas and queueing lanes. The onsite landscaping will soften the proposed structures' visual impact on travelers along Tanque Verde Road and neighboring property owners. A themed fence will be constructed north of the natural landscape border, and when combined with the enhanced landscaping to the north, will screen views of the parking area. The existing wall along the northern and western property lines will remain in place to separate the new car wash from the adjacent self-storage facility.

8. STREET IMPROVEMENTS

Two new curb cuts will provide ingress and egress to Tanque Verde Road. A new sidewalk will connect to the existing sidewalks along Tanque Verde Road. No other improvements are necessary to support the proposed car wash facility.

9. DEFENSIBLE SPACE TECHNIQUES

Pedestrian access routes will be visible from Tanque Verde Road, and outdoor lighting will be provided onsite to illuminate the site and ensure all areas on the property are well-lit after hours. Security cameras and property monitoring will also be offered onsite to deter unwanted activities. Landscaping will be maintained to keep lines of sight open throughout the property. The existing masonry wall on the northern and western property line will remain to maintain separation between the car wash and the neighboring storage facility.

10. VIEW CORRIDORS

The car wash tunnel is setback from Tanque Verde Road to blend the main structure into the surrounding commercial development. The building height is also consistent with neighboring development to ensure that views of the Catalina Mountains to the north are maintained. The natural landscape border, decorative fencing and enhanced landscaping along Tanque Verde Road improves the scenic corridor with appropriate plant material and community-themed design elements.

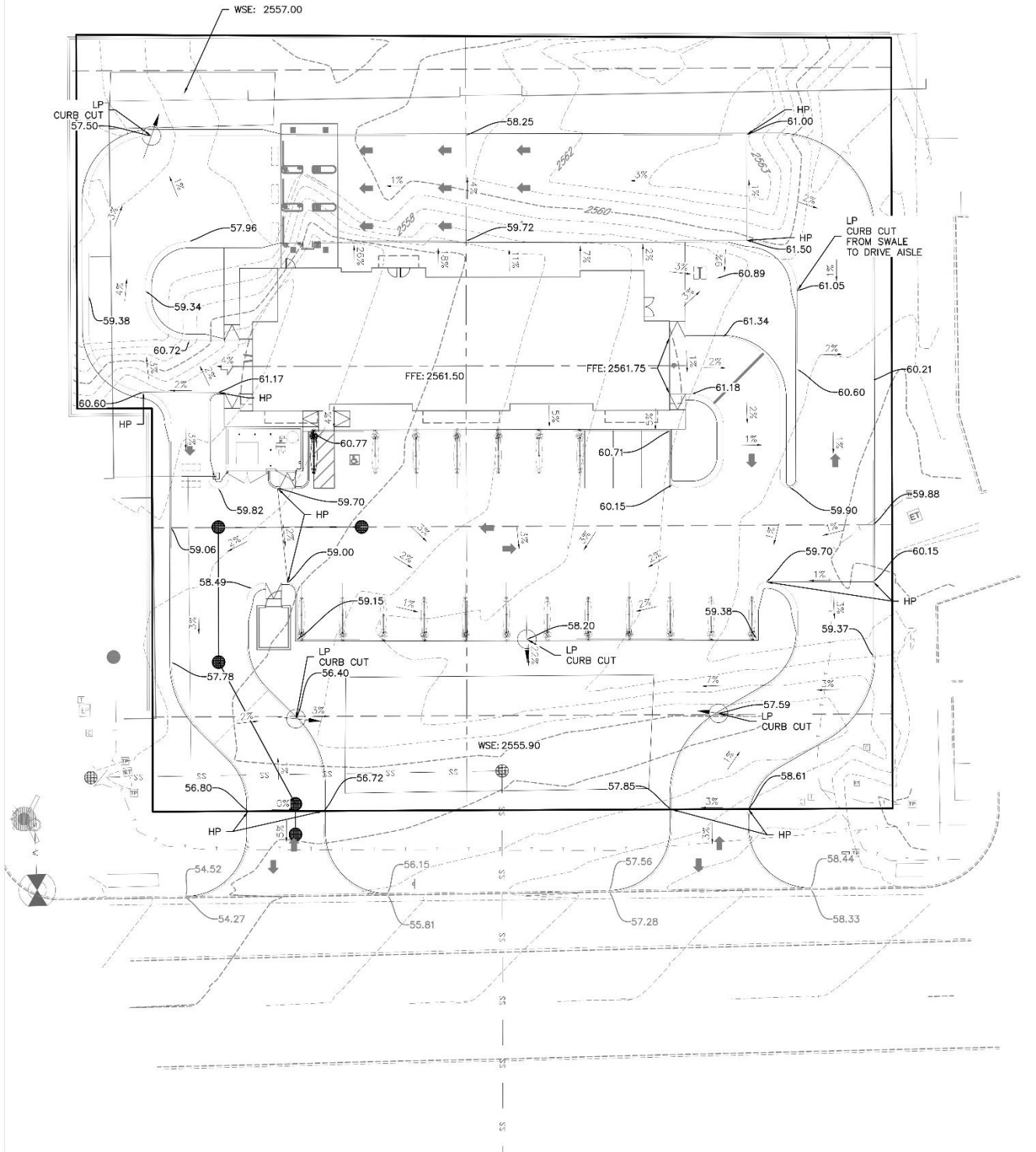
11. CHANGES IN ELEVATION DUE TO GRADING

The site will be leveled to prepare it for the car wash improvements. Grading will maintain the existing elevation conditions along property lines to the north and east, while the northwest corner of the property will be raised to ensure the new car wash site is level.

C. POST-DEVELOPMENT HYDROLOGY

The proposed onsite conveyance facilities will consist of curb/gutter and curb cuts to allow drainage to the proposed retention/detention facilities. The site has been determined to be a Critical Basin according to the Regional Flood Control District Critical Basin Map and will follow the design guidelines in the City of Tucson's Detention and Retention standards. Since the site is within a Critical Basin, both first-flush retention and detention will need to be provided. Detention will be designed to reduce the post-developed 2-, 10- and 100-year peak rate discharge rates by 85% of the pre-developed peak discharge rates, and detention will ultimately be disposed of via dry wells. The PC-Route 8.0 Excel spreadsheet was used to design the proposed basins and dry wells. The locations of the proposed basins, contours, and spot elevations are shown in **EXHIBIT III.C: POST-DEVELOPMENT DRAINAGE PLAN**.

EXHIBIT III.C: POST-DEVELOPMENT DRAINAGE PLAN



D. LANDSCAPED AREAS + SCREENING

EXHIBIT III.A: PRELIMINARY DEVELOPMENT PLAN depicts required landscape borders, proposed and existing screening, and onsite common areas where landscaping will be installed

1. LANDSCAPING (MATERIALS + LOCATIONS)

A 30-foot natural landscape border along Tanque Verde Road is required per the Scenic Corridor Overlay Zone. Due to the sparse coverage and poor health of the native vegetation and the desire to create identity at the entrance to the planned Equine District, additional landscaping will be planted along with water harvesting basins north of the required 30-foot natural border. Other landscape areas on site will be designed to complement and soften the proposed architecture as well as provide separation between adjacent uses.

