

# PROJECT NARRATIVE FOR CAMELBACK PARK ESTATES REPLAT OF 71ST STREET

This plan will fully comply with the Character and Design guidelines of the current General Plan, applicable Character Area Plans, relevant citywide master plans, zoning ordinance development standards, Design Standards and Policies Manual, and all applicable citywide design guidelines; as well as the appropriate Master Environmental Design Concept Plan.

The five existing single-family residential (SFR) lots on 71st Street within the Camelback Park Estates Plat will be subdivided into seven new SFR lots. Lots will range in size from 7,066 square feet to 10,914 square feet, with a total net area of 61,127 square feet (1.403 acres). Pursuant to staff request, we have provided preliminary concept plans to demonstrate the feasibility of future development.

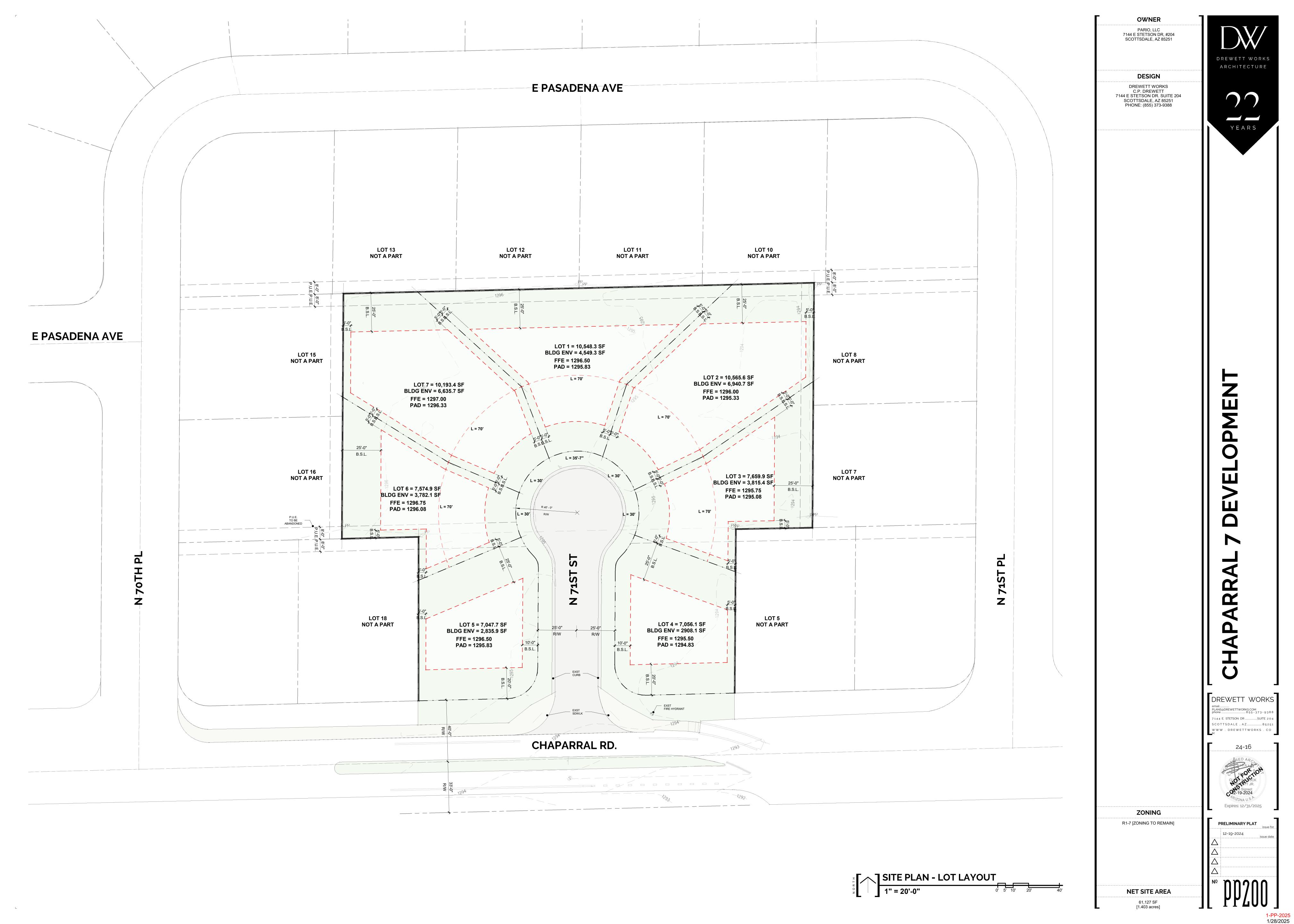
Each lot allows ingress and egress exclusively onto North 71st Street. This improves the original lot configuration, where two lots had ingress and egress directly onto Chaparral Road.

