

# Basis of Design Water for JET SET



A portion of Lot 67  
Thunderbird Industrial Airpark No. 2  
Scottsdale, Arizona



Prepared for:

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## FINAL Basis of Design Report

APPROVED

APPROVED AS NOTED

REVISE AND RESUBMIT



Disclaimer: If approved; the approval is granted under the condition that the final construction documents submitted for city review will match the information herein. Any subsequent changes in the water or sewer design that materially impact design criteria or standards will require re-analysis, re-submittal, and approval of a revised basis of design report prior to the plan review submission.; this approval is not a guarantee of construction document acceptance. For questions or clarifications contact the Water Resources Planning and Engineering Department at 480-312-5685.

BY rsacks

DATE 1/24/2022

# Basis of Design - Water

JET SET

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## EXHIBITS

- A Vicinity Map
- B Aerial Map
- C Water/Sewer QS Map
- D Fire Hydrant Test
- E Utility Plan

## **Basis of Design - Water**

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### **SECTION 1: INTRODUCTION**

#### **1.1 Purpose**

The purpose of this report is to provide a water analysis as required by the City of Scottsdale to support development of this 0.9183acre project site. This report will analyze existing onsite and offsite water needs and supply and well as proposed improvements in order to ensure that all buildings can and will be serviced by the City of Scottsdale

#### **1.2 Project Location**

This project is located within Thunderbird Industrial Airpark No 3. More specifically this project is located within a portion of Section 31, T4N, R5E of Maricopa County, Arizona, with an address of 15210 N 75<sup>st</sup> Street, Scottsdale Arizona 85260. See Exhibit 1, Vicinity Map.

Properties located adjacent to the subject site include similarly zoned and development properties with a taxiway adjacent to along the entire north property line. See Exhibits 2 Aerial Map.

#### **1.3 Project Development**

The project site is an undeveloped parcel of property created by means of a Lot Split. Lot 67 of Thunderbird Industrial Airpark was formerly an 85,000 sf lot and had the assessor's parcel number 215-56-067. After the Lot Split, 2 parcels were created, one a 45,000 sf lot with an assessor's number of 215-56-67A and the second a 40,000 sf lot with an assessor's number of 215-56-067B.

The project site (hereafter referred to as the subject site) is currently Zoned Ind-1 (Planned Industrial Zoning District). The proposed use is consistent with the current zoning and no changes are being proposed.

This development will consists of one 16,307 sf building consisting of a 13,475 sf aircraft hangar a 1,587 sf lobby/office and a 1,245 sf storage area. The remaining property will include parking, plane maneuvering area, drive aisles and landscape areas.

### **SECTION 2: EXISTING WATER SUPPLY**

#### **2.1 City of Scottsdale Services**

The City of Scottsdale has an 8" ACP Water Main located on the south side of North 75<sup>th</sup> Street. The previously described lot split created 2 separate parcels, with the east parcel (call it Lot 67A) being serviced via a City water meter. The west parcel, (call it Lot 67B) will require a new water meter and fire service. Both will be installed as a part of this development. See Exhibit C.

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### 2.2 Fire Hydrant Flow Test

A fire flow test was performed by EJ Flow Tests, LLC on August 11<sup>th</sup>, 7 am. Said fire flow test was witnessed by the COS Water Resources Department. The results of said flow test are included as Exhibit D. The system shall be designed to maintain 30 psi min pressure at the hydrant under fire flow conditions, and a minimum of 1,500 gpm shall be supplied for commercial, industrial and multi-family properties

As shown within said Exhibit D the Pressure shown at Fire Hydrant F1 was s psi under fire flow condition and x gpm is available at 20 psi (includes a 10% safety factor)

## SECTION 3: PROPOSED IMPROVEMENTS

### 3.1 Site Plan

A utility Site Plan is presented as Exhibit E. A new 1.5" water meter along with a 6" fire connection are being proposed.

### 3.2 Demand

Private water demand comes from a single 1,587 sf office/lobby area with a total of 15 fixture units. The COS services this Industrial Airpark and has 8" ACP sewer lines in place to service subdivision lots.

