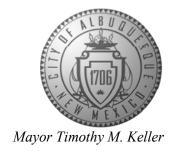
CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



March 20, 2023

Åsa Nilsson-Weber, P.E. Isaacson & Arfman, P.A. 128 Monroe St. N.E Albuquerque, NM 87108

RE: 5509 Escondina Lane NW

Grading and Drainage Plan

Engineer's Certification Date: 03/14/23

Engineer's Stamp Date: 12/07/22

Hydrology File: F14D076D

Dear Ms. Nilsson-Weber:

PO Box 1293

Based upon the information provided in your submittal received 03/14/2023, the Grading and Drainage Plan is approved for Building Permit and Building Pad Certification for 5509 Escondina Lane NW. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

Albuquerque

PRIOR TO CERTIFICATE OF OCCUPANCY:

NM 87103

1. Engineer's Certification, per the DPM Part 6-14 (G): Engineer's Certification Checklist for Subdivision and Part 6-14 (H): Required Certification Language is required.

www.cabq.gov

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette, P.E. CFM Senior Engineer, Hydrology

Renée C. Brissette

Planning Department



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

Project Title: <u>5509 Escondida Lane</u> Buildi	ng Permit #Hydrology	<u> </u>
DRB # PR-2018-001501	EPC#	
Legal Description: Lot 3, Bosque Escondido		Ln. NW
Applicant/Agent: Isaacson & Arfman, Inc.	Contact: Åsa Nilsson-Weber or Bryan	<u>J. Bo</u> bri
Address: 128 Monroe Street NE	-	
Email: asaw@iacivil.com		
byranb@iacivil.com		
Applicant/Owner:	Contact:	
Address:		
Email:		
TYPE OF DEVELOPMENT:PLAT (#of lots)[RE-SUBMITTAL:YESX_ NO		
DEPARTMENT: TRANSPORTATIONX Check all that apply:	HYDROLOGY/DRAINAGE	
TYPE OF SUBMITTAL: TY	PE OF APPROVAL/ACCEPTANCE SOUGI	HT:
ENGINEER/ARCHITECT CERTIFICATION	X BUILDING PERMIT APPROVAL	
X_PAD CERTIFICATION	CERTIFICATE OF OCCUPANCY	
CONCEPTUAL G&D PLAN	CONCEPTUAL TCL DRB APPROVAL	
GRADING PLAN	PRELIMINARY PLAT APPROVAL	
DRAINAGE REPORT	SITE PLAN FOR SUB'D APPROVAL	
DRAINAGE MASTER PLAN	SITE PLAN FOR BLDG PERMIT APPRO	VAL
FLOOD PLAN DEVELOPMENT PERMIT APP.	FINAL PLAT APPROVAL	
ELEVATION CERTIFICATE	SIA/RELEASE OF FINANCIAL GUARAN	ITEE
CLOMR/LOMR	FOUNDATION PERMIT APPROVAL	
TRAFFIC CIRCULATION LAYOUT (TCL)	GRADING PERMIT APPROVAL	
ADMINISTRATIVE	SO-19 APPROVAL	
TRAFFIC CIRCULATION LAYOUT FOR DRB	PAVING PERMIT APPROVAL	
APPROVAL	GRADING PAD CERTIFICATION	
TRAFFIC IMPACT STUDY (TIS)	WORK ORDER APPROVAL	
STREET LIGHT LAYOUT	CLOMR/LOMR	
OTHER (SPECIFY)	FLOOD PLAN DEVELOPMENT PERMIT	
PRE-DESIGN MEETING?	OTHER (SPECIFY)	
DATE SUBMITTED: 03/14/2023		