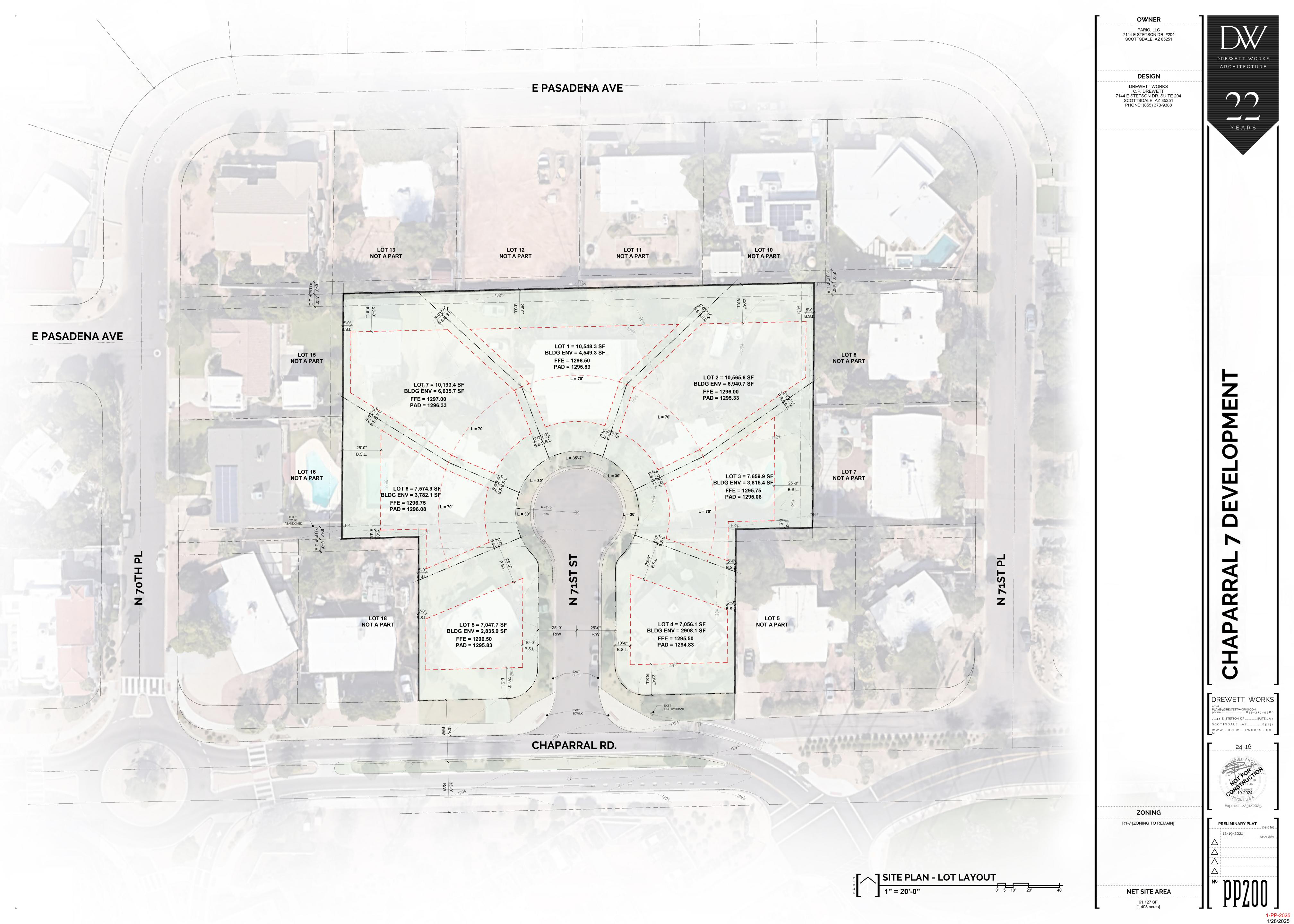
The existing East to West Public Utility Easement (PUE) will be abandoned. The existing PUE at the front of the lots will be utilized, and all electric and communication lines currently above ground will be buried. The proposed utility placement will not interfere with street frontage open space, pedestrian or resident amenities, landscape features, or onsite circulation.

This replat is located outside of the Old Town Scottsdale boundaries. Additionally, this project does not qualify to participate in the Cultural Improvement or Public Arts Program.

Please feel free to reach out if you have further questions regarding the re-plat of these lots.

Regards, Gordon Berry Principal, Pario LLC gordon@parioland.com 602.469.4555 (mobile)





# PRELIMINARY GRADING & DRAINAGE PLAN "CHAPARRAL 7" BEING A RE-PLAT OF LOTS 1-4 & 19, OF CAMELBACK PARK ESTATES, RECORDED IN BOOK 50 OF MAPS, PAGE 25 IN THE RECORDER'S OFFICE, COUNTY OF MARICOPA, STATE OF ARIZONA LOT 10 LOT 12 LOT 11 LOT 13 NOT A PART NOT A PART EXIST. 6' HIGH CMU WALL NOTHING FOUND OR SET DUE TO

BK. 50, PG. 25, MCR

FFE=1297.00

PAD=1296.33

FFE=1296.75

PAD=1296.08

SET PK NAIL W/ TAG RLS# 35694 ON WALL

LOT 18 NOT A PART

EXIST. 8' HIGH CMU WALL

LOT 6

LOT 7

EXISTING OVERHEAD
UTILITIES TO BE
REROUTED AND PLACED
UNDERGROUND

FFE=1296.50 PAD=1295.83

FOUND REBAR W/ CAP RLS# 37937 0.85 FEET SOUTH FROM CALCULATED

POSITION 2

\_\_\_1296-\_\_\_\_

(BASIS OF BEARINGS)

N88\*48'20"E (M&R)

