



Minor Subdivision Staff Approval

7-MD-2020

11880 N 98th st Property
Division

APPLICATION INFORMATION	
LOCATION: 11880 N 98th St	APPLICANT: Scott Sanford
PARCEL: 217-26-004F	COMPANY: Scott
Q.S.: 30-51	ADDRESS: 10510 e sunnyside dr Scottsdale, AZ 85259
CODE VIOLATION #:	PHONE: (602) 432-6361
<p><u>Request:</u> Request by owner to the City of Scottsdale for approval to divide an existing 3.7 acre lot into three (3) lots within the Single-family Residential, (R1-35), zoning, located at 11880 N. 98th Street, a meets and bounds lot; Scotsdale Arizona</p>	

STEP 1

APPROVAL STIPULATIONS

Current Planning Stipulations:

1. Except as required by the Scottsdale Revised Code (SRC), the Design Standards and Policies Manual (DSPM), and the other stipulations herein, the Minor Subdivision shall substantially conform to the following documents:
 - a. The Preliminary Plat submitted by Arizona Surveyors, INC., with a city staff date of 03/12/2021.
 - b. Case Preliminary Drainage Report for Minor Division of current street address 11880 N. 98th Street; submitted by TNG Consulting, LLC, accepted, and Approved on 1/20/2021.
2. Submit for final plat approval to the City of Scottsdale. Provide a copy of this approval letter along with the items required in the Final Plan Review Submittal Requirements. Provide all relevant case numbers in the right-hand margin of the plat's cover sheet.

Land Divisions and Land Survey Stipulations:

3. Prior to plat recordation any required improvements within the Right of Way must be either fully constructed and accepted by Inspection Services or guaranteed through the execution of a Covenant to Construct and the posting of a financial assurance (i.e. bond, letter of credit, or cash).

Engineering, Water and Sewer Stipulations:

4. Per DSPM CH 3-1.300 Water and sewer services will be required to be installed for each new lot created. Services shall be installed prior to plat recordation.
5. Per DSPM CH 6 and 7 All water and sewer services must be perpendicular to the lot along the lot frontages.

Transportation Stipulations:

6. Construct roll curb and gutter along the site frontage. The curb and gutter located in alignment with the existing improvements to the south and shall generally conform to a twenty-eight (28)-foot street cross section (measured to back of curb). This direction is subject to approval from Stormwater staff acceptance of the existing street cross slope. If not, the option shall be to reconstruct the street to provide a normal crown section.

STEP 2 FINAL PLAT AND CONSTRUCTION DOCUMENT PLAN REVIEW SUBMITTAL REQUIREMENTS

Planning and Development Services

7447 East Indian School Road, Suite 105, Scottsdale, Arizona 85251 ♦ www.ScottsdaleAZ.gov

Submit one copy of this approval letter, and permit application along with the following **DIGITAL** plan set(s) for review at <https://eservices.scottsdaleaz.gov/bldgresources/plans>

PERMIT APPLICATION: **Completed Permit Application.** The permit application may be obtained or completed online at the following weblink:
<https://eservices.scottsdaleaz.gov/bldgresources/plans>

MAP: 1 PDF file of the survey on 24" X 36" sheet size

IMPROVEMENTS: 1 PDF of civil improvement plans

OTHER: 1 PDF file of a Commitment for Title Insurance for the site
(no older than 30 days)

1 PDF file of the ALTA survey (for reference)

1 PDF file of the Final Drainage Report

The following plan review fee shall apply: (NOTE: Fees subject to change every July 1st)

Minor Subdivision

This plan set shall be reviewed by the following departments:

Staff Reviewers:

- | | |
|--|------------------|
| <input checked="" type="checkbox"/> SURVEY: | Dwayne Haught |
| <input checked="" type="checkbox"/> PLANNING: | Nate Tonnemacher |
| <input checked="" type="checkbox"/> CIVIL: | David Gue |
| <input checked="" type="checkbox"/> WATER RESOURCES: | Richard Sacks |
| <input checked="" type="checkbox"/> STORM WATER: | Alex Menez |
| <input checked="" type="checkbox"/> TRANSPORTATION: | Phil Kercher |
| <input checked="" type="checkbox"/> FIRE: | Linda Wilson |
| <input checked="" type="checkbox"/> FINAL PLAT / MOD: | Brian Kulina |
| <input checked="" type="checkbox"/> GIS: | Tanya Hazlehurst |

Expiration of Minor Subdivision Approval

This approval expires two (2) years from date of approval if a permit has not been issued, or if no permit is required, work for which approval has been granted has not been completed.

Staff Signature:

DATE: 03/12/2021

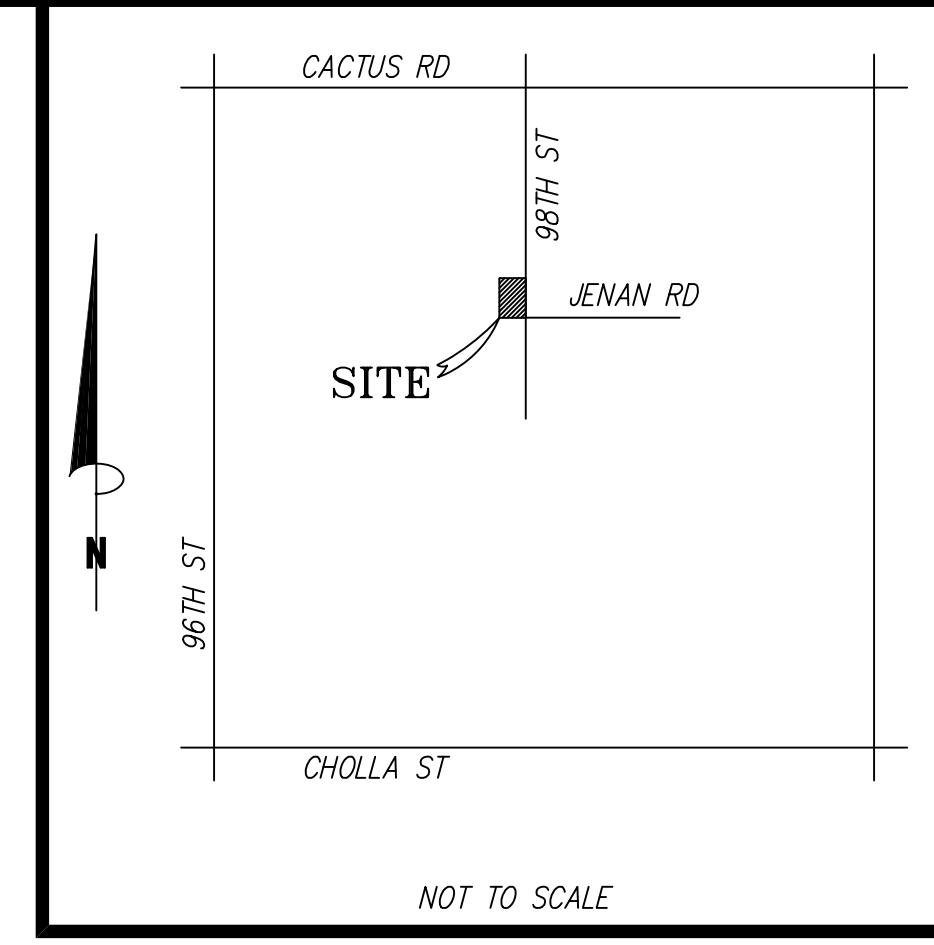


Nate Tonnemacher, 480-312-4205

Planning and Development Services

7447 East Indian School Road, Suite 105, Scottsdale, Arizona 85251 ♦ www.ScottsdaleAZ.gov

MINOR LAND DIVISION
HEART LAND ACRES
A PORTION OF THE NORTHWEST QUARTER, SECTION 20,
TOWNSHIP 3 NORTH, RANGE 5 EAST,
GILA & SALT RIVER BASE & MERIDIAN, CITY OF SCOTTSDALE,
COUNTY OF MARICOPA, STATE OF ARIZONA.
OWNER: SOHOME AZ., AN ARIZONA CORPORATION



NOT TO SCALE

DEDICATION:

STATE OF ARIZONA)
) S.S.
COUNTY OF MARICOPA)

SOHOME AZ., AN ARIZONA CORPORATION, AS OWNER HEREBY SUBDIVIDES A PORTION OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, UNDER THE NAME "9 NORTH", AS SHOWN ON THIS PLAT. THIS PLAT SETS FORTH THE LOCATION AND GIVES THE DIMENSIONS OF THE LOTS, TRACTS, STREETS AND EASEMENTS CONSTITUTING THE SUBDIVISION. EACH LOT, TRACT, STREET AND EASEMENT SHALL BE KNOWN BY THE NUMBER, LETTER, NAME OR DEASEMENTS:

SOHOME AZ., AN ARIZONA CORPORATION, OWNER GRANTOR, DEDICATES TO THE CITY OF SCOTTSDALE, AN ARIZONA MUNICIPAL CORPORATION, GRANTEE: ESCRIPTION GIVEN EACH RESPECTIVELY ON THIS PLAT. THE EASEMENTS ARE DEDICATED FOR THE PURPOSES, AND SUBJECT TO CONDITIONS, STATED.

DRAINAGE AND FLOOD CONTROL (DFC):
A PEPTUAL, NON-EXCLUSIVE EASEMENT SHOWN HEREON AS TRACT A, B, AND C, UPON, OVER, UNDER AND ACROSS THE PROPERTY ON THIS PLAT, FOR DRAINAGE AND FLOOD CONTROL AND ALL RELATED PURPOSES, INCLUDING WITHOUT LIMITATION, CONSTRUCTION, MAINTENANCE, OPERATION, REPLACEMENT, AND REPAIR OF LEVEES, DIKES, DAMS, STORMWATER STORAGE BASINS, STORM DRAINS, CHANNELS, IMPROVEMENTS, WASHES, WATERCOURSES AND OTHER DRAINAGE OR FLOOD CONTROL FACILITIES (COLLECTIVELY, "DRAINAGE FACILITIES"), SUBJECT TO FOLLOWING:

1. GRANTOR IS RESPONSIBLE FOR ALL DRAINAGE FACILITIES ON THE PROPERTY
2. GRANTOR SHALL NOT CONSTRUCT, OBSTRUCT OR ALTER ANY DRAINAGE FACILITIES ON THE PROPERTY WITHOUT GRANTEE'S PRIOR WRITTEN CONSENT.
3. DRAINAGE FACILITIES ON THE PROPERTY MIGHT NOT BE OBVIOUS. LACK OF AWARENESS OF DRAINAGE FACILITIES DOES NOT EXCUSE FAILURE TO PERFORM THE REQUIREMENTS OF THIS DOCUMENT.
4. AT GRANTOR'S EXPENSE, GRANTOR SHALL MAINTAIN DRAINAGE FACILITIES IN GOOD CONDITION; REPLACE AND REPAIR DRAINAGE FACILITIES AS NECESSARY TO MAINTAIN THEIR FLOOD CARRYING OR STORAGE CAPACITY; PREVENT EROSION; AND PREVENT AND REFUSE, DEBRIS, SEDIMENT, VEGETATION, OR OTHER OBSTRUCTION FROM ACCUMULATING IN DRAINAGE FACILITIES. GRANTEE IS NOT OBLIGED TO PERFORM ANY SUCH WORK.
5. IF, IN GRANTEE'S OPINION, GRANTOR FAILS TO DO SUCH WORK, THEN GRANTEE MAY DO WORK AT GRANTOR'S EXPENSE. IN ADDITION TO GRANTEE'S OTHER REMEDIES, THE COST OF THE WORK SHALL BE SECURED BY A LIEN THAT GRANTOR HEREBY GRANTS AGAINST THE PROPERTY, WITH INTREST AT THE ANNUAL RATE OF EIGHT PERCENT (8%).
6. GRANTOR SHALL INDEMNIFY, DEFEND AND HOLD GRANTEE HARMLESS AGAINST GRANTOR'S FAILURE TO PERFORM UNDER THIS DOCUMENT.

GRANTOR WARRANTS AND COVENANTS TO GRANTEE AND ITS SUCCESSORS AND ASSIGNS THAT GRANTOR IS LAWFULLY SEIZED AND POSSESSED OF THE PROPERTY; THAT GRANTOR HAS A GOOD AND LAWFUL RIGHT TO MAKE THE CONVEYANCE DESCRIBED HEREIN; AND THAT GRANTEE SHALL HAVE TITLE AND QUIET POSSESSION AGAINST THE CLAIMS OF ALL PERSONS.

THE PERSON EXECUTING THIS DOCUMENT ON BEHALF OF A CORPORATION, TRUST OR OTHER ORGANIZATION WARRANTS HIS OR HER AUTHORITY TO DO SO AND THAT ALL PERSONS NECESSARY TO BIND GRANTOR HAVE JOINED IN THIS DOCUMENT. THIS DOCUMENT RUNS WITH THE LAND IN FAVOR OF GRANTEE'S SUCCESSORS AND ASSIGNS.

DATED THIS _____ DAY OF _____, 2020.

GRANTOR: SOHOME AZ., AN ARIZONA CORPORATION

BY: _____

ACKNOWLEDGMENT

STATE OF ARIZONA)
) S.S.
COUNTY OF MARICOPA)

THIS DOCUMENT WAS ACKNOWLEDGED BEFORE ME, THIS _____ DAY OF _____, 2020,

BY _____ FOR AND BEHALF OF SOHOME AZ., AN ARIZONA CORPORATION

NOTARY PUBLIC: _____

MY COMMISSION EXPIRES: _____

PERTINENT DOCUMENTS

COMMONWEALTH LAND TITLE INSURANCE COMPANY ORDER NO. 01943653-265-MRA-LD

- 361-13 MCR (R1)
- 715-12 MCR (R2)
- 1371-13 MCR (R3)

BASIS OF BEARING

NAD 83, EPOCH 1992, INTERNATIONAL UNITS, ARIZONA CENTRAL, PER GPS OBSERVATION

EXISTING EASEMENTS & RIGHT OF WAYS

- 1. 25' RIGHT OF WAY PER DOCKET 16173, PAGE 1216 & DOCKET 16237, PAGE 96, MCR

BENCHMARK

GDAC UNIQUE PID: 2247

DESCRIPTION: FD 3" SCOTTSDALE BC 0.1' DN NO STAMPING

ELEVATION: 1,408.164 (NAVD '88)

PROVIDED BY MCDOT

CITY OF SCOTTSDALE STAFF PLAT APPROVAL

THIS PLAT HAS BEEN REVIEWED FOR COMPLIANCE WITH THE CITY OF SCOTTSDALE'S DESIGN STANDARDS AND POLICY MANUAL

BY: _____ CHIEF DEVELOPMENT OFFICER _____ DATE _____

THIS SUBDIVISION HAS BEEN REVIEWED FOR COMPLIANCE WITH THE DEVELOPMENT STANDARDS OF THE CITY OF SCOTTSDALE'S DEVELOPMENT REVIEW BOARD (DRB) CASE NO. NA, AND ZONING CASE(S) NO. NA AND ALL CASE RELATED STIPULATIONS.

BY: _____ DEVELOPMENT ENGINEERING MANAGER _____ DATE _____

OWNER

SOHOME AZ., AN ARIZONA CORPORATION

ADDRESS: 10601 NORTH HAYDEN ROAD, SUITE 100 SCOTTSDALE, ARIZONA 85260

PHONE: 602-999-4206

SITE INFORMATION

SITE ADDRESS: 11880 N 98TH STREET, SCOTTSDALE, ARIZONA 85250

APN: 217-26-004F

ZONING: R1-35

GROSS AREA PER THIS SURVEY: 161,172 SQUARE FEET +/-

PARENT PARCEL LEGAL DESCRIPTIONS

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF MARICOPA, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

PARCEL NO. 1:
THE SOUTH 4 ACRES OF THE EAST HALF OF THE EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 EAST, OF THE GILA SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 2:
AN EASEMENT FOR INGRESS AND EGRESS OVER THE EAST 20 FEET OF THE EAST HALF OF THE EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 EAST, OF THE GILA SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA; EXCEPT THE SOUTH 4 ACRES THEREOF.
APN: 217-26-004-F

TITLE REFERENCE

THIS SURVEY IS BASED UPON THE TITLE COMMITMENT PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY ORDER NO. 01943653-265-MRA-LD

ARIZONA SURVEYORS, INC. HAS RELIED SOLELY UPON THE INFORMATION CONTAINED WITHIN THE TITLE COMMITMENT AND SCHEDULE B DOCUMENTS PROVIDED BY FIRST AMERICAN TITLE INSURANCE COMPANY AS LISTED HEREON. ARIZONA SURVEYORS, INC. AND JOHN M. WARE (RLS) MAKE NO STATEMENT AS TO THE ACCURACY OR COMPLETENESS OF THE SUBJECT REPORT.

STIPULATION SET
RETAIN FOR RECORDS

APPROVED

BY THE CITY OF SCOTTSDALE PLANNING DEPARTMENT

7-MD-2020 NT 03/12/2021
CASE NUMBER APPROVED BY DATE

CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE PLAT AND ALL REQUIREMENTS THEREOF.

NOTES

1. MONUMENTS FOUND DURING THIS FIELD SURVEY WERE ACCEPTED UNLESS OTHERWISE NOTED HEREIN.
2. THIS SURVEY WAS CONDUCTED WITH THE BENEFIT OF TITLE REPORTS. THIS SURVEY MAKES NO WARRANTY AS TO THE EXISTENCE OF ANY ADDITIONAL EASEMENTS OF RECORD AND/OR RESTRICTIONS TO AFFECTED PARCELS.
3. IT IS RECOMMENDED THAT THE CLIENT RETAIN LEGAL CONSULTATION TO THOROUGHLY EXAMINE TITLE FOR ANY CLAIMS, DEFECTS OR LIABILITY UNDISCLOSED BY THIS SURVEY.
4. THIS DOCUMENT MUST BE COMPARED TO THE ORIGINAL HARD COPY ISSUE AT THE SURVEY DATE WITH ITS ORIGINAL SEAL TO ENSURE THE ACCURACY OF THE INFORMATION AND TO FURTHER ENSURE THAT NO CHANGES, ALTERATIONS OR MODIFICATIONS HAVE BEEN MADE.
5. ALL BEARINGS AND DISTANCES SHOWN ARE MEASURED FROM MONUMENT TO MONUMENT UNLESS OTHERWISE NOTED.
6. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT REAL ESTATE: EASEMENTS, OTHER THAN POSSIBLE EASEMENTS WHICH WERE VISIBLE AT THE TIME OF MAKING THIS SURVEY; RESTRICTIVE COVENANTS; SUBDIVISION RESTRICTIONS; ZONING OR OTHER LAND USE REGULATIONS, AND ANY OTHER FACTS WHICH AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
7. DECLARATION IS MADE TO ORIGINAL PURCHASER OF THE SURVEY. IT IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
8. ALL SURFACE AND SUBSURFACE IMPROVEMENTS ON AND ADJACENT TO THIS SUBJECT PARCEL ARE NOT NECESSARILY SHOWN.
9. A.R.S. 32-151 STATES THAT THE USE OF THE WORD "CERTIFY" OR "CERTIFICATION" BY A PERSON OR FIRM THAT IS REGISTERED OR CERTIFIED BY THE BOARD IS AN EXPRESSION OF PROFESSIONAL OPINION REGARDING FACTS OR FINDINGS THAT ARE SUBJECT OF THE CERTIFICATION AND DOES NOT CONSTITUTE AN EXPRESS OR IMPLIED WARRANTY OR GUARANTEE.
10. THE POTENTIAL BUYER(S) OF THIS SITE IS HEREBY ADVISED THAT THIS SITE IS SUBJECT TO ARIZONA PLATTING LAWS PRIOR TO THE DEVELOPMENT OF THIS SITE.
11. THIS FIRM IS LICENSED TO PERFORM SPECIFIC SURVEY TASKS. C.C. & R'S, ZONING MATTERS, A.D.A. REQUIREMENTS, LOCAL ORDINANCES, ETC. ARE LEGAL MATTERS AND SHOULD BE REVIEWED BY AN ATTORNEY.
12. THIS DEVELOPMENT IS ON THE CITY OF SCOTTSDALE WATER SYSTEM, WHICH HAS A CERTIFICATION OF A ASSURED WATER SUPPLY.
13. AFFIDAVITS OF CORRECTION OR AMENDMENT TYPE LETTERS CONCERNING THIS PLAT NOT VALID. THERE WILL BE NO REVISIONS TO THIS PLAT WITHOUT THE DEVELOPMENT ENGINEERING MANAGER'S APPROVAL.

CERTIFICATE OF SURVEY

THIS IS TO CERTIFY THAT I AM A LAND SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF ARIZONA; THIS PLAT WAS MADE UNDER MY DIRECTION; THIS PLAT MEETS THE "MINIMUM STANDARDS FOR ARIZONA BOUNDARY SURVEYS"; THIS SURVEY AND DIVISION OF THE SUBJECT PROPERTY DESCRIBED AND PLATTED HEREON WERE MADE DURING THE MONTH OF SEPTEMBER, 2020; THIS SURVEY IS TRUE AND COMPLETE AS SHOWN; MONUMENTS SHOWN ACTUALLY EXIST; THEIR POSITIONS ARE CORRECTLY SHOWN AND SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

JOHN M. WARE, RLS 37937 _____

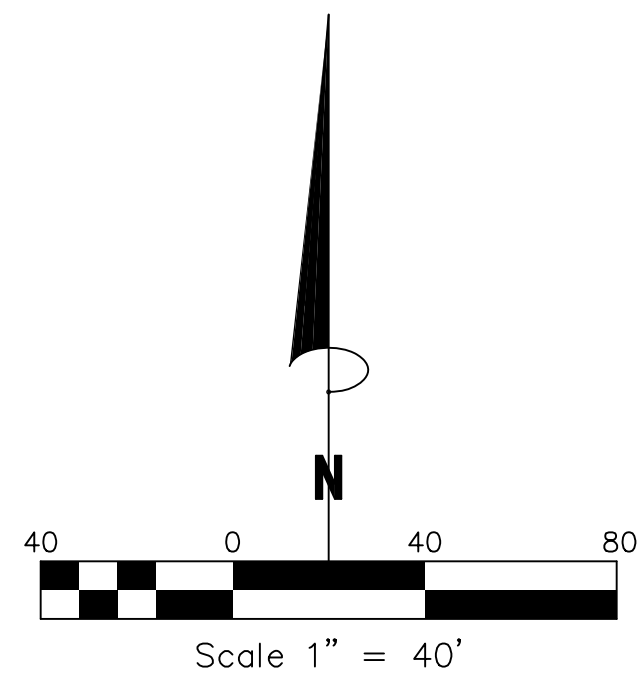
ARIZONA SURVEYORS, INC.

11445 EAST VIA LINDA SUITE 2-447
SCOTTSDALE, ARIZONA 85259-2638
PHONE - (480) 816-9773
E-MAIL: jwazrls@gmail.com
WEBSITE: www.arizonasurveyors.com

MINOR LAND DIVISION

DRAWN: JMW	JOB NO: HEARTLAND ACRES	DATE: 09/18/2020
CHECK: JMW	SURVEYOR:	
SCALE: 1" = 40'	SHEET 1 OF 2	

PROJECT: XXX-PA-2020 PLAN CHECK # XXXX-20

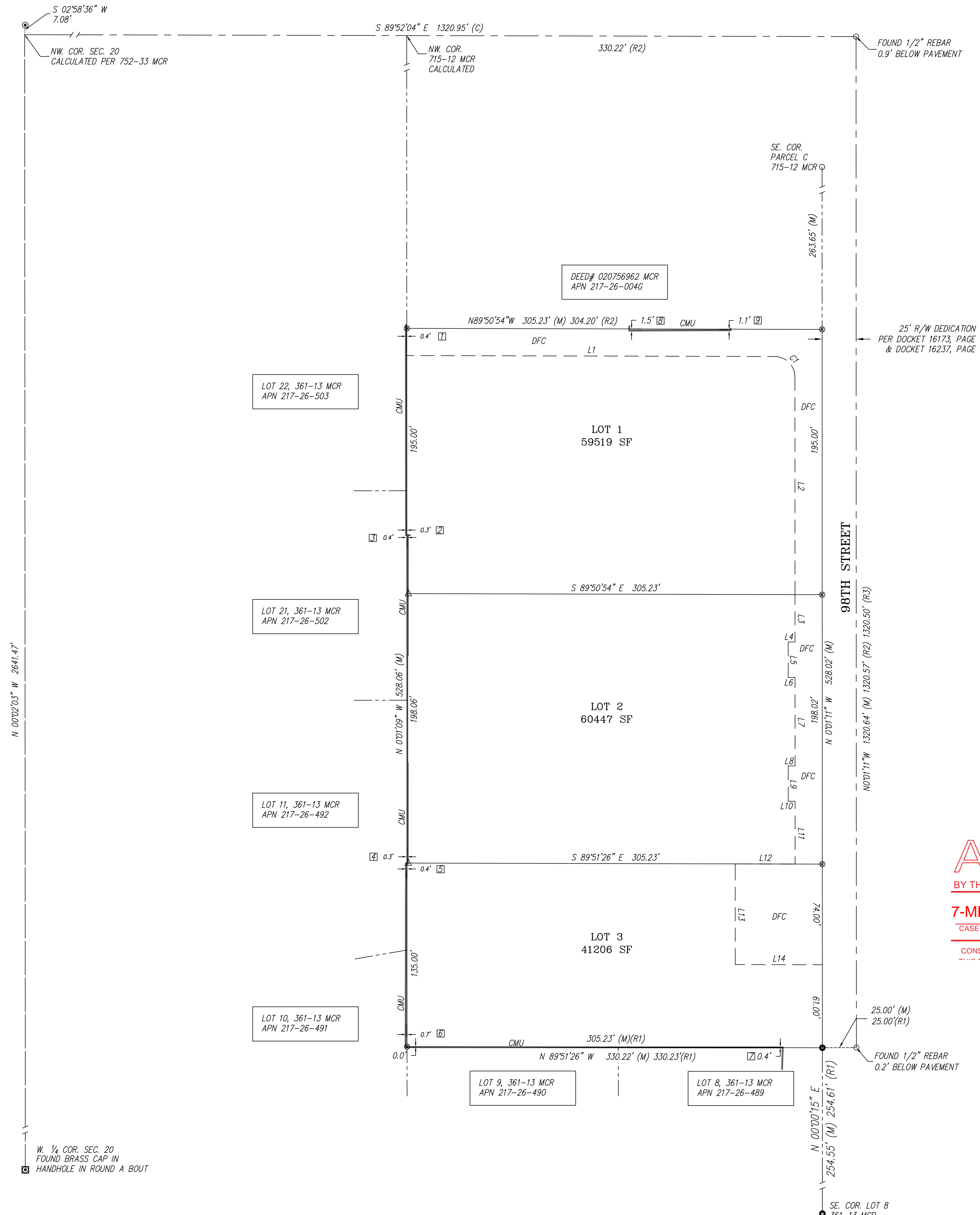


WALL TIES TO PROPERTY LINE □

1. EAST FACE 0.4' WEST OF LINE
2. EAST FACE 0.3' WEST OF LINE
3. WEST FACE 0.4' EAST OF LINE
4. WEST FACE 0.3' EAST OF LINE
5. EAST FACE 0.4' WEST OF LINE
6. EAST FACE 0.7' WEST OF LINE
7. NORTH FACE 0.4' NORTH OF LINE
8. SOUTH FACE 1.5' SOUTH OF LINE
9. SOUTH FACE 1.1' SOUTH OF LINE

LINE	BEARING	DISTANCE
L1	N 89°50'54" W	270.27'
L2	N 00°01'11" W	160.05'
L3	S 00°01'11" E	34.85'
L4	S 89°58'49" W	5.00'
L5	N 00°01'11" W	26.00'
L6	N 89°58'49" E	5.00'
L7	N 00°01'11" W	65.03'
L8	S 89°58'49" W	5.00'
L9	N 00°01'11" W	26.00'
L10	N 89°58'49" E	5.00'
L11	N 00°01'11" W	46.14'
L12	N 89°51'26" W	44.00'
L13	S 00°01'11" E	74.00'
L14	S 89°51'26" E	64.00'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	15.00'	23.52'	21.18'	N 44°56'02" W	89°49'43"



25' R/W DEDICATION
PER DOCKET 16173, PAGE 1216 (T)
& DOCKET 16237, PAGE 96

**STIPULATION SET
RETAIN FOR RECORDS**

APPROVED

BY THE CITY OF SCOTTSDALE PLANNING DEPARTMENT

7-MD-2020 NT 03/12/2021
CASE NUMBER APPROVED BY DATE

CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH

LEGEND:

--- EASEMENT LINE

--- MONUMENT LINE

--- PROPERTY LINE

--- ADJOINING LOT LINE

- SECTION MONUMENT AS NOTED
- FOUND 3" CITY OF SCOTTSDALE BRASS CAP FLUSH LS 39326
- FOUND 1/2" REBAR W/TAG RLS 15197
- FOUND 1/2" REBAR
- △ SET NAIL W/TAG RLS 37937 "WC" 1' EAST ON WALL
- ⊗ SET 1/2" REBAR W/CAP RLS 37937

- MCR MARICOPA COUNTY RECORDER
- MCA MARICOPA COUNTY ASSESSOR
- CMU CONCRETE MASONRY UNIT
- DFC DRAINAGE & FLOOD CONTROL EASEMENT
- (C) CALCULATED
- (M) MEASURED
- (R) RECORD PLAT

ARIZONA SURVEYORS, INC.
11445 EAST VIA LINDA SUITE 2-447
SCOTTSDALE, ARIZONA 85259-2638
PHONE - (480) 816-9773
E-MAIL: jwazrls@gmail.com
WEBSITE: www.arizonasurveyors.com

MINOR LAND DIVISION			
DRAWN: JMW	JOB NO: HEARTLAND ACRES	DATE:	09/18/2020
CHECK: JMW	SURVEYOR:		
SCALE: 1" = 40'	SHEET	2 OF 2	

PROJECT: XXX-PA-2020 PLAN CHECK # XXXX-XX



11/17/2020

Scott Sanford
10510 e Sunnyside dr
Scottsdale, AZ 85259

RE: 7-MD-2020
11880 N 98th st Property Division
K0186 (Key Code)

Dear Mr. Sanford

The Planning & Development Services Division has completed the review of the above referenced development application submitted on 10/07/2020. The following **1st Review Comments** represent the review performed by our team and is intended to provide you with guidance for compliance with city codes, policies, and guidelines related to this application.

Zoning Ordinance and Scottsdale Revise Code Significant Issues

The following code and ordinance related issues have been identified in the first review of this application, and shall be addressed in the resubmittal of the revised application material. Please address the following:

Drainage:

1. Please submit a PDF copy of the revised Drainage Report with the original, red-lined copy of the report to your Project Coordinator with the rest of the resubmittal material identified in Attachment A.
2. Please submit a PDF copy of the revised preliminary G & D Plan with the original, red-lined copy of the report to your Project Coordinator with the rest of the resubmittal material identified in Attachment A.

Please resubmit the revised application requirements and additional information identified in Attachment A, Resubmittal Checklist, and a written summary response addressing the comments/corrections identified above as soon as possible for further review. The City will then review the revisions to determine if the application is to be scheduled for a hearing date, or if additional modifications, corrections, or additional information is necessary.

PLEASE CALL 480-312-7767 TO SCHEDULE A RESUBMITTAL MEETING WITH ME PRIOR TO YOUR PLANNED RESUBMITTAL DATE. DO NOT DROP OFF ANY RESUBMITTAL MATERIAL WITHOUT A SCHEDULED MEETING. THIS WILL HELP MAKE SURE I'M AVAILABLE TO REVIEW YOUR RESUBMITTAL AND PREVENT ANY UNNECESSARY DELAYS. RESUBMITTAL MATERIAL THAT IS DROPPED OFF MAY NOT BE ACCEPTED AND RETURNED TO THE APPLICANT.

The Planning & Development Services Division has had this application in review for 40 Staff Review Days since the application was determined to be administratively complete.

These **1st Review Comments** are valid for a period of 180 days from the date on this letter. The Zoning Administrator may consider an application withdrawn if a revised submittal has not been received within 180 days of the date of this letter (Section 1.305. of the Zoning Ordinance).

If you have any questions, or need further assistance please contact me at 480-312-4205 or at ntonnemacher@ScottsdaleAZ.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Nate', with a long horizontal flourish extending to the right.

Nate Tonnemacher
Planner

ATTACHMENT A
Resubmittal Checklist

Case Number: **7-MD-2020**

Please follow the plan and document submittal requirements below. **All files shall be uploaded in PDF format.** Provide one (1) full-size copy of each required plan document file. Application forms and other written documents or reports should be formatted to 8.5 x 11.

A digital submittal Key Code is required to upload your documents: K0186. Files should be uploaded **individually** and in **order** of how they are listed on this checklist.

Submit digitally at: <https://eservices.scottsdaleaz.gov/bldgresources/Cases/DigitalLogin>

Digital submittals shall include one copy of each identified below.

- COVER LETTER – Respond to all the issues identified in this 1st Review Comment Letter
- Letter of Authorization-actual owner of record
- Revised Narrative for Project
- Commitment for Title Insurance
- Results of Alta Survey
- Context Aerial with the proposed Site Plan superimposed
- [Site Plan Preliminary Plat](#) (Preliminary G & D)

Technical Reports: Please submit one (1) digital copy of each report requested

- Revised Drainage Report:
- Revised Storm Water Waiver:

Resubmit the revised Drainage Reports, Water and Wastewater Report and/or Storm Water Waiver application to your Project Coordinator with any prior City mark-up documents.

Minor Subdivision (MD) Development Application Checklist



Minimum Submittal Requirements:

At your pre-application meeting, your project coordinator will identify which items indicated on this Development Application checklist are required to be submitted. A Development Application that does not include all items indicated on this checklist may be deemed incomplete until all items have been submitted. A Development Application is not complete until it is verified that the application meets the minimum submittal requirements for review and the application fee has been processed.

In addition to the items on this checklist, to avoid delays in the review of your application, all Plans, Graphics, Reports and other additional information that is to be submitted shall be folded and provided in accordance with the:

- Requirements specified in the Plan & Report Requirements for Development Applications Checklist; and
- Design Standards & Policies Manual; and
- Requirements of Scottsdale Revised Code (including the Zoning Ordinance); and
- Stipulations, including any additional submittal requirements identified in the stipulations, of any Development Application approved that this application is reliant upon; and
- The city's design guidelines.

If you have any questions regarding the information above, or items indicated on this application checklist, please contact your project coordinator.

Name: Nate Tonnemacher Phone Number: 480-312-4205 Coordinator e-mail: ntonnemacher@scottsdaleaz.gov

Prior to application submittal, please research original zoning case history to find the original adopted ordinance(s) and exhibit(s) to confirm the zoning for the property. This will help to define your application accurately. Visit the city's Planning & Development Services Records Department for assistance: <https://www.scottsdaleaz.gov/planning-development/records>.

Digital Submittal:

For applications submitted digitally, please follow the plan and document submittal requirements below. All files shall be uploaded in PDF format. Provide one (1) full-size copy of each required plan document file. Application forms and other written documents or reports should be formatted to 8.5 x 11. A digital submittal Key Code is required to upload your documents and will be provided by your coordinator.

Key Code: 705W1

Submit digitally at: <https://eservices.scottsdaleaz.gov/bldgresources/Cases/DigitalMenu>

PART I -- GENERAL REQUIREMENTS

Req'd	Rec'd	Description of Documents Required for Complete Application. No application shall be accepted without all items marked below.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1. Minor Subdivision Application Checklist (this list)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2. Application Fee \$ <u>1,410</u> (subject to change every July)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	3. Checklist for Minimal Information to be Accepted for Review – Development Applications (form provided)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4. Completed Development Application Form (form provided) <ul style="list-style-type: none"> • The applicant/agent shall select a review methodology on the application form (Enhanced Application Review or Standard Application Review). • If a review methodology is not selected, the application will be reviewed under the Standard Application Review methodology. • Digital - ① copy (CD/DVD, PDF Format)

Planning and Development Services

7447 E. Indian School Road, Suite #105, Scottsdale, AZ 85251 • www.ScottsdaleAZ.gov

Minor Subdivision Development Application Checklist

<input type="checkbox"/>	<input type="checkbox"/>	5. Request to Submit Concurrent Development Applications (form provided) <ul style="list-style-type: none"> Digital - ① copy (CD/DVD, PDF Format)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6. Letter of Authorization (from property owner(s) if property owner did not sign the application form) <ul style="list-style-type: none"> Digital - ① copy (CD/DVD, PDF Format)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7. Affidavit of Authorization to Act for Property Owner (required if the property owner is a corporation, trust, partnership, etc. and/or the property owner(s) will be represented by an applicant that will act on behalf of the property owner. (form provided) <ul style="list-style-type: none"> Digital - ① copy (CD/DVD, PDF Format)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. Appeals of Required Dedications or Exactions (form provided) <ul style="list-style-type: none"> Digital - ① copy (CD/DVD, PDF Format)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	9. Commitment for Title Insurance – No older than 30 days from the submittal date (information provided) <ul style="list-style-type: none"> 8-1/2" x 11" – ① copy Include complete Schedule A and Schedule B. Digital - ① copy (CD/DVD, PDF Format)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	10. Legal Description: (if not provided in Commitment for Title Insurance) <ul style="list-style-type: none"> 8-1/2" x 11" – ② copies Digital - ① copy (CD/DVD, PDF Format)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11. Results of ALTA Survey (24" x 36") <ul style="list-style-type: none"> 24" x 36" – ① copy (The ALTA Survey shall not be more than 30 days old) Digital - ① copy (CD/DVD, PDF Format)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Preliminary Plat Notification Affidavit (form provided) <ul style="list-style-type: none"> Digital - ① copy (CD/DVD, PDF Format)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	13. Request for Site Visits and/or Inspections Form (form provided) <ul style="list-style-type: none"> Digital - ① copy (CD/DVD, PDF Format)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	14. Addressing Requirements (form provided)
		15. Design Guidelines <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Design Standards and Policies Manual <input checked="" type="checkbox"/> MAG Supplements <input type="checkbox"/> Environmentally Sensitive Land Ordinance <p>The above reference design guidelines, standards, policies, and additional information may be found on the city's website at: http://www.scottsdaleaz.gov/design</p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	16. Public Participation Process Requirements <p>Step 1: Complete Neighborhood Notification</p> <ul style="list-style-type: none"> Notify surrounding property owners & HOAs of the project request and description Document notification on Community Input Certification form (provided) Provide one copy of the Neighborhood Notification Report <p>Step 2: City will post public hearing sign and provide other public notification including:</p> <ul style="list-style-type: none"> Mailing out postcards to property owners within 750 feet Posting case information on the city website Posting on social media Sending to e-mail subscribers

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Minor Subdivision Development Application Checklist

<input checked="" type="checkbox"/>	<input type="checkbox"/>	17. Request for Neighborhood Group Contact information (form provided)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	18. Photo Exhibit of Existing Conditions: Printed digital photos on 8-1/2"x11" Paper (form provided) <ul style="list-style-type: none"> 8-1/2" x 11" - ① copy of the set of prints <p>See attached Existing Conditions Photo Exhibit graphic showing required photograph locations and numbers.</p> <ul style="list-style-type: none"> Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	19. Archaeological Resources (information packet provided) <ul style="list-style-type: none"> <input type="checkbox"/> Cultural Resources Survey & Report - ③ copies <input type="checkbox"/> Archaeology 'Records Check' Report Only - ③ copies <input type="checkbox"/> Copies of Previous Archaeological Research - ① copy Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	20. Completed Airport Vicinity Development Checklist – Your property is located within the vicinity of the Scottsdale Municipal Airport (within 20,000-foot radius of the runway; information packet provided.) <ul style="list-style-type: none"> <input type="checkbox"/> Short Form <input type="checkbox"/> Height Analysis (search "Notice Criteria Tool" on the FAA web page: https://oeaaa.faa.gov/oeaaa/external/portal.jsp) Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	21. ESLO Wash Modifications Development Application (application provided) The ESLO Wash Modifications Development Application is to be submitted concurrently with this Minor Subdivision Application. <ul style="list-style-type: none"> Digital - ① copy (CD/DVD, PDF Format)

PART II -- REQUIRED PLANS & RELATED DATA

Req'd	Rec'd	Description of Documents Required for Complete Application. All Plans, Building Elevations, Perspectives, and Details shall be black-line drawings of suitable quality for reproduction and without gray-tones or shading, except as otherwise noted. No application shall be accepted without all items marked below.
		22. Plan & Report Requirements for Preliminary Plat Application Checklist (form provided) and the Preliminary Plat Checklist Submittal Requirements (form provided)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	23. Application Narrative <ul style="list-style-type: none"> 8 ½" x 11" – ⑪ copies <ol style="list-style-type: none"> The application narrative shall specify how the proposal separately addresses each of the applicable Development Review Board criteria. (Form provided) The application narrative shall provide an explanation and justification for any proposed amended development standard(s) Historic Property. If the property is an existing or potential historic property, describe how the proposal preserves the historic character or compliance with property's existing Historic Preservation Plan.
<input type="checkbox"/>	<input type="checkbox"/>	24. Proposed Development Standards / Amended Development Standards (Example provided) (Must adhere to the Maricopa County Recorder requirements) <ul style="list-style-type: none"> 8 ½" x 11" – ② copies Digital - ① copy (CD/DVD, PDF Format)

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Minor Subdivision Development Application Checklist

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>25. Context Aerial with the proposed site improvements superimposed</p> <ul style="list-style-type: none"> • 24" x 36" – ② color copies • 11" x 17" – ① color copy • 8 ½" x 11" – ① color copy <p>Aerial shall not be more than 1 year old and shall include an overlay of the site plan showing lot lines, tracts, easements, street locations/names and surrounding zoning districts for a radius from the site of:</p> <p><input type="checkbox"/> 750-foot radius from site</p> <p><input type="checkbox"/> ¼-mile radius from site (lots greater than 1 acre)</p> <p><input type="checkbox"/> Other: _____</p>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>26. Preliminary Plat</p> <ul style="list-style-type: none"> • 24" x 36" – ①① copies • 11" x 17" – ① copy • 8 ½" x 11" – ① copy • Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>27. Construction Envelope Plan (ESL Areas)</p> <ul style="list-style-type: none"> • 24" x 36" – ② copies • 11" x 17" – ① copy • 8 ½" x 11" – ① copy • Digital – ① copy (text and drawing shall be black and white, and in CD/DVD, PDF format)
<input type="checkbox"/>	<input type="checkbox"/>	<p>28. Natural Area Open Space Plan (ESL Areas)</p> <ul style="list-style-type: none"> • 24" x 36" – ② copies • 11" x 17" – ① copy • 8 ½" x 11" – ① copy • Digital - ① copy (CD/DVD, PDF format)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>29. Site Plan</p> <ul style="list-style-type: none"> • 24" x 36" – ② copies • 11" x 17" – ① copy • 8 ½" x 11" – ① copy • Digital - ① copy (CD/DVD, PDF format) <p>(A site plan for non-residential subdivision shall include information to demonstrate that each lot complies with its Property Development Standard of its associated zoning district.)</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>30. Open Space Plan</p> <ul style="list-style-type: none"> • 24" x 36" – ② copy • Digital - ① copy (CD/DVD, PDF format) <p>(An Open Space Plan for non-residential subdivision shall include information to demonstrate that each lot complies with its open space Property Development Standard of its associated zoning district.)</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>31. Topography and slope analysis plan (ESL Areas)</p> <ul style="list-style-type: none"> • 24" x 36" – ① copy • Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	<p>32. Landscape Plan</p> <ul style="list-style-type: none"> • 24" x 36" – ② copies (a gray-tone copy of the color Landscape Plan will not be accepted) • 11" x 17" – ① copy • 8 ½" x 11" – ① copy • Digital - ① copy (text and drawing shall be black and white, and in CD/DVD, PDF Format)

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Minor Subdivision Development Application Checklist

<input type="checkbox"/>	<input type="checkbox"/>	<p>33. Wall Elevations and Details and/or Entry Feature Elevations and Details</p> <ul style="list-style-type: none"> • 24" x 36" – ② color copy • 11" x 17" – ① copy • 8 ½" x 11" – ① color copy • Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	<p>34. Exterior Lighting Site Plan (including exterior building mounted fixtures)</p> <ul style="list-style-type: none"> • 24" x 36" – ① copy • 11" x 17" – ① copy • 8 ½" x 11" – ① copy • Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	<p>35. Exterior Lighting Photometric Analysis</p> <ul style="list-style-type: none"> • 24" x 36" – ① copy • 11" x 17" – ① copy • Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	<p>36. Manufacturer Cut Sheets of All Proposed Lighting</p> <ul style="list-style-type: none"> • 24" x 36" – ① copy • 11" x 17" – ① copy • 8 ½" x 11" – ① copy • Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>37. Drainage Report</p> <p>See Chapter 4 of the city's <u>Design Standards & Policies Manual</u> for specific submittal and content requirements for drainage reports. The report shall be bound (3 ring, GBC or coil wire, no staples) with card stock front and back covers, and must include all required exhibits, full color aerial, and topography maps. Full size plans/maps shall be folded and contained in pockets.</p> <ul style="list-style-type: none"> • Hardcopy - 8-1/2" x 11" - ② copy of the Drainage Report including full size plans/maps in pockets • Digital - ① copy of the Drainage Report. Any advanced hydraulic or hydrologic models shall be included (see handout submittal instructions)
<input type="checkbox"/>	<input type="checkbox"/>	<p>38. Basis of Design Report for Water</p> <p>See the city's <u>Design Standards & Policies Manual</u> for specific submittal and content requirements for Basis of Design Report for Water. The report must include all required exhibits and plans.</p> <ul style="list-style-type: none"> • 8-1/2" x 11" - ③ copies – the report shall be bound, all full-size plans/maps provided in pockets. • Digital – ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	<p>39. Basis of Design Report for Wastewater</p> <p>See the city's <u>Design Standards & Policies Manual</u> for specific submittal and content requirements for Design Report for Wastewater. The report shall be bound and must include all required exhibits and plans.</p> <ul style="list-style-type: none"> • 8-1/2" x 11" - ③ copies – the report shall be bound, all full-size plans/maps provided in pockets. • Digital – ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	<p>40. Expansion of Participation for Water and Wastewater (form provided)</p>

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Minor Subdivision Development Application Checklist

<input type="checkbox"/>	<input type="checkbox"/>	41. Native Plant Submittal (information provided): <ul style="list-style-type: none"> • 24" x 36" – ① copy (Aerial with site plan overlay to show spatial relationships of existing protected plants and significant concentrations on vegetation to proposed development) • See Sec. 7.504 of the Zoning Ordinance for specific submittal requirements. • Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	42. Revegetation Site Plan, including Methodology and Techniques <ul style="list-style-type: none"> • 24" x 36" – ① copy • 11" x 17" – ① copy • Digital – ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	43. Landform Types Maps <ul style="list-style-type: none"> • 24" x 36" – ① copy • Digital - ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	44. Cuts and Fills Site Plan <ul style="list-style-type: none"> • 24" x 36" – ① copy • 11" x 17" – ① copy • Digital – ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	45. Cuts and Fills Site Cross Sections <ul style="list-style-type: none"> • 24" x 36" – ① copy • 11" x 17" – ① copy • Digital – ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	46. Unstable Slopes / Boulders Rolling Map <ul style="list-style-type: none"> • 24" x 36" – ① copy • 11" x 17" – ① copy • Digital – ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	47. Bedrock & Soils Map <ul style="list-style-type: none"> • 24" x 36" – ① copy • 11" x 17" – ① copy • Digital – ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	48. Conservation Area, Scenic Corridor, Vista Corridor Plan <ul style="list-style-type: none"> • 24" x 36" – ① copy • 11" x 17" – ① copy • Digital – ① copy (CD/DVD, PDF Format)
<input type="checkbox"/>	<input type="checkbox"/>	49. Other: _____ _____ <input type="checkbox"/> 24" x 36" – _____ copy(ies) <input type="checkbox"/> 11" x 17" – _____ copy(ies) <input type="checkbox"/> 8 ½" x 11" – _____ copy(ies) <ul style="list-style-type: none"> • Digital – ① copy (text and drawing shall be black and white, and CD/DVD, PDF format)

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PART III – SAMPLES & MODELS

Req'd	Rec'd	Description of Documents Required for Complete Application. No application shall be accepted without all items marked below.
<input type="checkbox"/>	<input type="checkbox"/>	50. Paint Color Drawdowns <ul style="list-style-type: none"> 1 set of 5" x 7" (minimum size) of each paint color and material identification names and numbers. Digital – ① copy of the digital images
<input type="checkbox"/>	<input type="checkbox"/>	51. Exterior Building Color & Material Sample Board(s): <ul style="list-style-type: none"> 8-1/2" x 14" material sample board(s) The material sample board shall include the following: <ul style="list-style-type: none"> A color elevation of one side of the building 3" x 3" Glass samples mounted on the board with reflectivity identify 3" x 3" of each the building materials mounted on the board (i.e. split face CMU, Stucco, EIFS, etc.) 2"x 2" of proposed paint colors All material manufacture names and material identification names and numbers shall be keynoted on the individual materials and the elevation. 8 1/2" x 11" – ① copy of a printed digital photo of the material board Digital - ① copy of a digital image
<input type="checkbox"/>	<input type="checkbox"/>	52. Other: _____ _____

PART IV – SUBMITTAL OF THE DEVELOPMENT APPLICATION

Req'd	Rec'd	Description of Documents Required for Complete Application. No application shall be accepted without all items marked below.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	53. An appointment must be scheduled to submit this application. To schedule your submittal meeting please call 480-312-7767. Request a submittal meeting with a Planning Specialist and provide your case pre-app number: 584 -PA-2020.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	54. Submit all items indicated on this checklist pursuant to the submittal requirements
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	55. Submit all additional items that are required pursuant to the stipulations of any other Development Application that this application is reliant upon.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	56. Delayed Submittal. Additional copies of all or certain required submittal indicated items above will be require at the time your project coordinator is preparing the public hearing report(s). Your project coordinator will request these items at that time, and they are to be submitted by the date indicated in the request.
<input type="checkbox"/>	<input type="checkbox"/>	57. Other _____ _____
		58. If you have any questions regarding this application checklist, please contact your Project Coordinator. Coordinator Name (print): <u>Nate Tonnemacher</u> Phone Number: <u>480-312-4205</u> Coordinator e-mail: <u>ntonnemacher</u> @scottsdaleaz.gov Date: <u>08/06/2020</u> Coordinator Signature: _____ If the Project Coordinator is no-longer available, please contact the Current Planning Director at the phone number in the footer of this page if you have any question regarding this application checklist. This application needs a: <input checked="" type="checkbox"/> New Project Number, or <input type="checkbox"/> A New Phase to an old Project Number: _____

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Required Notice

Pursuant to A.R.S. §9-836, an applicant/agent may request a clarification from the city regarding an interpretation or application of a statute, ordinance, code or authorized substantive policy, or policy statement. Requests to clarify an interpretation or application of a statute, ordinance, code, policy statement administered by the Planning and Development Services, including a request for an interpretation of the Zoning Ordinance, shall be submitted in writing to the One Stop Shop to the attention of the Planning and Development Services Director. All such requests must be submitted in accordance with the A.R.S. §9-839 and the city's applicable administrative policies available at the Planning and Development Services' One Stop Shop, or from the city's website:

<http://www.scottsdaleaz.gov/planning-development/forms>

Planning and Development Services
One Stop Shop
Planning and Development Services Director
7447 E. Indian School Rd, Suite 105
Scottsdale, AZ 85251
Phone: (480) 312-7000

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Development Application Process

Enhanced Application Review
Staff Review Applications: SA, WM, & MD



Enhanced Application Review Methodology

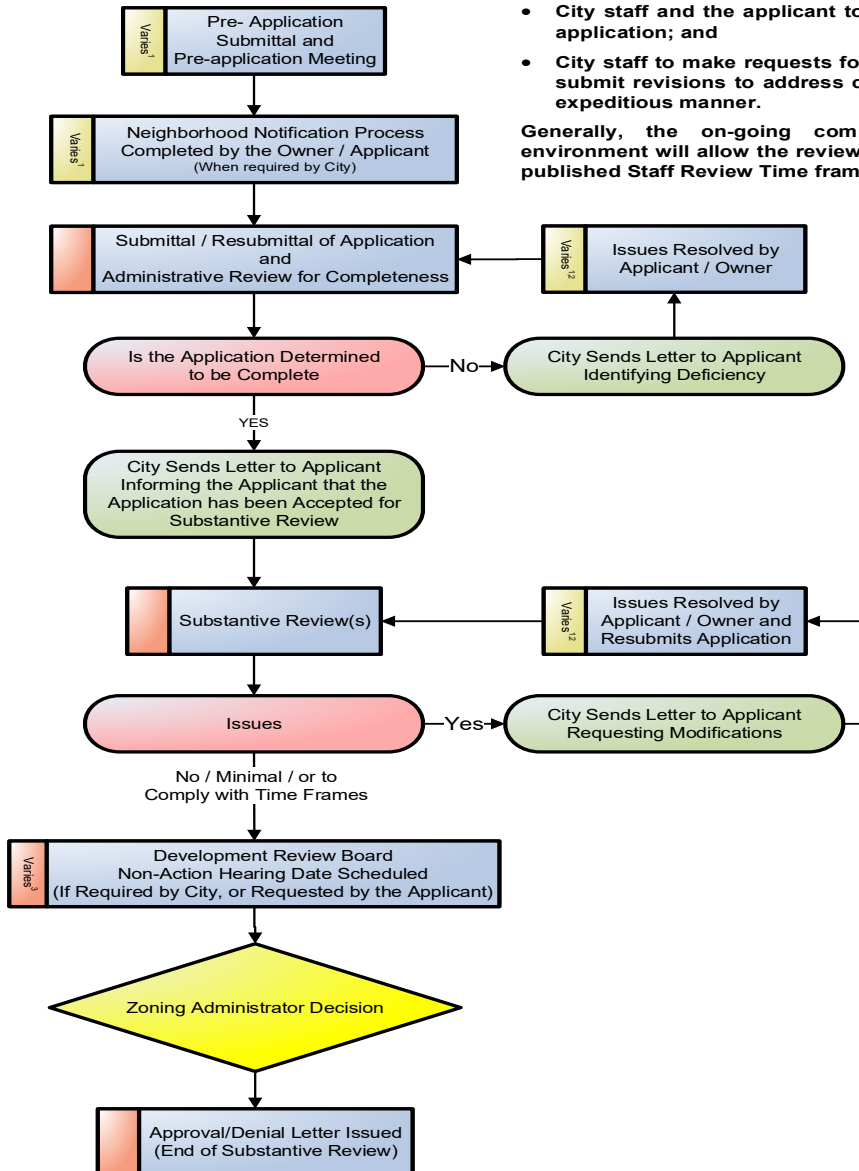
Within the parameters of the Regulatory Bill-of-Rights of the Arizona Revised Statutes, the Enhanced Application Review method is intended to increase the likelihood that the applicant will obtain an earlier favorable written decision or recommendation upon completion of the city's reviews. To accomplish this objective, the Enhanced Application Review allows:

- the applicant and City staff to maintain open and frequent communication (written, electronic, telephone, meeting, etc.) during the application review;
- City staff and the applicant to collaboratively work together regarding an application; and
- City staff to make requests for additional information and the applicant to submit revisions to address code, ordinance, or policy deficiencies in an expeditious manner.