Commercial / Average Day Water Demand

$0.8 \text{ gpd} \times 1,587 = 1,270 \text{ GPD}$  or  $0.00111 \times 1,587 = 1.76 \text{ GPM}$

Fire Flow Requirements

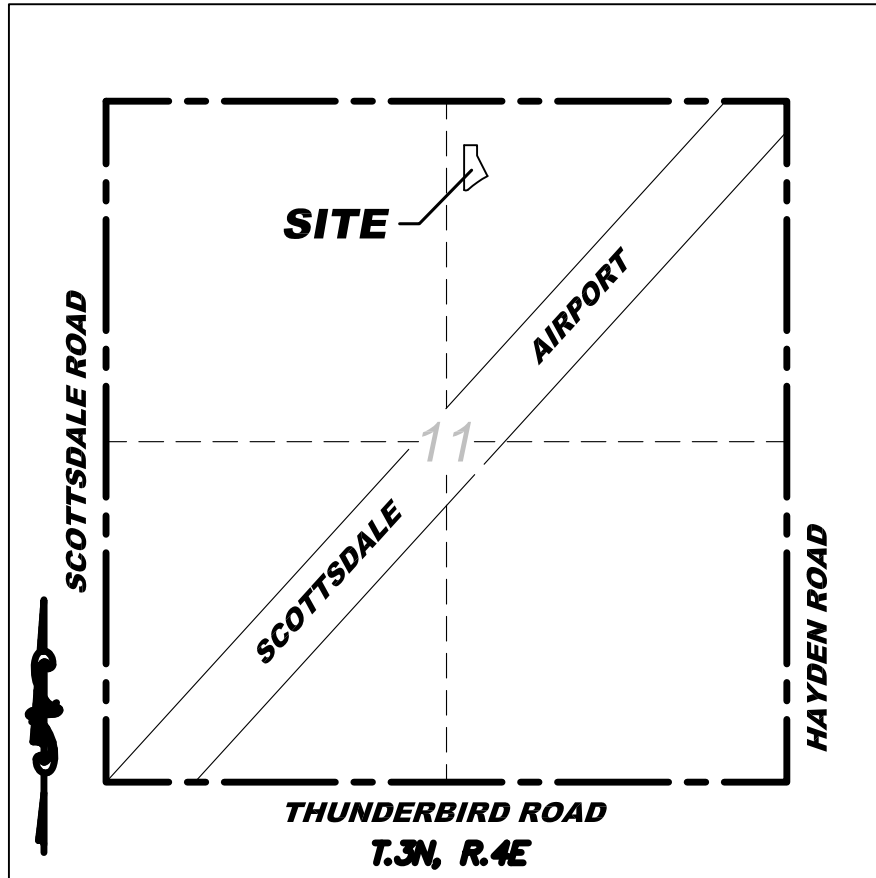
A minimum of 1,500 GOM is required for commercial/industrial

## SECTION 4: CONCLUSIONS

The existing COS water system is adequate to meet both the domestic and fire flow needs without additional improvements.

## SECTION 5: REFERENCES

1. City of Scottsdale Revised Code
2. City of Scottsdale Design Standards and Policies Manual



**VICINITY MAP**

N.T.S.



