22nd & Houghton Planned Area Development (PAD)

City of Tucson
April 2017

22nd & Houghton
Planned Area Development

Houghton Road and 22nd Street
Tucson, Arizona

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Case No. C9-17-02
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22nd & Houghton Planned Area Development (PAD)

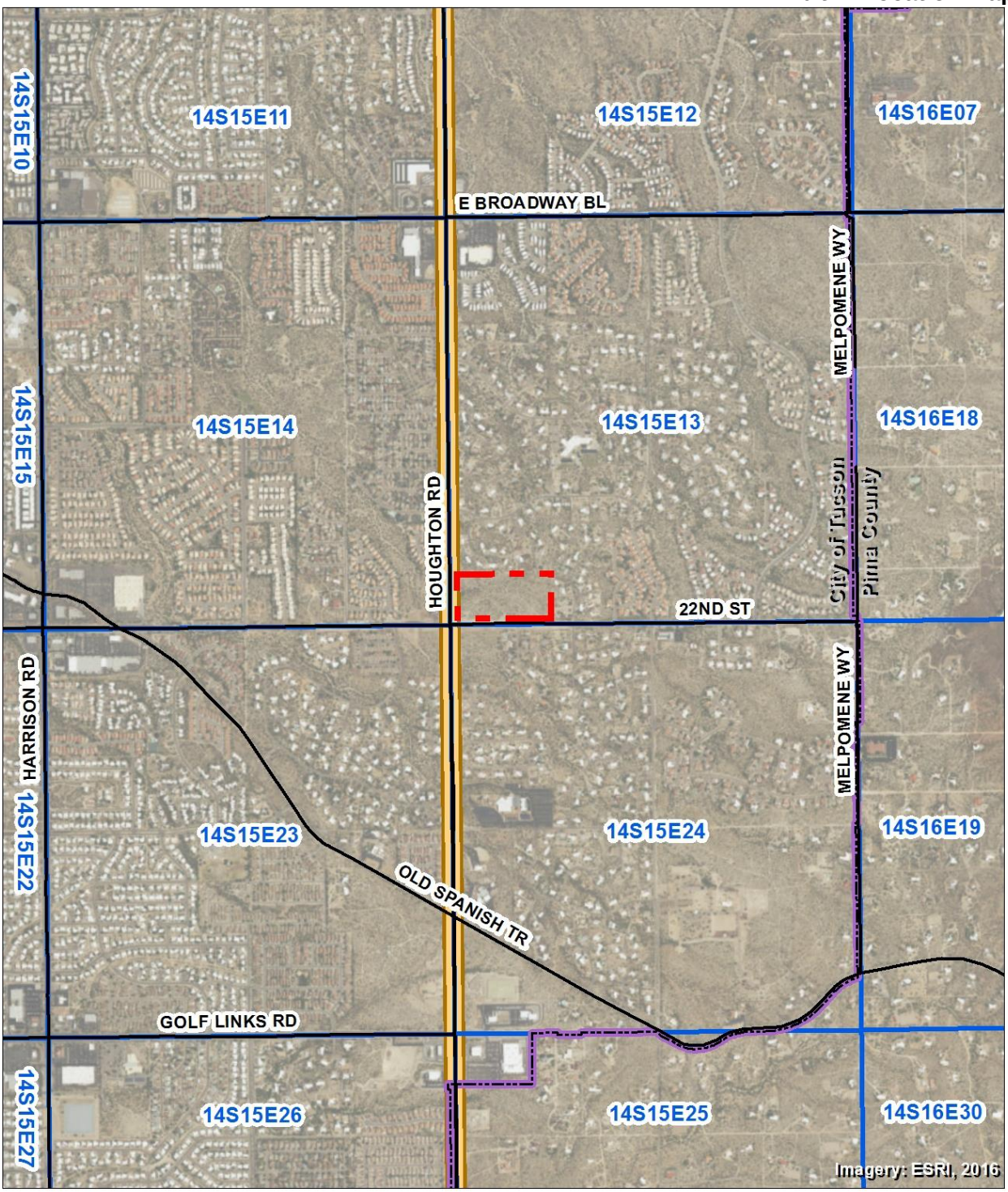
I. Introduction

City of Tucson

A. Project Vision & History

The 22nd and Houghton Planned Area Development (the "PAD" or "PAD District") consists of approximately 16.2 acres located on an infill site at the northeast corner of 22nd Street and Houghton Road near the eastern city limits (the "Property") (See *Exhibit I: Location Map*). Over the past several years, eastern Tucson has flourished with new residential and commercial development. The Houghton Road Corridor, located along the western boundary of the subject property, was recently widened to a total of six travel lanes with a regional multipath corridor. 22nd Street was also widened from two to four lanes and the intersection of 22nd and Houghton was improved to increase the traffic capacity. These improvements allow for increased visibility to this intersection ultimately making this a prime location for a neighborhood shopping center. The vision for the proposed neighborhood shopping center is to provide a unique shopping opportunity for the surrounding community that will feature upscale neighborhood retail establishments and restaurants as well as a Fry's Food and Drug Store with an associated gas station and kiosk. The Fry's store will offer additional amenities such as a drive-through pharmacy, click list online ordering, a Sushi Island, an enhanced meat counter and deli, a large selection of organic produce, a Pan Asian bistro, a Starbucks, outdoor seating and dining areas, and apparel.

Exhibit I: Location Map



LEGEND

- Project Boundary
- Township, Range & Section
- Jurisdictional Boundary
- Houghton Road Corridor

Notes:

Project Site is located at:
Township 14S, Range 15E and Section 13
Acreage: Approx. 16.3 AC, Parcel ID #'s:
133-38-008J, 133-38-008F

NORTH 0' 1000' 2000'

FILE NAME: location_6x8.mxd
SOURCE: Pima County GIS, 2016

B. Rationale and Benefits for Use of a PAD

The City of Tucson's Planned Area Development Zone (PAD) designation allows property owners to comprehensively develop the land with development standards that would not otherwise be possible through the traditional Unified Development Code (UDC) zoning classifications. The City's current UDC is structured for commercial development without consideration of the existing physical constraints on the property or surrounding it. The current development proposal is for a neighborhood shopping center including a grocery store, associated gas station and two retail pads. Using C-1 as the base zone, this PAD allows for site specific zoning and design regulations to ensure a quality design that can protect the integrity of existing neighborhoods. It will:

- more effectively address neighborhood concerns through customized land uses and development and design standards;
- design for outdoor sales along the front side of the building with conditions that require the vestibule doors open during business hours and shut when the store is closed;
- allow for modifications to landscape borders and screening plans to respond to both neighborhood concerns and consolidated open space provision;
- ensure protection for adjacent neighbors with larger buffers and protection of undisturbed open space areas adjacent to existing single family residential properties; and
- utilize existing infrastructure within near the project site.

This PAD shall serve as the primary mechanism for controlling the development of the property. In accordance with Section 3.5.5 of the Unified Development Code (UDC), the PAD standards herein supersede the standards of the UDC. Where specific references to UDC standards are provided, those reference the UDC standards in existence on the date this PAD is approved by the Mayor and Council.

C. Benefits to the Community

The 22nd and Houghton PAD will foster significant benefits to the community, among them include:

- Providing a unique shopping opportunity for the local community that will feature a Fry's Food and Drug Store with amenities including, but not limited to, a drive-through pharmacy with click list online ordering, a Sushi Island, an enhanced meat counter and deli, a large selection of organic produce, a Pan Asian bistro, a Starbucks, outdoor seating and dining areas, and apparel;
- Developing a neighborhood commercial shopping center to serve the far east-side neighborhoods, reducing vehicle miles for basic goods and services;
- Setting aside open space elements to preserve and protect privacy of adjacent residents as well as native vegetation and wildlife; and
- Advancing the economic sustainability of the area through the creation of additional tax revenue and quality employment opportunities.

D. Conformance with Adopted Plans

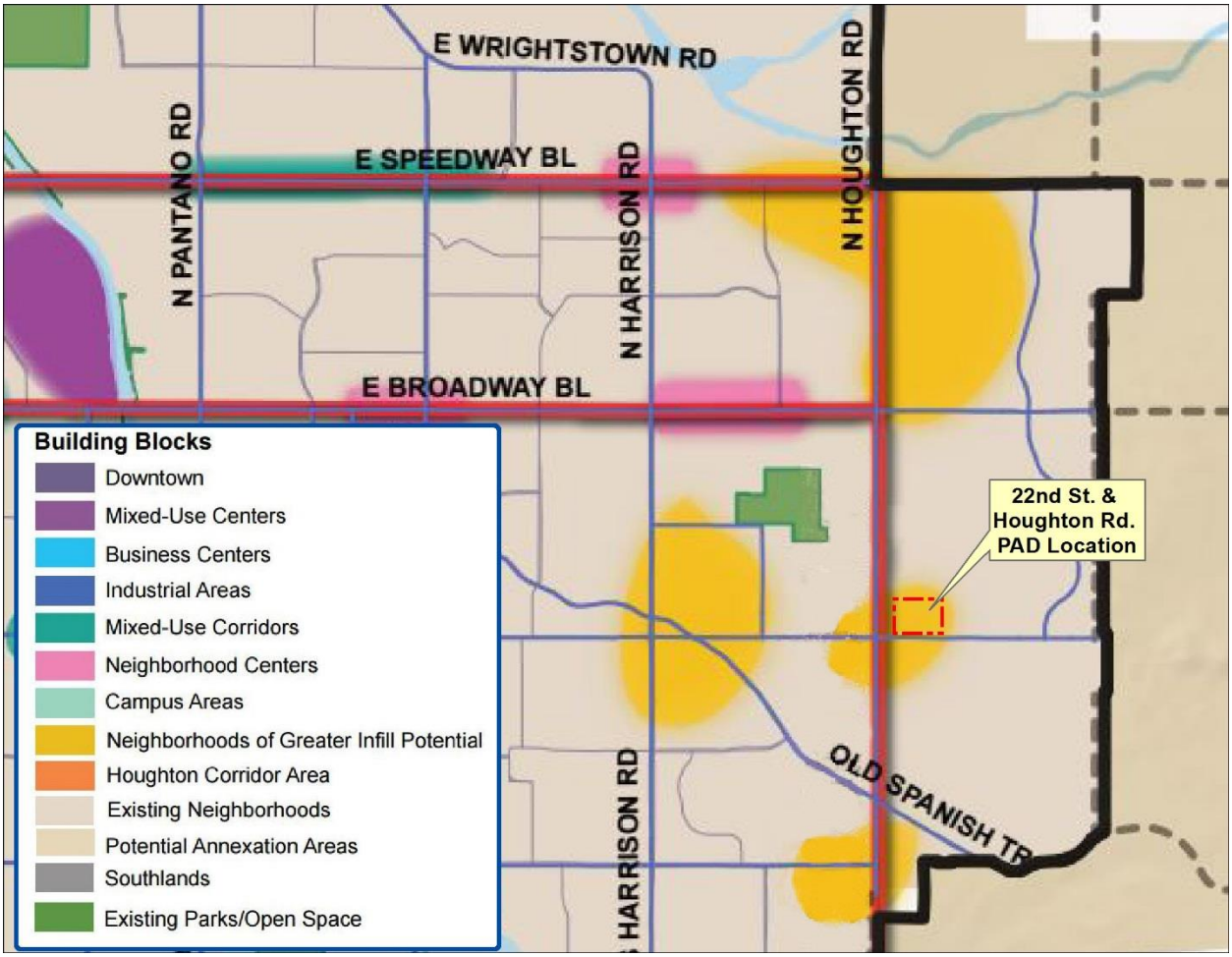
The PAD District is consistent with policy recommendations in the City's Plan Tucson and the Houghton East Neighborhood Plan. Both stress the compatibility between uses, the promotion of commercial development along arterials corridors, and the protection of established neighborhoods.

1. Plan Tucson

As shown on *Exhibit I.D.1: Plan Tucson Future Growth Scenario Map*, the PAD is located within an area designated as a Neighborhood of Greater Infill Potential (NGIP). NGIP are neighborhoods that have the potential for new residential and commercial development/redevelopment in the next several decades. These neighborhoods include a mix of uses such as: a variety of housing types, grocery stores, and other retail and services. The goal of the PAD is to promote the major intersection of 22nd Street and Houghton Road as an infill site for neighborhood commercial development. The PAD development regulations and design standards are envisioned to protect established residential neighborhoods adjacent to the site by orienting new development to protect the privacy of surrounding residential land uses. Other related policies include:

- LT 1: Integrate land use, transportation, and urban design to achieve an urban form that supports more effective use of resources, mobility options, more aesthetically-pleasing and active public spaces, and sensitivity to historic and natural resources and neighborhood character.
- LT 7a: Use the Future Growth Scenario Map as a general guide for determining the general location of development opportunities, development patterns, and land use and transportation concepts, while also considering area and site-specific issues.
- LT 9: Plan Tucson supports locating housing, employment, retail, and services in proximity to each other to allow easy access between uses and reduce dependence on the car.
- RR 4: The Redevelopment and Revitalization element goals of Plan Tucson support infill projects that build from existing assets of areas identified for redevelopment and revitalization.
- BC 8: The Business Climate element of Plan Tucson promotes continued economic viability of existing neighborhoods and commercial districts by supporting 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.

Exhibit I.D.1: Plan Tucson Future Growth Scenario Map



2. Houghton East Neighborhood Plan

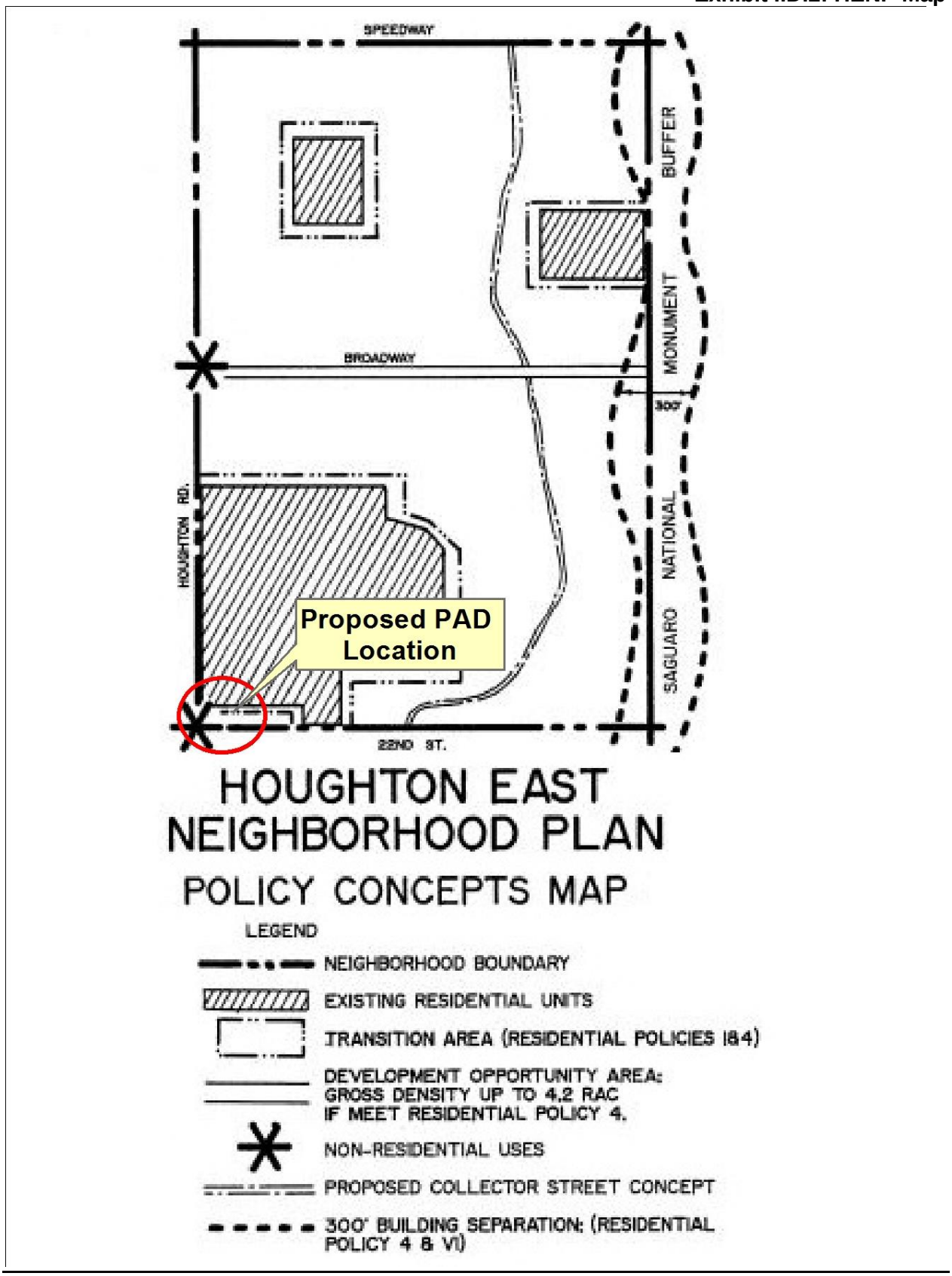
The intent of the Houghton East Neighborhood Plan (HENP) is to guide future development to protect the natural amenities of the area and to enhance existing neighborhoods. The HENP covers a two-square-mile area bounded by Speedway Boulevard, Tanque Verde Loop/Melpomene Road, 22nd Street and Houghton Road. In accordance with the HENP Policy Concepts Map, the HENP supports non-residential development at the two major intersections located within the HENP, 22nd Street and Houghton Road, and Broadway Boulevard and Houghton Road (*See Exhibit I.D.2: HENP Policy Concepts Map*). Furthermore, the PAD at 22nd and Houghton is recommended for commercial development and is envisioned to accommodate a neighborhood shopping center with over 25% of the subject property to be set aside as open space. See *Appendix A* for additional information on the definition of neighborhood commercial. The history of the HENP includes two amendments, including one for the PAD:

- Southeast corner of Broadway and Houghton was approved in 1990 to increase building height at the to 28 feet.
- The 22nd and Houghton and PAD (The Property) was approved for plan amendment on March 8, 2016 which removed the 20-foot height restriction for this location. Per this plan amendment, the approved building height is 26 feet.

Other HENP nonresidential policies that apply to the PAD proposal:

- HENP-Policy I: Develop a variety of retail, service and office uses at appropriate locations.
    - HENP- Policy 1.A: Locate nonresidential uses only at the intersections of Houghton Road with Broadway and 22nd Street.
    - HENP Policy 1.B: Require nonresidential uses to provide access exclusively onto arterial streets.
- HENP Policy 2: Require nonresidential development to be compatible with adjacent uses.
    - HENP Policy 2A: Require security and parking lot lighting to be shielded and directed away from adjacent residential uses, in accordance with zoning regulations.
    - HENP Policy 2B: Required new nonresidential development to implement a landscape plan with a mixture of plant size, including mature trees, understory shrubs and ground cover.
    - HENP Policy 2C: Require new nonresidential development to employ design elements such as masonry walls, earth berms and sufficient landscaping to buffer adjacent uses.
    - HENP Policy 4 C: Require neighborhood commercial or office uses to retain 20 percent of the Property as consolidated open space.
    - HENP Policy 1A: Require developers to submit a hydrology/hydraulic study of drainage conditions and design of proposed improvements, considering both upstream and downstream conditions, as established in the Floodplain Regulations.

Exhibit I.D.2: HENP Map



E. Compatibility to Adjoining Land Uses

The Property is suitable for neighborhood shopping center uses as it is located at the major intersection of 22nd and Houghton. This intersection and surrounding roadways were recently improved to widen Houghton Road to 6-lanes and 22nd Street to 4-lanes. In addition, this intersection has been identified by Plan Tucson, Houghton East Area Plan and the Rincon Southeast Subregional Plan as a location intended for commercial uses. The following land uses surround the PAD District:

- North: a one-story single-family residential subdivision exists to the north. Natural open space buffers as well as a masonry wall along the property boundary will ensure future compatibility with adjoining neighbors.
- West: the northwest and southwest corners of the Houghton/22nd intersection are both zoned for commercial. The northwest corner consists of a one-story convenience store and the southwest corner is currently vacant. An approximately 35' wide landscape buffer is provided along the western boundary of the property adjacent to the Houghton Road Greenway.
- South: the site directly to the south is currently vacant but was once zoned for commercial in 2007. Due to the economic downturn, the proposed retail and office complex did not develop, and the rezoning expired.
- East: a one-story single-family residential exists to the east. Natural open space buffers as well as a masonry wall along the property boundary will ensure future compatibility with adjoining neighbors.

F. Suitability with Existing Infrastructure

The proposed PAD will be an infill development along two major arterials. Infrastructure improvements have recently been completed in conjunction with the Houghton Road Corridor and 22nd Street improvements. The following has been approved by the public agencies:

- A Public Sewer Improvement Plan and a Private Sewer Plan have been completed to enable the Property to connect to the Pima County public sewer system (*See Appendix B*).
- A Preliminary Water Master Plan was approved by City of Tucson Water Department as part of the Houghton Road improvement and security water service to the Property (*See Appendix C*).
- A Traffic Impact Study by Stantec Consultants Inc. was completed as part of the Houghton Road Corridor planning. Access point locations and traffic improvements were recommended as part of this study and approved by the City of Tucson Transportation Department. See TIS that is submitted separately.

22nd & Houghton Planned Area Development (PAD)

II. Site Analysis

City of Tucson

A. Significant Natural and Built Constraints

The Property is an infill parcel located on the northeast corner of two arterial streets: 22nd Street and Houghton Road and is surrounded by existing development to the north, west, south and east. The Property is currently undisturbed except for a Tucson Electric Power (TEP) electrical box located in the south-central portion of the property and existing grading due to the Houghton Road and 22nd roadway widening improvements. In addition, TEP electrical transmission lines are located along the south and western boundaries of the Property, within the rights-of-way of Houghton Road and 22nd Street.

A small drainageway runs through the middle of the Property from east to west with flows of slightly over 100 cfs. The existing vegetation on Property consists largely of upland desert scrub predominately including Creosote, Foothills Palo Verde, Mesquite, Brittle Bush, and Prickly Pear. Plant density across much of the Property is medium to low upland scrub vegetation, typical to the region. The small drainage area near the west end of the property (near the Houghton Road culvert), consists of more dense vegetation including Foothills Palo Verdes, Mesquites and a small number of Hackberries. There is no vegetation type or density on Property that meets the Pima County Xeroriparian "C" habitat requirements (as mapped). A very small area near the Houghton Road culvert will be evaluated at time of Development Plan for density and species make up for inclusion in protected riparian habitat per City requirements.

B. Transportation and Circulation

1. Surrounding Roadways

As shown on *Exhibit II.B.1: Traffic*, the PAD is bordered by Houghton Road on the west and 22nd Street on the south. Houghton Road and 22nd Street are currently under construction for improvements. The existing right-of-way is 200 feet. The posted speed limit on Houghton Road is currently 45 mph. Houghton Road was recently widened from Broadway Boulevard to 22nd Street to include six lanes, improved access control, bike lanes, sidewalks, landscaping that maintains the scenic corridor, greenway and improved drainage. Houghton Road Greenway is proposed along the east side of Houghton Road and will consist of a 12-foot paved path and a landscaped corridor.

22nd Street is a 2-lane arterial roadway with a striped shoulder and a posted speed limit of 40 mph. 22nd Street currently has a right-of-way of 150-feet. 22nd Street was recently improved to include: four lanes, bike lanes and sidewalks east to just beyond Barbara Place as part of the Houghton Corridor improvement.

The 22nd and Houghton Road intersection was also improved to include dual left turn lanes and a separate dedicated right turn lane in all four directions. The east/west thru movement along 22nd Street will remain as a single thru lane.

2. Major Streets and Routes

The Property is located at the intersection of two major streets within the MS&R plan: 22nd Street and Houghton Road. Houghton Road is classified as a Scenic Arterial Street in the City of Tucson Major Streets and Routes Plan (2007). 22nd Street is classified as an Arterial Street in the City of Tucson Major Streets and Routes Plan (2007). Both roadways and the intersection are undergoing improvements for future roadway capacity and future development (*See Exhibit II.B.2: Major Streets and Routes).*

The existing and planned rights-of-way for all roadways listed on the City of Tucson Major Streets and Routes Plan within a one-mile radius of the Property are shown on *Exhibit II.B.1: Traffic.*

3. Traffic Volumes

Average Daily Traffic (ADT) volumes were derived from Pima Association of Governments Traffic Count Records as shown on *Table II.B.3: Traffic Volumes*. Stantec Consulting Services completed a Traffic Impact Study of the roadways surrounding the intersection of 22nd Street and Houghton Road and determined that the intersection currently operates at a Level of Service B, indicating a reasonable free-flow of traffic. The Traffic Impact Study has been submitted under a separate cover.

Table II.B.3: Traffic Volumes

Road	Segment	ADT	Date
Houghton Road	Broadway Boulevard to 22nd Street	18,693	2011
Houghton Road	22nd Street to Old Spanish Trail	11,972	2013
22nd Street	Harrison Road to Houghton Road	8,563	2012
22nd Street	Houghton Road to Melpomene Way	9,514	2011

Source: Pima Association of Governments

4. Alternate Modes of Transportation

According to SunTran's system-wide transit map, Sun Tran Bus Route #7, Route #17, and Route 201X are all located within one mile of the Property (*See Exhibit II.B.1: Traffic*). There is also a Park and Ride lot located within one mile of the Property at the intersection of Houghton Road and Broadway Boulevard. As a result of coordinating with City staff on the Houghton Road Corridor improvements, the Traffic Impact Study (submitted under a separate cover) indicates that there will be a bus stop incorporated along Houghton Road near the proposed PAD. It is unknown as to when service will be integrated along Houghton Road.

There are ± 8 bike routes within a one-mile radius of the site. (See *Exhibit II.B.1: Traffic)*. As part of the Houghton Road improvements, a multi-use path (greenway) is under construction along the west boundary of the PAD. The improvements along 22nd Street also include bike lanes on the southern boundary of the PAD.

Exhibit II.B.1: Traffic

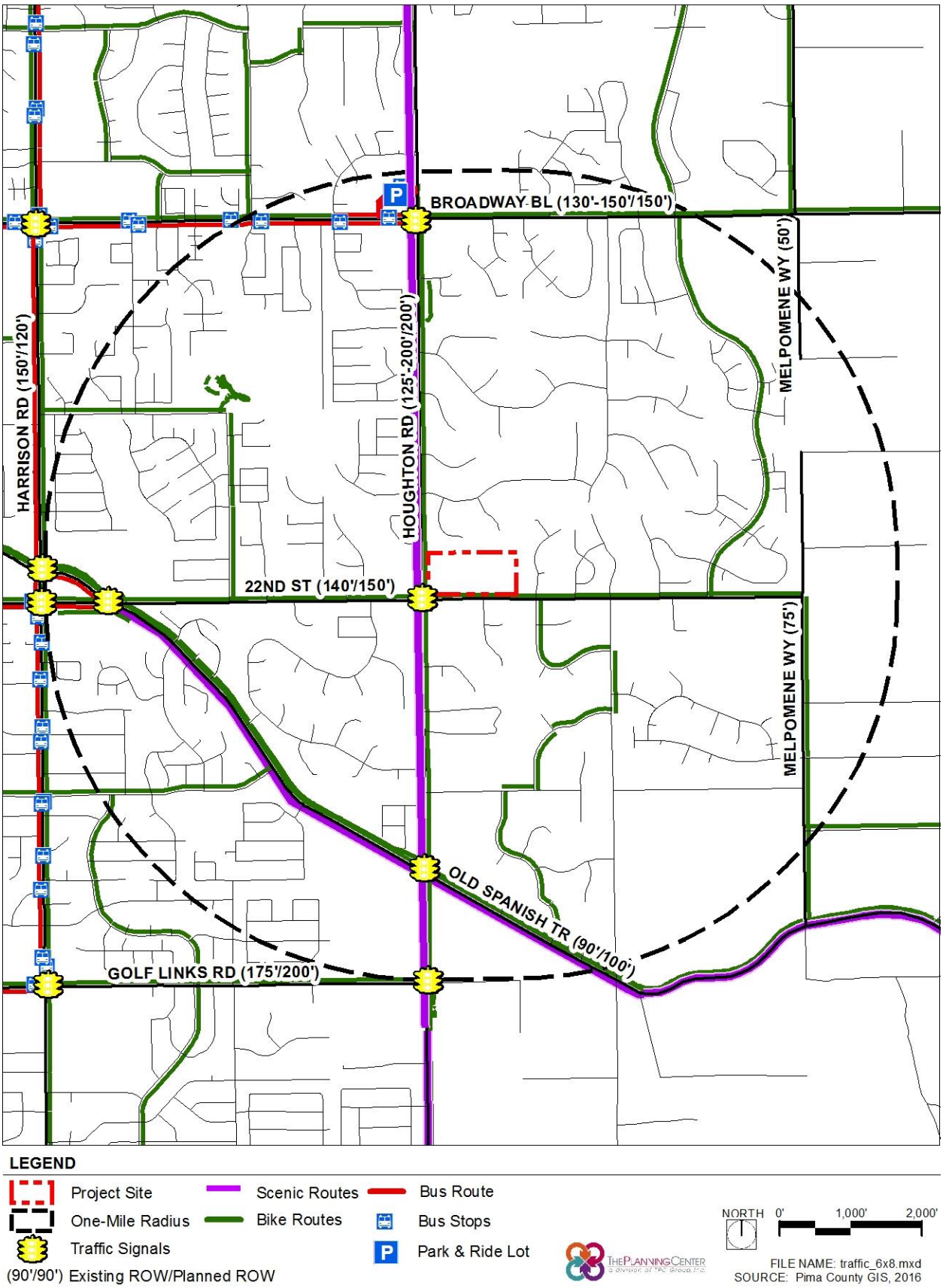
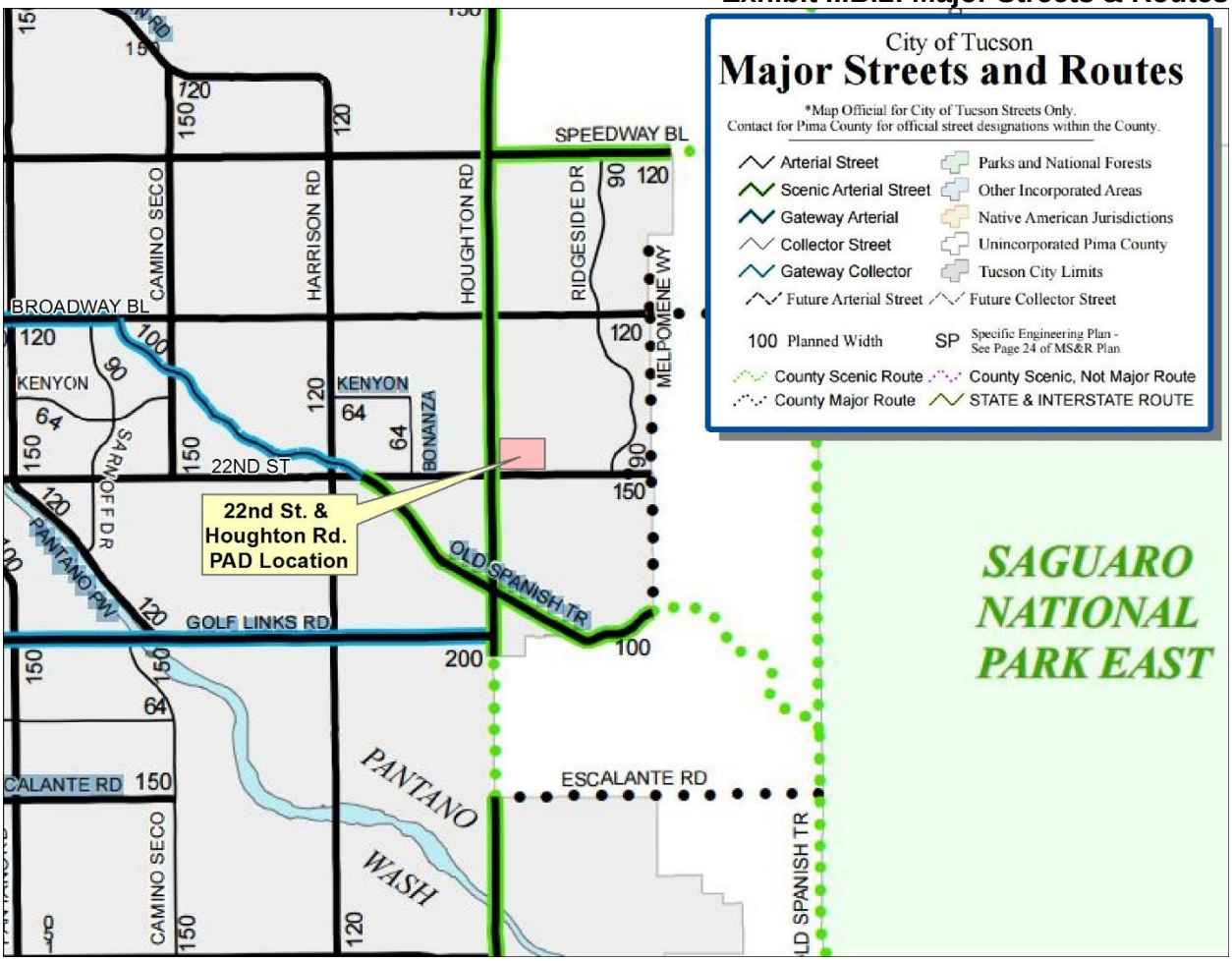