FFE=1296.50

PAD=1295.83

LOT 1

1=189.30

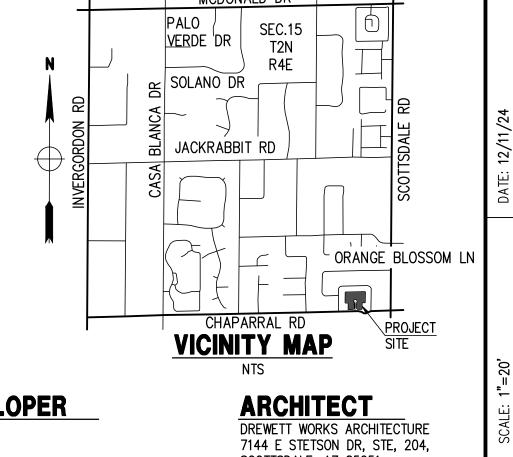
7=39.21′ ₹

OR SET

CAP RLS# 37937 0.96 FEET SOUTH FROM CALCULATED

FFE=1295.50

PAD=1294.83



## **DEVELOPER**

NOTHING FOUND
OR SET DUE TO

TREE GROWTH

KT. 825, PG. 279, MCR

NOT A PART

EXIST. 6' HIGH CMU WALL

\_\_16' PUE TO BE ABANDONMENT

BK. 50, PG. 25, MCR

FFE=1296.00

PAD=1295.33

LOT 3

EXIST. 6' HIGH METAL FENCE

NOT A PART

FFE=1295.75

# SCOTTSDALE, AZ 85251 P: 480-329-7504

CONTACT: ROB BANACH

**OWNER** 7144 E STETSON DR. #204 SCOTTSDALE, AZ 85251

**CIVIL ENGINEER** LAND DEVELOPMENT GROUP 8808 N CENTRAL AVE, SUITE 288 PHOENIX, AZ 85020 P: 602 889 1984

CONTACT: NICK PRODANOV

## **BASIS OF BEARINGS**

THE NORTH LINE LINE OF LOTS 1-3, CAMELBACK PARK ESTATES, THE BEARING OF WHICH IS N88'48'20"E.

### **BENCHMARK**

BRASS CAP IN HAND HOLE AT THE INTERSECTION OF JACKRABBIT ROAD AND SCOTTSDALE ROAD HAVING AN ELEVATION OF 1299.44 NAVD 88 DATUM, GDACS# 24556-01. I HEREBY CERTIFY THAT ALL ELEVATIONS PRESENTED ON THIS PLAN ARE BASED ON NAVD-1988 AND MEET THE FEMA BENCHMARK MAINTENANCE (BMM) CRITERIA.

## PARENT LEGAL DESCRIPTION

LOT 1, 2, 3, 4 AND 19, OF CAMELBACK PARK ESTATES, ACCORDING TO THE PLAT OF RECORD IN THE OFFICE OF THE COUNTY RECORDER OF MARICOPA COUNTY, ARIZONA, RECORDED IN BOOK 50 OF MAPS, PAGE 25.

## UTILITIES

WATER: EPCOR WATER SANITARY SEWER: CITY OF SCOTTSDALE ELECTRIC: APS TELEPHONE: CENTURY LINK, COX COMM. NATURAL GAS: SOUTHWEST GAS CABLE TV: CENTURY LINK, COX COMM.

CURVE TABLE								
CURVE #	RADIUS	LENGTH	DELTA	TANGENT	CHORD DIRECTION	CHORD LENGTH		
C1	20.00' (M&R)	30.79' (M)	8813'00" (M)	19.39' (M)	N44°36'30"E (M)	27.84'(M)		
C2	10.00' (M&R)	7.95' (M)	45°34'23" (M)	4.20' (M)	N22°17'11"W (M)	7.75' (M)		
C3	40.00' (M&R)	15.02' (M)	21°30′57" (M)	7.60' (M)	S3418'54"E (M)	14.93' (M)		
C4	40.00' (M&R)	29.90' (M)	42°49'22" (M)	15.68' (M)	S2°08'44"E (M)	29.20' (M)		
C5	40.00' (M&R)	30.38' (M)	43°31'11" (M)	15.97' (M)	S41°01'32"W (M)	29.66' (M)		
C6	40.00' (M&R)	36.17' (M)	51°48'15" (M)	19.42' (M)	S88°41'15"W (M)	34.95' (M)		
C7	40.00' (M&R)	30.54' (M)	43°44'25" (M)	16.06' (M)	N43°32'24"W (M)	29.80' (M)		
C8	40.00' (M&R)	30.14' (M)	43°10'32" (M)	15.83' (M)	N0°04'56"W (M)	29.43' (M)		

40.00' (M&R) | 17.15' (M) | 24°34'03" (M) | 8.71' (M) | N33°47'22"E (M) |

10.00' (M&R) | 7.95' (M) | 45°34'23" (M) | 4.20' (M) | S23°17'11"W (M)