2. SCREENING (MATERIALS + LOCATIONS)

Thematic screening will be incorporated into landscaping north of the 30-foot natural border to recognize the neighborhood's character and enhance the arrival experience into the planned Equine District. The screening will consist of a four-foot-tall rusted steel fence accented by decorative masonry columns. Drought-tolerant trees and large, desert-adapted shrubs will be placed on the north side of the fence in an informal hedge to complete the screen. No screening is required between the car wash and the commercial properties to the north, west, and east. The five-foot masonry wall between the car wash and the neighboring self-storage facility to the north and west will remain in place to separate the two uses. Planting may be utilized along the eastern property line to delineate the separation between the car wash and the adjacent gas station and hardware store properties.

3. RAINWATER HARVESTING

Tucson's Commercial Rainwater Harvesting Ordinance requires 50% of landscape water demand on commercial properties to be satisfied using harvested water. This will be accomplished by directing stormwater runoff from the main building and paved surfaces toward detention basins and depressed landscaped areas. A rainwater harvesting plan will be included with the landscape plans as part of the development package.

E. LIGHTING

Lighting provided onsite will be shielded, downward-directed, and in compliance with the City of Tucson Outdoor Lighting Code. Final lighting types and their location will be detailed in the development review process.

F. PEDESTRIAN ACCESS

Pedestrian access will be provided by completing the existing sidewalk along Tanque Verde Road abutting the southern property boundary. No other pedestrian access to the property has been included, as this development is not expected to increase pedestrian activity at this intersection.

Within the property, concrete sidewalks with ADA-accessible curb cuts will facilitate pedestrian movement between the parking area and the main building, as well as between the parking area and the payment kiosks.

G. SIGNS

Signage will be consistent with other Mister Car Wash locations. Signage will be incorporated into the main building's façade with a large logotype facing the street. A freestanding, lighted entry monument sign will also be located near the southeast entry drive along Tanque Verde Road.

H. TOPOGRAPHY

The property will be leveled to accommodate the car wash development. The northern, southern, and eastern portions of the property will see minimal changes in elevation, while the northwestern part of the property will be raised to achieve a level site.

I. TRAFFIC

The new car wash is expected to produce 775 trips per day with an a.m. peak of 20 inbound and 19 outbound and a p.m. peak of 39 inbound and 39 outbound. The surrounding road network can support this traffic and maintain acceptable levels of service. These levels of service will also be maintained for the turning movements in the area as the car wash has been designed with sufficient queuing length to serve customers onsite. Refer to the Traffic Impact Assessment prepared by LSA submitted under separate cover.

J. UNDISTURBED AREAS

The property contains no significant wildlife habitat or vegetative communities. As such, the entire site will be developed to accommodate the car wash facility improvements. Individual plants may be preserved or transplanted onsite based on the native plant inventory to occur at the time of development.

K. UTILITIES

1. SEWER

The Pima County Regional Wastewater Reclamation Department (PCRWRD) provided a letter indicating that capacity is currently available in the sewer network for the proposed car wash project (refer to **EXHIBIT III.K.1: PIMA COUNTY WASTEWATER WILL SERVE LETTER**).

2. WATER

The subject property is within the Tucson Water Obligated Service Area. Tucson Water has provided a letter indicating they will provide service to the subject property. Please see **EXHIBIT III.K.2: TUCSON WATER WILL SERVE LETTER**.

The proposed water service to the site will connect to the City of Tucson water main, which is an existing 12" PVC water main in Tanque Verde Road.

3. ELECTRICITY

The property will make use of existing electrical services in the area and will establish new service connections during the development plan phase.

EXHIBIT III.K.1: PIMA COUNTY WASTEWATER CAPACITY LETTER

JACKSON JENKINS
DIRECTOR



PH: (520) 724-6500
FAX: (520) 724-9635

February 29, 2024

Adam Call
The Planning Center
2 E Congress St., Suite 600
Tucson, AZ 85701

Sewerage Capacity Investigation No. P23WC00349 Type I (Revised)

**RE: Mr. Car Wash Tanque Verde & Bear Canyon, Parcels 11451200B, 11451200C
Estimated Flow 10,200 gpd (ADWF)**

Greetings:

The above referenced project is tributary to the Tres Rios Water Reclamation Facility via the North Rillito Interceptor.

Capacity is currently available for a project this size in the public sewer G-2001-058, downstream from manhole 3897-02.

This letter is not a reservation or commitment of treatment or conveyance capacity for this project. It is not an approval of point and method of connection. It is an analysis of the system as of this date. Allocation of capacity is made by the Type III Capacity Response.

If further information is needed, please feel free to contact us at (520) 724-6488.

Reviewed by: Mirela Hromatka, Planner III

EXHIBIT III.K.2: TUCSON WATER WILL-SERVE LETTER



November 22, 2023

Ana Quinonez
2 E Congress St Ste 600
Ste 600
Tucson, AZ 85701
Attn: Ana Quinonez

SUBJECT: Water Availability for Project: Tanque Verde, APN: 11451200B; 11451200C, Case#: TW-WAV-1123-00297, 13S15E34, Location Code: TUCSON, Total Area: 1.40ac, Zoning: C-1

Water Supply

Tucson Water will provide water service to this project based on the subject zoning of the above parcel. Tucson Water has an assured water supply (AWS) designated from the State of Arizona Department of Water Resources (ADWR). An AWS designation means Tucson water has met the criteria established by ADWR for demonstration of a 100-year water supply - it does not mean that water service is currently available to the subject project.

Water Service

The approval of water meter applications is subject to the current availability of water service at the time an application is received. The developer shall be required to submit a water master plan identifying, but not limited to: 1) Water Use; 2) Fire Flow Requirements; 3) Offsite/Onsite Water Facilities; 4) Loops and Proposed Connection Points to Existing Water System; and 5) Easement/Common Areas.

Any specific area plan fees, protected main/facility fees and/or other needed facilities' cost, are to be paid by the developer. *If the existing water system is not capable of meeting the requirements of the proposed development, the developer shall be financially responsible for modifying or enhancing the existing water system to meet those needs. This letter shall be null and void two years from the date of issuance.*

Issuance of this letter is not to be construed as agency approval of a water plan or as containing construction review comments relative to conflicts with existing water lines and the proposed development.

If you have any questions, please call New Development at (520) 791-4718.

Sincerely,

A handwritten signature in blue ink that reads "Michael Mourreale".

Michael Mourreale, P.E.
Engineering Manager
Tucson Water Department

P.O.BOX 27210 • TUCSON, AZ 85726-7210
(520) 791-4718 • www.tucsonaz.gov/water

L. VEHICULAR USE AREAS

1. MOTOR VEHICULAR + BICYCLE PARKING

Per Unified Development Code (UDC) Chapter 7.7.4, no motor vehicular parking spaces are required for self-service car washes. However, Mister Car proposes to include 17 parking spaces onsite; 15 parking spaces that also serve as vacuum stalls are located between the single-tunnel car wash and Tanque Verde Road. Bicycle parking will be provided in accordance with UDC 7.7.4

2. PUBLIC OR PRIVATE STREETS

There are no proposed public or private streets on the property, only parking area access lanes.