Exhibit II.B.2: Major Streets & Routes



C. Zoning

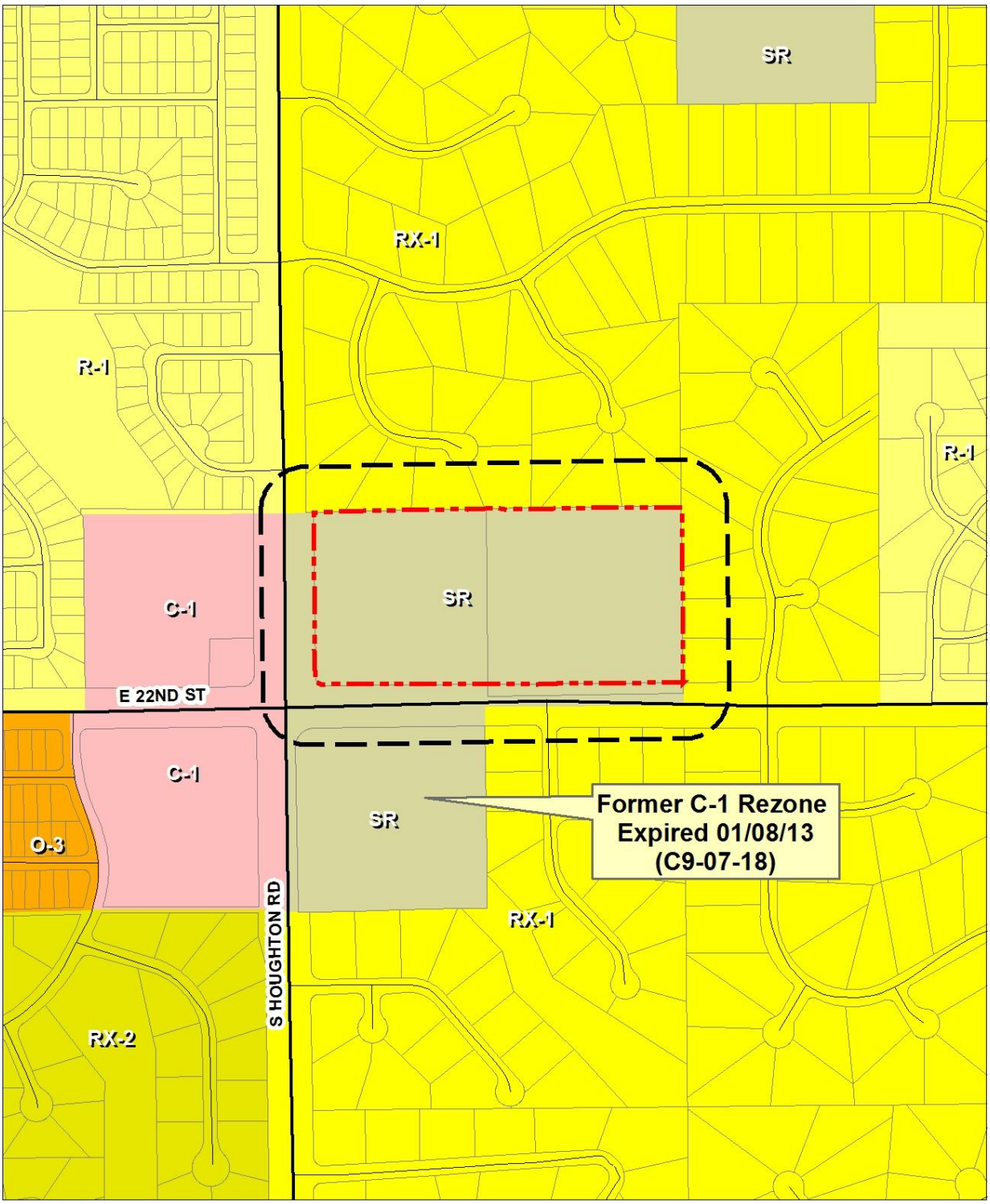
The subject property is currently zoned SR (Suburban Ranch). Zones for the surrounding properties within 150 feet can be found in *Table II.C: Surrounding Zones.*

Table II.C: Surrounding Zones

Direction	Zone
North	RX-1 (Residence Zone)
South	SR (Suburban Ranch) Former C-1 (Commercial Zone) now RX-1 (Residence Zone)
East	RX-1 (Residence Zone)
West	C-1 (Commercial), R-1 (Residential)

In addition, both the HENP and the Rincon Southeast Subregional Plan designates the intersection of 22nd Street and Houghton Road for commercial use. The southeast corner (Assessor's Parcel # 136-09-012B) was rezoned to commercial in 2007, (C9-07-18). However due to the recent recession, the property has since reverted to its original zoning (See *Exhibit II.C: Zoning*).

Exhibit II.C: Zoning



LEGEND

- Site Boundary
- Parcels
- 150-Foot Radius

Tucson Zoning

- O-3
- RX-1
- SR
- R-1
- C-1

THE PLANNING CENTER
a division of TPC Group, Inc.

0' 250' 500'

FILE NAME: zoning_6x8.mxd
SOURCE: Pima County GIS, 2016

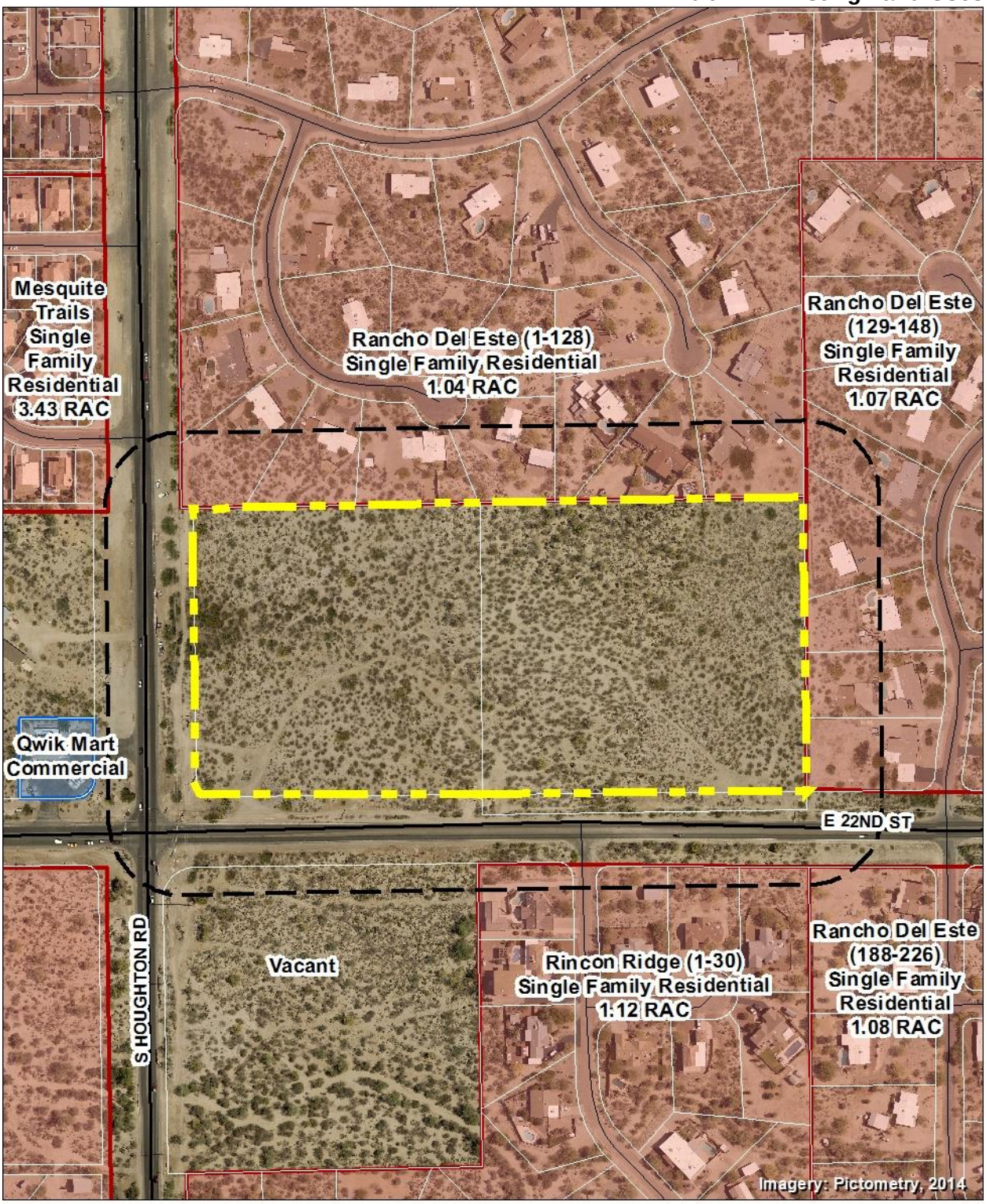
D. Adjacent Parcels and Structures

Existing land uses on adjacent parcels within 150 feet of the subject property can be seen in *Table II.D: Existing Land* Uses and on *Exhibit II.D: Existing Land Uses.*

Table II.D: Existing Land Uses

Property	Vacant
North	One-Story Single-Family Residential
South	Vacant, One-and Two Story Single-Family Residential
East	One-Story Single-Family Residential
West	One-Story Commercial, One- and Two-Story Single-Family Residential,

Exhibit II.D: Existing Land Uses



LEGEND

- Site Boundary
- 150-Foot Radius
- Parcels
- Subdivisions
- Development Plans

THE PLANNING CENTER
a division of TPC Group, Inc.

NORTH 0' 150' 300'

FILE NAME: ex_cond_6x8.mxd
SOURCE: Pima County GIS, 2016

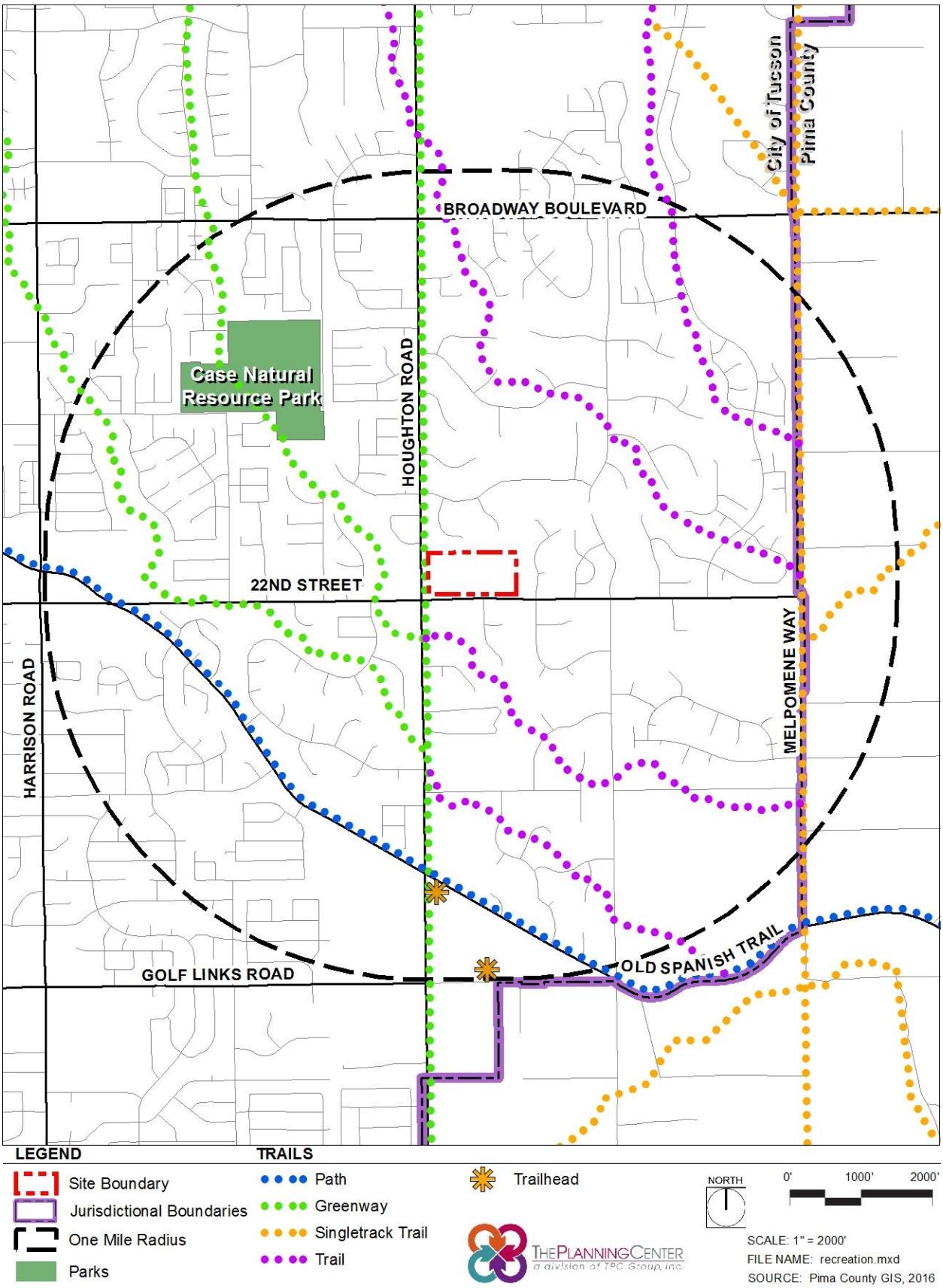
E. Park, Recreation and Open Space

According to the Pima Regional Trail System Master Plan (PRTSMP), there are several trails located within one mile of the Property: Hidden Hills, Estes Wash, and Houghton Road Greenways; Old Spanish Trail Path; Hidden Hills, Estes Wash, Coronado Ridge and Reyes Wash trails; Melpomene Way Alignment; Freeman/Del Este singletrack trails; Danforth trailhead and the Old Spanish Trail trailhead (*See Exhibit II.E: Recreation).*

The Houghton Road Greenway lies adjacent to the PAD and features a 10-foot regional multipath corridor with native plants and landscaping that maintains the scenic corridor. The Houghton Road Greenway will utilize water harvesting and incorporate wildlife-sensitive design.

Case Natural Resource Park is located within one mile of the Property. The 4.1-acre park features a parking lot, playground, shaded and unshaded picnic tables, barbeque grills, walking paths, and a butterfly/hummingbird garden.

Exhibit II.E: Recreation

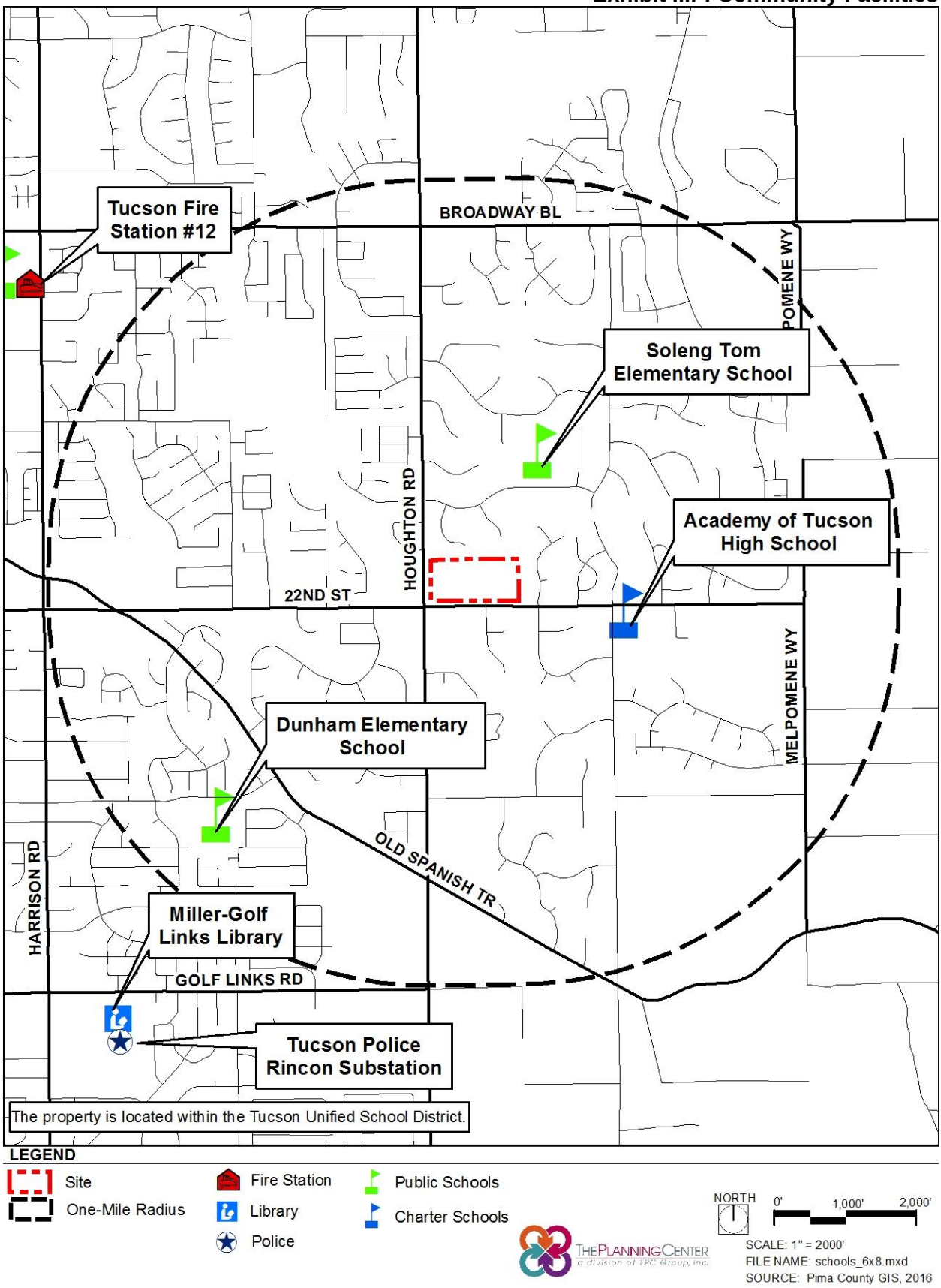


F. Public, Educational, Community and Cultural Facilities

The Property is located within the Tucson Unified School District. As indicated on *Exhibit II.F: Community Facilities,* two public schools are located within one-mile of the Property: Dunham Elementary School and Soleng Tom Elementary School. Additionally, one charter school, Academy of Tucson High, is located within a one-mile radius of the Property

The Miller-Golf Links Pima County Public Library is located approximately 1.3 miles southwest of the subject property. The nearest fire station is located at 250 South Harrison Road, just over one-mile northwest of the subject property. There is one police station located within the vicinity of the PAD. The City of Tucson Rincon Substation is located at 9670 East Golf Links Road, approximately 1.3 miles southwest of the Property.

Exhibit II.F: Community Facilities

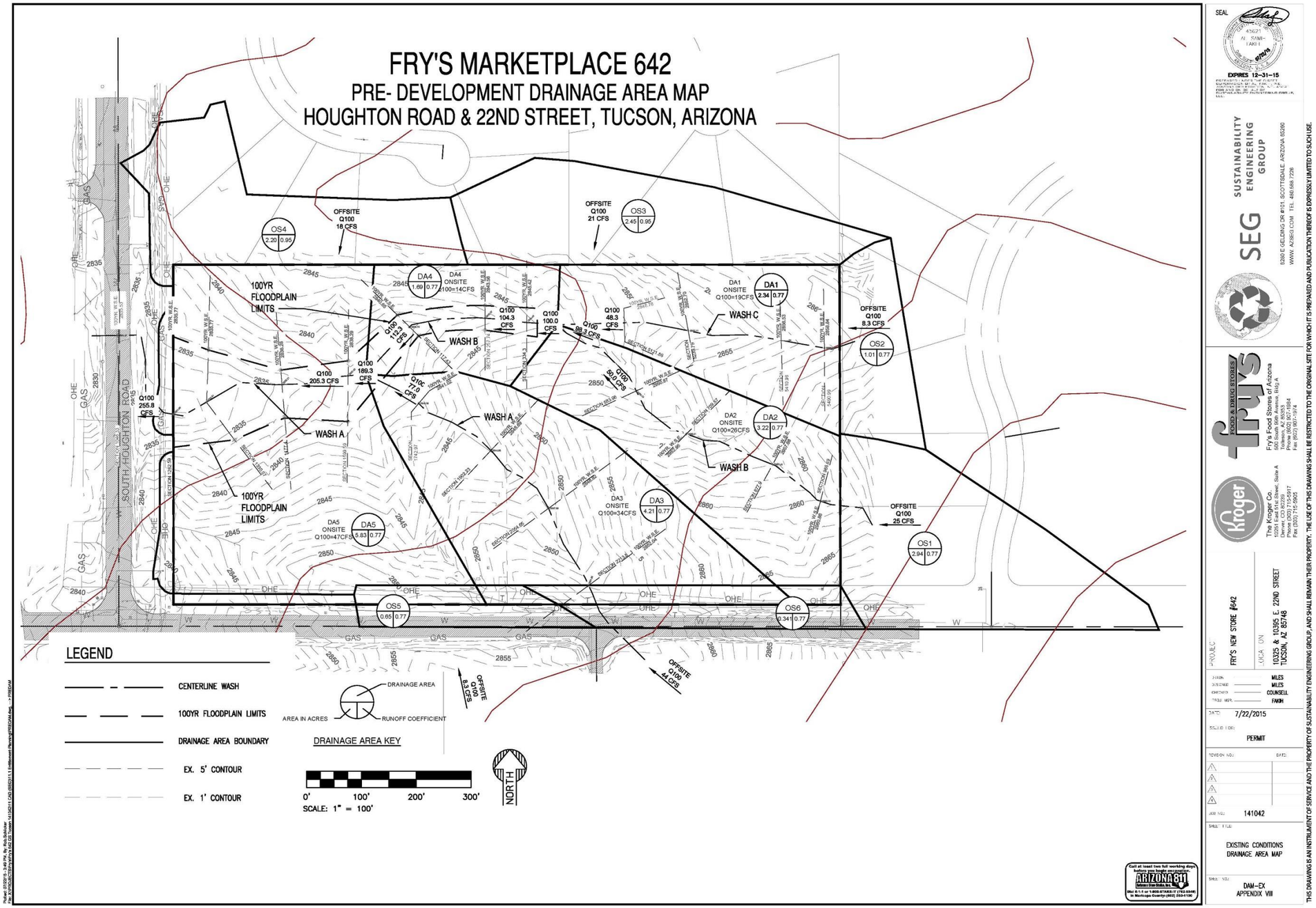


G. Existing Drainage

As shown on *Exhibit II.G: Existing Drainage*, off-site flows are generated from the south, east, and north due to the slope of the existing grade contours. There are six off-site concentration points entering the Property. There are four calculated flows (OS1 through OS4) coming from the north and east. These flows have been calculated at 25 cfs from OS1, 8.3 cfs from OS2, 21 cfs from OS3, and 18 cfs from OS4. Additionally, two flows (OS5 and OS6) are coming from the south (north half of 22nd Street.) The calculated flow rate of OS5 is 5.6 cfs. The flow of OS6 consists of two portions: the flow coming from the area of 22nd Street with the calculated flow rate of 8.1 cfs, and the flow coming from the south of 22nd Street (L1) via a 36" RCP (after the 22nd Street improvement) with a calculated flow rate of 44 cfs. Thus, the total flow of OS5 and OS6 is approximately 52.1 cfs (See *Exhibit II.G: Existing Drainage*).

The on-site flows from the east to the west and then into 3-48" RCP culverts located approximately 420 ft. north of the intersection of 22nd Street and Houghton Road. The culverts run from east to west under Houghton Road and into the Este Wash. The 100-year existing conditions peak discharge for this Property is 116 cfs. The on-site drainage has been broken down into 5 drainage area's labeled DA1 thru DA5 and flows generated in accordance with PC-Hydro (*See Drainage Report submitted under a separate cover*).

Exhibit II.G: Existing Drainage



H. City of Tucson Ordinances

The Property is subject to the Scenic Overlay Zone and the City of Tucson Major Streets and Routes Plan.

I. Existing Infrastructure

The Property is an infill Property surrounded by existing infrastructure that has sufficient capacity for the proposed PAD development.

1. Electric

Tucson Electric Power services the Houghton/22nd area. There is existing electrical infrastructure in the form of an electrical box located on the south-central portion of the Property. In addition, electrical transmission lines are located along the perimeter of the Property in the Houghton Road and 22nd Street rights-of-way.

2. Sewer

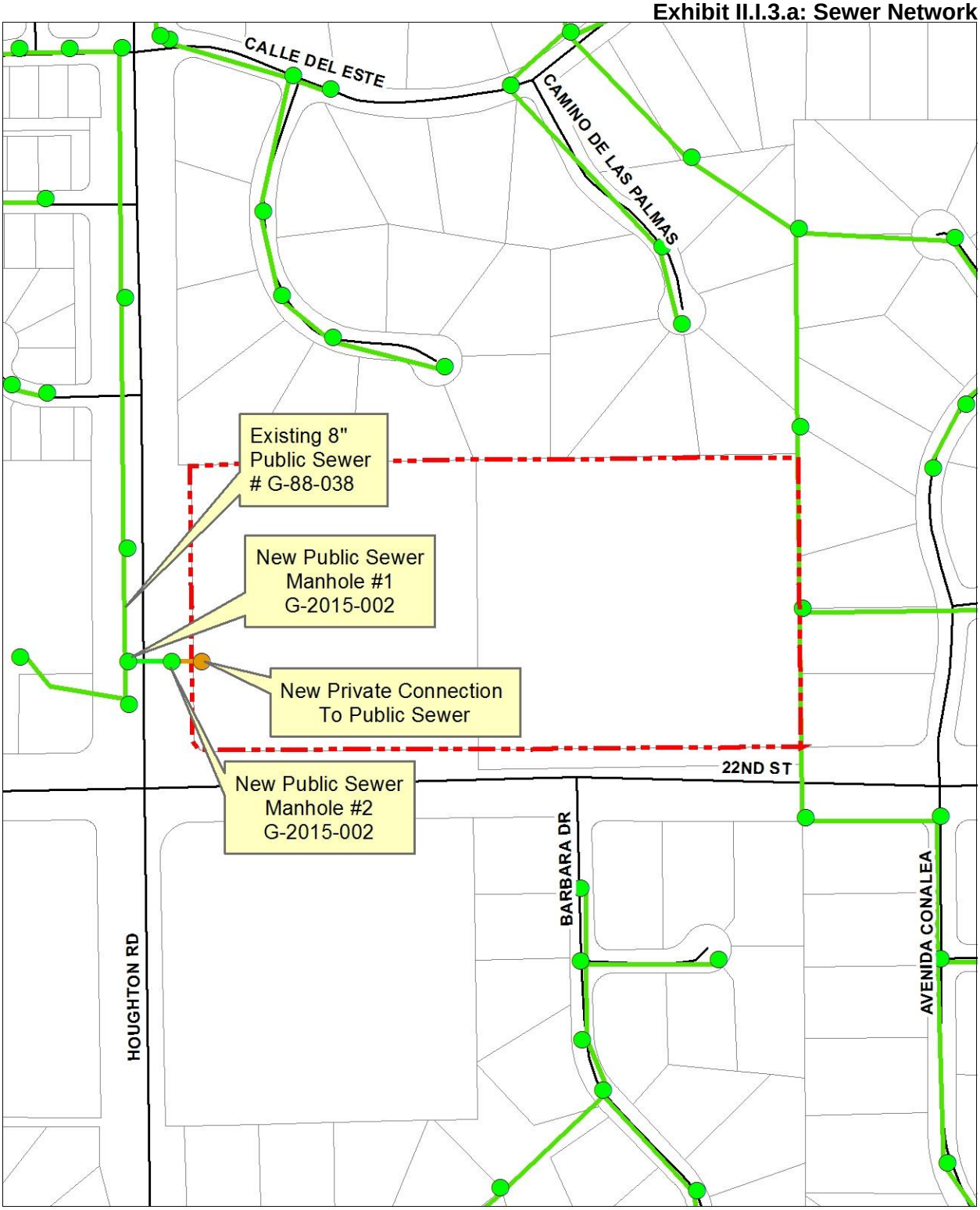
The existing sewer network can be seen on *Exhibit II.I.3.a: Sewer Network.* The Property is tributary to the Tres Rios Water Reclamation Facility via the Tanque Verde Road Interceptor. Capacity is currently available for this Property in the public sewer line (G-88-038) downstream of 9585-05. The recently constructed Public Sewer Improvement Plans are included as *Appendix B*. The existing property owner recently constructed public sewer across Houghton Road to ensure connections for the subject property prior the Houghton Road widening. See also *Exhibit II.I.3.b: Pima County Wastewater Reclamation Wastewater Capacity Letter*.

3. Water

Per the Tucson Water Service Area Map, the Property is located within the Tucson Water obligated service area. Tucson Water will provide water service to the Property and has an assured water supply (AWS) designation from the State of Arizona Department of Water Resources (ADWR) (*See Exhibit II.I.4: Tucson Water Letter*).

In addition, in conjunction with the Houghton Road widening, a Preliminary Master Water Plan was submitted to and accepted by the City of Tucson Water Department New Development Unit in 2015, for substantial conformance with standard specifications and details (*See Appendix C.*)

Exhibit II.I.3.a: Sewer Network



LEGEND

- Site Boundary
- Parcels
- Existing Sewer Network
- Existing Manholes

NORTH 0' 150' 300'

THE PLANNING CENTER a division of TPC Group, inc.

FILE NAME: sewer_6x8.mxd
SOURCE: Pima County GIS, 2016

Exhibit II.I.3.b: Pima County Wastewater Reclamation Capacity Letter

PIMA COUNTY
WASTEWATER RECLAMATION
201 NORTH STONE AVENUE
TUCSON, ARIZONA 85701-1207

JACKSON JENKINS
DIRECTOR

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

May 5, 2016

Tim Craven
The Planning Center
110 S Church Ave., Ste. 6320
Tucson, Arizona 85701

Sewerage Capacity Investigation No. 2016-107 Type I

RE: **22nd Street and Houghton Road Planned Area Development, Parcels 13338008J, 13338008F**
Estimated Flow 13,154 gpd (ADWF).
P16WC00109

Greetings:

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

Capacity is currently available for this project in the public sewer G-88-038, downstream from manhole 9585-05.

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 and valid for one year. Allocation of capacity is made by the Type III Capacity Response.

If further information is needed, please feel free to contact us at (520) 724-6642.

Reviewed by: Kurt Stemm, CEA Sr.

Exhibit II.I.4: Tucson Water Letter

CITY OF TUCSON

TUCSON WATER DEPARTMENT

April 21, 2016

Sustainability Engineering Group
8280 E. Gelding Dr., Ste #101
Scottsdale, AZ 85260

Attn: Matthew Miles

SUBJECT: **Water Availability for project: Houghton and 22nd Frys, APN: 13338008F, 13338008J, Case #: WA1958, T-14, R-15, SEC-13, Lots: 99999999, Location Code: TUC, Total Area: 16.1ac Zoning: SR**

WATER SUPPLY

Tucson Water will provide water service to this project based on the subject zoning of the above parcels. Tucson Water has an assured water supply (AWS) designation 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) Easements/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 791-4718.

Sincerely,

Richard A. Sarti

Richard A. Sarti, P.E.
Engineering Manager
Tucson Water Department

RS:ka
CC:File

TUCSON WATER

NEW DEVELOPMENT • P.O. BOX 27210 • TUCSON, AZ 85726-7210
(520) 791-4718 • FAX (520) 791-2501 • TDD (520) 791-2639 • www.tucsonaz.gov/water

1.53

J. Topography

The topography on the Property ranges from 2,832 feet at the western boundary to 2,866 feet at the southeastern corner of the property. There are no slopes greater than 15% located on the property (See *Exhibit II.J: Topography*).