20.00' (M&R) | 32.04' (M) | 91°47'00" (M) | 20.63' (M) | S45°23'30"E (M) |

**LEGEND** 

SECTION CORNER

BRASS CAP FLUSH

CALCULATED POINT

MONUMENT LINE

SEWER MANHOLE

FIRE HYDRANT

WATER VALVE WATER METER

POWER POLE

MAILBOX

SIGN

SEWER CLEANOUT

STORM DRAIN INLET

IRRIGATION CONTROL BOX

OVERHEAD ELECTRIC LINE

CHAINLINK/METAL FENCE

EXIST. DRAINAGE FLOW

EXIST. SPOT ELEVATION

PROPOSED SPOT ELEVATION

EXISTING CONTOUR

SLOPE DIRECTION

PROPOSED CONTOUR

STORM DRAIN MANHOLE

FOUND REBAR OR AS NOTED

TREE GROWTH

8' ELECTRIC ESMT

DKT. 825, PG. 279, MCR

LOT 15

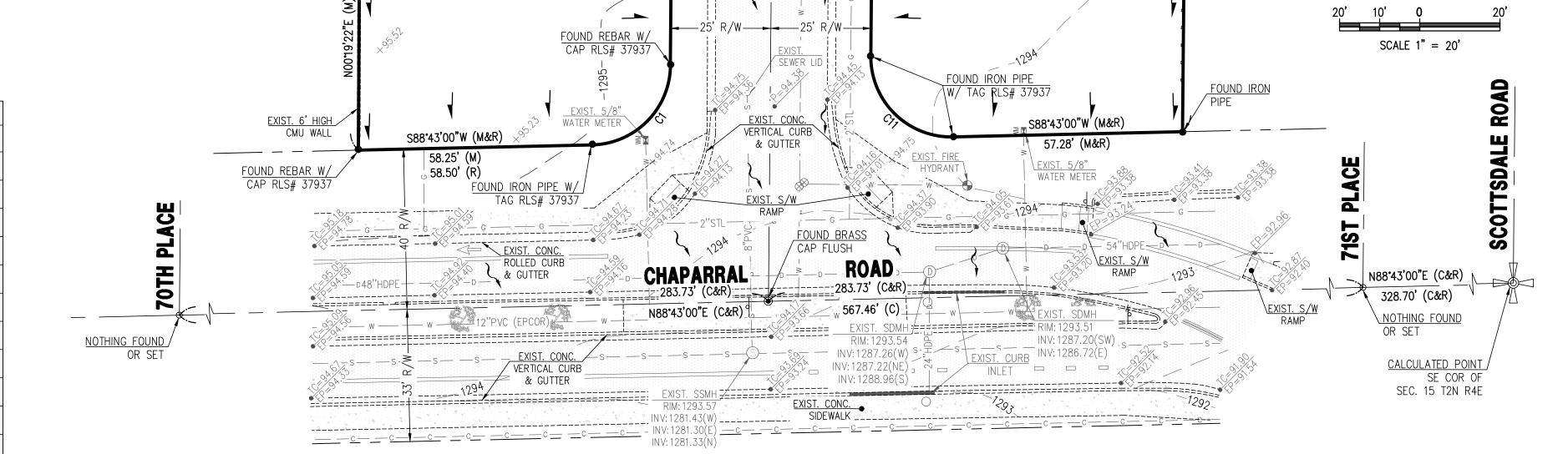
NOT A PART

EXIST. 6' HIGH CMU WALL

NOTHING FOUND OR SET DUE TO

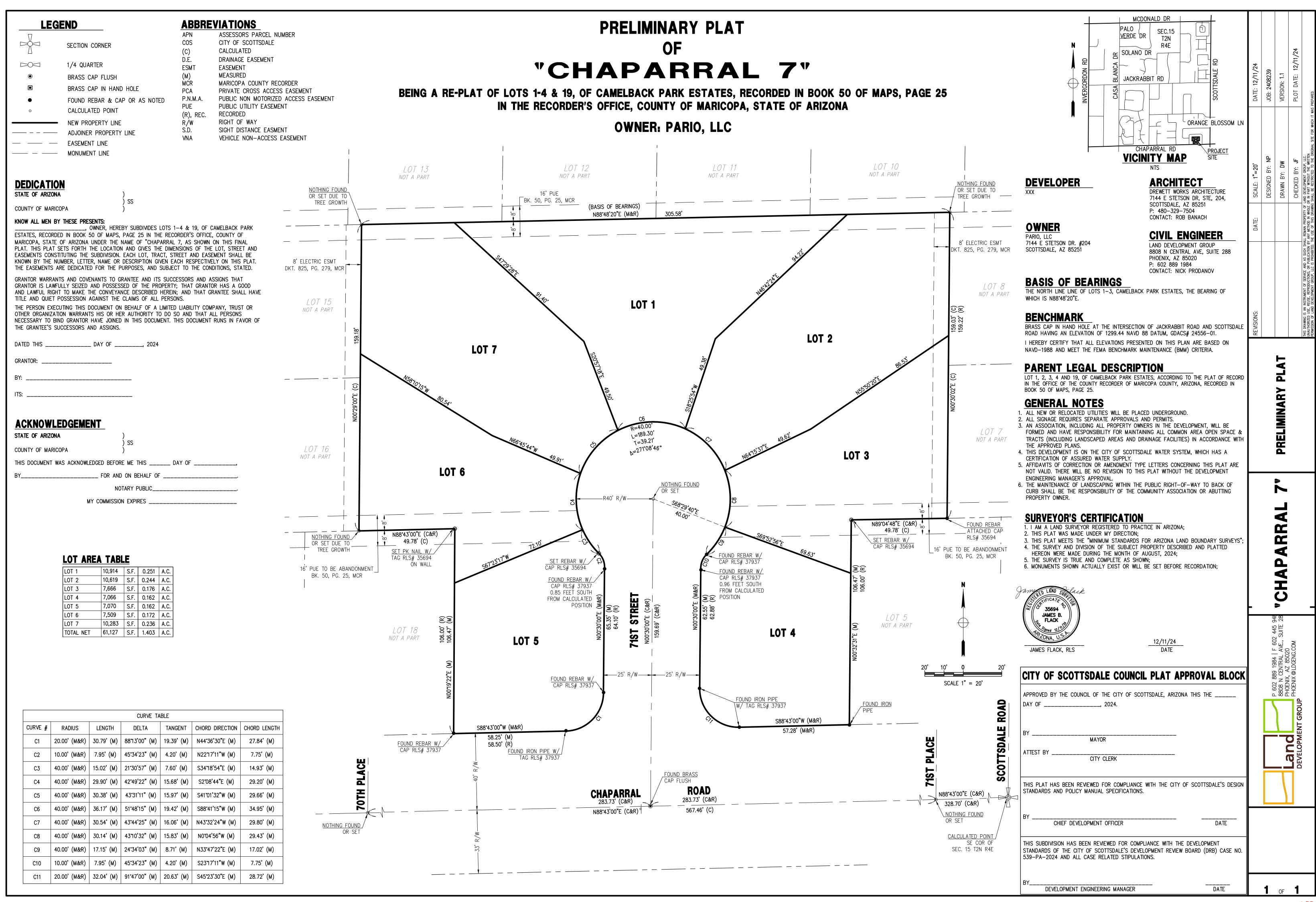
TREE GROWTH

16' PUE TO BE ABANDONMENT BK. 50, PG. 25, MCR





GRADING E PLAN





# PRELIMINARY WATER AND SEWER BASIS OF DESIGN REPORT

### **CHAPARRAL 7**

7046 & 7104 E Chaparral Road, 5012, 5016 & 5011 N 71<sup>st</sup> Street Paradise Valley, AZ 85253