3. LOADING AREAS

There are no proposed loading areas for the proposed project.

4. SOLID WASTE + RECYCLING COLLECTION AREA

A solid waste and recycling enclosure is proposed on the western portion of the site and will be accessed via the shared access drive.

RESOURCES

Aerial Photographs, Pictometry, 2022.

City of Tucson Unified Development Code, 2016.

MapTucson, City of Tucson GIS, 2023

Pima Association of Governments, Transportation Data Management System, 2023

PimaMaps, Pima County GIS, 2021

Pima Regional Trail System Master Plan, Revised May 2012

Plan Tucson, City of Tucson General & Sustainability Plan, ratified 2014.

USGS Web Soil Survey, 2023

MISTER CAR WASH TANQUE VERDE + BEAR CANYON

CHANGE OF ZONING APPLICATION
APPENDICES



THE
PLANNING CENTER

PLANNING | LANDSCAPE ARCHITECTURE



APPENDIX A: NOISE IMPACT ANALYSIS

NOISE IMPACT ANALYSIS

**BEAR CANYON (2525) MISTER CAR WASH PROJECT
TUCSON, ARIZONA**

LSA

December 2023

NOISE IMPACT ANALYSIS

BEAR CANYON (2525) MISTER CAR WASH PROJECT TUCSON, ARIZONA

Submitted to:

Evanthia Bardwell, Project Manager
Mister Car Wash
222 E 5th Street
Tucson, Arizona 85705

Prepared by:

LSA
157 Park Place
Point Richmond, California 94801
(949) 553-0666

Project No. 20231218

LSA

December 2023

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LIST OF ABBREVIATIONS AND ACRONYMS

City	City of Tucson
CNEL	Community Noise Equivalent Level
dB	decibel(s)
dBA	A-weighted decibel(s)
L _{dn}	day-night average noise level
L _{eq}	equivalent continuous sound level
L _{max}	maximum instantaneous noise level
project	Bear Canyon (2525) Mister Car Wash Project

INTRODUCTION

This noise impact analysis evaluates the potential noise impacts and noise reduction measures associated with the proposed Bear Canyon (2525) Mister Car Wash Project (project) in Tucson, Arizona. This report is intended to satisfy the City of Tucson's (City) requirement for a project-specific noise impact analysis by examining the impacts of the proposed uses on the project site and identifies whether any noise reduction measures to reduce project noise impacts would be necessary.

PROJECT LOCATION AND DESCRIPTION

The proposed project is at 8801 Tanque Verde Road in Tucson, Arizona. The proposed project is adjacent to Tanque Verde Road to the south, commercial uses to the east and west, and single-family residential uses further west. The project location map and site plan are presented on Figures 1 and 2, respectively.

EXISTING LAND USES IN THE PROJECT AREA

The project site is primarily surrounded by commercial developments and residential uses. The areas adjacent to the project site include the following uses:

- **North:** Existing commercial uses
- **South:** Existing commercial uses opposite Tanque Verde Road
- **East:** Existing commercial uses
- **West:** Existing commercial and residential uses

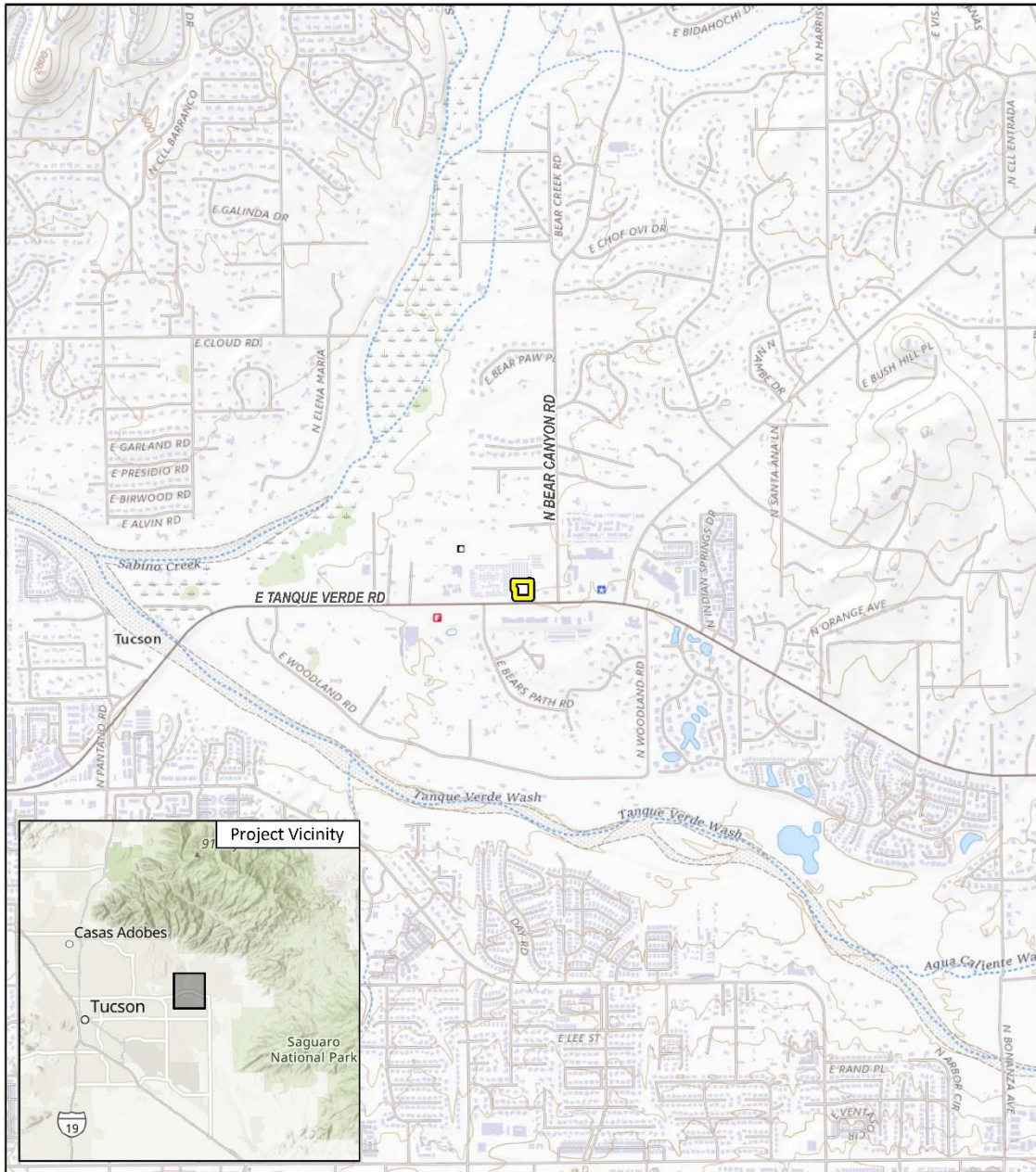


FIGURE 1

LSA

Project Location



0 1000 2000
FEET

SOURCE: USGS The National Map (2017)