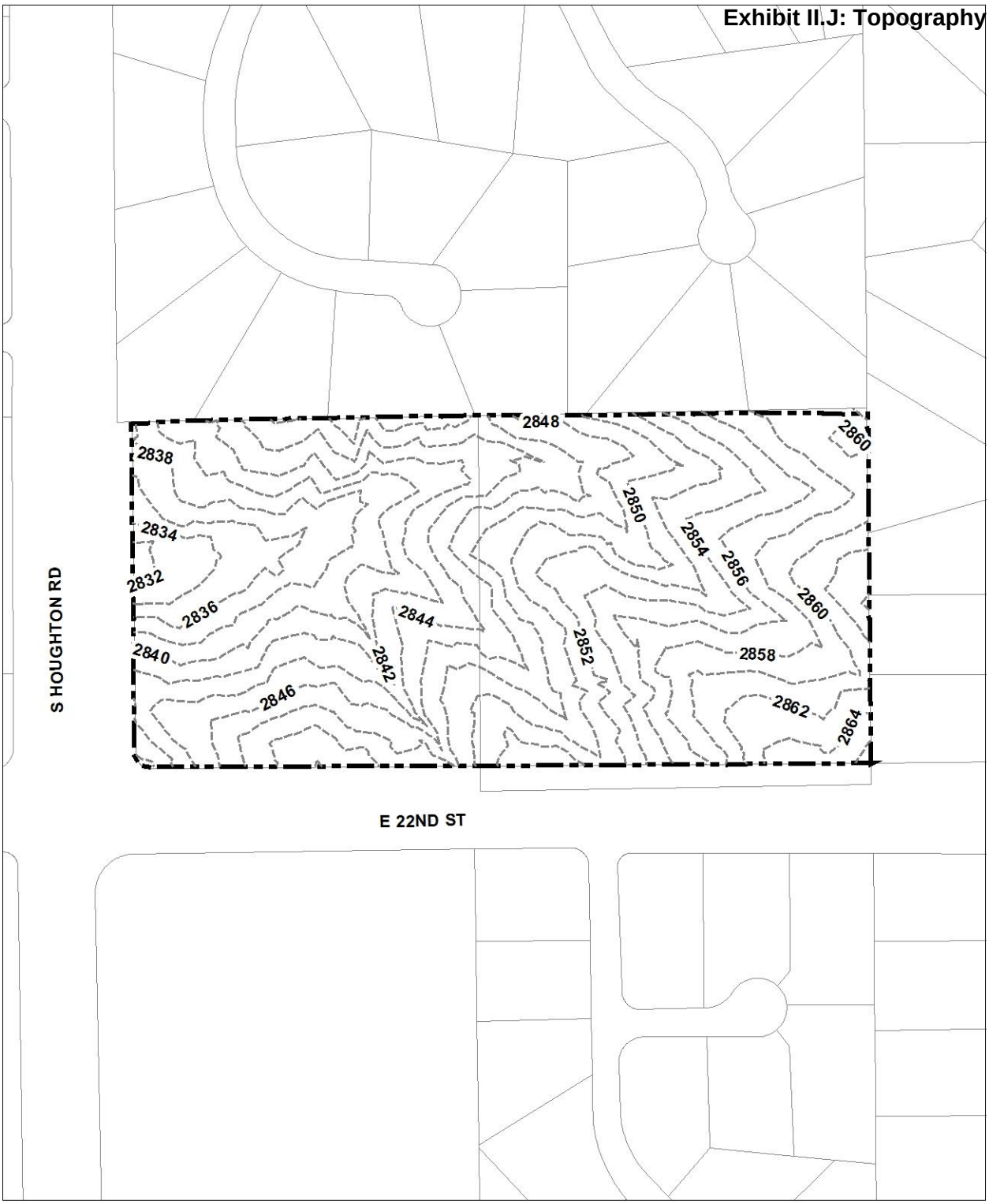
The average cross slope of the parcel is 5.8%, as calculated by performing the following calculation:

$$ACS = \frac{I \times L \times 0.0023}{A}$$

Interval (I) = 2'
Total length of contours (L) = 20,496
Area (A) = 16.2 acres

$$ACS = \frac{2 \times 20{,}496 \times 0.0023}{16.2 \text{ acres}}$$

ACS = 5.8



LEGEND

Site Boundary

Parcels

2' Elevation Contours

NORTH 0' 125' 250'

THE PLANNING CENTER a division of TPC Group, Inc.

FILE NAME: topo_6x8.mxd
SOURCE: Pima County GIS, 2016

K. Vegetation and Wildlife

As shown on *Exhibit II.K: Vegetative Communities*, there are two vegetative communities and/or plant associations located on the Property: Sonoran Desert Scrub and Xeroriparian Class C.

1. Sonoran Desert Scrub

The Sonoran Desert Scrub community occupies approximately 12.6 acres of the Property. The plants species predominately consist of Creosote Bush (*Larrea tridentate*), Foothills Palo Verde (*Parkinsonia microphylla*), Velvet Mesquite (*Prosopis velutina*), Brittlebush (*Encelia farinose*), and Prickly Pear Cacti (*Opuntia engelmanii*). Plant density throughout much of the Property is medium to low, typical of upland scrub vegetation in the region.

2. Xeroriparian Class C

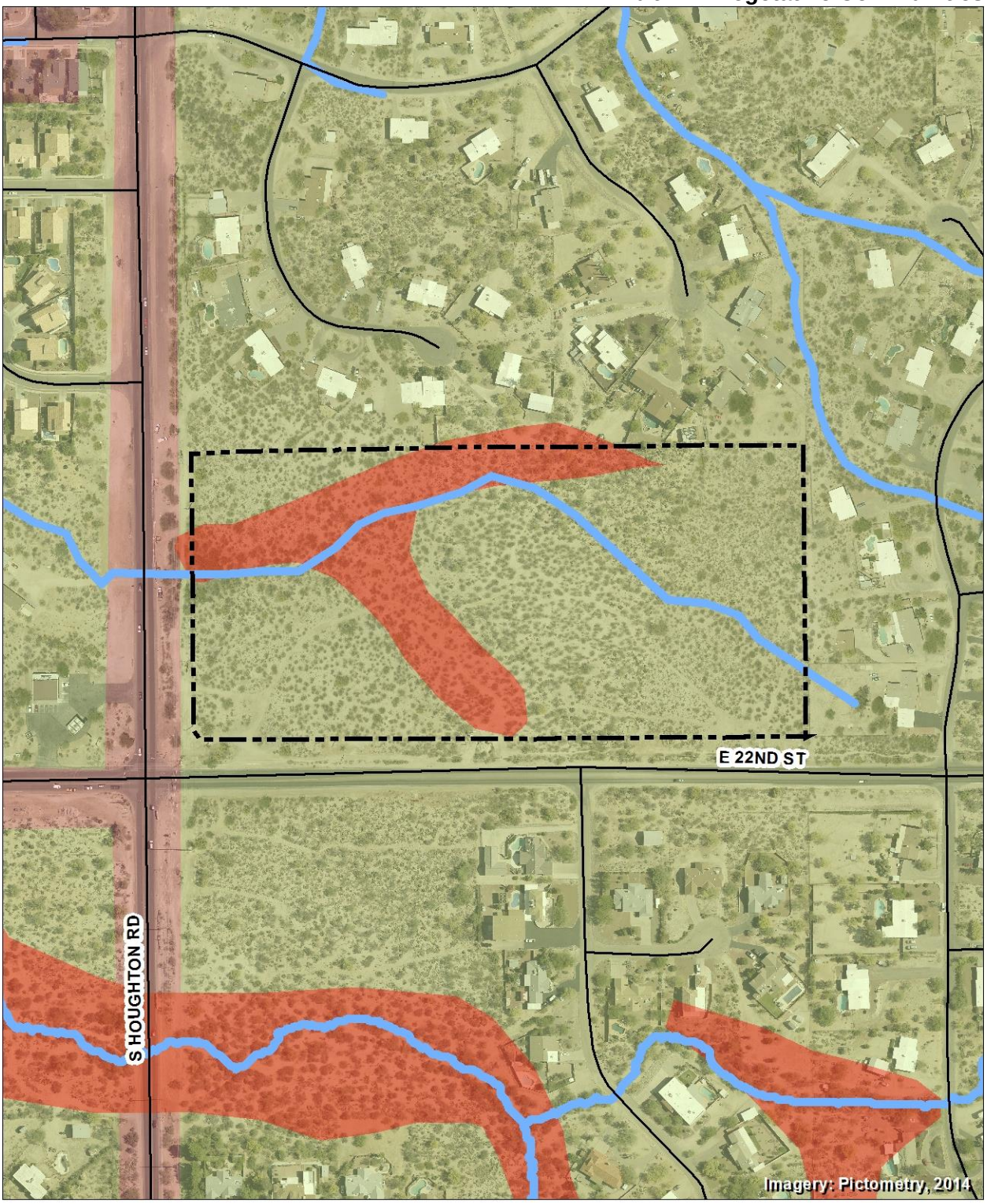
Pima County has mapped Xeroriparian C habitat delineated on-site (*See Exhibit II.K: Vegetative Communities*). However, the mapped boundary does not correspond to actual on-site conditions or the aerial photography. Some Xeroriparian habitat does exist within the 100-Year Floodplain on-site. The limits of the Xeroriparian habitat will be adjusted, based on an actual inventory of riparian habitat.

The Xeroriparian habitat consists of a mix of Whitethorn Acacia Trees (*Acacia constricta*), Foothills Palo Verde Trees (*Cercidium microphyllum*), Desert Hackberry Shrubs (Celtis pallida), and Velvet Mesquite Trees (Prosopis velutina). A number of Fish Hook Barrel Cacti (Ferocactus wizlizennii) also occur in the Xeroriparian area.

3. Arizona Game and Fish Department

As shown on *Exhibit II.K.3: Arizona Game and Fish Letter*, the Arizona Game and Fish Department's Online Environmental Review Tool indicates there are eight special status species that have been documented within a three-mile radius of the Property: Mexican Gray Wolf, Mexican Long-Tongued Bat, Yellow-billed Cuckoo, Sonoran Desert Tortoise, Reticulate Gila Monster, Lesser Long-nosed Bat, Stag-horn Cholla, Lowland Leopard Frog, and Tumamoc Globeberry.

Exhibit II.K: Vegetative Communities



LEGEND

Site Boundary

Washes

Vegetation

Agriculture / Developed / Water / Bare Ground

Sonoran Desertscrub

Pima County Class C Xeroriparian Area

NORTH 0' 150' 300'

FILE NAME: veg_6x8.mxd

SOURCE: Pima County GIS, 2016

Exhibit II.K.3: Arizona Game and Fish Letter

Arizona Game and Fish Department
Project ID: HGIS-03320

project_report_bdu_01_18347_18739.pdf
Review Date: 3/28/2016 08:42:34 AM

Special Status Species and Special Areas Documented within 3 Miles of Project Vicinity

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Canis lupus baileyi	10J area Zone 2 for Mexican gray wolf	LE,XN				
Choeronycteris mexicana	Mexican Long-tongued Bat	SC	S	S		1C
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S			1A
Gopherus morafkai	Sonoran Desert Tortoise	CCA	S			1A
Heloderma suspectum suspectum	Reticulate Gila Monster					1A
Leptonycteris curasoae yerbabuenae	Lesser Long-nosed Bat	LE				1A
Lithobates yavapaiensis	Lowland Leopard Frog	SC	S	S		1A
Opuntia versicolor	Stag-horn Cholla				SR	
Tumamoca macdougalii	Tumamoc Globeberry		S	S	SR	

Note: Status code definitions can be found at http://www.azgfd.gov/w_c/edits/hdms_status_definitions.shtml.

Species of Greatest Conservation Need
Predicted within Project Vicinity based on Predicted Range Models

Scientific Name	Common Name	FWS	USFS	BLM	NPL	SGCN
Aix sponsa	Wood Duck					1B
Amazilia violiceps	Violet-crowned Hummingbird		S			1B
Ammodramus savannarum perpallidus	Western Grasshopper Sparrow					1B
Ammospermophilus harrisii	Harris' Antelope Squirrel					1B
Anthus spragueii	Sprague's Pipit	C*				1A
Antrostomus ridgwayi	Buff-collared Nightjar		S			1B
Aquila chrysaetos	Golden Eagle	BGA		S		1B
Aspidoscelis stictogramma	Giant Spotted Whiptail	SC	S			1B
Athene cunicularia hypugaea	Western Burrowing Owl	SC	S	S		1B
Botaurus lentiginosus	American Bittern					1B
Buteo regalis	Ferruginous Hawk	SC		S		1B
Chilomeniscus stramineus	Variable Sandsnake					1B
Coccyzus americanus	Yellow-billed Cuckoo (Western DPS)	LT	S			1A
Colaptes chrysoides	Gilded Flicker			S		1B
Coluber bilineatus	Sonoran Whipsnake					1B
Corynorhinus townsendii pallescens	Pale Townsend's Big-eared Bat	SC	S	S		1B
Crotalus tigris	Tiger Rattlesnake					1B
Cynanthus latirostris	Broad-billed Hummingbird		S			1B
Cynomys ludovicianus	Black-tailed Prairie Dog	SC		S		1A
Dipodomys spectabilis	Banner-tailed Kangaroo Rat			S		1B
Euderma maculatum	Spotted Bat	SC	S	S		1B
Eumops perotis californicus	Greater Western Bonneted Bat	SC		S		1B
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S		1A

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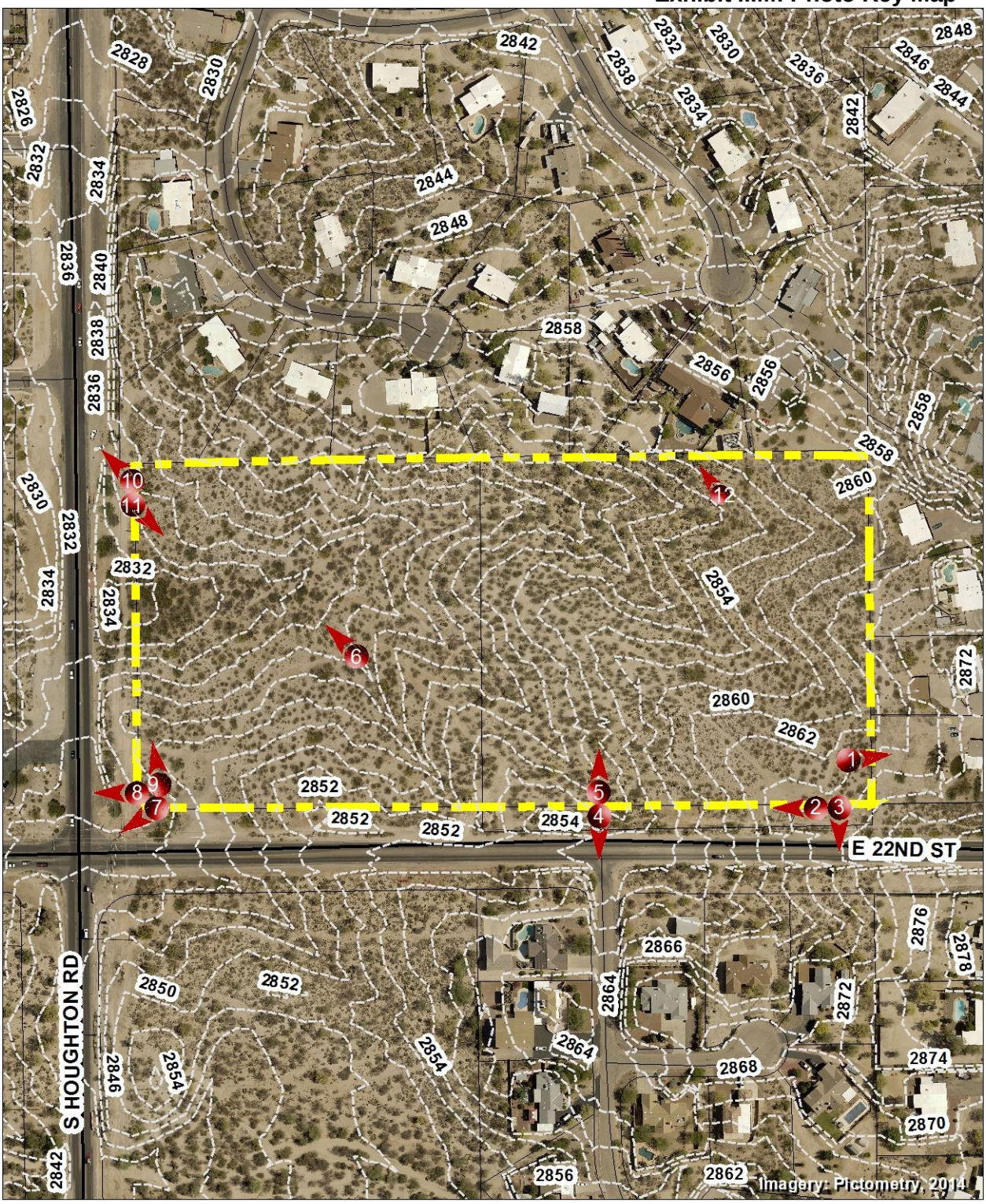
L. Soils

Per data obtained during a soil survey of eastern Pima County performed in 2003 by the National Resource Conservation Service (NRCS), the soil type across the entire Property is classified as Palos Verdes-Jaynes Complex. The NRCS indicates that soils of this type are typically used for home sites and other urban development, as well as for recreation purposes.

M. Viewsheds and Visual Analysis

The viewsheds of the Catalina, Rincon and Santa Rita mountains are all visible throughout most of the Property. See *Exhibit II.M: Photo Key Map*and *Exhibit II.M.1: Site Photos* for views of the Property and for views looking from the Property to the adjacent properties. Viewsheds onto the subject property from surrounding parcels and arterial roadways varies from low to high. The PAD boundaries along the west and south are highly visible along the major arterials. The inner portions of the property vary from medium to low visibility due to the lower topography and vegetation in this area. Photos of the Property are shown below.

Exhibit II.M: Photo Key Map



LEGEND

Site Boundary

Parcels

Photo Location and Direction

THE PLANNING CENTER
a division of TPC Group, Inc.

NORTH 0' 125' 250'

FILE NAME: photokey_6x8.mxd
SOURCE: Pima County GIS, 2016

Exhibit II.M.1: Site Photos

Photo 1: View from the southeast Property corner looking northeast.

Photo 2: View from the southeast corner looking west along 22nd Street.

Photo 3: View from the southeast Property corner looking south.

Photo 4: View from south Property boundary looking south toward the 22nd Street and Barbara Drive.

Photo 5: View from south Property line looking north across the Property.

Photo 6: View looking from near the center of the Property toward the wash riparian area.

Exhibit II.M.1: Site Photos (Cont.)

Photo 7: View from the southwest Property corner looking toward the 22nd & Houghton intersection.

Photo 8: View from the southwest Property corner looking west.

Photo 9: View from the southwest Property corner looking north.

Photo 10: View from northwest Property corner looking northwest.

Photo 11: View from the northwest Property corner looking southeast across the site.

Photo 12: View along the north Property boundary looking north.

N. Cultural Sites

1. Arizona State Museum Letter

As shown in *Exhibit II.N: Arizona State Museum Archaeological Survey,* the Property has not been previously surveyed for archaeological resources. However, twenty-one survey projects have been conducted in support of commercial and residential development, road construction and improvements, and the installation and maintenance of subsurface gas and water lines within a one-mile radius of the subject property. One archaeological site has been identified within the one-mile radius of the Property; however, it is not crossed by the Property. The Arizona State Museum recommends that a qualified archaeological be consulted prior to ground disturbance.

Exhibit II.N: Arizona State Museum Archaeological Survey

Arizona State Museum
THE UNIVERSITY OF ARIZONA

1013 E. UNIVERSITY BLVD.
TUCSON, AZ 85721

ARCHAEOLOGICAL SITE RECORDS SEARCH

This report documents the results of an archaeological site-records check.
It does not constitute a cultural resources clearance.

Date: 4/7/2016

Requester Name: Lexy Wellott
Company: The Planning Center
Address: 110 S. Church St., Suite 6320
City State, Zip Code: Tucson, AZ, 85701
Phone / Email: 520-623-6146 / lwellott@azplanningcenter.com

Project Name and/or Number: BDU-01 **Project Description:** 22nd and Houghton Planned Area Development

Project Area Location: 133-38-008J, 133-38-008F **Legal Description:** T14S, R15E, S13

Search Results:

According to a search of the archaeological records retained at the Arizona State Museum (ASM), 21 survey projects have been conducted within a one-mile radius of the project area between 1980 and 2013. Previous survey work was conducted in support of commercial and residential development; road construction and improvements; and the installation and maintenance of subsurface gas and water lines. No portion of the project area has been previously surveyed. One archaeological site has been identified within a 1-mile radius of the project area; however, it is not crossed by the project area.

Sites in Project Area:

None are recorded; but the project area has not been previously surveyed.

Recommendations:

1. No portion of the proposed project area has been subject to an archaeological survey and there is a possibility for unidentified historic properties in the area. ASM recommends, but it is not required by ASM, that a qualified archaeological contractor be consulted before any ground disturbance begins. A list of archaeological contractors is available on the ASM website at:
http://www.statemuseum.arizona.edu/crservices/permits/index.shtml.

2. Pursuant to *Arizona Revised Statutes* §41-865 *et seq.*, if any human remains or funerary objects are discovered during your project work, all work will stop within the area of the remains and Dr. Todd Pitezel, ASM assistant curator of archaeology, will be contacted immediately at (520) 621-4795.

3. City, county, or municipal governments may have requirements, therefore ASM recommends that the relevant jurisdiction(s) be consulted.

If you have any questions about the results of this records search, please contact me.

Sincerely,

Shannon Twilling, M.A.

Shannon D. Twilling, M.A.
Research Specialist
Archaeological Permits Office
Arizona State Museum
(520) 621-2096
twilling@email.arizona.edu

Page 1 of 2

22nd & Houghton Planned Area Development (PAD)

III. Planned Area Development Proposal

City of Tucson

A. Plan Overview

The 22nd and Houghton Planned Area Development (PAD) is proposed for a neighborhood-scaled shopping center. It is located at the intersection of two major arterial roadways. In accordance with the Houghton East Neighborhood Plan (HENP), the Property is designated for commercial use at this intersection. The principal tenant includes a proposal for a modern-version of the Fry's Food & Drug Store, two retail pads and an associated Fry's gas station. Fry's primary offerings are groceries and secondary offerings are pharmacy and health and beauty items typically found in drug stores. The building may feature an outdoor display area (see photos 1-3) and a pharmacy drive through. Any outdoor display products must be within a vestibule with doors and shall remain open only during store operational hours. This new location anticipates offering additional amenities such as drive-through pharmacy with click list online ordering, a Sushi Island, an enhanced meat counter and deli, a large selection of organic produce, a Pan Asian bistro, a Starbucks, an outdoor seating and dining area, and apparel.

Photo 1: View of Fry's optional outdoor sales garage doors

Photo 2: View of typical optional interior outdoor sales area

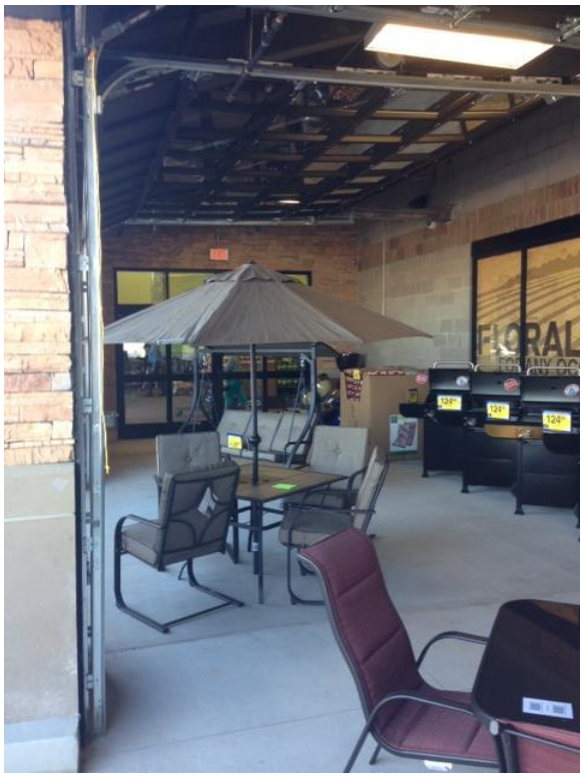


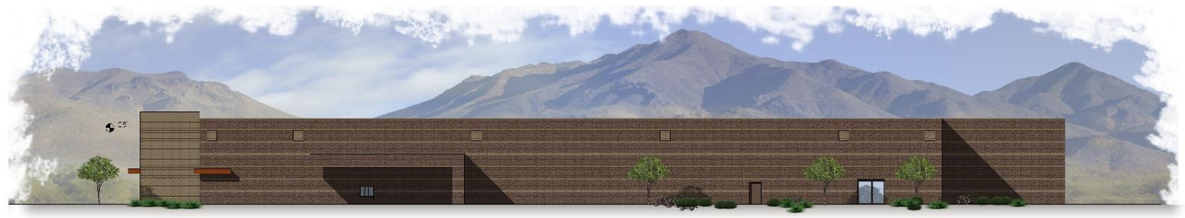
Photo 3: View of typical optional interior outdoor sales area

As shown on *Exhibit III.A.1: Proposed Architectural Renderings, Exhibit III.A.2: Proposed Architectural Renderings with Vestibules and Exhibit III.A.3: Proposed Retail Architectural Renderings,* the architecture will be designed to provide visual interest consistent with the community's identity, character, and scale. Architectural treatment, similar to that provided to the front facade, shall be provided to the sides and rear of the building to mitigate any negative view from adjacent properties and/or streets and the buildings shall have exterior building materials and colors that are aesthetically pleasing and compatible with materials and colors that are used in adjoining neighborhoods.. The uses envisioned for the retail pads include but are not limited to: restaurant, coffee shop, and personal service.

Exhibit III.A.1: Proposed Architectural Renderings

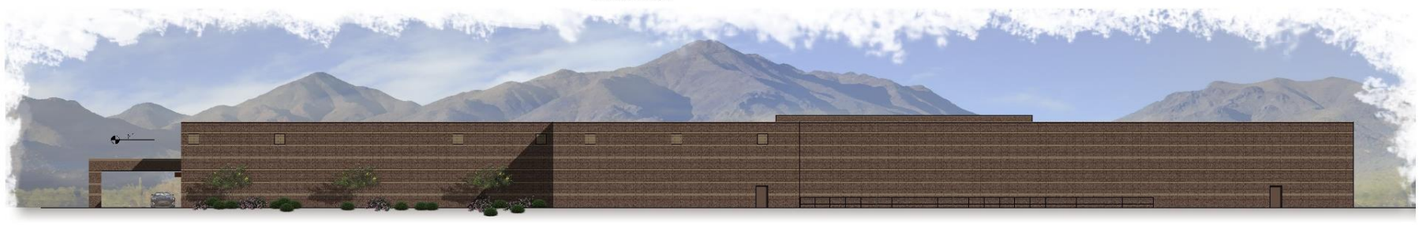
FRY'S WEST ELEVATION (HOUGHTON ROAD)

SCALE: 1/16" = 1'-0", TYP.



FRY'S SOUTH ELEVATION

SCALE: 1/16" = 1'-0", TYP.



FRY'S EAST ELEVATION

SCALE: 1/16" = 1'-0", TYP.

FRY'S NORTH ELEVATION

SCALE: 1/16" = 1'-0", TYP.

REVISIONS BY

PRELIMINARY DRAWING

Stickley design group architects
architecture • interior design • planning

DRAWN JDM
DATE 12/01/2016
SCALE
JOB #
SHEET

Brentwood developments

Exhibit III.A.2: Proposed Architectural Rendering with Vestibules

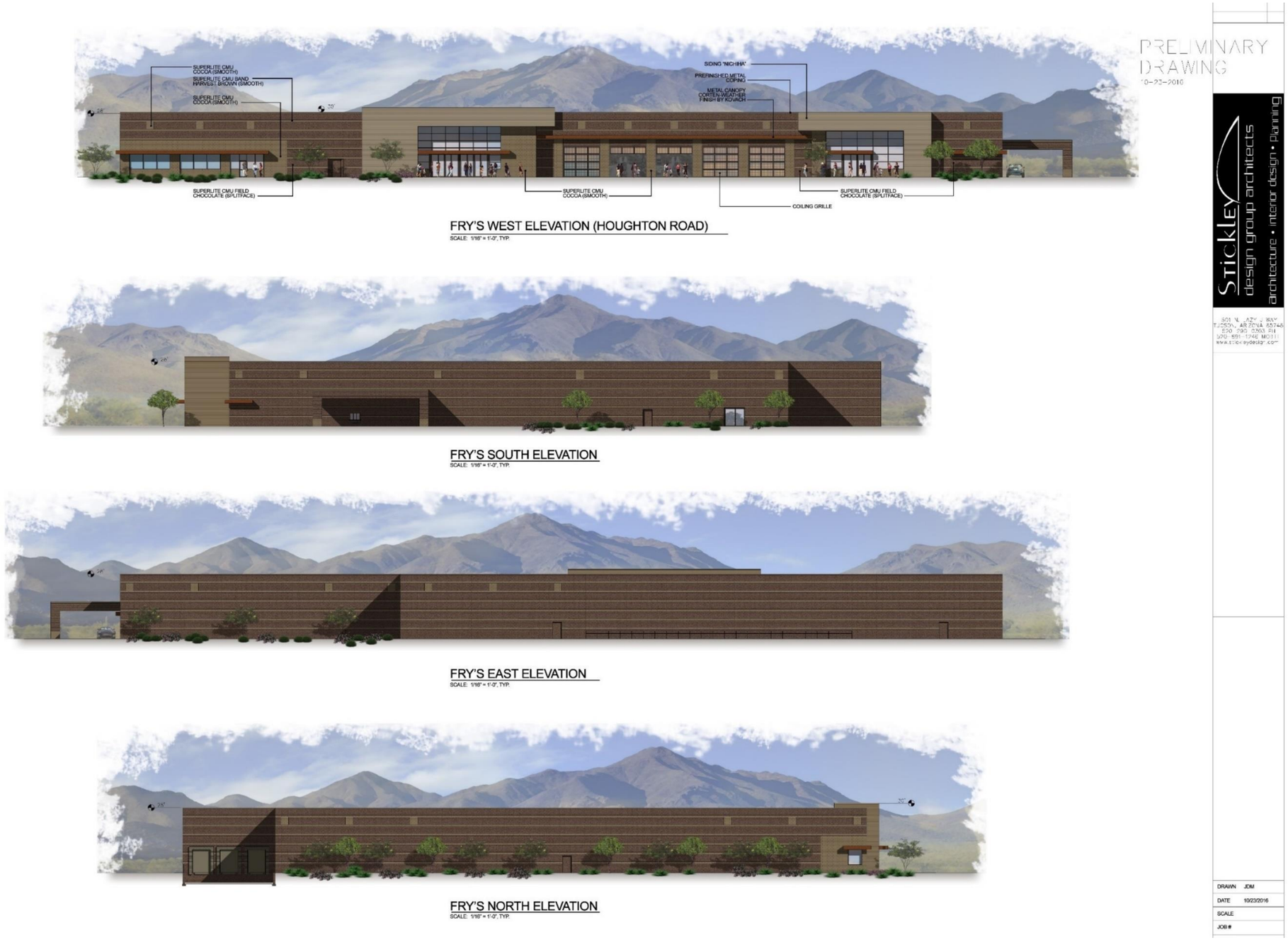


Exhibit III.A.3: Proposed Retail Architectural Renderings

B. Proposed Land Uses

The 22nd and Houghton PAD proposes a single zoning district based on a modified C-1 Zone to allow for commercial development. *Exhibit III.B.1: Conceptual Land Use Plan identifies* the two designations on the property: open space and commercial*. Exhibit III.B.2: Illustrative Site Plan depicts* a site plan primarily for illustrative purposes only. There are a great number of variations of that plan that could ultimately be utilized on this Property. The plan is intended to show the overall concept for the Property as a means of providing direction for traffic and civil engineering studies, relationship of possible structures to surrounding neighborhoods, the ratio of necessary parking and possible on-site traffic circulation. It is not to be considered an actual proposed development plan.

This document provides regulations relating to uses, physical character and intensity of development on the Property. Permitted uses for the entire property shall include all uses that are listed as permitted or as special exception uses in the C-1 zone of the City of Tucson Unified Development Code (UDC), except as modified in this document. Where the PAD varies from the UDC or other relevant City standards, the PAD shall control. Where the PAD is silent, the UDC provisions for the C-1 zone and other relevant city standards shall control. All development on the Property must be in compliance with the PAD upon full build-out.

