

Case #: 46-DR-2022

Review Cycle: 3

Status: Accepted

Reviewed By: GA

Date: 05/04/2023

This report includes a  
copy of the Grading  
and Drainage Plan

**JACOBS WALLACE, LLC**  
*ENGINEERING PLANNING MANAGEMENT*

**PRELIMINARY  
Drainage Report**  
**For**

**Marshall Four**  
**4251 N Marshall Way**  
**Scottsdale, Arizona**

4-26-23

Prepared for  
Tomecack Design  
Mark Tomecack



**2233 W. Bethany Home Road • Phoenix, AZ 85015 • 602.757.5964**

46-DR-2022

46-DR-2022  
**5/1/2023**

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## **1.0 INTRODUCTION/LOCATION**

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The proposed project consists of a multi-story mixed use project podium style building. The existing building and parking will be demolished. The new building will be retail and multi-family residential.

The 0.10-acre site is located near the intersection of 5<sup>th</sup> Ave and Marshall Way on the east side of Marshall Way at 4251 N. Marshall Way. The site is bordered on all sides by existing commercial/multifamily developments.

The site lies within the Southeast Quarter of Section 22, Township 2 North, Range 4 East of Gila and Salt River Base and Meridian. See the Appendix for a vicinity map.

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## **2.0 FLOOD PLAIN CLASSIFICATION**

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This site is located within a shaded Zone "X" designation as identified on Flood Insurance Rate Map (FIRM MAP) #04013C2235 M, dated September 18, 2020. Zone "X". This area is defined as, "Area of minimal flood hazard" Refer to Appendix C for a copy of the FIRM map for this area.

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## **3.0 PURPOSE**

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The purpose of this Drainage Report is to document onsite retention and drainage requirements, offsite drainage, and anticipated improvements required for the development of this project. The proposed development will be designed to meet City of Scottsdale drainage requirements set forth in the Design Standards & Policies Manual.

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## **4.0 EXISTING DRAINAGE CONDITIONS**

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The site has a fall of approximately 1.0 feet of drop from the west to east and south to north. The site outfall occurs at the northeast corner of the property into the alley at an elevation of 1268.6. The previous development provided no retention with the runoff sheet flowing into the alleys along the eastern and northern property lines. The previous development was all impervious surface.

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## **5.0 OFFSITE DRAINAGE**

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This site falls within the Indian Bend Wash-South Area Drainage Master Study (ADMS) completed by the flood control district as shown on study results excerpts included in Appendix D. The flow 2-D data shows that there is no offsite water coming through this property. The flow is maintained within the rights of way of Marshall Way and the Alleys along the east and north sides. The flow along the frontage of Marshall Way is 2.1 cfs while the flow in the alley on the north side is minimal with no labels in the flow 2-D maps. The flow in the alley on the east side is 1.9 cfs. These flows are maintained within the paved areas of both.

The lowest finished floor elevation is set at 1270.07 which is 1.47' above the outfall for the site. The floors are safe from the street flow.

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## **6.0 PROPOSED DRAINAGE MANAGEMENT PLAN**

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As previously discussed the previous development provided no retention and had an impervious coverage of over 100% that directly releases into the rights of way of the alley along the northern and eastern property line as well as a small amount entering Marshall Way. Due to the existing site being fully impervious as well as providing no stormwater storage volume, no stormwater storage is required. Due to the size of the site being less than 1 acres first flush mitigation is also not required.

The runoff from the proposed development will be collected and directed via roof drains to outlet at similar locations to where it outlets currently.

### **SWPPP**

Given that the disturbed area will be less than 1 acre there will not be a Storm Water Pollution Prevention Plan with the accompanying NOI completed for the project.