J:\20231218\GIS\Pro\2525 Bear Canyon Project\2525 Bear Canyon Project.aprx (11/29/2023)

Bear Canyon Mister Car Wash Project
Project Location

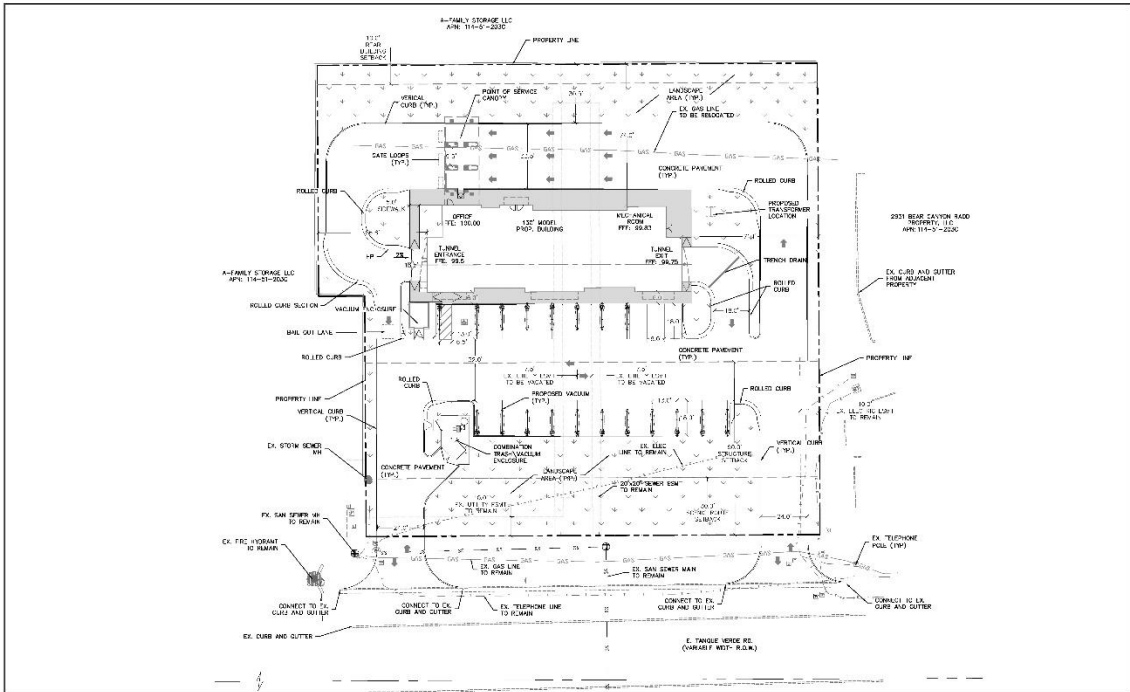
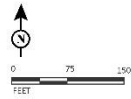


FIGURE 2

LSA



SOURCE: Atwell
 I:\2023\1218\G\Site Plan.ai (11/29/2023)

Bear Canyon (2525) Mister Car Wash
 Site Plan

NOISE FUNDAMENTALS

CHARACTERISTICS OF SOUND

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a sound wave, which results in the tone's range from high to low. Loudness is the strength of a sound, and it describes a noisy or quiet environment; it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound wave combined with the reception characteristics of the human ear. Sound intensity refers to the power carried by sound waves per unit area in a direction perpendicular to that area. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound pressure level and its effect on adjacent sensitive land uses.

Measurement of Sound

Sound pressure level is measured with the A-weighted decibel (dBA) scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound, similar to the human ear's de-emphasis of these frequencies. Decibels (dB), unlike linear units (e.g., inches or pounds), are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 dB is 10 times more intense than 1 dB, 20 dB is 100 times more intense than 1 dB, and 30 dB is 1,000 times more intense than 1 dB. Thirty decibels (30 dB) represents 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the sound's loudness. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels generate from a source, and their decibel level decreases as the distance from that source increases. Sound levels dissipate exponentially with distance from their noise sources. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source (e.g., highway traffic or railroad operations) the sound decreases 3 dB for each doubling of distance in a hard site environment. Line-source sound levels decrease 4.5 dB for each doubling of distance in a relatively flat environment with absorptive vegetation.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period.

Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max} , which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first category includes audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. Additionally, an increase of more than 5 dBA is typically considered readily perceptible in an exterior environment. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to sound levels higher than 85 dBA. Exposure to high sound levels affects the entire system, with prolonged sound exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of sound exposure above 90 dBA would result in permanent cell damage. When the sound level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of sound is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by a feeling of pain in the ear (i.e., the threshold of pain). A sound level of 160–165 dBA will result in dizziness or a loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less-developed areas.

Table A lists definitions of acoustical terms, and Table B shows common sound levels and their sources.

Table A: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of sound level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in 1 second (i.e., the number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. (All sound levels in this report are A-weighted unless reported otherwise.)
L ₀₁ , L ₁₀ , L ₅₀ , L ₉₀	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 1%, 10%, 50%, and 90% of a stated time period, respectively.
Equivalent Continuous Noise Level, L _{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time varying sound.
Day/Night Noise Level, L _{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L _{max} , L _{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time. It is usually a composite of sound from many sources from many directions, near and far; no particular sound is dominant.

Source 1: *Technical Noise Supplement* (Caltrans 2013)

Source 2: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

Caltrans = California Department of Transportation

FTA = Federal Transit Administration

Table B: Common Sound Levels and Their Noise Sources

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 ft		
	— 100 —	
Gas lawn mower at 3 ft		
	— 90 —	
Diesel truck at 50 ft at 50 mph		Food blender at 3 ft
	— 80 —	Garbage disposal at 3 ft
Noisy urban area, daytime		
Gas lawn mower, 100 ft	— 70 —	Vacuum cleaner at 10 ft
Commercial area		Normal speech at 3 ft
Heavy traffic at 300 ft	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	— 20 —	
		Broadcast/recording studio
	— 10 —	

Source: *Technical Noise Supplement* (Caltrans 2013).

Caltrans = California Department of Transportation

dBA = A-weighted decibels

ft = feet

mph = miles per hour

REGULATORY SETTING

APPLICABLE NOISE STANDARDS

City of Tucson Noise Ordinance

The City addresses noise in Article IV: Unlawful Acts of the City's Code of Ordinances. Section 16-31, Excessive Noise, specifies the maximum permissible sound levels based on the type of land uses, as summarized in Table C below. For the purposes of this project, because the project would only operate during daytime hours, the applicable noise level standard is 70 dBA L_{eq} .