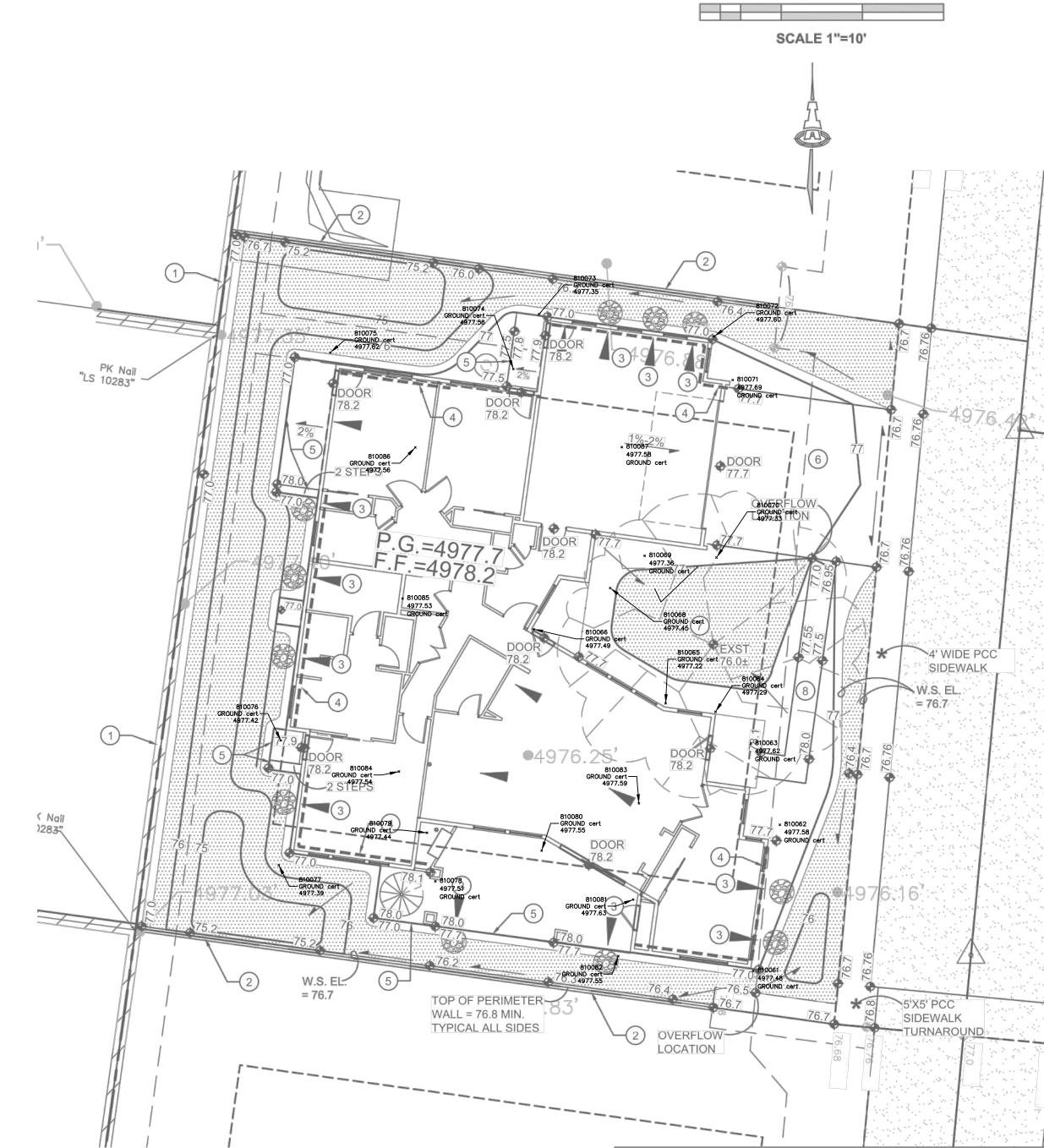
BUILDING PAD CERTIFICATION WITH SURVEY WORK BY PROFESSIONAL SURVEYOR:

I. Åsa Nilsson-Weber, NMPE 17631 of the firm Isaacson & Arfman, Inc., hereby certify that the building pad has been graded in substantial compliance with and in accordance with the design intent of the approved Grading & Drainage Plan dated December 7, 2022. The record information edited onto the original design document has been obtained by Brian Martinez, NMRPS 18374, of the firm Cartesian Surveys, Inc.

A photograph is provided with this certification showing the graded pad and confirming that the information provided by the surveyor is representative of actual field conditions and is true and correct to the best of my knowledge and

This certification is submitted in support of a pad certification requesting building

Åsa Nilsson-Weber, NMPE 17631 Date



Development Review Services **HYDROLOGY SECTION**

APPROVED

03/20/23

F14D076D

LEGEND

IMPERVIOUS AREA

PROPOSED CONTOUR PROPOSED SPOT ELEVATION F.F. = 4978.2

"LS 10283"

FLOW DIRECTION FINISH FLOOR ELEVATION PAD GRADE ELEVATION RETENTION POND LIMITS

POND VOLUME CALCULATIONS

CENTRAL COURTYARD Volume of 100-yr, 10-day ponding required = 1,631 CF Volume 77.0 290 Volume Provided: Main Surface pond 148 CF = 1,581 CF POND VOLUME = 148 CF Courtyard ponding around existing tree

> TOTAL VOLUME PROVIDED = 1,729 CF

= 148 CF

CALCULATIONS: Lot 3, Bosque Escondida: June 16, 2022 Based on City of Albuquerque DMP, Article 6-2 Hydrology dated June 26, 2020 AREA OF SITE 8734 SF = 0.2005 ACRE 100-year, 6-hour DEVELOPED FLOWS: EXCESS PRECIP: Precip. Zone Area A $E_A = 0.62$ 3371 $E_{\rm B} = 0.80$ 1048 $E_C = 1.03$ Area C = $E_D = 2.33$ Area D 4315 49% Total Area = 8734 100.0% On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm) $E_AA_A + E_BA_B + E_CA_C + E_DA_D$ $A_A + A_B + A_C + A_D$ Developed E 1.58 in.