1. Commercial

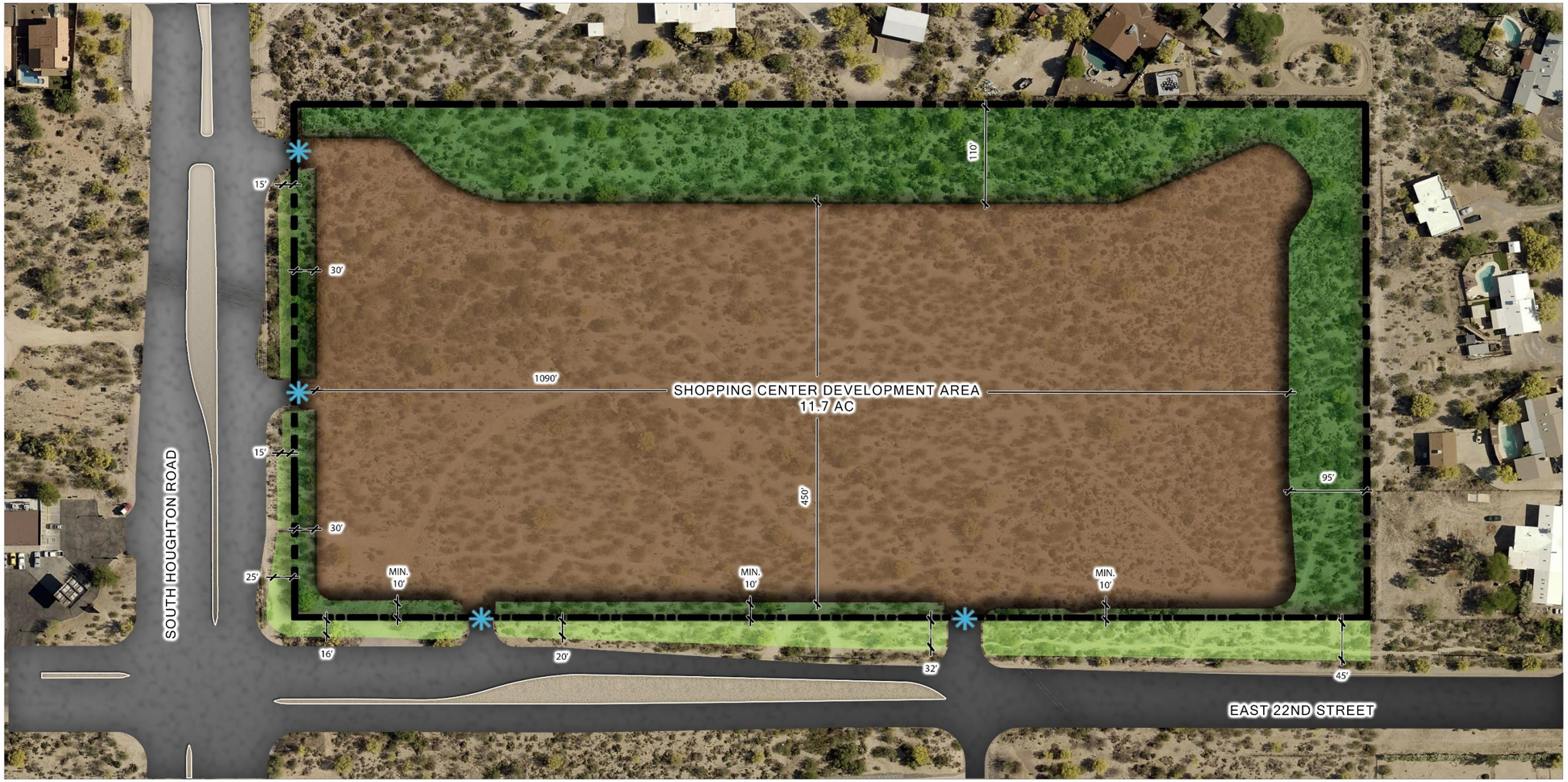
As identified on *Exhibit III.B.1: Conceptual Land Use Plan and Exhibit III.B.2*. *Illustrative Site Plan*, the PAD will feature a principal tenant (Fry's Food and Drug Store) and secondary tenants located in two separate building pads. These pads may include retail and restaurant uses, including but not limited to a drive through window. A fueling station with an accompanying kiosk and outdoor display area associated with the Fry's Food and Drug Store is also proposed.

2. Open Space

As identified on *Exhibit III.B.1*, Approximately 4.1 acres will be set aside as open space around the perimeter of the property, with the majority interfacing between the existing single family residential and the subject property. The goal of the open space areas within the PAD is to create a visual screen between the single-family residential properties and the subject property as well as create visual diversity and interest and/or passive recreation opportunities. The open space will create a continuous area of natural vegetation around the Property with at least 20% of the site (3.2 ac) situated in a natural buffer between the existing neighborhood to the north and east of the site. The remainder of the open space (between 0.9 and 1.3 acres) will be provided along the western boundary of the site (adjacent to the Houghton Road Greenway) and the 22nd Street frontage, creating a total open space of a minimum of 25% of the site. This area will be revegetated using a mix of native and low water use, regionally appropriate plants, and will be adjacent to the newly replanted areas within the recently completed Houghton Road improvements. In addition to the aesthetic benefits of softening, screening and beautifying the edge of the property, this area completes a continuous

open space ring around the property, interrupted only minimally with necessary access points along Houghton and 22nd Street.

Exhibit III.B.1: Conceptual Land Use Plan



LEGEND

- SHOPPING CENTER DEVELOPMENT AREA = 11.7 AC
- TOTAL CONSOLIDATED OPEN SPACE = 4.1 AC (MINIMUM 25% OF TOTAL SITE AREA)
- TOTAL OPEN SPACE PROVIDED IN RIGHT-OF-WAY = 0.99 AC

NOTES:

SITE AREA = 16.2 ACRES

*** AS SHOWN ABOVE, 0.9 ACRES OF COMMUNITY COMMERCIAL OPEN SPACE SATISFIES THE MINIMUM 25% OPEN SPACE REQUIREMENT PER THE HOUGHTON EAST NEIGHBORHOOD PLAN. ADDITIONAL OPEN SPACE (UP TO 1.3 ACRES) MAY BE PROVIDED DURING FINAL DEVELOPMENT PLAN PROCESS.

THE INTENTION OF THIS EXHIBIT IS TO ILLUSTRATIVELY DEMONSTRATE HOW THE SITE MEETS THE OPEN SPACE REQUIREMENT. ACTUAL FIGURES AND BOUNDARIES WILL BE DETERMINED DURING THE FINAL DEVELOPMENT PLAN PROCESS.

Exhibit III.B. 2: Illustrative Site Plan

NOTES:
Total Site Acreage = 16.2

THIS EXHIBIT WAS CREATED USING THE MOST RECENT AVAILABLE BOUNDARIES, ROAD ALIGNMENT, AND EASEMENT DATA PROVIDED BY THE DIFFERENT GOVERNMENTAL ENTITIES AND ENGINEERING FIRMS AND IS FOR PLANNING PURPOSES ONLY. FINAL AREA TOTALS BASED ON ENGINEERED DATA MAY VARY FROM THOSE SHOWN ON THIS EXHIBIT.

0' 50' 100' NORTH

PROJECT: BDU-01 DATE: 01/10/17
FILE NAME: 141042CBS.DWG

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110 S. Church Ste 6200 Tucson AZ 85701

C. Development Standards

For the purpose of setback requirements and other development standards, the PAD shall be considered as a single parcel regardless of the ultimate parcel configuration within the PAD area. All new development within the PAD shall conform to applicable building, fire and other applicable safety standards. The commercial uses shall be based upon Section 4.8-4: Permitted Uses- Commercial and Mixed Use Zones of the Unified Development Code for C-1 uses.

1. Permitted Uses

a. Agricultural Land Use Group
   1. Community Garden, subject to: Section 4.9.2.B
   2. Urban Farm, subject to: Section 4.9.2.E

b. Civic Use Group
   1. Civic Assembly
   2. Cultural Use (Government Owned and Operated Only)
   3. Educational Use: Elementary and Secondary Schools, subject to: Sec. 4.9.3.D.1 – 7 and 4.9.13.O
   4. Educational Use: Postsecondary Institution, subject to: Sec. 4.9.3.E and 4.9.13.O
   5. Educational Use: Instructional School, subject to: Sec. 4.9.13.O
   6. Membership Organization
      - Postal Service (government owned and operated only)
   7. Protective Service (government owned and operated only)
   8. Religious Use, subject to: Sec. 4.9.13.O

c. Commercial Services Use Group
   1. Administrative and Professional Office, subject to: Sec. 4.9.13.O
   2. Animal Service, subject to: Sec 4.9.4.D.1, 2, 3, & 4 and 4.9.13.O
   3. Artisan Residence, subject to: Sec. 4.9.4.E.1, .2, .3, .4, & .5 and 4.9.13.O
   4. Automotive – Minor Service and Repair, subject to: Section 4.9.4.F.2, 3, 4 & 5
   5. Commercial Recreation, subject to: Sec. 4.9.13.O
   6. Communications, subject to: 4.9.13.O and 4.9.4.I.2, .3, .4a or .4b
      - All components and wires shall be integrated into the building design with limited exposure
      - Antennas and appurtenances shall not exceed:
        - 4 feet above the maximum building height of 26 feet for Principal tenant; and
        - 6 feet above the maximum building height of 20 feet for all other retail buildings.
   7. Day Care, subject to: Sec. 4.9.13.O
   8. Entertainment, subject to: Sec 4.9.4.C.3 and 4.9.13.O
   9. Financial Service, subject to: Sec. 4.9.4.L.1 & 3 and 4.9.4.13.O
   10. Food Service with a Microbrewery as an accessory use to a Food Service, subject to: Sec 4.9.4.M.1 and 4.9.4.13.O

- No smoking patios or amplified music within 150' of the north or east property lines

11. Medical Service – Extended Health Care, subject to: Sec. 4.9.13.O
12. Medical Service – Major, subject to: Sec. 4.9.13.O
13. Medical Service – Outpatient, subject to: Sec 4.9.4.O.2 & 4.9.13.O
14. Parking
15. Personal Service, subject to: Sec 4.9.4.T.1 and 4.9.13.O
16. Research and Product Development, subject to: Sec. 4.9.13.O
17. Technical Service, subject to: Sec 4.9.W.1 and 4.9.13.O
18. Trade Service and Repair, Minor, subject to: Sec 4.9.4.X.2 and 4.9.13.O
19. Traveler's Accommodation, Lodging with Alcoholic Beverage Service as an accessory use, subject to: Sec. 4.9.13.O

d. Industrial Use Group
   1. Household goods donation center, subject to: 4.9.5.G.2, 6- 12, 4.9.13.A.2, B-D, and 4.9.13.O

e. Recreation Use Group
   1. Parks and Recreation

f. Residential Use Group, Family Dwelling:
   1. Duplex
   2. Single Family Detached
   3. Home Occupation as an accessory use to any permitted Family Dwelling, subject to: Sec. 4.9.7.D
   4. Flexible Lot Development, subject to: 8.7.3
   5. Group Dwelling
   6. Residential Care Services, Adult Care or Physical and Behavioral Health Unlimited Number of Residents, subject to: Sec. 4.9.7.J.3.d, .4, & .8 and 4.9.13.O
   7. Residential Care Services, Rehabilitation Service - Children's Facility (maximum 10 residents), subject to: Sec. 4.9.7.J.1, 3.a, .4 & 4.9.13.O

g. Retail Trade Use Group
   1. Food and Beverage Sales, subject to: Sec 4.9.9.A
      - Outdoor sales and display of products will be conducted within the vestibule
      - Hours of operation will be limited from 6 am to 12 midnight.
   2. General Merchandise Sales, subject to: Sec 4.9.9.B.1
      - Outdoor sales and display of products will be conducted within the vestibule
      - Outdoor sales are permitted within service station area.
      - Hours of operation will be limited from 6 am to 12 midnight.
      - The Property is limited to a maximum of 18 fuel dispensing locations.
        - Hours of operation with a manned employee for the fuel dispensing station is from 6 am to 12 midnight. Self-service at the individual pump locations will be open 24 hours.
      - Outdoor patio dining
   3. Seasonal Sales and Farmers Markets as an accessory use to any permitted principal use in every land use group, subject to: Sec. 4.9.9.A. 12.a-e

h. Storage Use Group
   1. Hazard Material Storage as an accessory use to any permitted principal use in every land use group, subject to: Sec. 4.9.11.A.1, .5, &.9 and 4.9.13.O
   2. Personal Storage, subject to: Sec. 4.9.10.C.and 4.9.13.O

i. Utilities Use Group
   1. Distribution System, subject to: Sec. 4.9.11.A.1, .5, & .9 & 4.9.13.O
   2. Renewable Energy Generation, subject to: Sec. 4.9.11.B and 4.9.13.O

j. Wholesaling Use Group
   1. Business Equipment Supply and Wholesaling, subject to: Sec 4.9.13.P
   2. Food and Beverage Wholesaling subject to: Sec 4.9.13.P

2. Prohibited Uses

a. Prohibited Uses

The following primary land uses shall be prohibited within the PAD.

1. Adult Rehabilitation
2. Cemetery
3. Golf Course
4. Large Retail Establishment
5. Shelter Care
6. Stand-Alone Wireless Communication Towers
7. Multifamily Development

3. Open Space Permitted Uses

Typical uses include, but not limited to, unimproved land, that is set aside, dedicated, or reserved in perpetuity for public or private enjoyment. The permitted uses may also include but not limited to the following uses. All disturbance associated with these uses must be revegetated in accordance with *Section III.F: Conservation Open Space*.

a. Retaining Walls
b. Screening Walls
c. Revegetation
d. Riparian Mitigation
e. Recreation Use Group
   1. Parks and Recreation
   2. Trails
   3. Open Space

D. Development Standards

1. Property Development

Table III.D.1: Development Area Standards

	Non-Residential
Minimum Site Area	none
Maximum FAR	none
Maximum Lot Coverage	none
Minimum Perimeter Yard	• Minimum 100 feet adjacent to north boundary • Minimum 100 feet adjacent to east boundary • 3 times the height of building exterior wall adjacent to Houghton Road right-of-way line • 40 feet adjacent to 22nd Street existing right-of-way line
Screening Requirements	• Up to an 8-foot masonry wall or combination of masonry and wrought iron fence will be installed along the north and east property boundaries in consultation with adjacent property owners.
Minimum Building Separation	Per Building Code

2. Building Height Standards

The maximum building height for the principal tenant (grocery store) is 26 feet to the top of the roofline with ultimate height of 30 feet to top of parapet for ornamental features. All other retail buildings proposed on-site will be limited to 20 feet to the top of the roofline, with an ultimate height of 30 feet for ornamental features, functional elements and 26 feet for mechanical features.

3. Parking Standards

The project will be parked in accordance with UDC requirements, Section 7.4.4. Required Number of Motor Vehicle Parking Spaces and Section 7.4.4.a for Mixed Use Development. The total number of required spaces for mixed use development is 90% of the sum of the amount required for each separate principal use in Section 7.4.4.B. The square footage of Entertainment, Food Service (i.e., restaurants), and/or Alcoholic Beverage Service (i.e., bars) uses may not be included in the calculation for multiple or mixed use parking requirements. Vehicular parking spaces are not required for patio square footage, such as outdoor seating, farmer's markets and other outdoor retail displays. If the number of parking spaces for the development is more than 10% over the UDC requirement, heat mitigation measures will be utilized to offset the increase in pavement. Such measures would include colored pavement, additional landscape plantings and/or shade canopies, and would be subject to approval by the Planning and Development Services director.

Vehicle use areas shall be constructed utilizing materials and construction techniques in accordance with recommendations of the geotechnical engineer and concurrence from City of Tucson. Per Figure 7.4.6-A of the UDC, the minimum two-way PAAL shall be 24 feet wide.

Accessible parking will be provided in accordance with the requirements noted in the 2012 IBC Chapter 11 and the ICC A117.1-2009. Accessible spaces and "Van Accessible" spaces will connect to the accessible route as required by ICC A117.1-2009 Edition. Newly constructed and modified sidewalks, detectable warnings and curb ramps will comply with accessibility requirements as required.

4. Scenic Route Standards

Houghton Road is designated as a Scenic Route. The following provisions of the Scenic Corridor Zone (SCZ) apply to any portion of all real properties or parcels that are within four hundred (400) feet of the future right-of-way line of Houghton Road. These provisions supersede the provisions identified in Article 5, Section 5.3 Scenic Corridor Zone of the Unified Development Code and Section 5.3.11.

a. Preservation and Reestablishment of Vegetation

i. A 30-foot wide buffer adjacent to the MS&R right-of-way line of Houghton Road is proposed for the purposes of this Scenic Corridor Zone. This 30-foot-wide buffer is proposed in addition to the 10-foot multi-use path and landscape buffer within the ROW in accordance with the right-of-way improvements along Houghton Road as shown on *Exhibit III.B.2: Illustrative Site Plan*. Additional plants indigenous to the Property will be added to this area. The proposed Riparian Mitigation Plan will occur along this scenic buffer area as the priority area (approximately 0.4 acres), as this area will contain drainage.

ii. Modifications to the existing drainageway within the SCZ may occur in accordance with the City of Tucson Floodplain Ordinance.

b. Structure Height

In accordance with SCZ requirements, the maximum height of a structure is one-third the distance of the structure from the Houghton right-of-way line not to exceed a 30-foot building height. The building heights proposed along Houghton Road are a maximum of 20-feet.

5. Loading

The principal tenant (grocery store) loading area will be depressed 4-feet and screened with a 9-foot wall for a total 13-foot screen. Once the truck enters the loading dock, the door to the dock opens and then the product is unloaded inside of the loading dock. All other loading areas will be screened in accordance with Section 7.6 of the UDC standards, Landscaping and Screening.

Deliveries shall be limited to between 12:00 am and 6:00 am. All truck idling is prohibited within 300 feet of residential properties. Trucks shall not be left idling between the hours of 6:00 pm and 6:00 am. Delivery trucks are required to automatically turn off after two minutes of idling.

6. Solid Waste Disposal

All required Solid Waste and Recycle materials collection and storage shall be located and screened, to allow for safe access and maneuverability within the development. Enclosures for the storage of waste containers shall be designed in accordance with the Unified Development Code, Section 7.15: for solid waste and recycle disposal collection and storage. The setback for these facilities from existing residential shall be a minimum of 50 feet from the northern and eastern property lines. Trash pickup shall be limited to between 6:00 am and 12:00 am.

7. Hours of Operation

The Property is subject to hours of operation limited to 6 am to 12 am.

8. Lighting & Security

Lighting will be installed in accordance with the City of Tucson Dark Sky Ordinance. It will be downward directed with zero bleed off onto adjacent properties. Parking lot lighting is proposed for a maximum 25 feet in height. At the rear of the grocery store, lights will be installed as low as possible, preferably facing downward within the proposed rear walls, providing the minimal lighting necessary for safety while minimizing the impact on the adjacent homes. An electronic security monitoring system for the public parking areas will be incorporated on the site.

9. Walls

Perimeter walls are allowed up to 8 feet without additional approvals.

E. Drainage Plan

1. Response to Hydrologic Characteristics

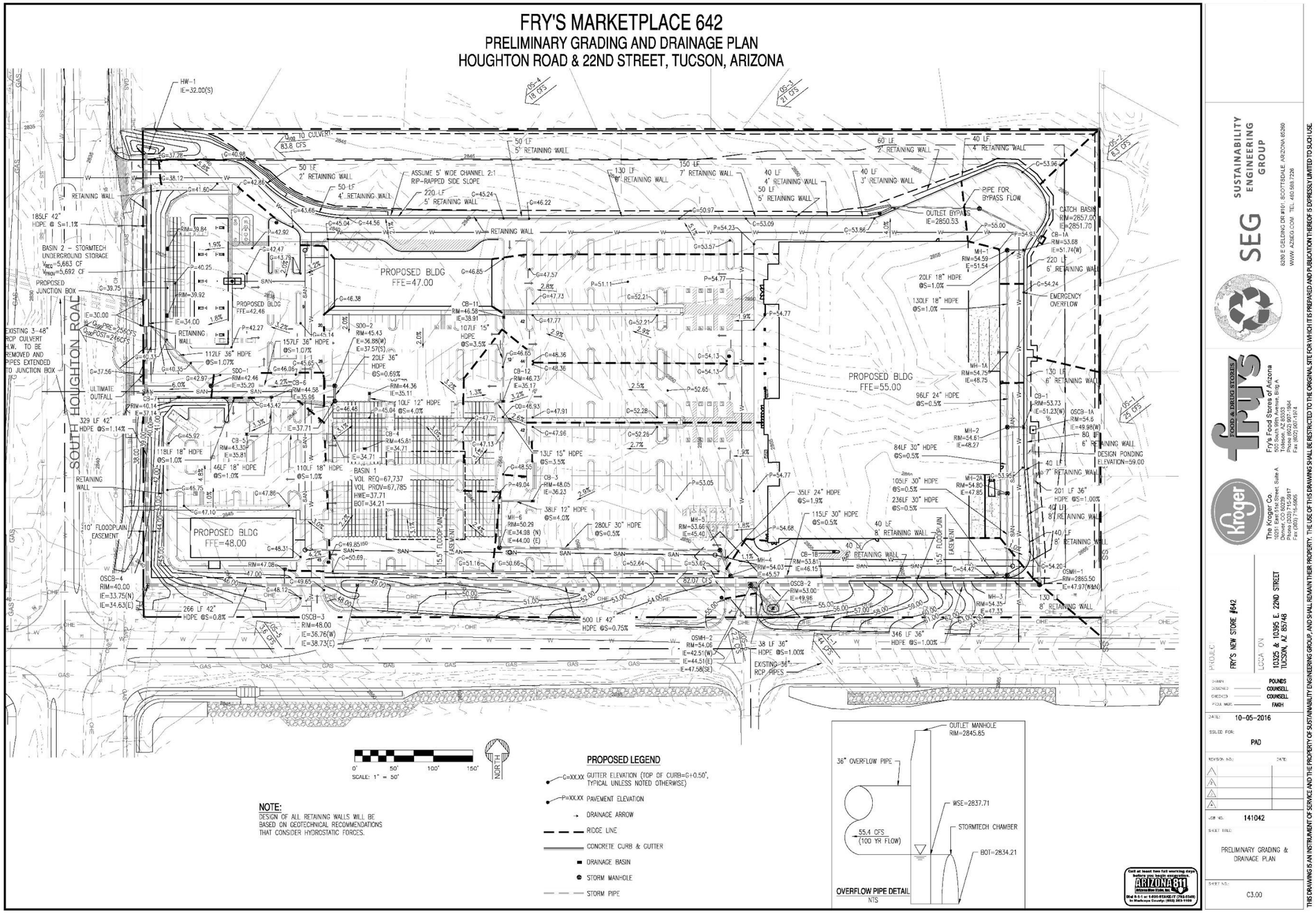
The proposed land uses will include impervious surfaces associated with buildings, parking areas, and access lanes, while providing open space in the form of landscape areas, water harvesting basins, and natural areas. Since the Property is over an acre in size and proposing a commercial use, both on-site detention and retention will be required to reduce the developed condition volumes to at, or below, the existing condition rate volumes for the design storms.

The grading of the Property will direct runoff overland within the Property and toward curb cuts around the perimeter of the developments paved drives or parking areas outletting to the proposed diversion channels and/or to low points within the parking

field to catch basins. Catch basins will collect the runoff and convey the storm water via an underground storm pipe system to proposed underground retention areas. Proposed retention will be the underground system (*See Exhibit III.E: Preliminary Grading and Drainage Plan*).

The water harvesting techniques will include: directing surface flow from the parking areas into the landscaping areas, using structures to capture runoff for later use, dispersing run-off into the soils by increasing the amount of exposed surface area and constructing French drains, utilizing mulch to maximum extent possible to reduce evaporation and retain moisture in the soil. Decomposed granite (DG) is prohibited in water harvesting areas due to its ability to clog soil pores and reduce infiltration rates. The use of drywells may be added to the water harvesting techniques if needed to obtain required drain down times of 12 to 24 hours. A drainage report has been submitted under a separate cover.

Exhibit III.E: Preliminary Grading & Drainage Plan



F. Open Space

1. Open Space Development Standards

A minimum of 20% of the Property as identified on *Exhibit III.B.1 and Exhibit III.B.2* will be preserved as consolidated open space, with a target of 25-28% of the site when the buffers adjacent to the Houghton and 22nd Street frontages are included. Generally, the open space along the north and east property boundaries, representing 20% of the site, will remain natural, with some minor exceptions for disturbance required for wall installation. Other open space along the street frontages will be revegetated to recreate a natural state.

- Per neighborhood input, some of the open space areas along the north and eastern borders may be supplemented with additional vegetation to provide additional screening between the project site and adjoining properties. This will also be a receiving area for mitigation plantings.
- A masonry wall up to 8' high will be installed along the north and east property boundaries.
- Areas graded due to installation of screening walls and retaining walls will be revegetated using native and low water use, regionally adapted plants.
- Water harvesting and retention will be incorporated to the greatest extent feasible without materially impacting vegetation that is intended to remain in place.
- Native and low water use, regionally adapted plants will be utilized throughout the development, including within bufferyards and parking lot islands.

2. Riparian Standards

This section shall modify Technical Standards 4.02.0.0, Floodplain, Wash and Environmental Resource Zone (ERZ) Standard to achieve the intent expressed within the PAD. The specific sections include, but are not limited to the following:

- 4-02.2.5.A - Development Restrictions. Impacts as shown in the PAD are allowed.
- 4.04.2.5.B –Environmental Resource Report. Determination of mitigation requirements shall be based on a modified Environmental Resource Report process (to be agreed upon by City of Tucson staff and the developer). The modified process will at a minimum include on-site evaluation (quantity and quality) of the areas of Pima County Xeroriparian habitat (coinciding with the 100-year Floodplain) that will be disturbed.
- 4-02.3.0 - Review (No SAC or STAC Review). The PAD Review process shall serve as the review for the riparian mitigations plans.
- The Property shall be permitted to impact existing Regulated Areas and Protected Riparian Area (PRA) as needed and be allowed to provide mitigation for impacts to the Regulated Area and PRA on-site. On-site mitigation areas may be located within the Open Space.

3. Riparian Resources

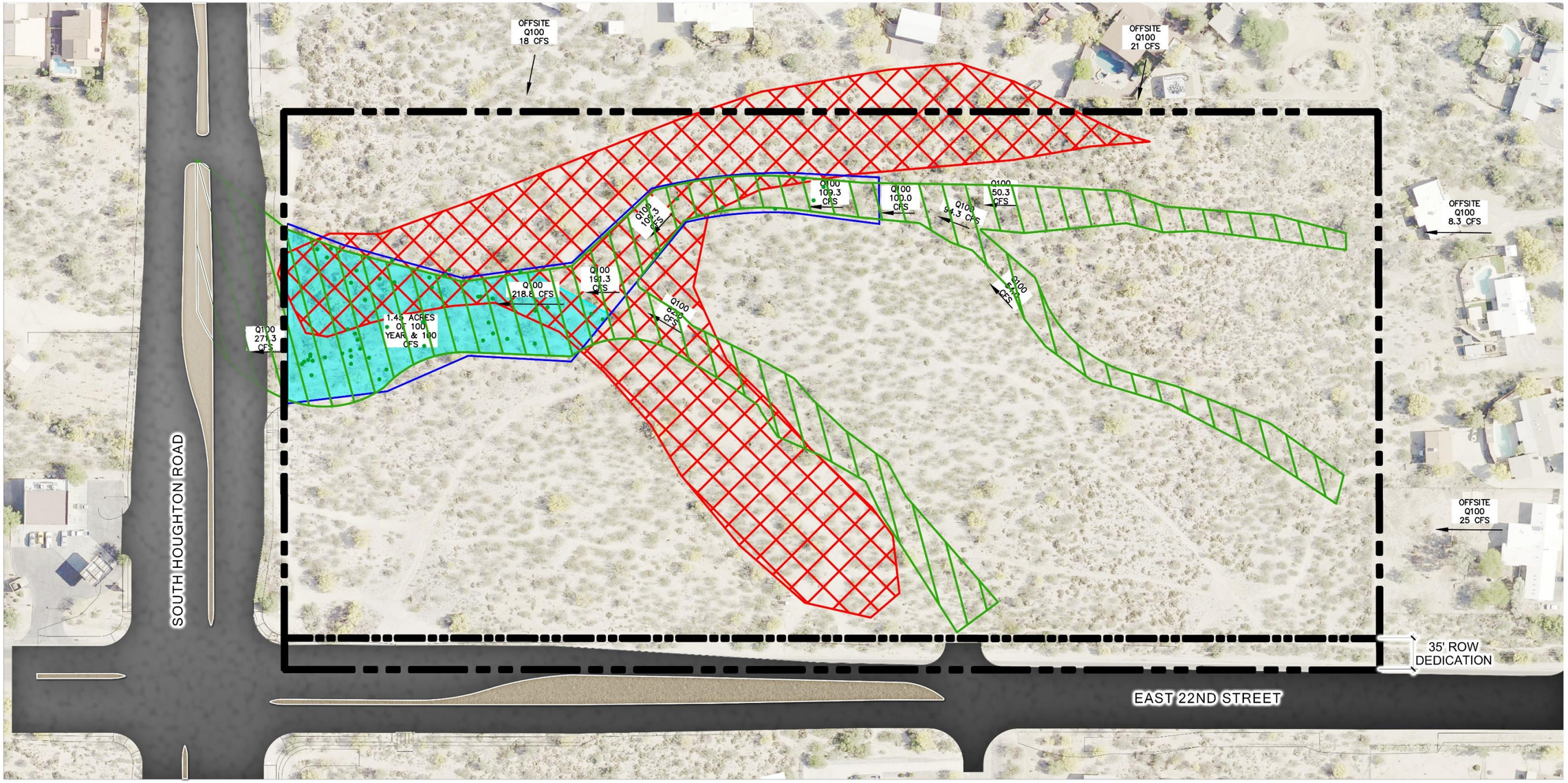
The Property contains 100-year floodplain and Xeroriparian area (*See Exhibit III.F.3.a Riparian Resources*).

The 100-year floodplain begins near the center of the Property and flows toward Houghton Road, ending at the culvert under the road. As shown on Exhibit III.F, the Xeroriparian habitat is found near the Houghton Road culvert, due to the pooling of water near the roadway. A plant inventory, per the Floodplain, Wash, and ERZ Standard of the Technical Manual was conducted on June 2, 2016. The actual limits of the Xeroriparian habitat, per the plant inventory, are shown on *Exhibit III.F.3.a*. The actual Xeroriparian habitat area is approximately 0.9 acres in size.

As shown on *Exhibit III.F.3.b*, the proposed Riparian Mitigation Plan will contain approximately 0.9 acres of mitigation area. Mitigation will occur along Houghton Road as the priority area (approximately 0.4 acres), as this area will contain drainage areas. Any additional mitigation will occur within the open space on the north side of the Property (second priority area, approximately 0.5 acres).

These mitigation areas will serve a dual purpose. They will maintain the riparian nature of the current existing riparian area. They will also provide additional landscape buffering and visual enhancement along Houghton Road and adjacent to existing properties to the north.

Exhibit III.F.3.a: Riparian Resources



100-YEAR FLOODPLAIN

EXISTING PIMA COUNTY XERORIPARIAN "C"

100-YEAR FLOODPLAIN WITH LIMITS OVER 100 CFS

INVENTORY RIPARIAN PLANT

ACTUAL RIPARIAN AREA

PAD BOUNDARY

THIS EXHIBIT WAS CREATED USING THE MOST RECENT AVAILABLE BOUNDARIES, ROAD ALIGNMENT, AND EASEMENT DATA PROVIDED BY THE DIFFERENT GOVERNMENTAL ENTITIES AND ENGINEERING FIRMS AND IS FOR PLANNING PURPOSES ONLY. FINAL AREA TOTALS BASED ON ENGINEERED DATA MAY VARY FROM THOSE SHOWN ON THIS EXHIBIT.