Table C: Maximum Permissible Sound Levels

Use of Property Receiving the Sound	Daytime (7:00 a.m. to 10:00 p.m.) dBA	Nighttime (10:00 p.m. to 7:00 a.m.) dBA
Residential	70	62
Commercial	72	65
Industrial	85	70

Source: *City of Tucson Code of Ordinances* (2023).
dBA = A-weighted decibels

OVERVIEW OF THE EXISTING NOISE ENVIRONMENT

This section describes the existing noise environment in the project site vicinity. Noise monitoring and traffic noise modeling were used to quantify existing and future noise levels at the project site.

In Tucson, vehicle traffic is the primary source of noise. Other significant local noise sources include railroad noise, airport noise, industrial noise, construction noise, and mechanical equipment noise.

EXISTING NOISE LEVEL MEASUREMENTS

To assess existing noise levels, LSA conducted two long-term noise measurements in the vicinity of the project site. The long-term noise measurements were recorded for 24 hours between November 6 and November 7, 2023. The long-term noise measurements captured hourly L_{eq} data. Sources that dominate the existing noise environment include traffic on Tanque Verde Road. Noise measurement data collected during long-term noise monitoring are summarized in Table D and shown on Figure 3. Noise measurement sheets are provided in Appendix A.

Table D: Long-Term Noise Level Measurements

Location	Daytime Noise Levels ¹ (dBA L_{eq})	Nighttime Noise Levels ² (dBA L_{eq})
LT-1: On a tree near southeast corner of the project site, approximately 115 feet from the Tanque Verde Road centerline.	62.7 – 69.4	51.1 – 67.3
LT-2: On a tree near western boundary of the project site, approximately 200 feet from the Tanque Verde Road centerline.	59.1 – 63.7	48.8 – 62.7

Source: Compiled by LSA (2023).

¹ Noise levels during the hours from 7:00 a.m. to 10:00 p.m.

² Noise levels during the hours from 10:00 p.m. to 7:00 a.m.

L_{dn} = day-night sound level

dBA = A-weighted decibels

L_{eq} = equivalent continuous sound level

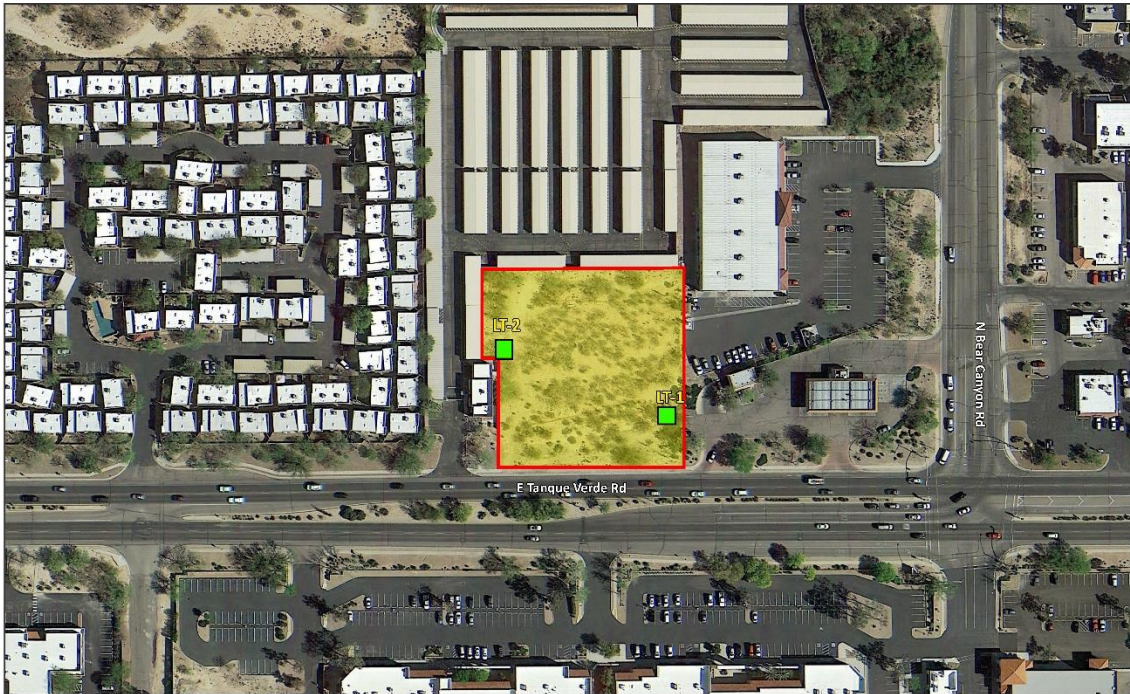


FIGURE 3

LSA



0 100 200
FEET

SOURCE: Google Earth 2023

I:\20231718\G\Noise_Locs.ai (11/29/2023)

- LEGEND
- Project Site Boundary
 - LT-1 Long-term Noise Monitoring Location
 - LT-2 Long-term Noise Monitoring Location

Bear Canyon (2525) Mister Car Wash
Noise Monitoring Locations

PROJECT IMPACTS

LONG-TERM OPERATIONAL NOISE IMPACTS

The proposed car wash operations could affect existing off-site sensitive land uses. The two main stationary sources of noise include noise generated by the car wash tunnel and vacuum equipment. Operations of the car wash are expected during the daytime hours between 7:00 a.m. and 8:00 p.m. No operations would take place during nighttime hours. The following provides a detailed noise analysis and discussion of each stationary noise source.

Car Wash Operations

The project would construct a drive-through car wash with a total of 19 vacuum stations that would generate operational noise.

The vacuum stations are powered by equipment east of the project site, as shown on Figure 2. Based on reference noise specifications from noise measurements LSA conducted at a similar Mister Car Wash (LSA 2023), the turbine used for this project would generate a noise level of 74.9 dBA at 10 feet, and each of the vacuum stations would generate a noise level of 74.3 dBA at 2 feet. For the purposes of this noise analysis, both vacuum equipment locations were assumed to be in operation simultaneously. The vacuum turbine is surrounded by a 6-foot-tall enclosure.

Based on reference noise level measurements gathered at a similar Mister Car Wash, noise levels at the car wash tunnel exit are 78.7 dBA L_{eq} at a distance of 25 feet. Additionally, noise levels at the car wash tunnel entrance are 75.8 dBA L_{eq} at a distance of 25 feet.

To determine the effect of future noise levels generated by the proposed project on noise-sensitive uses, a 3-D noise model (i.e., SoundPLAN) was used to incorporate the site topography, existing property line walls, existing and proposed buildings, and stationary noise sources. Printouts of the SoundPLAN noise model are presented in Appendix B.

Cumulative Unmitigated Impact Assessment

As shown on the SoundPLAN printouts in Appendix B, noise levels generated by the car wash operations would be below 70 dBA L_{eq} at the closest sensitive uses to the west. Because noise levels do not exceed the applicable criteria of 70 dBA L_{eq} , project operations would be in compliance with the desired noise criteria.

CONCLUSION

The proposed project would not generate on-site stationary noise from car wash operations resulting in noise levels above 70 dBA L_{eq} at the nearest sensitive uses and would comply with the City's noise standards.

REFERENCES

California Department of Transportation (Caltrans). 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September.