Generally, the on-going communication and the collaborative work environment will allow the review of an application to be expedited within the published Staff Review Time frames.

Application Types:

- Development Review – Minor (SA)
- Wash Modifications (WM)
- Land Division – Minor Subdivision (MD)



Note:

1. Time period determined by owner/ applicant.
2. All reviews and time frames are suspended from the date a the letter is issued requesting additional information until the date the City receives the resubmittal from the owner/applicant.
3. Owner/applicant may agree to extend the time frame by 25 percent

Time Line

Administrative Review 15 Staff Working Days Per Review	Substantive Review 50 Total Staff Working Days, Multiple City Reviews in This Time Frame ^{2,3,4}	Approval/Denial Letter Issued
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Development Application Process

Standard Application Review
Staff Review Applications: SA, WM, & MD



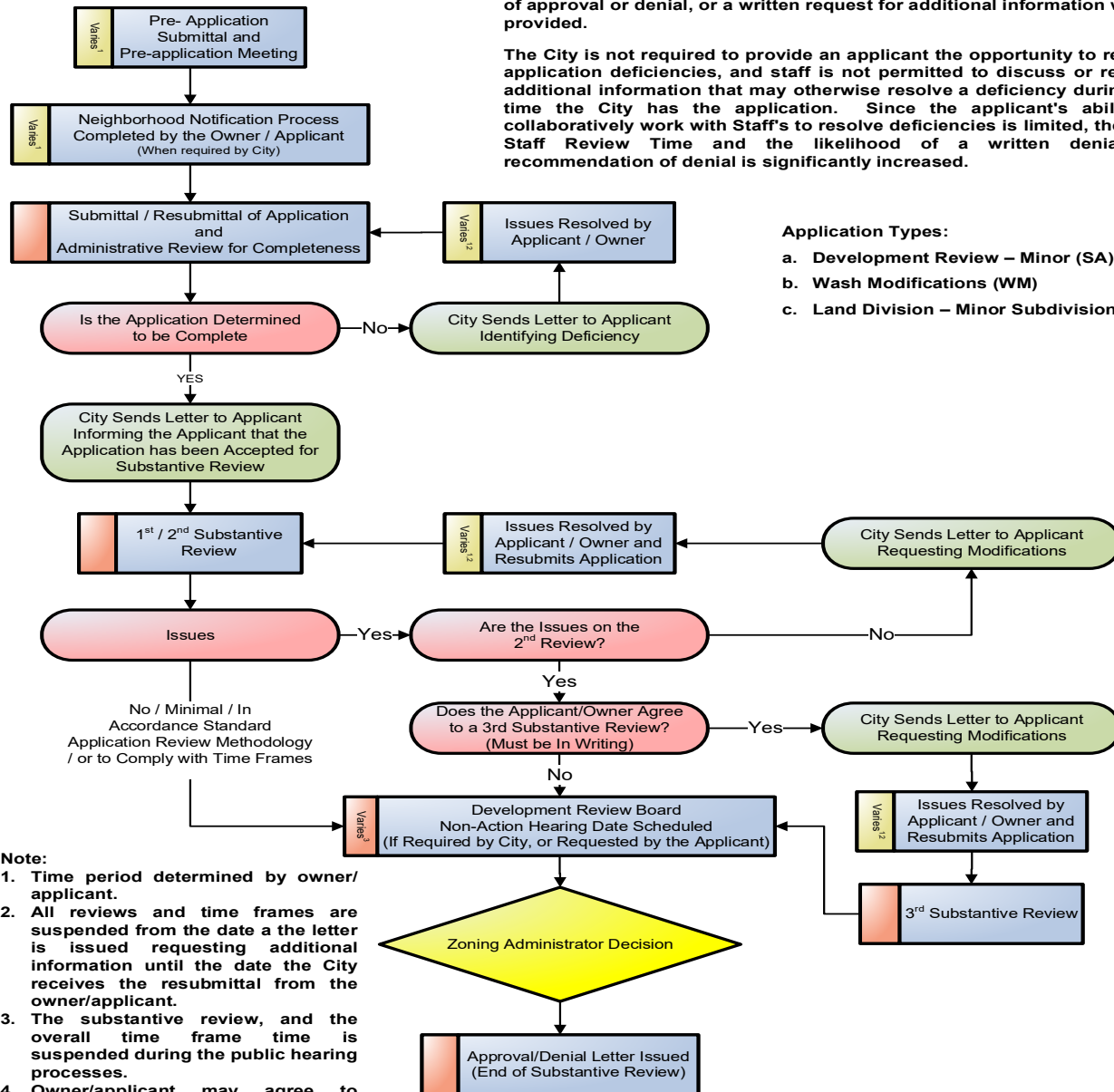
Standard Application Review Methodology:

Under the Standard Application Review, the application is processed in accordance with the Regulatory Bill-of-Rights of the Arizona Revised Statutes. These provisions significantly minimize the applicant's ability to collaboratively work with City Staff to resolve application code, ordinance, or policy deficiencies during the review of an application. After the completion of the city's review, a written approval or denial, recommendation of approval or denial, or a written request for additional information will be provided.

The City is not required to provide an applicant the opportunity to resolve application deficiencies, and staff is not permitted to discuss or request additional information that may otherwise resolve a deficiency during the time the City has the application. Since the applicant's ability to collaboratively work with Staff's to resolve deficiencies is limited, the total Staff Review Time and the likelihood of a written denial, or recommendation of denial is significantly increased.

Application Types:

- a. Development Review – Minor (SA)
- b. Wash Modifications (WM)
- c. Land Division – Minor Subdivision (MD)



Note:

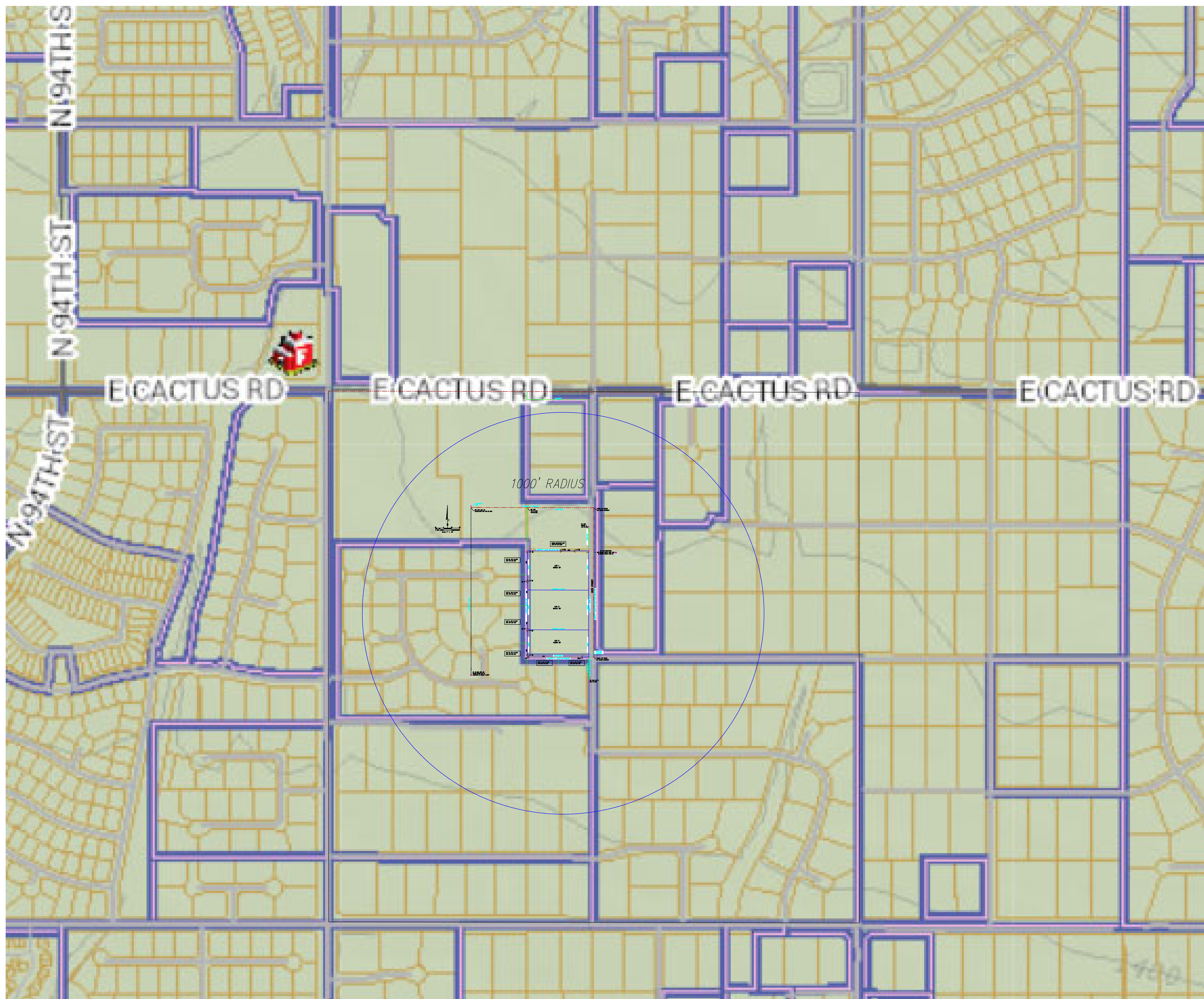
1. Time period determined by owner/ applicant.
2. All reviews and time frames are suspended from the date a the letter is issued requesting additional information until the date the City receives the resubmittal from the owner/applicant.
3. The substantive review, and the overall time frame time is suspended during the public hearing processes.
4. Owner/applicant may agree to extend the time frame by 25 percent

Time Line

Administrative Review 15 Staff Working Days Per Review	Substantive Review 50 Total Staff Working Days, Two Reviews in This Time Frame ^{2, 3, 4}	Approval/Denial Letter Issued
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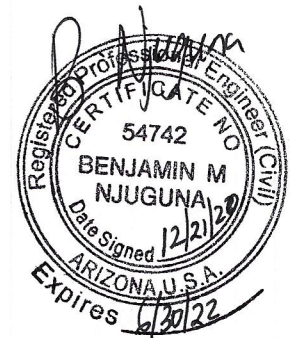
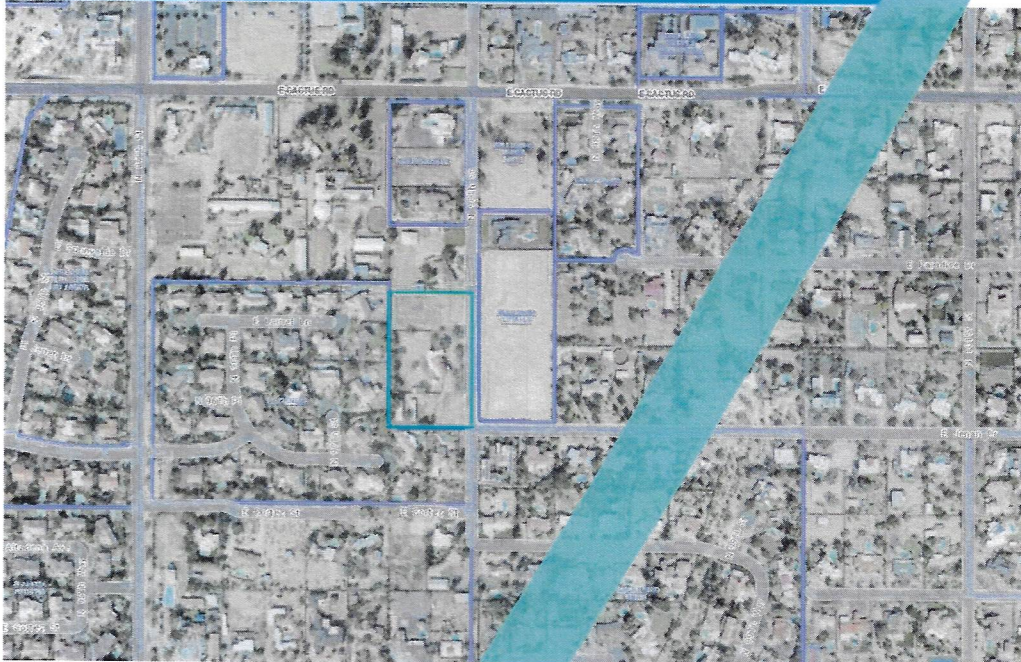
TNG Consulting, LLC

PRELIMINARY DRAINAGE REPORT

11880 N 98th Street,
Scottsdale, AZ 85260

Prepared For
SoHome Scottsdale
10601 N Hayden Rd, Ste 100
Scottsdale, AZ 85260

December 21st, 2020



Prepared By
TNG Consulting, LLC
4802 E Ray Rd, Ste 23-586
Phoenix, AZ 85044

COS PROJECT #: 7-MD-2020

7-MD-2020
1/27/2021

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Appendices

Appendix A	Exhibits
Appendix B	Hydrology & Hydraulic Calculations
Appendix C	Reference Material

Exhibits

Exhibit 1	Vicinity Map
Exhibit 2	Flood Insurance Rate Map
Exhibit 3	Existing Conditions Drainage Map
Exhibit 4	Preliminary Grading & Drainage Plan



1. INTRODUCTION & PURPOSE

1.1 PROJECT DESCRIPTION & LOCATION

SoHome Scottsdale is planning the Minor Subdivision (MD) of an existing single family residential parcel of land into three (3) separate Lots. The MD shall split off the middle portion of the Project Site, where the existing residential house is located into a separate Lot (Lot 2). The existing house shall remain in place while two new single family residential homes will be built on the each of the other two (2) new Lots (Lot 1 and Lot 3) on the north and south ends of the Site.

The existing parcel (Parent Parcel) is an approximately 3.7-acre piece of land (Project Site) located at 11880 N 98th Street, Scottsdale Arizona, 85260. More specifically the Project Site is comprised of the parcel of land whose current Maricopa County APN is 217-26-004F, situated in the Northwest Quarter of Section 20, Township 3 North, Range 5 East of the Gila and Salt River Meridian, Maricopa County, Arizona. The location of the property is depicted in Exhibit 1- *Vicinity Map*.

The Project Site is zoned R1-35 (single family residential district) and is surrounded by similarly zoned parcels to the north, west, south and east (across 98th Street). All areas surrounding the site lie within the City of Scottsdale limits.

1.2 PURPOSE

The purpose of this preliminary drainage report is to provide a preliminary drainage analysis of the Site's existing conditions and proposed development conditions. This report is preliminary and conceptual in nature and is to serve as a guideline for the development of the Site. It will set forth drainage criteria for onsite and offsite drainage, street flow, and storm water retention. Final estimates of onsite and offsite peak flows, onsite storm water retention requirements, open channel design and hydraulics, storm drain hydraulics, and street flow capacity are to be included in a Final drainage report of the Site, submitted under a separate cover.

The drainage design criteria in this report are based on the methodology presented in the City of Scottsdale Design Standards and Policies Manual (Ref. 1) in concert with the Drainage Design Manuals for Maricopa County (Hydrology & Hydraulics – Ref. 2 & 3), unless otherwise noted.



2. EXISTING CONDITIONS

2.1 TOPOGRAPHIC CONDITIONS

The Project Site is comprised of gently sloping terrain with man-made disturbances located throughout the Site and a permanent structure in the middle portion of the Site, where an existing single family residential building is situated. The existing ground generally slopes from north to south, at approximately 1% slope. The Site has been used as a large acreage lot suitable for residential equestrian lifestyle, consistent with the original designated use of land in the area.

Similar to the Project Site, an offsite watershed comprised of the areas immediately north of the Site also drains southerly and impacts the Site's north and east boundaries. Further discussion of these offsite drainage areas is included in Section 3 below. See Exhibit 3 for an *Existing Conditions Drainage Map* of the Site and the offsite areas around it.

2.2 FEMA FLOOD ZONE INFORMATION

The Maricopa County, Arizona and Incorporated Areas Flood Insurance Rate Map (FIRM) Panel Number 04013C1780L dated October 16, 2013 shows the site falls within Zone "X-shaded". Exhibit 2 shows the location of the Project Site on the *FEMA Flood Insurance Rate Map*.

Zone "X-shaded" is defined by FEMA and per the FIRM panel as follows:

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from the 1% annual chance flood.

2.3 PREVIOUS RELATED DRAINAGE STUDIES

Drainage in the area has been analyzed in the past in area drainage master studies/plans for the area as well as master drainage reports prepared for surrounding developments. Excerpts of these drainage studies are included in Appendix C. It has also been reported that an Area Drainage Master Study for the area (East Shea ADMS) has recently been prepared for the City of Scottsdale and Flood Control District of Maricopa County (FCDMC), but it's findings are preliminary and have not been officially adopted by the City and FCDMC.



3. OFFSITE DRAINAGE

3.1 OFFSITE HYDROLOGY

City of Scottsdale 1-ft contour quarter section maps for the area around the Site were overlaid onto the topographic survey map of the Site to create an Existing Conditions Drainage Map; see Exhibit 3 in Appendix A. As can be seen from the map, the Site and its surrounding areas generally slope southerly. Cactus Road, located approximately 750-ft north of the Project Site, intercepts offsite drainage from areas north of its alignment and conveys it eastwards and westwards away from the Project Site via its paved cross-section and system of catch basins and underground storm drain pipes.

Runoff from the offsite area located between Cactus Road alignment and the Project Site drains southerly and impacts the Site's north and east boundaries. This offsite area has been delineated into four drainage areas, in accordance with current drainage patterns. For the purposes of this report, these offsite drainage areas are named "OFF-1", "OFF-2", "OFF-3" and "OFF-4" as depicted in Exhibit 3, *Existing Conditions Drainage Map*. Runoff from drainage areas "OFF-1", "OFF-2", and "OFF-3" impacts the Site's north and east boundaries. Runoff from drainage area "OFF-4" drains southerly, past the Site, along the east edge of 98th Street.

FCDMC's DDMSW software, version 5.6.0, was used to calculate peak flows from offsite drainage areas "OFF-1", "OFF-2", "OFF-3" and "OFF-4" using rational method. The 100-year peak flows from drainage areas "OFF-1", "OFF-2", "OFF-3" and "OFF-4" was calculated to be 8.0 cfs, 9.6 cfs, 2.0 cfs and 10.5 cfs respectively. See detailed hydrology calculation results in Appendix B. A detailed discussion of how offsite flows shall be conveyed though/ around the Project Site is provided in Section 4 below.

4. ONSITE DRAINAGE

4.1 STORM WATER FLOW

Existing fencing along the Site's north boundary is comprised of open pipe fence, which provides no hindrance to drainage flow. The Site's east boundary, along 98th Street, features short sections of open pipe fence while the rest of the length has no fencing; storm water also flows freely along this edge. The west and south boundaries however are fenced off by solid block walls that were constructed as part of the La Cienega Subdivision improvements. No drainage currently flows into or out of the Site along the west and south boundaries.

The existing ground generally slopes from north to south, at approximately 1% slope. Wide, shallow drainage swales cut through the middle-to-south portions of the Site and drain to the southwest corner. The southwest corner of the Site was the historical Stormwater outfall location of the Site but improvements in La Cienega subdivision to the south and east of the Site, constructed around 1992, cut off the historical flow path with the building of new homes and solid block wall perimeter fences. See Appendix C for a copy of a historical aerial photo of the area (Maricopa County Assessor-1976) prior to current development.

The proposed Minor Subdivision (MD) shall split off the middle portion of the Site, where the existing residential house is situated, into its own separate Lot (Lot 2). No new developments are currently proposed on this Lot (Lot 2) and Stormwater shall continue to flow as it has done historically. New developments shall be constrained to the north end (Lot 1) and South end (Lot 3) of the Site, where proposed residential houses will be located. See Exhibit 4 for a copy of the preliminary grading & drainage plan for the project. Final Grading & Drainage improvements for Lot 1 and Lot 3 shall account for the final design of onsite storm water flow on each Lot.

Runoff from offsite drainage areas "OFF-1", "OFF-2", and "OFF-3" impacts the Site's north and east boundaries. Runoff from "OFF-1" and "OFF-2" enters the Site along the north boundary and flows across the Site as sheet flow and in shallow/loosely defined drainage swales towards the southwest corner. Drainage from offsite drainage area "OFF-3" drains south along the east edge of the Site (west edge of 98th Street), while runoff from drainage area "OFF-4 drains southerly, along the east edge of 98th Street.

Runoff from offsite drainage areas "OFF-1", "OFF-2", and "OFF-3" shall be addressed collectively as part of the Minor Subdivision (MD). An offsite flow drainage channel, "Channel-1", shall be constructed along the north and east edge of the Site to intercept offsite drainage at its historical entrance points and convey it to the northeast corner of proposed Lot 3, where a Stormwater retention/detention basin, Basin A, shall be located. "Channel-1" shall have capacity to convey the combined peak flow from the offsite drainage areas it intercepts.

FCDMC's DDMSW software, version 5.6.0, was used to calculate peak flows from the combined offsite drainage areas OFF-1, OFF-2 and OFF-3, using rational method. The 100-year peak flow from these combined offsite drainage areas was calculated to be 19.7 cfs. See detailed hydrology calculation results in Appendix B. FCDMC's DDMSW software, version 5.6.0, using rational method, was also used to



calculate “Channel-1”’s capacity to handle peak flows from the combined offsite drainage areas. Calculation results indicate “Channel-1” will have capacity to convey the associated peak flows, with 0.8-ft minimum freeboard. See detailed DDMSW hydraulic calculation results in Appendix B. A drainage easement shall be dedicated along the length of “Channel-1”.

Two driveway crossings, across “Channel-1”, are proposed at Lot 2 to provide access to the existing house. An 18-inch diameter equivalent cmp arch pipe (22”x13”) shall be installed at each of the driveways. Federal Highway Administration’s HY-8 software, version 7.50, was used to analyze the culvert crossings. HY-8 calculation results indicate the Stormwater flow in “Channel-1”, during the 100-yr peak storm event shall overtop the proposed driveways and flow across the driveway, at a depth of less than 4-inches. Additional drainage easement width shall be provided at the culvert crossings to accommodate the overtopping flow. Proposed grades along and around the driveway crossings shall be designed to ensure overtopping flow remains within the drainage easement limits.

4.2 FINISHED FLOOR ELEVATION

The existing house on Lot 2 shall remain in place and its finished floor elevation shall remain as-is. Proposed “Channel-1” and driveway crossing improvements along the east edge of Lot 2 shall be designed to keep the flows within the limits of the proposed drainage easement, and prevent the flows from expanding westwards towards the house.

Finished floor elevation of the proposed single family residential houses on Lot 1 and 3 shall be set at minimum to be the higher of: (a) 12-inches above the peak-flow water surface elevation in “Channel-1” (b) 12-inches above the Site’s ultimate outfall (c) 14-inches above the lowest adjacent top of curb elevation, and (d) 6-inches above the highest adjacent top of curb elevation.

4.3 RETENTION BASIN DESIGN

No Stormwater retention shall be required for the middle Lot (Lot 2), in areas on the Site that have been previously developed. In accordance with City of Scottsdale design criteria, the 100-yr, 2-hr Stormwater retention volume shall be provided for the north and south ends of Site, in areas that have not been previously developed with permanent improvements. Onsite retention basins shall therefore be required in the north lot (Lot 1) and south lot (Lot 3). Final design and layout of proposed retention basin on Lot 1 shall be provided with the final improvement plan design for the Lot. Calculated retention volume requirements for Lot 1 and Lot 3 is provided in Appendix B.

Retention Basin A, located at the northeast corner of proposed Lot 3, shall be constructed as part of the Minor Subdivision (MD). Retention Basin A shall be sized to provide for the Stormwater retention requirements of the future improvements on Lot 3 as well as have additional capacity to attenuate the offsite flows conveyed in proposed “Channel-1”, described in Section 4.1 above. Basin A’s volume in excess of the Stormwater retention requirements for future Lot 3 shall be used to detain offsite flows from “Channel-1”. As the basin fills up, flow shall be released at a discharge rate comparable to the flow currently experienced at this location, being the peak flow from offsite drainage area “OFF-3”. The controlled release of flow from Basin A shall be achieved by means of a proposed weir structure, located



at the basin's northeast corner. From here, offsite flow shall continue to flow south along 98th Street at it has done historically.

FCDMC's DDMSW software, version 5.6.0, was used to model the flow of offsite drainage through Basin A, using its rational method model function. Rational method model calculation results indicate Basin A's volume in excess of the retention requirements for Lot 3 shall have the capacity to attenuate the flows in 'Channel-1", from a combined peak flow of 19.6 cfs to a basin outflow rate of 2.1 cfs, similar to the 2.0 cfs peak flow rate from drainage area "OFF-3", currently experienced at this location. See detailed DDMSW rational method model calculation results in Appendix B.



5. CONCLUSION

Based on the analysis presented in this Preliminary Drainage Report, the following conclusions are drawn:

1. This Preliminary Drainage Report has been designed in compliance with the City of Scottsdale Design Standards and Policies Manual. Where exceptions occur, they have been pointed out and drainage design rationale, consistent with sound engineering practice associated with the unique conditions on the Project Site, provided.
2. This report is preliminary in nature and is to serve as a guideline for the development of the Project Site. Final calculation of offsite flow, onsite flow, onsite storm water retention and open channel hydraulics will be included in a supplement to this report, submitted under a separate cover.
3. 100-year, 2-hour Stormwater retention shall be required for the areas on the Site that have not been previously developed (Lot 1 and Lot 3). Stormwater retention for Lot 1 will be provided with the final improvement plan design for the Lot while Stormwater retention for Lot 3 will be provided in Basin A, which shall be constructed as part of the MD.
4. Finished floor elevation of the proposed single family residential houses on Lot 1 and 3 shall be set at minimum to be the higher of (a) 12-inches above the peak-flow water surface elevation of "Channel-1" (b) 12-inches above the Site's ultimate outfall (c) 14-inches above the lowest adjacent top of curb elevation, and (d) 6-inches above the highest adjacent top of curb elevation.
5. The proposed development will not cause adverse drainage impacts or increased drainage problems to developments upstream, downstream or adjacent to the site.



6. MAINTENANCE

Ongoing maintenance of the designed drainage systems is required to preserve their design integrity. Poor maintenance can prevent the system from performing to its intended design purpose and can result in reduced performance. Maintenance is the responsibility of the agency of jurisdiction for facilities in public lands and in public right-of-way. It is the responsibility of private developers, homeowners, homeowners' association, etc., for maintenance of facilities on private property, within drainage easements and private streets. A regular maintenance program will be established in the final design of the Site and included in a supplement to this report, submitted under a separate cover.



7. REFERENCES

1. *City of Scottsdale Design Standards and Policies Manual*, City of Scottsdale, 2018.
2. *Maricopa County Drainage Manual, Volume 1, Hydrology*, Maricopa County, February, 2010.
3. *Maricopa County Drainage Manual, Volume 2, Hydraulics*, Maricopa County, August, 2013.
4. *National Flood Insurance Program, Flood Insurance Rate Map Number 0413C1780L*, Federal Emergency Management Agency, October 16, 2013.



APPENDIX A





E CACTUS ROAD

STREET

STREET

STREET

E CHOLLA

20

STREET

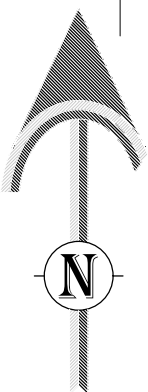
N 96TH

N 100TH

N 104TH

E SHEA

BLVD

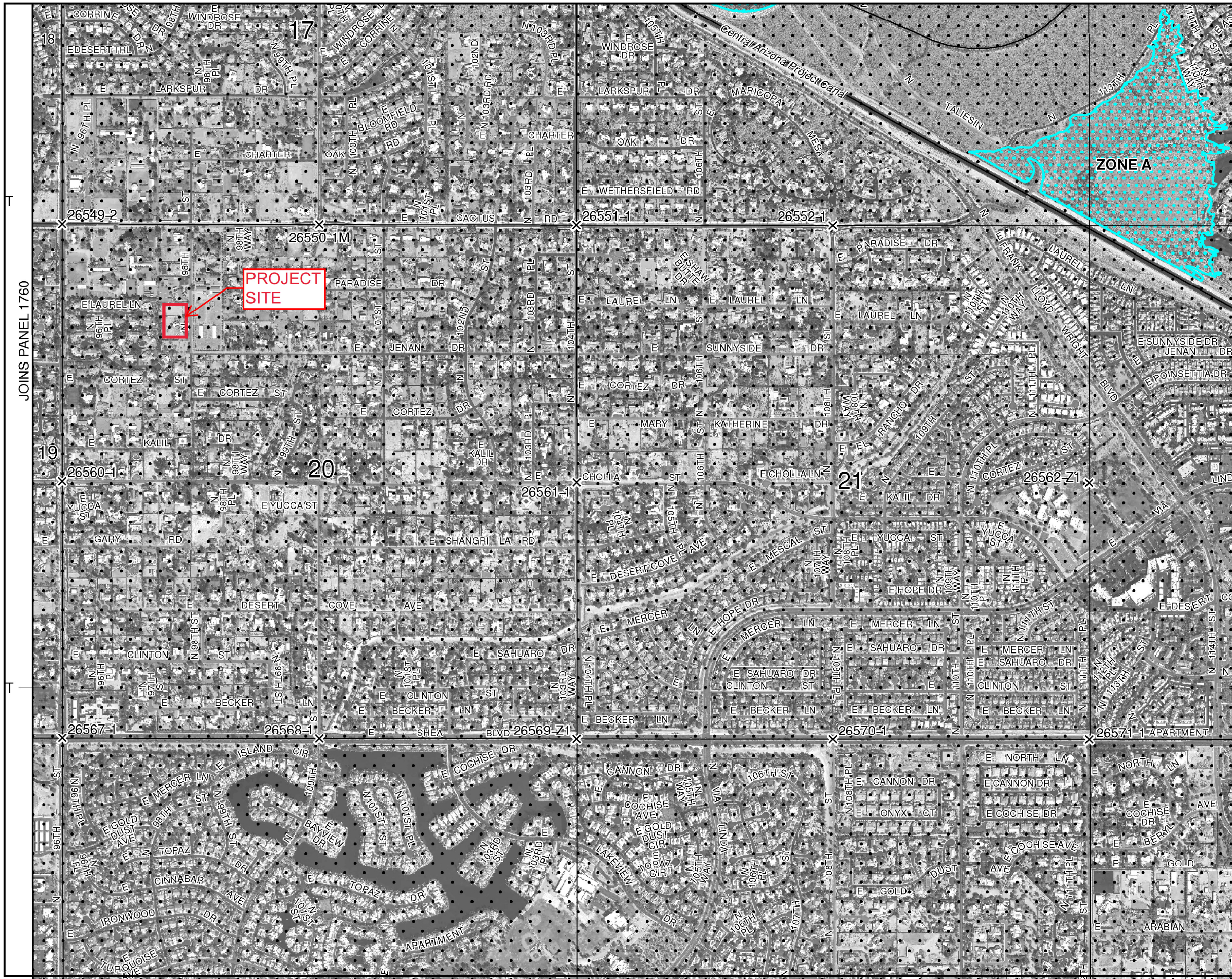


VICINITY MAP

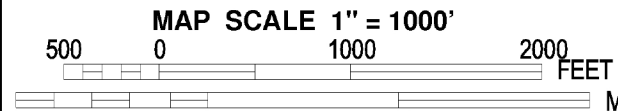
NTS

EXHIBIT 1

7-MD-2020
1/27/2021



JOINS PANEL 1760



ZONE A

PROJECT SITE

NFIP

PANEL 1780L

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP
MARICOPA COUNTY,
ARIZONA
AND INCORPORATED AREAS

PANEL 1780 OF 4425
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MARICOPA COUNTY	040037	1780	L
SCOTTSDALE, CITY OF	045012	1780	L

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



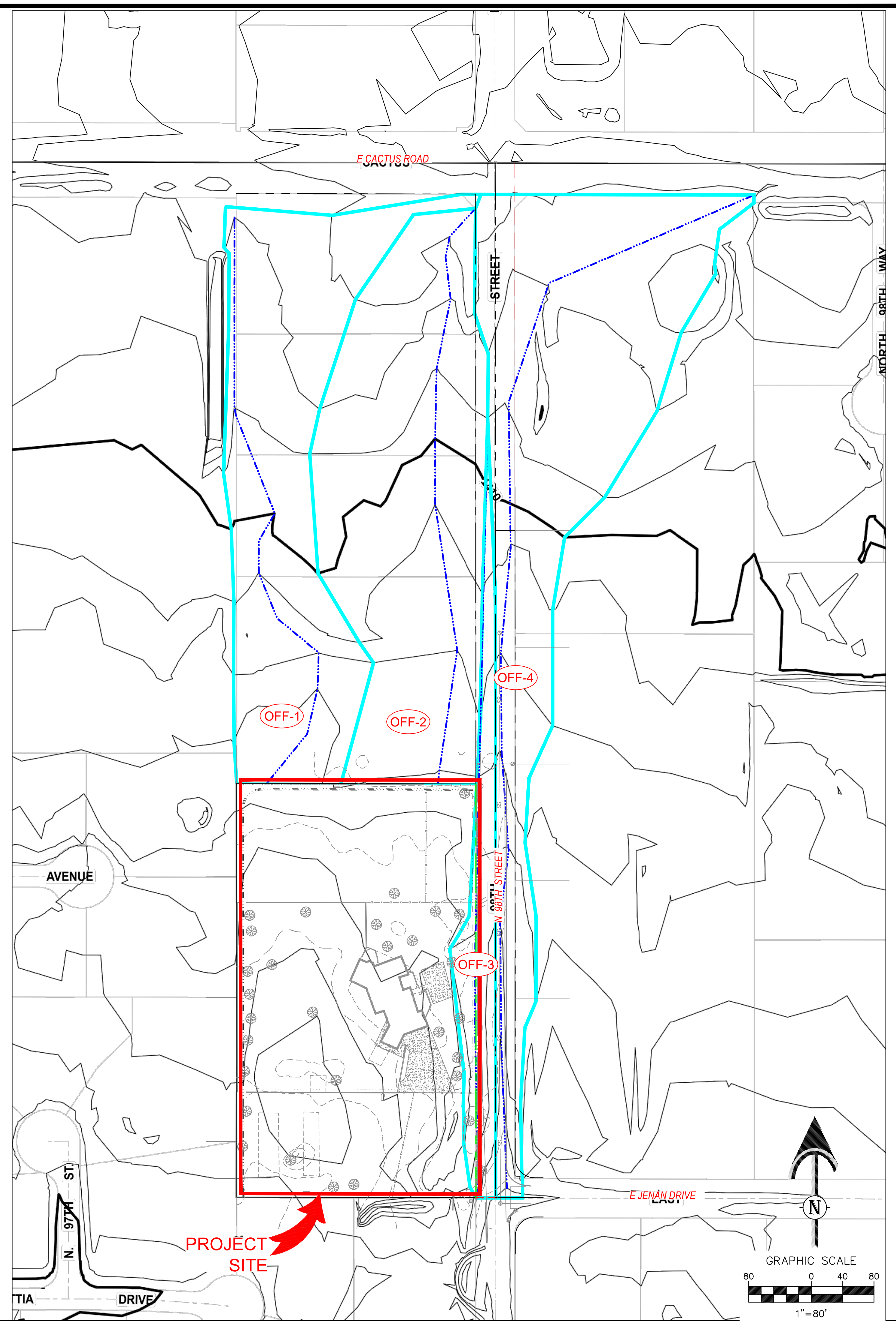
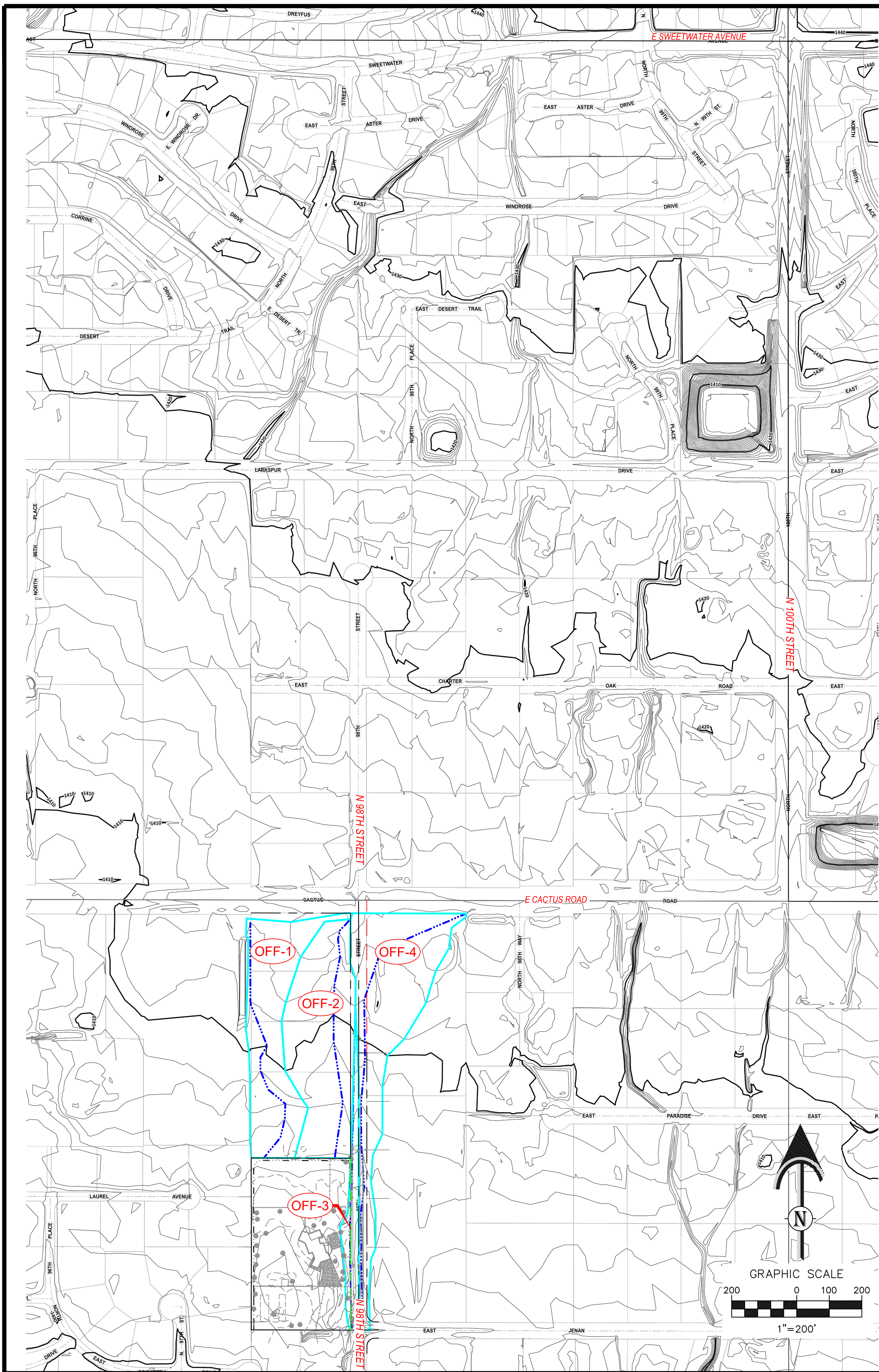
MAP NUMBER
04013C1780L

MAP REVISED
OCTOBER 16, 2013

Federal Emergency Management Agency

EXHIBIT 2

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



#	DATE	DESCRIPTION


TNG CONSULTING, LLC.
 4802 E. RAY RD., STE 23-386
 PHOENIX, AZ 85044
 TEL: 480-562-8039
 www.tng-consulting.net

EXISTING CONDITIONS DRAINAGE MAP
11880 N 98TH STREET
SCOTTSDALE, ARIZONA

PROJECT #	102001130
DATE	12-21-2020
CHECK	BMN
LABEL	
SHEET	
EXHIBIT 3	

PRELIMINARY GRADING & DRAINAGE PLAN FOR 11880 N 98TH STREET

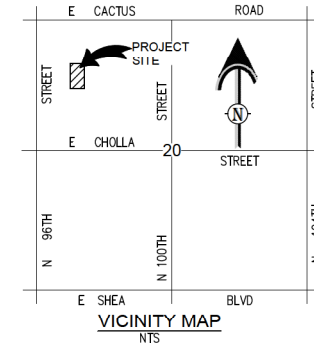
A PORTION OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH,
RANGE 5 EAST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

OWNER/DEVELOPER

SOHOME AZ INC
11880 N 98TH STREET
SCOTTSDALE, AZ 85260

ENGINEER

TNG CONSULTING, LLC
4802 E. RAY RD, SUITE 23-598
PHOENIX, ARIZONA 85044
PHONE: (480) 352-7039
CONTACT: BENJAMIN NJUGUNA, P.E.



SITE DATA

ADDRESS: 11880 N 98TH STREET
SCOTTSDALE, AZ 85260
APN#: 217-26-004F
ZONING: R1-35

TOTAL LOT AREA (GROSS): 161,172 SF (3.70 AC.)
TOTAL LOT AREA (NET): 161,172 SF (3.70 AC.)

BENCHMARK

GDAC PID: 2247
FND 3" SCOTTSDALE BC 0.1' DN NO STAMPING
ELEVATION: 1408.164' (NAVD '88)

TEMPORARY BENCHMARK (TRM):
FOUND 1/2" REBAR AT SOUTHEAST CORNER OF LOT.
ELEVATION: 1404.80' (NAVD '88)

BASIS OF BEARING

NAD 83, EPOCH 1992, INTERNATIONAL UNITS, ARIZONA CENTRAL, PER GPS OBSERVATION

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

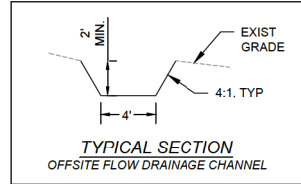
COMMUNITY NUMBER	PANEL #	SUFFIX	DATE OF FIRM (INDEX DATE)	FIRM ZONE	BASE FLOOD ELEVATION (IN AO ZONE USE DEPTH)
045012	1780	L	10/10/2013	X (SHADED)	N/A
	10/18/2013				

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF MARICOPA, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:
PARCEL NO. 1:
THE SOUTH 4 ACRES OF THE EAST HALF OF THE EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 EAST, OF THE GILA SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.
PARCEL NO. 2:
AN EASEMENT FOR INGRESS AND EGRESS OVER THE EAST 20 FEET OF THE EAST HALF OF THE EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 EAST, OF THE GILA SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
EXCEPT THE SOUTH 4 ACRES THEREOF.

ON-LOT STORMWATER STORAGE REQUIREMENT (COS)

UPON THE DEVELOPMENT OF EACH LOT WITHIN THIS SUBDIVISION WITH A RESIDENTIAL STRUCTURE, THE LOT OWNER SHALL BE RESPONSIBLE FOR CONSTRUCTING AN ON-LOT STORMWATER STORAGE BASIN OR BASINS DESIGNED IN CONFORMANCE WITH CITY OF SCOTTSDALE STANDARDS FOR THE DESIGN OF STORMWATER STORAGE BASINS INCLUDING THE DEDICATION OF A PUBLIC DRAINAGE EASEMENT COVERING THE LIMITS OF THE BASIN(S). THE STORMWATER STORAGE BASIN(S) WILL BE REVIEWED AND APPROVED FOR CONSTRUCTION BY THE CITY OF SCOTTSDALE AS PART OF A GRADING AND DRAINAGE PLAN FOR THE PROPOSED RESIDENTIAL STRUCTURE. ADDITIONALLY, THE LOTS WITHIN THIS SUBDIVISION ARE NOT ELIGIBLE FOR A WAIVER OF THE STORMWATER STORAGE REQUIREMENT.

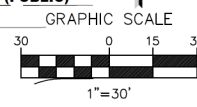
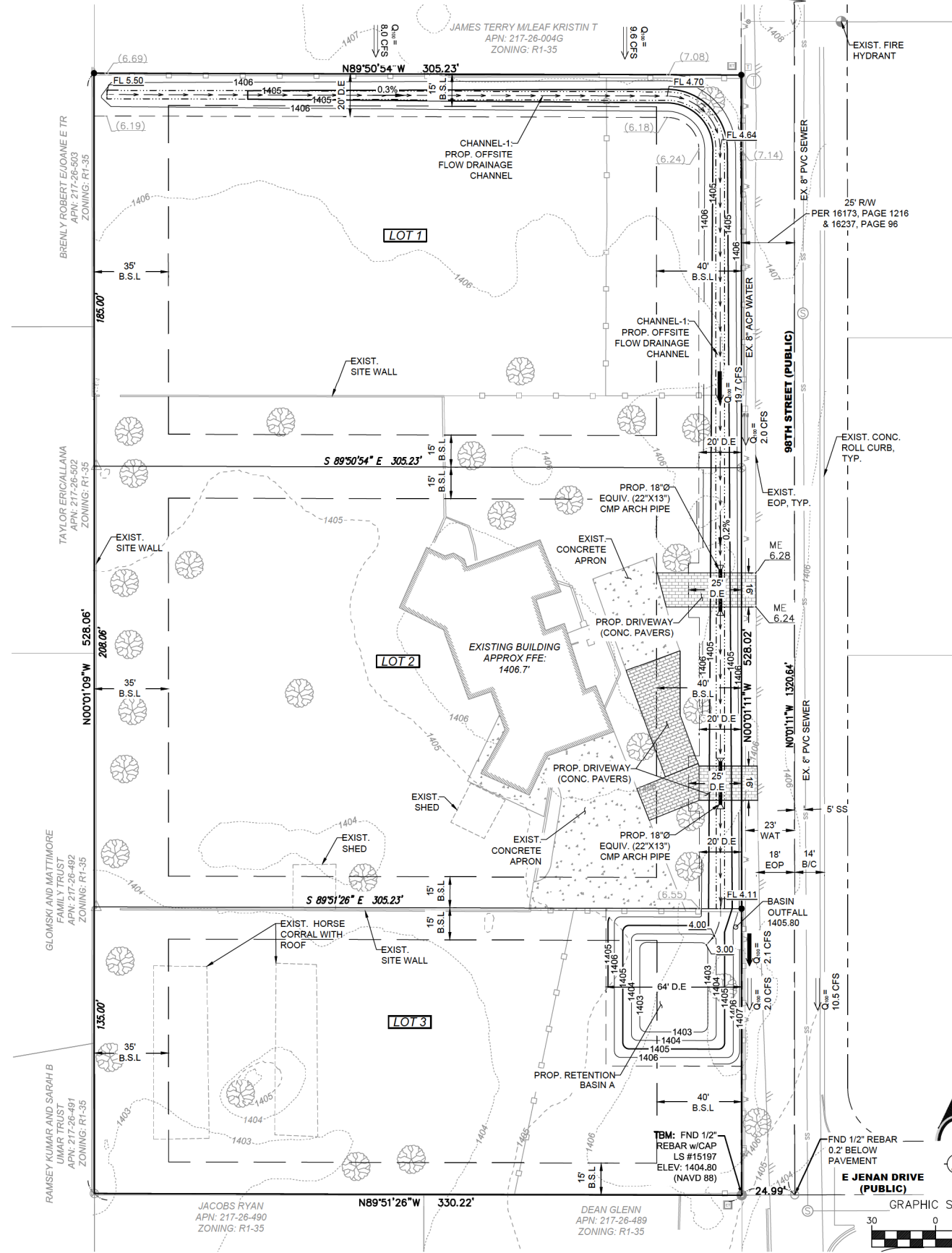


LEGEND

- EX. BUILDING
- ROOF OVERHANG
- FOUND BRASS CAP FLUSH
- FOUND PROPERTY CORNER
- FOUND 1/2" REBAR
- SET PROPERTY CORNER
- SEWER MANHOLE
- SEWER CLEANOUT
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- TELECOM MANHOLE
- TELECOM BOX
- CONCRETE ROLL CURB & GUTTER
- EDGE OF ASPHALT PAVEMENT
- R.O.W LINE
- CENTER LINE
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE
- WATER LINE
- SEWER LINE
- PIPF FNCF
- EXIST. CONDITIONS PEAK FLOW
- PROP. CONDITIONS PEAK FLOW

ABBREVIATIONS

- APN ASSESSOR PARCEL NUMBER
- ASSY ASSEMBLY
- AC ACRE
- BC/B/C BACK OF CURB/
- CO CLEANOUT
- CONC CONCRETE
- COS CITY OF SCOTTSDALE
- CR CREST/ CROWN
- DTL DETAIL
- ELEC ELECTRICAL
- ELEV ELEVATION
- EX/ EXIST EXISTING
- F/C FACE OF CURB
- FFE FINISHED FLOOR ELEVATION
- FH FIRE HYDRANT
- FND FOUND
- GPE GENERAL PURPOSE EASEMENT
- INV INVERT
- LF LINEAL FEET
- LF 88 LOWEST FLOOR ELEV (NAVD '88)
- MCA MARICOPA COUNTY ASSESSOR
- MCR MARICOPA COUNTY RECORDER
- MH MANHOLE
- PROP PROPOSED
- ROW/ R/W RIGHT-OF-WAY
- SS/ SWR SANITARY SEWER
- STD STANDARD
- SW SIDEWALK
- TBD TO BE DETERMINED
- TBM TEMPORARY BENCHMARK
- UNK UNKNOWN
- VAR VARIES
- w/ WITH
- WTR WATER



QS #25-46, CITY PLAN CHECK# 7-MD-2020

PRELIMINARY GRADING & DRAINAGE PLAN
11880 N 98TH STREET
SCOTTSDALE, ARIZONA 85260
SOHOME AZ, INC.