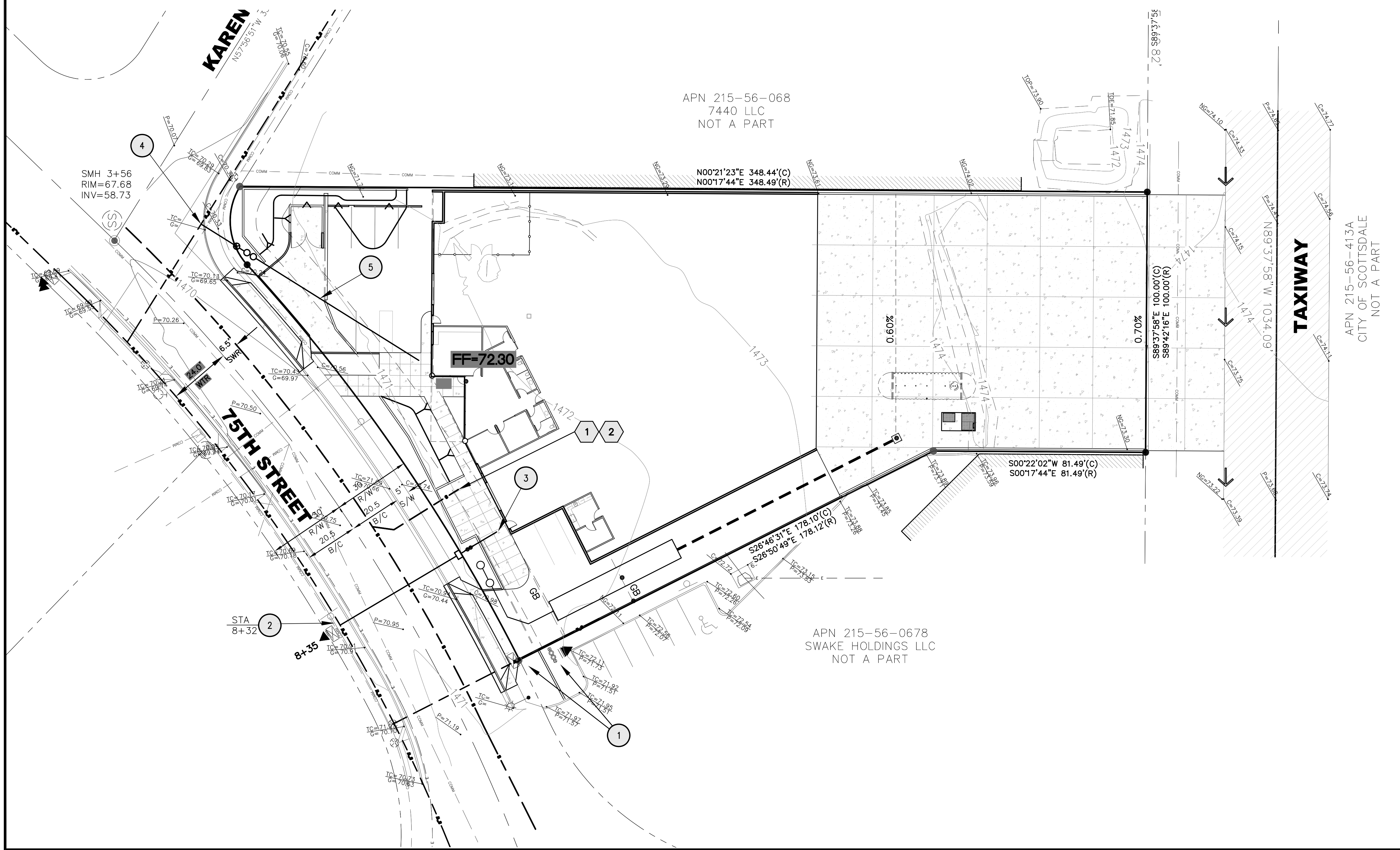


- (X) WATER NOTES**
1. EXISTING WATER METER AND BACKFLOW PREVENTOR
  2. INSTALL NEW WATER TAP WITH 1.5" WATER METER
  3. INSTALL BACKFLOW PREVENTER AND EXTEND NEW WATER SERVICE TO 5' OUTSIDE OF BUILDING
  4. INSTALL 8" X 6" TAPPING SLEEVE AND VALVE
  5. INSTALL BACKFLOW PREVENTER ON FIRE LINE
  6. EXTEND FIRE LINE TO WITHIN 5' OF BUILDING

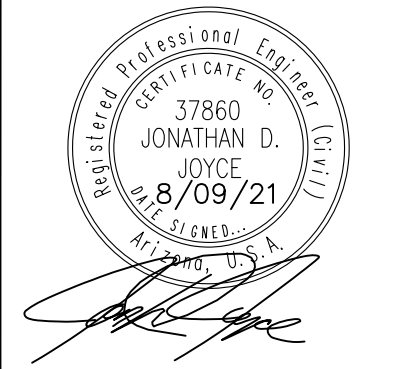
- (X) SEWER**
1. EXISTING SEWER TAP
  2. CONNECT NEW 4" SEWER SERVICE TO WITHIN 5' OF BUILDING

**LEGEND**

—	PROPERTY LINE	—	ADA ROUTE
- - -	RIGHT OF WAY	⊗	FIRE HYDRANT
- · - · -	MONUMENT LINE	⊗	WATER VALVE
- - - - -	EASEMENT	⊗	SEWER MANHOLE
- x - x -	FENCE LINE	⊗	POWER POLE
- O H E -	OVERHEAD ELECTRIC	⊗	LIGHT POLE
- E -	ELECTRIC	⊗	PROPERTY CORNER NOTHING FOUND
- W -	WATER LINE	⊗	1" REBAR
- S -	SEWER LINE	⊗	BRASS CAP FLUSH
- SD -	STORM DRAIN	⊗	BRASS CAP IN HANDHOLE
- G -	GAS LINE	(M)	MEASURED
R/W	RIGHT OF WAY	(R)	RECORDED
PUE	PUBLIC UTILITY EASEMENT	(C)	CALCULATED
SVT	SIGHT VISIBILITY TRIANGLE	ML	MONUMENT LINE
TC	TOP OF CURB	CL	CENTERLINE
G	GUTTER	BSL	BUILDING SETBACK LINE
C	CONCRETE	DE	DRAINAGE EASEMENT
P	PAVEMENT		
X	EXISTING GRADE		



JET SET  
 AT SCOTTSDALE AIRPORT  
 PRELIMINARY UTILITY PLAN



DRAWING	SPECIFICS
PROJECT:	2110
DATE:	8/09/21
SCALE:	N/A
DRAWN BY:	STAFF
DESIGNED BY:	JDJ
CHECKED BY:	JDJ

SHEET  
1 OF 1