#### **LDG PROJECT #2408239**

#### **Prepared for:**

Pario, LLC 7144 E Stetson Drive #204, Scottsdale, Arizona 85251

#### Submitted to:

City of Scottsdale Water Resources Department 7447 E Indian School Road, Suite #105 Scottsdale, Arizona 85251

#### Prepared by:

Land Development Group, LLC 8808 N Central Ave., Ste 288 Phoenix, Arizona 85020 Contact: Nick Prodanov, PE, PMP P: 602 889 1984



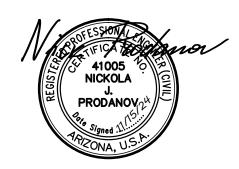
November 15th, 2024

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November 15<sup>th</sup>, 2024

#### 1. INTRODUCTION

This Water and Sewer Basis of Design Report has been prepared in accordance with the current City of Scottsdale Design Standards and Policies Manual. The report provides a preliminary engineering analysis and evaluation of the water and sanitary sewer services required for the proposed subdivision development.

The project site encompasses Lots 1, 2, 3, 4, and 19 of Camelback Park Estates, as recorded in Book 50 of Maps, Page 25, Maricopa County Records (M.C.R.). The properties include the following addresses and parcel numbers:

- 7046 E Chaparral Rd., Phoenix, AZ 85016 (APN 173-22-019)
- 7104 E Chaparral Rd., Paradise Valley, AZ 85253 (APN 173-22-004)
- 5011 N 71st St., Paradise Valley, AZ 85253 (APN 173-22-003)
- 5016 N 71st St., Paradise Valley, AZ 85253 (APN 173-22-002)
- 5012 N 71st St., Paradise Valley, AZ 85253 (APN 173-22-001)

The parcels comprise a combined lot area of 61,129 square feet (1.403 acres) and are currently fully developed with single-family residences. The properties are bounded by residential lots to the north, east, and west, with the southern boundary of Lots 4 and 19 fronting Chaparral Road. Access to the site is provided via the cul-de-sac of 71st Street, located centrally within the lots. The parcels are situated in the south half of the southeast quarter of the southeast quarter of Section 15, Township 2 North, Range 4 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. Refer to Appendix A-1 for the Vicinity Map.

As part of the development process, a preliminary plat map, subject to the City of Scottsdale's review and approval, has been prepared. The project proposes to subdivide the existing properties into a seven-lot residential subdivision. The plat defines the new property lines, building setback lines, and public utility easements, along with their locations and dimensions.

The proposed development includes the construction of seven single-family residences, totaling approximately 33,000 square feet of building area. The project also includes installing new landscaping and site improvements to enhance the surrounding area.

The property is located within the City of Scottsdale sewer service area and the EPCOR water service. There is an existing 2" GALV water line that runs in the right-of-way of 71<sup>st</sup> Street. 12" PVC water main runs in the right-of-way of Chaparral Road. There is an existing 8" VCP sanitary sewer mains in both 71<sup>st</sup> Street and Chaparral Road. The nearest fire hydrant is located 60' south from the southeast corner of Lot 4 at the right-of-way of Chaparral Road.

#### 2. DOMESTIC WATER AND FIRE SUPPRESSION SYSTEM

The sites will be serviced by two separate domestic water services tapped off to the existing 2" water main located in 71st Street. Two 1' water meters are proposed for the water services connected to the main water line in 71st Street. All existing water services and water meters are to remain and to be used per the City of Scottsdale requirements.

The fire hydrant coverage for this site is provided by an existing fire hydrant located 60-feet from the southeast corner of Lot 4 at the right-of-way of Chaparral Road. This hydrant is approximately 340-feet from the most remote portion of the development. Fire hydrant coverage around the building is in accordance with the City of Scottsdale Design Standards & Polices Manual requirements. Water demand calculations are provided in Appendix A-2.

#### 3. SANITARY SEWER SYSTEM

The project will be serviced by a new 8-inch diameter sewer line (total 122 l.f.), 4-ich diameter sewer services lines for each lot (total seven service lines 228 l.f.) and a new sanitary sewer manhole at the end of the main sanitary sewer system. The sewer line is connected to the existing 8" VCP main in Chaparral Road. The sewer main and services are sized per IPC based on the actual building areas. Minimum slope of 0.52% will be used for the 8" sewer main and 2.00% will be used for the 4" services. The sanitary sewer system is designed in accordance with the City of Scottsdale Design Standards and Policies.