TNG CONSULTING, LLC
4802 E. RAY RD, SUITE 23-598
PHOENIX, ARIZONA 85044
TEL: 480-352-7039
www.tngconsulting.net

Call at least two full working days before you begin construction.
ARIZONA 811
Arizona Blue Stiles, Inc.
Dist 8-1-1 or 1-800-878-2827 (785-3245)
In Maricopa County: (602) 265-1109

Professional Engineer
Benjamin M. Njuguna
Arizona, U.S.A.
Expires 6-30-22

PROJECT #	102001130
DATE	12-21-2020
CHECK	BMN
LABEL	1130-DD-GD01

7-MD-2020
1/27/2021

APPENDIX B



Hydrology Calculations



Flood Control District of Maricopa County
 Drainage Design Management System
RAINFALL DATA
 Project Reference: 1130-11880 N 98TH ST

ID	Method	Duration	2 Yr	5 Yr	10 Yr	25 Yr	50 Yr	100 Yr
DEFAULT	NOAA14	5 MIN	0.267	0.361	0.432	0.527	0.600	0.673
	NOAA14	10 MIN	0.407	0.549	0.658	0.802	0.912	1.025
	NOAA14	15 MIN	0.504	0.680	0.815	0.994	1.131	1.270
	NOAA14	30 MIN	0.679	0.916	1.098	1.339	1.523	1.711
	NOAA14	1 HOUR	0.841	1.134	1.359	1.657	1.885	2.117
	NOAA14	2 HOUR	0.970	1.290	1.534	1.866	2.116	2.375
	NOAA14	3 HOUR	1.045	1.366	1.620	1.973	2.254	2.544
	NOAA14	6 HOUR	1.237	1.577	1.847	2.217	2.504	2.803
	NOAA14	12 HOUR	1.415	1.785	2.076	2.469	2.771	3.083
	NOAA14	24 HOUR	1.700	2.201	2.600	3.156	3.594	4.054

Flood Control District of Maricopa County
 Drainage Design Management System
 LAND USE
 Project Reference: 1130-11880 N 98TH ST

Sub Basin	Land Use Code	Area (acres)	Area (%)	Kb	Runoff Coefficient C						Description
					2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 01											
OFF-1	120	2.47	100.0	0.038	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		2.470	100.0								
OFF-2	120	2.96	100.0	0.037	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		2.960	100.0								
OFF-3	120	0.63	100.0	0.041	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		0.630	100.0								
OFF-4	120	3.37	100.0	0.037	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		3.370	100.0								

* Non default value

Flood Control District of Maricopa County
 Drainage Design Management System
SUB BASINS
 Project Reference: 1130-11880 N 98TH ST

ID	Sub Basin Data						Sub Basin Hydrology Summary						
	Area (acres)	Length (ft)	USGE	DSGE	Slope (ft/mi)	Kb	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 01													
OFF-1	2.5	787	1,413.00	1,407.00	40.3	0.038	Q (cfs)	2.4	3.4	4.1	5.5	6.7	8.0
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	1.04	1.04	1.04	1.14	1.24	1.31
							Volume (ac-ft)	0.0485	0.0625	0.0754	0.1011	0.1232	0.1471
							Tc (min)	11	10	10	10	10	10
							i (in/hr)	2.30	3.27	3.92	4.79	5.44	6.10
OFF-2	3.0	754	1,413.00	1,407.00	42.0	0.037	Q (cfs)	2.9	4.1	4.9	6.5	8.1	9.6
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	1.24	1.24	1.24	1.36	1.48	1.57
							Volume (ac-ft)	0.0560	0.0754	0.0901	0.1195	0.1489	0.1765
							Tc (min)	11	10	10	10	10	10
							i (in/hr)	2.35	3.27	3.92	4.79	5.44	6.10
OFF-3	0.6	821	1,411.00	1,406.00	32.2	0.041	Q (cfs)	0.6	0.8	1.0	1.4	1.7	2.0
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	0.26	0.26	0.26	0.29	0.32	0.33
							Volume (ac-ft)	0.0145	0.0166	0.0191	0.0257	0.0313	0.0368
							Tc (min)	13	11	10	10	10	10
							i (in/hr)	2.13	3.11	3.86	4.79	5.44	6.10
OFF-4	3.4	1,446	1,413.00	1,404.00	32.9	0.037	Q (cfs)	2.7	3.9	4.9	6.8	8.7	10.5
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	1.42	1.42	1.42	1.55	1.69	1.79
							Volume (ac-ft)	0.0844	0.1061	0.1216	0.1538	0.1856	0.2124
							Tc (min)	17	15	14	12	12	11
							i (in/hr)	1.88	2.72	3.43	4.39	5.12	5.87

* Non default value

Flood Control District of Maricopa County
 Drainage Design Management System
 LAND USE
 Project Reference: 1130-11880 N 98TH ST

Sub Basin	Land Use Code	Area (acres)	Area (%)	Kb	Runoff Coefficient C						Description
					2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 02											
OFF1+2	120	5.94	100.0	0.035	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		5.940	100.0								
OFF123	120	6.06	100.0	0.035	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		6.060	100.0								

* Non default value

Flood Control District of Maricopa County
 Drainage Design Management System
SUB BASINS
 Project Reference: 1130-11880 N 98TH ST

ID	Sub Basin Data						Sub Basin Hydrology Summary						
	Area (acres)	Length (ft)	USGE	DSGE	Slope (ft/mi)	Kb	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 02													
OFF1+2	5.4	787	1,413.00	1,407.00	40.3	0.035	Q (cfs)	5.5	7.5	9.0	12.0	14.9	17.7
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	2.28	2.28	2.28	2.50	2.72	2.88
							Volume (ac-ft)	0.1062	0.1379	0.1655	0.2207	0.2740	0.3255
							Tc (min)	11	10	10	10	10	10
							i (in/hr)	2.40	3.29	3.95	4.81	5.47	6.15
OFF123	6.1	1,175	1,413.00	1,404.00	40.4	0.035	Q (cfs)	5.5	7.9	9.8	13.4	16.6	19.7
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	2.55	2.55	2.55	2.79	3.03	3.21
							Volume (ac-ft)	0.1345	0.1685	0.1928	0.2464	0.3052	0.3623
							Tc (min)	13	12	11	10	10	10
							i (in/hr)	2.15	3.10	3.84	4.81	5.47	6.15

* Non default value

Rational Method Model Results



Flood Control District of Maricopa County
 Drainage Design Management System
RATIONAL METHOD FLOW SUMMARY
 Project Reference: 1130-11880 N 98TH ST
 Return Period: 100 Years

Page 1

12/21/2020

Type	Model ID	Size	Area (acres)	CA (acres)	I (in/hr)	Q (cfs)	Velocity (ft/sec)	Length (feet)	Tp (min)	Tc (min)	Volume (ac-ft)
Major Basin: 01											
Sub Basin	OFF-1		2.5	1.31	6.10	8.0				10	0.1471
Sub Basin	OFF-2		3.0	1.57	6.10	9.6				10	0.1765
Sub Basin	OFF-3		0.6	0.33	6.10	2.0				10	0.0368
Combine	A		6.1	3.21		19.6					0.3604
Storage	BASINA		6.1	3.21		2.1					0.3604
Sub Basin	OFF-4		3.4	1.79	5.87	10.5				11	0.2124

Flood Control District of Maricopa County
 Drainage Design Management System
 RATIONAL METHOD STORAGE FACILITIES
 Project Reference: 1130-11880 N 98TH ST

Storage Basin ID: BASINA		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
Elevation Top of Dam:	1,405.80	Area (ac)	0.051	0.081	0.085	-	-	-	-	-	-
Length of Dam:	8.00	Discharge (cfs)	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Discharge Coefficient:	3.00	Elevation (ft)	1,405.30	1,405.80	1,406.00	-	-	-	-	-	-
Weir Coefficient:	1.50										
		<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
		Area (ac)	-	-	-	-	-	-	-	-	-
		Discharge (cfs)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Elevation (ft)	-	-	-	-	-	-	-	-	-
		<u>2 Year</u>	<u>5 Year</u>	<u>10 Year</u>	<u>25 Year</u>	<u>50 Year</u>	<u>100 Year</u>				
		Peak Volume (ac-ft)		0.050		0.050	0.050				
		Peak Stage (ft)		1,406.00		1,406.00	1,406.00				
		Peak Discharge (cfs)		2.14		2.14	2.14				

Stormwater Retention Calculations



11880 N 98TH STREET, SCOTTSDALE AZ
STORM WATER RETENTION CALCULATIONS SUMMARY

NOTE: Stormwater retention shall be required for the north lot (Lot1) and South lot (Lot3), in areas that have not been previously developed. No stormwater retention shall be required for the middle lot (Lot2) where the existing residential house (to remain) is situated

Vol Required (V_R):

V_R = 100-yr, 2-hr retention volume

$$V_R = C (P/12) A$$

Where; C= 0.62 (DSPM Figure 4-1.5, R1-35)

P = 2.25 inches (100-yr, 2-hr, DSPM Appendix 4-1D)

A = Area SF

LOT ID	Area (SF)	V_R (CF)
LOT 1	35,000	<u>4,069</u>
LOT 3	35,000	<u>4,069</u>

11880 N 98TH STREET, SCOTTSDALE AZ
STORMWATER RETENTION BASIN VOLUME

BASIN A				
STAGE	AREA	AREA (AC)	VOL	CUMM VOL
1403	1336	0.031	0	0
1404	1992	0.046	1664	1664
1405	2776	0.064	2384	4048
1405.3	2221	0.051	749.55	4797.55
1405.8	3547	0.081	1442	6239.55
1406	3688	0.085	723.5	6963.05

(VR for Lot 3 Met)

Hydraulic Calculations



Flood Control District of Maricopa County
 Drainage Design Management System
RIVER MECHANICS - CROSS SECTION HYDRAULICS
Project Reference: 1130-11880 N 98TH ST

Section ID	Flow Type	Entire Section										Channel Section				
		Q (cfs)	Slope (f/f)	Man'g N Channel	Man'g N LOB	Man'g N ROB	Area (sq ft)	W.P. (ft)	Avg Width (ft)	Top Width (ft)	Hyd Depth (ft)	Max Depth (ft)	Vel (f/s)	Hyd Depth (ft)	Vel (ft/sec)	Froude Num
CHANNEL 1	Design Dominant	20	0.002000	0.028	0.028	0.028	10.23	13.70	8.70	13.41	0.76	1.18	1.95			
									0.00							

HY-8 Analysis Results

Crossing Summary Table

Culvert Crossing: LOT2- N DRIVEWAY CULVERT

Headwater Elevation (ft)	Discharge Names	Total Discharge (cfs)	N-CULVERT Discharge (cfs)	Roadway Discharge (cfs)	Iterations
1416.30	Q10	9.80	7.64	2.15	8
1416.44	Q50	16.60	8.02	8.57	4
1416.49	Q100	19.70	8.15	11.52	3
1416.20	Overtopping	7.37	0.00	1.00	

HY-8 Analysis Results

Water Surface Profiles

Culvert Crossing: LOT2- N DRIVEWAY CULVERT

Discharge Names	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth(ft)	Outlet Control Depth(ft)	Flow Type	Length Full (ft)	Length Free (ft)
Q10	9.80	7.64	1416.30	1.82	2.17	7-M2c	18.34	5.66
Q50	16.60	8.02	1416.44	1.94	2.31	7-M2c	19.43	4.57
Q100	19.70	8.15	1416.49	1.98	2.36	7-M2c	19.76	4.24

HY-8 Analysis Results

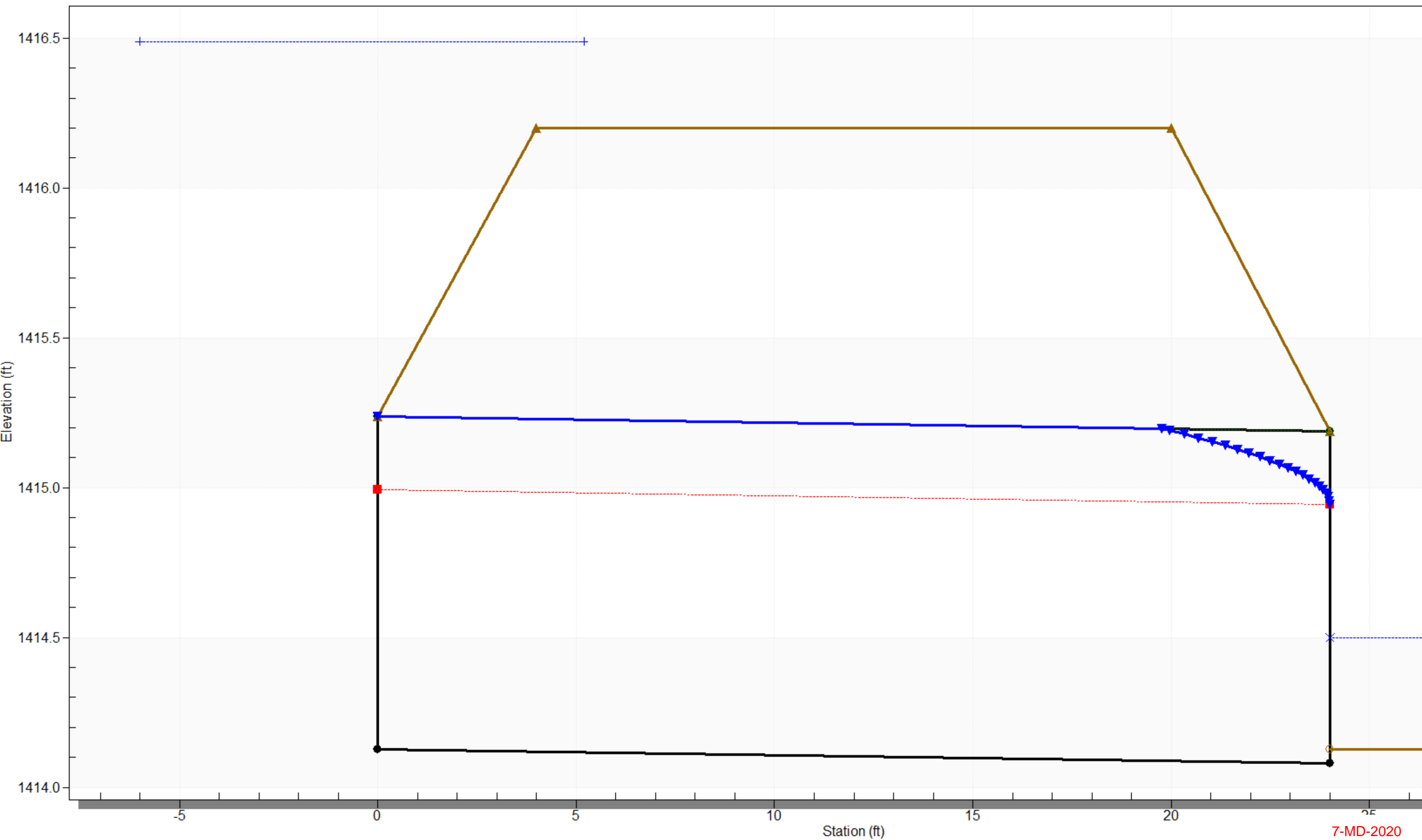
Culvert Summary Table - N-CULVERT

Culvert Crossing: LOT2- N DRIVEWAY CULVERT

Discharge Names	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth(ft)	Outlet Control Depth(ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
Q10	9.80	7.64	1416.30	1.82	2.17	7-M2c	1.11	0.83	0.83	0.25	5.69	7.76
Q50	16.60	8.02	1416.44	1.94	2.31	7-M2c	1.11	0.86	0.86	0.34	5.83	9.18
Q100	19.70	8.15	1416.49	1.98	2.36	7-M2c	1.11	0.86	0.86	0.37	5.88	9.67

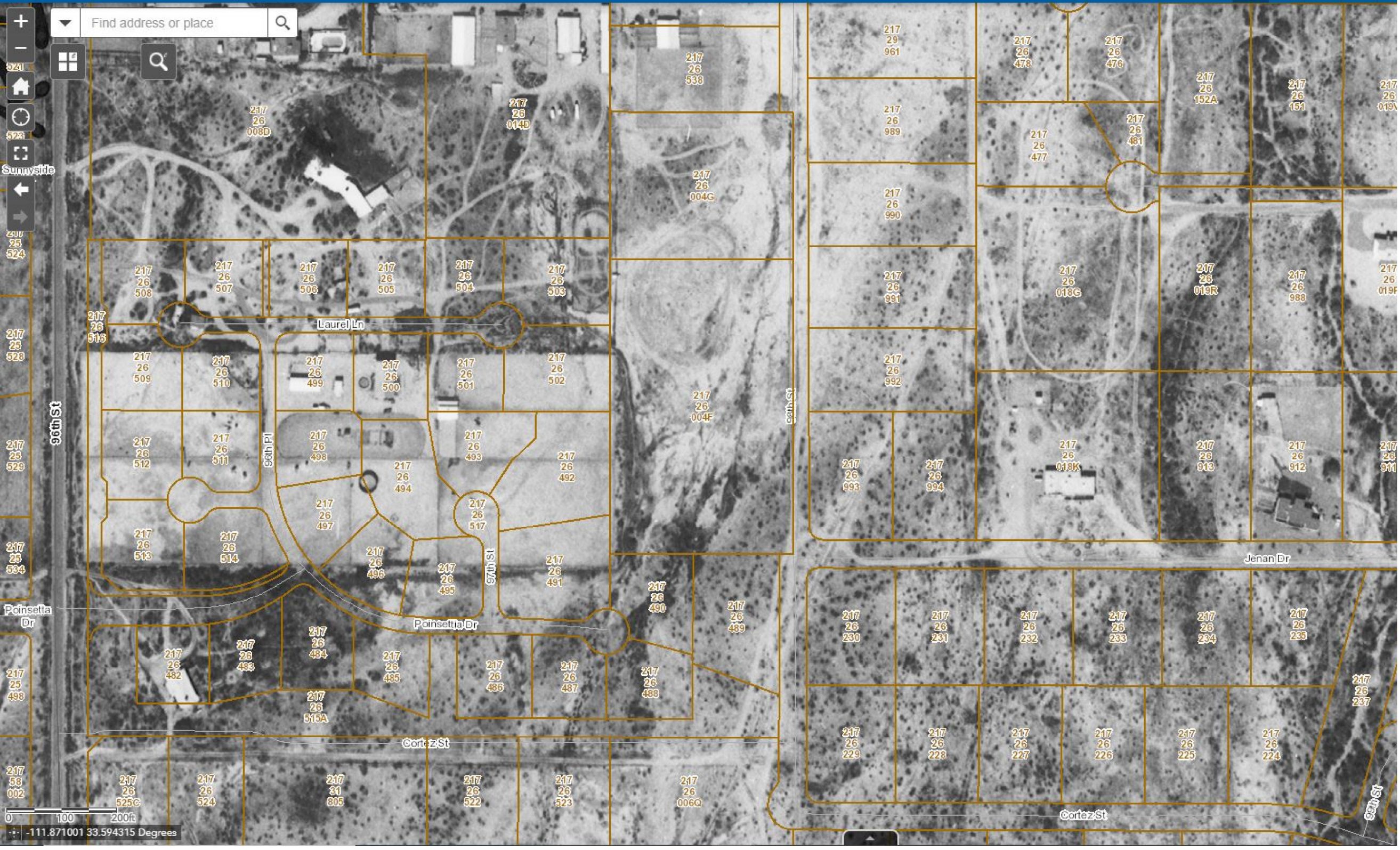
Crossing - LOT2- N DRIVEWAY CULVERT, Design Discharge - 0.0 cfs

Culvert - N-CULVERT, Culvert Discharge - 8.1 cfs



APPENDIX C





CITY
COPY

BELLISSIMA ESTATES

NW QUARTER SECTION 20

TOWNSHIP 3 NORTH, RANGE 5 EAST

GILA & SALT RIVER BASE AND MERIDIAN

MARICOPA COUNTY, ARIZONA

APN 217-26-985

PRELIMINARY DRAINAGE REPORT

Plan # _____
Case # 4-PP-2016
Q-S # _____
 Accepted
 Corrections
N. Baronas 4-4-17
Reviewed By Date

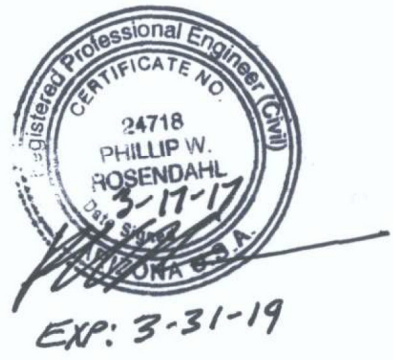


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3.	PROPOSED DRAINAGE PLAN.....	Pg. 1
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EXP: 3-31-19

1. INTRODUCTION

Bellissima Estates is anticipated to be a 6 lot subdivision located in the NW quadrant of E. Jenan Drive and N. 98th Street, being a portion of the NW quarter of Section 20, Township 3 North, Range 5 East of the Gila and Salt River Base and Meridian. It is described as Lot 2 of the Minor Land Division-Lot Line Adjustment of Bellissima Farms. The property is a 5.79 acre parcel on property that has been used as a horse property for breeding and training horses. Due to the recent demolition of out buildings and corrals the site is relatively void of vegetation except for the bushes around the perimeter of the property. It is mild sloping at slightly less than 1% from North to South. N. 98th Street is paved without curb and gutter and E. Jenan Drive is paved on the South side of the street with a 4 inch rolled curb.

The purpose of this preliminary drainage report is to investigate and address the site drainage conditions and provide the necessary storm retention for the difference between the pre-development runoff and the post-development runoff and not overflow the basin during the peak flow of the 100-yr storm.

2. DESCRIPTION OF EXISTING DRAINAGE CONDITIONS AND CHARACTERISTICS

This site is gently sloping from North to South at 0.81% runoff currently sheets across the property draining onto E. Jenan Drive and continuing West to the intersection with 98th St., where it flows South. There is no significant offsite flow onto the site other than the sheet flow from the property adjacent to the North, then across this development in the same manner and onto E. Jenan Drive. This offsite runoff will be brought onto the site in a drainage swale along the North boundary and turned into another swale running South in the 8' PUE and be released in the SW corner of the site where it has historically flowed. The retention basins along the N. 98th Street frontage will be moved to the East allowing room for the drainage swale, enabling the offsite runoff to be kept separate from the onsite. The calculated peak flow of the offsite flow is 7.4 cfs.

The FEMA Flood Insurance Rate Map No. 04013C1780L revised on October 16, 2013 shows the site in a Zone "X" designated flood zone, this zone being defined as an area of minimal flood potential.

3. PROPOSED DRAINAGE PLAN

In developing the 6 lots for single family residences the existing drainage pattern will be maintained, providing for overflow at the southwest corner of the property. Privacy walls separating the lots will be constructed to allow the sheet flow to pass from one lot to the next as it historically has, however we have opted to retain the runoff from Lots 1 & 2 separately from Lots 3 – 6.

These two lots will drain from the East boundary to the N. 98th St. frontage retention basin, which will be covered by a drainage easement. Lots' 3 – 6 runoff will be contained in a retention basin provided on Lots 5 and 6. We have estimated a 15,000 square foot area of building and hardscape to establish the runoff coefficient for the developed site, which turns out to be very close to the value of Figure 4.1-4 of the City DSPM. To better facilitate the lot sizes that are anticipated by the developer, as mentioned, we are providing storm retention in a basin located in conjunction with the southerly two lots of the development, being Lots 5 and 6 and a smaller basin located on Lots 1 and 2. We will calculate the size of the retention basins being the difference between the pre-development runoff and the post-development runoff. When the difference in the volume of runoff is calculated per the Maricopa County Flood Control Drainage Design Manual and considering the half streets of both 98th Street and Jenan Drive, we show a volume of 5,614 ft.³, however when the peak flow of the developed site is calculated for the site time of concentration, T_c that volume will be exceeded upon reaching the peak runoff of the storm hydrograph. Therefore we have analyzed the pre-development and post-development hydrographs overlain on each other to determine the size of a retention basins that will retain the runoff past the peak flow of the 100-yr. storm event. This analysis is shown below.

A. Pre-development Peak Runoff Analysis Lots 1 & 2:

Per City of Scottsdale Design Standards & Policy's Manual and
Per Maricopa County Flood Control Drainage Design Manual;

DA-1 = 76,028 ft.² / 1.75 ac (See Pre-Development Drainage Area Fig.1, Pg. 6)
Calculate T_c of DA-1 using: $T_c = 11.4 \times L^{0.5} \times K_b^{0.52} \times S^{-0.31} \times i^{-0.38} = 5 \text{ min.}$

Where: L = length of longest flow path in miles = 0.11 mi.
 K_b = flow resistance coefficient = 0.038
 S = slope in ft./mi. = 26.3 ft./mi.
 i = rainfall intensity in in./hr. = 9 in./hr. by iteration.

DA-1 Peak Runoff; $Q = C \times I \times A = 6.3 \text{ ft.}^3/\text{sec.}$

Where: C = runoff coefficient = 0.40 this being determined from
Figure 4.1-4 lying between "undisturbed natural desert
and "agricultural areas, more heavily toward the former.
 i = rainfall intensity from the T_c iteration = 9 in./hr.
 A = drainage basin area in acres = 1.75 ac., as a portion of
Lots 1 and 2 does not reach the point of concentration
for this consideration.

B. Post-development Peak Runoff Analysis Lots 1 & 2:

(See Post-Development Drainage Area Fig. 2, Pg. 7)

Calculating T_c of DA-1 by similar iteration of the above equation; $L = 0.11$, $K_b = 0.037$, $S = 26.3$ ft./mi. we find that $T_c = 5$ min. giving $i = 9.0$ in./hr., the Area of Post-Development DA-1 is 2.25 ac.

Post-Development DA-1 Peak Runoff; $Q = C \times i \times A = 12.55$ ft.³/sec.

Retention volume required for this basin: is 3,290 ft.³, calculated from analysis of the hydrograph of the pre-development and the post-development runoffs, shown as Figure 3, Pg 8. In sizing the basin for the potential development of a circular drive on each of the lots we have also provided for the displacement of available retention volume for those driveways, being 12 feet wide with 4:1 slopes to the bottom of retention and the maximum depth being 1 foot. This displacement added 1224 ft.³ to the calculated 3,290 ft.³, for a total volume of 4,514 ft.³. The volume provided on the Preliminary Grading & Drainage Plan is 4,622 ft.³. A drainage easement covering this retention basin is provided on the Preliminary Plat Site Plan.

C. Pre-development Peak Runoff Analysis Lots 3-6:

(See Pre-Development Drainage Area Fig. 1, Pg. 6)

DA-2 = 80,900 ft.² / 1.86 ac

Calculate T_c of DA-2 using: $T_c = 11.4 \times L^{0.5} \times K_b^{0.52} \times S^{-0.31} \times i^{-0.38} = 7$ min.

Where: L = length of longest flow path in miles = 0.14 mi.
 K_b = flow resistance coefficient = 0.038
 S = slope in ft./mi. = 36.1 ft./mi.
 i = rainfall intensity in in./hr. = 8.0 in./hr. by iteration.

DA-2 Peak Runoff; $Q = C \times i \times A = 5.95$ ft.³/sec.

Where: C = runoff coefficient = 0.40
 i = rainfall intensity from the T_c iteration = 8.0 in./hr.
 A = drainage basin area in acres = 1.86 ac.

DA-3 = 115,117 ft.² / 2.65 ac

Calculate T_c of DA-2 using: $T_c = 11.4 \times L^{0.5} \times K_b^{0.52} \times S^{-0.31} \times i^{-0.38} = 8$ min.

Where: L = length of longest flow path in miles = 0.19 mi.
 K_b = flow resistance coefficient = 0.037
 S = slope in ft./mi. = 39.0 ft./mi.
 i = rainfall intensity in in./hr. = 7.3 in./hr. by iteration.

DA-3 Peak Runoff; $Q = C \times I \times A = 7.74 \text{ ft.}^3/\text{sec.}$

Where: $C = \text{runoff coefficient} = 0.40$

$i = \text{rainfall intensity from the } T_c \text{ iteration} = 7.3 \text{ in./hr.}$

$A = \text{drainage basin area in acres} = 2.65 \text{ ac.}$

Total Pre-Development Peak Runoff = $13.69 \text{ ft}^3/\text{sec.}$

D. Post-development Peak Runoff Analysis Lots 3-6:

(See Post-Development Drainage Area Fig. 2, Pg. 7)

Calculating T_c of DA-2 by similar iteration of the above equation; $L = 0.20$, $K_b = 0.035$, $S = 32.0 \text{ ft./mi.}$ we find that $T_c = 10 \text{ min.}$ giving $i = 6.9 \text{ in./hr.}$, the Area of Post-Development DA-1 is 4.17 ac.

Post-Development DA-2 Peak Runoff; $Q = C \times i \times A = 17.84 \text{ t.}^3 / \text{sec.}$

Retention volume required for this basin: is $7,547 \text{ ft.}^3$, calculated from analysis of the hydrograph of the pre-development and the post-development runoff's, shown as Figure 4, Pg. 9. Similarly to the retention provided on Lots 1 and 2, we will have to provide for the displacement for a circular driveway on Lots 5 and 6, adding $1,224 \text{ ft.}^3$ to the computed volume bringing the required volume to $8,771 \text{ ft.}^3$, the volume provided on the Preliminary Grading and Drainage Plan is $8,965 \text{ ft.}^3$, this basin is also covered by a drainage easement on the Preliminary Plat Site Plan.

4. SPECIAL CONDITIONS:

This site has no special project stipulations, no 401 and 404 Permit requirements and no AZPDES requirements.

5. DATA ANALYSIS METHODS:

See Section 3. above "Proposed Drainage Plan" for hydrologic procedures and storm water storage calculation.

6. CONCLUSIONS:

This site has small offsite runoff contribution, being the sheet flow from the property to the North, that property in turn has been cut off from the N-S sheet flow of the area by the E. Cactus Road street improvements. The flow from the adjacent property to the North is not going to be comingled with the runoff from the developed site. This will be facilitated by creating a drainage swale Inside the North boundary that will intercept the portion of that runoff that has historically come onto the site and direct it to another swale which will carry the offsite flow South to the location where it has historically discharged from the site.

2-ZN-92

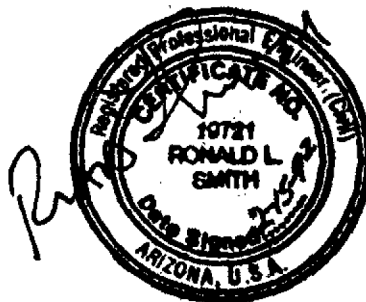
DEVELOPMENT COORDINATION GROUP, Ltd.
Land Development Management Consultants

**PRELIMINARY
DRAINAGE REPORT
FOR
LA CIENEGA**

**PREPARED FOR
LOS ALTOS HILLS REALTY, INC.
8757 E. VIA DE COMMERCIO, #100
SCOTTSDALE, AZ 85258**

**PREPARED BY
DEVELOPMENT COORDINATION GROUP, LTD.
RONALD L. SMITH, P.E.**

**JANUARY 14, 1992
REVISED FEBRUARY 15, 1992**



1.0 INTRODUCTION

This report presents the results of a preliminary analysis of the drainage conditions affecting the development of Las Cienega. La Cienega is a residential subdivision planned for 39 single family lots. This report is prepared, pursuant to rezoning of the subject property, in accordance with City of Scottsdale regulations and requirements.

La Cienega is located in a portion of the northwest quarter of Section 20, T3N, R5E. The site is adjacent to the east of 96th Street approximately 758 feet south of Cactus Road. The subject property is currently part of the Adams Arabian Horse Ranch. The site is bounded by remaining Adam's facility and Westview Farms horse ranch on the north, 4.0 acre residential lot on the east, Cortez Road on the south and 96th Street on the west. See figure 1.1, Location Map.

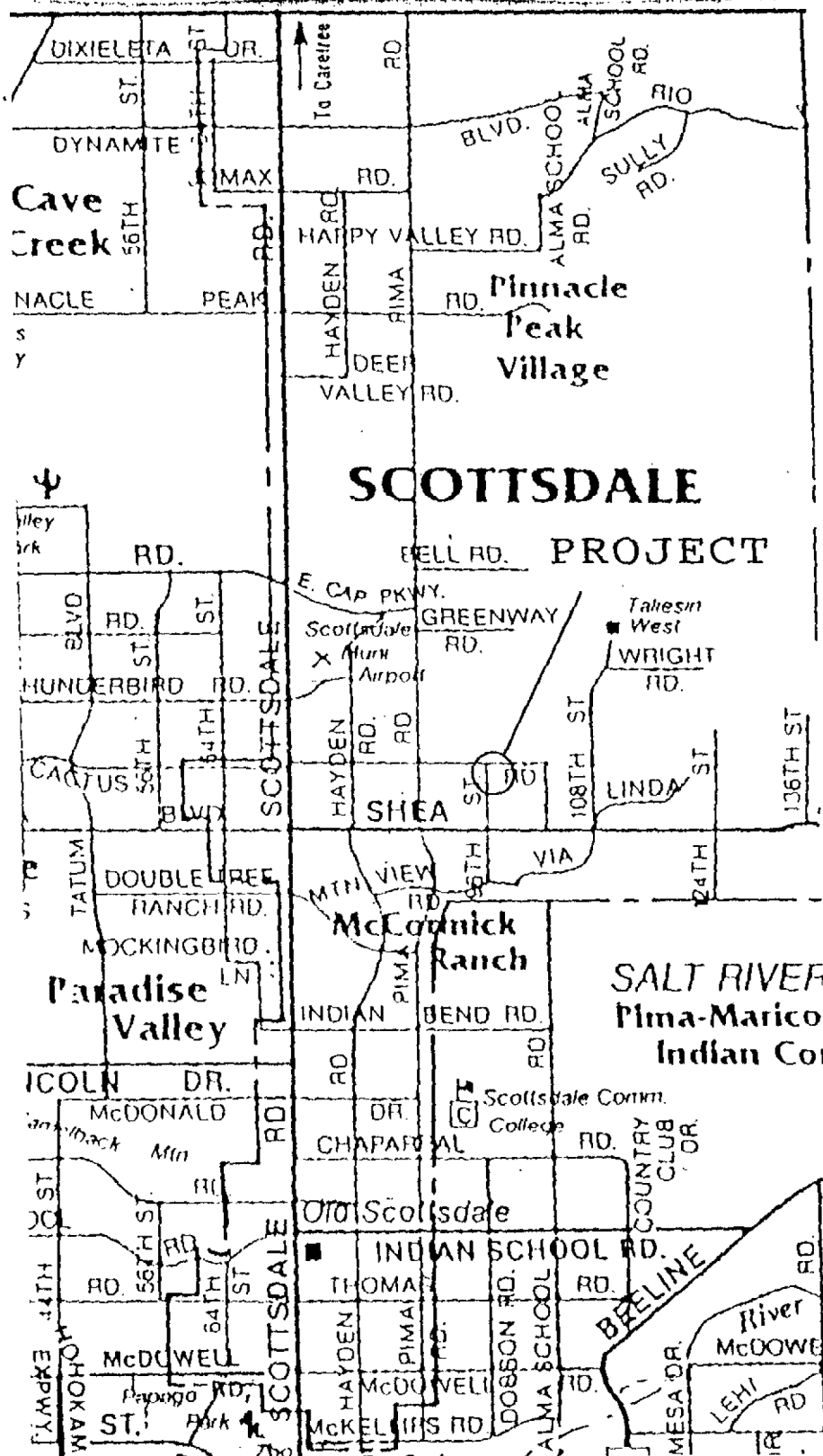
2.0 SITE DESCRIPTION

The subject property has been developed in a manner consistent with the operation of a commercial equestrian facility. The site contains a large covered show arena with attached horse stalls, several covered stall areas and barns, feed storage, training arenas, two residential homes, over 5 acres of pasture, parking areas and other smaller facilities. The predominate surface of the facility is compacted native soil. The pastures are surfaced with wood shavings and manure turned into the top 18" of native soil. A large detention pond is located near the southwest corner of the property; northeast of the existing residence on the corner. There are several drain tiles and a small shallow swale leading into the pond. The pond overflows across the southwest corner and across Cortez Road into the swale along the east side of 96th Street. The overflow tends to cause severe ponding on Cortez at the intersection with 96th Street.

The west half of 96th Street is paved with asphalt and vertical curb and gutter. The drainage swale along the east side of 96th Street is an unlined channel. See figure 2.1 channel section. There are three entrances into the site across the swale. Both entrances are culverted with 1-24" CMP pipe with head walls.

Cortez Road along the south is surfaced with gravel. Cortez Road provides access to three developed and one undeveloped residential lots. Cortez Road does not act as a through street from 96th to 98th, as the road is obstructed by a dirt mound. Cortez Road crosses the swale along 96th Street over 2-24" CMP pipes.

The site is extremely flat, sloping slightly to the southwest. There is very little physical evidence of surface drainage on the site. After the most recent rain there were numerous small shallow ponding areas on the site.



LOCATION MAP

The site is located in Flood Zone B according to the current FIRM, prepared by FEMA.

The subject property is currently zoned R1-35. A special use permit was previously obtained for the commercial equestrian operation. The developer proposes to rezone the property to R1-18 PRD.

3.0 SURROUNDING AREA DRAINAGE DESCRIPTION

The subject property lies within a portion of the City of Scottsdale that was originally preserved for a residential equestrian life style. The main character of the area was to be large acreage lots, one acre minimum, with attached horse facilities. Minimal street improvements were installed with many streets left unpaved. This concept of an equestrian life style was consistent when much of the area and the area to north was undeveloped desert and available for riding. Over the relatively recent years the surrounding area has experienced considerable residential development, with densities of two units to the acre and greater.

The subject property was included in the Pima/Doubletree Area Master Drainage Plan (P/D MP) prepared by Boyle Engineering Corporation, November 1989. The purpose of the study was to evaluate the drainage facilities constructed with the development of the surrounding areas in conjunction with the existing horse properties and to make recommendations on facilities required to complete the drainage system.

The subject property is within the D40 sub basin per the P/D MP. Drainage north of Cactus Road does not enter the subject property but drains to the swale along 96th Street. The P/D MP determined the existing runoff and compared it to the channel capacity for the reach along the property frontage. According to the study the 100 year runoff Q at Cactus is 32 CFS and at Cholla is 178 CFS and the channel capacity at Cholla is 85 CFS. Page 7 and exhibit 1 are included in the appendix for reference. The channel currently is undersized at Cholla. The P/D MP provides several alternatives for improvements to the watershed contributing flows to this reach of the channel which would mitigate the capacity problem, however these improvements have not been undertaken to date. The channel will be enlarged to the appropriate capacity, as part of the improvements for the project. A preliminary channel sizing is included in the appendix of this report.

4.0 STORM WATER MANAGEMENT FACILITY DESIGN

As previously described in section 2.0, there are no prominent drainage conveyance facilities within the site. Per section 3.0,

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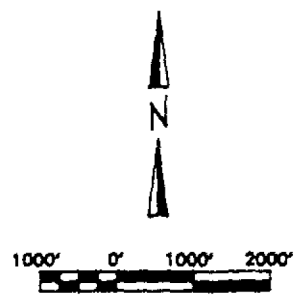
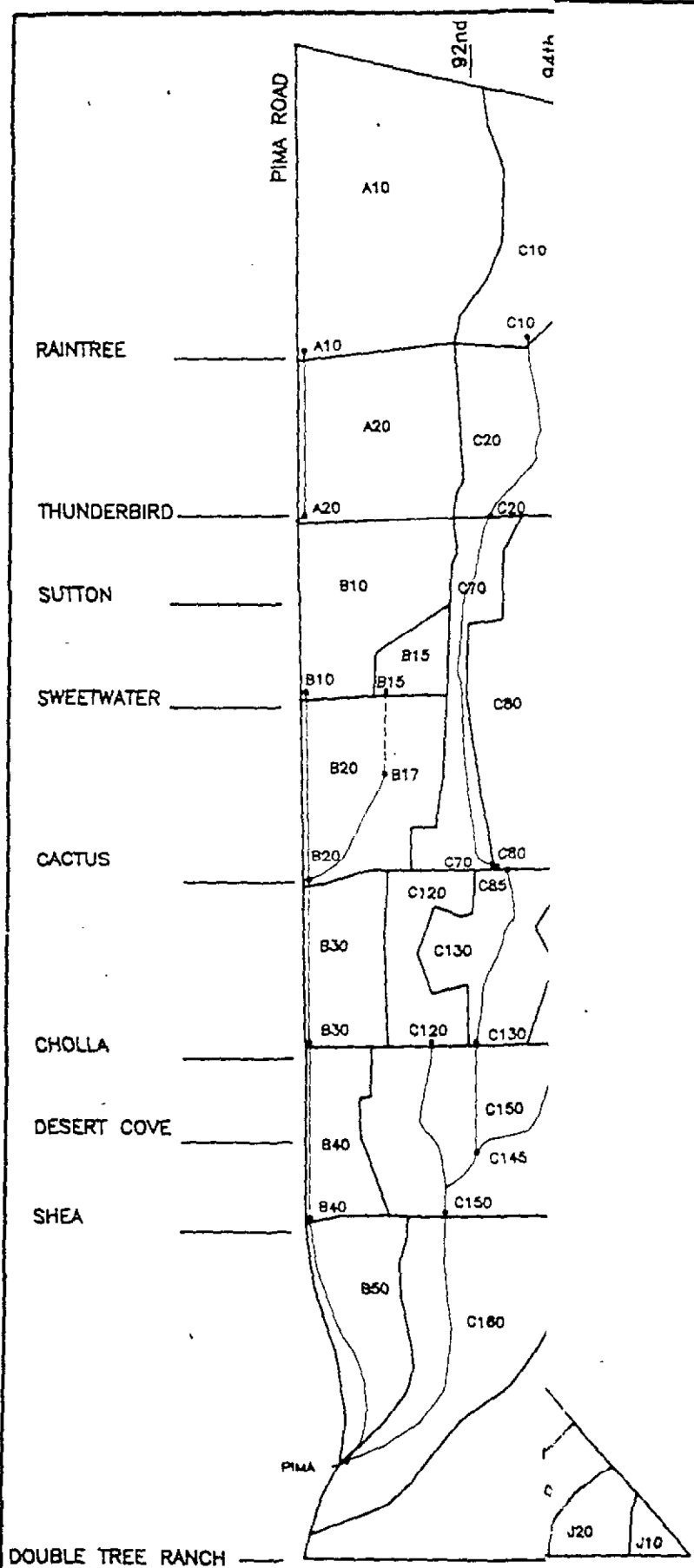
the existing outfall for drainage from the property is the channel along 96th Street. This channel does not have the required capacity to convey the existing predevelopment flows, therefore retention facilities will be provided to control storm water within the site, in accordance with City of Scottsdale Revised Code. The retention facilities will be designed to store the runoff generated from the 100 year 2 hour duration event. The appendix contains the computations which establish the amount of retention required. Retention capacity was not provided for the east half of 96th Street and the adjacent swale and the north half of Cortez Road because these areas do not drain toward the site. The required quantity of retention is 119,640 cubic feet. The retention basins will be drained within 95 hours per City of Scottsdale Revised Code. Basin design will include percolation if soil tests permit or a bleed-off system into the 96th Street swale.

The retention requirement will be satisfied by several landscape areas planned within the project and on the project perimeter. The preliminary drainage plan shows the drainage areas and the retention basin serving each area. The retention basin sizing and the required volumes are located in the appendix.

The streets within the project will act as storm water carriers, in accordance with City of Scottsdale requirements. The streets will be designed to convey the runoff from the 10-year storm event based on the rational method of runoff analysis using a runoff coefficient of C-0 57. The appendix contains the calculation verifying the street capacity.

The finish floors will be established above the elevation of the floodwater from the 100-year event storm, in accordance with City of Scottsdale revised code and FEMA regulations, the final grading plan for the project will establish the finish floors, which will be certified by an engineer registered in the State of Arizona.

EXHIBIT 1



LEGEND

F80	SUB BASIN
---	EXISTING DRAINAGEWAY
---	EXISTING STREET FLOW
▨	EXISTING STORAGE
D30	DRAINAGE NODE

EXISTING HYDROLOGIC MAP

Project Data:

Project Acreage: 22.8 Phase I
 10.39 Phase II
 33.19 Total
 Number of Lots: 38 Phase I
 15 Phase II
 (53 Total)
 Existing Zoning: R1-35
 Proposed Zoning: R1-18

② Indicates one-story/19' building hgt. limit.

R1-35 PCD Sunnyside Drive

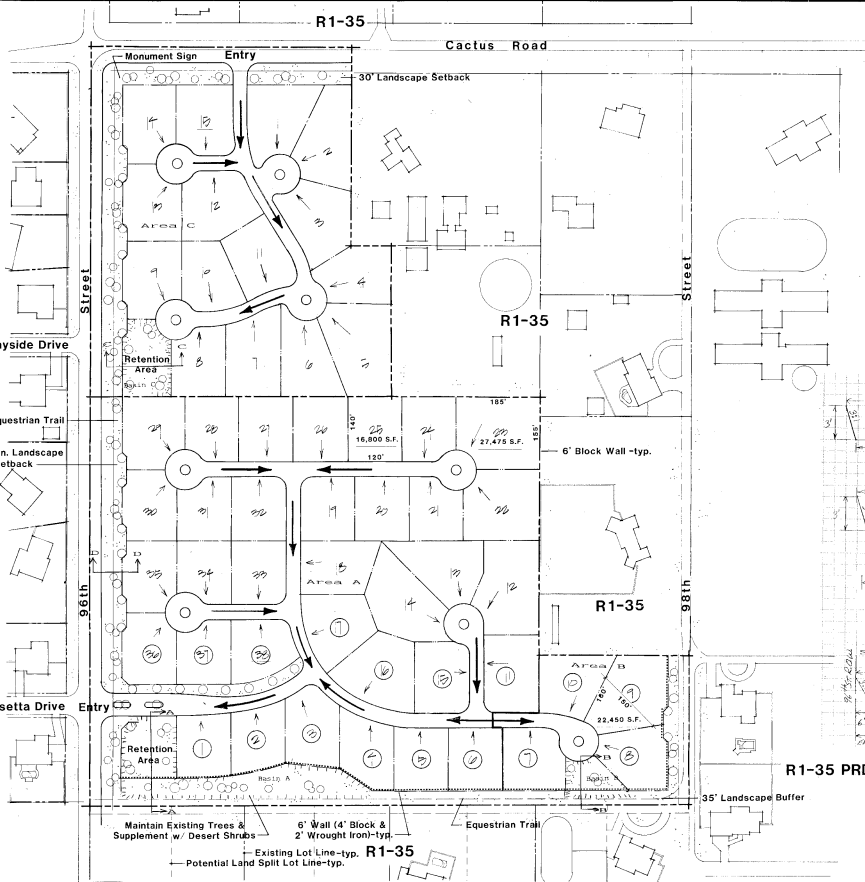
20' min. Landscape Setback

R1-43 PCD

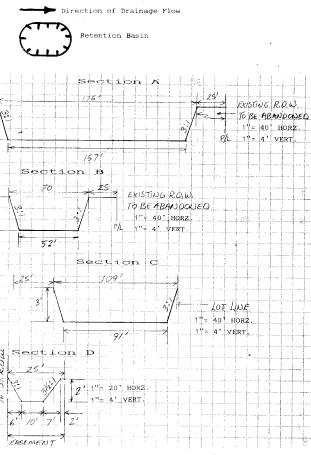
Poinsetta Drive Entry

Maintain Existing Trees & Supplement w/ Desert Shrubs

6" Wall (4" Block & 2" Wrought Iron)-typ.
 Existing Lot Line-typ. R1-35
 Potential Land Split Lot Line-typ.



Revised 4/10/21



DEVELOPMENT COORDINATION GROUP, L.L.C.
 Land Development Management Consultants
 6901 E. Camelback • Suite B-111 • Scottsdale, AZ 85251

G. WILLIAM LARSON ASSOC., INC.
 (602) 837-0837

Conceptual Development Study for: **CONCEPTUAL DRAINAGE PLAN**
La Cienega
 Scottsdale, Arizona

North
 Scale: 1"=100'
 DATE: []
 DRAWN: []
 REVISED: []

2-ZN-92

The offsite flow from the East onto Lot 1 is cut off by the CMU wall existing on the property to the East, South of the CMU wall begins the pilaster and wrought iron fence on the Bellissima Estates property, which has historically allowed any sheet flow that may exist flow onto the site from the East. It appears that this may occur in some locations and not in others but will be minimal in those instances where flow may come from the East.

When the wrought iron is replaced with CMU the bottom course of CMU will allow for sheet flow by turning blocks on their side to accommodate it. The objective of this report has been to size the site storm retention for the 100-yr. storm event, retaining the difference between the pre-development and post-development runoff volumes. Important to the design was to assure that the peak runoff from the developed site would not overflow the retention basin designed. The basin volume has been calculated to accommodate that excess volume, per the discussion in Section 3 of this report. Given this analysis it can be determined that there will be no adverse impact upstream or downstream upon any of the adjacent residents.

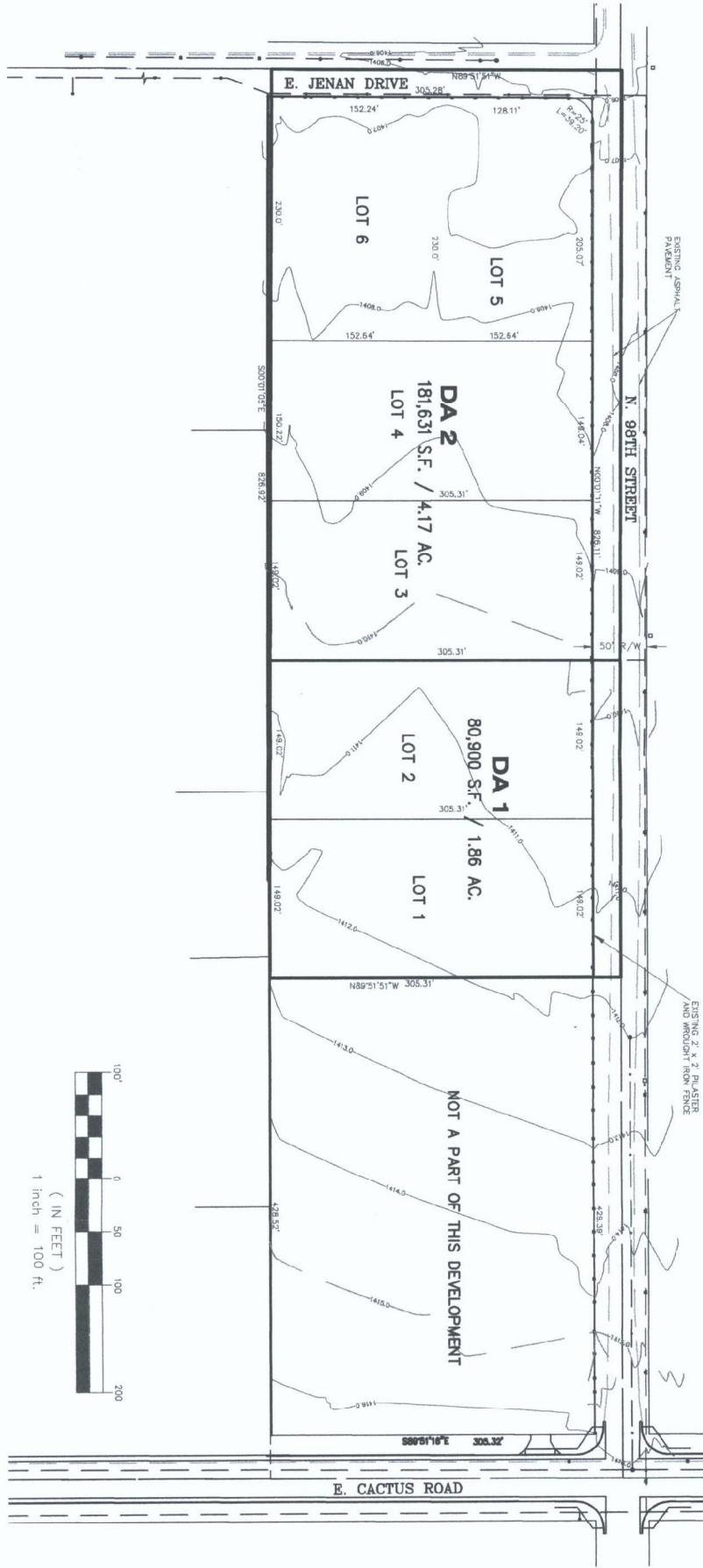
7. WARNING AND DISCLAIMER OF LIABILITY:

The "Warning and Disclaimer of Liability" document located in the City Design Standards & Policies Manual has been signed and included in the Appendix.

8. REFERENCES:

Maricopa County Flood Control "Drainage Design Manual" (Volume 1 Hydrology)
City of Scottsdale "Design Standards & Policies Manual"

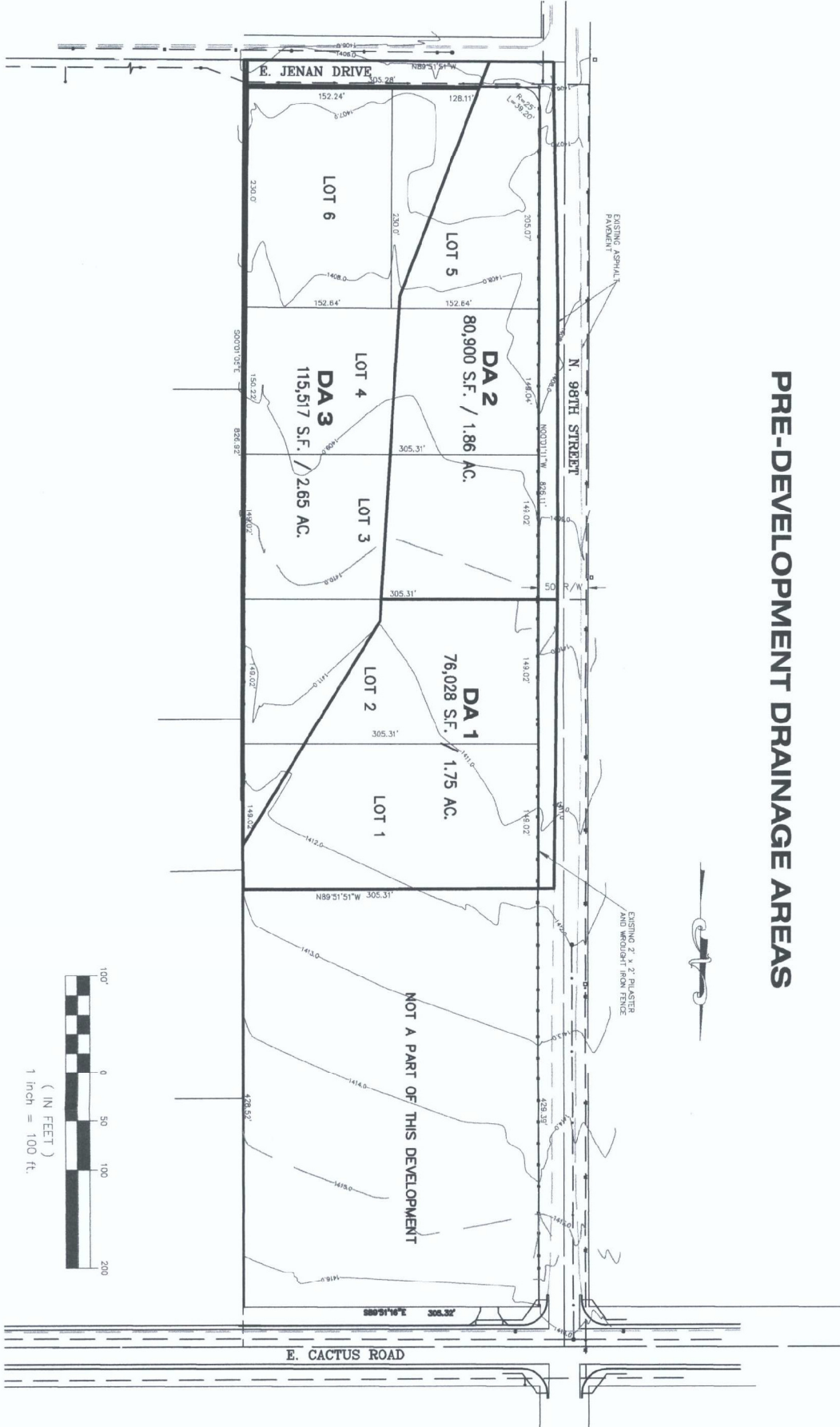
POST-DEVELOPMENT DRAINAGE AREAS



ROSENDAHL ENGINEERING		PROJECT NO. 160489	
857 N. BARKLEY ST.		DATE	1/23/17
(480) 599-1263 TEL		SHEET	1 OF 1
MESA, ARIZONA 85203		Pg. 7	
(480) 834-2163 FAX		BELLISSIMA ESTATES	

FIGURE 2

PRE-DEVELOPMENT DRAINAGE AREAS



ROSENDAHL ENGINEERING
 857 N. BARKLEY ST.
 MESA, ARIZONA 85203
 (480) 599-1263 TEL
 (480) 834-2163 FAX

BELLISSIMA ESTATES

PROJECT NO. 160489
 DATE 1/30/17
 SHEET 1 OF 1
 FIGURE 1 PG. 6

PRELIMINARY GRADING & DRAINAGE PLAN FOR 11880 N 98TH STREET

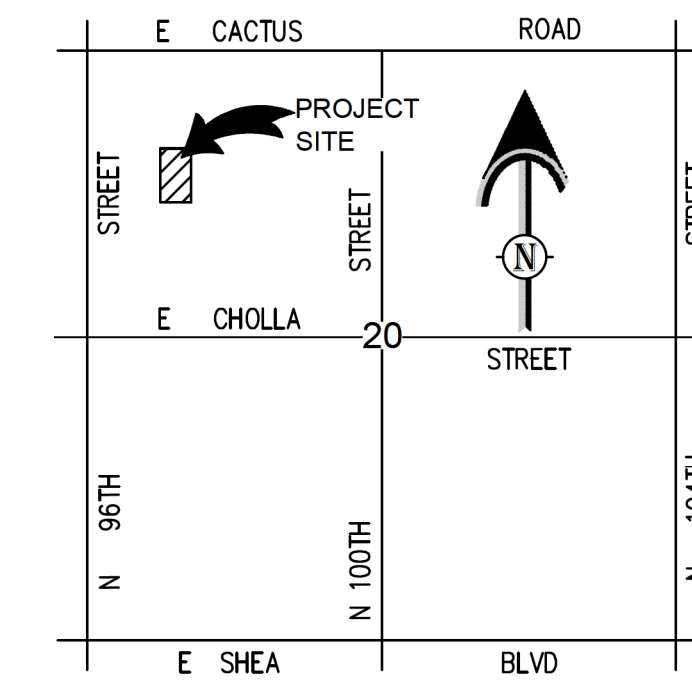
A PORTION OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH,
RANGE 5 EAST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

OWNER/DEVELOPER

SOHOME AZ INC
11880 N 98TH STREET
SCOTTSDALE, AZ 85260

ENGINEER

TNG CONSULTING, LLC
4802 E. RAY RD, SUITE 23-586
PHOENIX, ARIZONA 85044
PHONE: (480) 352-7039
CONTACT: BENJAMIN NJUGUNA, P.E.