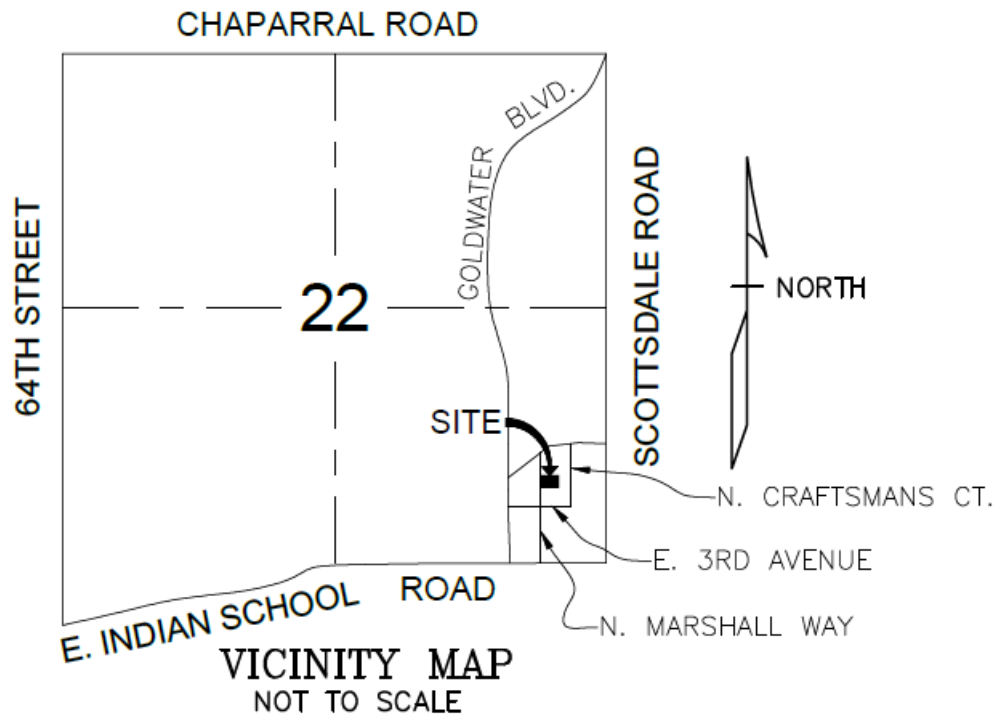
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## **7.0 CONCLUSION**

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The proposed Marshall Four project will adhere to City of Scottsdale drainage criteria. Offsite flows do not affect this site and a pre vs. post storm water run-off argument was utilized to show the fully developed site will not increase the pre-construction run-off amounts. Proposed finished floors will be protected against the 100-year storm event with the site low outfall being a minimum of 1-foot below all finish floors. The onsite runoff will exit the site in similar locations as it does in the current development.

## Appendix A VICINITY MAP



# Appendix B FEMA MAP

## National Flood Hazard Layer FIRMette



### Legend

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

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee. See Notes, Zone X
	Area with Flood Risk due to Levee Zone D
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard Zone X
	Effective LOMRs
GENERAL STRUCTURES	Area of Undetermined Flood Hazard Zone D
	channel, culvert, or Storm Sewer
	Levee, Dike, or Floodwall
OTHER FEATURES	Cross Sections with 1% Annual chance Water Surface Elevation
	coastal Transect
	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary
	coastal Transect Baseline
MAP PANELS	Profile Baseline
	Hydrographic Feature
	Digital Data Available
	No Digital Data Available
	Unmapped
	The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