City of Tucson. 2023. *Code of Ordinances*. October 17.

Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual. FTA Report 0123*. Office of Planning and Environment. September.

LSA Associates, Inc. (LSA). 2023. *Mister Car Wash Sartell Noise Measurements*. January 11.

APPENDIX A

NOISE MEASUREMENT SHEETS

Noise Measurement Survey – 24 HR

Project Number: 20231218 Test Personnel: Moe Abushanab
Project Name: MCW Bear Canyon Equipment: Spark 706RC (SN:17815)

Site Number: LT-1 Date: 11/6/23 Time: From 4:00 p.m. To 4:00 p.m.

Site Location: Located on a tree near southeast corner of the project site, approximately 115 feet away from the Tanque Verde Road centerline.

Primary Noise Sources: Vehicle traffic noise on Tanque Verde Road and adjacent commercial uses

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-1

Start Time	Date	Noise Level (dBA)		
		L _{eq}	L _{max}	L _{min}
4:00 PM	11/6/23	67.5	77.7	53.2
5:00 PM	11/6/23	67.9	81.2	52.7
6:00 PM	11/6/23	67.2	86.9	52.4
7:00 PM	11/6/23	64.5	85.9	48.5
8:00 PM	11/6/23	63.8	86.4	48.1
9:00 PM	11/6/23	62.7	81.1	47.4
10:00 PM	11/6/23	62.4	84.9	41.3
11:00 PM	11/6/23	56.6	70.4	36.9
12:00 AM	11/7/23	55.2	71.8	38.2
1:00 AM	11/7/23	52.7	72.0	36.6
2:00 AM	11/7/23	51.1	70.0	36.5
3:00 AM	11/7/23	54.3	69.4	36.5
4:00 AM	11/7/23	58.8	75.8	37.4
5:00 AM	11/7/23	62.6	73.1	46.2
6:00 AM	11/7/23	67.3	78.9	51.7
7:00 AM	11/7/23	69.4	82.2	57.2
8:00 AM	11/7/23	68.8	79.3	51.7
9:00 AM	11/7/23	67.5	81.1	49.6
10:00 AM	11/7/23	67.4	82.3	47.6
11:00 AM	11/7/23	67.3	84.5	46.6
12:00 PM	11/7/23	66.6	82.5	49.9
1:00 PM	11/7/23	67.3	83.5	50.1
2:00 PM	11/7/23	68.5	87.7	55.0
3:00 PM	11/7/23	68.9	83.5	55.1

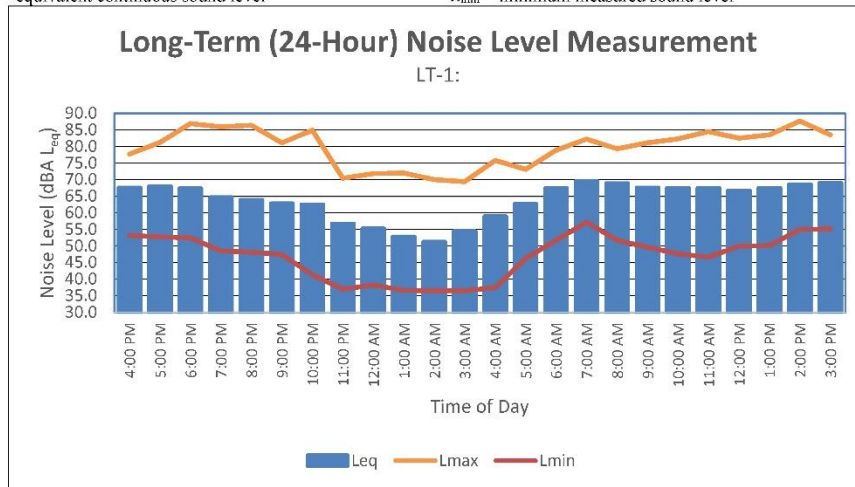
Source: Compiled by LSA Associates, Inc. (2023).

dBA = A-weighted decibel

L_{eq} = equivalent continuous sound level

L_{max} = maximum instantaneous noise level

L_{min} = minimum measured sound level



Noise Measurement Survey – 24 HR

Project Number: 20231218 Test Personnel: Moe Abushanab
Project Name: MCW Bear Canyon Equipment: Spark 706RC (SN:18571)

Site Number: LT-2 Date: 11/6/23 Time: From 4:00 p.m. To 4:00 p.m.

Site Location: Located near western boundary of the project site, on a tree approximately 200 feet away from the Tanque Verde Road centerline.

Primary Noise Sources: Vehicle traffic noise on Tanque Verde Road

Comments: _____

Photo:



Long-Term (24-Hour) Noise Level Measurement Results at LT-2

Start Time	Date	Noise Level (dBA)		
		L _{eq}	L _{max}	L _{min}
4:00 PM	11/6/23	60.7	74.4	48.2
5:00 PM	11/6/23	61.4	78.1	47.8
6:00 PM	11/6/23	61.2	78.7	49.3
7:00 PM	11/6/23	60.0	73.8	47.1
8:00 PM	11/6/23	59.7	81.9	47.1
9:00 PM	11/6/23	59.1	76.0	45.5
10:00 PM	11/6/23	57.7	79.3	41.3
11:00 PM	11/6/23	53.4	66.4	39.3
12:00 AM	11/7/23	51.7	69.3	40.0
1:00 AM	11/7/23	49.6	66.3	38.7
2:00 AM	11/7/23	48.8	67.2	38.9
3:00 AM	11/7/23	51.3	64.7	38.2
4:00 AM	11/7/23	55.5	68.0	39.5
5:00 AM	11/7/23	59.3	70.6	44.0
6:00 AM	11/7/23	62.7	73.4	52.0
7:00 AM	11/7/23	63.7	73.7	54.2
8:00 AM	11/7/23	62.1	71.5	49.7
9:00 AM	11/7/23	61.0	75.5	43.2
10:00 AM	11/7/23	61.6	81.3	42.0
11:00 AM	11/7/23	59.4	78.9	41.9
12:00 PM	11/7/23	59.8	77.7	42.8
1:00 PM	11/7/23	60.1	80.4	44.6
2:00 PM	11/7/23	61.5	77.0	48.8
3:00 PM	11/7/23	62.9	78.0	51.6

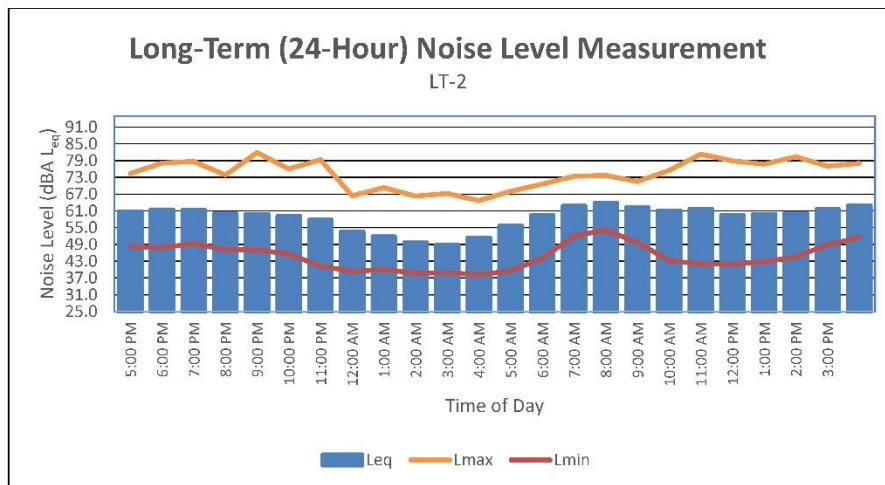
Source: Compiled by LSA Associates, Inc. (2023).