SITE DATA

ADDRESS: 11880 N 98TH STREET
SCOTTSDALE, AZ 85260
APN#: 217-26-004F
ZONING: R1-35

TOTAL LOT AREA (GROSS): 161,172 SF (3.70 AC.)
TOTAL LOT AREA (NET): 161,172 SF (3.70 AC.)

BENCHMARK

GDAC PID: 2247
FND 3" SCOTTSDALE BC 0.1" DN NO STAMPING
ELEVATION: 1408.164' (NAVD '88)
TEMPORARY BENCHMARK (TBM):
FOUND 1/2" REBAR AT SOUTHEAST CORNER OF LOT.
ELEVATION: 1404.80' (NAVD '88)

BASIS OF BEARING

NAD 83, EPOCH 1992, INTERNATIONAL UNITS, ARIZONA CENTRAL, PER GPS OBSERVATION

FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

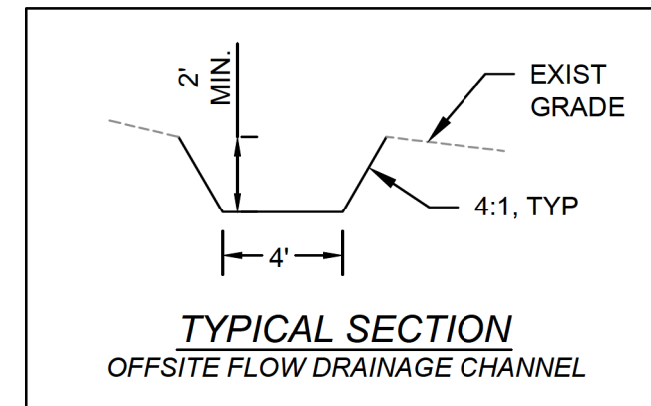
COMMUNITY NUMBER	PANEL #	PANEL DATE	SUFFIX	DATE OF FIRM (INDEX DATE)	FIRM ZONE	BASE FLOOD ELEVATION (IN AO ZONE USE DEPTH)
045012	1780	10/16/2013	L	10/16/2013	X (SHADED)	N/A

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF MARICOPA, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:
PARCEL NO. 1:
THE SOUTH 4 ACRES OF THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 EAST, OF THE GILA SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.
PARCEL NO. 2:
AN EASEMENT FOR INGRESS AND EGRESS OVER THE EAST 20 FEET OF THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 EAST, OF THE GILA SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
EXCEPT THE SOUTH 4 ACRES THEREOF.

ON-LOT STORMWATER STORAGE REQUIREMENT (COS)

UPON THE DEVELOPMENT OF EACH LOT WITHIN THIS SUBDIVISION WITH A RESIDENTIAL STRUCTURE, THE LOT OWNER SHALL BE RESPONSIBLE FOR CONSTRUCTING AN ON-LOT STORMWATER STORAGE BASIN OR BASINS DESIGNED IN CONFORMANCE WITH CITY OF SCOTTSDALE STANDARDS FOR THE DESIGN OF STORMWATER STORAGE BASINS INCLUDING THE DEDICATION OF A PUBLIC DRAINAGE EASEMENT COVERING THE LIMITS OF THE BASIN(S). THE STORMWATER STORAGE BASIN(S) WILL BE REVIEWED AND APPROVED FOR CONSTRUCTION BY THE CITY OF SCOTTSDALE AS PART OF A GRADING AND DRAINAGE PLAN FOR THE PROPOSED RESIDENTIAL STRUCTURE. ADDITIONALLY, THE LOTS WITHIN THIS SUBDIVISION ARE NOT ELIGIBLE FOR A WAIVER OF THE STORMWATER STORAGE REQUIREMENT.

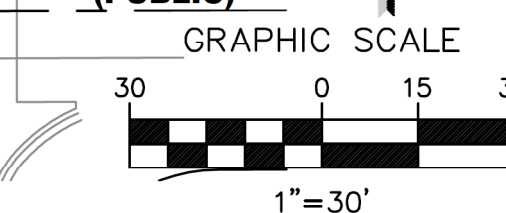
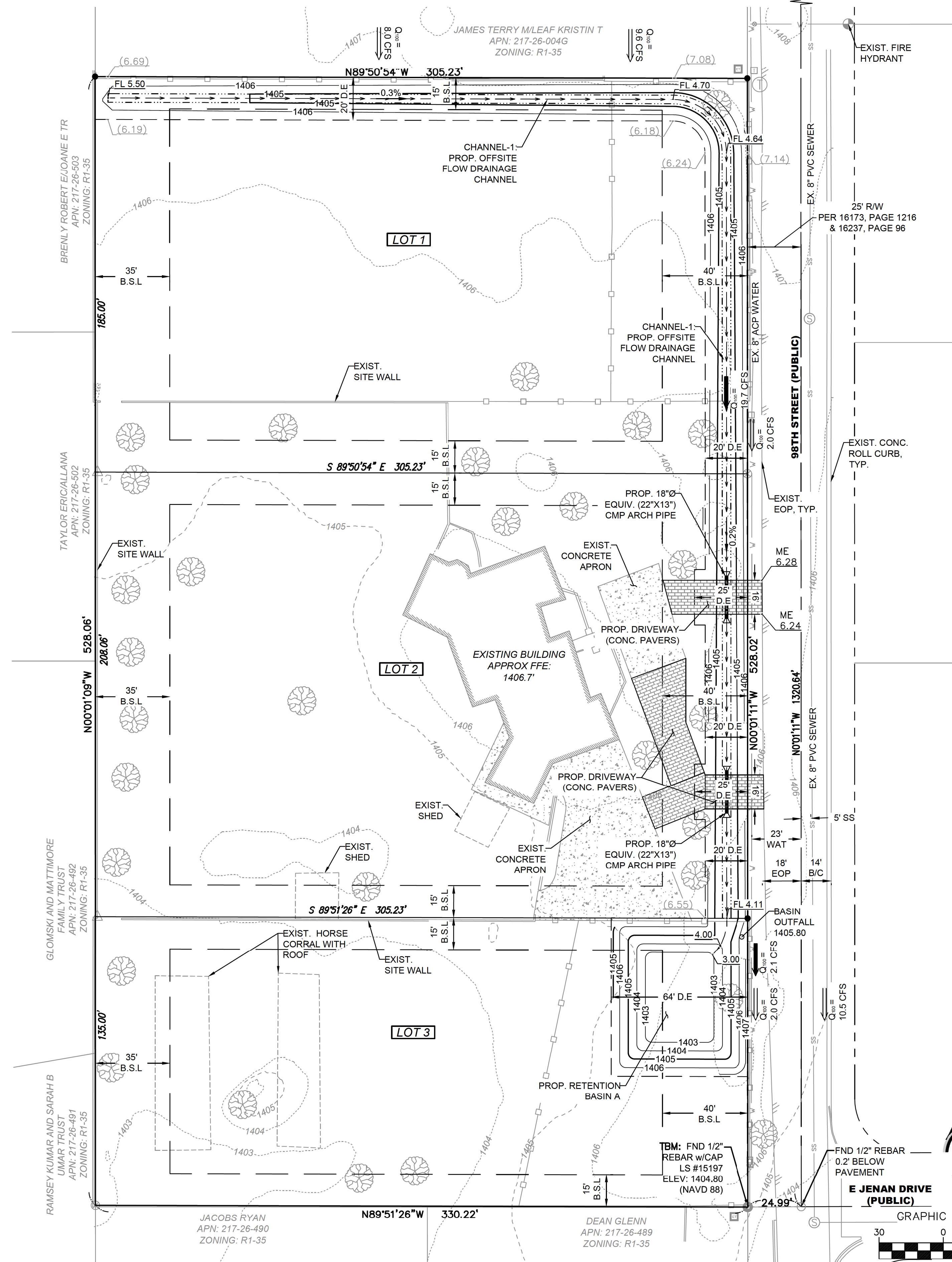


LEGEND

- EX. BUILDING
- ROOF OVERHANG
- FOUND BRASS CAP FLUSH
- FOUND PROPERTY CORNER
- FOUND 1/2" REBAR
- SET PROPERTY CORNER
- SEWER MANHOLE
- SEWER CLEANOUT
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- TELECOM MANHOLE
- TELECOM BOX
- CONCRETE ROLL CURB & GUTTER
- EDGE OF ASPHALT PAVEMENT
- R.O.W LINE
- CENTER LINE
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EASEMENT LINE
- WATER LINE
- SEWER LINE
- PIPE FENCE
- EXIST. CONDITIONS PEAK FLOW
- PROP. CONDITIONS PEAK FLOW

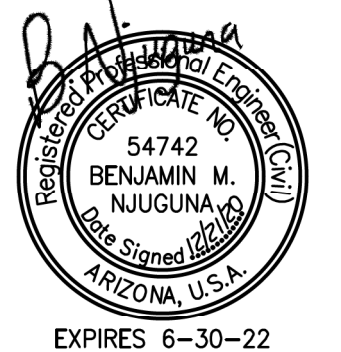
ABBREVIATIONS

- APN ASSESSOR PARCEL NUMBER
- ASSY ASSEMBLY
- AC ACRE
- BC/B/C BACK OF CURB/BRASS CAP
- CO CONCRETE
- COS CITY OF SCOTTSDALE
- CR CREST/ CROWN
- DTL DETAIL
- ELEC ELECTRICAL
- ELEV ELEVATION
- EX/ EXIST EXISTING
- F/C FACE OF CURB
- FFE FINISHED FLOOR ELEVATION
- FH FIRE HYDRANT
- FND FOUND
- GPE GENERAL PURPOSE EASEMENT
- INV INVERT
- LF LINEAL FEET
- LF 88 LOWEST FLOOR ELEV (NAVD '88)
- MCA MARICOPA COUNTY ASSESSOR
- MCR MARICOPA COUNTY RECORDER
- MH MANHOLE
- PROP PROPOSED
- ROW/ R/W RIGHT-OF-WAY
- SS/ SWR SANITARY SEWER
- STD STANDARD
- SWW SIDEWALK
- TBD TO BE DETERMINED
- TBM TEMPORARY BENCHMARK
- UNK UNKNOWN
- VAR VARIES
- w/ WITH
- WTR WATER



QS #25-46, CITY PLAN CHECK# 7-MD-2020

PRELIMINARY GRADING & DRAINAGE PLAN
11880 N 98TH STREET
SCOTTSDALE, ARIZONA 85260
SOHOME AZ, INC.



PROJECT #	102001130
DATE	12-21-2020
CHECK	BMN

LABEL 1130-DD-GD01
SHEET PGD01
1 OF 7

7-MD-2020
1/27/2021



COMMITMENT FOR TITLE INSURANCE

Issued by

Commonwealth Land Title Insurance Company

NOTICE

IMPORTANT—READ CAREFULLY: THIS COMMITMENT IS AN OFFER TO ISSUE ONE OR MORE TITLE INSURANCE POLICIES. ALL CLAIMS OR REMEDIES SOUGHT AGAINST THE COMPANY INVOLVING THE CONTENT OF THIS COMMITMENT OR THE POLICY MUST BE BASED SOLELY IN CONTRACT.

THIS COMMITMENT IS NOT AN ABSTRACT OF TITLE, REPORT OF THE CONDITION OF TITLE, LEGAL OPINION, OPINION OF TITLE, OR OTHER REPRESENTATION OF THE STATUS OF TITLE. THE PROCEDURES USED BY THE COMPANY TO DETERMINE INSURABILITY OF THE TITLE, INCLUDING ANY SEARCH AND EXAMINATION, ARE PROPRIETARY TO THE COMPANY, WERE PERFORMED SOLELY FOR THE BENEFIT OF THE COMPANY, AND CREATE NO EXTRACTIONAL LIABILITY TO ANY PERSON, INCLUDING A PROPOSED INSURED.

THE COMPANY’S OBLIGATION UNDER THIS COMMITMENT IS TO ISSUE A POLICY TO A PROPOSED INSURED IDENTIFIED IN SCHEDULE A IN ACCORDANCE WITH THE TERMS AND PROVISIONS OF THIS COMMITMENT. THE COMPANY HAS NO LIABILITY OR OBLIGATION INVOLVING THE CONTENT OF THIS COMMITMENT TO ANY OTHER PERSON.

COMMITMENT TO ISSUE POLICY

Subject to the Notice; Schedule B, Part I—Requirements; Schedule B, Part II—Exceptions; and the Commitment Conditions, **Commonwealth Land Title Insurance Company**, a Florida Corporation (the “Company”), commits to issue the Policy according to the terms and provisions of this Commitment. This Commitment is effective as of the Commitment Date shown in Schedule A for each Policy described in Schedule A, only when the Company has entered in Schedule A both the specified dollar amount as the Proposed Policy Amount and the name of the Proposed Insured.

If all of the Schedule B, Part I—Requirements have not been met within 180 Days after the Commitment Date, this Commitment terminates and the Company’s liability and obligation end.

Countersigned

By: *Natalie Bombardieri*
Authorized Signature

Commonwealth Land Title Insurance Company

By: *[Signature]*
ATTEST President

[Signature]
Secretary

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Commonwealth Land Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; and Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.



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81C165B Commitment for Title Insurance (Adopted 6-17-06 Revised 08-01-2016)

Page 2

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AMERICAN
LAND TITLE
ASSOCIATION



7-MD-2020
1/27/2021

COMMITMENT CONDITIONS

1. DEFINITIONS

- (a) "Knowledge" or "Known": Actual or imputed knowledge, but not constructive notice imparted by the Public Records.
- (b) "Land": The land described in Schedule A and affixed improvements that by law constitute real property. The term "Land" does not include any property beyond the lines of the area described in Schedule A, nor any right, title, interest, estate, or easement in abutting streets, roads, avenues, alleys, lanes, ways, or waterways, but this does not modify or limit the extent that a right of access to and from the Land is to be insured by the Policy.
- (c) "Mortgage": A mortgage, deed of trust, or other security instrument, including one evidenced by electronic means authorized by law.
- (d) "Policy": Each contract of title insurance, in a form adopted by the American Land Title Association, issued or to be issued by the Company pursuant to this Commitment.
- (e) "Proposed Insured": Each person identified in Schedule A as the Proposed Insured of each Policy to be issued pursuant to this Commitment.
- (f) "Proposed Policy Amount": Each dollar amount specified in Schedule A as the Proposed Policy Amount of each Policy to be issued pursuant to this Commitment.
- (g) "Public Records": Records established under state statutes at the Commitment Date for the purpose of imparting constructive notice of matters relating to real property to purchasers for value and without Knowledge.
- (h) "Title": The estate or interest described in Schedule A.

2. If all of the Schedule B, Part I—Requirements have not been met within the time period specified in the Commitment to Issue Policy, this Commitment terminates and the Company's liability and obligation end.

3. The Company's liability and obligation is limited by and this Commitment is not valid without:

- (a) the Notice;
- (b) the Commitment to Issue Policy;
- (c) the Commitment Conditions;
- (d) Schedule A;
- (e) Schedule B, Part I—Requirements;
- (f) Schedule B, Part II—Exceptions; and
- (g) a counter-signature by the Company or its issuing agent that may be in electronic form.

4. COMPANY'S RIGHT TO AMEND

The Company may amend this Commitment at any time. If the Company amends this Commitment to add a defect, lien, encumbrance, adverse claim, or other matter recorded in the Public Records prior to the Commitment Date, any liability of the Company is limited by Commitment Condition 5. The Company shall not be liable for any other amendment to this Commitment.

5. LIMITATIONS OF LIABILITY

- (a) The Company's liability under Commitment Condition 4 is limited to the Proposed Insured's actual expense incurred in the interval between the Company's delivery to the Proposed Insured of the Commitment and the delivery of the amended Commitment, resulting from the Proposed Insured's good faith reliance to:
 - (i) comply with the Schedule B, Part I—Requirements;
 - (ii) eliminate, with the Company's written consent, any Schedule B, Part II—Exceptions; or
 - (iii) acquire the Title or create the Mortgage covered by this Commitment.

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- (b) The Company shall not be liable under Commitment Condition 5(a) if the Proposed Insured requested the amendment or had Knowledge of the matter and did not notify the Company about it in writing.
- (c) The Company will only have liability under Commitment Condition 4 if the Proposed Insured would not have incurred the expense had the Commitment included the added matter when the Commitment was first delivered to the Proposed Insured.
- (d) The Company's liability shall not exceed the lesser of the Proposed Insured's actual expense incurred in good faith and described in Commitment Conditions 5(a)(i) through 5(a)(iii) or the Proposed Policy Amount.
- (e) The Company shall not be liable for the content of the Transaction Identification Data, if any.
- (f) In no event shall the Company be obligated to issue the Policy referred to in this Commitment unless all of the Schedule B, Part I—Requirements have been met to the satisfaction of the Company.
- (g) In any event, the Company's liability is limited by the terms and provisions of the Policy.

6. **LIABILITY OF THE COMPANY MUST BE BASED ON THIS COMMITMENT**

- (a) Only a Proposed Insured identified in Schedule A, and no other person, may make a claim under this Commitment.
- (b) Any claim must be based in contract and must be restricted solely to the terms and provisions of this Commitment.
- (c) Until the Policy is issued, this Commitment, as last revised, is the exclusive and entire agreement between the parties with respect to the subject matter of this Commitment and supersedes all prior commitment negotiations, representations, and proposals of any kind, whether written or oral, express or implied, relating to the subject matter of this Commitment.
- (d) The deletion or modification of any Schedule B, Part II—Exception does not constitute an agreement or obligation to provide coverage beyond the terms and provisions of this Commitment or the Policy.
- (e) Any amendment or endorsement to this Commitment must be in writing and authenticated by a person authorized by the Company.
- (f) When the Policy is issued, all liability and obligation under this Commitment will end and the Company's only liability will be under the Policy.

7. **IF THIS COMMITMENT HAS BEEN ISSUED BY AN ISSUING AGENT**

The issuing agent is the Company's agent only for the limited purpose of issuing title insurance commitments and policies. The issuing agent is not the Company's agent for the purpose of providing closing or settlement services.

8. **PRO-FORMA POLICY**

The Company may provide, at the request of a Proposed Insured, a pro-forma policy illustrating the coverage that the Company may provide. A pro-forma policy neither reflects the status of Title at the time that the pro-forma policy is delivered to a Proposed Insured, nor is it a commitment to insure.

9. **ARBITRATION**

The Policy contains an arbitration clause. All arbitrable matters when the Proposed Policy Amount is \$2,000,000 or less shall be arbitrated at the option of either the Company or the Proposed Insured as the exclusive remedy of the parties. A Proposed Insured may review a copy of the arbitration rules at <http://www.alta.org/arbitration>.

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Transaction Identification Data for reference only:

Issuing Agent: Lawyers Title of Arizona, Inc.
 Issuing Office: 14648 N. Scottsdale Road, Suite 125, Scottsdale, AZ 85254
 Escrow Officer: Marco Rodriguez
 Email Address: marcorodriguez@ltic.com
 Title Officer: Linda Dean
 Issuing Office's ALTA® Registry ID:
 Loan ID Number:
 Commitment Number:
 Issuing Office File Number: 01943653-265-MRA-LD
 Property Address: 11880 N 98th St., Scottsdale, AZ 85260
 Revision Number: Amendment No. 2, Amendment Date: January 11, 2021

SCHEDULE A

AMERICAN LAND TITLE ASSOCIATION COMMITMENT

1. Commitment Date: **January 6, 2021 at 7:30 a.m.**
2. Policy to be issued:
 - (a) **ALTA Standard Owners Policy (6-17-06)**
 Proposed Insured: **City of Scottsdale, an Arizona municipal corporation**
 Proposed Policy Amount: **\$350,000.00**
 - (b) **None**
 Proposed Insured:
 Proposed Policy Amount: **\$0.00**
 - (c) **None**
 Proposed Insured:
 Proposed Policy Amount: **\$0.00**
3. The estate or interest in the Land described or referred to in this Commitment is:
A FEE as to Parcel No. 1 and AN EASEMENT as to Parcel No. 2
4. Title is, at the Commitment Date, [vested in:](#)
SoHome AZ, Inc., an Arizona corporation
5. The Land is described as follows:
See Exhibit A attached hereto and made a part hereof.

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SCHEDULE A
(Continued)

Countersigned:

By: *Natalie Bombardieri*
Authorized Officer or Agent



By: *[Signature]*

ATTEST

President

[Signature]

Secretary

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EXHIBIT A
LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF MARICOPA, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

Parcel No. 1:

The South 4 acres of the East half of the East half of the Northwest quarter of the Northwest quarter of Section 20, Township 3 North ,Range 5 East, of the Gila Salt River Base and Meridian, Maricopa County, Arizona.

Parcel No. 2:

An easement for ingress and egress over the east 20 feet of the East half of the East half of the Northwest quarter of the Northwest quarter of Section 20, Township 3 North ,Range 5 East, of the Gila Salt River Base and Meridian, Maricopa County, Arizona;

EXCEPT the South 4 acres thereof.

[APN: 217-26-004-F](#)

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Commonwealth Land Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; and Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.



SCHEDULE B

PART I – REQUIREMENTS

All of the following Requirements must be met:

1. The Proposed Insured must notify the Company in writing of the name of any party not referred to in this Commitment who will obtain an interest in the Land or who will make a loan on the Land. The Company may then make additional Requirements or Exceptions.
2. Pay the agreed amount for the estate or interest to be insured.
3. Pay the premiums, fees, and charges for the Policy to the Company.
4. Documents satisfactory to the Company that convey the Title or create the Mortgage to be insured, or both, must be properly authorized, executed, delivered, and recorded in the Public Records.
5. Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, manufacture or sale of marijuana, the Company is not able to close or insure any transaction involving Land that is associated with these activities.
6. Payment of taxes for the First Half of the year 2020, plus interest and penalties, if any
7. The Company will require the following documents for review prior to the issuance of any title insurance predicated upon a conveyance or encumbrance by the corporation named below:

Name of Corporation: SoHome AZ, Inc., an Arizona corporation

- a) A Copy of the corporation By-laws and Articles of Incorporation
- b) An original or certified copy of a resolution authorizing the transaction contemplated herein
- c) If the Articles and/or By-laws require approval by a 'parent' organization, a copy of the Articles and By-laws of the parent
- d) Evidence, satisfactory to the Company that the corporation was validly formed and is in good standing.

The Company reserves the right to add additional items or make further requirements after review of the requested documentation.

8. Recordation of a certified copy of the Ordinance of the City of Scottsdale, an Arizona municipal corporation authorizing the execution and delivery of all instruments necessary to consummate this transaction.

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SCHEDULE B
PART I – Requirements
(Continued)

9. The Company will require the following documents for review prior to the issuance of any title insurance predicated upon a conveyance or encumbrance by the corporation named below:

Name of Corporation: City of Scottsdale, an Arizona municipal corporation

- a) A Copy of the corporation By-laws and Articles of Incorporation
- b) An original or certified copy of a resolution authorizing the transaction contemplated herein
- c) If the Articles and/or By-laws require approval by a 'parent' organization, a copy of the Articles and By-laws of the parent
- d) Evidence, satisfactory to the Company that the corporation was validly formed and is in good standing.

The Company reserves the right to add additional items or make further requirements after review of the requested documentation.

10. Please be advised that our search did not disclose any open Deeds of Trust of record. If you should have knowledge of any outstanding obligation, please contact the Title Department immediately for further review prior to closing.

Upon confirmation by the owner of no open Deeds of Trust or Mortgages encumbering the Land described herein, furnish the Company an owner's Affidavit of no open Deed of Trust(s).

11. Furnish for recordation a deed as set forth below:

Type of deed: Warranty Deed
 Grantor(s): SoHome AZ, Inc., an Arizona corporation
 Grantee(s): City of Scottsdale, an Arizona municipal corporation

Note: ARS 11:1133 may require the completion and filing of an Affidavit of Value.

Tax Note:

Year:	2020
<u>Tax Parcel No:</u>	<u>217-26-004F</u>
Total Tax:	\$8,270.90
First Installment Amount:	\$4,135.45 PLUS PENALTIES AND INTEREST
Second Installment Amount:	\$4,135.45

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Commonwealth Land Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; and Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.

SCHEDULE B
PART I – Requirements
(Continued)

The Company is not aware of any matters which would cause it to decline to attach the ALTA Endorsement Form 22 indicating that there is located on said land 1-4 Family Residential known as 11880 N 98th St., Scottsdale, AZ 85260.

Note: The only conveyance(s) affecting said Land, which recorded within 24 months of the date of this report, or the last conveyance affecting said Land, are as follows:

Grantor: Edward A. Pedziwiatr and Anna C. Pedziwiatr, his wife
Grantee: John M. Lewis and Norma J. Lewis, his wife
Recording Date: October 17, 1983
Recording No: [83 416227](#)

Grantor: John M. Lewis and Norma J. Lewis, husband and wife as joint tenants with right of survivorship
Grantee: SoHome AZ, Inc., an Arizona corporation
Recording Date: August 06, 2020
Recording No: [20200716102](#)

END OF SCHEDULE B, PART I—REQUIREMENTS

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Commonwealth Land Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; and Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.



SCHEDULE B

PART II – EXCEPTIONS

THIS COMMITMENT DOES NOT REPUBLISH ANY COVENANT, CONDITION, RESTRICTION, OR LIMITATION CONTAINED IN ANY DOCUMENT REFERRED TO IN THIS COMMITMENT TO THE EXTENT THAT THE SPECIFIC COVENANT, CONDITION, RESTRICTION, OR LIMITATION VIOLATES STATE OR FEDERAL LAW BASED ON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, GENDER IDENTITY, HANDICAP, FAMILIAL STATUS, OR NATIONAL ORIGIN.

The Policy will not insure against loss or damage resulting from the terms and provisions of any lease or easement identified in Schedule A, and will include the following Exceptions unless cleared to the satisfaction of the Company:

- A. Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date and the date on which all of the Schedule B, Part I—Requirements are met.

NOTE: Upon satisfaction of all requirements here, the above exception will not be reflected on any proposed title policy identified in Schedule A.

1. Property taxes, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the year 2021.

2. Property taxes, including any personal property taxes and any assessments collected with taxes, for the second installment of 2020 Taxes

3. Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

Purpose: ditches and canals
Recording No: [Book 135 of Deeds, page 125](#)

4. Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

Purpose: right of way
Recording No: [Docket 16173, page 1216](#)

5. Matters contained in that certain document

Entitled: Agreement
Recording Date: July 29, 1982
Recording No: [Docket 16185, page 170](#)

Reference is hereby made to said document for full particulars.

6. Easement(s) for the purpose(s) shown below and rights incidental thereto as set forth in a document:

Purpose: right of way
Recording No: [Docket 16237, page 96](#)

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Commonwealth Land Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; and Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.



SCHEDULE B
PART II – Exceptions
(Continued)

7. A deed of trust to secure an indebtedness in the amount shown below,

Amount: \$150,000.00
Dated: September 29, 1983
Trustor/Grantor: John M. Lewis and Norma J. Lewis, husband and wife as joint tenants with right of survivorship
Trustee: First Service Corporation, an Arizona corporation
Beneficiary: First Federal Savings
Recording Date: October 13, 1983
Recording No: [83-413227](#)

Note: The above exception is shown for disclosure purposes only. It will be deleted and will not be shown as an exception upon issuance of the final title policy.

END OF SCHEDULE B, PART II – EXCEPTIONS

This page is only a part of a 2016 ALTA® Commitment for Title Insurance issued by Commonwealth Land Title Insurance Company. This Commitment is not valid without the Notice; the Commitment to Issue Policy; the Commitment Conditions; Schedule A; Schedule B, Part I—Requirements; and Schedule B, Part II—Exceptions; and a counter-signature by the Company or its issuing agent that may be in electronic form.



Wire Fraud Alert

This Notice is not intended to provide legal or professional advice. If you have any questions, please consult with a lawyer.

All parties to a real estate transaction are targets for wire fraud and many have lost hundreds of thousands of dollars because they simply relied on the wire instructions received via email, without further verification. **If funds are to be wired in conjunction with this real estate transaction, we strongly recommend verbal verification of wire instructions through a known, trusted phone number prior to sending funds.**

In addition, the following non-exclusive self-protection strategies are recommended to minimize exposure to possible wire fraud.

- **NEVER RELY** on emails purporting to change wire instructions. Parties to a transaction rarely change wire instructions in the course of a transaction.
- **ALWAYS VERIFY** wire instructions, specifically the ABA routing number and account number, by calling the party who sent the instructions to you. **DO NOT** use the phone number provided in the email containing the instructions, use phone numbers you have called before or can otherwise verify. **Obtain the phone number of relevant parties to the transaction as soon as an escrow account is opened.** **DO NOT** send an email to verify as the email address may be incorrect or the email may be intercepted by the fraudster.
- **USE COMPLEX EMAIL PASSWORDS** that employ a combination of mixed case, numbers, and symbols. Make your passwords greater than eight (8) characters. Also, change your password often and do **NOT** reuse the same password for other online accounts.
- **USE MULTI-FACTOR AUTHENTICATION** for email accounts. Your email provider or IT staff may have specific instructions on how to implement this feature.

For more information on wire-fraud scams or to report an incident, please refer to the following links:

Federal Bureau of Investigation:
<http://www.fbi.gov>

Internet Crime Complaint Center:
<http://www.ic3.gov>

FIDELITY NATIONAL FINANCIAL, INC. PRIVACY NOTICE

Effective April 9, 2020

Fidelity National Financial, Inc. and its majority-owned subsidiary companies (collectively, “FNF,” “our,” or “we”) respect and are committed to protecting your privacy. This Privacy Notice explains how we collect, use, and protect personal information, when and to whom we disclose such information, and the choices you have about the use and disclosure of that information.

A limited number of FNF subsidiaries have their own privacy notices. If a subsidiary has its own privacy notice, the privacy notice will be available on the subsidiary’s website and this Privacy Notice does not apply.

Collection of Personal Information

FNF may collect the following categories of Personal Information:

- contact information (e.g., name, address, phone number, email address);
- demographic information (e.g., date of birth, gender, marital status);
- identity information (e.g. Social Security Number, driver’s license, passport, or other government ID number);
- financial account information (e.g. loan or bank account information); and
- other personal information necessary to provide products or services to you.

We may collect Personal Information about you from:

- information we receive from you or your agent;
- information about your transactions with FNF, our affiliates, or others; and
- information we receive from consumer reporting agencies and/or governmental entities, either directly from these entities or through others.

Collection of Browsing Information

FNF automatically collects the following types of Browsing Information when you access an FNF website, online service, or application (each an “FNF Website”) from your Internet browser, computer, and/or device:

- Internet Protocol (IP) address and operating system;
- browser version, language, and type;
- domain name system requests; and
- browsing history on the FNF Website, such as date and time of your visit to the FNF Website and visits to the pages within the FNF Website.

Like most websites, our servers automatically log each visitor to the FNF Website and may collect the Browsing Information described above. We use Browsing Information for system administration, troubleshooting, fraud investigation, and to improve our websites. Browsing Information generally does not reveal anything personal about you, though if you have created a user account for an FNF Website and are logged into that account, the FNF Website may be able to link certain browsing activity to your user account.

Other Online Specifics

Cookies. When you visit an FNF Website, a “cookie” may be sent to your computer. A cookie is a small piece of data that is sent to your Internet browser from a web server and stored on your computer’s hard drive. Information gathered using cookies helps us improve your user experience. For example, a cookie can help the website load properly or can customize the display page based on your browser type and user preferences. You can choose whether or not to accept cookies by changing your Internet browser settings. Be aware that doing so may impair or limit some functionality of the FNF Website.

Web Beacons. We use web beacons to determine when and how many times a page has been viewed. This information is used to improve our websites.

Do Not Track. Currently our FNF Websites do not respond to “Do Not Track” features enabled through your browser.

Links to Other Sites. FNF Websites may contain links to unaffiliated third-party websites. FNF is not responsible for the privacy practices or content of those websites. We recommend that you read the privacy policy of every website you visit.

Use of Personal Information

FNF uses Personal Information for three main purposes:

- To provide products and services to you or in connection with a transaction involving you.
- To improve our products and services.
- To communicate with you about our, our affiliates’, and others’ products and services, jointly or independently.

When Information Is Disclosed

We may disclose your Personal Information and Browsing Information in the following circumstances:

- to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure;
- to nonaffiliated service providers who provide or perform services or functions on our behalf and who agree to use the information only to provide such services or functions;

- to nonaffiliated third party service providers with whom we perform joint marketing, pursuant to an agreement with them to jointly market financial products or services to you;
- to law enforcement or authorities in connection with an investigation, or in response to a subpoena or court order; or
- in the good-faith belief that such disclosure is necessary to comply with legal process or applicable laws, or to protect the rights, property, or safety of FNF, its customers, or the public.

The law does not require your prior authorization and does not allow you to restrict the disclosures described above. Additionally, we may disclose your information to third parties for whom you have given us authorization or consent to make such disclosure. We do not otherwise share your Personal Information or Browsing Information with nonaffiliated third parties, except as required or permitted by law. We may share your Personal Information with affiliates (other companies owned by FNF) to directly market to you. Please see "Choices with Your Information" to learn how to restrict that sharing.

We reserve the right to transfer your Personal Information, Browsing Information, and any other information, in connection with the sale or other disposition of all or part of the FNF business and/or assets, or in the event of bankruptcy, reorganization, insolvency, receivership, or an assignment for the benefit of creditors. By submitting Personal Information and/or Browsing Information to FNF, you expressly agree and consent to the use and/or transfer of the foregoing information in connection with any of the above described proceedings.

Security of Your Information

We maintain physical, electronic, and procedural safeguards to protect your Personal Information.

Choices With Your Information

If you do not want FNF to share your information among our affiliates to directly market to you, you may send an "opt out" request by email, phone, or physical mail as directed at the end of this Privacy Notice. We do not share your Personal Information with nonaffiliates for their use to direct market to you without your consent.

Whether you submit Personal Information or Browsing Information to FNF is entirely up to you. If you decide not to submit Personal Information or Browsing Information, FNF may not be able to provide certain services or products to you.

For California Residents: We will not share your Personal Information or Browsing Information with nonaffiliated third parties, except as permitted by California law. For additional information about your California privacy rights, please visit the "California Privacy" link on our website (<https://fnf.com/pages/californiaprivacy.aspx>) or call (888) 413-1748.

For Nevada Residents: You may be placed on our internal Do Not Call List by calling (888) 934-3354 or by contacting us via the information set forth at the end of this Privacy Notice. Nevada law requires that we also provide you with the following contact information: Bureau of Consumer Protection, Office of the Nevada Attorney General, 555 E. Washington St., Suite 3900, Las Vegas, NV 89101; Phone number: (702) 486-3132; email: BCPINFO@ag.state.nv.us.

For Oregon Residents: We will not share your Personal Information or Browsing Information with nonaffiliated third parties for marketing purposes, except after you have been informed by us of such sharing and had an opportunity to indicate that you do not want a disclosure made for marketing purposes.

For Vermont Residents: We will not disclose information about your creditworthiness to our affiliates and will not disclose your personal information, financial information, credit report, or health information to nonaffiliated third parties to market to you, other than as permitted by Vermont law, unless you authorize us to make those disclosures.

Information From Children

The FNF Websites are not intended or designed to attract persons under the age of eighteen (18). We do not collect Personal Information from any person that we know to be under the age of thirteen (13) without permission from a parent or guardian.

International Users

FNF's headquarters is located within the United States. If you reside outside the United States and choose to provide Personal Information or Browsing Information to us, please note that we may transfer that information outside of your country of residence. By providing FNF with your Personal Information and/or Browsing Information, you consent to our collection, transfer, and use of such information in accordance with this Privacy Notice.

FNF Website Services for Mortgage Loans

Certain FNF companies provide services to mortgage loan servicers, including hosting websites that collect customer information on behalf of mortgage loan servicers (the "Service Websites"). The Service Websites may contain links to both this Privacy Notice and the mortgage loan servicer or lender's privacy notice. The sections of this Privacy Notice titled When Information is Disclosed, Choices with Your Information, and Accessing and Correcting Information do not apply to the Service Websites. The mortgage loan servicer or lender's privacy notice governs use, disclosure, and access to your Personal Information. FNF does not share Personal Information collected through the Service Websites, except as required or authorized by contract with the mortgage loan servicer or lender, or as required by law or in the good-faith belief that such disclosure is necessary: to comply with a legal process or applicable law, to enforce this Privacy Notice, or to protect the rights, property, or safety of FNF or the public.

Your Consent To This Privacy Notice; Notice Changes; Use of Comments or Feedback

By submitting Personal Information and/or Browsing Information to FNF, you consent to the collection and use of the information in accordance with this Privacy Notice. We may change this Privacy Notice at any time. The Privacy Notice's effective date will show the last date changes were made. If you provide information to us following any change of the Privacy Notice, that signifies your assent to and acceptance of the changes to the Privacy Notice. We may use comments or feedback that you submit to us in any manner without notice or compensation to you.

Accessing and Correcting Information; Contact Us

If you have questions, would like to correct your Personal Information, or want to opt-out of information sharing for affiliate marketing, send your requests to privacy@fnf.com, by phone to (888) 934-3354, or by mail to:

Fidelity National Financial, Inc.
601 Riverside Avenue
Jacksonville, Florida 32204
Attn: Chief Privacy Officer

ATTACHMENT ONE (01-01-08)

AMERICAN LAND TITLE ASSOCIATION RESIDENTIAL TITLE INSURANCE POLICY (6-1-87) EXCLUSIONS

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:
 - land use
 - improvements on the land
 - land division
 - environmental protection

This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at Policy Date.

This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.

2. The right to take the land by condemning it, unless:
 - a notice of exercising the right appears in the public records on the Policy Date

In addition to the Exclusions, you are not insured against loss, costs, attorneys' fees, and the expenses resulting from:

1. Any rights, interests, or claims of parties in possession of the land not shown by the public records.
2. Any easements or liens not shown by the public records. This does not limit the lien coverage in Item 8 of Covered Title Risks.

- the taking happened prior to the Policy Date and is binding on you if you bought the land without knowing of the taking.

3. Title Risks:
 - that are created, allowed, or agreed to by you
 - that are known to you, but not to us, on the Policy Date—unless they appeared in the public records
 - that result in no loss to you
 - that first affect your title after the Policy Date—this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right:
 - to any land outside the area specifically described and referred to in Item 3 of Schedule A
OR
 - in streets, alleys, or waterways that touch your landThis exclusion does not limit the access coverage in Item 5 of Covered Title Risks

3. Any facts about the land which a correct survey would disclose and which are not shown by the public records. This does not limit the forced removal coverage in Item 12 of Covered Title Risks.
4. Any water rights or claims or title to water in or under the land, whether or not shown by the public records.

**ATTACHMENT ONE
(CONTINUED)**

**FORMERLY AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (10-17-92)
WITH A.L.T.A. ENDORSEMENT-FORM 1 COVERAGE
EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
- (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
 - (a) created, suffered, assumed or agreed to by the insured claimant;
 - (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
 - (c) resulting in no loss or damage to the insured claimant;
 - (d) attaching or created subsequent to Date of Policy (except to the extent that this policy insures the priority of the lien of the insured mortgage over any statutory lien for services, labor or material or to the extent insurance is afforded herein as to assessments for street improvements under construction or completed at Date of Policy); or
- (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any statutory lien for services, labor or materials (or the claim of priority of any statutory lien for services, labor or materials over the lien of the insured mortgage) arising from an improvement or work related to the land which is contracted for and commenced subsequent to Date of Policy and is not financed in whole or in part by proceeds of the indebtedness secured by the insured mortgage which at Date of Policy the insured has advanced or is obligated to advance.
7. Any claim, which arises out of the transaction creating the interest of the mortgagee insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
 - (i) the transaction creating the interest of the insured mortgagee being deemed a fraudulent conveyance or fraudulent transfer; or
 - (ii) the subordination of the interest of the insured mortgagee as a result of the application of the doctrine of equitable subordination; or
 - (iii) the transaction creating the interest of the insured mortgagee being deemed a preferential transfer except where the preferential transfer results from the failure:
 - (a) to timely record the instrument of transfer; or
 - (b) of such recordation to impart notice to a purchaser for value or a judgment or lien creditor.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

**ATTACHMENT ONE
(CONTINUED)**

**2006 AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company

- by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
- (c) resulting in no loss or damage to the Insured Claimant;
- (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13 or 14); or
- (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.

4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records;
- (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

**ATTACHMENT ONE
(CONTINUED)**

**FORMERLY AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (10-17-92)
EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
- (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which

- has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
 - (a) created, suffered, assumed or agreed to by the insured claimant;
 - (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
 - (c) resulting in no loss or damage to the insured claimant;
 - (d) attaching or created subsequent to Date of Policy; or
 - (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the estate or interest insured by this policy.
4. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
 - (i) the transaction creating the estate or interest insured by this policy being deemed a fraudulent conveyance or fraudulent transfer; or
 - (ii) the transaction creating the estate or interest insured by this policy being deemed a preferential transfer except where the preferential transfer results from the failure:
 - (a) to timely record the instrument of transfer; or
 - (b) of such recordation to impart notice to a purchaser for value or a judgment or lien creditor.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage Policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

**ATTACHMENT ONE
(CONTINUED)**

**2006 AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;

- (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
 - (a) a fraudulent conveyance or fraudulent transfer; or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
 5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records;
- (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown in the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and that are not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

**ATTACHMENT ONE
(CONTINUED)**

**ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (10-22-03)
EXCLUSIONS**

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes ordinances, laws and regulations concerning:
 - a. building
 - b. zoning
 - c. Land use
 - d. improvements on Land
 - e. land division
 - f. environmental protection

This Exclusion does not apply to violations or the enforcement of these matters if notice of the violation or enforcement appears in the Public Records at the Policy Date.
This Exclusion does not limit the coverage described in Covered Risk 14, 15, 16, 17 or 24.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not apply to violations of building codes if notice of the violation appears in the Public Records at the Policy Date.
3. The right to take the Land by condemning it, unless:
 - a. notice of exercising the right appears in the Public Records at the Policy Date; or
4. Risks:
 - a. that are created, allowed, or agreed to by You, whether or not they appear in the Public Records.
 - b. that are Known to You at the Policy Date, but not to Us, unless they appear in the Public Records at the Policy Date;
 - c. that result in no loss to You; or
 - d. that first occur after the Policy Date—this does not limit the coverage described in Covered Risk 7, 8.d., 22, 23, 24 or 25.
5. Failure to pay value for Your Title.
6. Lack of a right:
 - a. to any Land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
 - b. in streets, alleys, or waterways that touch the Land.

This Exclusion does not limit the coverage described in Covered Risk 11 or 18.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 14, 15, 16, and 18, Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A. The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

			Your Deductible Amount	Our Maximum Dollar Limit of Liability
14:	Covered	Risk	1% of Policy Amount or \$2,500.00 (whichever is less)	\$10,000.00
15:	Covered	Risk	1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
16:	Covered	Risk	1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
18:	Covered	Risk	1% of Policy Amount or \$2,500.00 (whichever is less)	\$5,000.00

**ATTACHMENT ONE
(CONTINUED)**

**ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (01-01-08)
EXCLUSIONS**

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

- | | |
|--|---|
| <p>1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:</p> <ul style="list-style-type: none"> a. building; b. zoning; c. land use; d. improvements on the Land; e. land division; and f. environmental protection. <p>This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.</p> <p>2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.</p> <p>3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.</p> | <p>4. Risks:</p> <ul style="list-style-type: none"> a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records; b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date; c. that result in no loss to You; or d. that first occur after the Policy Date—this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28. <p>5. Failure to pay value for Your Title.</p> <p>6. Lack of a right:</p> <ul style="list-style-type: none"> a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and b. in streets, alleys, or waterways that touch the Land. |
|--|---|

This Exclusion does not limit the coverage described in Covered Risk 11 or 21.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

Covered Risk	Your Deductible Amount	Our Maximum Dollar Limit of Liability
16:	1% of Policy Amount Shown in Schedule A or \$2,500.00 (whichever is less)	\$10,000.00
18:	1% of Policy Amount Shown in Schedule A or \$5,000.00 (whichever is less)	\$25,000.00
19:	1% of Policy Amount Shown in Schedule A or \$5,000.00 (whichever is less)	\$25,000.00
21:	1% of Policy Amount Shown in Schedule A or \$2,500.00 (whichever is less)	\$5,000.00

**ATTACHMENT ONE
(CONTINUED)**

**ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (10/13/01)
EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the Land; (ii) the character, dimensions or location of any improvements now or hereafter erected on the Land; (iii) a separation in ownership or a change in the dimensions or areas of the Land or any parcel of which the Land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the Land has been recorded in the Public Records at Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 12, 13, 14 and 16 of this policy.
- (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the Land has been recorded in the Public Records a Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 12, 13, 14, and 16 of this policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the Public Records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without Knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
 - (a) created, suffered, assumed or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (this paragraph does not limit the coverage provided under Covered Risks 8, 16, 18, 19, 20, 21, 22, 23, 24, 25 and 26); or
 - (e) resulting in loss or damage which would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of the Insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with applicable doing business laws of the state in which the Land is situated.
5. Invalidity or unenforceability of the lien of the Insured Mortgage, or claim thereof, which arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, except as provided in Covered Risk 27, or any consumer credit protection or truth-in-lending law.
6. Real property taxes or assessments of any governmental authority which become a lien on the Land subsequent to date of Policy. This exclusion does not limit the coverage provided under Covered Risks 7, 8(e) and 26.
7. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This exclusion does not limit the coverage provided in Covered Risk 8.
8. Lack of priority of the lien of the Insured Mortgage as to each and every advance made after Date of Policy, and all interest charged thereon, over liens, encumbrances and other matters affecting the title, the existence of which are Known to the Insured at:
 - (a) The time of the advance; or
 - (b) The time a modification is made to the terms of the Insured Mortgage which changes the rate of interest charged, if the rate of interest is greater as a result of the modification than it would have been before the modification. This exclusion does not limit the coverage provided in Covered Risk 8.
9. The failure of the residential structure, or any portion thereof to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This exclusion does not apply to violations of building codes if notice of the violation appears in the Public Records at Date of Policy.

**ATTACHMENT ONE
(CONTINUED)**

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (01-01-08)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;or the effect of any violation of these laws, ordinances or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims or other matters:
 - (a) created, suffered, assumed or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.

STORMWATER REVIEW BY:
Mohammad Rahman, PE, CFM
Phone: 480-312-2563
Email: mrahman@scottsdaleaz.gov
CASE CHECK#: 7-MD-2020
DATE: NOVEMBER 16, 2020
REVIEW CYCLE: 1ST
STATUS: CORRECTIONS

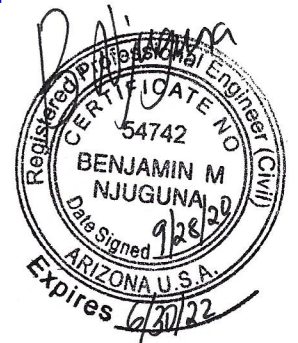
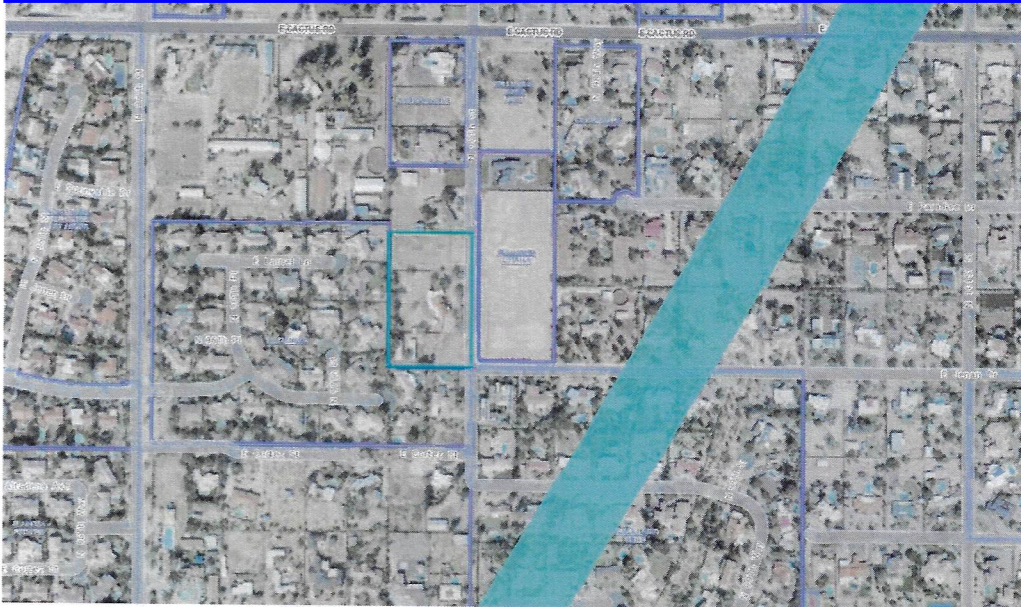


TNG Consulting, LLC

Add the following ON-LOT STORMWATER STORAGE REQUIREMENT statement on the cover sheet of the Pre-Plat:

Upon the development of each lot within this subdivision with a residential structure, the lot owner shall be responsible for constructing an on-lot stormwater storage basin or basins designed in conformance with City of Scottsdale standards for the design of stormwater storage basins including the dedication of a public drainage easement covering the limits of the basin(s). The stormwater storage basin(s) will be reviewed and approved for construction by the City of Scottsdale as part of a grading and drainage plan for the proposed residential structure.

Additionally, the lots within this subdivision are not eligible for a waiver of the stormwater storage requirement.



Prepared By
TNG Consulting, LLC
4802 E Ray Rd, Ste 23-586
Phoenix, AZ 85044

COS PROJECT #:

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Appendices

Appendix A	Exhibits
Appendix B	Hydrology & Hydraulic Calculations
Appendix C	Reference Material

Exhibits

Exhibit 1	Vicinity Map
Exhibit 2	Flood Insurance Rate Map
Exhibit 3	Existing Conditions Drainage Map
Exhibit 4	Proposed Conditions Drainage Map



1. INTRODUCTION & PURPOSE

1.1 PROJECT DESCRIPTION & LOCATION

SoHome Scottsdale is planning the Minor Subdivision (MD) of an existing single family residential parcel of land into three (3) separate Lots. The MD shall split off the middle portion of the Project Site, where the existing residential house is located into a separate Lot (Lot 2). The existing house shall remain in place while two new single family residential homes will be built on the each of the other two (2) new Lots (Lot 1 and Lot 3) on the north and south ends of the Site.

The existing parcel (Parent Parcel) is an approximately 3.7-acre piece of land (Project Site) located at 11880 N 98th Street, Scottsdale Arizona, 85260. More specifically the Project Site is comprised of the parcel of land whose current Maricopa County APN is 217-26-004F, situated in the Northwest Quarter of Section 20, Township 3 North, Range 5 East of the Gila and Salt River Meridian, Maricopa County, Arizona. The location of the property is depicted in Exhibit 1- *Vicinity Map*.

The Project Site is zoned R1-35 (single family residential district) and is surrounded by similarly zoned parcels to the north, west, south and east (across 98th Street). All areas surrounding the site lie within the City of Scottsdale limits.

1.2 PURPOSE

The purpose of this preliminary drainage report is to provide a preliminary drainage analysis of the Site's existing conditions and proposed development conditions. This report is preliminary and conceptual in nature and is to serve as a guideline for the development of the Site. It will set forth drainage criteria for onsite and offsite drainage, street flow, and storm water retention. Final estimates of onsite and offsite peak flows, onsite storm water retention requirements, open channel design and hydraulics, storm drain hydraulics, and street flow capacity are to be included in a Final drainage report of the Site, submitted under a separate cover.

The drainage design criteria in this report are based on the methodology presented in the City of Scottsdale Design Standards and Policies Manual (Ref. 1) in concert with the Drainage Design Manuals for Maricopa County (Hydrology & Hydraulics – Ref. 2 & 3), unless otherwise noted.

2. EXISTING CONDITIONS

2.1 TOPOGRAPHIC CONDITIONS

The Project Site is comprised of gently sloping terrain with man-made disturbances located throughout the Site and a permanent structure in the middle portion of the Site, where an existing single family residential building is situated. The existing ground generally slopes from north to south, at approximately 1% slope. The Site has been used as a large acreage lot suitable for residential equestrian lifestyle, consistent with the original designated use of land in the area.

Similar to the Project Site, an offsite watershed comprised of the areas immediately north of the Site also drains southerly and impacts the Site's north and east boundaries. Further discussion of these offsite drainage areas is included in Section 3 below. See Exhibit 3 for an *Existing Conditions Drainage Map* of the Site and the offsite areas around it.

2.2 FEMA FLOOD ZONE INFORMATION

The Maricopa County, Arizona and Incorporated Areas Flood Insurance Rate Map (FIRM) Panel Number 04013C1780L dated October 16, 2013 shows the site falls within Zone "X-shaded". Exhibit 2 shows the location of the Project Site on the *FEMA Flood Insurance Rate Map*.

Zone "X-shaded" is defined by FEMA and per the FIRM panel as follows:

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from the 1% annual chance flood.

2.3 PREVIOUS RELATED DRAINAGE STUDIES

Drainage in the area has been analyzed in the past in area drainage master studies/plans for the area as well as master drainage reports prepared for surrounding developments. Excerpts of these drainage studies are included in Appendix C. It has also been reported that an Area Drainage Master Study for the area (East Shea ADMS) has recently been prepared for the City of Scottsdale and Flood Control District of Maricopa County (FCDMC), but it's findings are preliminary and have not been officially adopted by the City and FCDMC.



3. OFFSITE DRAINAGE

3.1 OFFSITE HYDROLOGY

City of Scottsdale 1-ft contour quarter section maps for the area around the Site were overlaid onto the topographic survey map of the Site to create an Existing Conditions Drainage Map; see Exhibit 3 in Appendix A. As can be seen from the map, the Site and its surrounding areas generally slope southerly. Cactus Road, located approximately 750-ft north of the Project Site, intercepts offsite drainage from areas north of its alignment and conveys it eastwards and westwards away from the Project Site via its paved cross-section and system of catch basins and underground storm drain pipes.