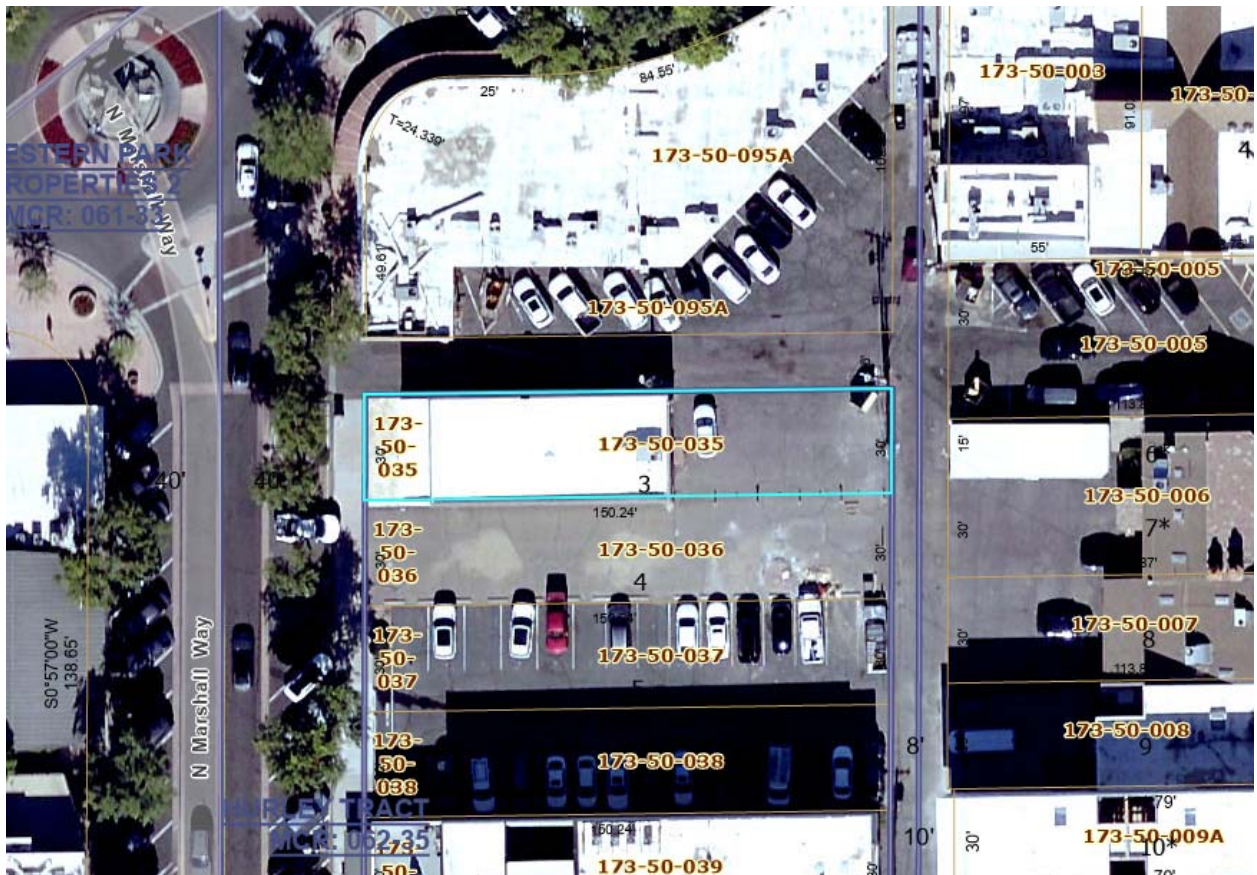
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/8/2022 at 5:20 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

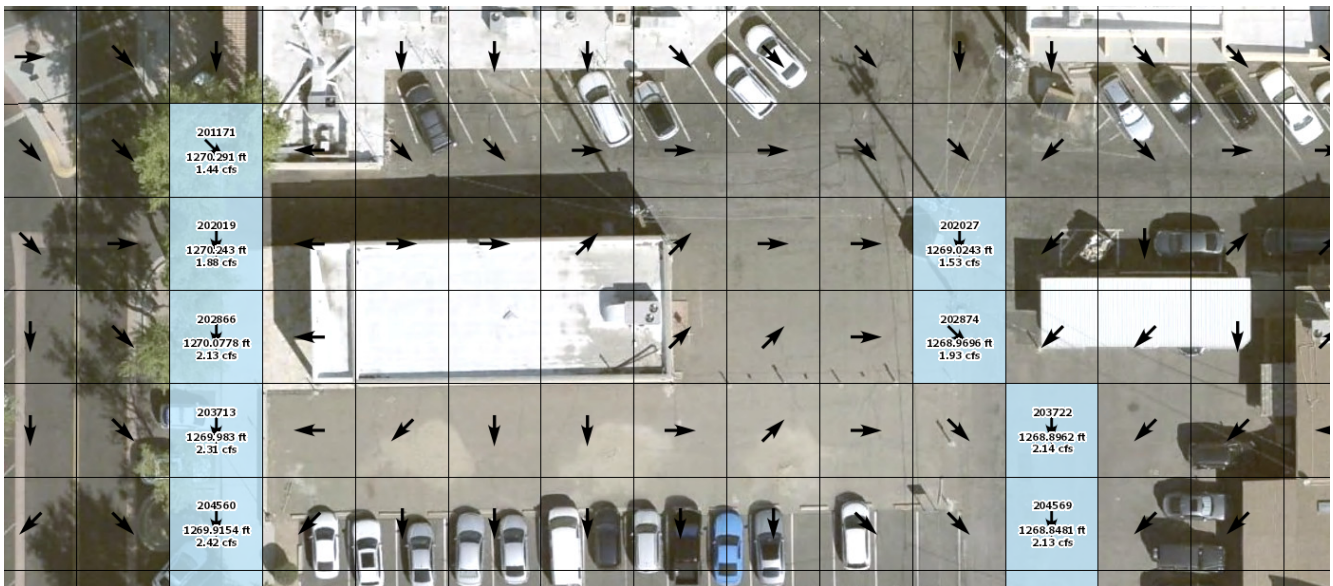
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory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