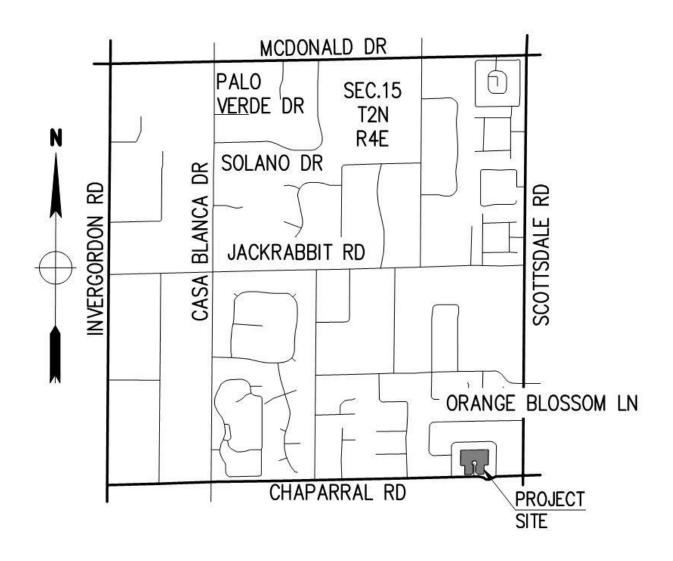
We have calculated that the peak daily discharge from this development will be 1.94 gpm. The portion of 8" public sewer line that this site discharges has an adequate capacity.

We have also estimated the sewer discharge from the site using The City of Scottsdale Design Standards & Polices Manual. The average daily flow was estimated at 0.001083272 cfs. The peak discharge was calculated by increasing the average daily flow by a factor of 4.0, which is a total of 0.00433 cfs. Using Manning's Equation, we calculated that the flow in the proposed 8-inch sewer main line at a minimum of 0.52%, will have a velocity of 2.50 fps, when flowing full with a capacity of 0.87 cfs. Refer to Sanitary Sewer System Design Calculations in Appendix A-4.

#### 4. REFERENCES

- City of Scottsdale Design Standards & Policies Manual.
- 2018 International Fire Code, Appendix B, Fire Flow Requirements for Buildings.

# APPENDIX A-1 Vicinity Map



# APPENDIX A-2 Water System Design Calculations

#### **RESIDENTIAL**

Number of units: 7

Average day demand per dwelling unit: 249

Average day demand: 7 x 249 = 1,743 gpd (1.21 gpm)

Maximum daily peaking factor: 2.0

Maximum daily demand per dwelling unit: 498 gpd

Maximum day demand: 7 x 498 = 3,486 gpd (2.42 gpm)

Peak hour demand factor: 3.5

Peak hour demand per dwelling unit: 872 gpd

Peak hour demand: 7 x 872 = 6,104 gpd (4.24 gpm)

#### **FIRE FLOW DEMAND**

Building Areas = 32,057 sf, Construction Type = V-B, Required Fire Flow = 3,000 gpm

Per 2018 International Fire Code, Appendix B, Section B105.2, a 75% reduction in the fire flow can be approved if an approved automatic sprinkler system is installed. The resulting fire flow shall not be less than the required minimum of 1,500 gpm. We are using a fire flow of 1,500 gpm since the 75% reduction would result in a fire flow less than the minimum required fire flow.

Fire hydrant flow test shall be submitted with the fire sprinkler design.

#### **TOTAL SITE DEMAND**

Fire flow demand (see demand calculation above): 1,500 gpm

Peak hour demand + Fire Flow Demand 4.24 + 1,500 = 1,505 gpm

# APPENDIX A-3 Sanitary Sewer System Design Calculations

#### Manning's Formula

8" Pipe Flowing Full

Capacity

$$Q = \frac{1.49}{n} * R^{\frac{2}{3}} * S^{\frac{1}{2}} * A$$

Velocity

$$Q = \frac{1.49}{n} * R^{\frac{2}{3}} * S^{\frac{1}{2}}$$

$$n = 0.013$$

$$R = 0.333$$

$$V = 3.97 \text{ fps}$$

S = 0.0052 ft/ft

#### Manning's Formula

4" Pipe Flowing Full

Capacity

$$Q = \frac{1.49}{n} * R^{\frac{2}{3}} * S^{\frac{1}{2}} * A$$

Velocity

$$Q = \frac{1.49}{n} * R^{\frac{2}{3}} * S^{\frac{1}{2}}$$

$$n = 0.013$$

$$V = 4.92 \text{ fps}$$

#### **Sewer Demand Calculations**

#### **Average daily flow**

Number of Units: 7
Average day demand per dwelling unit: 100
Average day demand: 7 x 100 = 700 gpd

Total average daily flow: 700 gpd = 0.001083272 cfs

#### **Peak daily flow**

0.001083272 cfs x 4.0 = 0.00433 cfs or 1.94 gpm

8" sewer line and 4" service lines are connected to the existing 8" public sewer main.

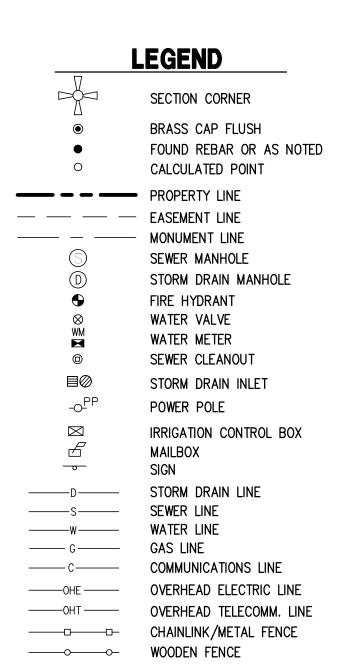
Capacity of 8" sewer line is 1.386 cfs > Peak Demand of 0.00433 cfs