dBA = A-weighted decibel

L_{eq} = equivalent continuous sound level

L_{max} = maximum instantaneous noise level

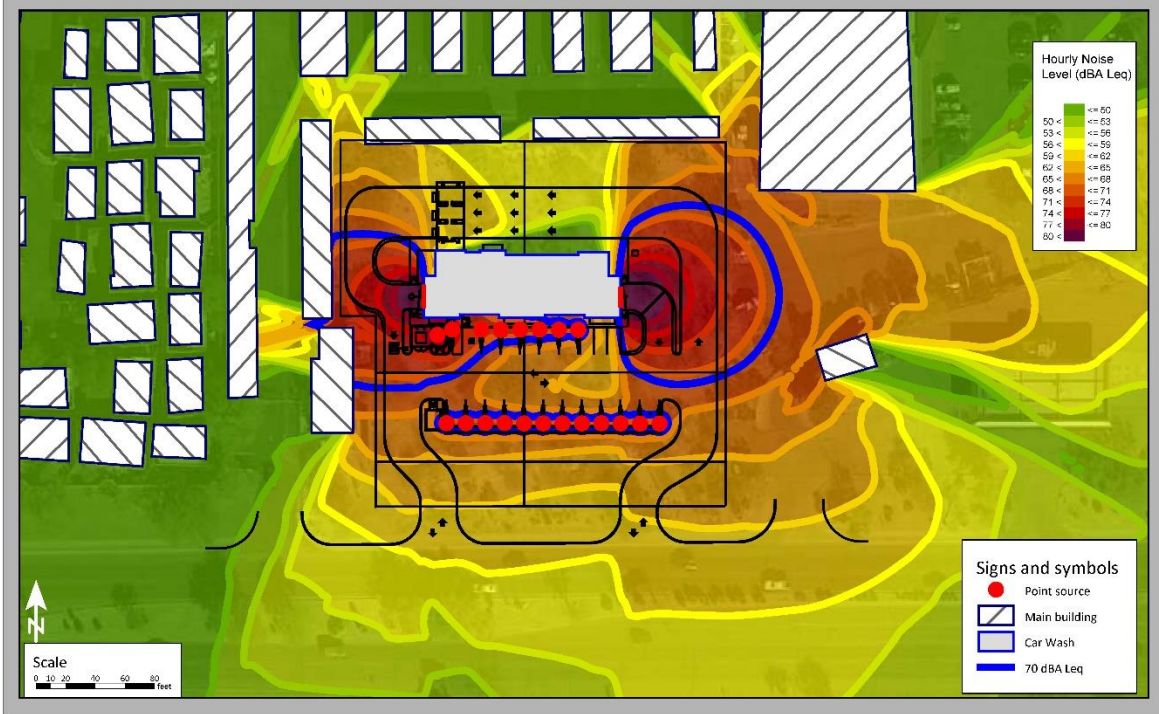
L_{min} = minimum measured sound level



APPENDIX B

SOUNDPLAN NOISE MODEL PRINTOUTS

Bear Canyon MCW
 Project No. 20231218
 Project Operational Noise Levels



C:\Users\james@parks.com\Documents\2023\20231218 - Bear Canyon MCW\Reports - Leq.dwg 11/09/2023

APPENDIX B: CONCEPTUAL RENDERINGS







APPENDIX C: ARCHAEOLOGICAL RECORDS REVIEW



November 22, 2023

Adam Call
The Planning Center
2 East Congress Street, Suite 600
Tucson, Arizona 85701

Re: Archaeological Records Review of Parcels 114-51-200B and 114-51-00C in the City of Tucson, Pima County, Arizona

Dear Mr. Call:

SWCA Environmental Consultants (SWCA) has reviewed the archaeological project and site records for Pima County Assessor's Parcels 114-51-200B and 114-51-200C in support of the environmental review requirements for rezoning privately owned land with the intent of construction of an express car wash. The parcels are located west of Bear Canyon Road and north of Tanque Verde Road, in Section 34, Township 13 South, Range 15 East (Gila and Salt River Baseline and Meridian), on the U.S. Geological Survey Sabino Canyon, Arizona, 7.5-minute quadrangle. Below are the results of the records search.

SEARCH RESULTS

According to a search of the archaeological site files and records contained with AZSITE, 23 archaeological survey projects have been conducted in or within 1.0 mile of the project parcels. These projects were conducted between 1979 and 2015 for residential and commercial development, fire station development, potable water and wastewater pipelines, bike lanes, and bridge replacement. None of the subject parcels have been previously surveyed.

Four archaeological sites have been identified with 1.0 mile of the subject parcels, none of which are in or overlap the subject parcels. Two sites are Native American sites consisting of artifact scatters and one site is Euro-American historic-era consisting of segments of the original alignment of Cloud Road. The fourth site consists of a circular rock feature that does not have any associated artifacts to provide a cultural affiliation.

In addition, the National Park Service's National Register of Historic Places (NRHP) online database was searched to identify properties listed in the NRHP that are located within or near the subject parcels. No NRHP-listed properties were identified in or within 1.0 mile. The NRHP-listed property nearest the subject parcels is HD 9-28, a historic residence associated with Fort Lowell Historic District, which is approximately 3.9 miles west of the project parcels.

RECOMMENDATIONS

1. The subject parcels have not been previously surveyed. Therefore, SWCA recommends, that a qualified archaeological contractor be consulted before any ground-disturbances. A list of archaeological contractors is available on the Arizona State Museum (ASM) website at: <https://statemuseum.arizona.edu/crm>.

2. Pursuant to Arizona Revised Statute §41-865, if any human remains of funerary objects are discovered during project work, all work must stop within the area of the remains and Dr. Claire Barker, ASM repatriation coordinator, will be contacted at 520-626-0320.
3. City, county, or municipal governments may have requirements; therefore, SWCA recommends that the relevant jurisdiction(s) be consulted.

If you have any questions about the results of this records search, please feel free to contact me at dbarr@swca.com or 520-325-9194.

Sincerely,

A handwritten signature in blue ink, appearing to read "David M. R. Barr", with a long horizontal flourish extending to the right.