# Appendix C AERIAL MAP



# Appendix D LIBW-SOUTH FLOW 2-D





## Appendix E

# CONCEPTUAL GRADING AND DRAINAGE PLAN

CURVE TABLE					
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	91.89'(M)	58.96'(M)	36°45'38"	N 71°35'11" E	57.95'(M)
C2	91.89'(M)	59.12'(M)	36°51'36"	N 71°44'09" E	58.10'(M)

# MARSHALL WAY

## CONCEPTUAL GRADING AND DRAINAGE & UTILITY PLAN

### 4251 N. MARSHALL WAY

A PORTION OF THE SE1/4 OF SECTION 22, T.2N., R.4E.  
MARICOPA COUNTY, ARIZONA

#### CIVIL ENGINEER

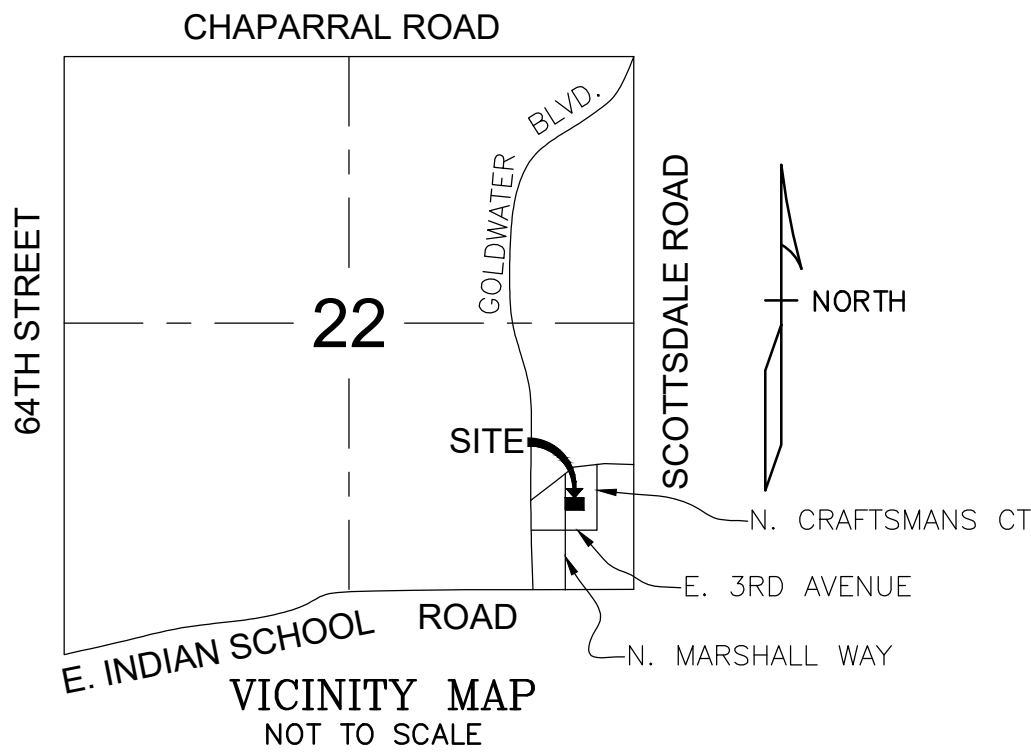
JACOBS WALLACE, LLC  
2233 W. BETHANY HOME RD  
PHOENIX, AZ 85015  
CHUCK JACOBS  
602.757.5964

#### OWNER

NINI INVESTMENT LLC  
7321 E. SHERMAN LN  
SCOTTSDALE, AZ, 85251

#### ARCHITECT

MARK TOMCEK, R.A.  
TOMCEK DESIGN  
4368 NORTH CIVIC CENTER PLAZA  
SUITE 201  
SCOTTSDALE, ARIZONA 85251  
TEL 602 619 7751  
FAX 480 718 8387



#### FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

COMMUNITY NUMBER	COMMUNITY MAP NUMBER	PANEL NUMBER	PANEL DATE	SUFFIX	FIRM INDEX DATE	FIRM ZONE	BASE FLOOD ELEVATION (AO ZONE, USE DEPTH)
045013	04013C	2235	09/18/20	M	09/18/20	UNSHADED X	N/A

FLOOD HAZARD ZONE X IS DEFINED AS AREAS WITHIN 0.2% ANNUAL CHANCE FLOODPLAIN

#### CONSTRUCTION TYPE

V-B

#### ZONING

CITY ZONE CODE D/RS-1, DO

#### PROJECT DESCRIPTION

THE PROPOSED PROJECT IS A MIXED USED DEVELOPMENT THAT WILL OCCUPY THE AREA WHERE AN EXISTING BUILDING AND SURFACE PARKING LOT EXISTS. A NEW RETAIL SPACE WILL BE ADDED ALONG THE MARSHALL WAY FRONTAGE AND MULTIPLE STORIES OF RESIDENTIAL DEVELOPMENT WILL BE ADDED ABOVE. PARKING ACCESS WILL COME FROM THE EXISTING ALLEY TO THE NORTH.