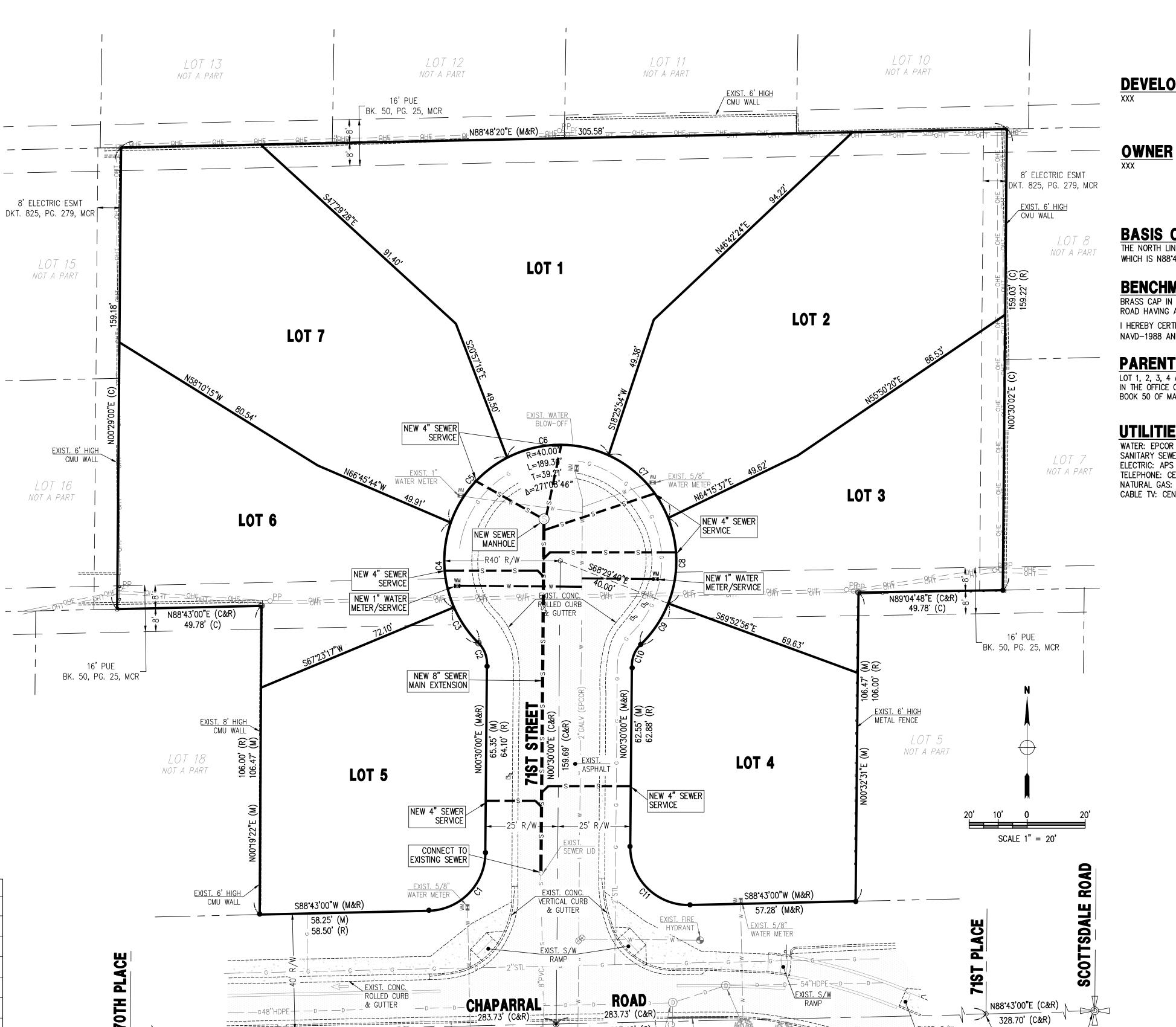
# APPENDIX A-4 Preliminary Water & Sewer Plan

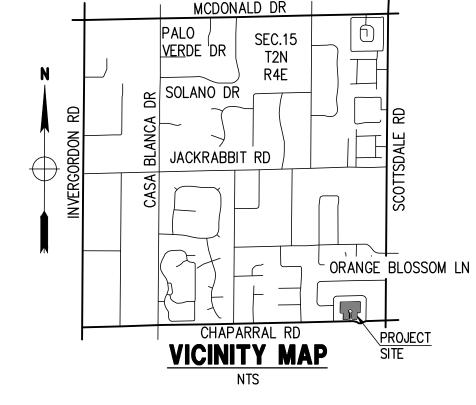
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# "CHAPARRAL 7"

BEING A RE-PLAT OF LOTS 1-4 & 19, OF CAMELBACK PARK ESTATES, RECORDED IN BOOK 50 OF MAPS, PAGE 25 IN THE RECORDER'S OFFICE, COUNTY OF MARICOPA, STATE OF ARIZONA







## **DEVELOPER**

#### **ARCHITECT** DREWETT WORKS ARCHITECTURE 7144 E STETSON DR, STE, 204,

SCOTTSDALE, AZ 85251 P: 480-329-7504 CONTACT: ROB BANACH

LAND DEVELOPMENT GROUP 8808 N CENTRAL AVE, SUITE 288 PHOENIX, AZ 85020 P: 602 889 1984 CONTACT: NICK PRODANOV

CIVIL ENGINEER

### **BASIS OF BEARINGS**

THE NORTH LINE LINE OF LOTS 1-3, CAMELBACK PARK ESTATES, THE BEARING OF WHICH IS N88'48'20"E.

### **BENCHMARK**

BRASS CAP IN HAND HOLE AT THE INTERSECTION OF JACKRABBIT ROAD AND SCOTTSDALE ROAD HAVING AN ELEVATION OF 1299.44 NAVD 88 DATUM, GDACS# 24556-01. I HEREBY CERTIFY THAT ALL ELEVATIONS PRESENTED ON THIS PLAN ARE BASED ON NAVD-1988 AND MEET THE FEMA BENCHMARK MAINTENANCE (BMM) CRITERIA.