Runoff from the offsite area located between Cactus Road alignment and the Project Site drains southerly and impacts the Site's north and east boundaries. This offsite area has been delineated into four drainage areas, in accordance with current drainage patterns. For the purposes of this report, these offsite drainage areas are named "OFF-1", "OFF-2", "OFF-3" and "OFF-4" as depicted in Exhibit 3, *Existing Conditions Drainage Map*. Runoff from drainage areas "OFF-1", "OFF-2", and "OFF-3" impacts the Site's north and east boundaries. Runoff from drainage area "OFF-4" drains southerly, past the Site, along the east edge of 98th Street.

Flood Control District of Maricopa County's DDMSW software, version 5.6.0, was used to calculate peak flows from offsite drainage areas "OFF-1", "OFF-2", "OFF-3" and "OFF-4" using rational method. The 100-year peak flows from drainage areas "OFF-1", "OFF-2", "OFF-3" and "OFF-4" was calculated to be 8.1 cfs, 9.7 cfs, 2.0 cfs and 10.6 cfs respectively. See detailed hydrology calculation results in Appendix B. A detailed discussion of how offsite flows shall be conveyed though and around the Project Site is provided in Section 4 below.



4. ONSITE DRAINAGE

4.1 STORM WATER FLOW

Existing fencing along the Site's north boundary is comprised of open pipe fencing, which provides no hindrance to drainage flow. No fencing exists along the east boundary, along 98th Street and storm water also flows freely along this edge. The west and south boundaries however are fenced off by solid block walls that were constructed as part of the La Cienega Subdivision improvements. No drainage currently flows into or out of the Site along the west and south boundaries.

The existing ground generally slopes from north to south, at approximately 1% slope. Wide-shallow drainage swales cut through the middle-to-south portions of the Site and drain to the southwest corner. The southwest corner of the Site was the historical Stormwater outfall location of the Site but improvements in La Cienega subdivision to the south and east of the Site, constructed around 1992, cut off the historical flow path with the building of new homes and solid block wall perimeter fences. See Appendix C for a copy of a historical aerial photo of the area (Maricopa County Assessor-1976) prior to current development.

The proposed Minor Subdivision (MD) shall split off the middle portion of the Site, where the existing residential house is situated, into its own separate Lot (Lot 2). No new developments are proposed on this Lot (Lot 2) and stormwater on Lot 2 shall continue to flow as it has done historically. New developments shall be constrained to the north end (Lot 1) and South end (Lot 3) of the Site, where proposed residential houses will be located. See Exhibit 4 for a *Proposed Conditions Drainage Map*. Final Grading & Drainage improvements for Lot 1 and Lot 3 shall account for the final design of onsite storm water flow on each Lot.

Runoff from offsite drainage areas "OFF-1", "OFF-2", and "OFF-3" impacts the Site's north and east boundaries. Runoff from "OFF-1" and "OFF-2" enters the Site along the north boundary and flows across the Site as sheet flow and in shallow/loosely defined drainage swales towards the southwest corner. Drainage from offsite drainage area "OFF-3" drains south along the east edge of the Site (west edge of 98th Street) before turning southwest around the middle portion of the Site where it cuts through to the southwest corner.

Runoff from offsite drainage areas "OFF-1", "OFF-2", and "OFF-3" shall be addressed collectively as part of the Minor Subdivision (MD). New offsite flow drainage channels will be constructed along the north and east end of the Project Site to intercept offsite drainage at its historical entrance points and convey it to the southeast corner of the Site, where it will continue to flow south along 98th Street before turning west at Cortez Street where it will flow west along Cortez Street alignment and on to its historical outfall location from the area at the intersection with 96th Street.

Proposed offsite flow drainage channels shall be designed to have the capacity to convey the combined peak flow from the offsite drainage areas they intercept. Flood Control District of Maricopa County's DDMSW software, version 5.6.0, was used to calculate peak flows from the combined offsite drainage areas using rational method. See detailed hydrology calculation results in Appendix B. The calculated



100-year peak flows from the combined offsite drainage areas were used to size the proposed offsite flow drainage channels. See detailed DDMSW hydraulic calculation results in Appendix B.

4.2 FINISHED FLOOR ELEVATION

Finished floor elevation of the proposed single family residential houses on Lot 1 and 3 shall be set at minimum to be the higher of: (a) 12-inches above the Site's ultimate outfall, (b) 14-inches above the lowest adjacent top of curb elevation, and (c) 6-inches above the highest adjacent top of curb elevation.

4.3 RETENTION BASIN DESIGN

No Stormwater retention shall be required for the middle Lot (Lot 2), in areas on the Site that have been previously developed. In accordance with City of Scottsdale design criteria, the 100-yr, 2-hr Stormwater retention volume shall be provided for the north and south ends of Site, in areas that have not been previously developed with permanent improvements. Onsite retention basins shall therefore be required in the north lot (Lot 1) and south lot (Lot 3). Final design and layout of proposed retention basins on Lot 1 and Lot 3 shall be provided with the final improvement plan design for each Lot. Preliminary calculations of the retention volume requirements for Lot 1 and Lot 3 is provided in Appendix B.



5. CONCLUSION

Based on the analysis presented in this Preliminary Drainage Report, the following conclusions are drawn:

1. This Preliminary Drainage Report has been designed in compliance with the City of Scottsdale Design Standards and Policies Manual. Where exceptions occur, they have been pointed out and drainage design rationale, consistent with sound engineering practice associated with the unique conditions on the Project Site, provided.
2. This report is preliminary in nature and is to serve as a guideline for the development of the Project Site. Final calculation of offsite flow, onsite flow, onsite storm water retention and open channel hydraulics will be included in a supplement to this report, submitted under a separate cover.
3. The 100-year, 2-hour storm water retention for the areas on the Site that have not been previously developed (Lot 1 and Lot 3) will be provided with the final improvement plan design for each Lot.
4. Finished floor elevation of the proposed single family residential houses on Lot 1 and 3 shall be set at minimum to be the higher of: (a) 12-inches above the Site's ultimate outfall, (b) 14-inches above the lowest adjacent top of curb elevation, and (c) 6-inches above the highest adjacent top of curb elevation.
5. The proposed development will not cause adverse drainage impacts or increased drainage problems to developments upstream, downstream or adjacent to the site.



6. MAINTENANCE

Ongoing maintenance of the designed drainage systems is required to preserve their design integrity. Poor maintenance can prevent the system from performing to its intended design purpose and can result in reduced performance. Maintenance is the responsibility of the agency of jurisdiction for facilities in public lands and in public right-of-way. It is the responsibility of private developers, homeowners, homeowners' association, etc., for maintenance of facilities on private property, within drainage easements and private streets. A regular maintenance program will be established in the final design of the Site and included in a supplement to this report, submitted under a separate cover.



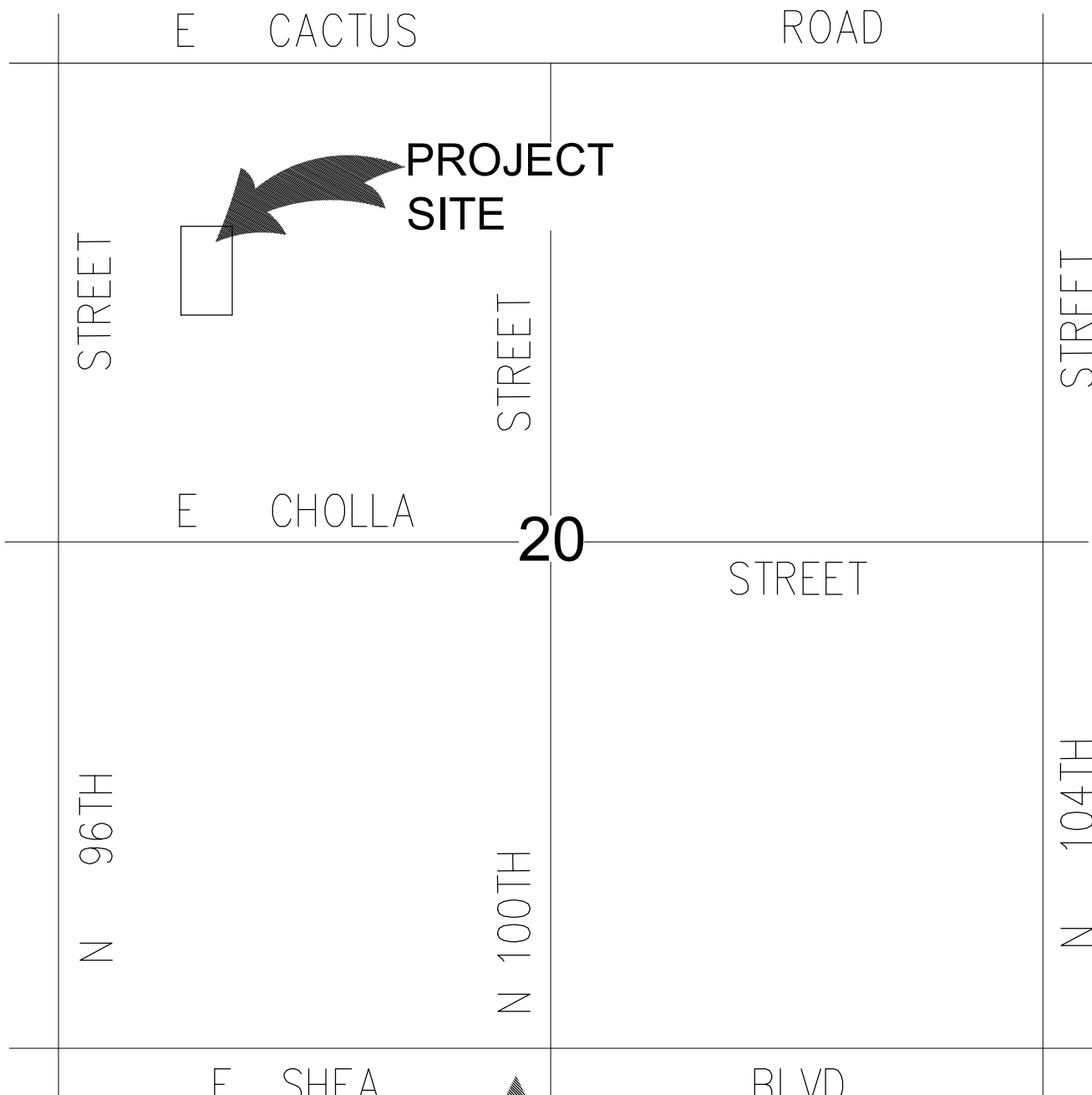
7. REFERENCES

1. *City of Scottsdale Design Standards and Policies Manual*, City of Scottsdale, 2018.
2. *Maricopa County Drainage Manual, Volume 1, Hydrology*, Maricopa County, February, 2010.
3. *Maricopa County Drainage Manual, Volume 2, Hydraulics*, Maricopa County, August, 2013.
4. *National Flood Insurance Program, Flood Insurance Rate Map Number 0413C1780L*, Federal Emergency Management Agency, October 16, 2013.



APPENDIX A





E CACTUS ROAD

STREET

STREET

STREET

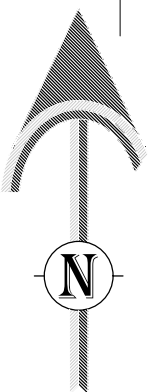
E CHOLLA STREET 20

N 96TH

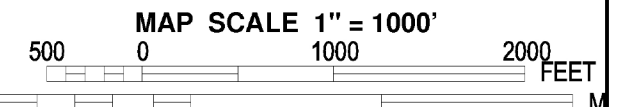
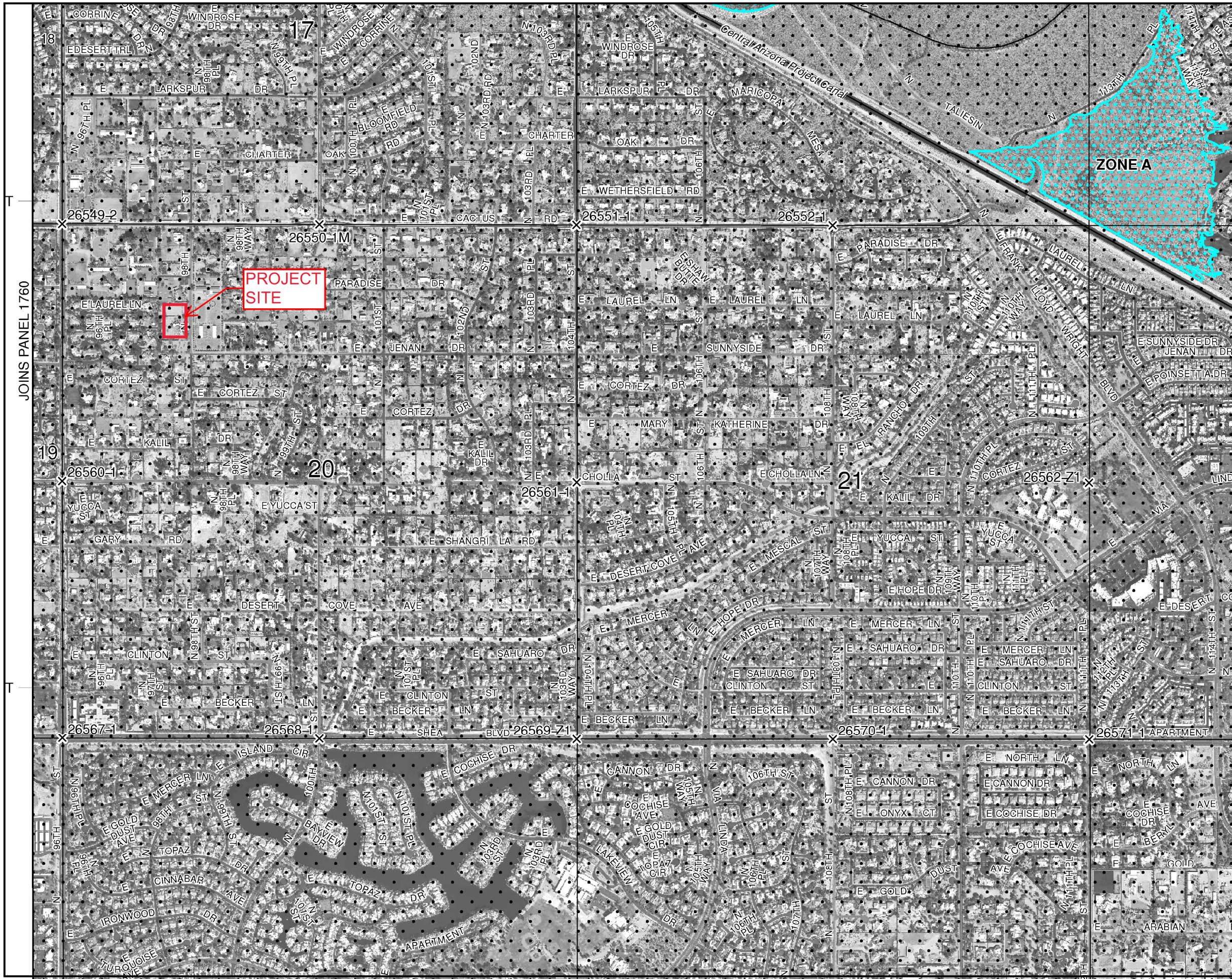
N 100TH

N 104TH

E SHEA BLVD



VICINITY MAP
NTS



JOINS PANEL 1760

ZONE A

PROJECT SITE

NFIP PANEL 1780L

FIRM
FLOOD INSURANCE RATE MAP
MARICOPA COUNTY,
ARIZONA
AND INCORPORATED AREAS

PANEL 1780 OF 4425
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MARICOPA COUNTY	040037	1780	L
SCOTTSDALE, CITY OF	045012	1780	L

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
04013C1780L

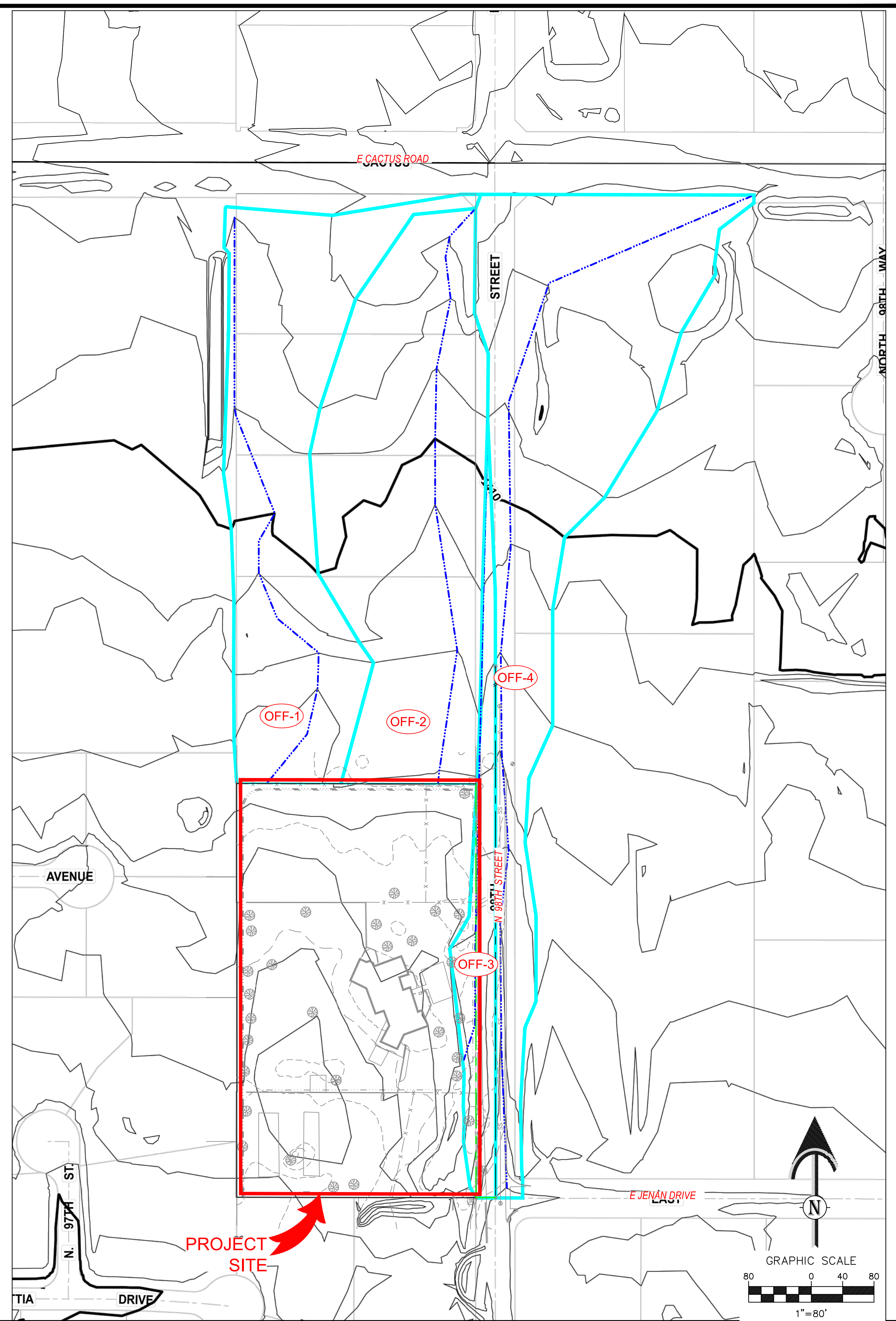
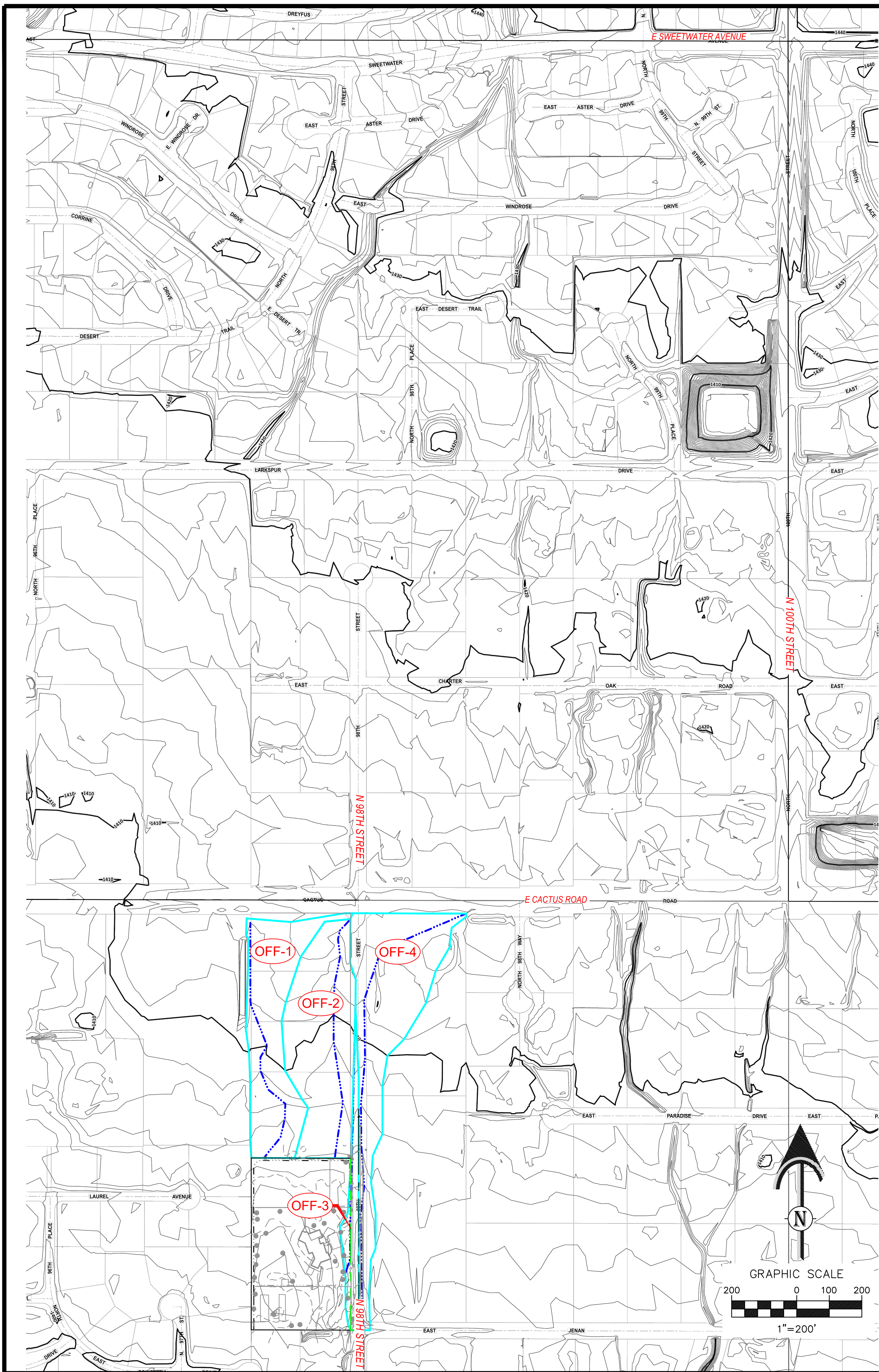
MAP REVISED
OCTOBER 16, 2013

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

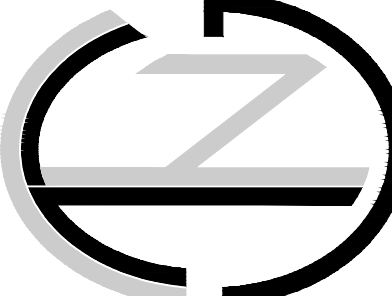
EXHIBIT 2

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



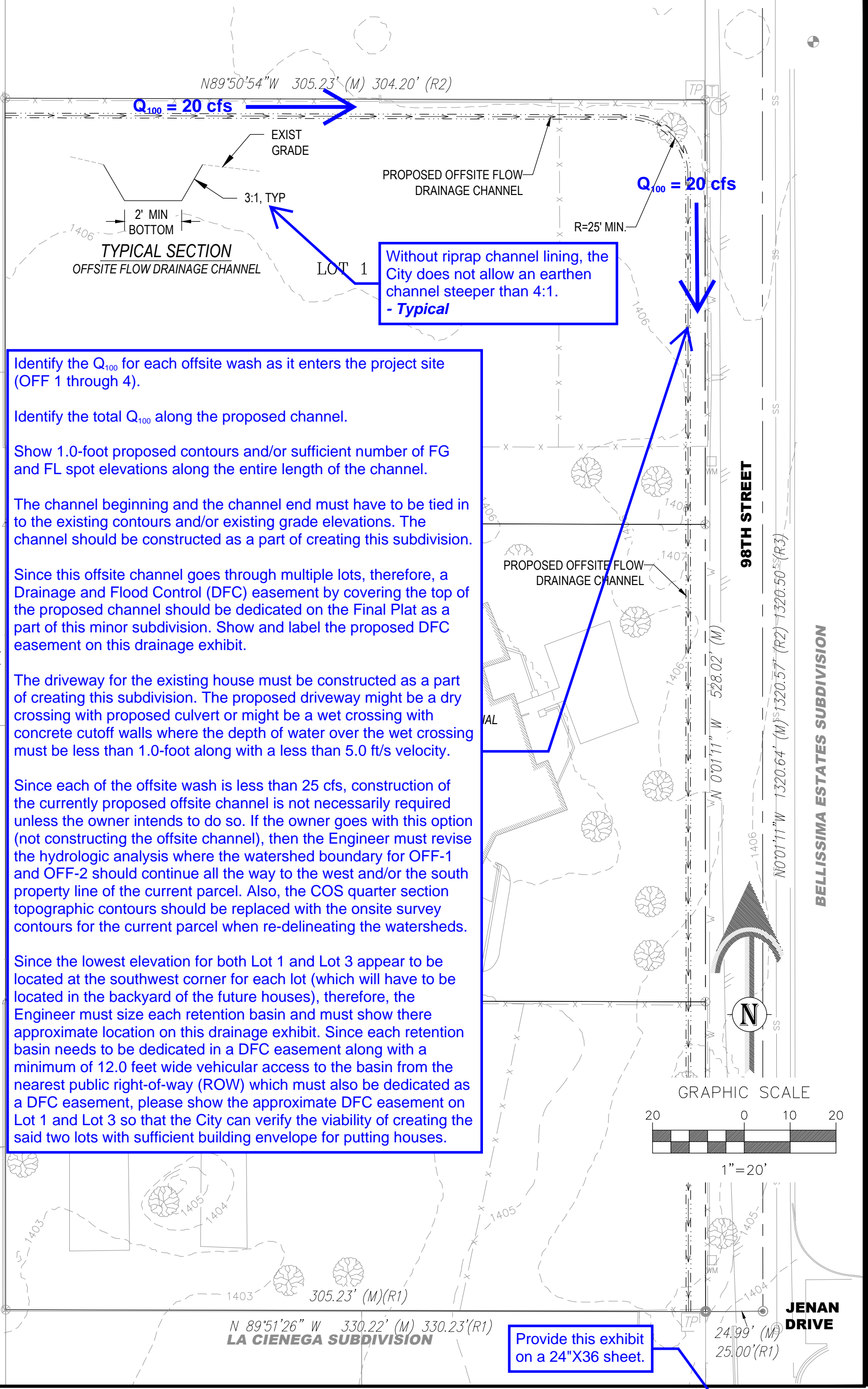
#	DATE	DESCRIPTION	BY

TNG CONSULTING, LLC.
 4802 E. RAY RD., STE 23-386
 PHOENIX, AZ 85044
 TEL: 480-562-8039
 www.tng-consulting.net



EXISTING CONDITIONS DRAINAGE MAP
11880 N 98TH STREET
SCOTTSDALE, ARIZONA

PROJECT #	102001130
DATE	09-25-2020
CHECK	BMN
LABEL	SHEET
EXHIBIT 3	



PROPOSED CONDITIONS DRAINAGE MAP
11880 N 98TH STREET
SCOTTSDALE, ARIZONA



EXHIBIT 4

APPENDIX B



Hydrology Calculations



Flood Control District of Maricopa County
 Drainage Design Management System
RAINFALL DATA
 Project Reference: 1130-11880 N 98TH ST

ID	Method	Duration	2 Yr	5 Yr	10 Yr	25 Yr	50 Yr	100 Yr
DEFAULT	NOAA14	5 MIN	0.267	0.361	0.432	0.527	0.600	0.673
	NOAA14	10 MIN	0.407	0.549	0.658	0.802	0.912	1.025
	NOAA14	15 MIN	0.504	0.680	0.815	0.994	1.131	1.270
	NOAA14	30 MIN	0.679	0.916	1.098	1.339	1.523	1.711
	NOAA14	1 HOUR	0.841	1.134	1.359	1.657	1.885	2.117
	NOAA14	2 HOUR	0.970	1.290	1.534	1.866	2.116	2.375
	NOAA14	3 HOUR	1.045	1.366	1.620	1.973	2.254	2.544
	NOAA14	6 HOUR	1.237	1.577	1.847	2.217	2.504	2.803
	NOAA14	12 HOUR	1.415	1.785	2.076	2.469	2.771	3.083
	NOAA14	24 HOUR	1.700	2.201	2.600	3.156	3.594	4.054

Flood Control District of Maricopa County
 Drainage Design Management System
LAND USE
 Project Reference: 1130-11880 N 98TH ST

Sub Basin	Land Use Code	Area (acres)	Area (%)	Kb	Runoff Coefficient C						Description
					2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 01											
OFF-1	120	2.47	100.0	0.038	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		2.470	100.0								
OFF-2	120	2.96	100.0	0.037	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		2.960	100.0								
OFF-3	120	0.63	100.0	0.041	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		0.630	100.0								
OFF-4	120	3.37	100.0	0.037	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		3.370	100.0								

* Non default value

Flood Control District of Maricopa County
 Drainage Design Management System
 LAND USE
 Project Reference: 1130-11880 N 98TH ST

Sub Basin	Land Use Code	Area (acres)	Area (%)	Kb	Runoff Coefficient C						Description
					2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 02											
OFF1+2	120	5.94	100.0	0.035	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		5.940	100.0								
OFF123	120	6.06	100.0	0.035	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		6.060	100.0								

* Non default value

Flood Control District of Maricopa County
 Drainage Design Management System
SUB BASINS

Project Reference: 1130-11880 N 98TH ST

ID	Sub Basin Data						Sub Basin Hydrology Summary						
	Area (acres)	Length (ft)	USGE	DSGE	Slope (ft/mi)	Kb	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 01													
OFF-1	2.5	787	1,413.00	1,407.00	40.3	0.038	Q (cfs)	2.5	3.4	4.1	5.5	6.8	8.1
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	1.04	1.04	1.04	1.14	1.24	1.31
							Volume (ac-ft)	0.0501	0.0625	0.0754	0.1011	0.1250	0.1489
							Tc (min)	11	10	10	10	10	10
							i (in/hr)	2.36	3.29	3.95	4.81	5.47	6.15
OFF-2	3.0	754	1,413.00	1,407.00	42.0	0.037	Q (cfs)	3.0	4.1	4.9	6.5	8.1	9.7
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	1.24	1.24	1.24	1.36	1.48	1.57
							Volume (ac-ft)	0.0574	0.0754	0.0901	0.1195	0.1489	0.1784
							Tc (min)	10	10	10	10	10	10
							i (in/hr)	2.40	3.29	3.95	4.81	5.47	6.15
OFF-3	0.6	821	1,411.00	1,406.00	32.2	0.041	Q (cfs)	0.6	0.8	1.0	1.4	1.8	2.0
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	0.26	0.26	0.26	0.29	0.32	0.33
							Volume (ac-ft)	0.0142	0.0166	0.0191	0.0257	0.0331	0.0368
							Tc (min)	13	11	10	10	10	10
							i (in/hr)	2.19	3.13	3.89	4.81	5.47	6.15
OFF-4	3.4	1,446	1,413.00	1,404.00	32.9	0.037	Q (cfs)	2.7	3.9	4.9	6.8	8.7	10.6
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	1.42	1.42	1.42	1.55	1.69	1.79
							Volume (ac-ft)	0.0839	0.1054	0.1216	0.1538	0.1856	0.2144
							Tc (min)	17	15	14	12	12	11
							i (in/hr)	1.92	2.75	3.45	4.41	5.15	5.92

* Non default value

Flood Control District of Maricopa County
 Drainage Design Management System
SUB BASINS
 Project Reference: 1130-11880 N 98TH ST

ID	Sub Basin Data						Sub Basin Hydrology Summary						
	Area (acres)	Length (ft)	USGE	DSGE	Slope (ft/mi)	Kb	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 02													
OFF1+2	5.4	787	1,413.00	1,407.00	40.3	0.035	Q (cfs)	5.5	7.5	9.0	12.0	14.9	17.7
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	2.28	2.28	2.28	2.50	2.72	2.88
							Volume (ac-ft)	0.1062	0.1379	0.1655	0.2207	0.2740	0.3255
							Tc (min)	11	10	10	10	10	10
							i (in/hr)	2.40	3.29	3.95	4.81	5.47	6.15
OFF123	6.1	1,175	1,413.00	1,404.00	40.4	0.035	Q (cfs)	5.5	7.9	9.8	13.4	16.6	19.7
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	2.55	2.55	2.55	2.79	3.03	3.21
							Volume (ac-ft)	0.1345	0.1685	0.1928	0.2464	0.3052	0.3623
							Tc (min)	13	12	11	10	10	10
							i (in/hr)	2.15	3.10	3.84	4.81	5.47	6.15

* Non default value

11880 N 98TH STREET, SCOTTSDALE AZ
STORM WATER RETENTION CALCULATIONS SUMMARY

NOTE: Stormwater retention shall be required for the north lot (Lot1) and South lot (Lot3), in areas that have not been previously developed. No stormwater retention shall be required for the middle lot (Lot2) where the existing residential house (to remain) is situated

Vol Required (V_R):

V_R = 100-yr, 2-hr retention volume

$$V_R = C (P/12) A$$

Where; C= 0.62 (DSPM Figure 4-1.5, R1-35)

P = 2.25 inches (100-yr, 2-hr, DSPM Appendix 4-1D)

A = Area SF

LOT ID	Area (SF)	V_R (CF)
LOT 1	35,000	<u>4,069</u>
LOT 3	35,000	<u>4,069</u>

Hydraulic Calculations



Flood Control District of Maricopa County
 Drainage Design Management System
RIVER MECHANICS - CROSS SECTION HYDRAULICS
Project Reference: 1130-11880 N 98TH ST

Section ID	Flow Type	Entire Section										Channel Section				
		Q (cfs)	Slope (f/f)	Man'g N Channel	Man'g N LOB	Man'g N ROB	Area (sq ft)	W.P. (ft)	Avg Width (ft)	Top Width (ft)	Hyd Depth (ft)	Max Depth (ft)	Vel (f/s)	Hyd Depth (ft)	Vel (ft/sec)	Froude Num
CHANNEL 1	Design Dominant	20	0.003000	0.022	0.022	0.022	6.82	9.66	5.63	9.26	0.74	1.21	2.93			
									0.00							

APPENDIX C





CITY
COPY

BELLISSIMA ESTATES

NW QUARTER SECTION 20

TOWNSHIP 3 NORTH, RANGE 5 EAST

GILA & SALT RIVER BASE AND MERIDIAN

MARICOPA COUNTY, ARIZONA

APN 217-26-985

PRELIMINARY DRAINAGE REPORT

Plan # _____
Case # 4-PP-2016
Q-S # _____
 Accepted
 Corrections
N. Baronas 4-4-17
Reviewed By Date

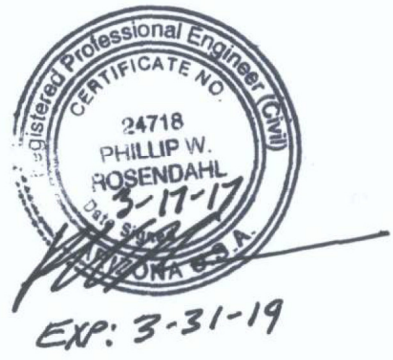


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1.	INTRODUCTION	Pg. 1
2.	DESCRIPTION OF EXISTING DRAINAGE CONDITIONS AND CHARACTERISTICS.....	Pg. 1
3.	PROPOSED DRAINAGE PLAN.....	Pg. 1
4.	SPECIAL CONDITIONS.....	Pg. 4
5.	DATA ANALYSIS METHODS.....	Pg. 4
6.	CONCLUSIONS.....	Pg. 4
7.	WARNING AND DISCLAIMER OF LIABILITY.....	Pg. 5
8.	REFERENCES.....	Pg. 5
9.	PRE-DEVELOPMENT DRAINAGE AREAS.....	Pg. 6
10.	POST-DEVELOPMENT DRAINAGE AREAS.....	Pg. 7
11.	RETENTION VOLUME LOTS 1 AND 2.....	Pg. 8
12.	RETENTION VOLUME LOTS 3 – 6.....	Pg. 9



EXP: 3-31-19

1. INTRODUCTION

Bellissima Estates is anticipated to be a 6 lot subdivision located in the NW quadrant of E. Jenan Drive and N. 98th Street, being a portion of the NW quarter of Section 20, Township 3 North, Range 5 East of the Gila and Salt River Base and Meridian. It is described as Lot 2 of the Minor Land Division-Lot Line Adjustment of Bellissima Farms. The property is a 5.79 acre parcel on property that has been used as a horse property for breeding and training horses. Due to the recent demolition of out buildings and corrals the site is relatively void of vegetation except for the bushes around the perimeter of the property. It is mild sloping at slightly less than 1% from North to South. N. 98th Street is paved without curb and gutter and E. Jenan Drive is paved on the South side of the street with a 4 inch rolled curb.

The purpose of this preliminary drainage report is to investigate and address the site drainage conditions and provide the necessary storm retention for the difference between the pre-development runoff and the post-development runoff and not overflow the basin during the peak flow of the 100-yr storm.

2. DESCRIPTION OF EXISTING DRAINAGE CONDITIONS AND CHARACTERISTICS

This site is gently sloping from North to South at 0.81% runoff currently sheets across the property draining onto E. Jenan Drive and continuing West to the intersection with 98th St., where it flows South. There is no significant offsite flow onto the site other than the sheet flow from the property adjacent to the North, then across this development in the same manner and onto E. Jenan Drive. This offsite runoff will be brought onto the site in a drainage swale along the North boundary and turned into another swale running South in the 8' PUE and be released in the SW corner of the site where it has historically flowed. The retention basins along the N. 98th Street frontage will be moved to the East allowing room for the drainage swale, enabling the offsite runoff to be kept separate from the onsite. The calculated peak flow of the offsite flow is 7.4 cfs.

The FEMA Flood Insurance Rate Map No. 04013C1780L revised on October 16, 2013 shows the site in a Zone "X" designated flood zone, this zone being defined as an area of minimal flood potential.

3. PROPOSED DRAINAGE PLAN

In developing the 6 lots for single family residences the existing drainage pattern will be maintained, providing for overflow at the southwest corner of the property. Privacy walls separating the lots will be constructed to allow the sheet flow to pass from one lot to the next as it historically has, however we have opted to retain the runoff from Lots 1 & 2 separately from Lots 3 – 6.

These two lots will drain from the East boundary to the N. 98th St. frontage retention basin, which will be covered by a drainage easement. Lots' 3 – 6 runoff will be contained in a retention basin provided on Lots 5 and 6. We have estimated a 15,000 square foot area of building and hardscape to establish the runoff coefficient for the developed site, which turns out to be very close to the value of Figure 4.1-4 of the City DSPM. To better facilitate the lot sizes that are anticipated by the developer, as mentioned, we are providing storm retention in a basin located in conjunction with the southerly two lots of the development, being Lots 5 and 6 and a smaller basin located on Lots 1 and 2. We will calculate the size of the retention basins being the difference between the pre-development runoff and the post-development runoff. When the difference in the volume of runoff is calculated per the Maricopa County Flood Control Drainage Design Manual and considering the half streets of both 98th Street and Jenan Drive, we show a volume of 5,614 ft.³, however when the peak flow of the developed site is calculated for the site time of concentration, T_c that volume will be exceeded upon reaching the peak runoff of the storm hydrograph. Therefore we have analyzed the pre-development and post-development hydrographs overlain on each other to determine the size of a retention basins that will retain the runoff past the peak flow of the 100-yr. storm event. This analysis is shown below.

A. Pre-development Peak Runoff Analysis Lots 1 & 2:

Per City of Scottsdale Design Standards & Policy's Manual and
Per Maricopa County Flood Control Drainage Design Manual;

DA-1 = 76,028 ft.² / 1.75 ac (See Pre-Development Drainage Area Fig.1, Pg. 6)
Calculate T_c of DA-1 using: $T_c = 11.4 \times L^{0.5} \times K_b^{0.52} \times S^{-0.31} \times i^{-0.38} = 5 \text{ min.}$

Where: L = length of longest flow path in miles = 0.11 mi.
K_b = flow resistance coefficient = 0.038
S = slope in ft./mi. = 26.3 ft./mi.
i = rainfall intensity in in./hr. = 9 in./hr. by iteration.

DA-1 Peak Runoff; $Q = C \times I \times A = 6.3 \text{ ft.}^3/\text{sec.}$

Where: C = runoff coefficient = 0.40 this being determined from
Figure 4.1-4 lying between "undisturbed natural desert
and "agricultural areas, more heavily toward the former.
i = rainfall intensity from the T_c iteration = 9 in./hr.
A = drainage basin area in acres = 1.75 ac., as a portion of
Lots 1 and 2 does not reach the point of concentration
for this consideration.

B. Post-development Peak Runoff Analysis Lots 1 & 2:

(See Post-Development Drainage Area Fig. 2, Pg. 7)

Calculating T_c of DA-1 by similar iteration of the above equation; $L = 0.11$, $K_b = 0.037$, $S = 26.3$ ft./mi. we find that $T_c = 5$ min. giving $i = 9.0$ in./hr., the Area of Post-Development DA-1 is 2.25 ac.

Post-Development DA-1 Peak Runoff; $Q = C \times i \times A = 12.55$ ft.³/sec.

Retention volume required for this basin: is 3,290 ft.³, calculated from analysis of the hydrograph of the pre-development and the post-development runoffs, shown as Figure 3, Pg 8. In sizing the basin for the potential development of a circular drive on each of the lots we have also provided for the displacement of available retention volume for those driveways, being 12 feet wide with 4:1 slopes to the bottom of retention and the maximum depth being 1 foot. This displacement added 1224 ft.³ to the calculated 3,290 ft.³, for a total volume of 4,514 ft.³. The volume provided on the Preliminary Grading & Drainage Plan is 4,622 ft.³. A drainage easement covering this retention basin is provided on the Preliminary Plat Site Plan.

C. Pre-development Peak Runoff Analysis Lots 3-6:

(See Pre-Development Drainage Area Fig. 1, Pg. 6)

DA-2 = 80,900 ft.² / 1.86 ac

Calculate T_c of DA-2 using: $T_c = 11.4 \times L^{0.5} \times K_b^{0.52} \times S^{-0.31} \times i^{-0.38} = 7$ min.

Where: L = length of longest flow path in miles = 0.14 mi.
 K_b = flow resistance coefficient = 0.038
 S = slope in ft./mi. = 36.1 ft./mi.
 i = rainfall intensity in in./hr. = 8.0 in./hr. by iteration.

DA-2 Peak Runoff; $Q = C \times i \times A = 5.95$ ft.³/sec.

Where: C = runoff coefficient = 0.40
 i = rainfall intensity from the T_c iteration = 8.0 in./hr.
 A = drainage basin area in acres = 1.86 ac.

DA-3 = 115,117 ft.² / 2.65 ac

Calculate T_c of DA-2 using: $T_c = 11.4 \times L^{0.5} \times K_b^{0.52} \times S^{-0.31} \times i^{-0.38} = 8$ min.

Where: L = length of longest flow path in miles = 0.19 mi.
 K_b = flow resistance coefficient = 0.037
 S = slope in ft./mi. = 39.0 ft./mi.
 i = rainfall intensity in in./hr. = 7.3 in./hr. by iteration.

Pg. 3

DA-3 Peak Runoff; $Q = C \times I \times A = 7.74 \text{ ft.}^3/\text{sec.}$

Where: $C = \text{runoff coefficient} = 0.40$

$i = \text{rainfall intensity from the } T_c \text{ iteration} = 7.3 \text{ in./hr.}$

$A = \text{drainage basin area in acres} = 2.65 \text{ ac.}$

Total Pre-Development Peak Runoff = $13.69 \text{ ft}^3/\text{sec.}$

D. Post-development Peak Runoff Analysis Lots 3-6:

(See Post-Development Drainage Area Fig. 2, Pg. 7)

Calculating T_c of DA-2 by similar iteration of the above equation; $L = 0.20$, $K_b = 0.035$, $S = 32.0 \text{ ft./mi.}$ we find that $T_c = 10 \text{ min.}$ giving $i = 6.9 \text{ in./hr.}$, the Area of Post-Development DA-1 is 4.17 ac.

Post-Development DA-2 Peak Runoff; $Q = C \times i \times A = 17.84 \text{ t.}^3 / \text{sec.}$

Retention volume required for this basin: is $7,547 \text{ ft.}^3$, calculated from analysis of the hydrograph of the pre-development and the post-development runoff's, shown as Figure 4, Pg. 9. Similarly to the retention provided on Lots 1 and 2, we will have to provide for the displacement for a circular driveway on Lots 5 and 6, adding $1,224 \text{ ft.}^3$ to the computed volume bringing the required volume to $8,771 \text{ ft.}^3$, the volume provided on the Preliminary Grading and Drainage Plan is $8,965 \text{ ft.}^3$, this basin is also covered by a drainage easement on the Preliminary Plat Site Plan.

4. SPECIAL CONDITIONS:

This site has no special project stipulations, no 401 and 404 Permit requirements and no AZPDES requirements.

5. DATA ANALYSIS METHODS:

See Section 3. above "Proposed Drainage Plan" for hydrologic procedures and storm water storage calculation.

6. CONCLUSIONS:

This site has small offsite runoff contribution, being the sheet flow from the property to the North, that property in turn has been cut off from the N-S sheet flow of the area by the E. Cactus Road street improvements. The flow from the adjacent property to the North is not going to be comingled with the runoff from the developed site. This will be facilitated by creating a drainage swale Inside the North boundary that will intercept the portion of that runoff that has historically come onto the site and direct it to another swale which will carry the offsite flow South to the location where it has historically discharged from the site.

2-ZN-92

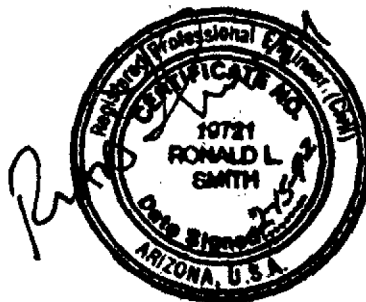
DEVELOPMENT COORDINATION GROUP, Ltd.
Land Development Management Consultants

**PRELIMINARY
DRAINAGE REPORT
FOR
LA CIENEGA**

**PREPARED FOR
LOS ALTOS HILLS REALTY, INC.
8757 E. VIA DE COMMERCIO, #100
SCOTTSDALE, AZ 85258**

**PREPARED BY
DEVELOPMENT COORDINATION GROUP, LTD.
RONALD L. SMITH, P.E.**

**JANUARY 14, 1992
REVISED FEBRUARY 15, 1992**



1.0 INTRODUCTION

This report presents the results of a preliminary analysis of the drainage conditions affecting the development of Las Cienega. La Cienega is a residential subdivision planned for 39 single family lots. This report is prepared, pursuant to rezoning of the subject property, in accordance with City of Scottsdale regulations and requirements.

La Cienega is located in a portion of the northwest quarter of Section 20, T3N, R5E. The site is adjacent to the east of 96th Street approximately 758 feet south of Cactus Road. The subject property is currently part of the Adams Arabian Horse Ranch. The site is bounded by remaining Adam's facility and Westview Farms horse ranch on the north, 4.0 acre residential lot on the east, Cortez Road on the south and 96th Street on the west. See figure 1.1, Location Map.

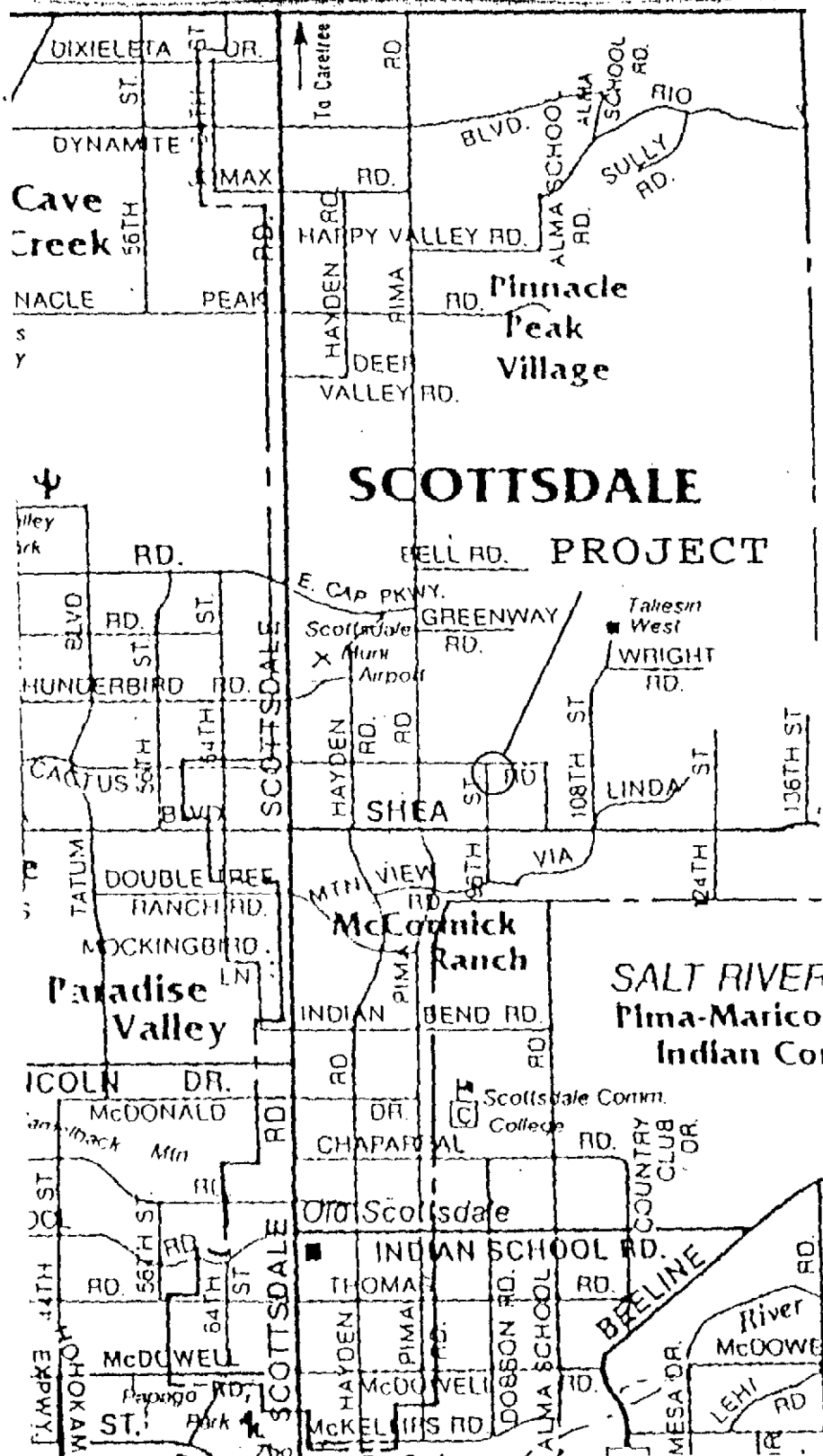
2.0 SITE DESCRIPTION

The subject property has been developed in a manner consistent with the operation of a commercial equestrian facility. The site contains a large covered show arena with attached horse stalls, several covered stall areas and barns, feed storage, training arenas, two residential homes, over 5 acres of pasture, parking areas and other smaller facilities. The predominate surface of the facility is compacted native soil. The pastures are surfaced with wood shavings and manure turned into the top 18" of native soil. A large detention pond is located near the southwest corner of the property; northeast of the existing residence on the corner. There are several drain tiles and a small shallow swale leading into the pond. The pond overflows across the southwest corner and across Cortez Road into the swale along the east side of 96th Street. The overflow tends to cause severe ponding on Cortez at the intersection with 96th Street.

The west half of 96th Street is paved with asphalt and vertical curb and gutter. The drainage swale along the east side of 96th Street is an unlined channel. See figure 2.1 channel section. There are three entrances into the site across the swale. Both entrances are culverted with 1-24" CMP pipe with head walls.

Cortez Road along the south is surfaced with gravel. Cortez Road provides access to three developed and one undeveloped residential lots. Cortez Road does not act as a through street from 96th to 98th, as the road is obstructed by a dirt mound. Cortez Road crosses the swale along 96th Street over 2-24" CMP pipes.

The site is extremely flat, sloping slightly to the southwest. There is very little physical evidence of surface drainage on the site. After the most recent rain there were numerous small shallow ponding areas on the site.



LOCATION MAP

The site is located in Flood Zone B according to the current FIRM, prepared by FEMA.

The subject property is currently zoned R1-35. A special use permit was previously obtained for the commercial equestrian operation. The developer proposes to rezone the property to R1-18 PRD.

3.0 SURROUNDING AREA DRAINAGE DESCRIPTION

The subject property lies within a portion of the City of Scottsdale that was originally preserved for a residential equestrian life style. The main character of the area was to be large acreage lots, one acre minimum, with attached horse facilities. Minimal street improvements were installed with many streets left unpaved. This concept of an equestrian life style was consistent when much of the area and the area to north was undeveloped desert and available for riding. Over the relatively recent years the surrounding area has experienced considerable residential development, with densities of two units to the acre and greater.

The subject property was included in the Pima/Doubletree Area Master Drainage Plan (P/D MP) prepared by Boyle Engineering Corporation, November 1989. The purpose of the study was to evaluate the drainage facilities constructed with the development of the surrounding areas in conjunction with the existing horse properties and to make recommendations on facilities required to complete the drainage system.