#### LEGAL DESCRIPTION

LOT 3, HURLEY TRACT, ACCORDING TO BOOK 62 OF MAPS, PAGE 35, RECORDS OF MARICOPA COUNTY, ARIZONA.

#### ASSESSOR PARCEL NUMBERS

173-50-035

#### DISTURBED AREA

DISTURBED AREA=0.1 AC (ROUNDED)

#### SITE AREA

NET AREA 4502.36 Sq. Ft. OR 0.10 ACRES  
MORE OR LESS.

#### LEGEND

- FOUND BRASS CAP IN HANDHOLE
  - FOUND BRASS CAP FLUSH
  - FOUND 1/2" REBAR
  - FOUND NAIL IN PAVEMENT
  - FOUND IRON PIPE
  - POST
  - SIGN
  - LIGHT POLE
  - WATER MANHOLE
  - FIRE HYDRANT
  - ELECTRIC JUNCTION BOX
  - SANITARY SEWER MANHOLE
  - GAS VALVE
  - TELEPHONE RISER
  - ELECTRIC CABINET
  - PVC PIPE
  - ELECTRIC METER
  - WATER METER
  - WATER VALVE
  - SAGUARO CACTUS
  - GAS METER
  - AC UNIT
  - DOWN GUY
  - UTILITY POLE
  - PALO VERDE TREE (R)
  - MESQUITE TREE (M)
  - PALM TREE (C)
  - SEWER CLEANOUT BK., PG.
  - LIGHT POLE DOC.
  - TREE DKT., PG.
  - APN
  - R/W
- RECORD DATA  
MEASURED DATA PER THIS SURVEY  
CALCULATED DATA PER THIS SURVEY  
BOOK AND PAGE NUMBER  
DOCUMENT NUMBER  
DOCKET AND PAGE NUMBER  
ASSESSOR PARCEL NUMBER  
RIGHT OF WAY

#### BENCHMARK

MCDOT POINT ID: 3892  
BRASS CAP IN HAND HOLE AT THE INTERSECTION OF SCOTTSDALE ROAD AND INDIAN SCHOOL ROAD.

ELEVATION = 1260.366 (NAVD88 DATUM)

#### BASIS OF BEARING

THE MONUMENT LINE OF MARSHALL WAY AS SHOWN ON PLAT OF RECORD, HURLEY TRACT, ACCORDING TO BOOK 62 OF MAPS, PAGE 35, RECORDS OF MARICOPA COUNTY, ARIZONA.

BEARING = N 00°57'00" E

- PROPERTY BOUNDARY LINE
- ADJACENT BOUNDARY LINE
- SECTION LINE
- EASEMENT LINE
- STREET CENTERLINE
- WOOD FENCE
- STEEL RAIL FENCE
- CHAIN LINK FENCE
- WATER LINE
- SEWER LINE
- GAS LINE
- TELEPHONE LINE
- OVERHEAD ELECTRIC LINE
- ELECTRIC LINE

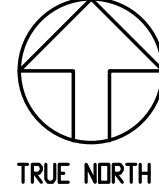
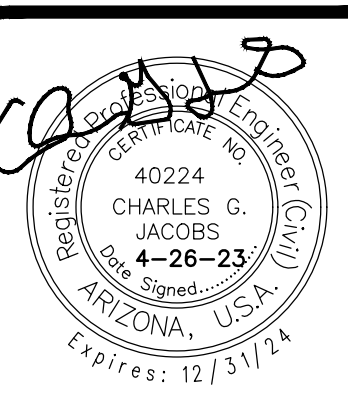
MARSHALL WAY  
4251 N. MARSHALL WAY  
SCOTTSDALE, AZ 85251

CONCEPTUAL G & D  
AND UTILITY PLAN

JACOBS WALLACE, LLC

ENGINEERING - PLANNING - MANAGEMENT

2233 W. BETHANY HOME ROAD  
PHOENIX, AZ 85015  
602.757.5964



0 5 10 20  
SCALE 1"=10'

NOV 2021

DRAWING NO.

C1.0

JOB: 0258