0' 50' 100'

NORTH

PROJECT:BDU-01 DATE:08/03/16
FILE NAME: BDU-01-RIPARIAN_EXHIBIT_080316.DWG

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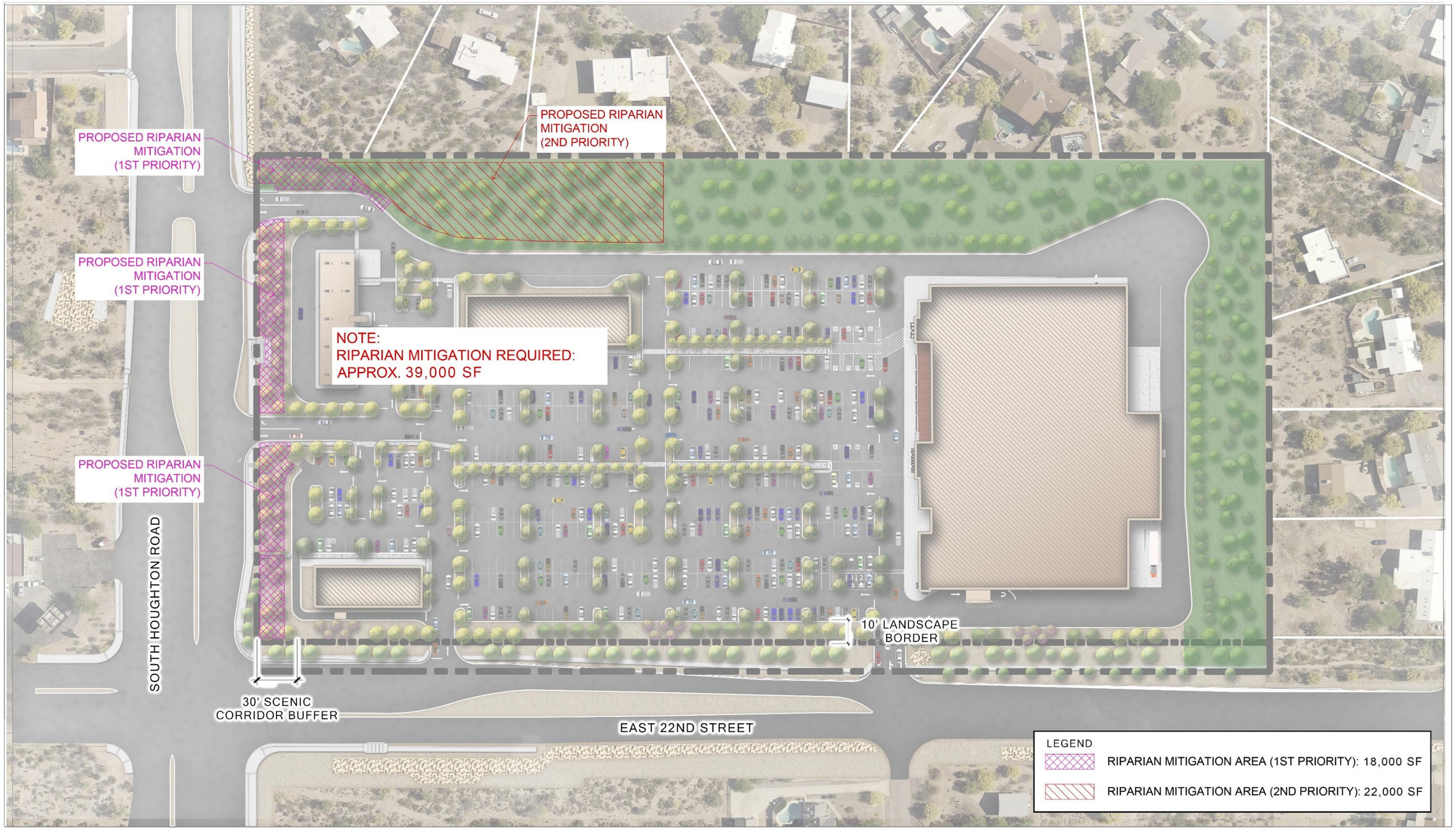
Exhibit III.F.3.b: Riparian Mitigation Plan



G. Landscape Program

1. Streetscape

The Property is surrounded by two major public roadways, Houghton Road and 22nd Street. As shown on *Exhibit III.G.: Landscape Border Plan*, 30-foot wide scenic corridor landscape borders will be provided adjacent to the Houghton Road scenic route. The 30-foot landscape border will be supplemented with additional native and low water use plants as well as riparian mitigation. A 10-foot wide landscape border will be provided along PAD boundary along 22nd Street. A 30-inch screen will be located along all parking areas.

2. Parking Area & Pedestrian Path Landscape

The landscape program for parking area landscape shall adhere to the following requirements:

- Pedestrian Paths from Houghton Road should shade at least 65 to 70% of the sidewalks/paths during the major part of the day with canopy trees or other shading devices
- Parking Areas
    - Tree Quantities: (1) tree shall be provided for every (4) parking spaces.
    - Tree Species: Medium size trees of native or low water use species, such as Palo Verdes, Mesquites, Hybrids or similar species shall be used.
- In accordance with UDC 7.6.6 such that all hard surfaces drain towards minimum 6" to 9" depressed water harvesting or retention areas

3. Landscape/Screening borders adjacent to residential uses

The PAD borders the Rancho Del Este residential subdivision to the east and north of the Property. There are no existing screens along most of these boundaries. A large area of open space will be provided along both boundaries. The east boundary consists of a 60 to 95-foot open space borders and the north boundary consists of a 40 to 110-foot open space border. Screening from existing residential areas will be accomplished with an 8-foot screen walls along the north and east boundary with openings for wildlife movement. The 40 to 110-foot landscape borders along these two boundaries will be revegetated with planted with trees, shrubs, and accent plants to efficiently screen the property from adjacent uses as well as provide for riparian mitigation.

Exhibit III.G: Landscape Borders

BRENTWOOD HOUGHTON & 22ND

NOTES:
TOTAL OPEN SPACE = 4.1 AC
TOTAL NEIGHBORHOOD SHOPPING CENTER = 12.1 AC
TOTAL ACREAGE = 16.2 AC

THIS EXHIBIT WAS CREATED USING THE MOST RECENT AVAILABLE BOUNDARIES, ROAD ALIGNMENT, AND EASEMENT DATA PROVIDED BY THE DIFFERENT GOVERNMENTAL ENTITIES AND ENGINEERING FIRMS AND IS FOR PLANNING PURPOSES ONLY. FINAL AREA TOTALS BASED ON ENGINEERED DATA MAY VARY FROM THOSE SHOWN ON THIS EXHIBIT.

0' 50' 100'
NORTH

PROJECT:BDU-01 DATE:07/28/16
FILE NAME: 141042CBS.DWG

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110 S church ste 6320 tucson az 80701

H. Circulation Plan

1. Access Points

As shown on Exhibit III.H on page 66, primary access to the Property will be provided by Houghton Road and 22nd Street. There are five proposed access driveways to the proposed development. Access #1 and Access #2 are located on Houghton Road, while the other three access driveways Access #3, and Access #4 are proposed to be located off 22nd Street. The first proposed access, Access #1, will allow right and left turns into the development from Houghton Road, but westbound vehicles will only be allowed to make a right out of the property. A left turn lane and separate northbound right turn lane are proposed for this access. Access #2 is proposed to be a right in/right out access only. A separate northbound right turn lane is proposed for this access, that will be shared with a bus bay per the City of Tucson planned improvements to Houghton Road. Of the three proposed accesses onto 22nd Street, Access #3 is also proposed to be a right in/right out access with a dedicated westbound right turn lane, while Access #4 is proposed to be full access driveways with an eastbound left turn lane and a separate westbound right turn lane.

2. Planned Improvements

Houghton Road and 22nd Street were recently improved. Improvement plans included Houghton Road widening to become a 6-lane roadway with a divided median in the has three thru lanes, two left-turn lanes and a separate right turn lane in both the northbound and southbound directions. 22nd Street was also improved at the intersection with Houghton Road to have one thru lane, two left turn lanes and a separate right turn lane in both eastbound and westbound directions. In addition, there is a proposed bus shelter pad location within their planned right-turn lane along Houghton Road. Sun Tran service currently does not serve this section of Houghton Road, but it is planned for a bus pullout at the northeast corner of 22nd and Houghton. If the pullout is modified or removed due to future construction, an alternative bus pullout area (shared right-turn lane) and shelter pad will be required at the time of development plan. The City of Tucson Department of Transportation has placed a five-year moratorium for all new cuts along Houghton Road and at the intersection of Houghton Road and 22nd Street. However, limited permission has been granted from the Department of Engineering (refer to *Appendix D: Houghton Road and 22nd Street Intersection Future Modification Letter)* allowing the developer to make necessary curb cuts to access the site prior to the expiration of the five-year moratorium period.

3. Traffic Volumes

A Traffic Impact Analysis generated by Stantec has been submitted under a separate cover. *Table III.H.3* identifies the trip generation provided by this report for the PAD development.

Table III.H.3: Proposed Use-Trip Generation

ITE Land Use code	**Type**		24-hour Two Way Volume	Peak AM-In	Peak AM-Out	Peak PM-In	Peak PM-Out
850	Supermarket	96	11655	240	147	551	530
826	Specialty Retail Center	10	443	0	0	12	15
944	Gasoline Service Station	10	1686	62	60	69	69
934	Fast Food Restaurant with Drive through	4.2	2084	97	93	71	66
Total			15868	400	300	704	680
Internal Trip Reduction			2380	60	45	106	102
Grand Total			13488	340	255	598	579

Source: Stantec, 2016

4. Level of Service

The signalized intersection of 22nd Street and Houghton Road currently functions at a Level of Service (LOS) B under the existing conditions and lane configuration. The City of Tucson is currently improving Houghton Road, including the intersection with 22nd Street. These improvements will be completed before the 2018 Full Build-Out Conditions and the new geometrics were used to model Background and Horizon Conditions. With the improved intersection and the addition of the 22nd Street and Houghton Road PAD Development, the 22nd Street and Houghton Road intersection will continue to function at a LOS B, with minor differences in delay times to the individual movements.

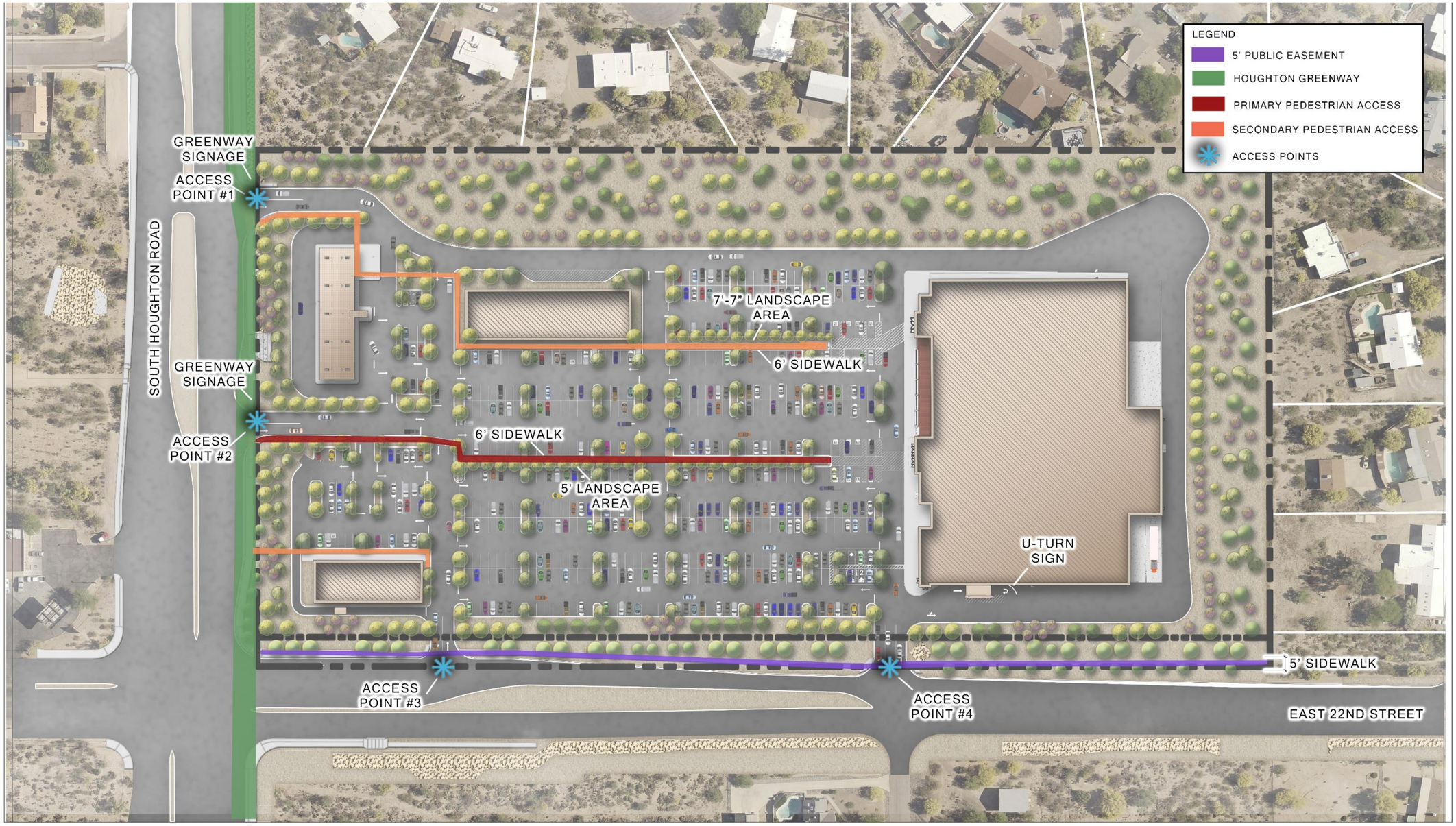
5. Pedestrian Circulation

The proposed on-site pedestrian connections provide an amenity for future users of the PAD. Pedestrian multi-use trails along Houghton Road, public sidewalks, bike routes and pedestrian walkways will create an interconnected system to the various uses within the site. The Property shall provide pedestrian accessibility, safety, and convenience to reduce traffic impacts and enable the development to project a friendly, inviting place. The main interior pedestrian walkway connecting from Houghton Road to the principal tenant shall be at least six feet wide with an adjacent five-foot-wide landscape strip.

The following standards will be applied to the PAD District to ensure safe pedestrian access within and throughout the Property:

- Pedestrian Paths from Houghton Road should shade at least 65 to 70% of the sidewalks/paths during the major part of the day with canopy trees or other shading devices
- Sidewalks shall be provided along the full length of any building where it adjoins a parking lot.
- Pedestrian walkways will be provided from proposed buildings to individual parking areas via pedestrian crosswalks.
- Connections will be made from parking lots to the closest public sidewalk adjacent to the Property
- At each point that a designated on-site pedestrian walkway crosses a parking lot, street or driveway, the walkway will be clearly visible to pedestrians and motorists using one or more of the following methods:
    - A change in paving material, paving height or paving color;
    - A painted crosswalk;
    - Signage; or
    - Median walkway buffered by landscaping
    - Any other method approved by the City of Tucson which meet the intent of this section.
- New sidewalks will be constructed to City of Tucson Standards along Houghton Road and 22nd Street if not already constructed as part of the recent Houghton and 22nd road improvements.
- All pedestrian connections will be constructed to ADA (Americans with Disabilities Act) accessibility standards.

Exhibit III.H.1: Circulation Concept



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0' 50' 100' NORTH

PROJECT: BDU-01 DATE: 07/28/16
FILE NAME: 141042CBS.DWG

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I. Phasing Schedule

The following standards shall be applied to development of the Property along with the infrastructure required to serve that portion of the PAD development in accordance with market demands and Traffic Study submitted separately. The PAD is anticipated to be completed in one phase with full buildout in 2018. Detention and retention will be provided in accordance with the master hydrology/drainage report.

J. Cultural Resources

A review of Arizona State Museum records revealed that the Property has not been previously surveyed for cultural resources. Because the Property has not yet been inspected for archaeological resources, the Arizona State Museum recommends an on-the-ground cultural resource study be conducted prior to any ground disturbing activities. Historic or prehistoric features or artifacts discovered during future ground disturbing activities should be reported to the City of Tucson Historic Preservation Officer. Pursuant to A.R.S. 41-865 the discovery of human remains and associated objects found on private lands in Arizona must be reported to the Director of Arizona State Museum.

K. Water Conservation Standards

Conservation standards will be accomplished via low water use plants, efficient irrigation and rainwater harvesting.

1. Low Water Use Plants

The plant palette will consist of predominately low water use, native and regionally adapted plants. The plants will be located relative to their functionality and the uses associated with the zones within which they are planted. The use of low water use plants in locations appropriate with their species characteristics provides for the conservation of potable water while assuring the survivability and long term health of such plant material.

2. Irrigation

Plants requiring irrigation shall be irrigated by means of an efficient underground drip irrigation system. Underground drip systems reduce water evaporation and waste, thereby conserving water. The irrigation system will be controlled by a programmable controller which can be used to adjust irrigation schedules. The use of different seasonal irrigation schedules reduces the amount of water applied during cooler and wetter periods. Irrigation systems shall be fitted with irrigation controllers and shall be capable of monitoring and responding to plant water needs through the use of soil moisture gauges, tensiometers, weather stations and/or evapotranspiration data. The technology chosen should be capable of preventing the irrigation system from running if sufficient soil moisture is present to support the vegetation. All systems shall include rain shut-off devices.

3. Rainwater Harvesting

A water harvesting plan will be prepared at time of development plan submittal in compliance with Development Standards 10-03, illustrating 50 percent of estimated landscape water budget is met by water harvesting techniques. It will incorporate UDC 7.6.6 such that all hard surfaces drain towards minimum 6" to 9" depressed water harvesting or retention areas.

A number of passive rainwater harvesting techniques will be employed to direct surface water and capture rainfall for the benefit of the landscape: curb cuts, flush curbs, recessed planting areas, minimized compaction of planting areas and semi-pervious pavers.

4. Heat Island Mitigation

Several features within the PAD will be used to offset the heat island effect created by the Planned Area Development. Twenty percent of the Property will be designated as open space. Open space areas will contain large number of trees and vegetation and both organic and inorganic ground cover. Interior landscaping is not included in this designation and will further reduce heat absorption and shade paved areas. Trees and vegetation will be installed at building perimeters. Parking areas will include one shade tree for every four parking stalls. Shade trees will be planted along the 22nd Street right-of-way. Rainwater harvesting will be implemented, further reducing the heat island effect. The color palette for large areas with solar exposure will reduce the heat island effect. Roof tops, concrete sidewalks and areas of inorganic ground cover will be limited to light colors (white, light grey, beige, gold, and tan).

L. Pima County Wastewater Reclamation

The owner/developer shall obtain written documentation from the Pima County Regional Wastewater Reclamation Department (PCRWRD) that treatment and conveyance capacity is available for any development within the rezoning area, no more than 90 days before submitting any tentative plat, site plan, sewer improvement plan or request for building permit for review. Should treatment and/or conveyance capacity not be available at that time, the owner/development shall have the option of funding, designing and constructing the necessary improvements to Pima County's public sewerage system at his or her sole expense or cooperatively with other affected parties. All such improvements shall be designed and constructed as directly by the PCRWRD.

22nd & Houghton Planned Area Development (PAD)

IV. Implementation & Administration

City of Tucson

A. Design Review Committee

The Design Review Committee (DRC) shall consist of one (1) member from the developer, one (1) member from the Property consultant team, and one (1) member from the surrounding neighborhoods and/or neighborhood associations. The DRC will ensure conformance with the building elevations as shown in Exhibit III.A.1 through Exhibit III.A.3 or will review and approve any substantial modifications to building elevations. Approval of these modifications will require an affirmative vote of the majority of committee members. A copy of the self-certification will be provided to the City of Tucson at the time of plan submittal advising whether the architectural and landscape design conforms to the Houghton & 22nd PAD Design Guidelines.

The DRC shall remain in place through 100% of the initial build-out of the development. Beyond this point, the Committee's function will survive through the Homeowners Associations of the residential subdivision or through the property owners' association of the commercial center, at their respective discretion.

B. Design Standards

Prior to development of any area within Houghton and 22nd PAD, development and design standards will be submitted as an extension of this document. These standards will follow the owner's vision to create a quality neighborhood shopping center. The guidelines will provide the framework for the design and character of Houghton and 22nd Planned Area Development and address the following goals:

- A common theme and design elements will be established that will be used throughout the Property. They will cover unifying site design elements, including streetscape design, signage, materials, colors and architectural styles and will be reviewed and approved by the design review committee established by the Master Developer. Guidelines should be clear, concise and enforceable.
- Address adjacent neighborhoods and provide for transitions at the edges of the property.
- Ensure new development does not adversely impact existing neighborhood character by complying with the Compatible Design policies of the HENP.
- Ensuring compatibility with existing Southwestern architectural styles and building materials of adjacent land uses.
- Provide consistency with the PAD and the intentions of the document.

C. Interpretations and Amendments

1. Interpretation

The regulations and guidelines provided within this PAD supersede existing regulations within the City of Tucson Unified Development Code. If an issue arises regarding definitions, conditions, standards and/or situations not addressed in this PAD, those in the UDC or other COT regulations shall prevail, as interpreted by the COT Zoning Administrator.

2. Amendments

Amendments to this PAD may be necessary over time to respond to the changing market demands, or financial conditions, or to respond to the unanticipated needs of new users. Non-substantial changes to the PAD shall be approved pursuant to UDC Section 3.5.5.I and include the following:

- Modifications to the permitted and secondary uses that do not change the overall intent of the PAD.
- Modifications to tax code parcel boundaries, including changes to interior boundaries or combining parcels. (Except that changes to the PAD perimeter boundary may not be considered a minor amendment or non-substantial changes to the PAD).
- Modifications to the proposed site plan provided the Development Standards set forth in the PAD are maintained.
- Any other items not expressly defined as substantial based on UDC Section 3.5.5.I

Substantial changes (as defined in UDC Section 3.5.5.I), are subject to the amendment application process outlined in UDC Section 3.5.5.I.2.

Bibliography

Aerial Photographs, Pictometry, 2014.

Balanced and Critical Basin Map, Pima County.

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

City of Tucson GIS, TDOT Map Center, 2016.

City of Tucson Unified Development Code, 2016

FEMA Flood Insurance Rate Map, Pima County, Arizona.

Institute of Transportation Engineers, Trip Generation Manuals, 7th Edition, Volumes 1 & 3, 2003

MapGuide, Pima County Department of Transportation.

Stormwater Detention/Retention Manual, City of Tucson

USGS Topographic Map, Jaynes Quadrangle.

22nd & Houghton Planned Area Development (PAD)

V. Appendix

City of Tucson

Appendix A: Neighborhood Shopping Center

The proposed neighborhood shopping center development will serve the immediate area within a two- to three-mile radius. As shown on *Exhibit.A.1: Existing Food and Drug Stores*, there is a Fry's Food and Drug Store located at 22nd Street and Harrison Road., which is proposed for closure and releasing upon zoning approval of the new Fry's location (anchor store) within 22nd and Houghton PAD). The new Fry's location at 22nd Street and Houghton will capture this service area and improve their ability to be more competitive with the current market of grocery stores.

Exhibit.A.2: Existing Fry's Locations illustrates the existing Fry's locations throughout eastern Tucson and displays a three-mile service area around each store. Many of the service areas overlap, indicating that some customers within a store's three-mile service area may only patronize one particular store. Given that many of the existing store's service areas will overlap the proposed Fry's Food and Drug Store service area, it is assumed that the customers within the three-mile radius closest to the new store will patronize the new store and other customers will continue to shop at the store they accustomed to using.

In accordance with the Houghton East Neighborhood Plan (HENP) the development of non-residential uses is to be located at the major intersections along Houghton Road, including the intersection of 22nd Street and Houghton. The HENP provides the following definition for Neighborhood Commercial:

> "Neighborhood Commercial: Low-intensity commercial uses serving neighborhood retail and service needs."

The HENP also provides the following definition for Neighborhood Services:

> "Public, semi-public, and commercial services which meet neighborhood needs, such as schools, churches, banks, and grocery stores."

The International Council of Shopping Centers and the Urban Land Institute, in the Dollars & Cents of Shopping Centers, provides the following definition of a neighborhood shopping center:

> "The neighborhood shopping center provides merchandise for daily living needs -- convenience goods like food, drugs, hardware and personal service. A supermarket is the principal tenant in this type of shopping center".

In summary, the PAD proposal is for neighborhood shopping center with the principal tenant being a grocery store. The primary offerings are groceries and secondary offering is pharmacy and health and beauty items typically found in drug stores. The secondary tenants include an associated Fry's gas station with kiosk and two retail building pads. The retail uses may include, but not limited to, personal service type uses as well as restaurant and/or coffee shop. The PAD proposal is in line with the above definitions and will service the surrounding neighborhoods for their convenience needs.

Exhibit Appendix A.1: Existing Food & Drug Stores

Grocery Stores
Tucson, AZ
1/31/2014

COMMERCIAL RETAIL ADVISORS, LLC

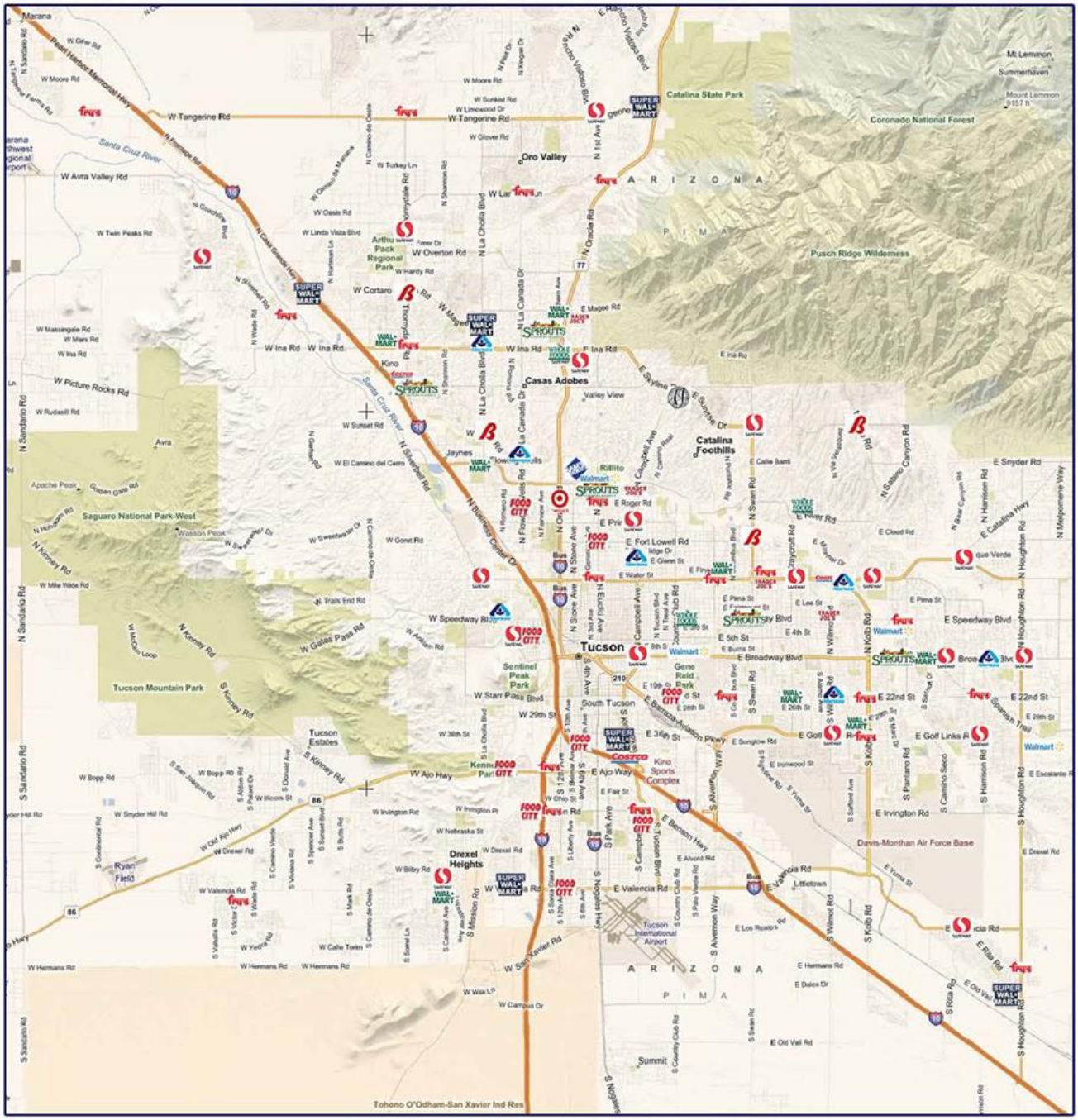
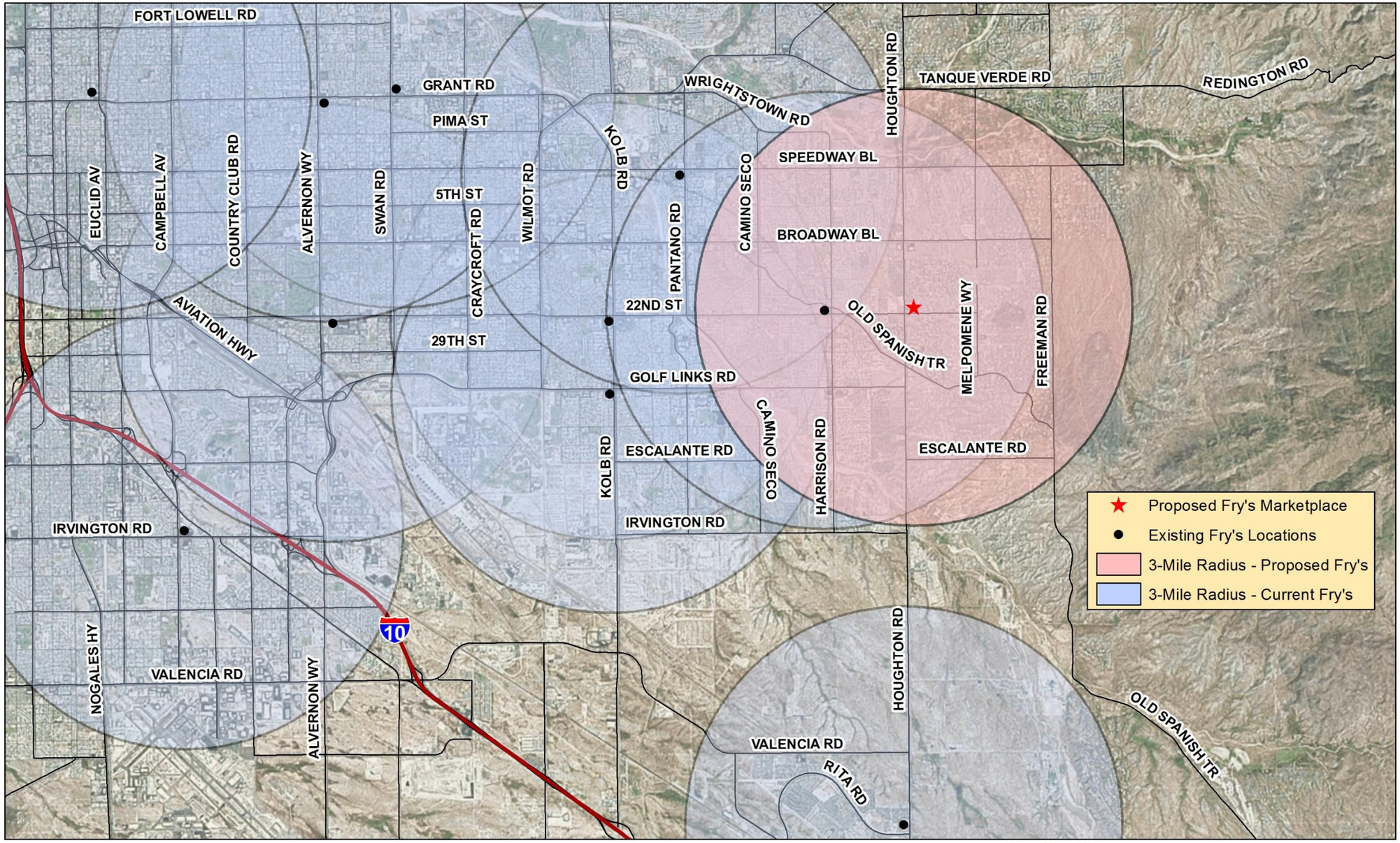


Exhibit Appendix A.2: Existing Fry's Locations



FRY'S LOCATIONS

0' 3000' 6000'
SCALE: 1" = 6000'
NORTH
PROJECT: BDU-01 DATE: 03/17/16
FILE NAME: Frys_w_Buffers.mxd

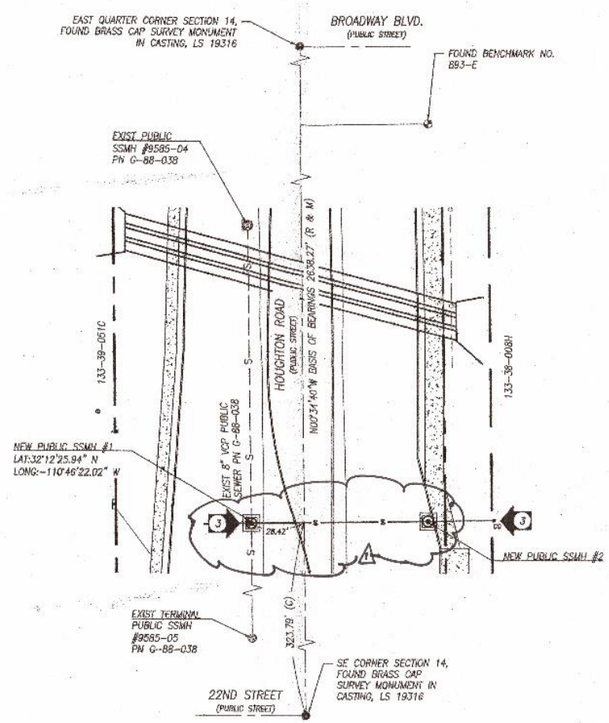
THE PLANNING CENTER
a division of TPC Group, Inc
110 s church ste 6320 tucson az 85701

Appendix B: Public Sewer Improvement Plans

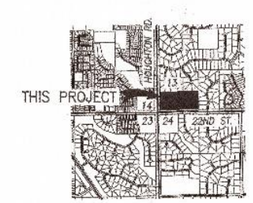
PUBLIC SEWER IMPROVEMENT PLAN TO SERVE
22ND STREET BAPTIST CHURCH
10325 E. 22ND ST., TUCSON, AZ 85748

LEGEND

FEATURE	NEW	EXISTING
SURVEY BENCH MARK		
SURVEY MONUMENT		
RIGHT OF WAY		
MONUMENT & CONST ℄ LINE		
CONTOUR LINE – MAJOR	50	50
CONTOUR LINE – MINOR	51	51
A.C. PAVEMENT		
CONCRETE CURB		
BUILDING EXTERIOR WALL		
OVERHEAD UTILITY LINE		OHU
POWER POLE		
LIGHT POLE		
COMMUNICATION PEDESTAL		T
UTILITY PEDESTAL		U
GAS LINE		G
SANITARY SEWER LINE	S	S
SANITARY SEWER HCS		HCS
SANITARY SEWER MANHOLE		
SANITARY SEWER, CLEANOUT	CO	CO
FIRE HYDRANT		
FIRE DEPARTMENT CONNECTION		
WATER LINE	W	W
WATER METER	W	W
WATER VALVE		
RECLAIMED WATER LINE		RW
RECLAIMED WATER MANHOLE		
SLOPE ARROW		



SEWER LAYOUT/OVERVIEW MAP



LOCATION MAP

SCALE: 3" = 1 MILE
A PORTION OF THE SECTION 13, T-14-S, R-15-E
GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA

OWNER/DEVELOPER

22ND STREET BAPTIST CHURCH
CONTACT : ASHLEY EVANS
ADDRESS : 6620 E. 22ND ST., TUCSON, AZ 85710
PHONE : (520) 269-3213

CIVIL ENGINEER

GRENIER ENGINEERING, INC.
CONTACT : RICHARD MACIAS, P.E.
ADDRESS : 5524 E. 4TH. STREET, TUCSON, AZ 85711
PHONE : (520) 326-7082
FAX : (520) 326-7508
EMAIL : rmacias@grenlereng.com

SHEET INDEX

SHT 1 COVER SHEET
SHT 2 SEWER NOTES
SHT 3 PLAN & PROFILE

SEWER ASBUILT 10/02/15

UTILITY NOTE

EXISTING UTILITIES ARE SHOWN BASED ON ABOVE GROUND LOCATION AND UTILITY BASE MAPS. THE LOCATIONS SHOWN HEREON SHOULD BE CONSIDERED APPROXIMATE . THERE MAY BE ADDITIONAL UTILITIES PRESENT WHICH ARE NOT SHOWN ON UTILITY BASE MAPS. THE CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITIES IN ACCORDANCE WITH SEWER NOTE No. 3 PRIOR TO CONSTRUCTION.