The subject property is within the D40 sub basin per the P/D MP. Drainage north of Cactus Road does not enter the subject property but drains to the swale along 96th Street. The P/D MP determined the existing runoff and compared it to the channel capacity for the reach along the property frontage. According to the study the 100 year runoff Q at Cactus is 32 CFS and at Cholla is 178 CFS and the channel capacity at Cholla is 85 CFS. Page 7 and exhibit 1 are included in the appendix for reference. The channel currently is undersized at Cholla. The P/D MP provides several alternatives for improvements to the watershed contributing flows to this reach of the channel which would mitigate the capacity problem, however these improvements have not been undertaken to date. The channel will be enlarged to the appropriate capacity, as part of the improvements for the project. A preliminary channel sizing is included in the appendix of this report.

4.0 STORM WATER MANAGEMENT FACILITY DESIGN

As previously described in section 2.0, there are no prominent drainage conveyance facilities within the site. Per section 3.0,

36

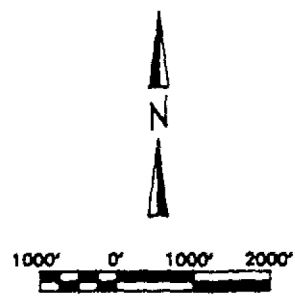
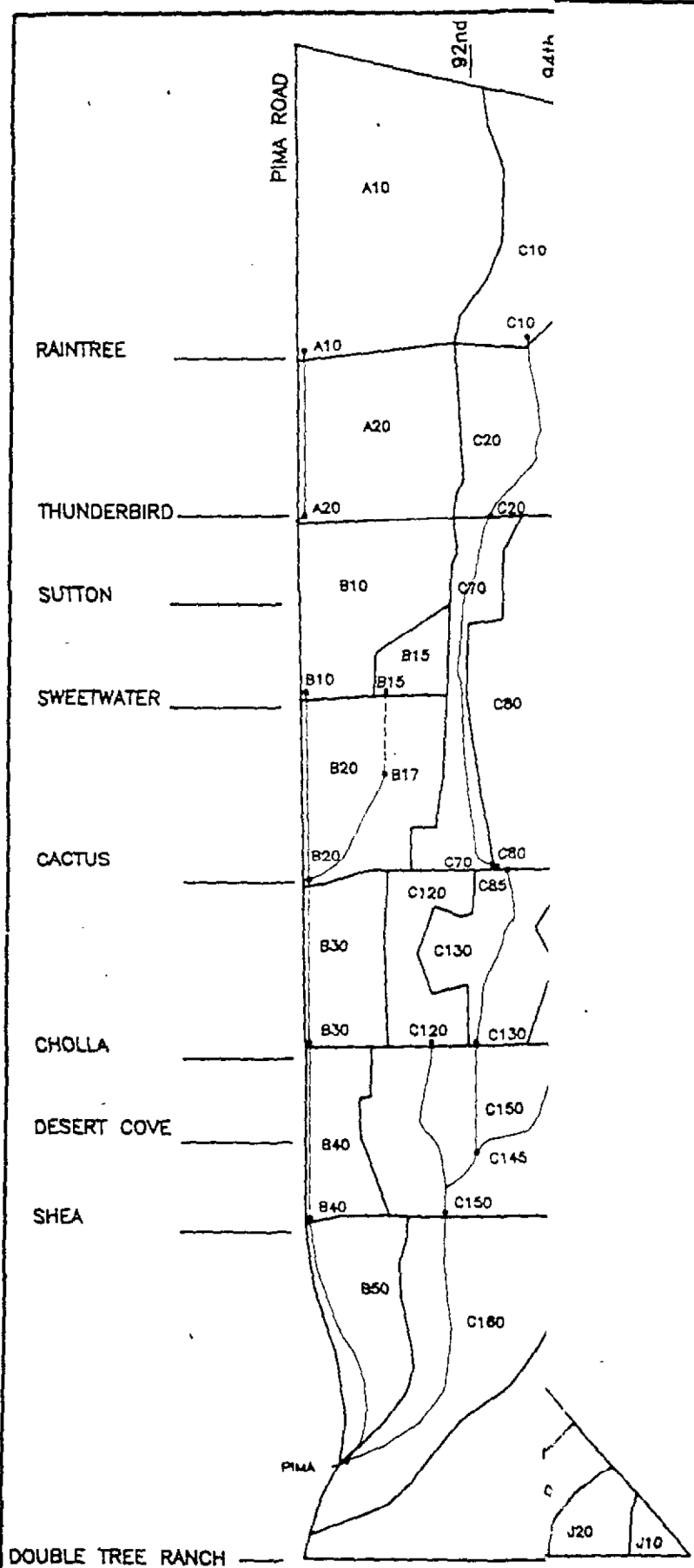
the existing outfall for drainage from the property is the channel along 96th Street. This channel does not have the required capacity to convey the existing predevelopment flows, therefore retention facilities will be provided to control storm water within the site, in accordance with City of Scottsdale Revised Code. The retention facilities will be designed to store the runoff generated from the 100 year 2 hour duration event. The appendix contains the computations which establish the amount of retention required. Retention capacity was not provided for the east half of 96th Street and the adjacent swale and the north half of Cortez Road because these areas do not drain toward the site. The required quantity of retention is 119,640 cubic feet. The retention basins will be drained within 95 hours per City of Scottsdale Revised Code. Basin design will include percolation if soil tests permit or a bleed-off system into the 96th Street swale.

The retention requirement will be satisfied by several landscape areas planned within the project and on the project perimeter. The preliminary drainage plan shows the drainage areas and the retention basin serving each area. The retention basin sizing and the required volumes are located in the appendix.

The streets within the project will act as storm water carriers, in accordance with City of Scottsdale requirements. The streets will be designed to convey the runoff from the 10-year storm event based on the rational method of runoff analysis using a runoff coefficient of C-0 57. The appendix contains the calculation verifying the street capacity.

The finish floors will be established above the elevation of the floodwater from the 100-year event storm, in accordance with City of Scottsdale revised code and FEMA regulations, the final grading plan for the project will establish the finish floors, which will be certified by an engineer registered in the State of Arizona.

EXHIBIT 1



LEGEND

FB0	SUB BASIN
---	EXISTING DRAINAGEWAY
---	EXISTING STREET FLOW
▨	EXISTING STORAGE
D30	DRAINAGE NODE

EXISTING HYDROLOGIC MAP

Project Data:

Project Acreage: 22.8 Phase I
 10.39 Phase II
 33.19 Total
 Number of Lots: 38 Phase I
 15 Phase II
 (53 Total)
 Existing Zoning: R1-35
 Proposed Zoning: R1-18

Ⓢ Indicates one-story/19' building hgt. limit.

Sunnyside Drive

R1-35 PCD Equestrian Trail

20' min. Landscape Setback

Poinsetta Drive Entry

R1-43 PCD

Maintain Existing Trees & Supplement w/ Desert Shrubs

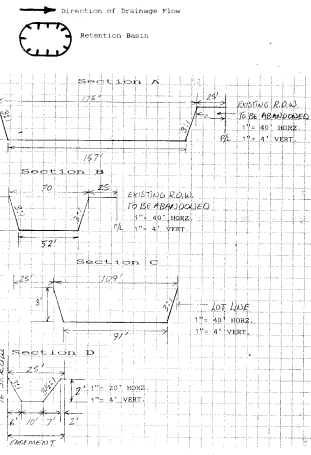
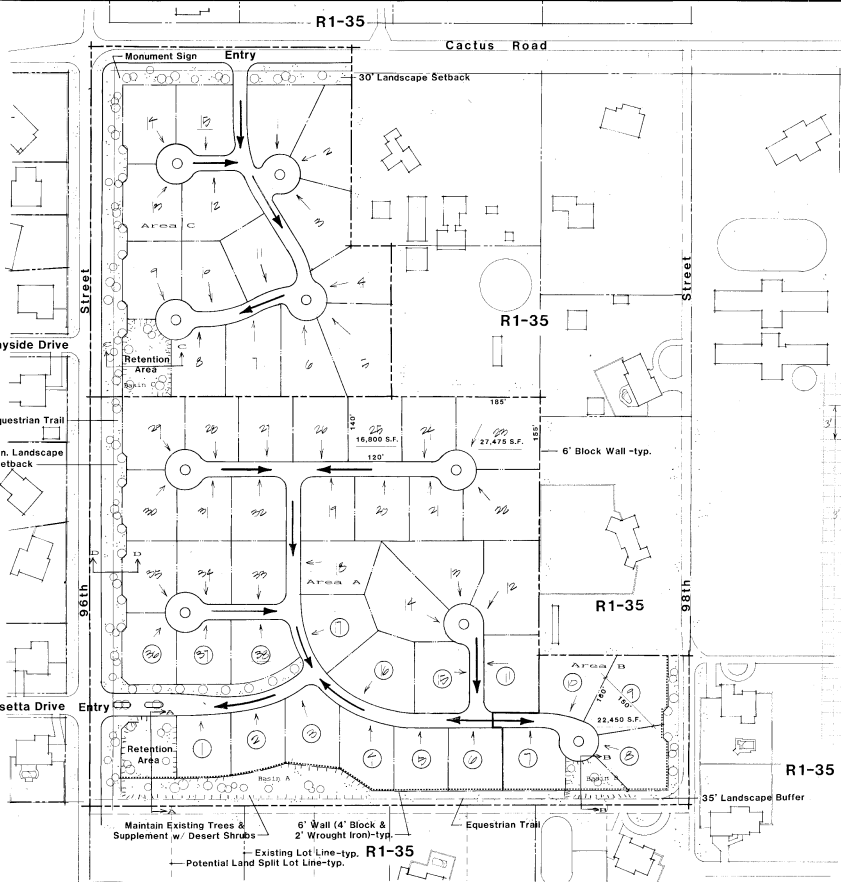
6" Wall (4" Block & 2" Wrought Iron)-typ.
 Existing Lot Line-typ. R1-35
 Potential Land Split Lot Line-typ.

Equestrian Trail

R1-35 PRD

DEVELOPMENT COORDINATION GROUP, L.L.C.
 Land Development Management Consultants

6901 E. Camelback • Suite B-111 • Scottsdale, AZ 85251



Revised 4/10/21

G. WILLIAM LARSON ASSOC., INC.
 (602) 837-0837

Conceptual Development Study for: **CONCEPTUAL DRAINAGE PLAN**
La Cienega
 Scottsdale, Arizona

North
 Scale: 1"=100'
 DATE: []
 DRAWN: []
 REVISED: []

2-ZN-92

The offsite flow from the East onto Lot 1 is cut off by the CMU wall existing on the property to the East, South of the CMU wall begins the pilaster and wrought iron fence on the Bellissima Estates property, which has historically allowed any sheet flow that may exist flow onto the site from the East. It appears that this may occur in some locations and not in others but will be minimal in those instances where flow may come from the East.

When the wrought iron is replaced with CMU the bottom course of CMU will allow for sheet flow by turning blocks on their side to accommodate it. The objective of this report has been to size the site storm retention for the 100-yr. storm event, retaining the difference between the pre-development and post-development runoff volumes. Important to the design was to assure that the peak runoff from the developed site would not overflow the retention basin designed. The basin volume has been calculated to accommodate that excess volume, per the discussion in Section 3 of this report. Given this analysis it can be determined that there will be no adverse impact upstream or downstream upon any of the adjacent residents.

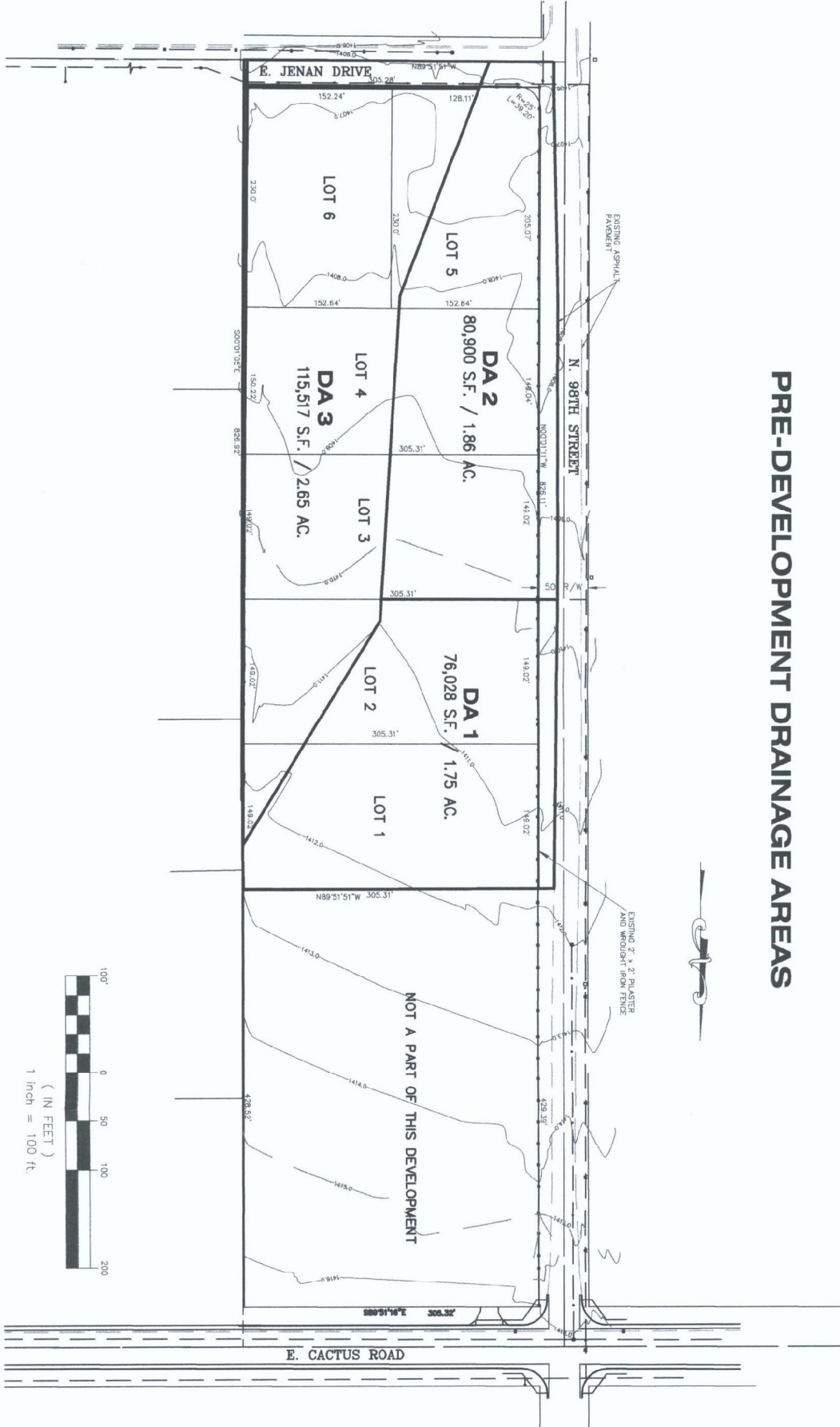
7. WARNING AND DISCLAIMER OF LIABILITY:

The "Warning and Disclaimer of Liability" document located in the City Design Standards & Policies Manual has been signed and included in the Appendix.

8. REFERENCES:

Maricopa County Flood Control "Drainage Design Manual" (Volume 1 Hydrology)
City of Scottsdale "Design Standards & Policies Manual"

PRE-DEVELOPMENT DRAINAGE AREAS



ROSENDAHL ENGINEERING
 857 N. BARKLEY ST. (480) 599-1263 TEL
 MESA, ARIZONA 85203 (480) 834-2163 FAX

BELLISSIMA ESTATES

PROJECT NO. 160489
 DATE 1/30/17
 SHEET 1 OF 1

FIGURE 1 PG. 6



7-MD-2020
1/27/2021

Development Application

Review Methodologies



Review Methodologies

The City of Scottsdale maintains a business and resident friendly approach to new development and improvements to existing developments. In order to provide for flexibility in the review of Development Applications, and Applications for Permitting, the City of Scottsdale provides two methodologies from which an owner or agent may choose to have the City process the application. The methodologies are:

1. Enhanced Application Review Methodology

Within the parameters of the Regulatory Bill-of-Rights of the Arizona Revised Statutes, the Enhanced Application Review method is intended to increase the likelihood that the applicant will obtain an earlier favorable written decision or recommendation upon completion of the city's reviews. To accomplish this objective, the Enhanced Application Review allows:

- the applicant and City staff to maintain open and frequent communication (written, electronic, telephone, meeting, etc.) during the application review;
- City staff and the applicant to collaboratively work together regarding an application; and
- City staff to make requests for additional information and the applicant to submit revisions to address code, ordinance, or policy deficiencies in an expeditious manner.

Generally, the on-going communication and the collaborative work environment will allow the review of an application to be expedited within the published Staff Review Time frames.

2. Standard Application Review Methodology:

Under the Standard Application Review, the application is processed in accordance with the Regulatory Bill-of-Rights of the Arizona Revised Statutes. These provisions significantly minimize the applicant's ability to collaboratively work with City Staff to resolve application code, ordinance, or policy deficiencies during the review of an application. After the completion the city's review, a written approval or denial, recommendation of approval or denial, or a written request for additional information will be provided.

The City is not required to provide an applicant the opportunity to resolve application deficiencies, and staff is not permitted to discuss or request additional information that may otherwise resolve a deficiency during the time the City has the application. Since the applicant's ability to collaboratively work with Staff's to resolve deficiencies is limited, the total Staff Review Time and the likelihood of a written denial, or recommendation of denial is significantly increased.

In addition to the information above, please review the Development Application, and/or the Application for Permitting flow charts. These flow charts provide a step-by-step graphic representation of the application processes for the associated review methodologies.

Note:

1. Please see the Current Planning Services and Long Range Planning Services Substantive Policy Statements and Staff Review Timeframes for Development Applications, number III.

Planning and Development Services

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Development Application

Arizona Revised Statutes Notice



§9-834. Prohibited acts by municipalities and employees; enforcement; notice

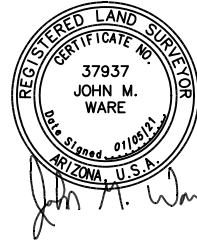
- A. A municipality shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule, ordinance or code. A general grant of authority does not constitute a basis for imposing a licensing requirement or condition unless the authority specifically authorizes the requirement or condition.
- B. Unless specifically authorized, a municipality shall avoid duplication of other laws that do not enhance regulatory clarity and shall avoid dual permitting to the maximum extent practicable.
- C. This section does not prohibit municipal flexibility to issue licenses or adopt ordinances or codes.
- D. A municipality shall not request or initiate discussions with a person about waiving that person's rights.
- E. This section may be enforced in a private civil action and relief may be awarded against a municipality. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against a municipality for a violation of this section.
- F. A municipal employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the municipality's adopted personnel policy.
- G. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.

Planning and Development Services

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Lot: DFC LOT 1

PNT#	Bearing	Distance	Northing	Easting	Station
21			943402.843	718235.749	0.000
	N 00°01'11" W	160.046			
22			943562.889	718235.694	160.046
Radius: 15.000 Length: 23.517 Chord: 21.181 Delta: 89°49'43" Chord BRG: N 44°56'02" W Rad-In: S 89°58'49" W Rad-Out: S 00°09'06" W Radius Pt: 23 943562.883,718220.694 Tangent: 14.955 Dir: Left Tangent-In: N 00°01'11" W Tangent-Out: N 89°50'54" W Tangential-In Tangential-Out					
24			943577.883	718220.733	183.563
	N 89°50'54" W	270.271			
25			943578.599	717950.463	453.834
	N 00°01'09" W	20.000			
26			943598.599	717950.456	473.834
	S 89°50'54" E	305.226			
27			943597.791	718255.682	779.060
	S 00°01'11" E	195.001			
28			943402.790	718255.749	974.061
	N 89°50'54" W	20.000			
21			943402.843	718235.749	994.061
Closure Error Distance> 0.00000 Total Distance> 994.061 Area: 9652 Sq. Feet, 0.2216 Acres					



Lot: DFC LOT 2

PNT#	Bearing	Distance	Northing	Easting	Station
29			943164.233	718251.343	0.000
	N 89°51'26" W	20.000			
30			943164.282	718231.343	20.000
	N 00°01'11" W	46.138			
31			943210.421	718231.327	66.138
	S 89°58'49" W	5.000			
32			943210.419	718226.327	71.138
	N 00°01'11" W	26.000			
33			943236.419	718226.318	97.138
	N 89°58'49" E	5.000			
34			943236.421	718231.318	102.138
	N 00°01'11" W	65.030			
35			943301.451	718231.296	167.169
	S 89°58'49" W	5.000			
36			943301.449	718226.296	172.169
	N 00°01'11" W	26.000			
37			943327.449	718226.287	198.169
	N 89°58'49" E	5.000			
38			943327.451	718231.287	203.169
	N 00°01'11" W	34.850			
39			943362.301	718231.275	238.019
	S 89°50'54" E	20.000			
40			943362.248	718251.275	258.019
	S 00°01'11" E	198.015			
29			943164.233	718251.343	456.034
Closure Error Distance> 0.00000 Total Distance> 456.034 Area: 4220 Sq. Feet, 0.0969 Acres					

Lot: DFC LOT 3

PNT#	Bearing	Distance	Northing	Easting	Station
41			943116.023	718175.184	0.000
	S 89°51'26" E	64.000			
42			943115.864	718239.184	64.000
	S 00°01'11" E	74.000			
43			943041.864	718239.209	138.000
	N 89°51'26" W	64.000			
44			943042.023	718175.209	202.000
	N 00°01'11" W	74.000			
41			943116.023	718175.184	276.000
Closure Error Distance> 0.00000 Total Distance> 276.000 Area: 4736 Sq. Feet, 0.1087 Acres					







Benjamin Njuguna

From: Rahman, Mohammad <MRahman@scottsdaleaz.gov>
Sent: Monday, November 30, 2020 11:32 AM
To: Benjamin Njuguna
Subject: RE: 11880 N 98th Street-Case Check # 7-MD-2020 Follow-up

That's pretty much it. However, please make sure to allow OFF-3 and OFF-4 to join the proposed channel at their historical locations naturally or by means of engineered grading and provide stability and/or erosion protection.

Thanks,
Mohammad

From: Benjamin Njuguna <benjamin@tng-consulting.net>
Sent: Monday, November 30, 2020 9:30 AM
To: Rahman, Mohammad <MRahman@scottsdaleaz.gov>
Subject: RE: 11880 N 98th Street-Case Check # 7-MD-2020 Follow-up

⚠ External Email: Please use caution if opening links or attachments!

Mohammad,

Below is a quick summary of my understanding of the drainage issues we discussed in our phone call last week on the MD project above.

Please review and let me know if you have any comments:

1. Upon review of old aerial photos of the Site, it was not clear to the City whether the perimeter walls along the south and west edge of the Site were first put up by the Subdivision (La Cienega) or the owner of the Site. Nevertheless, the City is open to an amicable solution that will allow the development of the Site to proceed.
2. The City concurs with the drainage concept presented in Exhibit 4 of the Preliminary Drainage Report, but with a few tweaks:
 - a. Construct new drainage channel per City standards along the north and east edge of the Site, sized to convey the flow associated with drainage from the offsite drainage areas that currently flow towards the southwest corner of the Site (OFF-1 and OFF-2). Drainage from other offsite drainage areas identified in the study (OFF-3 and OFF-4) shall continue to flow past the Site as they currently do. A drainage easement shall be required to be dedicated along the length of the Channel.
 - b. Create a dry or wet crossing per City standards, at the existing house (future Lot 2) driveway entrance. Similar driveways will be required for the other two lots, when the improvements for these lots come on-line. Drainage easement(s) will be required to cover the calculated width of flow at the proposed driveway crossings.
 - c. Proposed drainage channel shall run to the northeast corner of the Future Lot 3, where it will outfall into a proposed retention basin located there. This basin shall be sized to provide the retention requirements for Lot 3 (developed conditions) and also be upsized to provide additional volume as required to attenuate the flow conveyed in the new channel to be released at no higher than pre-development conditions' flow rate. A drainage easement around the retention basin shall also be required.
 - d. A preliminary grading and drainage plan shall be required.
 - e. Final/Proposed Conditions' Lot 1 and Lot 3 shall be graded to drain to the east. No lot specific grading other than what's outlined above shall be required for the MD.

Next Steps:

- A revised Preliminary Drainage Report and Preliminary Grading & Drainage Plan will be required to be resubmitted for review before approval of the MD.
- Final G&D and Drainage Report for the improvements outlined above shall be required for the Final Plat.

- Individual G&D plans shall be required for future single family home developments on Lot 1 and Lot 3.

Thanks.

Benjamin Njuguna, P.E.
Principal Engineer
TNG Consulting, LLC
Phone: 480-352-7039
Email: BenjaminN@tng-consulting.net
Website: www.tng-consulting.net

From: Rahman, Mohammad [<mailto:MRahman@scottsdaleaz.gov>]
Sent: Tuesday, November 24, 2020 12:36 PM
To: Benjamin Njuguna <benjaminn@tng-consulting.net>
Subject: RE: 11880 N 98th Street-Case Check # 7-MD-2020 Follow-up

I was in a meeting. I'll call you after 1:00.

From: Benjamin Njuguna <benjaminn@tng-consulting.net>
Sent: Tuesday, November 24, 2020 10:41 AM
To: Rahman, Mohammad <MRahman@scottsdaleaz.gov>
Subject: RE: 11880 N 98th Street-Case Check # 7-MD-2020 Follow-up

⚠ External Email: Please use caution if opening links or attachments!

Mohammad,
11.30 am or any time after 1 pm works for me.

Thanks.

Benjamin Njuguna, P.E.
Principal Engineer
TNG Consulting, LLC
Phone: 480-352-7039
Email: BenjaminN@tng-consulting.net
Website: www.tng-consulting.net

From: Rahman, Mohammad [<mailto:MRahman@scottsdaleaz.gov>]
Sent: Tuesday, November 24, 2020 10:15 AM
To: Benjamin Njuguna <benjaminn@tng-consulting.net>
Subject: RE: 11880 N 98th Street-Case Check # 7-MD-2020 Follow-up

Benjamin,

I spoke with Rich yesterday. What time works for you today for a brief discussion?

Thanks,
Mohammad

From: Benjamin Njuguna <benjaminn@tng-consulting.net>
Sent: Monday, November 23, 2020 9:42 AM
To: Rahman, Mohammad <MRahman@scottsdaleaz.gov>
Subject: 11880 N 98th Street-Case Check # 7-MD-2020 Follow-up

⚠ External Email: Please use caution if opening links or attachments!

Mohammad,

As discussed in our conference call for the above project on Friday, an unusual drainage condition was created at the Site by the residential development to the South, which blocked the historical outfall at the Southwest corner. Please check with Richard to confirm which of the options below the City will support as an acceptable final drainage design solution for the proposed development (3-lot split).

1. Offsite drainage from the be captured and routed to the southeast corner of the Site via a proposed drainage channel, as presented in the preliminary drainage report, exhibit 4.
2. Allow offsite drainage to continue flowing through the site (Lots 1, 2, 3) as it currently does and to address it on the south lot by:
 - a. Create a storm water retention basin at the current lowest spot (southwest corner).
 - b. Re-grade the South lot to have the retention basin located to the east edge (front yard), where the required drainage & access easements would have less impact to the useable space on the Site.

Let me know your thoughts

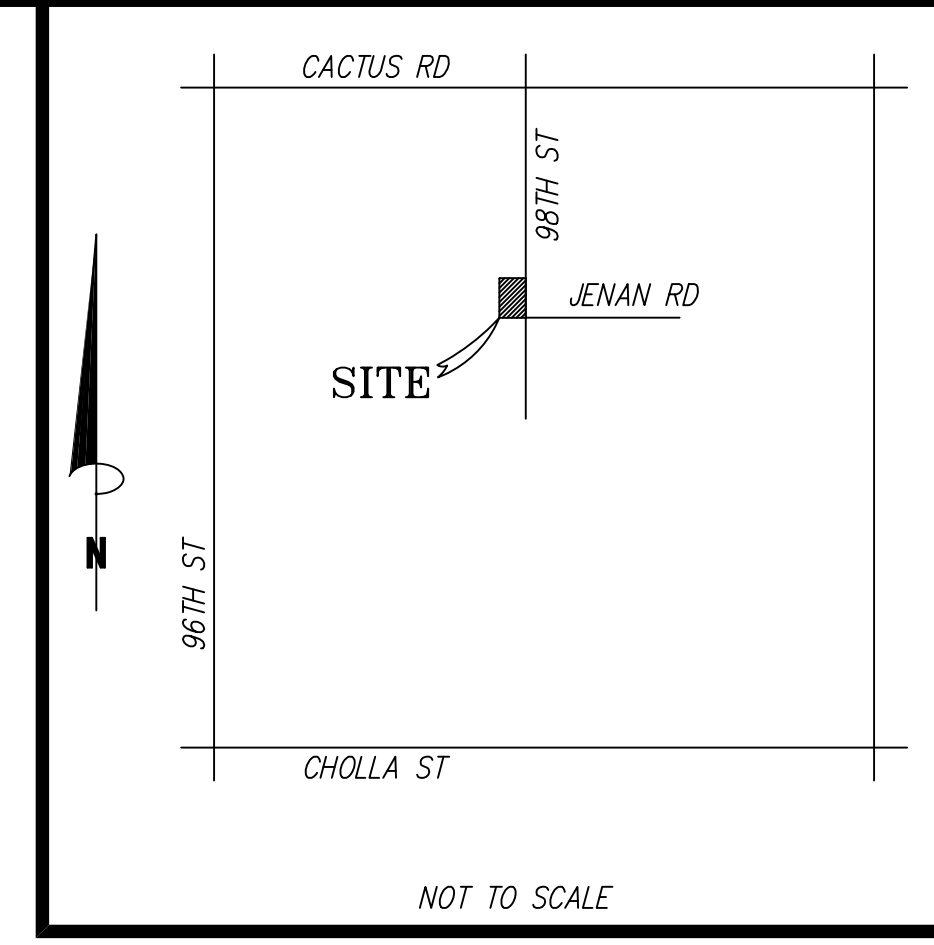
Thanks.

Benjamin Njuguna, P.E.
Principal Engineer
TNG Consulting, LLC
Phone: 480-352-7039
Email: BenjaminN@tng-consulting.net
Website: www.tng-consulting.net



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MINOR LAND DIVISION
HEART LAND ACRES
A PORTION OF THE NORTHWEST QUARTER, SECTION 20,
TOWNSHIP 3 NORTH, RANGE 5 EAST,
GILA & SALT RIVER BASE & MERIDIAN, CITY OF SCOTTSDALE,
COUNTY OF MARICOPA, STATE OF ARIZONA.
OWNER: SOHOME AZ., AN ARIZONA CORPORATION



NOT TO SCALE

PROJECT: XXX-PA-2020

PLAN CHECK # XXXX-20

DEDICATION:

STATE OF ARIZONA)
) S.S.
COUNTY OF MARICOPA)

SOHOME AZ., AN ARIZONA CORPORATION, AS OWNER HEREBY SUBDIVIDES A PORTION OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, UNDER THE NAME "9 NORTH", AS SHOWN ON THIS PLAT. THIS PLAT SETS FORTH THE LOCATION AND GIVES THE DIMENSIONS OF THE LOTS, TRACTS, STREETS AND EASEMENTS CONSTITUTING THE SUBDIVISION. EACH LOT, TRACT, STREET AND EASEMENT SHALL BE KNOWN BY THE NUMBER, LETTER, NAME OR DEASEMENTS:

SOHOME AZ., AN ARIZONA CORPORATION, OWNER GRANTOR, DEDICATES TO THE CITY OF SCOTTSDALE, AN ARIZONA MUNICIPAL CORPORATION, GRANTEE: ESCRIPTION GIVEN EACH RESPECTIVELY ON THIS PLAT. THE EASEMENTS ARE DEDICATED FOR THE PURPOSES, AND SUBJECT TO CONDITIONS, STATED.

DRAINAGE AND FLOOD CONTROL (DFC):
A PEPTUAL, NON-EXCLUSIVE EASEMENT SHOWN HEREON AS TRACT A, B, AND C, UPON, OVER, UNDER AND ACROSS THE PROPERTY ON THIS PLAT, FOR DRAINAGE AND FLOOD CONTROL AND ALL RELATED PURPOSES, INCLUDING WITHOUT LIMITATION, CONSTRUCTION, MAINTENANCE, OPERATION, REPLACEMENT, AND REPAIR OF LEVEES, DIKES, DAMS, STORMWATER STORAGE BASINS, STORM DRAINS, CHANNELS, IMPROVEMENTS, WASHES, WATERCOURSES AND OTHER DRAINAGE OR FLOOD CONTROL FACILITIES (COLLECTIVELY, "DRAINAGE FACILITIES"), SUBJECT TO FOLLOWING:

1. GRANTOR IS RESPONSIBLE FOR ALL DRAINAGE FACILITIES ON THE PROPERTY
2. GRANTOR SHALL NOT CONSTRUCT, OBSTRUCT OR ALTER ANY DRAINAGE FACILITIES ON THE PROPERTY WITHOUT GRANTEE'S PRIOR WRITTEN CONSENT.
3. DRAINAGE FACILITIES ON THE PROPERTY MIGHT NOT BE OBVIOUS. LACK OF AWARENESS OF DRAINAGE FACILITIES DOES NOT EXCUSE FAILURE TO PERFORM THE REQUIREMENTS OF THIS DOCUMENT.
4. AT GRANTOR'S EXPENSE, GRANTOR SHALL MAINTAIN DRAINAGE FACILITIES IN GOOD CONDITION; REPLACE AND REPAIR DRAINAGE FACILITIES AS NECESSARY TO MAINTAIN THEIR FLOOD CARRYING OR STORAGE CAPACITY; PREVENT EROSION; AND PREVENT AND REFUSE, DEBRIS, SEDIMENT, VEGETATION, OR OTHER OBSTRUCTION FROM ACCUMULATING IN DRAINAGE FACILITIES. GRANTEE IS NOT OBLIGED TO PERFORM ANY SUCH WORK.
5. IF, IN GRANTEE'S OPINION, GRANTOR FAILS TO DO SUCH WORK, THEN GRANTEE MAY DO WORK AT GRANTOR'S EXPENSE. IN ADDITION TO GRANTEE'S OTHER REMEDIES, THE COST OF THE WORK SHALL BE SECURED BY A LIEN THAT GRANTOR HEREBY GRANTS AGAINST THE PROPERTY, WITH INTREST AT THE ANNUAL RATE OF EIGHT PERCENT (8%).
6. GRANTOR SHALL INDEMNIFY, DEFEND AND HOLD GRANTEE HARMLESS AGAINST GRANTOR'S FAILURE TO PERFORM UNDER THIS DOCUMENT.

GRANTOR WARRANTS AND COVENANTS TO GRANTEE AND ITS SUCCESSORS AND ASSIGNS THAT GRANTOR IS LAWFULLY SEIZED AND POSSESSED OF THE PROPERTY; THAT GRANTOR HAS A GOOD AND LAWFUL RIGHT TO MAKE THE CONVEYANCE DESCRIBED HEREIN; AND THAT GRANTEE SHALL HAVE TITLE AND QUIET POSSESSION AGAINST THE CLAIMS OF ALL PERSONS.

THE PERSON EXECUTING THIS DOCUMENT ON BEHALF OF A CORPORATION, TRUST OR OTHER ORGANIZATION WARRANTS HIS OR HER AUTHORITY TO DO SO AND THAT ALL PERSONS NECESSARY TO BIND GRANTOR HAVE JOINED IN THIS DOCUMENT. THIS DOCUMENT RUNS WITH THE LAND IN FAVOR OF GRANTEE'S SUCCESSORS AND ASSIGNS.

DATED THIS _____ DAY OF _____, 2020.

GRANTOR: SOHOME AZ., AN ARIZONA CORPORATION

BY: _____

ACKNOWLEDGMENT

STATE OF ARIZONA)
) S.S.
COUNTY OF MARICOPA)

THIS DOCUMENT WAS ACKNOWLEDGED BEFORE ME, THIS _____ DAY OF _____, 2020,

BY _____ FOR AND BEHALF OF SOHOME AZ., AN ARIZONA CORPORATION

NOTARY PUBLIC: _____

MY COMMISSION EXPIRES: _____

PERTINENT DOCUMENTS

COMMONWEALTH LAND TITLE INSURANCE COMPANY ORDER NO. 01943653-265-MRA-LD

- 361-13 MCR (R1)
- 715-12 MCR (R2)
- 1371-13 MCR (R3)

BASIS OF BEARING

NAD 83, EPOCH 1992, INTERNATIONAL UNITS, ARIZONA CENTRAL, PER GPS OBSERVATION

EXISTING EASEMENTS & RIGHT OF WAYS

- 1. 25' RIGHT OF WAY PER DOCKET 16173, PAGE 1216 & DOCKET 16237, PAGE 96, MCR

BENCHMARK

GDAC UNIQUE PID: 2247

DESCRIPTION: FD 3" SCOTTSDALE BC 0.1' DN NO STAMPING

ELEVATION: 1,408.164 (NAVD '88)

PROVIDED BY MCDOT

CITY OF SCOTTSDALE STAFF PLAT APPROVAL

THIS PLAT HAS BEEN REVIEWED FOR COMPLIANCE WITH THE CITY OF SCOTTSDALE'S DESIGN STANDARDS AND POLICY MANUAL

BY: _____ CHIEF DEVELOPMENT OFFICER _____ DATE _____

THIS SUBDIVISION HAS BEEN REVIEWED FOR COMPLIANCE WITH THE DEVELOPMENT STANDARDS OF THE CITY OF SCOTTSDALE'S DEVELOPMENT REVIEW BOARD (DRB) CASE NO. NA, AND ZONING CASE(S) NO. NA AND ALL CASE RELATED STIPULATIONS.

BY: _____ DEVELOPMENT ENGINEERING MANAGER _____ DATE _____

OWNER

SOHOME AZ., AN ARIZONA CORPORATION

ADDRESS: 10601 NORTH HAYDEN ROAD, SUITE 100 SCOTTSDALE, ARIZONA 85260

PHONE: 602-999-4206

SITE INFORMATION

SITE ADDRESS: 11880 N 98TH STREET, SCOTTSDALE, ARIZONA 85250

APN: 217-26-004F

ZONING: R1-35

GROSS AREA PER THIS SURVEY: 161,172 SQUARE FEET +/-

PARENT PARCEL LEGAL DESCRIPTIONS

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF MARICOPA, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

PARCEL NO. 1:
THE SOUTH 4 ACRES OF THE EAST HALF OF THE EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 EAST, OF THE GILA SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

PARCEL NO. 2:
AN EASEMENT FOR INGRESS AND EGRESS OVER THE EAST 20 FEET OF THE EAST HALF OF THE EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 20, TOWNSHIP 3 NORTH, RANGE 5 EAST, OF THE GILA SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA; EXCEPT THE SOUTH 4 ACRES THEREOF.
APN: 217-26-004-F

TITLE REFERENCE

THIS SURVEY IS BASED UPON THE TITLE COMMITMENT PREPARED BY COMMONWEALTH LAND TITLE INSURANCE COMPANY ORDER NO. 01943653-265-MRA-LD

ARIZONA SURVEYORS, INC. HAS RELIED SOLELY UPON THE INFORMATION CONTAINED WITHIN THE TITLE COMMITMENT AND SCHEDULE B DOCUMENTS PROVIDED BY FIRST AMERICAN TITLE INSURANCE COMPANY AS LISTED HEREON. ARIZONA SURVEYORS, INC. AND JOHN M. WARE (RLS) MAKE NO STATEMENT AS TO THE ACCURACY OR COMPLETENESS OF THE SUBJECT REPORT.

NOTES

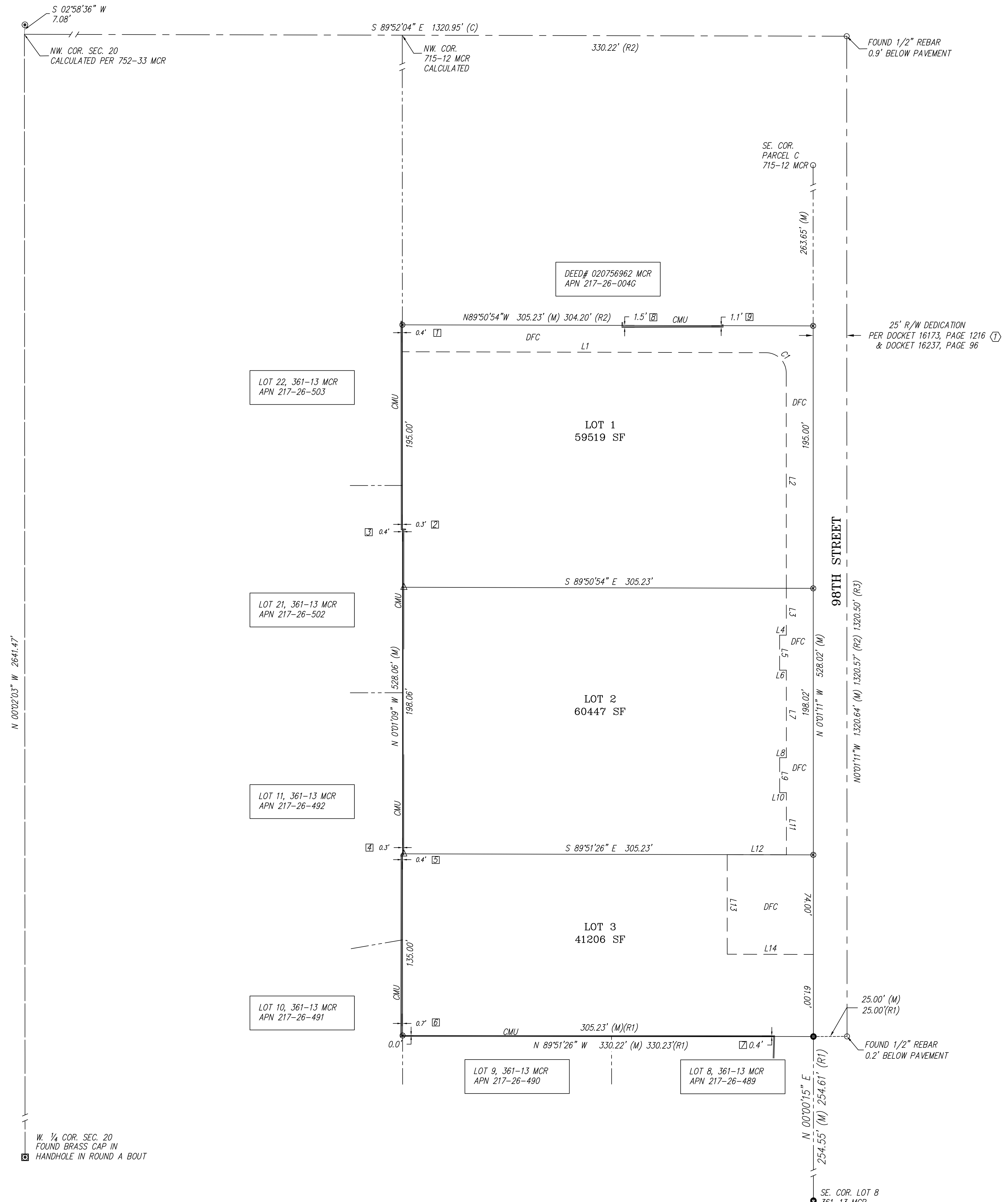
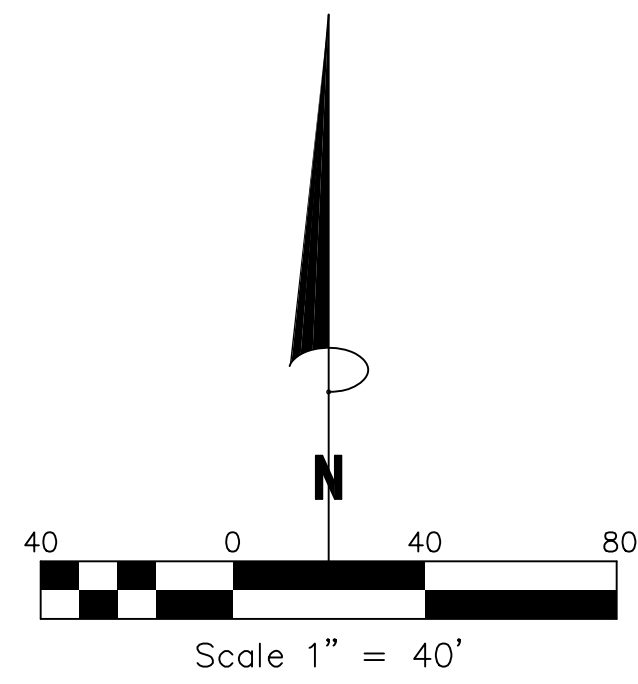
1. MONUMENTS FOUND DURING THIS FIELD SURVEY WERE ACCEPTED UNLESS OTHERWISE NOTED HEREIN.
2. THIS SURVEY WAS CONDUCTED WITH THE BENEFIT OF TITLE REPORTS. THIS SURVEY MAKES NO WARRANTY AS TO THE EXISTENCE OF ANY ADDITIONAL EASEMENTS OF RECORD AND/OR RESTRICTIONS TO AFFECTED PARCELS.
3. IT IS RECOMMENDED THAT THE CLIENT RETAIN LEGAL CONSULTATION TO THOROUGHLY EXAMINE TITLE FOR ANY CLAIMS, DEFECTS OR LIABILITY UNDISCLOSED BY THIS SURVEY.
4. THIS DOCUMENT MUST BE COMPARED TO THE ORIGINAL HARD COPY ISSUE AT THE SURVEY DATE WITH ITS ORIGINAL SEAL TO ENSURE THE ACCURACY OF THE INFORMATION AND TO FURTHER ENSURE THAT NO CHANGES, ALTERATIONS OR MODIFICATIONS HAVE BEEN MADE.
5. ALL BEARINGS AND DISTANCES SHOWN ARE MEASURED FROM MONUMENT TO MONUMENT UNLESS OTHERWISE NOTED.
6. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT REAL ESTATE: EASEMENTS, OTHER THAN POSSIBLE EASEMENTS WHICH WERE VISIBLE AT THE TIME OF MAKING THIS SURVEY; RESTRICTIVE COVENANTS; SUBDIVISION RESTRICTIONS; ZONING OR OTHER LAND USE REGULATIONS, AND ANY OTHER FACTS WHICH AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
7. DECLARATION IS MADE TO ORIGINAL PURCHASER OF THE SURVEY. IT IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
8. ALL SURFACE AND SUBSURFACE IMPROVEMENTS ON AND ADJACENT TO THIS SUBJECT PARCEL ARE NOT NECESSARILY SHOWN.
9. A.R.S. 32-151 STATES THAT THE USE OF THE WORD "CERTIFY" OR "CERTIFICATION" BY A PERSON OR FIRM THAT IS REGISTERED OR CERTIFIED BY THE BOARD IS AN EXPRESSION OF PROFESSIONAL OPINION REGARDING FACTS OR FINDINGS THAT ARE SUBJECT OF THE CERTIFICATION AND DOES NOT CONSTITUTE AN EXPRESS OR IMPLIED WARRANTY OR GUARANTEE.
10. THE POTENTIAL BUYER(S) OF THIS SITE IS HEREBY ADVISED THAT THIS SITE IS SUBJECT TO ARIZONA PLATTING LAWS PRIOR TO THE DEVELOPMENT OF THIS SITE.
11. THIS FIRM IS LICENSED TO PERFORM SPECIFIC SURVEY TASKS. C.C. & R'S, ZONING MATTERS, A.D.A. REQUIREMENTS, LOCAL ORDINANCES, ETC. ARE LEGAL MATTERS AND SHOULD BE REVIEWED BY AN ATTORNEY.
12. THIS DEVELOPMENT IS ON THE CITY OF SCOTTSDALE WATER SYSTEM, WHICH HAS A CERTIFICATION OF A ASSURED WATER SUPPLY.
13. AFFIDAVITS OF CORRECTION OR AMENDMENT TYPE LETTERS CONCERNING THIS PLAT NOT VALID. THERE WILL BE NO REVISIONS TO THIS PLAT WITHOUT THE DEVELOPMENT ENGINEERING MANAGER'S APPROVAL.

CERTIFICATE OF SURVEY

THIS IS TO CERTIFY THAT I AM A LAND SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF ARIZONA; THIS PLAT WAS MADE UNDER MY DIRECTION; THIS PLAT MEETS THE "MINIMUM STANDARDS FOR ARIZONA BOUNDARY SURVEYS"; THIS SURVEY AND DIVISION OF THE SUBJECT PROPERTY DESCRIBED AND PLATTED HEREON WERE MADE DURING THE MONTH OF SEPTEMBER, 2020; THIS SURVEY IS TRUE AND COMPLETE AS SHOWN; MONUMENTS SHOWN ACTUALLY EXIST; THEIR POSITIONS ARE CORRECTLY SHOWN AND SAID MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED.

JOHN M. WARE, RLS 37937 _____

ARIZONA SURVEYORS, INC. 11445 EAST VIA LINDA SUITE 2-447 SCOTTSDALE, ARIZONA 85259-2638 PHONE - (480) 816-9773 E-MAIL: jwazrls@gmail.com WEBSITE: www.arizonasurveyors.com		
MINOR LAND DIVISION		
DRAWN: JMW	JOB NO: HEARTLAND ACRES	DATE: 09/18/2020
CHECK: JMW	SURVEYOR:	
SCALE: 1" = 40'	SHEET: 1 OF 2	



WALL TIES TO PROPERTY LINE □

1. EAST FACE 0.4' WEST OF LINE
2. EAST FACE 0.3' WEST OF LINE
3. WEST FACE 0.4' EAST OF LINE
4. WEST FACE 0.3' EAST OF LINE
5. EAST FACE 0.4' WEST OF LINE
6. EAST FACE 0.7' WEST OF LINE
7. NORTH FACE 0.4' NORTH OF LINE
8. SOUTH FACE 1.5' SOUTH OF LINE
9. SOUTH FACE 1.1' SOUTH OF LINE

LINE	BEARING	DISTANCE
L1	N 89°50'54" W	270.27'
L2	N 00°01'11" W	160.05'
L3	S 00°01'11" E	34.85'
L4	S 89°58'49" W	5.00'
L5	N 00°01'11" W	26.00'
L6	N 89°58'49" E	5.00'
L7	N 00°01'11" W	65.03'
L8	S 89°58'49" W	5.00'
L9	N 00°01'11" W	26.00'
L10	N 89°58'49" E	5.00'
L11	N 00°01'11" W	46.14'
L12	N 89°51'26" W	44.00'
L13	S 00°01'11" E	74.00'
L14	S 89°51'26" E	64.00'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	15.00'	23.52'	21.18'	N 44°56'02" W	89°49'43"

LEGEND:

- EASEMENT LINE
- MONUMENT LINE
- PROPERTY LINE
- ADJOINING LOT LINE
- SECTION MONUMENT AS NOTED
- FOUND 3" CITY OF SCOTTSDALE BRASS CAP FLUSH LS 39326
- FOUND 1/2" REBAR W/TAG RLS 15197
- FOUND 1/2" REBAR
- △ SET NAIL W/TAG RLS 37937 "WC" 1' EAST ON WALL
- ⊗ SET 1/2" REBAR W/CAP RLS 37937
- MCR MARICOPA COUNTY RECORDER
- MCA MARICOPA COUNTY ASSESSOR
- CMU CONCRETE MASONRY UNIT
- DFC DRAINAGE & FLOOD CONTROL EASEMENT
- (C) CALCULATED
- (M) MEASURED
- (R) RECORD PLAT

ARIZONA SURVEYORS, INC.
 11445 EAST VIA LINDA SUITE 2-447
 SCOTTSDALE, ARIZONA 85259-2638
 PHONE - (480) 816-9773
 E-MAIL: jwazrls@gmail.com
 WEBSITE: www.arizonasurveyors.com

MINOR LAND DIVISION

DRAWN: JMW	JOB NO: HEARTLAND ACRES	DATE: 09/18/2020
CHECK: JMW	SURVEYOR: JMW	
SCALE: 1" = 40'	SHEET: 2 OF 2	

PROJECT: XXX-PA-2020 PLAN CHECK # XXXX-XX

Lot Report

Tue Sep 29 11:07:34 2020

Lot: 1

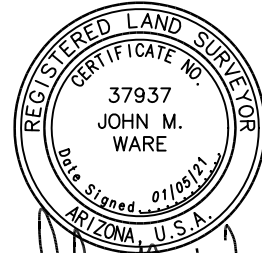
PNT#	Bearing	Distance	Northing	Easting	Station
13			943455.53	716830.28	0.000
	N 00°01'09" W	198.063			
14			943653.59	716830.21	198.063
	S 89°50'54" E	305.228			
15			943652.78	717135.44	503.291
	S 00°01'11" E	198.015			
16			943454.77	717135.51	701.306
	N 89°51'26" W	305.229			
13			943455.53	716830.28	1006.535

Closure Error Distance> 0.00102 Error Bearing> S 50°16'19" W
 Closure Precision> 1 in 989559.7 Total Distance> 1006.535
 Area: 60446.9 Sq. Feet, 1.39 Acres

Lot: 2

PNT#	Bearing	Distance	Northing	Easting	Station
17			943652.01	716478.19	0.000
	N 00°01'09" W	195.001			
18			943847.01	716478.12	195.001
	S 89°50'54" E	305.226			
19			943846.20	716783.35	500.227
	S 00°01'11" E	195.001			
20			943651.20	716783.42	695.228
	N 89°50'54" W	305.228			
17			943652.01	716478.19	1000.456

Closure Error Distance> 0.00011 Error Bearing> S 86°53'20" E
 Closure Precision> 1 in 9147337.6 Total Distance> 1000.456
 Area: 59519.2 Sq. Feet, 1.37 Acres



John M. Ware

Lot: 3

PNT#	Bearing	Distance	Northing	Easting	Station
9			944874.62	716639.22	0.000
	S 00°01'11" E	185.001			
10			944689.62	716639.28	185.001
	N 89°50'54" W	305.228			
11			944690.42	716334.06	490.228
	N 00°01'09" W	185.001			
12			944875.42	716334.00	675.229
	S 89°50'54" E	305.226			
9			944874.62	716639.22	980.455

Closure Error Distance> 0.00021 Error Bearing> S 88°21'36" E
 Closure Precision> 1 in 4753554.7 Total Distance> 980.455
 Area: 56467.0 Sq. Feet, 1.30 Acres

Narrative

Divide APN 217-26-004F, 11880 North 98th Street into 3 lots.