David M. R. Barr, M.A, RPA

Principal Investigator (Arizona Antiquities Act Permit No. 2023-050bl)

APPENDIX D: HYDROLOGIC DATA SHEETS



HYDROLOGIC DATA SHEET FOR PIMA COUNTY FLOOD PEAK PROCEDURE
 Generated using methods provided by Pima County Regional Flood Control District

Client:	_____	Prepared by:	<u>Elizabeth Fischer</u>
Project Name:	<u>MR CARWASH</u>	Date:	<u>11/14/2023</u>
Concentration Point:	<u>1</u>	Job #	_____
Watershed Area:	<u>.083 Acres</u>	Watershed Type	<u>Undeveloped-Foothills</u>

Watercourse Data By Reach

Reach No.	Height (Hi)	Length (Li)	Slope (Si)	Basin Factor (Nb)
1	4	100	0.04	0.035

Length of Watercourse (Lc):	<u>100</u> feet	Mean Slope:	<u>0.04</u>
Length to Cen. of Gravity (Lca):	<u>5</u> feet	Weighted Basin Fac:	<u>0.035</u>
Veg. Cover Type(s):	<u>Desert Brush</u>	Veg. Cover Density:	<u>90</u>

RETURN PERIOD: 100-years NOAA Data Obtained: 2023-11-14 10:21:25 AM

Rainfall Depths:	<u>NOAA Atlas 14 (90% UCL) @</u> Latitude: <u>32.2587</u> Longitude: <u>-110.8038</u>									
Duration:	<u>5-min</u>	<u>10-min</u>	<u>15-min</u>	<u>30-min</u>	<u>1-hr</u>	<u>2-hr</u>	<u>3-hr</u>	<u>6-hr</u>	<u>12-hr</u>	<u>24-hr</u>
Point Values (in):	<u>0.9</u>	<u>1.37</u>	<u>1.7</u>	<u>2.28</u>	<u>2.82</u>	<u>3.16</u>	<u>3.3</u>	<u>3.6</u>	<u>3.91</u>	<u>4.19</u>

Soil Type	Percent	Curve # (CN)	Runoff Coef. (C)
B	-	-	-
C	-	-	-
D	100	89	0.616
Imp.	90	99	0.958

Weighted Runoff Coef. (Cw):	<u>0.92</u>
Time of Concentration:	<u>5</u> min
Rainfall Intensity (i) @ Tc:	<u>10.8</u> in/hr
Runoff Supply Rate (q) @ Tc:	<u>9.98</u> in/hr
PEAK DISCHARGE:	<u>0.8</u> cfs



HYDROLOGIC DATA SHEET FOR PIMA COUNTY FLOOD PEAK PROCEDURE
 Generated using methods provided by Pima County Regional Flood Control District

Client:	_____	Prepared by:	<u>Elizabeth Fischer</u>
Project Name:	<u>MR CARWASH</u>	Date:	<u>11/14/2023</u>
Concentration Point:	<u>2</u>	Job #	<u>23003057</u>
Watershed Area:	<u>1.31 Acres</u>	Watershed Type	<u>Undeveloped-Foothills</u>

Watercourse Data By Reach

Reach No.	Height (Hi)	Length (Li)	Slope (Si)	Basin Factor (Nb)
1	6	200	0.03	0.035

Length of Watercourse (Lc):	<u>200</u> feet	Mean Slope:	<u>0.03</u>
Length to Cen. of Gravity (Lca):	<u>5</u> feet	Weighted Basin Fac:	<u>0.035</u>
Veg. Cover Type(s):	<u>Desert Brush</u>	Veg. Cover Density:	<u>90</u>

RETURN PERIOD: 100-years NOAA Data Obtained: 2023-11-14 10:21:25 AM

Rainfall Depths:	<u>NOAA Atlas 14 (90% UCL) @</u>	Latitude:	<u>32.2587</u>	Longitude:	<u>-110.8038</u>					
Duration:	<u>5-min</u>	<u>10-min</u>	<u>15-min</u>	<u>30-min</u>	<u>1-hr</u>	<u>2-hr</u>	<u>3-hr</u>	<u>6-hr</u>	<u>12-hr</u>	<u>24-hr</u>
Point Values (in):	<u>0.9</u>	<u>1.37</u>	<u>1.7</u>	<u>2.28</u>	<u>2.82</u>	<u>3.16</u>	<u>3.3</u>	<u>3.6</u>	<u>3.91</u>	<u>4.19</u>

Soil Type	Percent	Curve # (CN)	Runoff Coef. (C)
B	-	-	-
C	-	-	-
D	100	89	0.616
Imp.	90	99	0.958

Weighted Runoff Coef. (Cw):	<u>0.92</u>
Time of Concentration:	<u>5</u> min
Rainfall Intensity (i) @ Tc:	<u>10.8</u> in/hr
Runoff Supply Rate (q) @ Tc:	<u>9.98</u> in/hr
PEAK DISCHARGE:	<u>13.2</u> cfs



HYDROLOGIC DATA SHEET FOR PIMA COUNTY FLOOD PEAK PROCEDURE
 Generated using methods provided by Pima County Regional Flood Control District

Client:	_____	Prepared by:	<u>Elizabeth Fischer</u>
Project Name:	<u>MR CARWASH</u>	Date:	<u>11/14/2023</u>
Concentration Point:	<u>3</u>	Job #	<u>23003057</u>
Watershed Area:	<u>.019 Acres</u>	Watershed Type	<u>Suburban Foothills</u>

Watercourse Data By Reach

Reach No.	Height (Hi)	Length (Li)	Slope (Si)	Basin Factor (Nb)
1	2	48	0.0417	0.032

Length of Watercourse (Lc):	<u>48</u> feet	Mean Slope:	<u>0.0417</u>
Length to Cen. of Gravity (Lca):	<u>5</u> feet	Weighted Basin Fac:	<u>0.032</u>
Veg. Cover Type(s):	<u>Desert Brush</u>	Veg. Cover Density:	<u>0.3</u>

RETURN PERIOD: 100-years NOAA Data Obtained: 2023-11-14 03:49:37 PM

Rainfall Depths:	<u>NOAA Atlas 14 (90% UCL) @</u>	Latitude: <u>32.2588</u>	Longitude: <u>-110.8032</u>
Duration:	<u>5-min</u> <u>10-min</u> <u>15-min</u> <u>30-min</u>	<u>1-hr</u> <u>2-hr</u> <u>3-hr</u> <u>6-hr</u> <u>12-hr</u> <u>24-hr</u>	
Point Values (in):	<u>0.9</u> <u>1.37</u> <u>1.7</u> <u>2.28</u>	<u>2.82</u> <u>3.16</u> <u>3.3</u> <u>3.6</u> <u>3.91</u> <u>4.19</u>	

Soil Type	Percent	Curve # (CN)	Runoff Coef. (C)
B	-	-	-
C	-	-	-
D	100	93	0.738
Imp.	5	99	0.958

Weighted Runoff Coef. (Cw):	<u>0.75</u>
Time of Concentration:	<u>5</u> min
Rainfall Intensity (i) @ Tc:	<u>10.8</u> in/hr
Runoff Supply Rate (q) @ Tc:	<u>8.09</u> in/hr
PEAK DISCHARGE:	<u>0.2</u> cfs