AS-BUILT CERTIFICATION:
I HEREBY CERTIFY THAT THE AS-BUILT ANNOTATIONS PROVIDED ON THIS DRAWING WERE BASED ON AN AS-BUILT SURVEY CONDUCTED UNDER MY SUPERVISION AND ACCURATELY DEPICTS EXISTING FIELD CONDITIONS TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WARREN D. THOMPSON — 10/2/15
REGISTERED LAND SURVEYOR — DATE

16908 — 9/30/16
REGISTRATION NUMBER — EXPIRES

ACCEPTED

Francisco Galindo — 2/19/15
PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT — DATE

S. C. Tunt — 2/20/15
TDOT (FOR LOCATION IN R.O.W. ONLY) — DATE

APPROVAL FOR CONSTRUCTION
SEWER ASBUILT
3-11-15
DATE: By: Isaac Gomez
P003515

Two working days before you dig, call your local locator service: 1-800-STAKEIT OR 1-800-782-5348 Blue Stake Center

REF #: DLU14-007 REV#1
G-2015-002

GRENIER ENGINEERING, INC.
Standard & Civil Engineering Consultants
5524 East 4th Street, Tucson, Arizona 85711
Phone: 520.326.7082 / Fax: 520.326.7508

37367 RICHARD G. MACIAS Arizona U.S.A. Expires 03/31/16

Revision	
1	SEWER ASBUILT - 10/02/15
2	
3	

SHEET NOTES

COVER SHEET

PUBLIC SEWER IMPROVEMENT PLAN FOR
22ND STREET BAPTIST CHURCH
A PORTION OF SECTION 13, T14S, R15E
GASRM, PIMA COUNTY, ARIZONA

Job Number:	014032
Designed By:	RM
Drawn By:	MR/BM
Checked By:	RM
Date:	01-21-15
Scale (s):	N/A / NoRAS NOTES
Sheet Number:	1
Sheet	1 of 3

G-2015-002

SEWER NOTES

1. ALL DESIGN STANDARDS, MATERIALS AND WORKMANSHIP FOR PUBLIC SANITARY SEWERS SHALL BE IN ACCORDANCE WITH THE PIMA COUNTY REGIONAL WASTEWATER RECLAMATION DEPARTMENT (PCRWRD) ENGINEERING DESIGN STANDARDS 2012 (EDS 2012) AND THE STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION 2012 (SSDC 2012). SAID DOCUMENTS ARE AVAILABLE THROUGH THE PCRWRD WEBSITE (www.pima.gov/wwm/eng/des_std.htm).

2. BASIS OF ELEVATIONS: THE BASIS OF ELEVATIONS FOR THIS PROJECT IS THE CITY OF TUCSON (COT) BENCHMARK No. 893-E, BEING A CHISELED "X" ON THE NORTH END OF THE TOP OF THE HEADWALL ON THE EAST SIDE OF HOUGHTON ROAD, APPROXIMATELY 60-FEET SOUTH OF CALLE DE ESTE. SAID ELEVATION BEING 2827.84 (NAVD-88) PER COT FIELD BOOK 1989-E2, PAGE 5.

3. BASIS OF BEARINGS: THE BASIS OF BEARINGS FOR THIS PROJECT IS THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 14, TOWNSHIP 14 SOUTH, RANGE 15 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY ARIZONA. SAID BEARING BEING NORTH 00°34'40" WEST, AS SHOWN HEREON.

4. THE CONTRACTOR SHALL CALL "BLUE STAKE" (1-800-782-5348) A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL KEEP ALL "BLUE STAKE" REQUESTS UP-TO-DATE AND COMPLY WITH APPLICABLE ARIZONA REVISED STATUTES (A.R.S.), TITLE 40, CHAPTER 1, ARTICLE 6.3, SECTION 40-360.22 PERTAINING TO "BLUE STAKE". ERRORS IN "BLUE STAKE" SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.

5. THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. CALL "BLUE STAKE" (1-800-782-5348) A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO EXCAVATING.

6. THE CONTRACTOR SHALL FIELD VERIFY EXISTING SEWER ELEVATIONS AND ALIGNMENTS PRIOR TO CONSTRUCTION AND IMPLEMENTATION; VERIFICATION MAY REQUIRE POT-HOLING.

7. HOUSE OR BUSINESS CONNECTION SEWERS (HCS OR BCS) ARE NOT PART OF THE PUBLIC SANITARY SEWER CONVEYANCE SYSTEM. PRIVATE CONNECTION SEWERS CONSTRUCTED PRIOR TO JANUARY 2006 ARE NOT REQUIRED TO BE BLUE STAKED. ANY HCS/BCS ENCOUNTERED DURING CONSTRUCTION SHALL BE PROTECTED, REPAIRED, OR REROUTED, AS THE SITUATION DICTATES PER PCRWRD SSDC 2012, DETAIL RWRD 400 AND AT NO EXPENSE TO THE PROPERTY OWNER OR PCRWRD.

8. PROVIDE A LIST OF LOTS THAT REQUIRE PRIVATE BACKWATER VALVES OR A NOTE INDICATING THAT NO PRIVATE BACKWATER VALVES ARE REQUIRED FOR THIS PROJECT.

9. ANY ACTIVITY THAT MIGHT AFFECT THE SANITARY SEWER SYSTEM (MATERIALS ENTERING THE SYSTEM, CONVEYANCE AND TREATMENT) REQUIRES APPROVAL AND/OR PERMIT BY PCRWRD PRIOR TO ANY ACTIVITY.

10. SEWER CONSTRUCTION SHALL NOT COMMENCE UNTIL (A) PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY (PCDEQ) HAS ISSUED A CERTIFICATE OF "CONSTRUCTION AUTHORIZATION" FOR THIS PROJECT AND (B) THE CONTRACTOR HAS OBTAINED A PUBLIC SEWER CONSTRUCTION PERMIT FROM PCRWRD (520-724-6369) (C) A PRE-CONSTRUCTION MEETING WITH THE ASSIGNED PIMA COUNTY PROJECT FIELD INSPECTOR IS SCHEDULED AT LEAST THREE (3) FULL WORKING DAYS PRIOR TO THE START OF SEWER CONSTRUCTION. FLOW MANAGEMENT PLANS SHALL BE SUBMITTED TO FIELD ENGINEERING THIRTY (30) DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING.

11. THE CONTRACTOR SHALL MAKE FULL PAYMENT OF THE INSPECTION FEES AND OBTAIN A PCRWRD SEWER CONSTRUCTION PERMIT FROM THE PIMA COUNTY SEWER CONSTRUCTION PERMIT SECTION A MINIMUM OF THREE (3) FULL BUSINESS DAYS PRIOR TO COMMENCING ANY SEWER CONSTRUCTION ACTIVITIES. FIVE (5) SETS OF THE CONSTRUCTION PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS (IF APPLICABLE) SHALL BE SUBMITTED WITH THE SANITARY SEWER CONSTRUCTION PERMIT APPLICATION. FIELD ENGINEERING REQUIRES A MINIMUM OF 3 BUSINESS DAYS NOTIFICATION, (520-740-2651). NO WORK SHALL BE PERFORMED IN ANY CASE WITHOUT A PCRWRD CONSTRUCTION PERMIT.

12. IMMEDIATELY REPORT ANY OF THE FOLLOWING TO EITHER PCRWRD FIELD ENGINEERING (520-740-2651) OR PCRWRD CONVEYANCE DIVISION (520-724-3500): ANY RELEASE OF SEWAGE, ANY DAMAGE TO THE PUBLIC SANITARY SEWAGE SYSTEM, OR THE DROPPING OF DEBRIS INTO THE PUBLIC SANITARY SEWAGE SYSTEM. ON WEEKENDS, HOLIDAYS, OR BETWEEN 5:00 P.M. AND 7:00 A.M., IMMEDIATELY CALL PCRWRD CENTRAL CONTROL ROOM AT 520-443-6048 AND REQUEST A PCRWRD REPRESENTATIVE TO BE DISPATCHED TO THE SITE. TAKE IMMEDIATE ACTION TO CONTAIN THE SANITARY SEWAGE OVERFLOW (SSO) FROM THE SEWER SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS TO REPAIR THE SYSTEM, FOR ALL EXPENSES TO MITIGATE THE RELEASE AND TO DISINFECT THE RELEASE AREAS AND FOR ANY REGULATORY PENALTIES LEVIED ON PCRWRD BECAUSE THE SSO ENTERED A NATURAL DRAINAGE WAY OR STORM WATER DRAINAGE SYSTEM. THE CONTRACTOR SHALL REPAIR ALL DAMAGE AS DIRECTED AND APPROVED BY PCRWRD

SEWER NOTES CONTINUED

13. THE INSPECTION OF THE CONTRACTOR'S WORK BY AN AGENCY AND/OR PCRWRD STAFF SHALL IN NO WAY RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, CONSTRUCTION PLANS AND/OR SPECIFICATIONS. IF THE ENGINEER OF RECORD OR PCRWRD STAFF FAIL TO POINT OUT A DEFECT, DEFICIENCY OR ERROR IN THE WORK FROM LACK OF DISCOVERY OR FOR ANY OTHER REASON, IT SHALL IN NO WAY PREVENT LATER REJECTION OR RELIEVE THE CONTRACTOR OF PERFORMING CORRECTIONS TO THE UNSATISFACTORY WORK WHEN DISCOVERED. THE CONTRACTOR SHALL NOT FILE A CLAIM FOR LOSSES SUFFERED DUE TO ANY NECESSARY REMOVALS OR REPAIRS RESULTING FROM THE UNSATISFACTORY WORK.

14. THE CONTRACTOR SHALL COMPLY WITH APPLICABLE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS AT ALL TIMES AND PCRWRD MANHOLE ENTRY GUIDELINES.

15. ALL ROUGH GRADING, INCLUDING FILL, SHALL BE COMPLETED PRIOR TO THE INSTALLATION OF SANITARY SEWERS TO A MINIMUM OF 4 FEET OVER THE TOP OF THE SEWER PIPE AND COMPACTION AS INDICATED ON THE PLANS OR AS OTHERWISE DIRECTED BY PCRWRD.

16. BEDDING, SHADING, AND TRENCH BACKFILL COMPACTION SHALL BE IN ACCORDANCE WITH SSDC DETAIL NO. RWRD-104, OR AS SHOWN ON THE PLANS. SHOULD GROUND WATER OR UNANTICIPATED SOIL CONDITIONS BE ENCOUNTERED, THE BEDDING SHALL BE MODIFIED BY THE ENGINEER OF RECORD AND APPROVED BY PCRWRD.

17. SANITARY SEWER CONSTRUCTION SHALL START AT THE LOWEST DOWNSTREAM POINT AND PROGRESS UPSTREAM, REGARDLESS OF THE STATIONING SHOWN ON THE PLANS. IF NOT, THE CONTRACTOR SHALL PROVIDE AN OUT OF SEQUENCE LETTER FOR APPROVAL BY PCRWRD.

18. THE HORIZONTAL AND VERTICAL SEPARATION BETWEEN PUBLIC WATER MAINS AND PUBLIC SEWER LINES SHALL COMPLY WITH A.A.C. R18-5-502 AND S.D. RWRD-108.

19. ACCORDING TO THE REVISED "BLUE STAKE LAW" (ARS 40-360.21 THROUGH 40-360.32), THIS PROJECT IS SUBJECT TO THE NEW SERVICE LATERAL DESIGN AND CONSTRUCTION REQUIREMENTS PER SUBSECTION 5.3.5 OF THE PCRWRD EDS 2012 AND SSDC 2012 S.D. RWRD-401 AND RWRD-404.

20. NEW PUBLIC SEWER FACILITIES MUST BE TESTED, INSPECTED AND AUTHORIZED FOR DISCHARGE BY PCRWRD AND ADEQ PRIOR TO DISCHARGING INTO THE EXISTING PUBLIC SANITARY SEWER.

21. AS-BUILT SEWER PLANS ARE REQUIRED FOR FINAL ACCEPTANCE OF SEWER CONSTRUCTION BY PCRWRD AND SHALL CONFORM TO SUBSECTION 1.4.7 OF THE PCRWRD SSDC 2012.
SUBMIT:
- ONE PDF DOCUMENT OF THE AS-BUILT PLAN ON CD (ADEQ).
- ONE SET OF 24"X36" AS-BUILT PLANS FOLDER TO AN 8.5"X11" SIZE (ADEQ).
- ONE ROLLED SET OF 24"X36" AS-BUILT PLANS (RWRD).

22. ONLY PLANS ACCEPTED BY PCRWRD SHALL BE USED FOR THE INSTALLATION OF SANITARY SEWER FACILITIES. PLANS ACCEPTED BY PCRWRD REQUIRING REVISION SHALL BE RESUBMITTED FOR REVIEW AND RE-ACCEPTANCE BY PCRWRD PRIOR TO START OF THE REVISED WORK.

23. SEWER CONSTRUCTION WILL NOT BE ACCEPTED BY PCRWRD IF IT INCLUDES ADDITIONAL WORK NOT PROVIDED IN THE APPROVED SET OF PLANS. SEE PCRWRD SSDC 2012, SUBSECTION 1.4.5 OF THE REGARDING THE APPROVAL OF FIELD CHANGES.

24. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SANITARY SEWER MANHOLE STRUCTURES AT ALL TIMES.

25. ALL LANDSCAPING LOCATED WITHIN TEN (10) FEET HORIZONTALLY OF THE PUBLIC SANITARY SEWER AND MANHOLES AND/OR WITHIN THE PUBLIC SEWER EASEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH THE PLANTING GUIDELINES CONTAINED WITHIN PCRWRD EDS 2012, SUBSECTION 7.7.

26. ALL STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEASURES SHALL BE INSTALLED SO AS TO PREVENT ALL STORM WATER, CONSTRUCTION WATER, FUELS, CHEMICALS, OR LIQUIDS TO BE DIRECTED INTO OR ONTO ANY SANITARY SEWER FACILITIES. PROTECTION OF SANITARY SEWER FACILITIES SHALL BE A PART OF THE APPROVED CONSTRUCTION SWPPP AND BEST MANAGEMENT PRACTICES. PROTECTION DEVICES SHALL BE INSTALLED AND MAINTAINED AROUND ALL POTENTIALLY AFFECTED SANITARY SEWER FACILITIES WITHIN THE PROJECT LIMITS. ADDITIONAL MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO THE USE OF RAIN STOPPERS AND MANHOLE COVERS AS DEEMED NECESSARY BY PCRWRD.

SEWER NOTES CONTINUED

27. ALL PROJECT ACTIVITIES MUST BE KEPT WITHIN THE PROJECT AREAS. A CAUTION MUST BE NOTED CONCERNING HUMAN BURIALS. ARCHAEOLOGICAL CLEARANCE RECOMMENDATIONS DO NOT EXEMPT THE DEVELOPMENT FROM COMPLIANCE WITH STATE BURIAL PROTECTION LAWS. IN THE EVENT THAT HUMAN REMAINS, INCLUDING HUMAN SKELETAL REMAINS, CREMATIONS, AND/OR CEREMONIAL OBJECTS AND FUNERARY OBJECTS ARE FOUND DURING EXCAVATION OR CONSTRUCTION, GROUND DISTURBING ACTIVITIES MUST CEASE IN THE IMMEDIATE VICINITY OF THE DISCOVERY. STATE LAWS ARS 41-865 AND ARS 41-844 REQUIRE THAT THE ARIZONA STATE MUSEUM BE NOTIFIED OF THE DISCOVERY AT 520-621-4795 SO THAT CULTURAL GROUPS WHO CLAIM CULTURAL OR RELIGIOUS AFFINITY TO THEM CAN MAKE APPROPRIATE ARRANGEMENTS FOR THE REPATRIATION AND REBURIAL OF THE REMAINS. THE HUMAN REMAINS WILL BE REMOVED FROM THE SITE BY A PROFESSIONAL ARCHAEOLOGIST PENDING CONSULTATION AND REVIEW BY THE ARIZONA STATE MUSEUM AND THE CONCERNED CULTURAL GROUPS.

28. SURVEY CUT SHEETS SHALL BE DEVELOPED IN ACCORDANCE WITH SUBSECTION 3.2.3(A)(i) OF THE PCRWRD SSDS 2012. CERTIFIED CUT SHEETS SHALL BE SUBMITTED TO THE PCRWRD FIELD ENGINEER PRIOR TO COMMENCEMENT OF SEWER CONSTRUCTION. THE CUT SHEETS ARE FOR THE PROJECT FILE AND COMMENCEMENT OF SEWER CONSTRUCTION WILL NOT BE DELAYED DUE TO REVIEW OF THE DELIVERABLE. ANY ERRORS OR EMISSIONS RESULTING IN IMPROPER SEWER CONSTRUCTION SHALL NOT BE THE RESPONSIBILITY OF PCRWRD. REFER TO SUBSECTION 3.2.3(A)(ii) FOR ALIGNMENT VERIFICATION REQUIREMENTS INCLUDING THE SPACING REQUIREMENTS FOR GRADE STAKES.

29. SURVEY LAYOUT AND SURVEY CONTROL SHALL BE PERFORMED BY, OR UNDER THE DIRECT SUPERVISION OF, A REGISTERED LAND SURVEYOR (RLS) REGISTERED IN THE STATE OF ARIZONA. PRIOR TO THE START OF SURVEY ACTIVITIES, THE INDIVIDUAL OR COMPANY RESPONSIBLE FOR SURVEY LAYOUT AND CONTROL SHALL CONTACT THE PIMA COUNTY DEPARTMENT OF TRANSPORTATION, SURVEY SECTION, DANIEL TREMBLAY, RLS, SURVEY MANGER, AT 520-740-2629 TO ARRANGE A MEETING TO REVIEW SURVEY CONTROL, (HORIZONTAL AND VERTICAL), TO BE UTILIZED ON THE PROJECT.

30. FOR FLOW MANAGEMENT PLAN REQUIREMENTS SEE THE PCRWRD SSDS 2012, SECTION 2. CALL REGIONAL WASTEWATER FIELD ENGINEERING AT 520-740-2651 REGARDING ALL QUESTIONS INVOLVING THE PREPARATION OF FLOW MANAGEMENT PLANS. PCRWRD SSDC 2012, SUBSECTION 2.2.1 APPLIES TO ANY PROJECT THAT REQUIRES TRENCHING WITHIN SIX (6) FEET HORIZONTALLY AND / OR TWO (2) FEET VERTICALLY OF AN EXISTING PUBLIC SEWER LINE. PRECEDING ANY WORK THAT MAY AFFECT A LIVE SEWER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO: (A) IDENTIFY AND INCLUDE ALL FLOW MANAGEMENT COSTS IN THE CONSTRUCTION BID AND (B) PROVIDE A FLOW MANAGEMENT PLAN THIRTY (30) DAYS PRIOR TO A PRE-CONSTRUCTION MEETING.

31. FOR PROJECTS REQUIRING A FLOW MANAGEMENT PLAN, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO (A) IDENTIFY AND INCLUDE ALL FLOW MANAGEMENT COSTS IN THE SEWER CONSTRUCTION BID SUBMITTED WITH THE PUBLIC SEWER PERMIT APPLICATION, AND (B) PROVIDE A FLOW MANAGEMENT PLAN (FMP) AT LEAST THIRTY (30) DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING WITH PCRWRD FIELD ENGINEERING PRIOR TO BEGINNING SEWER CONSTRUCTION. FIELD ENGINEER WILL REVIEW THE FMP WITHIN 10 BUSINESS DAYS TO ACCOMMODATE REVIEW AND REVISION CYCLES. REFER TO SECTION 2 OF THE PCRWRD SSDC 2012. FOR ANY QUESTIONS REGARDING FLOW MANAGEMENT, PLEASE CONTACT PCRWRD FIELD ENGINEERING AT 520-740-2651.

32. THE CONTRACTOR SHALL FURNISH, OPERATE AND MAINTAIN ALL EQUIPMENT AND LABOR NECESSARY TO PROVIDE CONTINUOUS 24 HR/DAY SANITARY SEWER SERVICE TO ALL PARTIES TRIBUTARY TO A LIVE SANITARY SEWER TO WHICH A CONNECTION IS TO BE MADE. THE PCRWRD CONVEYANCE SECTION SHALL BE NOTIFIED AT (520-724-3500) A MINIMUM OF TWO (2) BUSINESS DAYS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES THAT COULD EITHER ADVERSELY IMPACT THE FLOW WITHIN A LIVE SANITARY SEWER SYSTEM, OR INVOLVE CONNECTION TO ANY PUBLIC SANITARY SEWER. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 2 OF THE PCRWRD SSDC 2012.

33. THE WORDS "PIMA COUNTY SANITARY SEWER" SHALL BE IMPRINTED ONLY ON COVERS OF MANHOLES WHICH ARE TO BE PART OF THE PIMA COUNTY REGIONAL WASTEWATER RECLAMATION (PUBLIC) SANITARY SEWER CONVEYANCE SYSTEM. SEWER MANHOLE COVERS ON CONVEYANCE SYSTEMS TO BE OWNED AND OPERATED BY ANYONE OTHER THAN PIMA COUNTY SHALL HAVE CAST INTO THEM THE WORDS "PRIVATE SEWER.

34. IT IS THE SEWER CONTRACTOR'S RESPONSIBILITY TO ADJUST OR RECONSTRUCT ALL SANITARY SEWER MANHOLES TO FINISHED GRADE. ALL FRAMES AND COVER ADJUSTMENTS ARE TO BE IN ACCORDANCE WITH THE PCRWRD SSDC 2012, DETAIL RWRD 211, 212, 304 OR 305 (AS APPLICABLE) AND DETAIL RWRD 306. WHILE ADJUSTING THE MANHOLE TO FINISHED GRADE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT FRAMES AND COVERS ARE CLEANED OF ANY AND ALL ATTACHED MATERIALS (ASPHALT, CONCRETE, ETC.) AND THAT ANY VENT HOLES ARE OPEN AND CLEAR OF OBSTRUCTIONS. IF THE FRAME AND COVER ARE DAMAGED OR CANNOT BE COMPLETELY CLEANED, A NEW FRAME AND COVER ARE TO BE PUT INTO PLACE. COSTS ASSOCIATED WITH THESE ACTIONS ARE THE RESPONSIBILITY OF THE CONTRACTOR. REFER TO PCRWRD SSDC 2012, DETAIL RWRD 213 – 218 FOR FRAME AND COVER REQUIREMENTS.

SEWER NOTES CONTINUED

35. EXISTING PRESSURE SEWERS AND ABANDONED GRAVITY SEWER MAIN LOCATIONS WILL BE IDENTIFIED AND MARKED PER PCRWRD SSDC 2012, DETAIL RWRD 503.

36. THE CONTRACTOR SHALL SUPPLY A CERTIFICATION(S) FROM THE PIPE MANUFACTURER/LINER THAT STATES THAT THE PIPE AND THE LINING MEET THE CURRENT STANDARDS AND SPECIFICATIONS OF THE PIMA COUNTY WASTEWATER MANAGEMENT DEPARTMENT. THIS CERTIFICATION SHALL THEN GO ON TO STATE SPECIFICALLY THE FOLLOWING THINGS:

- ALL DUCTILE IRON PIPE AND FITTINGS HAVE A SP-2000W, A POLYETHYLENE (PE), A COMBINATION OF POLYETHYLENE (PE) AND FUSION BONDED EPOXY (FBE) OR APPROVED EQUAL INTERIOR LINING OF 40 MILS (35 MILS MINIMUM) IN THE BARREL AREA, 10 MILS MINIMUM IN THE BELL AREA AND 10 MILS MINIMUM ON THE EXTERIOR OF THE SPIGOT END.
- EACH PIECE OF PIPE AND EACH FITTING HAVE BEEN CHECKED FOR HOLIDAYS UTILIZING A TESTING VOLTAGE OF 7500 VOLTS WITH A DRY CONDUCTIVE PROBE IN THE BARREL AREA AND A TESTING VOLTAGE OF 67 ½ VOLTS WITH A WET SPONGE IN BOTH THE BELL AREA AND THE EXTERIOR OF THE SPIGOT END AND THERE ARE NONE.
- THE SP-2000W, PE OR PE/FBE LINING EXTENDS FROM THE BOTTOM OF THE GASKET SOCKET IN THE BELL TO A POINT ON THE EXTERIOR OF THE SPIGOT END OF THE PIPE WHERE THE NEXT PIPE GASKET WOULD OVERLAP THE LINING.
- ALL SP-2000W, PE OR PE/FBE USED MEETS THE CURRENT SPECIFICATIONS SET BY PIMA COUNTY WASTEWATER MANAGEMENT FOR THIS MATERIAL.
- THE MAXIMUM DRY FILM THICKNESS IN THE GASKET SEAT AREA AND ON THE EXTERIOR OF THE SPIGOT END IS 15 MILS.

37. IF THE CONTRACTOR MAKES A FIELD CUT OF SP-2000W, PE OR PE/FBE LINED PIPE, HE SHALL PROPERLY PREPARE THE SURFACE OF THE PIPE TO RECEIVE A PROTECTIVE COATING OVER THE END OF THE PIPE WHICH SHALL CONSIST OF SP-2000W OR APPROVED EQUAL. THE INTERIOR SURFACE THAT IS BEING OVERLAPPED SHALL BE ROUGHED UP TO PRODUCE A 3 TO 5 MIL PROFILE OVER IT AND CLEANED IN ACCORDANCE WITH THE COATING MANUFACTURER'S INSTRUCTIONS. THE EXTERIOR SURFACE SHALL BE SANDED AND CLEANED IN ACCORDANCE WITH THE COATING MANUFACTURER'S INSTRUCTIONS. THE END RESULT OF THIS PROCESS IS TO SECURE PROPER ADHESION FOR THE NEW SP-2000W OR APPROVED EQUAL COATING. THE COATING SHALL THEN BE APPLIED AND ALLOWED TO PROPERLY DRY BEFORE PIPE ASSEMBLY. IN ALL CASES, AS A MINIMUM, A 10 MIL COATING OF SP-2000W OR APPROVED EQUAL SHALL BE APPLIED TO THE PIPE END AND SHALL OVERLAP THE ORIGINAL SP-2000W, PE OR PE/FBE LINING BY A MINIMUM OF FOUR INCHES AND EXTEND AROUND THE END OF THE PIPE AND ALONG THE OUTSIDE OF THE PIPE A MINIMUM OF TEN INCHES. THE MAXIMUM DRY FILM THICKNESS IN THE GASKET SEAT AREA AND ON THE EXTERIOR OF THE SPIGOT END IS 15 MILS. THE SP-2000W, PE, PE/FBE OR APPROVED EQUAL USED SHALL MEET THE CURRENT SPECIFICATIONS OF PIMA COUNTY WASTEWATER MANAGEMENT.

38. THE FOLLOWING INFORMATION AS A MINIMUM WILL BE SHOWN ON THE EXTERIOR OF EACH PIECE OF DUCTILE IRON PIPE:

- NAME OF LINING APPLICATOR
- NAME OF LINING
- THICKNESS OF LINING
- DATE OF LINING APPLICATION
- CLASS OF DUCTILE IRON PIPE
- NAME OF DUCTILE IRON PIPE MANUFACTURER
- DATE OF DUCTILE IRON PIPE MANUFACTURE

39. ALL DUCTILE IRON PIPE THAT IS SUPPLIED SHALL NOT HAVE ANY EXTERIOR COATING UNLESS CALLED FOR ON THE CONSTRUCTION PLANS, THE CONSTRUCTION SPECIFICATIONS OR AS CALLED FOR IN THE NOTES LISTED ABOVE (SUCH AS ON THE EXTERIOR 10 INCHES OF THE SPIGOT END OF THE PIPE).