STORMWATER REVIEW BY:
Mohammad Rahman, PE, CFM
Phone: 480-312-2563
Email: mrahman@scottsdaleaz.gov
CASE CHECK#: 7-MD-2020
DATE: NOVEMBER 16, 2020
REVIEW CYCLE: 1ST
STATUS: CORRECTIONS



TNG Consulting, LLC

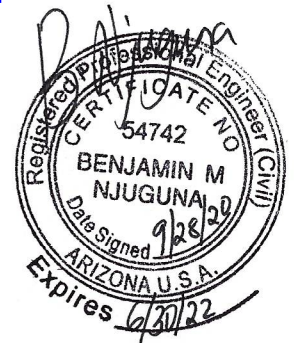
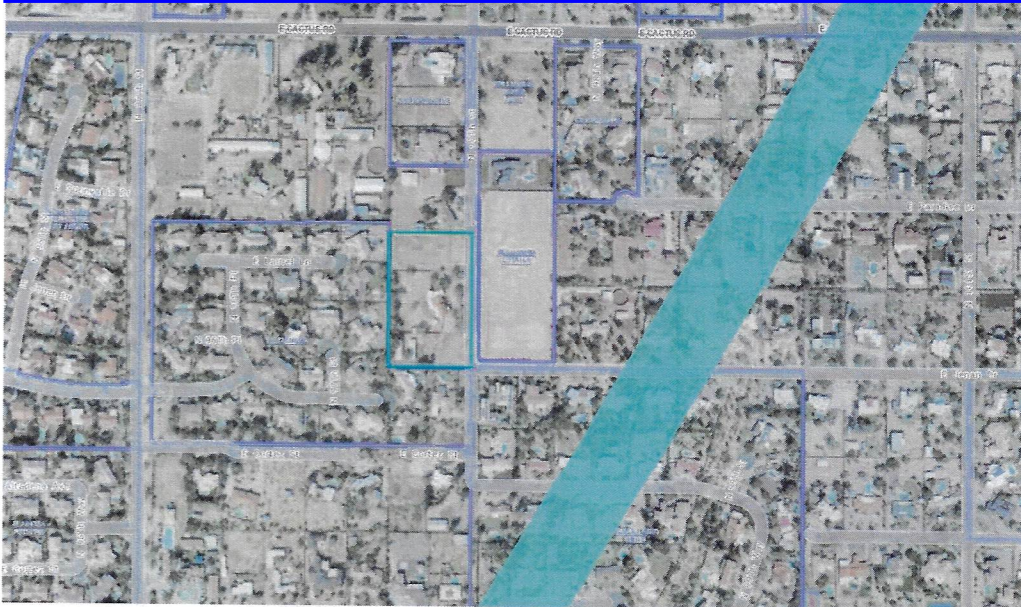
DONE



Add the following ON-LOT STORMWATER STORAGE REQUIREMENT statement on the cover sheet of the Pre-Plat:

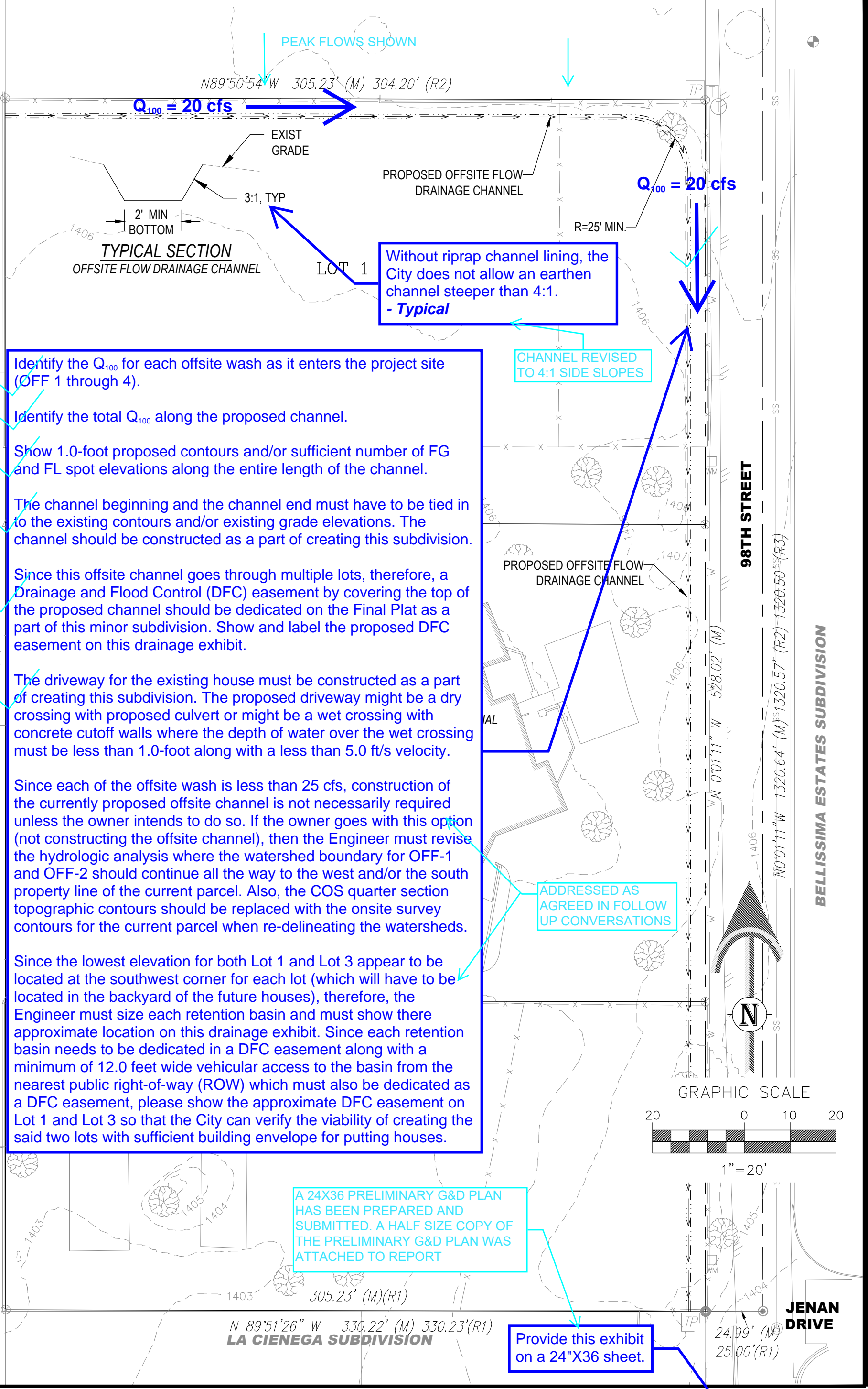
Upon the development of each lot within this subdivision with a residential structure, the lot owner shall be responsible for constructing an on-lot stormwater storage basin or basins designed in conformance with City of Scottsdale standards for the design of stormwater storage basins including the dedication of a public drainage easement covering the limits of the basin(s). The stormwater storage basin(s) will be reviewed and approved for construction by the City of Scottsdale as part of a grading and drainage plan for the proposed residential structure.

Additionally, the lots within this subdivision are not eligible for a waiver of the stormwater storage requirement.



Prepared By
TNG Consulting, LLC
4802 E Ray Rd, Ste 23-586
Phoenix, AZ 85044

COS PROJECT #:



Identify the Q_{100} for each offsite wash as it enters the project site (OFF 1 through 4).

Identify the total Q_{100} along the proposed channel.

Show 1.0-foot proposed contours and/or sufficient number of FG and FL spot elevations along the entire length of the channel.

The channel beginning and the channel end must have to be tied in to the existing contours and/or existing grade elevations. The channel should be constructed as a part of creating this subdivision.

Since this offsite channel goes through multiple lots, therefore, a Drainage and Flood Control (DFC) easement by covering the top of the proposed channel should be dedicated on the Final Plat as a part of this minor subdivision. Show and label the proposed DFC easement on this drainage exhibit.

The driveway for the existing house must be constructed as a part of creating this subdivision. The proposed driveway might be a dry crossing with proposed culvert or might be a wet crossing with concrete cutoff walls where the depth of water over the wet crossing must be less than 1.0-foot along with a less than 5.0 ft/s velocity.

Since each of the offsite wash is less than 25 cfs, construction of the currently proposed offsite channel is not necessarily required unless the owner intends to do so. If the owner goes with this option (not constructing the offsite channel), then the Engineer must revise the hydrologic analysis where the watershed boundary for OFF-1 and OFF-2 should continue all the way to the west and/or the south property line of the current parcel. Also, the COS quarter section topographic contours should be replaced with the onsite survey contours for the current parcel when re-delineating the watersheds.

Since the lowest elevation for both Lot 1 and Lot 3 appear to be located at the southwest corner for each lot (which will have to be located in the backyard of the future houses), therefore, the Engineer must size each retention basin and must show there approximate location on this drainage exhibit. Since each retention basin needs to be dedicated in a DFC easement along with a minimum of 12.0 feet wide vehicular access to the basin from the nearest public right-of-way (ROW) which must also be dedicated as a DFC easement, please show the approximate DFC easement on Lot 1 and Lot 3 so that the City can verify the viability of creating the said two lots with sufficient building envelope for putting houses.

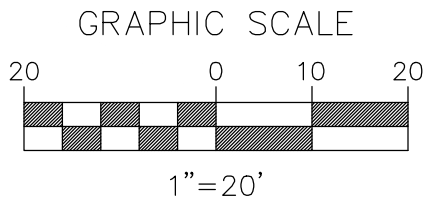
Without riprap channel lining, the City does not allow an earthen channel steeper than 4:1.
- Typical

CHANNEL REVISED TO 4:1 SIDE SLOPES

ADDRESSED AS AGREED IN FOLLOW UP CONVERSATIONS

A 24X36 PRELIMINARY G&D PLAN HAS BEEN PREPARED AND SUBMITTED. A HALF SIZE COPY OF THE PRELIMINARY G&D PLAN WAS ATTACHED TO REPORT

Provide this exhibit on a 24"X36 sheet.



PROPOSED CONDITIONS DRAINAGE MAP
11880 N 98TH STREET
SCOTTSDALE, ARIZONA



EXHIBIT 4

Request for Site Visits and/or Inspections

Development Application (Case Submittals)



This request concerns all property identified in the development application.

Pre-application No: 584 -PA- 2020

Project Name: Heartland Acres

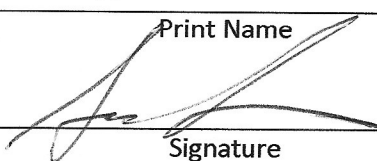
Project Address: 11880 N 98th St

STATEMENT OF AUTHORITY:

1. I am the owner of the property, or I am the duly and lawfully appointed agent of the property and have the authority from the owner to sign this request on the owner's behalf. If the land has more than one owner, then I am the agent for all owners, and the word "owner" refer to them all.
2. I have the authority from the owner to act for the owner before the City of Scottsdale regarding any and all development application regulatory or related matter of every description involving all property identified in the development application.

STATEMENT OF REQUEST FOR SITE VISITS AND/OR INSPECTIONS

1. I hereby request that the City of Scottsdale's staff conduct site visits and/or inspections of the property identified in the development application in order to efficiently process the application.
2. I understand that even though I have requested the City of Scottsdale's staff conduct site visits and/or inspections, city staff may determine that a site visit and/or an inspection is not necessary, and may opt not to perform the site visit and/or an inspection.

Property owner/Property owner's agent: Scott Sanford
Print Name

Signature

City Use Only:

Submittal Date: _____ Case number: _____

Planning and Development Services

7447 E Indian School Road, Suite 105, Scottsdale, AZ 85251 ♦ www.ScottsdaleAZ.gov

Development Application



Development Application Type:

Please check the appropriate box of the Type(s) of Application(s) you are requesting

Zoning	Development Review	Land Divisions
<input type="checkbox"/> Rezoning (ZN)	<input type="checkbox"/> Development Review (Major) (DR)	<input type="checkbox"/> Subdivision (PP)
<input type="checkbox"/> In-fill Incentive (II)	<input type="checkbox"/> Development Review (Minor) (SA)	<input checked="" type="checkbox"/> Subdivision (Minor) (MD)
<input type="checkbox"/> Conditional Use Permit (UP)	<input type="checkbox"/> Wash Modification (WM)	<input type="checkbox"/> Land Assemblage
<input type="checkbox"/> Text Amendment (TA)	<input type="checkbox"/> Historic Property (HP)	Other
<input type="checkbox"/> Development Agreement (DA)	Wireless Communication Facilities	<input type="checkbox"/> Annexation/De-annexation (AN)
Exceptions to the Zoning Ordinance	<input type="checkbox"/> Small Wireless Facilities (SW)	<input type="checkbox"/> General Plan Amendment (GP)
<input type="checkbox"/> Minor Amendment (MN)	<input type="checkbox"/> Type 2 WCF DR Review Minor (SA)	<input type="checkbox"/> In-Lieu Parking (IP)
<input type="checkbox"/> Hardship Exemption (HE)	Signs	<input type="checkbox"/> Abandonment (AB)
<input type="checkbox"/> Variance/Accommodation/Appeal (BA)	<input type="checkbox"/> Master Sign Program (MS)	Other Application Type Not Listed
<input type="checkbox"/> Special Exception (SX)	<input type="checkbox"/> Community Sign District (MS)	<input type="checkbox"/> Other: _____

Project Name: Heartland Acres

Property's Address: 11880 N 98th Street

Property's Current Zoning District Designation:

The property owner shall designate an agent/applicant for the Development Application. This person shall be the owner's contact for the City regarding this Development Application. The agent/applicant shall be responsible for communicating all City information to the owner and the owner application team.

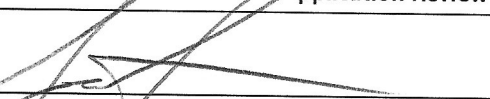
Owner: SoHome Scottsdale	Agent/Applicant: John Ware
Company: SoHome Scottsdale	Company: Arizona Surveyors, Inc
Address: 10510 East Sunnyside Dr., Scottsdale, 85259	Address: 11445 E. Via Linda, 2-447, Scottsdale, 85259
Phone: 480-999-4206 Fax:	Phone: 480-816-9773 Fax:
E-mail: scott@sohomeaz.com	E-mail: scott@sohomeaz.com
Designer:	Engineer: Benjamin Njuguna
Company:	Company: TNG Consulting
Address:	Address: 4041 E Maldonado Dr. Phx, 85042
Phone: Fax:	Phone: 480-352-7039 Fax:
E-mail: scott@sohomeaz.com	E-mail: benjaminn@tng-consulting.net

Please indicate in the checkbox below the requested review methodology (please see the descriptions on page 2).

- This is not required for the following Development Application types: AN, AB, BA, II, GP, TA, PE and ZN. These applications¹ will be reviewed in a format similar to the Enhanced Application Review methodology.

Enhanced Application Review: I hereby authorize the City of Scottsdale to review this application utilizing the Enhanced Application Review methodology.

Standard Application Review: I hereby authorize the City of Scottsdale to review this application utilizing the Standard Application Review methodology.



John Ware
Digitally signed by John Ware
Date: 2020.09.29 11:40:42 -07'00'

Owner Signature

Agent/Applicant Signature

Official Use Only

Submission Date:

Development Application No.:

Planning and Development Services

7447 East Indian School Road Suite 105, Scottsdale, Arizona 85251 • www.ScottsdaleAZ.gov

Development Application

Page 1 of 3

Revision Date: 5/10/2018

Development Application Review Methodologies



Review Methodologies

The City of Scottsdale maintains a business and resident friendly approach to new development and improvements to existing developments. In order to provide for flexibility in the review of Development Applications, and Applications for Permitting, the City of Scottsdale provides two methodologies from which an owner or agent may choose to have the City process the application. The methodologies are:

1. Enhanced Application Review Methodology

Within the parameters of the Regulatory Bill-of-Rights of the Arizona Revised Statutes, the Enhanced Application Review method is intended to increase the likelihood that the applicant will obtain an earlier favorable written decision or recommendation upon completion of the city's reviews. To accomplish this objective, the Enhanced Application Review allows:

- the applicant and City staff to maintain open and frequent communication (written, electronic, telephone, meeting, etc.) during the application review;
- City staff and the applicant to collaboratively work together regarding an application; and
- City staff to make requests for additional information and the applicant to submit revisions to address code, ordinance, or policy deficiencies in an expeditious manner.

Generally, the on-going communication and the collaborative work environment will allow the review of an application to be expedited within the published Staff Review Time frames.

2. Standard Application Review Methodology:

Under the Standard Application Review, the application is processed in accordance with the Regulatory Bill-of-Rights of the Arizona Revised Statutes. These provisions significantly minimize the applicant's ability to collaboratively work with City Staff to resolve application code, ordinance, or policy deficiencies during the review of an application. After the completion the city's review, a written approval or denial, recommendation of approval or denial, or a written request for additional information will be provided.

The City is not required to provide an applicant the opportunity to resolve application deficiencies, and staff is not permitted to discuss or request additional information that may otherwise resolve a deficiency during the time the City has the application. Since the applicant's ability to collaboratively work with Staff's to resolve deficiencies is limited, the total Staff Review Time and the likelihood of a written denial, or recommendation of denial is significantly increased.

In addition to the information above, please review the Development Application, and/or the Application for Permitting flow charts. These flow charts provide a step-by-step graphic representation of the application processes for the associated review methodologies.

Note:

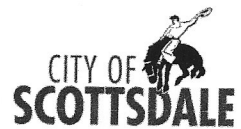
1. Please see the Current Planning Services and Long Range Planning Services Substantive Policy Statements and Staff Review Timeframes for Development Applications, number III.

Planning and Development Services

7447 East Indian School Road Suite 105, Scottsdale, Arizona 85251 • www.ScottsdaleAZ.gov

Development Application

Arizona Revised Statutes Notice



§9-834. Prohibited acts by municipalities and employees; enforcement; notice

- A. A municipality shall not base a licensing decision in whole or in part on a licensing requirement or condition that is not specifically authorized by statute, rule, ordinance or code. A general grant of authority does not constitute a basis for imposing a licensing requirement or condition unless the authority specifically authorizes the requirement or condition.
- B. Unless specifically authorized, a municipality shall avoid duplication of other laws that do not enhance regulatory clarity and shall avoid dual permitting to the maximum extent practicable.
- C. This section does not prohibit municipal flexibility to issue licenses or adopt ordinances or codes.
- D. A municipality shall not request or initiate discussions with a person about waiving that person's rights.
- E. This section may be enforced in a private civil action and relief may be awarded against a municipality. The court may award reasonable attorney fees, damages and all fees associated with the license application to a party that prevails in an action against a municipality for a violation of this section.
- F. A municipal employee may not intentionally or knowingly violate this section. A violation of this section is cause for disciplinary action or dismissal pursuant to the municipality's adopted personnel policy.
- G. This section does not abrogate the immunity provided by section 12-820.01 or 12-820.02.

Planning and Development Services

7447 East Indian School Road Suite 105, Scottsdale, Arizona 85251 • www.ScottsdaleAZ.gov

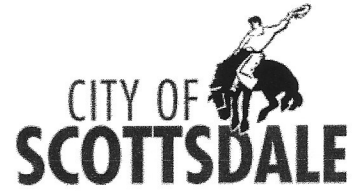
Development Application

Page 3 of 3

Revision Date: 5/10/2018

7-MD-2020
1/27/2021

Affidavit of Authorization to Act for Property Owner



1. This affidavit concerns the following parcel of land:

- a. Street Address: 11880 N 98th St
- b. County Tax Assessor's Parcel Number: 217-26-004F
- c. General Location: 98th St & Cactus
- d. Parcel Size: 4 acres
- e. Legal Description: Deed 1983-0416227 MCR

(If the land is a platted lot, then write the lot number, subdivision name, and the plat's recording number and date. Otherwise, write "see attached legal description" and attach a legal description.)

- 2. I am the owner of the land or I am the duly and lawfully appointed agent of the owner of the land and have authority from the owner to sign this affidavit on the owner's behalf. If the land has more than one owner, then I am the agent for all of the owners, and the word "owner" in this affidavit refers to all of them.
- 3. I have authority from the owner to act for the owner before the City of Scottsdale with regard to any and all reviews, zoning map amendments, general plan amendments, development variances, abandonments, plats, lot splits, lot ties, use permits, building permits and other land use regulatory or related matters of every description involving the land, or involving adjacent or nearby lands in which the owner has (or may acquire) an interest, and all applications, dedications, payments, assurances, decisions, agreements, legal documents, commitments, waivers and other matters relating to any of them.
- 4. The City of Scottsdale is authorized to rely on my authority as described in this affidavit until three work days after the day the owner delivers to the Director of the Scottsdale Planning & Development Services Department a written statement revoking my authority.
- 5. I will immediately deliver to the Director of the City of Scottsdale Planning & Development Services Department written notice of any change in the ownership of the land or in my authority to act for the owner.
- 6. If more than one person signs this affidavit, each of them, acting alone, shall have the authority described in this affidavit, and each of them warrant to the City of Scottsdale the authority of the others.
- 7. Under penalty of perjury, I warrant and represent to the City of Scottsdale that this affidavit is true and complete. I understand that any error or incomplete information in this affidavit or any applications may invalidate approvals or other actions taken by the City of Scottsdale, may otherwise delay or prevent development of the land, and may expose me and the owner to other liability. I understand that people who have not signed this form may be prohibited from speaking for the owner at public meetings or in other city processes.

Name (printed)

Scott Sanders Saltzman AZ

Date

9/29/, 2020

Signature

[Handwritten Signature]

_____, 20____

_____, 20____

_____, 20____

Planning and Development Services

7447 E Indian School Road, Suite 105, Scottsdale, AZ 85251 • www.ScottsdaleAZ.gov

Gue, David

From: Kercher, Phillip
Sent: Tuesday, August 04, 2020 2:27 PM
To: Tonnemacher, Nathan
Cc: Gue, David; Rahman, Mohammad; Anderson, Richard; Smith, David R
Subject: 584-PA-2020 11880 N. 98th St.

Nate:

For this minor subdivision, we will request that they construct roll curb and gutter along their site frontage. The curb and gutter would be located in alignment with the existing improvements to the south, and should generally conform to a 28 foot street cross section (measured to back of curb). This direction is subject to approval from Stormwater staff's acceptance of the existing street cross slope. If not we will need to discuss the option of having them reconstruct the street to provide a normal crown.

We do not need any additional right-of-way along 98th Street – existing 25 feet per LIS.

Phil





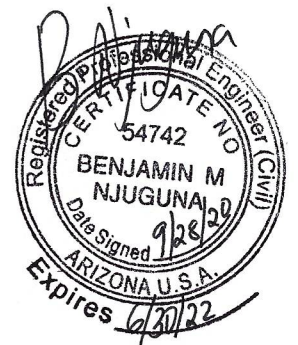
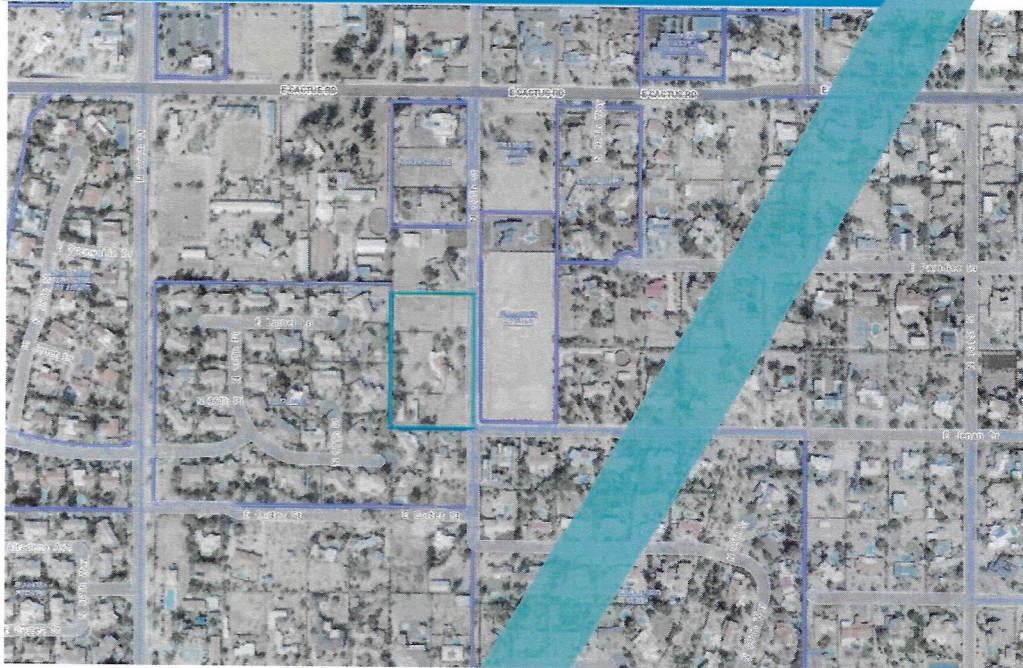
TNG Consulting, LLC

PRELIMINARY DRAINAGE REPORT

11880 N 98th Street,
Scottsdale, AZ 85260

Prepared For
SoHome Scottsdale
10601 N Hayden Rd, Ste 100
Scottsdale, AZ 85260

September 28th, 2020



Prepared By
TNG Consulting, LLC
4802 E Ray Rd, Ste 23-586
Phoenix, AZ 85044

COS PROJECT #:

Table of Contents

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6. MAINTENANCE	7
7. REFERENCES	8



Appendices

Appendix A	Exhibits
Appendix B	Hydrology & Hydraulic Calculations
Appendix C	Reference Material

Exhibits

Exhibit 1	Vicinity Map
Exhibit 2	Flood Insurance Rate Map
Exhibit 3	Existing Conditions Drainage Map
Exhibit 4	Proposed Conditions Drainage Map



1. INTRODUCTION & PURPOSE

1.1 PROJECT DESCRIPTION & LOCATION

SoHome Scottsdale is planning the Minor Subdivision (MD) of an existing single family residential parcel of land into three (3) separate Lots. The MD shall split off the middle portion of the Project Site, where the existing residential house is located into a separate Lot (Lot 2). The existing house shall remain in place while two new single family residential homes will be built on the each of the other two (2) new Lots (Lot 1 and Lot 3) on the north and south ends of the Site.

The existing parcel (Parent Parcel) is an approximately 3.7-acre piece of land (Project Site) located at 11880 N 98th Street, Scottsdale Arizona, 85260. More specifically the Project Site is comprised of the parcel of land whose current Maricopa County APN is 217-26-004F, situated in the Northwest Quarter of Section 20, Township 3 North, Range 5 East of the Gila and Salt River Meridian, Maricopa County, Arizona. The location of the property is depicted in Exhibit 1- *Vicinity Map*.

The Project Site is zoned R1-35 (single family residential district) and is surrounded by similarly zoned parcels to the north, west, south and east (across 98th Street). All areas surrounding the site lie within the City of Scottsdale limits.

1.2 PURPOSE

The purpose of this preliminary drainage report is to provide a preliminary drainage analysis of the Site's existing conditions and proposed development conditions. This report is preliminary and conceptual in nature and is to serve as a guideline for the development of the Site. It will set forth drainage criteria for onsite and offsite drainage, street flow, and storm water retention. Final estimates of onsite and offsite peak flows, onsite storm water retention requirements, open channel design and hydraulics, storm drain hydraulics, and street flow capacity are to be included in a Final drainage report of the Site, submitted under a separate cover.

The drainage design criteria in this report are based on the methodology presented in the City of Scottsdale Design Standards and Policies Manual (Ref. 1) in concert with the Drainage Design Manuals for Maricopa County (Hydrology & Hydraulics – Ref. 2 & 3), unless otherwise noted.



2. EXISTING CONDITIONS

2.1 TOPOGRAPHIC CONDITIONS

The Project Site is comprised of gently sloping terrain with man-made disturbances located throughout the Site and a permanent structure in the middle portion of the Site, where an existing single family residential building is situated. The existing ground generally slopes from north to south, at approximately 1% slope. The Site has been used as a large acreage lot suitable for residential equestrian lifestyle, consistent with the original designated use of land in the area.

Similar to the Project Site, an offsite watershed comprised of the areas immediately north of the Site also drains southerly and impacts the Site's north and east boundaries. Further discussion of these offsite drainage areas is included in Section 3 below. See Exhibit 3 for an *Existing Conditions Drainage Map* of the Site and the offsite areas around it.

2.2 FEMA FLOOD ZONE INFORMATION

The Maricopa County, Arizona and Incorporated Areas Flood Insurance Rate Map (FIRM) Panel Number 04013C1780L dated October 16, 2013 shows the site falls within Zone "X-shaded". Exhibit 2 shows the location of the Project Site on the *FEMA Flood Insurance Rate Map*.

Zone "X-shaded" is defined by FEMA and per the FIRM panel as follows:

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from the 1% annual chance flood.

2.3 PREVIOUS RELATED DRAINAGE STUDIES

Drainage in the area has been analyzed in the past in area drainage master studies/plans for the area as well as master drainage reports prepared for surrounding developments. Excerpts of these drainage studies are included in Appendix C. It has also been reported that an Area Drainage Master Study for the area (East Shea ADMS) has recently been prepared for the City of Scottsdale and Flood Control District of Maricopa County (FCDMC), but it's findings are preliminary and have not been officially adopted by the City and FCDMC.



3. OFFSITE DRAINAGE

3.1 OFFSITE HYDROLOGY

City of Scottsdale 1-ft contour quarter section maps for the area around the Site were overlaid onto the topographic survey map of the Site to create an Existing Conditions Drainage Map; see Exhibit 3 in Appendix A. As can be seen from the map, the Site and its surrounding areas generally slope southerly. Cactus Road, located approximately 750-ft north of the Project Site, intercepts offsite drainage from areas north of its alignment and conveys it eastwards and westwards away from the Project Site via its paved cross-section and system of catch basins and underground storm drain pipes.

Runoff from the offsite area located between Cactus Road alignment and the Project Site drains southerly and impacts the Site's north and east boundaries. This offsite area has been delineated into four drainage areas, in accordance with current drainage patterns. For the purposes of this report, these offsite drainage areas are named "OFF-1", "OFF-2", "OFF-3" and "OFF-4" as depicted in Exhibit 3, *Existing Conditions Drainage Map*. Runoff from drainage areas "OFF-1", "OFF-2", and "OFF-3" impacts the Site's north and east boundaries. Runoff from drainage area "OFF-4" drains southerly, past the Site, along the east edge of 98th Street.

Flood Control District of Maricopa County's DDMSW software, version 5.6.0, was used to calculate peak flows from offsite drainage areas "OFF-1", "OFF-2", "OFF-3" and "OFF-4" using rational method. The 100-year peak flows from drainage areas "OFF-1", "OFF-2", "OFF-3" and "OFF-4" was calculated to be 8.1 cfs, 9.7 cfs, 2.0 cfs and 10.6 cfs respectively. See detailed hydrology calculation results in Appendix B. A detailed discussion of how offsite flows shall be conveyed though and around the Project Site is provided in Section 4 below.



4. ONSITE DRAINAGE

4.1 STORM WATER FLOW

Existing fencing along the Site's north boundary is comprised of open pipe fencing, which provides no hindrance to drainage flow. No fencing exists along the east boundary, along 98th Street and storm water also flows freely along this edge. The west and south boundaries however are fenced off by solid block walls that were constructed as part of the La Cienega Subdivision improvements. No drainage currently flows into or out of the Site along the west and south boundaries.

The existing ground generally slopes from north to south, at approximately 1% slope. Wide-shallow drainage swales cut through the middle-to-south portions of the Site and drain to the southwest corner. The southwest corner of the Site was the historical Stormwater outfall location of the Site but improvements in La Cienega subdivision to the south and east of the Site, constructed around 1992, cut off the historical flow path with the building of new homes and solid block wall perimeter fences. See Appendix C for a copy of a historical aerial photo of the area (Maricopa County Assessor-1976) prior to current development.

The proposed Minor Subdivision (MD) shall split off the middle portion of the Site, where the existing residential house is situated, into its own separate Lot (Lot 2). No new developments are proposed on this Lot (Lot 2) and stormwater on Lot 2 shall continue to flow as it has done historically. New developments shall be constrained to the north end (Lot 1) and South end (Lot 3) of the Site, where proposed residential houses will be located. See Exhibit 4 for a *Proposed Conditions Drainage Map*. Final Grading & Drainage improvements for Lot 1 and Lot 3 shall account for the final design of onsite storm water flow on each Lot.

Runoff from offsite drainage areas "OFF-1", "OFF-2", and "OFF-3" impacts the Site's north and east boundaries. Runoff from "OFF-1" and "OFF-2" enters the Site along the north boundary and flows across the Site as sheet flow and in shallow/loosely defined drainage swales towards the southwest corner. Drainage from offsite drainage area "OFF-3" drains south along the east edge of the Site (west edge of 98th Street) before turning southwest around the middle portion of the Site where it cuts through to the southwest corner.

Runoff from offsite drainage areas "OFF-1", "OFF-2", and "OFF-3" shall be addressed collectively as part of the Minor Subdivision (MD). New offsite flow drainage channels will be constructed along the north and east end of the Project Site to intercept offsite drainage at its historical entrance points and convey it to the southeast corner of the Site, where it will continue to flow south along 98th Street before turning west at Cortez Street where it will flow west along Cortez Street alignment and on to its historical outfall location from the area at the intersection with 96th Street.

Proposed offsite flow drainage channels shall be designed to have the capacity to convey the combined peak flow from the offsite drainage areas they intercept. Flood Control District of Maricopa County's DDMSW software, version 5.6.0, was used to calculate peak flows from the combined offsite drainage areas using rational method. See detailed hydrology calculation results in Appendix B. The calculated



100-year peak flows from the combined offsite drainage areas were used to size the proposed offsite flow drainage channels. See detailed DDMSW hydraulic calculation results in Appendix B.

4.2 FINISHED FLOOR ELEVATION

Finished floor elevation of the proposed single family residential houses on Lot 1 and 3 shall be set at minimum to be the higher of: (a) 12-inches above the Site's ultimate outfall, (b) 14-inches above the lowest adjacent top of curb elevation, and (c) 6-inches above the highest adjacent top of curb elevation.

4.3 RETENTION BASIN DESIGN

No Stormwater retention shall be required for the middle Lot (Lot 2), in areas on the Site that have been previously developed. In accordance with City of Scottsdale design criteria, the 100-yr, 2-hr Stormwater retention volume shall be provided for the north and south ends of Site, in areas that have not been previously developed with permanent improvements. Onsite retention basins shall therefore be required in the north lot (Lot 1) and south lot (Lot 3). Final design and layout of proposed retention basins on Lot 1 and Lot 3 shall be provided with the final improvement plan design for each Lot. Preliminary calculations of the retention volume requirements for Lot 1 and Lot 3 is provided in Appendix B.



5. CONCLUSION

Based on the analysis presented in this Preliminary Drainage Report, the following conclusions are drawn:

1. This Preliminary Drainage Report has been designed in compliance with the City of Scottsdale Design Standards and Policies Manual. Where exceptions occur, they have been pointed out and drainage design rationale, consistent with sound engineering practice associated with the unique conditions on the Project Site, provided.
2. This report is preliminary in nature and is to serve as a guideline for the development of the Project Site. Final calculation of offsite flow, onsite flow, onsite storm water retention and open channel hydraulics will be included in a supplement to this report, submitted under a separate cover.
3. The 100-year, 2-hour storm water retention for the areas on the Site that have not been previously developed (Lot 1 and Lot 3) will be provided with the final improvement plan design for each Lot.
4. Finished floor elevation of the proposed single family residential houses on Lot 1 and 3 shall be set at minimum to be the higher of: (a) 12-inches above the Site's ultimate outfall, (b) 14-inches above the lowest adjacent top of curb elevation, and (c) 6-inches above the highest adjacent top of curb elevation.
5. The proposed development will not cause adverse drainage impacts or increased drainage problems to developments upstream, downstream or adjacent to the site.



6. MAINTENANCE

Ongoing maintenance of the designed drainage systems is required to preserve their design integrity. Poor maintenance can prevent the system from performing to its intended design purpose and can result in reduced performance. Maintenance is the responsibility of the agency of jurisdiction for facilities in public lands and in public right-of-way. It is the responsibility of private developers, homeowners, homeowners' association, etc., for maintenance of facilities on private property, within drainage easements and private streets. A regular maintenance program will be established in the final design of the Site and included in a supplement to this report, submitted under a separate cover.



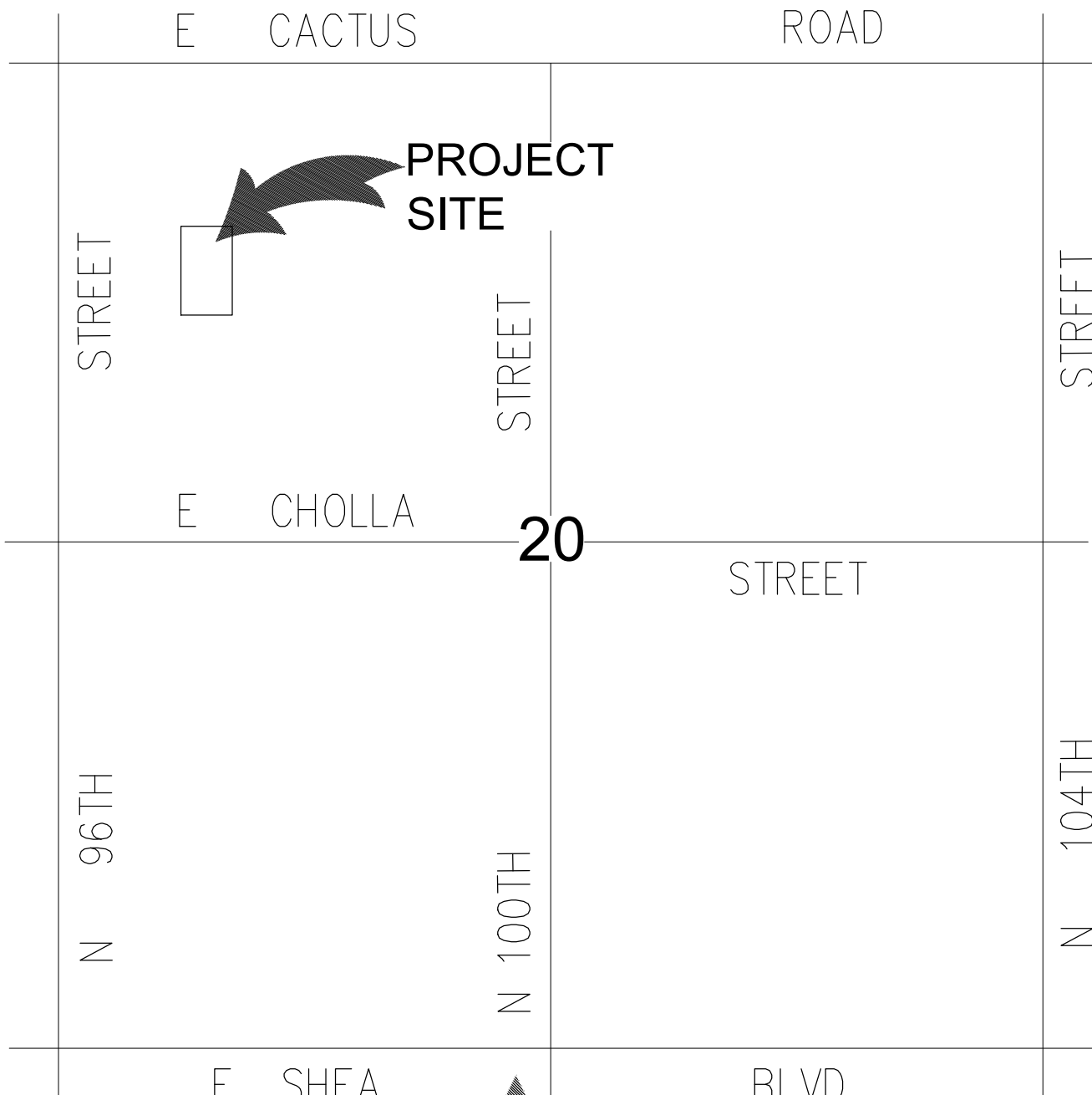
7. REFERENCES

1. *City of Scottsdale Design Standards and Policies Manual*, City of Scottsdale, 2018.
2. *Maricopa County Drainage Manual, Volume 1, Hydrology*, Maricopa County, February, 2010.
3. *Maricopa County Drainage Manual, Volume 2, Hydraulics*, Maricopa County, August, 2013.
4. *National Flood Insurance Program, Flood Insurance Rate Map Number 0413C1780L*, Federal Emergency Management Agency, October 16, 2013.



APPENDIX A





E CACTUS ROAD

STREET

STREET

STREET

E CHOLLA

20

STREET

N 96TH

N 100TH

N 104TH

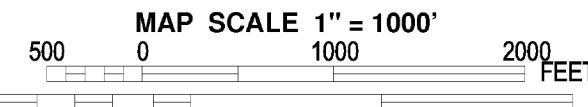
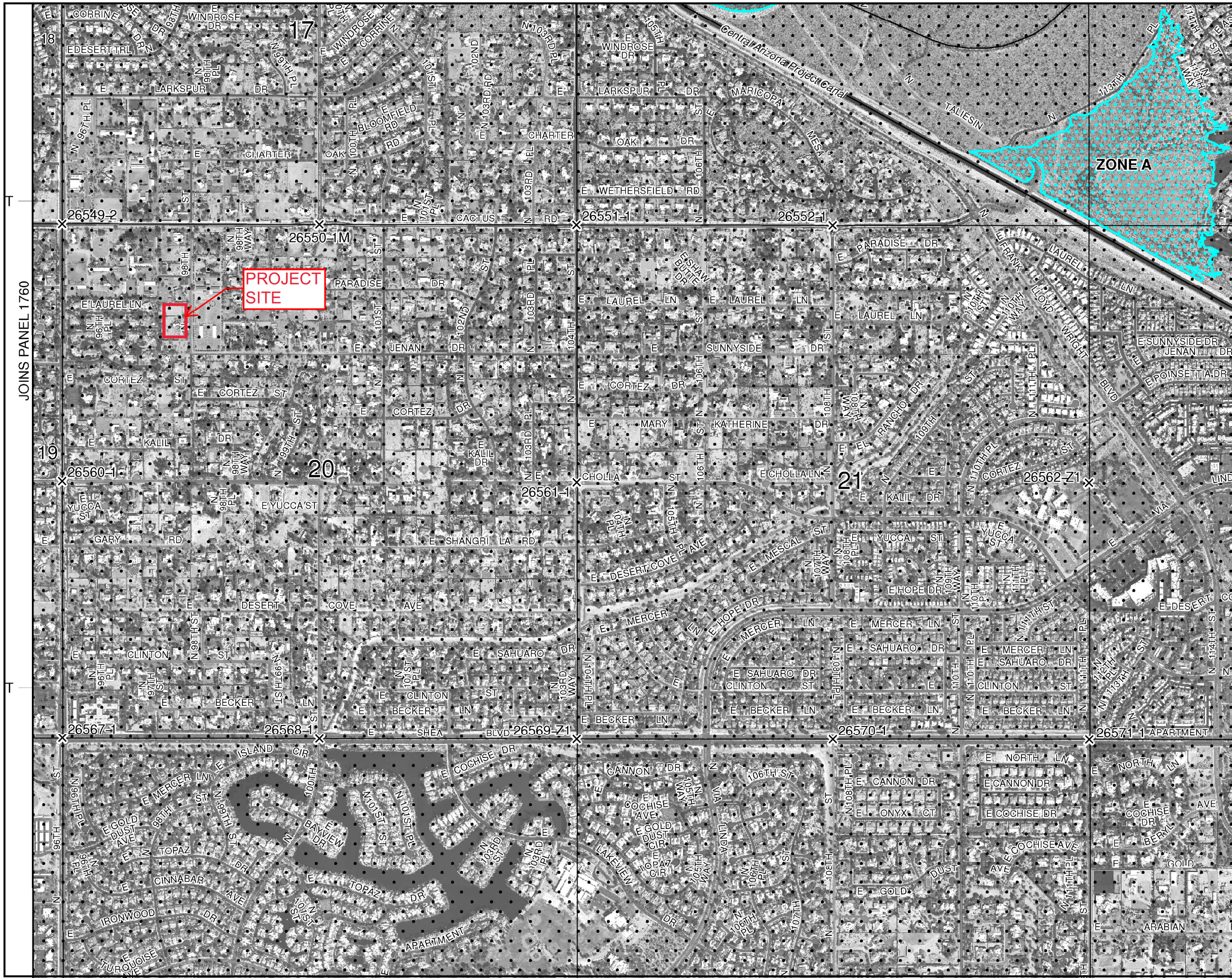
E SHEA

BLVD

VICINITY MAP

NTS

EXHIBIT 1



JOINS PANEL 1760

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1780L

FIRM
FLOOD INSURANCE RATE MAP
MARICOPA COUNTY,
ARIZONA
AND INCORPORATED AREAS

PANEL 1780 OF 4425
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MARICOPA COUNTY	040037	1780	L
SCOTTSDALE, CITY OF	045012	1780	L

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

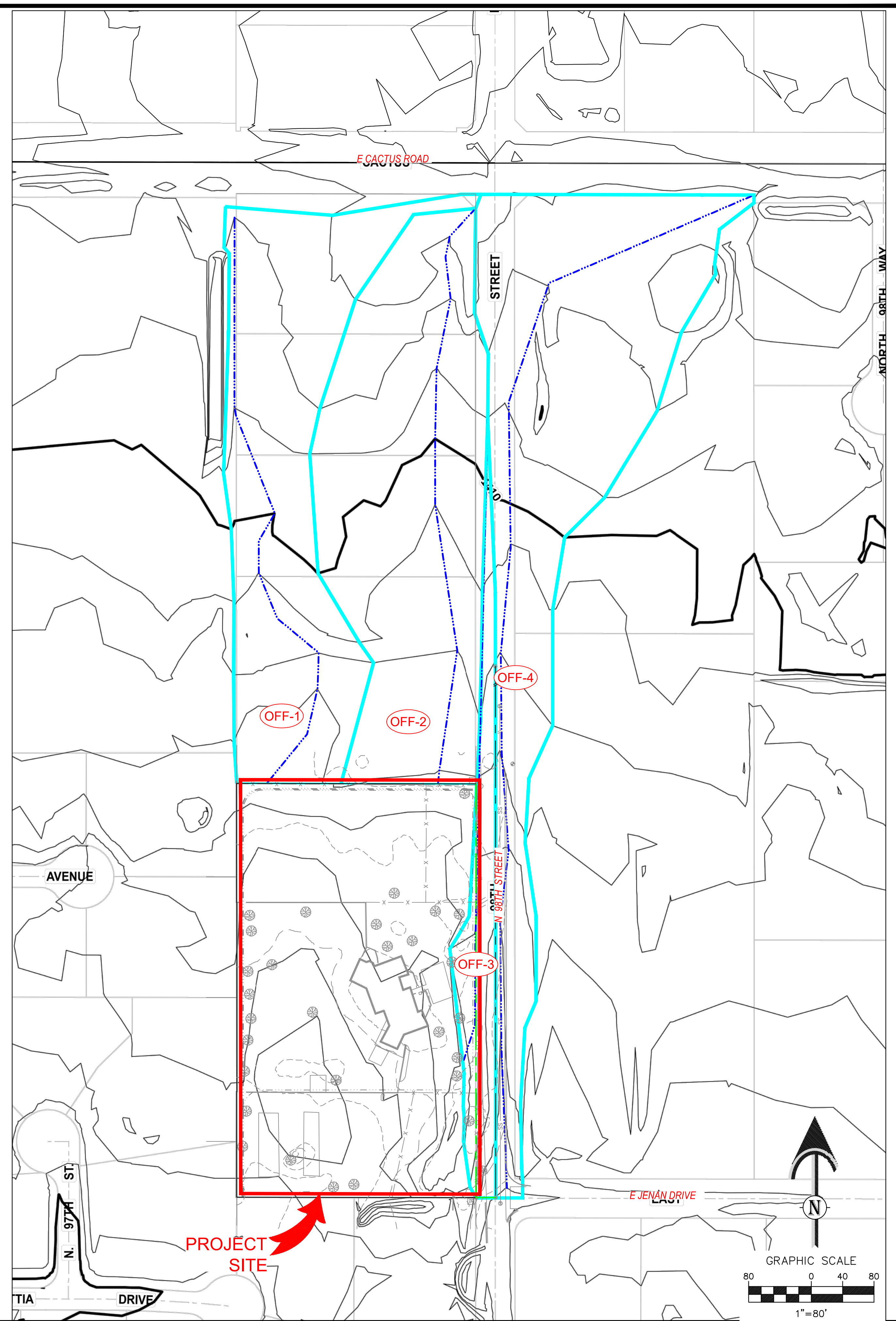
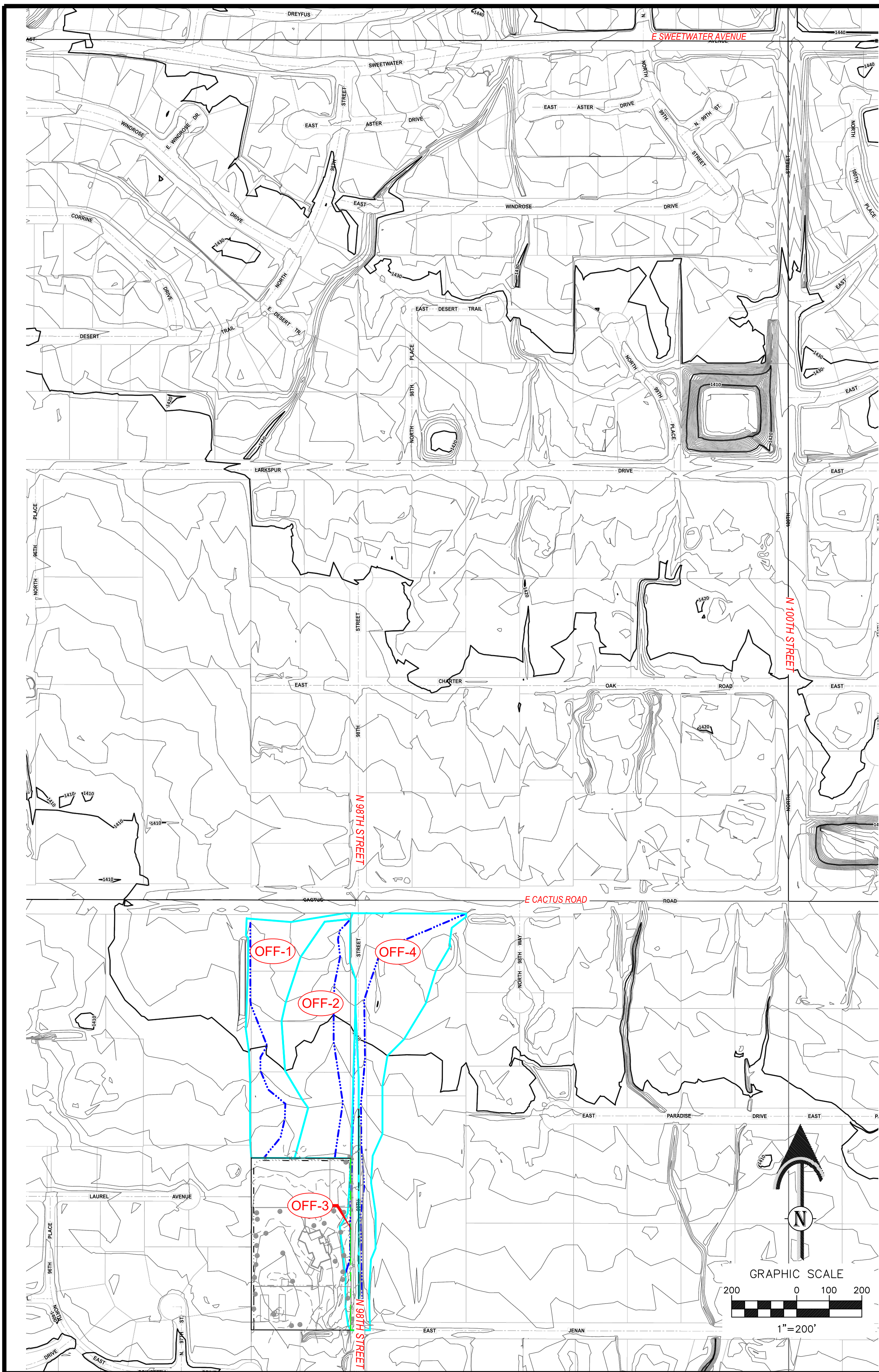