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## UTILITIES

OR SET

CALCULATED POINT

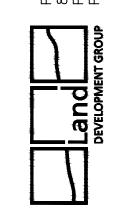
SE COR OF SEC. 15 T2N R4E

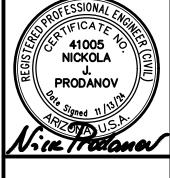
WATER: EPCOR WATER SANITARY SEWER: CITY OF SCOTTSDALE ELECTRIC: APS TELEPHONE: CENTURY LINK, COX COMM. NATURAL GAS: SOUTHWEST GAS CABLE TV: CENTURY LINK, COX COMM.

PRELIMINARY & SEWER I

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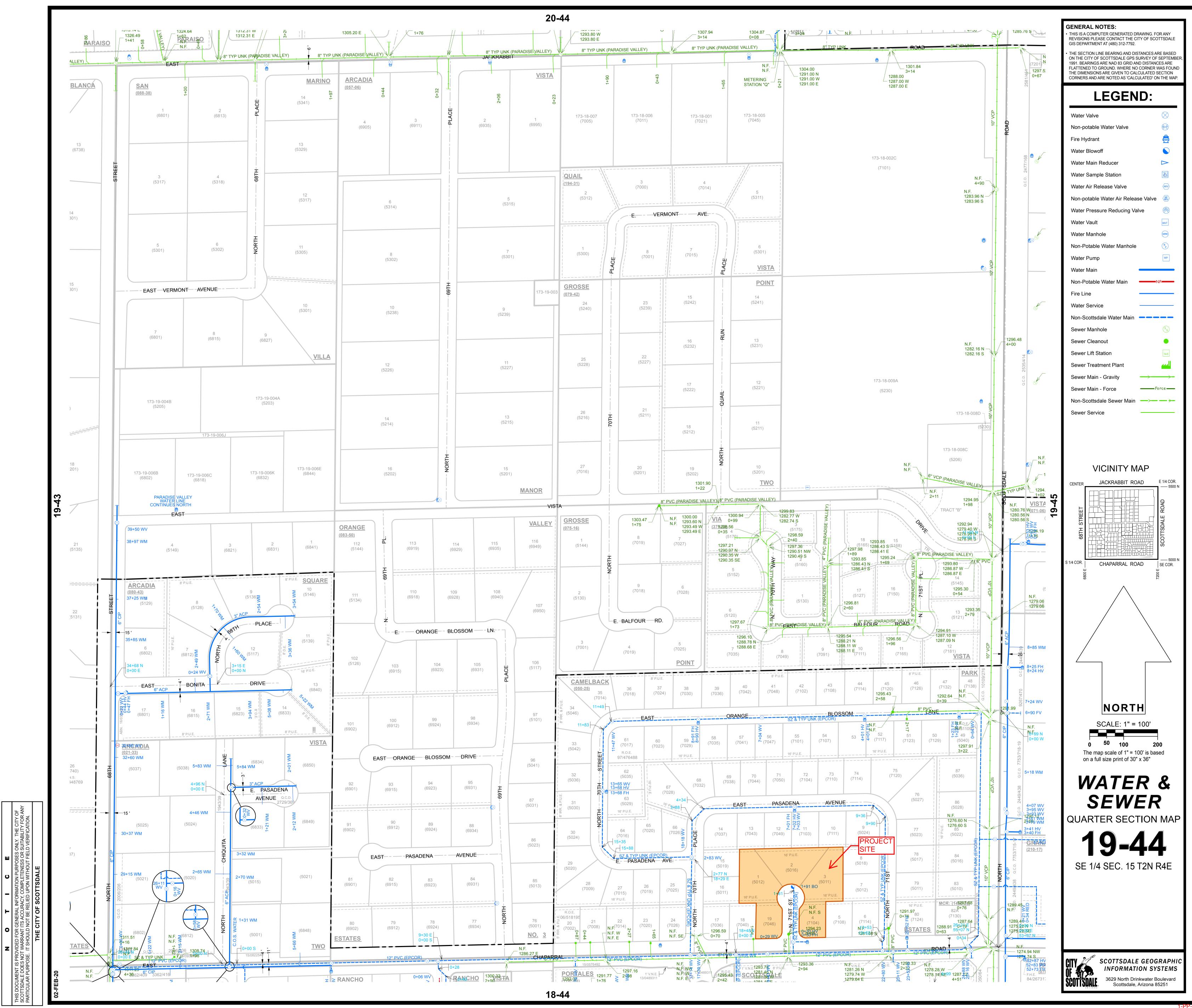




CURVE TABLE TANGENT | CHORD DIRECTION | CHORD LENGTH 40.00' (M&R) | 30.38' (M) | 43°31'11" (M) | 15.97' (M) | S41°01'32"W (M) 36.17' (M) | 51°48'15" (M) | 19.42' (M) | S88°41'15"W (M) 40.00' (M&R) | 30.54' (M) | 43°44'25" (M) | 16.06' (M) | N43°32'24"W (M) | 40.00' (M&R) | 30.14' (M) | 4310'32" (M) | 15.83' (M) | N004'56"W (M) | 29.43' (M) 40.00' (M&R) | 17.15' (M) | 24°34'03" (M) | 8.71' (M) | N33°47'22"E (M) 10.00' (M&R) | 7.95' (M) | 45'34'23" (M) | 4.20' (M) | \$23'17'11"W (M)

20.00' (M&R) | 32.04' (M) | 91°47'00" (M) | 20.63' (M) | S45°23'30"E (M)

# APPENDIX A-5 City of Scottsdale Water and Sewer Map



1/28/2025