Two working days before you dig, CALL FOR THE BLUE STAKES
1-800-STAKEIT OR 1-800-782-5348

REF #: DLU14-007 REV#1
G-2015-002

GRENIER ENGINEERING, INC.
Structural & Civil Engineering Consultants
5524 East 4th Street, Tucson, Arizona 85711
Phone: 520.326.7082 – Fax: 520.326.7508

37307 RICHARD G. MACIAS
ARIZONA U.S.A.

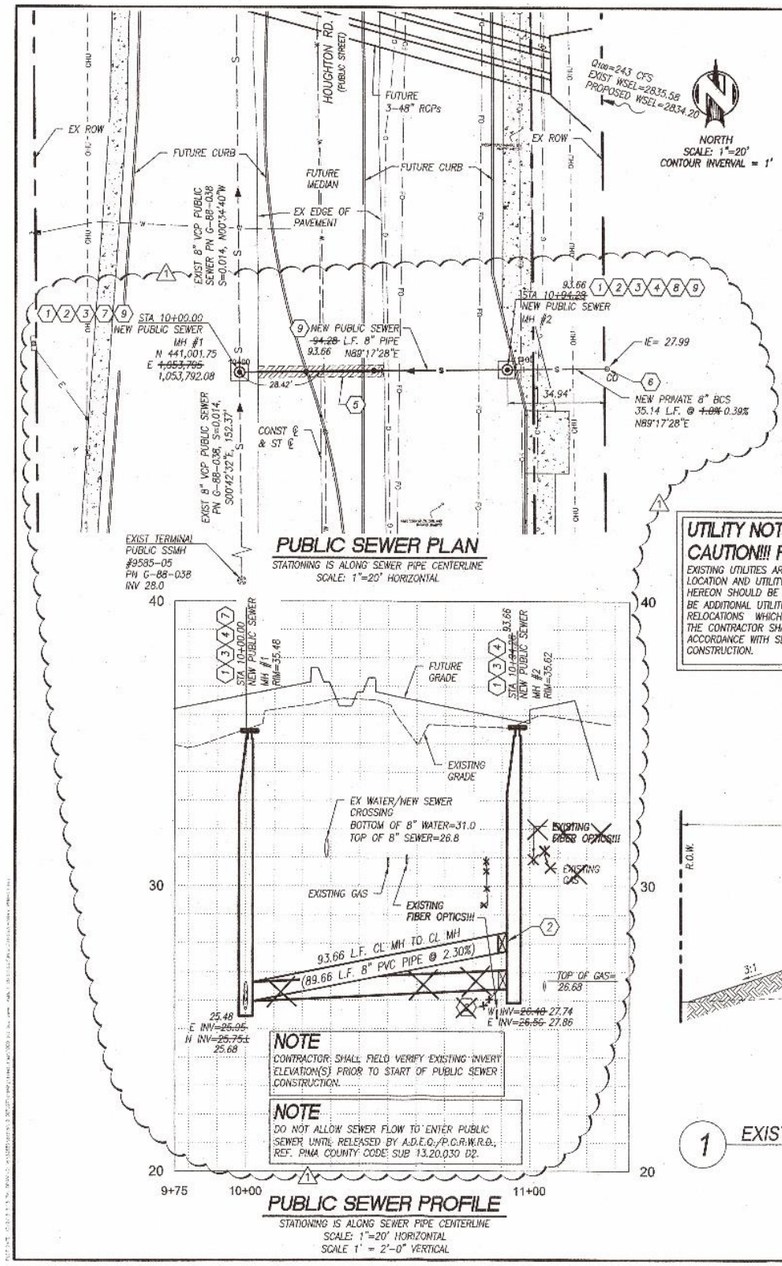
SEWER ASBUILT – 10/02/15

SEWER NOTES

PUBLIC SEWER IMPROVEMENT PLAN FOR 22ND STREET BAPTIST CHURCH
A PORTION OF SECTION 13, T14S, R15E, G&SRM, PIMA COUNTY, ARIZONA

Job Number:	014032
Designed By:	RW
Drawn By:	AR/RW
Checked By:	RW
Date:	01-21-15
Scale V: N/A	H: AS NOTED
Sheet Number:	2
Sheet:	2 of 3

G-2015-002



NOTE

CONTRACTOR SHALL FIELD VERIFY EXISTING INVERT ELEVATION(S) PRIOR TO START OF PUBLIC SEWER CONSTRUCTION.

NOTE

DO NOT ALLOW SEWER FLOW TO ENTER PUBLIC SEWER UNTIL RELEASED BY A.D.E.Q./P.C.R.W.R.D., REF. PIMA COUNTY CODE SUB 13.20.030 D2.

TDOT BACKFILL NOTES

1. FOR WORK WITHIN THE CITY RIGHT-OF-WAY:

A. THE CONTRACTOR MUST OBTAIN AN EXCAVATION PERMIT AND BARRICADING PERMITS FROM THE CITY OF TUCSON TRANSPORTATION ENGINEERING DIVISION PRIOR TO ANY WORK IN THE CITY PUBLIC RIGHT-OF-WAYS.

B. THE CONTRACTOR MUST MEET WITH THE CITY'S RIGHT-OF-WAY INSPECTOR PRIOR TO ANY WORK IN THE PUBLIC RIGHT-OF-WAY.

C. ALL BACKFILL, WITHIN THE CITY OF TUCSON RIGHT-OF-WAY, ABOVE THE UTILITY SHADING SHALL BE CONDUCTED IN ACCORDANCE TO THE CITY OF TUCSON TRANSPORTATION STANDARD DETAILS, SPECIFICATIONS, AND AS DIRECTED BY THE CITY OF TUCSON RIGHT-OF-WAY INSPECTOR AND CITY ENGINEER.

D. ALL PAVEMENT PATCHING, WITHIN THE CITY OF TUCSON RIGHT-OF-WAY, SHALL BE CONDUCTED IN ACCORDANCE TO THE CITY OF TUCSON TRANSPORTATION STANDARD DETAILS, SPECIFICATIONS, AND AS DIRECTED BY THE CITY OF TUCSON RIGHT-OF-WAY INSPECTOR AND CITY ENGINEER.

E. IN ACCORDANCE TO THE CITY OF TUCSON STANDARDS, PERMANENT PAVEMENT PATCHING SHALL BE WARRANTIED FOR 5-YEARS, PAVEMENT PATCH'S FAILING WITHIN THIS PERIOD SHALL BE REPAIRED/REPLACED AT NO COST TO THE CITY OF TUCSON.

UTILITY NOTE:
CAUTION!!! FIBER OPTICS AND GAS

EXISTING UTILITIES ARE SHOWN BASED ON ABOVE GROUND LOCATION AND UTILITY BASE MAPS. THE LOCATIONS SHOWN HEREON SHOULD BE CONSIDERED APPROXIMATE. THERE MAY BE ADDITIONAL UTILITIES PRESENT AND/OR RECENT UTILITY RELOCATIONS WHICH ARE NOT SHOWN ON UTILITY BASE MAPS. THE CONTRACTOR SHALL FIELD LOCATE EXISTING UTILITIES IN ACCORDANCE WITH SEWER NOTE No. 4 PRIOR TO CONSTRUCTION.

SEWER ASBUILT
10/02/15

KEYNOTES

1. NEW 4' DIAMETER PUBLIC SEWER MANHOLE PER STANDARD DETAIL RWRD 205.
2. INSTALL TEMPORARY PLUG AND SECURE WITH A CHAIN TO A MANHOLE STEP. PLUG TO INCLUDE CONTRACTOR'S COMPANYS NAME. PLUG TO BE REMOVED AFTER ADEQ APPROVAL OF CONSTRUCTION AND POST-PAVING INSPECTION.
3. INSTALL CONCRETE COLLAR AROUND MANHOLE PER STANDARD DETAIL RWRD 212.
4. INSTALL BLOCK-OUT TO THE EAST PER STANDARD DETAIL RWRD 203
5. REMOVE AND REPLACE PAVEMENT PER PC/COT STANDARD DETAIL 216
6. NEW 8" PRIVATE HCS PER STANDARD DETAIL RWRD 401.
7. CONSTRUCT NEW MANHOLE OVER EXISTING SEWER PER RWRD SD 303.
8. INSTALL WATERTIGHT FRAME AND COVER PER RWRD SD 214.
9. IF CONSTRUCTION BEGINS BEFORE THE HOUGHTON RD IMPROVEMENTS (I-2013-006), CONTRACTOR SHALL INSTALL A STABILIZED SURFACE TREATMENT FOR THE PUBLIC SEWER PORTION PER RWRD SD 109 & 111.

FLOW MANAGEMENT DATA

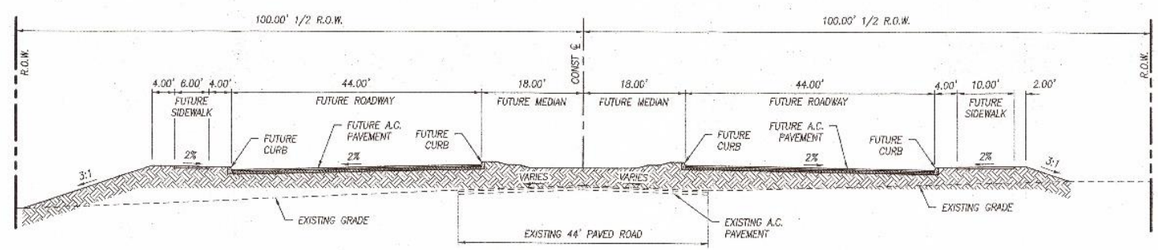
CONTRACTOR TO PROVIDE A WASTEWATER FLOW MANAGEMENT PLAN PER WASTEWATER FLOW MANAGEMENT PLAN GUIDELINES SSDC 2012 SECTION 2.

BCS AS-BUILT INFORMATION

STATE PLANE COORDINATES (AZ CENTRAL) NAD 83 INTERNATIONAL FEET AT CLEANOUT			DISTANCE TO DOWNSTREAM MANHOLE ℄
CLEANOUT #	NORTHING	EASTING	
1	441,003.36	1,053,921.49	35.14

MANHOLE AS-BUILT INFORMATION

MH No.	STATE PLANE COORDINATES (AZ CENTRAL) NAD 83 INTERNATIONAL FEET	
	NORTHING	EASTING
1	441,001.75	1,053,792.08
2	441,002.92	1,053,886.35



1 EXISTING ROW SECTION

N.T.S.

CALL FOR THE BLUE STAKES
1-800-STAKEIT OR
1-800-782-5348
Five Working Days before you dig

REF #: DLU14-007 REV#1
G-2015-002

GRENIER ENGINEERING, INC.
Structural & Civil Engineering Consultants
5524 East 4th Street, Tucson, Arizona 85711
Phone: 520.326.7092 – Fax: 520.326.7908

37307
RICHARD G. MACIAS
ARIZONA U.S.A.
Expires 12/31/2017

Revisions	
1	SEWER ASBUILT – 10/02/15

G-2015-002

PUBLIC SEWER PLAN AND PROFILE

PUBLIC SEWER IMPROVEMENT PLAN FOR
22ND STREET BAPTIST CHURCH
A PORTION OF SECTION 13, T14S, R15E,
GASRM, PIMA COUNTY, ARIZONA

Job Number:	014032
Designed by:	RM
Work by:	AR/RM
Drawing by:	RM
Date:	01-21-15
Scale: V: N/A	H: 1"=20'

Sheet Number: 3

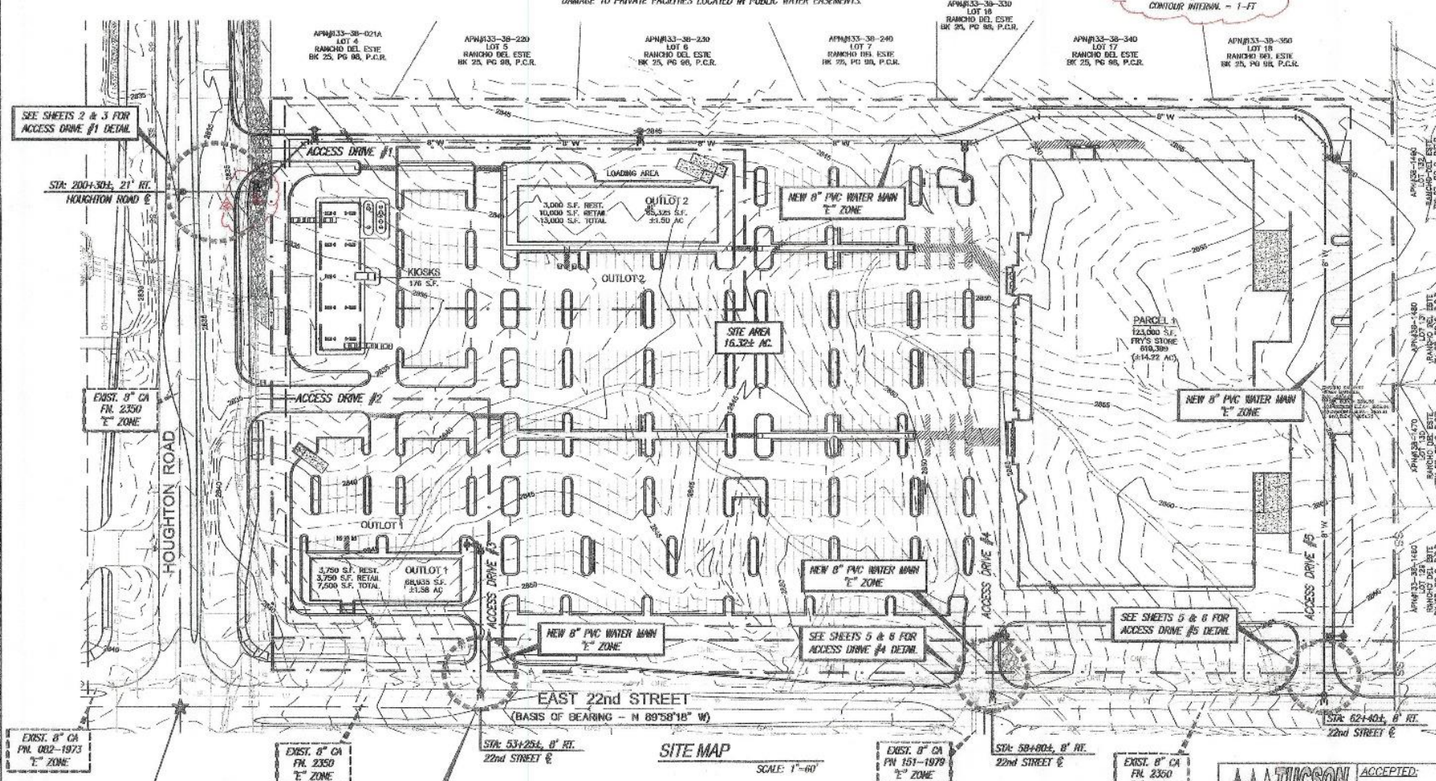
Sheet 3 of 3

Appendix C: Water Master Plan

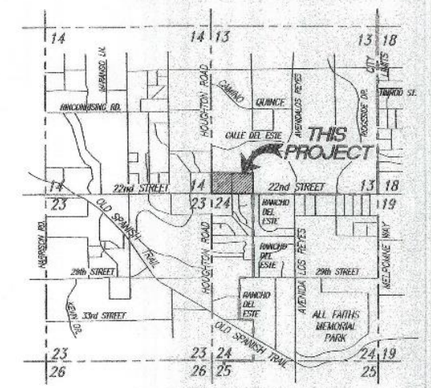
WATER NOTES:

1. TUCSON WATER STANDARD DETAIL No. 105, "GENERAL CONTRACT NOTES," SHALL APPLY TO AND BECOME AN INTEGRAL PART OF THIS CONTRACT. ALL DESIGN STANDARDS, MATERIALS, AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH TUCSON WATER STANDARD SPECIFICATIONS AND DETAILS, AND DETAILS, 2001 EDITION AND ENGINEERING DIRECTIVES AND POLICIES.
2. CONSTRUCTION WATER FOR PRESSURE TESTING, CHLORINATING AND FLUSHING SHALL BE PROVIDED THROUGH THE EXISTING WATER SYSTEM AND SHALL COST $_____, PLUS TAX. CONSTRUCTION WATER FOR TRENCH BACKFILL AND COMPACTION AND OTHER CONSTRUCTION NEEDS SHALL BE THROUGH AN APPROVED METERED WATER SOURCE OBTAINED FROM TUCSON WATER CUSTOMER SERVICE DIVISION UNDER A SEPARATE PERMIT/AGREEMENT.
3. THIS WATER SYSTEM IS DESIGNED TO ACCOMMODATE 2,800 GPM FIRE FLOW FOR 2 HOURS. FRO 3-10-15
4. AT THE TIME OF PLAN APPROVAL, THIS DEVELOPMENT IS LOCATED WITHIN "E" ZONE. MINIMUM DESIGN PRESSURES FOR THIS DEVELOPMENT ARE AS FOLLOWS:
   1. STATIC PRESSURE: 58 psi
   2. PEAK DAY PRESSURE: 55 psi
   3. PEAK DAY + FIRE FLOW: 32 psi

   DUE TO WATER SYSTEM OPERATIONAL VARIANCES PRESSURE WILL VARY AS MUCH AS 10 psi +/-.
5. 2,272 L.F. OF NEW PIPELINE (EXCLUDING WATER SERVICE LINE 2" AND LESS IN DIAMETER) WILL BE INSTALLED PER THIS PROJECT. A PIPELINE INSPECTION FEE OF $7.00 PER LINEAR FOOT OF PIPELINE INSTALLED WILL BE ASSESSED PRIOR TO ISSUANCE OF "NOTICE TO PROCEED".
6. EFFECTIVE AUGUST 11, 2003 PAYMENT OF THE WATER SYSTEM EQUITY FEE IS REQUIRED AT THE TIME OF WATER METER APPLICATION, PER ORDINANCE No. 9947, AMENDMENT TO THE TUCSON CODE, SECTION 27-36.
7. EFFECTIVE MONDAY, JULY 9, 2007, THE CAP WATER RESOURCE FEE SHALL BE ASSESSED IN ADDITION TO THE SYSTEM EQUITY FEE FOR ALL NEW POTABLE WATER METER CONNECTIONS.
8. AFTER JANUARY 4, 2014, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPE, FITTINGS, APPURTENANCES OR ANY OTHER MATERIALS TO BE IN CONTACT WITH POTABLE WATER IN ACCORDANCE WITH THE LEAD-FREE REQUIREMENTS DEFINED BY THE "REDUCTION OF LEAD IN DRINKING WATER ACT OF 2011" AMENDING SECTION 1417 OF THE SAFE DRINKING WATER ACT.
9. THIS PROJECT WILL BE REQUIRED TO USE AUTOMATIC METER READING (AMR) EQUIPMENT. THE DEVELOPER WILL BE HELD RESPONSIBLE FOR THE CARE AND CONDITION OF THE AMR METER, TRANSMITTER AND METER BOX. THE ADDITIONAL COST OF THE AMR EQUIPMENT WILL BE DETERMINED AT THE TIME OF METER APPLICATION IN ACCORDANCE WITH CHAPTER 27, SECTION 35 OF THE CITY OF TUCSON CODE.
10. THE RESPONSIBLE PARTY FOR FIRE SERVICE BILLING IS THE OWNER/DEVELOPER AS CALLED OUT ON THE PLAN.
11. NEW WATER MAIN SHALL BE INSTALLED WITH 44" OF MINIMUM COVER PER S.D. 105, UNLESS OTHERWISE INDICATED ON THESE PLANS.
12. ALL FITTINGS SHALL BE RESTRAINED PER TUCSON WATER STANDARD DETAIL 600, UNLESS RESULTS OF APPROVED ENGINEERING CALCULATIONS ARE PROVIDED. FOR PIPE 16" AND GREATER IN DIAMETER APPROVED ENGINEERING CALCULATIONS MUST BE DOCUMENTED IN THIS PLAN.
13. THE OWNER SHALL IDENTIFY TUCSON WATER (CITY OF TUCSON) AGAINST ANY AND ALL DAMAGE TO PRIVATE FACILITIES LOCATED IN PUBLIC WATER EASEMENTS.



SITE MAP
SCALE: 1"=60'



LOCATION MAP
LOCATED IN SECTION 13, T14S, R15E, GASRM, PIMA COUNTY, ARIZONA
WARD 2
LAT: 32.2°, LONG: -110.7°
SOURCE: PIMA COUNTY MAPGUIDE
3"=1 mile

LEGEND

EXISTING		NEW
	BOUNDARY LINE	
8" W	WATER LINE	8" W
W	WATER VALVE	
	WATER DRAIN VALVE	
	WATER LINE REDUCER	
	FIRE HYDRANT	
	SEWER M.H. & MAIN	
	SITE LIMITS	

OWNER/DEVELOPER
BRENTWOOD DEVELOPEMENTS
5800 STANFORD RANCH ROAD, STE. 210
ROCLIN, CA 95765
ATTN: BRAD GRIFFITH
PHONE: (916) 759-4265
FAX: (916) 435-4181

CIVIL ENGINEER
STANTEC CONSULTING SERVICES INC.
5151 E. BROADWAY BLVD., STE. 400
TUCSON, AZ 85711
ATTN: WARREN D. THOMPSON, P.E.
PHONE: (520) 750-7474
FAX #: (520) 750-7470

BASIS OF BEARINGS
THE BASIS OF BEARING FOR THIS SITE IS THE SOUTH LINE OF THE SW 1/4 OF SECTION 13, T14S, R15E AS SHOWN ON THE SUBDIVISION PLAT OF "RANCHO DEL ESTE", BK. 27 OF M&P AT PG 2.
SAID BEARING = N 89°58'18" W

☆ BASIS OF ELEVATION/BENCH MARK
THE BASIS OF ELEVATION FOR THIS SITE IS A 2" BRASS CAP IN HANDHOLE LOCATED AT THE SOUTHWEST CORNING OF SECTION 13, T14S, R15E, BEING THE CENTERLINE INTERSECTION OF SOUTH HOUGHTON ROAD AND 22ND STREET.

SAID ELEVATION= 2841.45 (NAVD 88 DATUM)

Stantec Consulting Services Inc.
5151 E. Broadway Blvd., Ste. 400
Tucson, AZ
85711-3712
Tel. 520.750.7474
Fax. 520.750.7470
www.stantec.com
Stantec Job# 161307067-201.159

Stantec

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This notice was issued via the ARIZ. ONE CALL SYSTEM 1-800-782-5348 BLUE STAKE CENTER

NO.	BY	DATE	REVISION	APPD.	DATE
3	WDT	10/2/15	Grade Changes for fdt holes for Hors/Vert 8" to 12" stub @ Access Dr. & sta. stub @ A & E. Change Hyd. Placement Houghton Rd. Sht. 1, 2 & 3 Change Pipe Material from PCW to DIPet Dr. 3, 4 & 5, Sht. 6	DBM	10/5/15
2	WDT	5/11/15		DBM	5/13/15
1	WDT	5/15/15		DBM	5/18/15

TUCSON WATER

ACCEPTED:

CITY OF TUCSON FIRE DEPARTMENT — DATE: 3-10-15

ACCEPTED BY THE CITY OF TUCSON WATER DEPARTMENT, NEW DEVELOPMENT UNIT, FOR SUBSTANTIAL CONFORMANCE WITH STANDARD SPECIFICATIONS AND DETAILS — DATE:

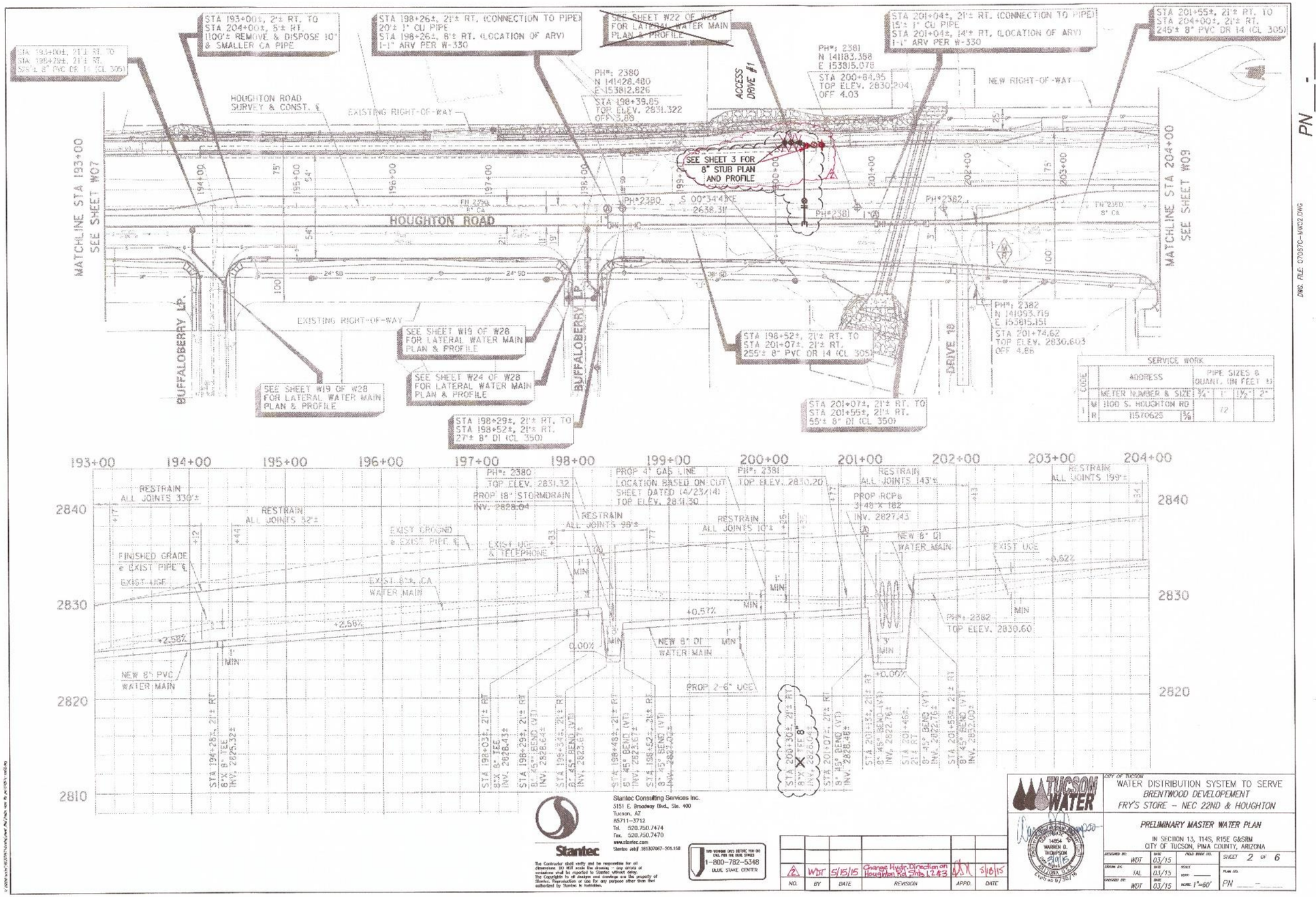
CITY OF TUCSON
WATER DISTRIBUTION SYSTEM TO SERVE
BRENTWOOD DEVELOPEMENT
FRY'S STORE – NEC 22ND & HOUGHTON

PRELIMINARY MASTER WATER PLAN
IN SECTION 13, T14S, R15E GASRM
CITY OF TUCSON, PIMA COUNTY, ARIZONA

DESIGNED BY: WDT	DATE: 03/15	FIELD BOOK NO.	SHEET 1 OF 6
DRAWN BY: TAL	DATE: 03/15	SCALE: HORIZ. ____ VERT. ____	PLAN NO.
CHECKED BY: WDT	DATE: 03/15	HORIZ. 1"=60'	PN ___-___

PN ___-___

DWG. FILE: 070670-CIVR01.DWG


STA 193+00±, 2'± RT. TO STA 204+00±, 5'± RT. 1100'± REMOVE & DISPOSE 10" & SMALLER CA PIPE
STA 198+26±, 21'± RT. (CONNECTION TO PIPE) 20'± 1" CU PIPE STA 198+26±, 8'± RT. (LOCATION OF ARV) 1-1" ARV PER W-330
SEE SHEET W22 OF W28 FOR LATERAL WATER MAIN PLAN & PROFILE
STA 201+04±, 21'± RT. (CONNECTION TO PIPE) 15'± 1" CU PIPE STA 201+04±, 14'± RT. (LOCATION OF ARV) 1-1" ARV PER W-330
STA 201+55±, 21'± RT. TO STA 204+00±, 21'± RT. 245'± 8" PVC DR 14 (CL 305)
HOUGHTON ROAD SURVEY & CONST. ℄
EXISTING RIGHT-OF-WAY
PH#: 2380 N 141428.480 E 153812.826
STA 198+39.85 TOP ELEV. 2831.322 OFF 3.89
ACCESS DRIVE #1
PH#: 2381 N 141183.368 E 153815.078
STA 200+84.95 TOP ELEV. 2830.204 OFF 4.03
NEW RIGHT-OF-WAY
SEE SHEET 3 FOR 8" STUB PLAN AND PROFILE
MATCHLINE STA 193+00 SEE SHEET W07
MATCHLINE STA 204+00 SEE SHEET W09
HOUGHTON ROAD
S 00°34'43"E 2638.31'
PH#:2380
PH#:2381
PH#:2382
BUFFALOBERRY LP.
EXISTING RIGHT-OF-WAY
SEE SHEET W19 OF W28 FOR LATERAL WATER MAIN PLAN & PROFILE
SEE SHEET W24 OF W28 FOR LATERAL WATER MAIN PLAN & PROFILE
SEE SHEET W19 OF W28 FOR LATERAL WATER MAIN PLAN & PROFILE
STA 198+29±, 21'± RT. TO STA 198+52±, 21'± RT. 27'± 8" DI (CL 350)
STA 198+52±, 21'± RT. TO STA 201+07±, 21'± RT. 255'± 8" PVC DR 14 (CL 305)
STA 201+07±, 21'± RT. TO STA 201+55±, 21'± RT. 55'± 8" DI (CL 350)
DRIVE #2
PH#: 2382 N 141093.719 E 153815.151
STA 201+74.62 TOP ELEV. 2830.603 OFF 4.86
SERVICE WORK
ADDRESS
PIPE SIZES & QUANT. (IN FEET ±)
METER NUMBER & SIZE
1100 S. HOUGHTON RD
11570625
193+00 194+00 195+00 196+00 197+00 198+00 199+00 200+00 201+00 202+00 203+00 204+00
2840 2830 2820 2810
RESTRAIN ALL JOINTS 330'±
RESTRAIN ALL JOINTS 32'±
PH#: 2380 TOP ELEV. 2831.32
PROP 18" STORMDRAIN INV. 2828.04
RESTRAIN ALL JOINTS 98'±
PROP 4" GAS LINE LOCATION BASED ON CUT SHEET DATED (4/23/14) TOP ELEV. 2831.30
PH#: 2381 TOP ELEV. 2830.20
RESTRAIN ALL JOINTS 10'±
RESTRAIN ALL JOINTS 143'±
PROP RCPs 3-48" X 182' INV. 2827.43
RESTRAIN ALL JOINTS 199'±
NEW 8" DI WATER MAIN
EXIST UGE
FINISHED GRADE @ EXIST PIPE ℄
EXIST UGE
EXIST GROUND @ EXIST PIPE ℄
EXIST UGE & TELEPHONE
EXIST. 8"X CA WATER MAIN
+2.58%
+0.57%
0.00%
+0.62%
+0.00%
NEW 8" DI WATER MAIN
PROP 2-6" UGE
PH#: 2382 TOP ELEV. 2830.60
NEW 8" PVC WATER MAIN
1' MIN
3' MIN
STA 194+25±, 21'± RT 8"X 8" TEE INV. 2825.32±
STA 198+03±, 21'± RT 8"X 8" TEE INV. 2826.43±
STA 198+29±, 21'± RT 8"-45° BEND (VT) INV. 2826.64±
STA 199+34±, 21'± RT 8"-45° BEND (VT) INV. 2827.67±
STA 199+48±, 21'± RT 8"-45° BEND (VT) INV. 2827.94±
STA 196+52±, 21'± RT 8"-45° BEND (VT) INV. 2827.42±
STA 206+30±, 21'± RT 8"X 8" TEE
STA 201+07±, 21'± RT 8"-45° BEND (VT) INV. 2828.48±
STA 201+13±, 21'± RT 8"-45° BEND (VT) INV. 2828.76±
STA 201+46±, 21'± RT 8"-45° BEND (VT) INV. 2828.76±
STA 201+55±, 21'± RT 8"-45° BEND (VT) INV. 2829.02±
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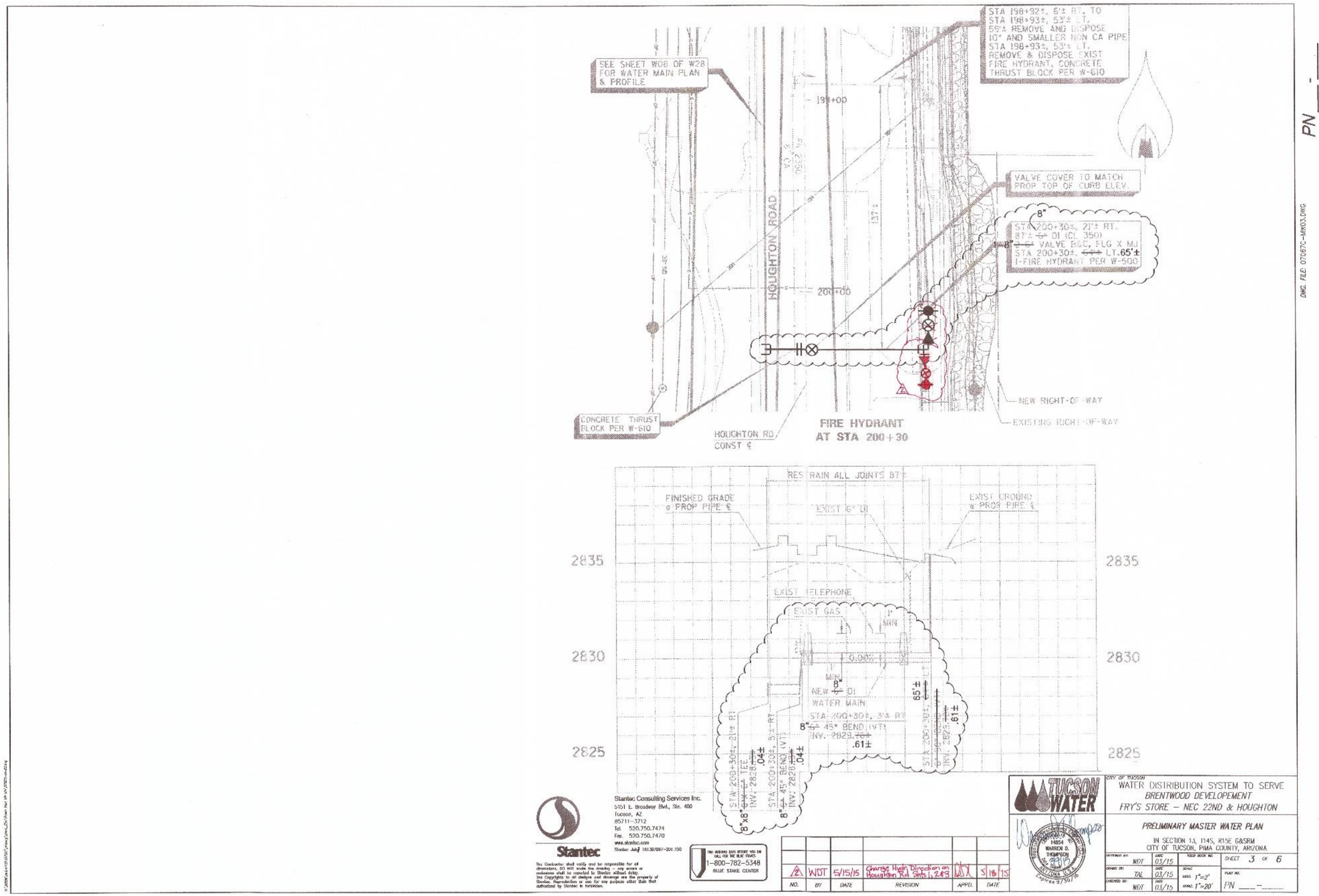
1-800-782-5348 BLUE STAKE CENTER
NO. BY DATE REVISION APPD. DATE
2 WDT 5/15/15 Change Hydr. Direction on Houghton Rd. Sht. 1 & 3 5/16/15
TUCSON WATER
CITY OF TUCSON
WATER DISTRIBUTION SYSTEM TO SERVE BRENTWOOD DEVELOPEMENT FRY'S STORE - NEC 22ND & HOUGHTON
PRELIMINARY MASTER WATER PLAN
IN SECTION 13, T14S, R15E G&SRM CITY OF TUCSON, PIMA COUNTY, ARIZONA
DESIGNED BY: WDT DATE 03/15
DRAWN BY: TAL DATE 03/15
ENGINEER BY: WDT DATE 03/15
SCALE: 1"=60'
SHEET 2 OF 6
PN