MAP NUMBER
04013C1780L
MAP REVISED
OCTOBER 16, 2013

Federal Emergency Management Agency

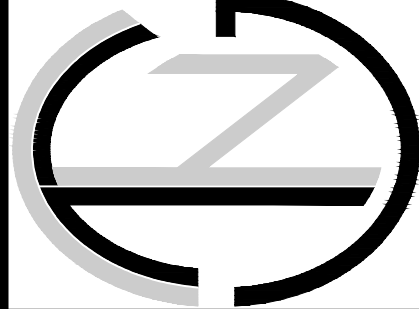
EXHIBIT 2

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



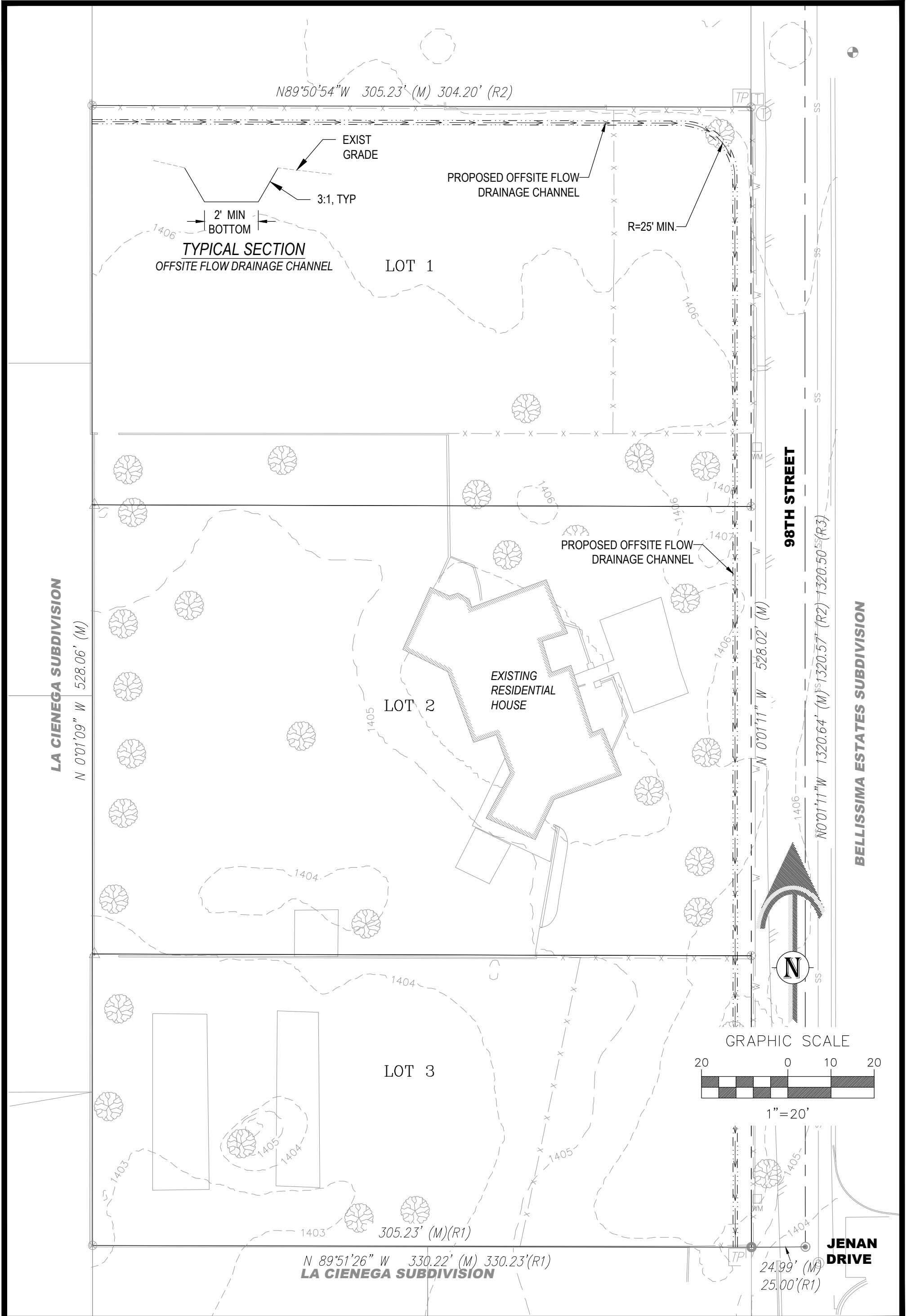
#	DATE	DESCRIPTION	BY

TNG CONSULTING, LLC.
 4802 E. RAY RD., STE 23-386
 PHOENIX, AZ 85044
 TEL: 480-562-8039
 www.tng-consulting.net



EXISTING CONDITIONS DRAINAGE MAP
 11880 N 98TH STREET
 SCOTTSDALE, ARIZONA

PROJECT #	102001130
DATE	09-25-2020
CHECK	BMN
LABEL	SHEET
EXHIBIT 3	



PROPOSED CONDITIONS DRAINAGE MAP
 11880 N 98TH STREET
 SCOTTSDALE, ARIZONA

EXHIBIT 4

APPENDIX B



Hydrology Calculations



Flood Control District of Maricopa County
 Drainage Design Management System
RAINFALL DATA
 Project Reference: 1130-11880 N 98TH ST

ID	Method	Duration	2 Yr	5 Yr	10 Yr	25 Yr	50 Yr	100 Yr
DEFAULT	NOAA14	5 MIN	0.267	0.361	0.432	0.527	0.600	0.673
	NOAA14	10 MIN	0.407	0.549	0.658	0.802	0.912	1.025
	NOAA14	15 MIN	0.504	0.680	0.815	0.994	1.131	1.270
	NOAA14	30 MIN	0.679	0.916	1.098	1.339	1.523	1.711
	NOAA14	1 HOUR	0.841	1.134	1.359	1.657	1.885	2.117
	NOAA14	2 HOUR	0.970	1.290	1.534	1.866	2.116	2.375
	NOAA14	3 HOUR	1.045	1.366	1.620	1.973	2.254	2.544
	NOAA14	6 HOUR	1.237	1.577	1.847	2.217	2.504	2.803
	NOAA14	12 HOUR	1.415	1.785	2.076	2.469	2.771	3.083
	NOAA14	24 HOUR	1.700	2.201	2.600	3.156	3.594	4.054

Flood Control District of Maricopa County
 Drainage Design Management System
 LAND USE
 Project Reference: 1130-11880 N 98TH ST

Sub Basin	Land Use Code	Area (acres)	Area (%)	Kb	Runoff Coefficient C						Description
					2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 01											
OFF-1	120	2.47	100.0	0.038	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		2.470	100.0								
OFF-2	120	2.96	100.0	0.037	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		2.960	100.0								
OFF-3	120	0.63	100.0	0.041	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		0.630	100.0								
OFF-4	120	3.37	100.0	0.037	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		3.370	100.0								

* Non default value

Flood Control District of Maricopa County
 Drainage Design Management System
LAND USE
 Project Reference: 1130-11880 N 98TH ST

Sub Basin	Land Use Code	Area (acres)	Area (%)	Kb	Runoff Coefficient C						Description
					2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 02											
OFF1+2	120	5.94	100.0	0.035	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		5.940	100.0								
OFF123	120	6.06	100.0	0.035	0.42	0.42	0.42	0.46	0.50	0.53	Estate Residential (1/5 du per acre to 1 du per acre)
		6.060	100.0								

* Non default value

Flood Control District of Maricopa County
 Drainage Design Management System
SUB BASINS

ID	Sub Basin Data						Sub Basin Hydrology Summary						
	Area (acres)	Length (ft)	USGE	DSGE	Slope (ft/mi)	Kb	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 01													
OFF-1	2.5	787	1,413.00	1,407.00	40.3	0.038	Q (cfs)	2.5	3.4	4.1	5.5	6.8	8.1
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	1.04	1.04	1.04	1.14	1.24	1.31
							Volume (ac-ft)	0.0501	0.0625	0.0754	0.1011	0.1250	0.1489
							Tc (min)	11	10	10	10	10	10
							i (in/hr)	2.36	3.29	3.95	4.81	5.47	6.15
OFF-2	3.0	754	1,413.00	1,407.00	42.0	0.037	Q (cfs)	3.0	4.1	4.9	6.5	8.1	9.7
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	1.24	1.24	1.24	1.36	1.48	1.57
							Volume (ac-ft)	0.0574	0.0754	0.0901	0.1195	0.1489	0.1784
							Tc (min)	10	10	10	10	10	10
							i (in/hr)	2.40	3.29	3.95	4.81	5.47	6.15
OFF-3	0.6	821	1,411.00	1,406.00	32.2	0.041	Q (cfs)	0.6	0.8	1.0	1.4	1.8	2.0
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	0.26	0.26	0.26	0.29	0.32	0.33
							Volume (ac-ft)	0.0142	0.0166	0.0191	0.0257	0.0331	0.0368
							Tc (min)	13	11	10	10	10	10
							i (in/hr)	2.19	3.13	3.89	4.81	5.47	6.15
OFF-4	3.4	1,446	1,413.00	1,404.00	32.9	0.037	Q (cfs)	2.7	3.9	4.9	6.8	8.7	10.6
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	1.42	1.42	1.42	1.55	1.69	1.79
							Volume (ac-ft)	0.0839	0.1054	0.1216	0.1538	0.1856	0.2144
							Tc (min)	17	15	14	12	12	11
							i (in/hr)	1.92	2.75	3.45	4.41	5.15	5.92

* Non default value

Flood Control District of Maricopa County
 Drainage Design Management System
SUB BASINS
 Project Reference: 1130-11880 N 98TH ST

ID	Sub Basin Data						Sub Basin Hydrology Summary						
	Area (acres)	Length (ft)	USGE	DSGE	Slope (ft/mi)	Kb	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	
Major Basin ID: 02													
OFF1+2	5.4	787	1,413.00	1,407.00	40.3	0.035	Q (cfs)	5.5	7.5	9.0	12.0	14.9	17.7
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	2.28	2.28	2.28	2.50	2.72	2.88
							Volume (ac-ft)	0.1062	0.1379	0.1655	0.2207	0.2740	0.3255
							Tc (min)	11	10	10	10	10	10
							i (in/hr)	2.40	3.29	3.95	4.81	5.47	6.15
OFF123	6.1	1,175	1,413.00	1,404.00	40.4	0.035	Q (cfs)	5.5	7.9	9.8	13.4	16.6	19.7
							C	0.42	0.42	0.42	0.46	0.50	0.53
							CA (ac)	2.55	2.55	2.55	2.79	3.03	3.21
							Volume (ac-ft)	0.1345	0.1685	0.1928	0.2464	0.3052	0.3623
							Tc (min)	13	12	11	10	10	10
							i (in/hr)	2.15	3.10	3.84	4.81	5.47	6.15

* Non default value

11880 N 98TH STREET, SCOTTSDALE AZ
STORM WATER RETENTION CALCULATIONS SUMMARY

NOTE: Stormwater retention shall be required for the north lot (Lot1) and South lot (Lot3), in areas that have not been previously developed. No stormwater retention shall be required for the middle lot (Lot2) where the existing residential house (to remain) is situated

Vol Required (V_R):

V_R = 100-yr, 2-hr retention volume

$$V_R = C (P/12) A$$

Where; C= 0.62 (DSPM Figure 4-1.5, R1-35)

P = 2.25 inches (100-yr, 2-hr, DSPM Appendix 4-1D)

A = Area SF

LOT ID	Area (SF)	V _R (CF)
LOT 1	35,000	<u>4,069</u>
LOT 3	35,000	<u>4,069</u>

Hydraulic Calculations



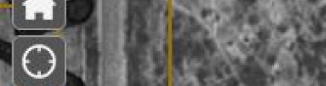
Flood Control District of Maricopa County
 Drainage Design Management System
RIVER MECHANICS - CROSS SECTION HYDRAULICS
Project Reference: 1130-11880 N 98TH ST

Section ID	Flow Type	Entire Section											Channel Section			
		Q (cfs)	Slope (f/f)	Man'g N Channel	Man'g N LOB	Man'g N ROB	Area (sq ft)	W.P. (ft)	Avg Width (ft)	Top Width (ft)	Hyd Depth (ft)	Max Depth (ft)	Vel (f/s)	Hyd Depth (ft)	Vel (ft/sec)	Froude Num
CHANNEL 1	Design Dominant	20	0.003000	0.022	0.022	0.022	6.82	9.66	5.63	9.26	0.74	1.21	2.93			
									0.00							

APPENDIX C



Find address or place



Sunnyside



217 25 524

217 26 508

217 26 509

217 26 512

217 26 513

217 26 514

217 26 515A

217 26 515B

217 26 515C

217 26 515D

217 26 515E

217 26 515F

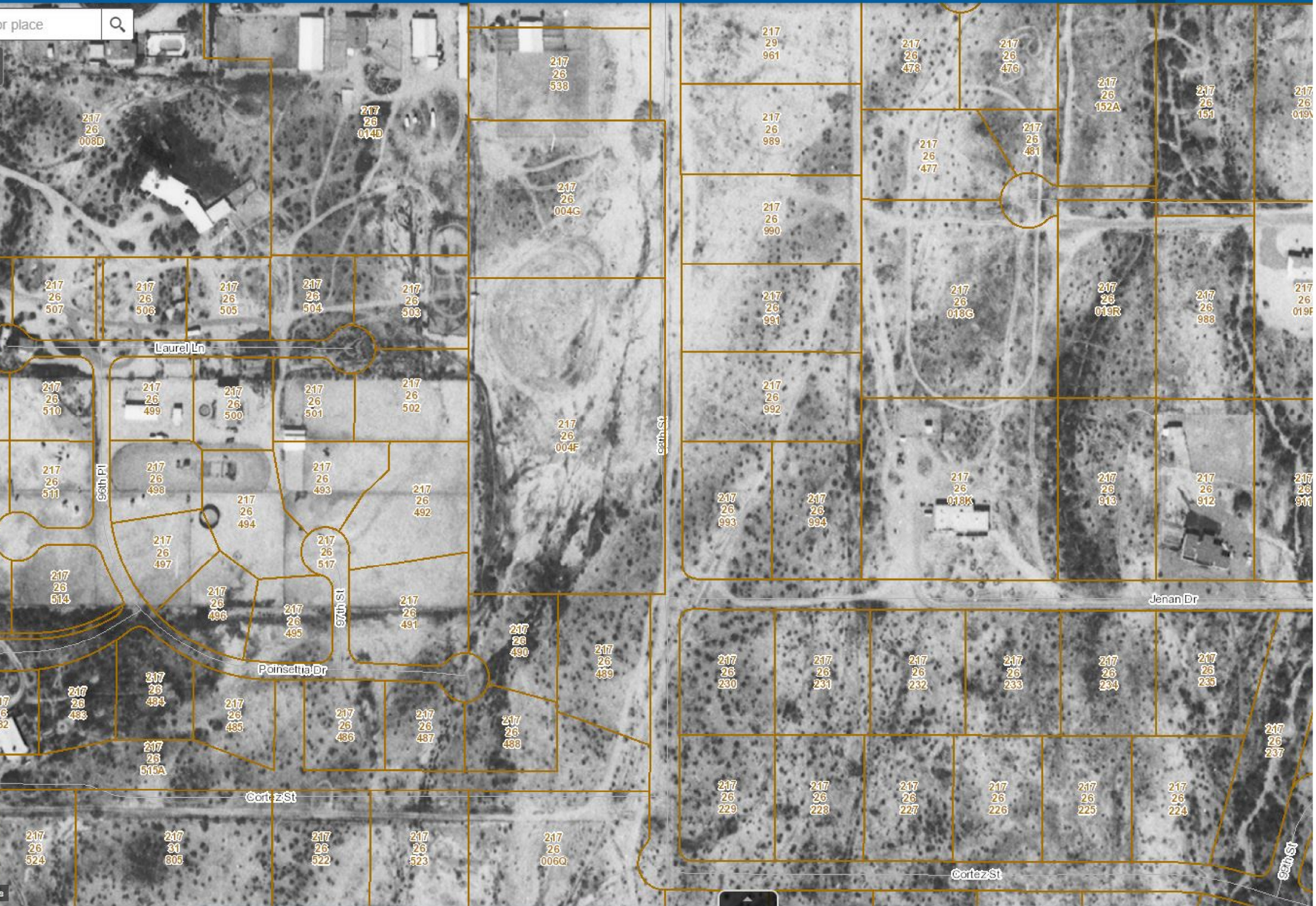
217 26 515G

217 26 515H

217 26 515I

217 26 515J

217 26 515K



0 100 200ft

-111.871001 33.594315 Degrees

217 26 515L

217 26 515M

217 26 515N

CITY
COPY

BELLISSIMA ESTATES

NW QUARTER SECTION 20

TOWNSHIP 3 NORTH, RANGE 5 EAST

GILA & SALT RIVER BASE AND MERIDIAN

MARICOPA COUNTY, ARIZONA

APN 217-26-985

PRELIMINARY DRAINAGE REPORT

Plan # _____
Case # 4-PP-2016
Q-S # _____
 Accepted
 Corrections
N. Baronas 4-4-17
Reviewed By Date



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3.	PROPOSED DRAINAGE PLAN.....	Pg. 1
4.	SPECIAL CONDITIONS.....	Pg. 4
5.	DATA ANALYSIS METHODS.....	Pg. 4
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EXP: 3-31-19

1. INTRODUCTION

Bellissima Estates is anticipated to be a 6 lot subdivision located in the NW quadrant of E. Jenan Drive and N. 98th Street, being a portion of the NW quarter of Section 20, Township 3 North, Range 5 East of the Gila and Salt River Base and Meridian. It is described as Lot 2 of the Minor Land Division-Lot Line Adjustment of Bellissima Farms. The property is a 5.79 acre parcel on property that has been used as a horse property for breeding and training horses. Due to the recent demolition of out buildings and corrals the site is relatively void of vegetation except for the bushes around the perimeter of the property. It is mild sloping at slightly less than 1% from North to South. N. 98th Street is paved without curb and gutter and E. Jenan Drive is paved on the South side of the street with a 4 inch rolled curb.

The purpose of this preliminary drainage report is to investigate and address the site drainage conditions and provide the necessary storm retention for the difference between the pre-development runoff and the post-development runoff and not overflow the basin during the peak flow of the 100-yr storm.

2. DESCRIPTION OF EXISTING DRAINAGE CONDITIONS AND CHARACTERISTICS

This site is gently sloping from North to South at 0.81% runoff currently sheets across the property draining onto E. Jenan Drive and continuing West to the intersection with 98th St., where it flows South. There is no significant offsite flow onto the site other than the sheet flow from the property adjacent to the North, then across this development in the same manner and onto E. Jenan Drive. This offsite runoff will be brought onto the site in a drainage swale along the North boundary and turned into another swale running South in the 8' PUE and be released in the SW corner of the site where it has historically flowed. The retention basins along the N. 98th Street frontage will be moved to the East allowing room for the drainage swale, enabling the offsite runoff to be kept separate from the onsite. The calculated peak flow of the offsite flow is 7.4 cfs.

The FEMA Flood Insurance Rate Map No. 04013C1780L revised on October 16, 2013 shows the site in a Zone "X" designated flood zone, this zone being defined as an area of minimal flood potential.

3. PROPOSED DRAINAGE PLAN

In developing the 6 lots for single family residences the existing drainage pattern will be maintained, providing for overflow at the southwest corner of the property. Privacy walls separating the lots will be constructed to allow the sheet flow to pass from one lot to the next as it historically has, however we have opted to retain the runoff from Lots 1 & 2 separately from Lots 3 – 6.

These two lots will drain from the East boundary to the N. 98th St. frontage retention basin, which will be covered by a drainage easement. Lots' 3 – 6 runoff will be contained in a retention basin provided on Lots 5 and 6. We have estimated a 15,000 square foot area of building and hardscape to establish the runoff coefficient for the developed site, which turns out to be very close to the value of Figure 4.1-4 of the City DSPM. To better facilitate the lot sizes that are anticipated by the developer, as mentioned, we are providing storm retention in a basin located in conjunction with the southerly two lots of the development, being Lots 5 and 6 and a smaller basin located on Lots 1 and 2. We will calculate the size of the retention basins being the difference between the pre-development runoff and the post-development runoff. When the difference in the volume of runoff is calculated per the Maricopa County Flood Control Drainage Design Manual and considering the half streets of both 98th Street and Jenan Drive, we show a volume of 5,614 ft.³, however when the peak flow of the developed site is calculated for the site time of concentration, T_c that volume will be exceeded upon reaching the peak runoff of the storm hydrograph. Therefore we have analyzed the pre-development and post-development hydrographs overlain on each other to determine the size of a retention basins that will retain the runoff past the peak flow of the 100-yr. storm event. This analysis is shown below.

A. Pre-development Peak Runoff Analysis Lots 1 & 2:

Per City of Scottsdale Design Standards & Policy's Manual and
Per Maricopa County Flood Control Drainage Design Manual;

DA-1 = 76,028 ft.² / 1.75 ac (See Pre-Development Drainage Area Fig. 1, Pg. 6)
Calculate T_c of DA-1 using: $T_c = 11.4 \times L^{0.5} \times K_b^{0.52} \times S^{-0.31} \times i^{-0.38} = 5 \text{ min.}$

Where: L = length of longest flow path in miles = 0.11 mi.
 K_b = flow resistance coefficient = 0.038
 S = slope in ft./mi. = 26.3 ft./mi.
 i = rainfall intensity in in./hr. = 9 in./hr. by iteration.

DA-1 Peak Runoff; $Q = C \times I \times A = 6.3 \text{ ft.}^3/\text{sec.}$

Where: C = runoff coefficient = 0.40 this being determined from
Figure 4.1-4 lying between "undisturbed natural desert
and "agricultural areas, more heavily toward the former.
 i = rainfall intensity from the T_c iteration = 9 in./hr.
 A = drainage basin area in acres = 1.75 ac., as a portion of
Lots 1 and 2 does not reach the point of concentration
for this consideration.

B. Post-development Peak Runoff Analysis Lots 1 & 2:

(See Post-Development Drainage Area Fig. 2, Pg. 7)

Calculating T_c of DA-1 by similar iteration of the above equation; $L = 0.11$, $K_b = 0.037$, $S = 26.3$ ft./mi. we find that $T_c = 5$ min. giving $i = 9.0$ in./hr., the Area of Post-Development DA-1 is 2.25 ac.

Post-Development DA-1 Peak Runoff; $Q = C \times i \times A = 12.55$ ft.³/sec.

Retention volume required for this basin: is 3,290 ft.³, calculated from analysis of the hydrograph of the pre-development and the post-development runoffs, shown as Figure 3, Pg 8. In sizing the basin for the potential development of a circular drive on each of the lots we have also provided for the displacement of available retention volume for those driveways, being 12 feet wide with 4:1 slopes to the bottom of retention and the maximum depth being 1 foot. This displacement added 1224 ft.³ to the calculated 3,290 ft.³, for a total volume of 4,514 ft.³. The volume provided on the Preliminary Grading & Drainage Plan is 4,622 ft.³. A drainage easement covering this retention basin is provided on the Preliminary Plat Site Plan.

C. Pre-development Peak Runoff Analysis Lots 3-6:

(See Pre-Development Drainage Area Fig. 1, Pg. 6)

DA-2 = 80,900 ft.² / 1.86 ac

Calculate T_c of DA-2 using: $T_c = 11.4 \times L^{0.5} \times K_b^{0.52} \times S^{-0.31} \times i^{-0.38} = 7$ min.

Where: L = length of longest flow path in miles = 0.14 mi.
 K_b = flow resistance coefficient = 0.038
 S = slope in ft./mi. = 36.1 ft./mi.
 i = rainfall intensity in in./hr. = 8.0 in./hr. by iteration.

DA-2 Peak Runoff; $Q = C \times i \times A = 5.95$ ft.³/sec.

Where: C = runoff coefficient = 0.40
 i = rainfall intensity from the T_c iteration = 8.0 in./hr.
 A = drainage basin area in acres = 1.86 ac.

DA-3 = 115,117 ft.² / 2.65 ac

Calculate T_c of DA-2 using: $T_c = 11.4 \times L^{0.5} \times K_b^{0.52} \times S^{-0.31} \times i^{-0.38} = 8$ min.

Where: L = length of longest flow path in miles = 0.19 mi.
 K_b = flow resistance coefficient = 0.037
 S = slope in ft./mi. = 39.0 ft./mi.
 i = rainfall intensity in in./hr. = 7.3 in./hr. by iteration.

DA-3 Peak Runoff; $Q = C \times I \times A = 7.74 \text{ ft.}^3/\text{sec.}$

Where: $C =$ runoff coefficient $= 0.40$

$i =$ rainfall intensity from the T_c iteration $= 7.3 \text{ in./hr.}$

$A =$ drainage basin area in acres $= 2.65 \text{ ac.}$

Total Pre-Development Peak Runoff $= 13.69 \text{ ft}^3/\text{sec.}$

D. Post-development Peak Runoff Analysis Lots 3-6:

(See Post-Development Drainage Area Fig. 2, Pg. 7)

Calculating T_c of DA-2 by similar iteration of the above equation; $L = 0.20$, $K_b = 0.035$, $S = 32.0 \text{ ft./mi.}$ we find that $T_c = 10 \text{ min.}$ giving $i = 6.9 \text{ in./hr.}$, the Area of Post-Development DA-1 is 4.17 ac.

Post-Development DA-2 Peak Runoff; $Q = C \times i \times A = 17.84 \text{ t.}^3 / \text{sec.}$

Retention volume required for this basin: is $7,547 \text{ ft.}^3$, calculated from analysis of the hydrograph of the pre-development and the post-development runoff's, shown as Figure 4, Pg. 9. Similarly to the retention provided on Lots 1 and 2, we will have to provide for the displacement for a circular driveway on Lots 5 and 6, adding $1,224 \text{ ft.}^3$ to the computed volume bringing the required volume to $8,771 \text{ ft.}^3$, the volume provided on the Preliminary Grading and Drainage Plan is $8,965 \text{ ft.}^3$, this basin is also covered by a drainage easement on the Preliminary Plat Site Plan.

4. SPECIAL CONDITIONS:

This site has no special project stipulations, no 401 and 404 Permit requirements and no AZPDES requirements.

5. DATA ANALYSIS METHODS:

See Section 3. above "Proposed Drainage Plan" for hydrologic procedures and storm water storage calculation.

6. CONCLUSIONS:

This site has small offsite runoff contribution, being the sheet flow from the property to the North, that property in turn has been cut off from the N-S sheet flow of the area by the E. Cactus Road street improvements. The flow from the adjacent property to the North is not going to be comingled with the runoff from the developed site. This will be facilitated by creating a drainage swale Inside the North boundary that will intercept the portion of that runoff that has historically come onto the site and direct it to another swale which will carry the offsite flow South to the location where it has historically discharged from the site.

2-ZN-92

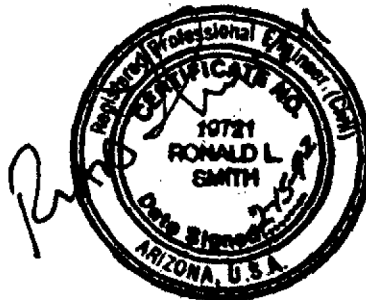
DEVELOPMENT COORDINATION GROUP, Ltd.
Land Development Management Consultants

**PRELIMINARY
DRAINAGE REPORT
FOR
LA CIENEGA**

**PREPARED FOR
LOS ALTOS HILLS REALTY, INC.
8757 E. VIA DE COMMERCIO, #100
SCOTTSDALE, AZ 85258**

**PREPARED BY
DEVELOPMENT COORDINATION GROUP, LTD.
RONALD L. SMITH, P.E.**

**JANUARY 14, 1992
REVISED FEBRUARY 15, 1992**



1.0 INTRODUCTION

This report presents the results of a preliminary analysis of the drainage conditions affecting the development of Las Cienega. La Cienega is a residential subdivision planned for 39 single family lots. This report is prepared, pursuant to rezoning of the subject property, in accordance with City of Scottsdale regulations and requirements.

La Cienega is located in a portion of the northwest quarter of Section 20, T3N, R5E. The site is adjacent to the east of 96th Street approximately 758 feet south of Cactus Road. The subject property is currently part of the Adams Arabian Horse Ranch. The site is bounded by remaining Adam's facility and Westview Farms horse ranch on the north, 4.0 acre residential lot on the east, Cortez Road on the south and 96th Street on the west. See figure 1.1, Location Map.

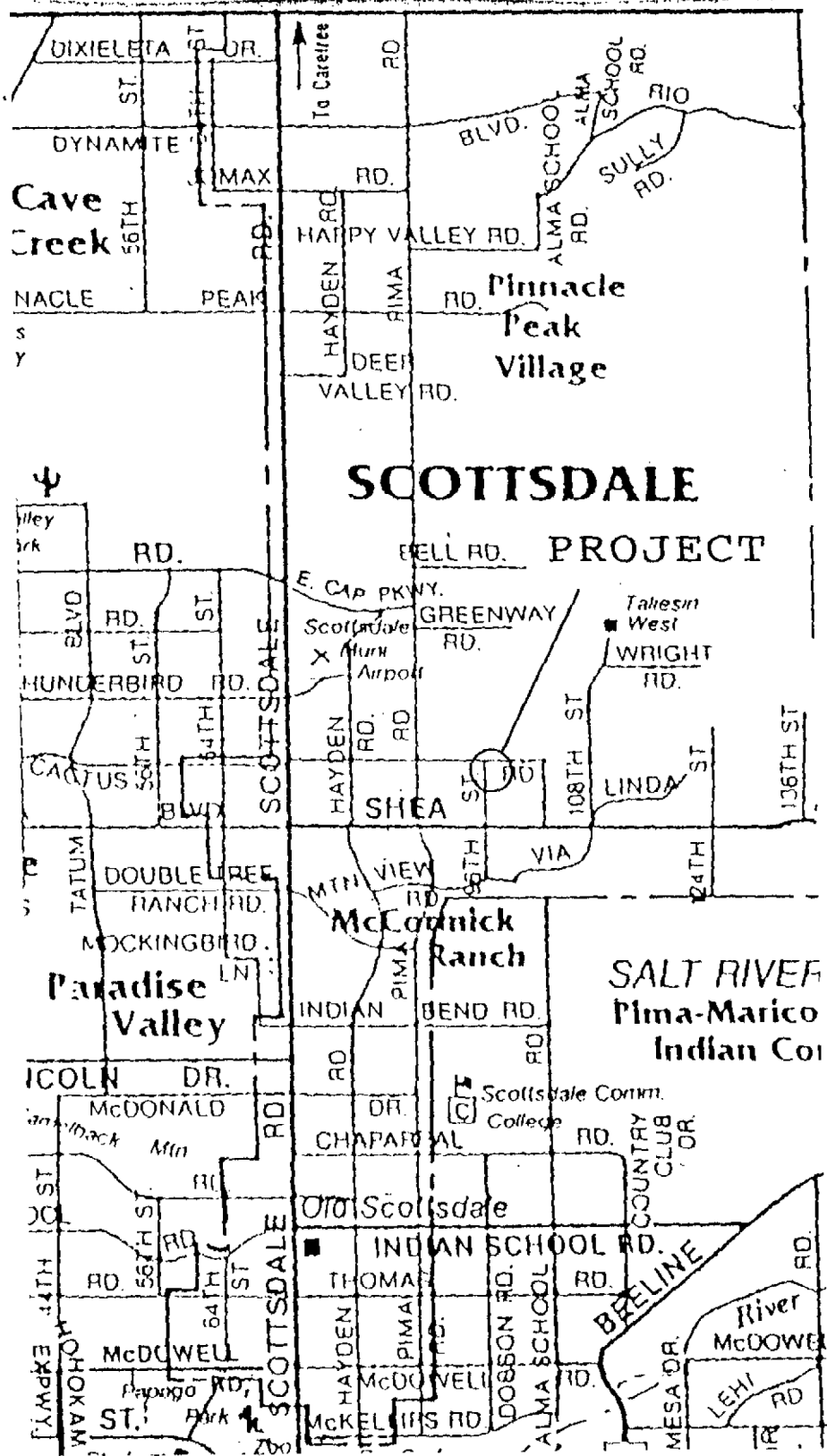
2.0 SITE DESCRIPTION

The subject property has been developed in a manner consistent with the operation of a commercial equestrian facility. The site contains a large covered show arena with attached horse stalls, several covered stall areas and barns, feed storage, training arenas, two residential homes, over 5 acres of pasture, parking areas and other smaller facilities. The predominate surface of the facility is compacted native soil. The pastures are surfaced with wood shavings and manure turned into the top 18" of native soil. A large detention pond is located near the southwest corner of the property; northeast of the existing residence on the corner. There are several drain tiles and a small shallow swale leading into the pond. The pond overflows across the southwest corner and across Cortez Road into the swale along the east side of 96th Street. The overflow tends to cause severe ponding on Cortez at the intersection with 96th Street.

The west half of 96th Street is paved with asphalt and vertical curb and gutter. The drainage swale along the east side of 96th Street is an unlined channel. See figure 2.1 channel section. There are three entrances into the site across the swale. Both entrances are culverted with 1-24" CMP pipe with head walls.

Cortez Road along the south is surfaced with gravel. Cortez Road provides access to three developed and one undeveloped residential lots. Cortez Road does not act as a through street from 96th to 98th, as the road is obstructed by a dirt mound. Cortez Road crosses the swale along 96th Street over 2-24" CMP pipes.

The site is extremely flat, sloping slightly to the southwest. There is very little physical evidence of surface drainage on the site. After the most recent rain there were numerous small shallow ponding areas on the site.



LOCATION MAP

The site is located in Flood Zone B according to the current FIRM, prepared by FEMA.

The subject property is currently zoned R1-35. A special use permit was previously obtained for the commercial equestrian operation. The developer proposes to rezone the property to R1-18 PRD.

3.0 SURROUNDING AREA DRAINAGE DESCRIPTION

The subject property lies within a portion of the City of Scottsdale that was originally preserved for a residential equestrian life style. The main character of the area was to be large acreage lots, one acre minimum, with attached horse facilities. Minimal street improvements were installed with many streets left unpaved. This concept of an equestrian life style was consistent when much of the area and the area to north was undeveloped desert and available for riding. Over the relatively recent years the surrounding area has experienced considerable residential development, with densities of two units to the acre and greater.

The subject property was included in the Pima/Doubletree Area Master Drainage Plan (P/D MP) prepared by Boyle Engineering Corporation, November 1989. The purpose of the study was to evaluate the drainage facilities constructed with the development of the surrounding areas in conjunction with the existing horse properties and to make recommendations on facilities required to complete the drainage system.

The subject property is within the D40 sub basin per the P/D MP. Drainage north of Cactus Road does not enter the subject property but drains to the swale along 96th Street. The P/D MP determined the existing runoff and compared it to the channel capacity for the reach along the property frontage. According to the study the 100 year runoff Q at Cactus is 32 CFS and at Cholla is 178 CFS and the channel capacity at Cholla is 85 CFS. Page 7 and exhibit 1 are included in the appendix for reference. The channel currently is undersized at Cholla. The P/D MP provides several alternatives for improvements to the watershed contributing flows to this reach of the channel which would mitigate the capacity problem, however these improvements have not been undertaken to date. The channel will be enlarged to the appropriate capacity, as part of the improvements for the project. A preliminary channel sizing is included in the appendix of this report.

4.0 STORM WATER MANAGEMENT FACILITY DESIGN

As previously described in section 2.0, there are no prominent drainage conveyance facilities within the site. Per section 3.0,

36

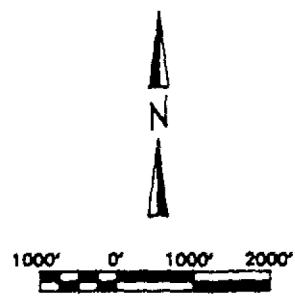
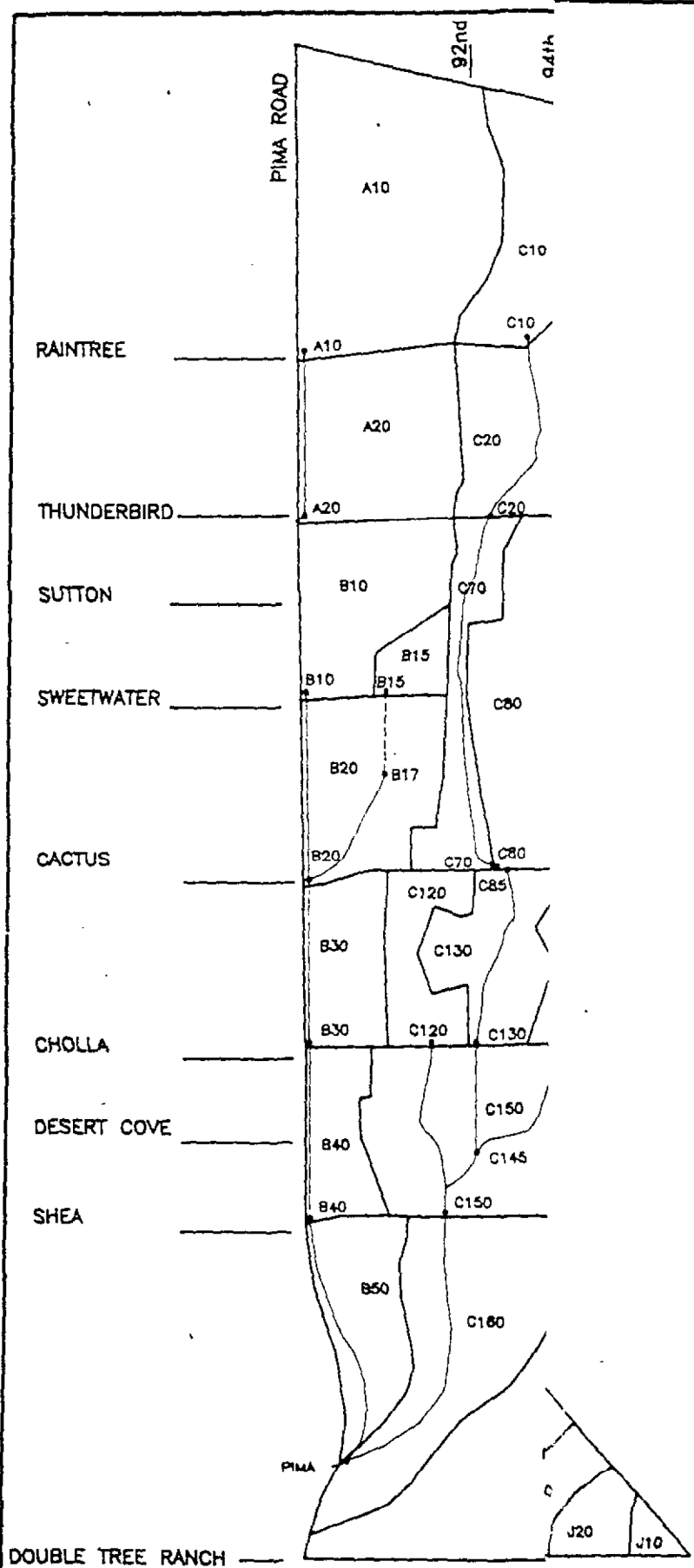
the existing outfall for drainage from the property is the channel along 96th Street. This channel does not have the required capacity to convey the existing predevelopment flows, therefore retention facilities will be provided to control storm water within the site, in accordance with City of Scottsdale Revised Code. The retention facilities will be designed to store the runoff generated from the 100 year 2 hour duration event. The appendix contains the computations which establish the amount of retention required. Retention capacity was not provided for the east half of 96th Street and the adjacent swale and the north half of Cortez Road because these areas do not drain toward the site. The required quantity of retention is 119,640 cubic feet. The retention basins will be drained within 95 hours per City of Scottsdale Revised Code. Basin design will include percolation if soil tests permit or a bleed-off system into the 96th Street swale.

The retention requirement will be satisfied by several landscape areas planned within the project and on the project perimeter. The preliminary drainage plan shows the drainage areas and the retention basin serving each area. The retention basin sizing and the required volumes are located in the appendix.

The streets within the project will act as storm water carriers, in accordance with City of Scottsdale requirements. The streets will be designed to convey the runoff from the 10-year storm event based on the rational method of runoff analysis using a runoff coefficient of C-0 57. The appendix contains the calculation verifying the street capacity.

The finish floors will be established above the elevation of the floodwater from the 100-year event storm, in accordance with City of Scottsdale revised code and FEMA regulations, the final grading plan for the project will establish the finish floors, which will be certified by an engineer registered in the State of Arizona.

EXHIBIT 1



LEGEND

B30	SUB BASIN
—	EXISTING DRAINAGEWAY
---	EXISTING STREET FLOW
▨	EXISTING STORAGE
D30	DRAINAGE NODE

EXISTING HYDROLOGIC MAP

Project Data:

Project Acreage: 22.8 Phase I
 10.39 Phase II
 33.19 Total
 Number of Lots: 38 Phase I
 15 Phase II
 (53 Total)
 Existing Zoning: R1-35
 Proposed Zoning: R1-18

② Indicates one-story/19' building hgt. limit.

Sunnyside Drive

R1-35 PCD Equestrian Trail

20' min. Landscape Setback

Poinsetta Drive Entry

R1-43 PCD

Maintain Existing Trees & Supplement w/ Desert Shrubs

6" Wall (4" Block & 2" Wrought Iron)-typ.

Existing Lot Line-typ. R1-35

Potential Land Split Lot Line-typ.

R1-35

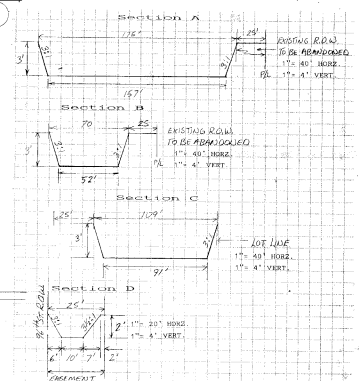
Cactus Road

30' Landscape Setback

R1-35

R1-35

R1-35 PRD



Revised 4/10/12

DEVELOPMENT COORDINATION GROUP, L.L.C.
 Land Development Management Consultants

6901 E. Camelback • Suite B-111 • Scottsdale, AZ 85251

G. WILLIAM LARSON ASSOC., INC.
 (602) 837-0837

Conceptual Development Study for: **CONCEPTUAL DRAINAGE PLAN**

La Cienega

Scottsdale, Arizona

North
 Scale: 1"=100'

DATE	
DRAWN	
REVISED	

2-ZN-92

The offsite flow from the East onto Lot 1 is cut off by the CMU wall existing on the property to the East, South of the CMU wall begins the pilaster and wrought iron fence on the Bellissima Estates property, which has historically allowed any sheet flow that may exist flow onto the site from the East. It appears that this may occur in some locations and not in others but will be minimal in those instances where flow may come from the East.

When the wrought iron is replaced with CMU the bottom course of CMU will allow for sheet flow by turning blocks on their side to accommodate it. The objective of this report has been to size the site storm retention for the 100-yr. storm event, retaining the difference between the pre-development and post-development runoff volumes. Important to the design was to assure that the peak runoff from the developed site would not overflow the retention basin designed. The basin volume has been calculated to accommodate that excess volume, per the discussion in Section 3 of this report. Given this analysis it can be determined that there will be no adverse impact upstream or downstream upon any of the adjacent residents.

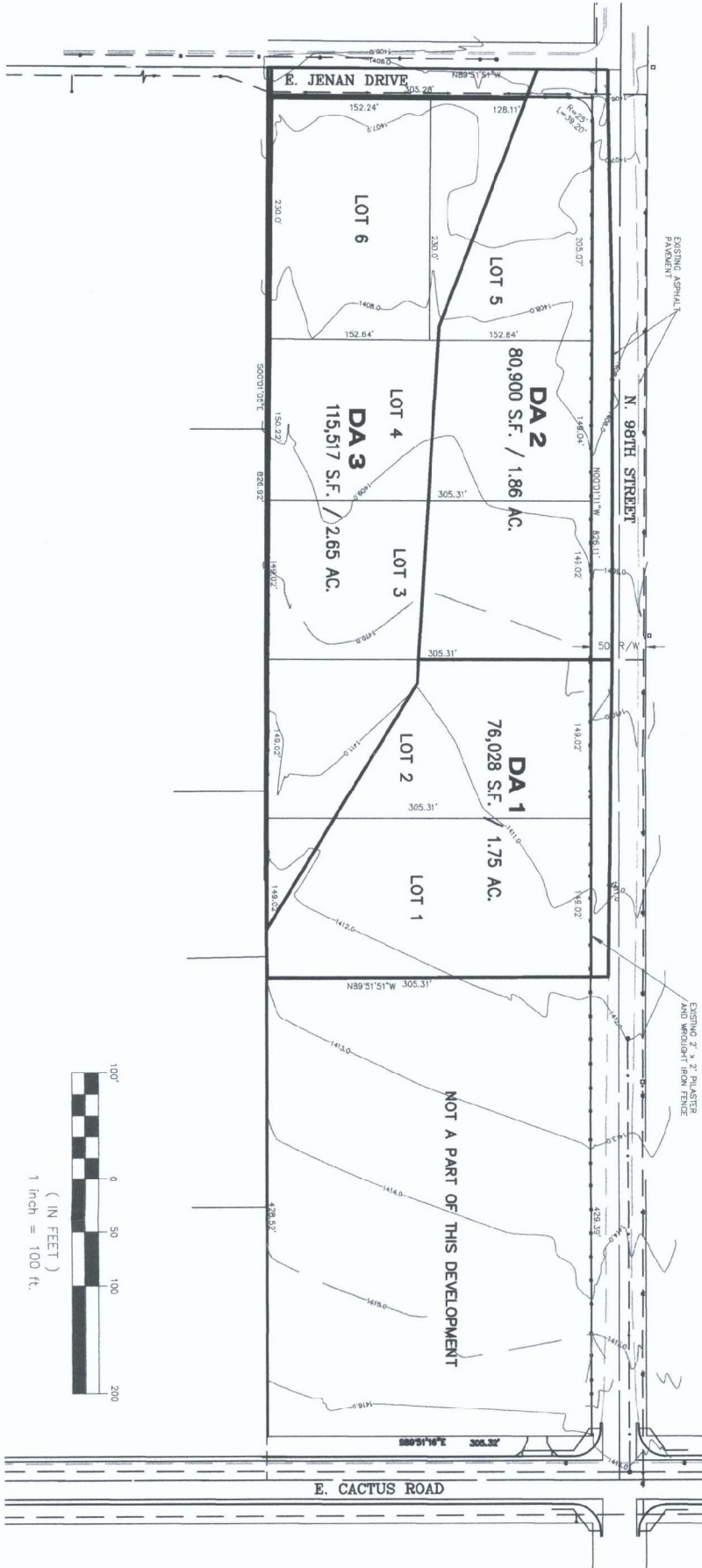
7. WARNING AND DISCLAIMER OF LIABILITY:

The "Warning and Disclaimer of Liability" document located in the City Design Standards & Policies Manual has been signed and included in the Appendix.

8. REFERENCES:

Maricopa County Flood Control "Drainage Design Manual" (Volume 1 Hydrology)
City of Scottsdale "Design Standards & Policies Manual"

PRE-DEVELOPMENT DRAINAGE AREAS

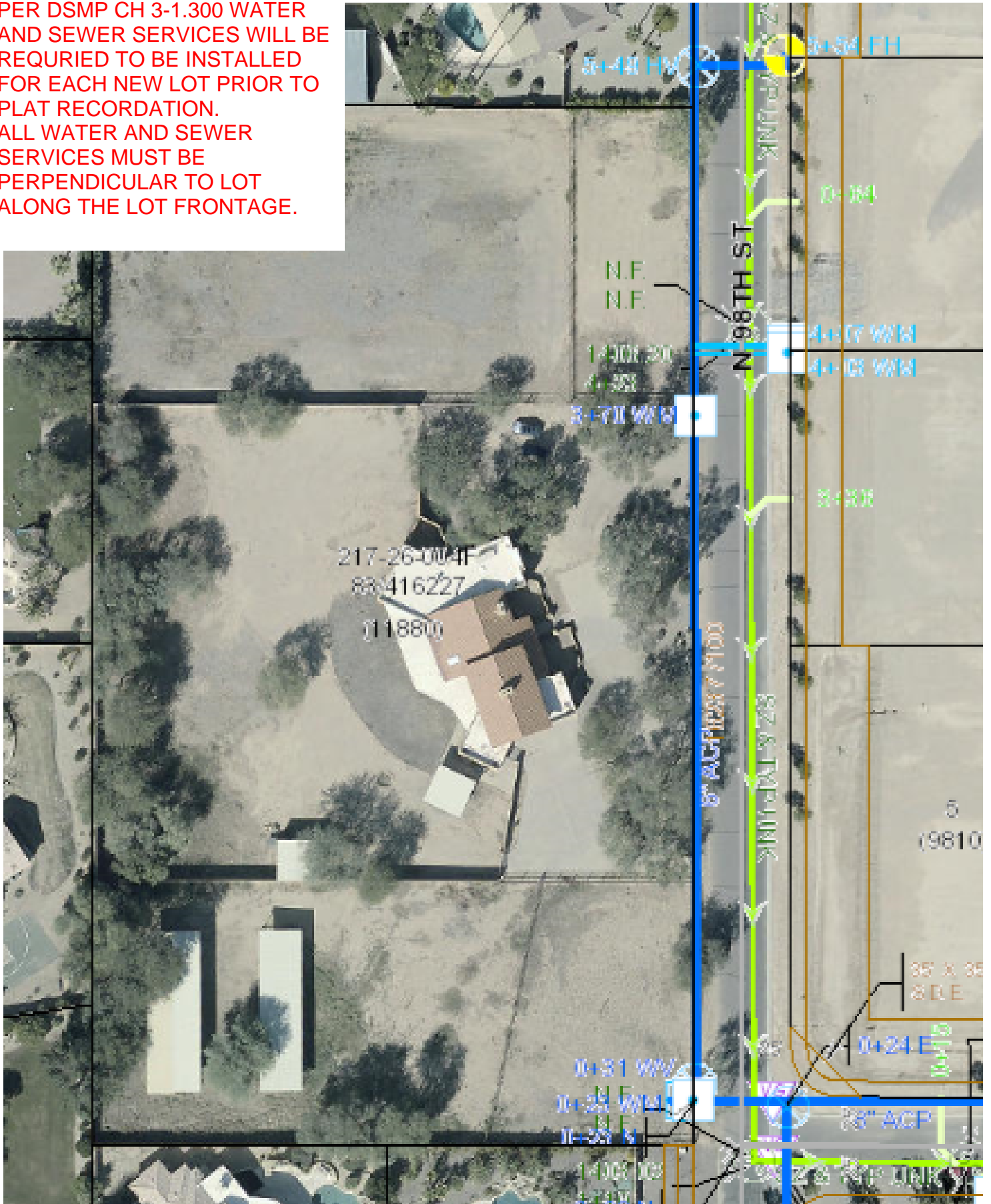


ROSENDAHL ENGINEERING
 857 N. BARKLEY ST.
 MESA, ARIZONA 85203
 (480) 599-1263 TEL
 (480) 834-2163 FAX

BELLISSIMA ESTATES

PROJECT NO. 160489
 DATE 1/30/17
 SHEET 1 OF 1

THIS IS A MINOR SUBDIVISION. PER DSMP CH 3-1.300 WATER AND SEWER SERVICES WILL BE REQUIRED TO BE INSTALLED FOR EACH NEW LOT PRIOR TO PLAT RECORDATION. ALL WATER AND SEWER SERVICES MUST BE PERPENDICULAR TO LOT ALONG THE LOT FRONTAGE.



Transportation is requiring roadway improvements along the frontage to match existing to the south; c/g and width to match.

width to carry the peak 100-year flow without endangering life or property outside the easement or tract.

C. Utilities

1. Show the proposed layout of water and sewer lines for the subdivision. Indicate the size of the lines and direction of flow.
2. All other utility easements are private from the association to the utility companies.

FINAL PLATS

A final plat must be in substantial conformance with the approved PP and all applicable City Codes and Ordinances. The applicant is responsible to obtain and fulfill all City Codes and Ordinance requirements whether they are referenced or stated in this manual. The final plat is subject to City Council approval and must be recorded in Maricopa County Recorder's Office. Submit the final plat prepared and sealed by a registered Land Surveyor as per Plat Minimum Standards Appendix 3-1A, and the Final Plat Dedication Example Appendix 3-1C, for review by city staff and City Council. The owner is responsible for preparing, constructing and financing all public improvements associated with the final plat. The owner must have an engineer registered in the State of Arizona prepare a complete set of engineering plans for constructing required improvements. Such plans shall be based on the approved PP, zoning case, DRB and staff approval stipulations. Engineering plans shall be subject to approval by the city prior to recordation of the final plat.

3-1.202

MINOR SUBDIVISIONS

The minor subdivision procedure generally applies to proposals to divide property into five or fewer lots. The standard subdivision procedure will be required for proposals containing complications that cannot be adequately addressed in the minor subdivision procedure and for proposals including a new street.

Minor subdivision plats are subject to General Manager or designee approval. Minor subdivision plats are forwarded to the General Manager for approval after all final plans approvals of both plat and improvement plans have been obtained.

Proposals for minor subdivisions are required to construct applicable public improvements. Proposals for non-residential minor subdivisions are subject to additional site plan review by the DRB.

The minor subdivision plat must conform to all requirements as described in the Plat Minimum Standards, Appendix 3-1A, and the Minor Subdivision Dedication Example, Appendix 3-1D.

3-1.300

MINOR SUBDIVISION REQUIREMENTS

- A. If a new street is created, the project must use the standard subdivision procedure.
- B. All residential lots created must meet the development standards or amended development standards of the applicable zoning district.
- C. The improvement plans must address any staff-imposed stipulations.
- D. All non-residential lots created must meet the DRB's approved development standards.

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- E. Minor subdivisions will be required to develop under the standards of the Environmentally Sensitive Lands zoning district as well as the Character Districts.
- F. Major terrain features and washes with a flow of 50 cubic feet per second (cfs) or greater shall remain in their natural state and not be altered, disturbed or diverted unless a wash modification request is approved.
- G. All internal streets will either be public right-of-way or private tracts. If the streets are private tracts, the entrance to the minor subdivision must have controlled access. No easements will be accepted for streets or access.
- H. Before a building permit is issued on any lot in a minor subdivision with private tracts, the applicant must supply satisfactory evidence to the city that: (i) water, sewer and all other required public improvements are provided, (ii) tracts are clearly identified and their purposes specifically noted, (iii) tracts are owned in common by all the lot-owners in the minor subdivision, (iv) lot-owners have authority to collect funds for maintenance of the tracts and (v) lot-owners will maintain the tracts. This evidence may be supplied by Schedule B to a title insurance policy issued on the first lot sold, identifying CC&R's recorded against the minor subdivision. The title insurance policy cannot be more than thirty (30) days old at the time of its submittal.
- I. Staff will require the applicant to provide on-site and off-site public improvements unless a development agreement, approved by City Council, provides for otherwise in form of an in-lieu payment and payment is collected prior to plat recordation.
- J. The applicant for a minor subdivision must post a bond, or provide other acceptable assurance, and execute a covenant to construct to assure the construction of public improvements, subject to approval by the Planning and Development Services General Manager, if plat is to be recorded prior to improvements being constructed.
- K. If facilities are shared in a nonresidential minor subdivision, a shared facilities agreement with all owners of affected lots addressing parking, open space, retention, maintenance, building volume and access is required and submitted during plat review process.

IMPROVEMENT PLANS & FINAL PLATS

3-1.302

After the city staff's notification that the applicant may proceed, the applicant is then ready to submit improvement plans and a proposed final plat. The improvement plans, and final plat must be in conformance with each other. The final plat must conform to all requirements as described in the Plat Minimum Standards, Appendix 3-1A.

The owner is responsible for preparing, constructing and financing all public improvements associated with the final plat. The owner must have an engineer registered in the State of Arizona prepare a complete set of engineering plans for constructing required improvements. The owner must have a Land Surveyor registered in the State of Arizona prepare the final plat. Such plans shall be based on the staff approval stipulations. Final plat may not be recorded until it and the improvement plans have been approved nor until an approved covenant to construct and assurance have been secured.