STA 198+92±, 6'± RT. TO
STA 198+93±, 53'± LT.
59'± REMOVE AND DISPOSE
10" AND SMALLER NON CA PIPE
STA 198+93±, 53'± LT.
REMOVE & DISPOSE EXIST
FIRE HYDRANT, CONCRETE
THRUST BLOCK PER W-610
SEE SHEET W08 OF W28
FOR WATER MAIN PLAN
& PROFILE
198+00
HOUGHTON ROAD
137±
200+00
VALVE COVER TO MATCH
PROP TOP OF CURB ELEV.
8"
STA 200+30±, 21'± RT.
87'± 6" DI (CL 350)
8" VALVE B&C, FLG X MJ
STA 200+30±, 64'± LT. 65'±
1-FIRE HYDRANT PER W-500
NEW RIGHT-OF-WAY
EXISTING RIGHT-OF-WAY
CONCRETE THRUST
BLOCK PER W-610
HOUGHTON RD
CONST ℄
FIRE HYDRANT
AT STA 200+30
RESTRAIN ALL JOINTS 87'±
FINISHED GRADE
@ PROP PIPE ℄
EXIST 6" DI
EXIST GROUND
@ PROP PIPE ℄
2835
2830
2825
EXIST TELEPHONE
EXIST GAS
1' MIN
0.00%
1' MIN
8"
NEW 6" DI
WATER MAIN
STA 200+30±, 3'± RT
8" 6" 45° BEND (VT)
INV. 2828.76±
.61±
65'±
.61±
STA 200+30±, 21'± RT
8"x8" 6" TEE
INV. 2828.76±
.04±
STA 200+30±, 5'± RT
8" 6" 45° BEND (VT)
INV. 2828.76±
.04±
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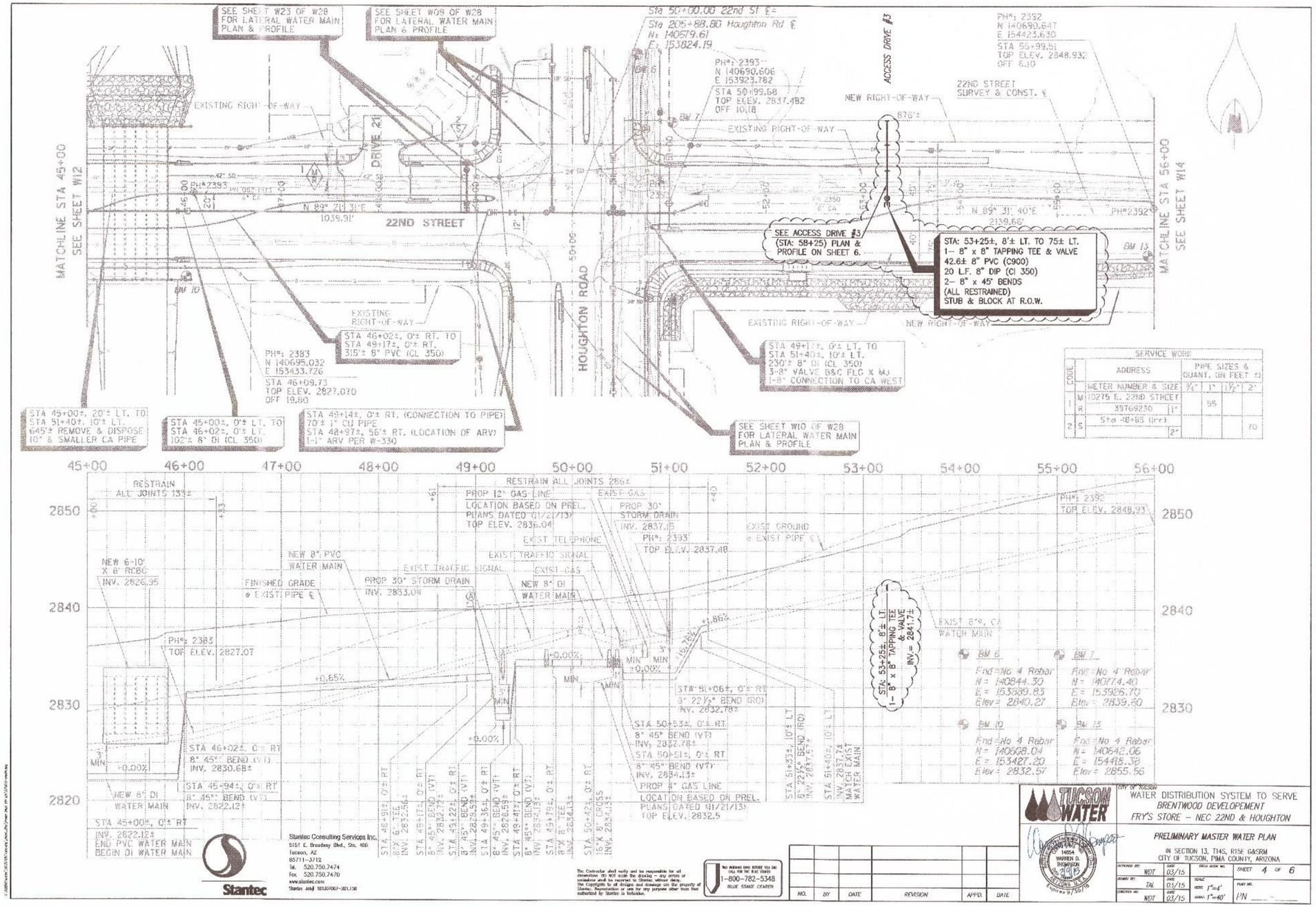
ONE WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
1-800-782-5348
BLUE STAKE CENTER
NO. | BY | DATE | REVISION | APPD. | DATE
2 | WDT | 5/15/15 | Change Hwy Direction on Houghton Rd Sht 1, 2&3 | DJT | 5/18/15
TUCSON WATER
14854
WARREN D. THOMPSON
ARIZONA U.S.A.
Expires 9/30/16
CITY OF TUCSON
WATER DISTRIBUTION SYSTEM TO SERVE
BRENTWOOD DEVELOPEMENT
FRY'S STORE – NEC 22ND & HOUGHTON
PRELIMINARY MASTER WATER PLAN
IN SECTION 13, T14S, R15E G&SRM
CITY OF TUCSON, PIMA COUNTY, ARIZONA
DESIGNED BY: WDT DATE 03/15
DRAWN BY: TAL DATE 03/15
CHECKED BY: WDT DATE 03/15
SCALE HORIZ. 1"=2'
SCALE VERT. 1"=20'
SHEET 3 OF 6
PLAN NO.
PN ___-___
PN ___-___
DWG. FILE: 07067C-MW03.DWG



PN

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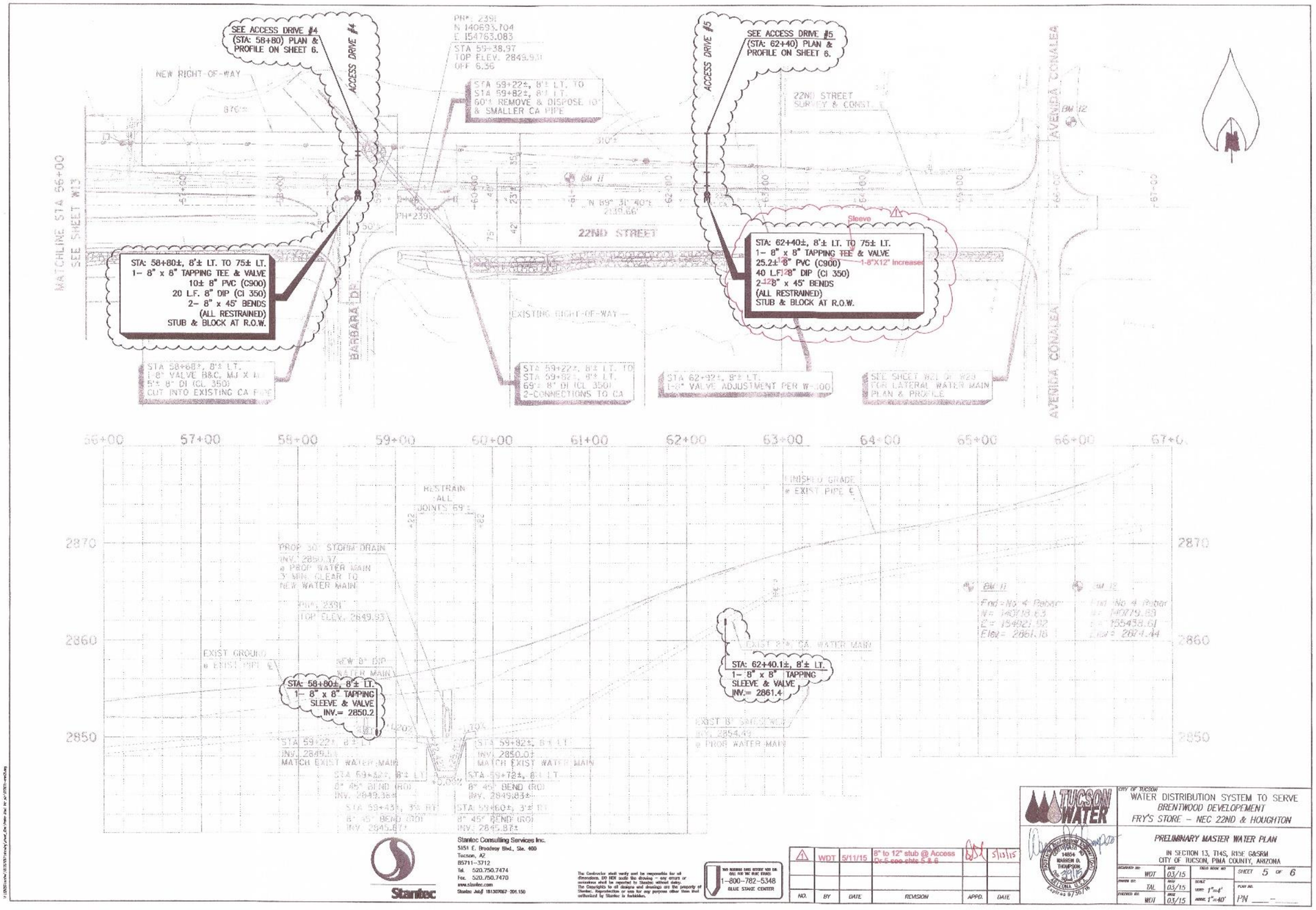
SEE ACCESS DRIVE #4
(STA: 58+80) PLAN & PROFILE ON SHEET 6.
ACCESS DRIVE #4
ACCESS DRIVE #5
SEE ACCESS DRIVE #5
(STA: 62+40) PLAN & PROFILE ON SHEET 6.
NEW RIGHT-OF-WAY
22ND STREET
AVENIDA CONALEA
MATCHLINE STA 56+00
SEE SHEET W13
BARBARA DR
STA: 58+80±, 8'± LT. TO 75± LT.
1- 8" x 8" TAPPING TEE & VALVE
10± 8" PVC (C900)
20 L.F. 8" DIP (CI 350)
2- 8" x 45° BENDS
(ALL RESTRAINED)
STUB & BLOCK AT R.O.W.
STA: 62+40±, 8'± LT. TO 75± LT.
1- 8" x 8" TAPPING TEE & VALVE
25.2± 8" PVC (C900)
40 L.F. 8" DIP (CI 350)
2- 8" x 45° BENDS
(ALL RESTRAINED)
STUB & BLOCK AT R.O.W.
Sleeve
1-8"X12" Increaser
EXISTING RIGHT-OF-WAY
STA 58+68±, 8'± LT.
1-8" VALVE B&C, MJ X MJ
5'± 8" DI (CL 350)
CUT INTO EXISTING CA PIPE
STA 59+22±, 8'± LT. TO
STA 59+82±, 8'± LT.
69'± 8" DI (CL 350)
2-CONNECTIONS TO CA
STA 62+92±, 8'± LT.
1-8" VALVE ADJUSTMENT PER W-300
SEE SHEET W21 OF W29
FOR LATERAL WATER MAIN
PLAN & PROFILE
56+00
57+00
58+00
59+00
60+00
61+00
62+00
63+00
64+00
65+00
66+00
67+00
2870
2860
2850
RESTRAIN
ALL
JOINTS 69'±
FINISHED GRADE
@ EXIST PIPE ℄
PROP 30" STORM DRAIN
INV. 2850.37
@ PROP WATER MAIN
3' MIN. CLEAR TO
NEW WATER MAIN
PH#: 2391
TOP ELEV. 2849.93
EXIST GROUND
@ EXIST PIPE ℄
NEW 8" DIP
WATER MAIN
STA: 58+80±, 8'± LT.
1- 8" x 8" TAPPING
SLEEVE & VALVE
INV.= 2850.2
STA: 62+40.1±, 8'± LT.
1- 8" x 8" TAPPING
SLEEVE & VALVE
INV.= 2861.4
EXIST 8" SAN SEWER
INV. 2854.49
@ PROP WATER MAIN
STA 59+22±, 8'± LT.
INV. 2849.5±
MATCH EXIST WATER MAIN
STA 59+82±, 8'± LT.
INV. 2850.0±
MATCH EXIST WATER MAIN
STA 59+32±, 8'± LT.
8" 45° BEND (RO)
INV. 2849.36±
STA 59+72±, 8'± LT.
8" 45° BEND (RO)
INV. 2849.83±
STA 59+43±, 3'± RT.
8" 45° BEND (RO)
INV. 2845.87±
STA 59+60±, 3'± RT.
8" 45° BEND (RO)
INV. 2845.87±
BM 11
Fnd No 4 Rebar
N= 140718.63
E= 154021.92
Elev= 2861.18
BM 12
Fnd No 4 Rebar
N= 140779.89
E= 155438.61
Elev= 2874.44
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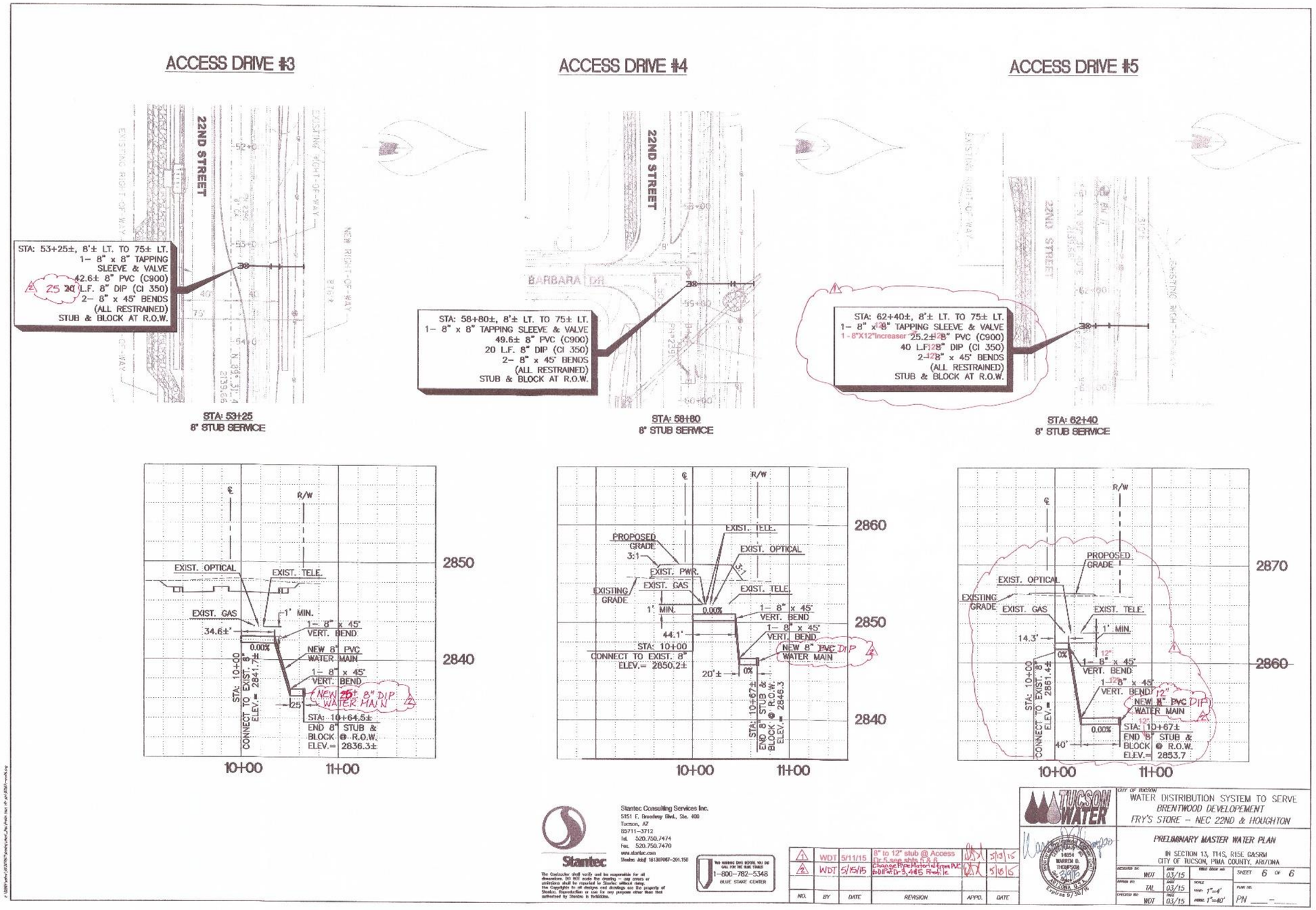
BLUE STAKE CENTER
NO. | BY | DATE | REVISION | APPD. | DATE
1 | WDT | 5/11/15 | 8" to 12" stub @ Access Dr 5 see chts 5 & 6 | 5/13/15
TUCSON WATER
CITY OF TUCSON
WATER DISTRIBUTION SYSTEM TO SERVE
BRENTWOOD DEVELOPEMENT
FRY'S STORE - NEC 22ND & HOUGHTON
PRELIMINARY MASTER WATER PLAN
IN SECTION 13, T14S, R15E G&SRM
CITY OF TUCSON, PIMA COUNTY, ARIZONA
DESIGNED BY: WDT DATE 03/15
DRAWN BY: TAL DATE 03/15
CHECKED BY: WDT DATE 03/15
SCALE: VERT. 1"=4' HORIZ. 1"=40'
SHEET 5 OF 6
PLAN NO. PN
PN
DWG. FILE: 07067C-MW05.DWG


ACCESS DRIVE #3
ACCESS DRIVE #4
ACCESS DRIVE #5
22ND STREET
STA: 53+25±, 8'± LT. TO 75± LT.
1– 8" x 8" TAPPING SLEEVE & VALVE
42.6± 8" PVC (C900)
25 20 L.F. 8" DIP (CI 350)
2– 8" x 45° BENDS
(ALL RESTRAINED)
STUB & BLOCK AT R.O.W.
STA: 53+25
8" STUB SERVICE
BARBARA DR
STA: 58+80±, 8'± LT. TO 75± LT.
1– 8" x 8" TAPPING SLEEVE & VALVE
49.6± 8" PVC (C900)
20 L.F. 8" DIP (CI 350)
2– 8" x 45° BENDS
(ALL RESTRAINED)
STUB & BLOCK AT R.O.W.
STA: 58+80
8" STUB SERVICE
STA: 62+40±, 8'± LT. TO 75± LT.
1– 8" x 8" TAPPING SLEEVE & VALVE
1 - 8"X12"Increaser 25.2± 8" PVC (C900)
40 L.F. 8" DIP (CI 350)
2– 8" x 45° BENDS
(ALL RESTRAINED)
STUB & BLOCK AT R.O.W.
STA: 62+40
8" STUB SERVICE
EXIST. OPTICAL
EXIST. TELE.
EXIST. GAS
1' MIN.
1– 8" x 45° VERT. BEND
NEW 8" PVC WATER MAIN
STA: 10+00 CONNECT TO EXIST. 8" ELEV.= 2841.7±
NEW 25± 8" DIP WATER MAIN
STA: 10+64.5± END 8" STUB & BLOCK @ R.O.W. ELEV.= 2836.3±
PROPOSED GRADE
EXIST. PWR.
EXISTING GRADE
STA: 10+00 CONNECT TO EXIST. 8" ELEV.= 2850.2±
NEW 8" PVC DIP WATER MAIN
STA: 10+67± END 8" STUB & BLOCK @ R.O.W. ELEV.= 2846.3
STA: 10+00 CONNECT TO EXIST. 8" ELEV.= 2861.4±
STA: 10+67± END 8" STUB & BLOCK @ R.O.W. ELEV.= 2853.7
2850
2840
2860
2870
10+00
11+00
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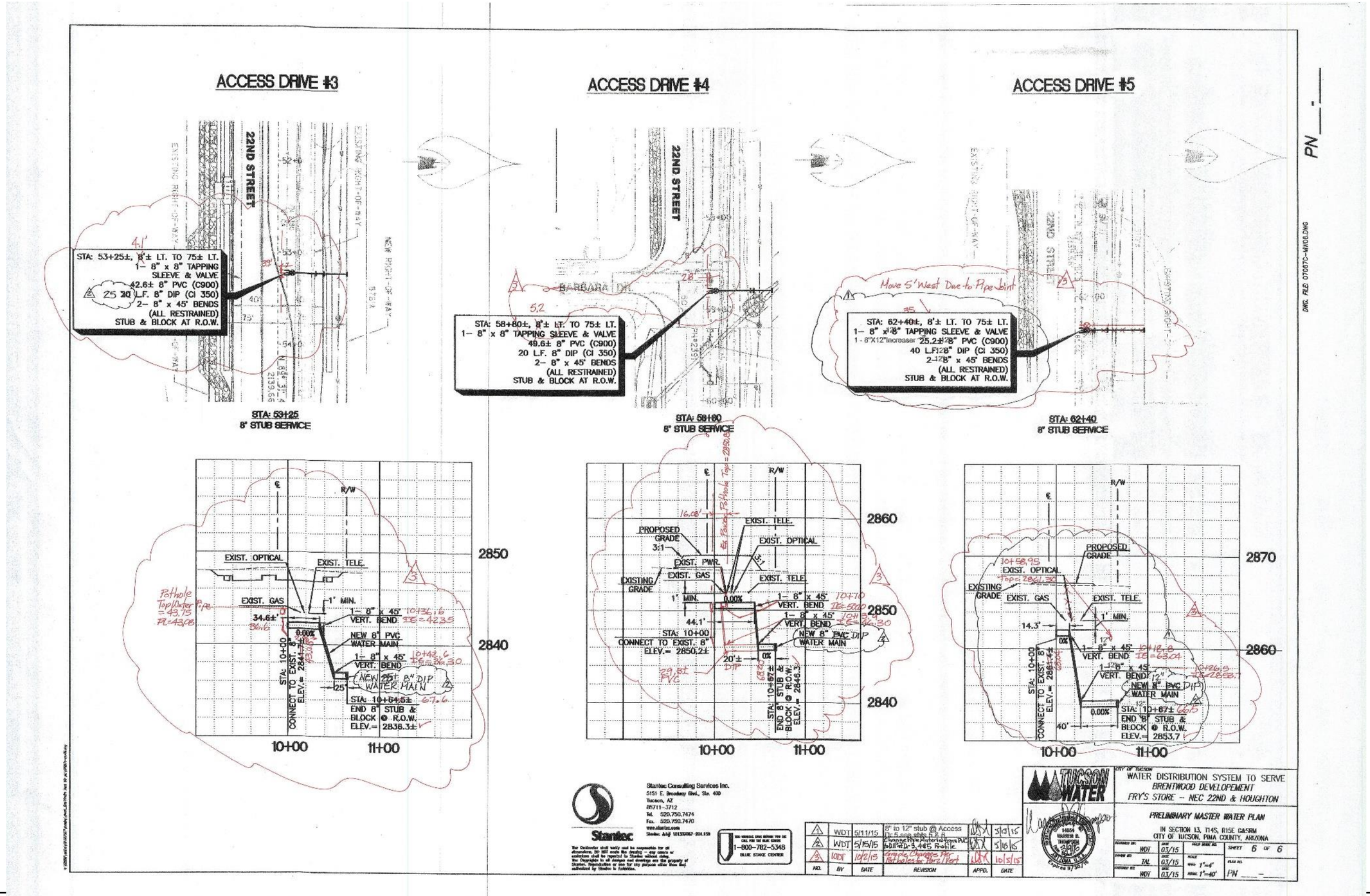
BLUE STAKE CENTER
NO. BY DATE REVISION APPD. DATE
1 WDT 5/11/15 8" to 12" stub @ Access Dr 5 see sht 5 & 6 Change Pipe Material from PVC to DIP at Dr 3, 445 Profile
2 WDT 5/15/15
TUCSON WATER
CITY OF TUCSON
WATER DISTRIBUTION SYSTEM TO SERVE
BRENTWOOD DEVELOPEMENT
FRY'S STORE – NEC 22ND & HOUGHTON
PRELIMINARY MASTER WATER PLAN
IN SECTION 13, T14S, R15E G&SRM
CITY OF TUCSON, PIMA COUNTY, ARIZONA
DESIGNED BY: WDT DATE 03/15
DRAWN BY: TAL DATE 03/15
CHECKED BY: WDT DATE 03/15
SCALE VERT. 1"=4' HORIZ. 1"=40'
SHEET 6 OF 6
PLAN NO. PN ___-
DWG. FILE: 07067C-MW06.DWG
PN ___-


ACCESS DRIVE #3
ACCESS DRIVE #4
ACCESS DRIVE #5
22ND STREET
STA: 53+25±, 8'± LT. TO 75± LT.
1– 8" x 8" TAPPING SLEEVE & VALVE
42.6± 8" PVC (C900)
20 L.F. 8" DIP (CI 350)
2– 8" x 45° BENDS
(ALL RESTRAINED)
STUB & BLOCK AT R.O.W.
STA: 53+25
8" STUB SERVICE
STA: 58+80±, 8'± LT. TO 75± LT.
1– 8" x 8" TAPPING SLEEVE & VALVE
49.6± 8" PVC (C900)
20 L.F. 8" DIP (CI 350)
2– 8" x 45° BENDS
(ALL RESTRAINED)
STUB & BLOCK AT R.O.W.
STA: 58+80
8" STUB SERVICE
STA: 62+40±, 8'± LT. TO 75± LT.
1– 8" x 8" TAPPING SLEEVE & VALVE
25.2± 8" PVC (C900)
40 L.F. 8" DIP (CI 350)
2– 8" x 45° BENDS
(ALL RESTRAINED)
STUB & BLOCK AT R.O.W.
STA: 62+40
8" STUB SERVICE
Move 5' West Due to Pipe Joint
EXIST. OPTICAL
EXIST. TELE.
EXIST. GAS
1' MIN.
1– 8" x 45° VERT. BEND
NEW 8" PVC WATER MAIN
STA: 10+64.5±
END 8" STUB & BLOCK @ R.O.W.
ELEV.= 2838.3±
STA: 10+00
CONNECT TO EXIST. 8"
ELEV.= 2841.7±
PROPOSED GRADE
EXIST. PWR.
EXISTING GRADE
STA: 10+00
CONNECT TO EXIST. 8"
ELEV.= 2850.2±
STA: 10+67±
END 8" STUB & BLOCK @ R.O.W.
ELEV.= 2846.3
STA: 10+00
CONNECT TO EXIST. 8"
ELEV.= 2861.4±
STA: 10+67±
END 8" STUB & BLOCK @ R.O.W.
ELEV.= 2853.7
2850
2840
2860
2870
10+00
11+00
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1-800-782-5348
BLUE STAKE CENTER
WDT 5/11/15 8" to 12" stub @ Access Dr 5 see shts 5 & 6
WDT 5/15/15 Change Pipe Material from PVC to DIP at Dr 3, 4 & 5 Profile
WDT 10/2/15 Sample Changes Per Potholes for Hor 2 / Vert
NO. BY DATE REVISION APPD. DATE
TUCSON WATER
CITY OF TUCSON
WATER DISTRIBUTION SYSTEM TO SERVE
BRENTWOOD DEVELOPEMENT
FRY'S STORE – NEC 22ND & HOUGHTON
PRELIMINARY MASTER WATER PLAN
IN SECTION 13, T14S, R15E G&SRM
CITY OF TUCSON, PIMA COUNTY, ARIZONA
SHEET 6 OF 6
PN

Appendix D: Houghton Road and 22nd Street Intersection Future Modifications

CITY OF TUCSON
DEPARTMENT OF TRANSPORTATION

September 11, 2015

R. Craig Finfrock, CCIM, CRX
Commercial Retail Advisors, LLC
5420 E. Broadway Blvd., Suite 200
Tucson, AZ 85711

Re: Houghton Road and 22nd Street Intersection Future Modifications

Dear Mr. Finfrock,

Left turn access and median opening modifications at the referenced intersection may be approved for the northeast corner of 22nd Street and Houghton Road intersection. Some details need to be finalized before approval can be given. The details need to be identified by a Traffic Impact Analysis (TIA).

Upon approval, the steps to physically make the modifications will require approved engineered drawings, a Private Improvement Agreement (PIA), and a right-of-way (ROW) permit. The work can be done during or after the 5-year pavement no-cut moratorium that will be in place upon completion for the Houghton Road Corridor Improvements between Broadway Boulevard and 22nd Street.

It is our desire to get the best use out of the new pavement as possible before its life is affected by cutting it. Therefore, we shall require that any modifications affecting the pavement be done when the development is under construction and not before. Special conditions are added to the pavement replacement requirements when the pavement is disturbed during the 5-year pavement no-cut moratorium.

Utility service sizes and locations are based upon an approved development plan and require utility service agreements with the respective utility company. The utility companies will typically do their own work and seek their own ROW permits.

Let us know if you have further questions.

Sincerely,

Frederick Felix, P.E.
City Engineer

Cc: Daryl W. Cole

Mr Brad Griffith
Brentwood Development
5800 Stanford Ranch road, Suite 210
Rocklin, CA 93765

Ashley Evans
22nd St Baptist Church of Tucson, Inc
6620 E 22nd St
Tucson, AZZ 85710

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