On-Site Volume of Runoff: V360 = Developed V₃₆₀ 1152 CF

On-Site Peak Discharge Rate: $Qp = Q_{pA}A_A + Q_{pB}A_B + Q_{pC}A_C + Q_{pD}A_D / 43,560$ For Precipitation Zone 2

> $Q_{pC} = 3.05$ 0.7 CFS Developed Q_p

VICINITY MAP F-14

fman,

This design, calculations, and

remain the property of Isaacson &

shall be utilized by any person,

Engineer

firm or corporation for any purpose whatsoever except with the written permission of

87107

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- PROPOSED SPOT AND CONTOUR ELEVATIONS SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF PAVEMENT, TOP OF LANDSCAPING, ETC.). CONTRACTOR SHALL GRADE AND COMPACT SUBGRADE BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.
- POND DESIGN PARAMETERS AND STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN SHALL BE STRICKTLY ADHERED TO FOR CERTIFICATION

GENERAL NOTES

- POST-CONSTRUCTION MAINTENANCE FOR PRIVATE STORMWATER FACILITIES WILL BE THE RESPONSIBILITY OF THE FACILITIES OWNER. ENGINEER RECOMMENDS THAT OWNER INSPECT THE SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY AREAS OF EROSION. ADD ADDITIONAL EROSION
- CONTRACTOR SHALL PROTECT THE ON-SITE INFILTRATION TRENCHES ('IT') PER THE SUBDIVISION GRADING AND DRAINAGE PLAN, THE PROPOSED RESIDENCE SHALL POND STORMWATER WITHIN 10' OF THE RESIDENCE OWNER SHALL COORDINATE WITH STRUCTURAL DESIGNER WITH REGARDS TO THE BUILDING & FOUNDATION REQUIREMENTS RELATING TO THE ADJACENT
- FOR ENGINEER'S CERTIFICATION OF SUBSTANTIAL COMPLIANCE, CONTRACTOR SHALL PROVIDE AN AUTOCAD FORMAT AS-BUILT SURVEY PREPARED BY A LICENSED SURVEYOR WHICH INCLUDES THE FOLLOWING AS-BUILT INFORMATION:

✓ # KEYED NOTES

PROTECTION AS NEEDED.

- SPOT ELEVATIONS AT EACH SPOT ELEVATION SHOWN ON THE APPROVED
- TOP AND TOE LIMITS AND ELEVATIONS FOR PONDS TO ENSURE REQUIRED CAPACITY IS PROVIDED. NOTE: POND ELEVATIONS PROVIDED ON THIS PLAN ARE BASED ON FINISHED LANDSCAPE CONDITION. CONTRACTOR TO GRADE SITE TO ELEVATIONS SHOWN MINUS MATERIAL THICKNESSES.

PROJECT INFORMATION:

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE A

BENCHMARK: ACS MONUMENT DOUGLAS". ELEVATION = 4975.078 (NAVD

FLOOD HAZARD: PER FEMA FIRM MAP #35001C0119G, EFFECTIVE DATE

09/26/2008, THE SITE IS LOCATED WITHIN FLOODZONE 'X' SHADED WHICH IS

THE SITE IS PART OF THE BOSQUE ESCONDIDO SUBDIVISION APPROVED BY

SINGLE FAMILY RESIDENCE WITH ACCESS DRIVE AND ASSOCIATED

LEGAL: LOT 3 OF BOSQUE ESCONDIDO, BERNALILLO COUNTY, NM

OFF-SITE: NO OFF-SITE DRAINAGE AFFECTS THIS PROPERTY.

DEFINED AS AREAS WITH REDUCED FLOOD RISK DUE TO LEVEE.

Elementary

RESIDENTIAL LOTS.

LANDSCAPING AND PONDING.

AREA: 0.2005 ACRES (GROSS)

DRAINAGE PLAN CONCEPT:

EXISTING RETAINING/PRIVACY WALL. CONTRACTOR TO PROTECT DURING PROPERTY: THE SITE IS AN UNDEVELOPED RESIDENTIAL LOT AND IS CONSTRUCTION. BOUNDED TO THE EAST BY AN ACCESS ROAD, THE WEST BY A DEVELOPED RESIDENTIAL LOT, AND TO THE NORTH AND SOUTH BY UNDEVELOPED

NEW PRIVACY WALL. FINAL GRADES SHOWN AT BASE OF WALL ARE REQUIRED TO PROVIDE THE NECESSARY POND VOLUME AND TO PERMIT ON-SITE PONDING TO EQUALIZE. SEE SECTION THIS SHEET.

ROOF DRAIN DISCHARGE: INSTALL EROSION PROTECTION (3' DIA ROCK SPLASHPAD, PRECAST CONCRETE SPLASHPAD, OR EQUAL) AT ALL CONCENTRATED ROOF DRAIN LOCATIONS.

ENGINEER RECOMMENDS INSTALLING 2' WIDE X 8" THICK 4" AVG. DIA. ANGULAR ROCK SWALES TO PASS CONCENTRATED ROOF FLOW FROM SPLASHPADS TO POND BOTTOMS (OWNER'S OPTION). COORDINATE WITH LANDSCAPERS.

EXTENDED STEMWALL TO ACHIEVE GRADES THIS AREA.

- PATIO WITH TURNED DOWN CONCRETE EDGE TO ACHIEVE GRADES THIS AREA. COORDINATE WITH OWNER FOR GUARDRAIL (OWNER'S OPTION).
- BASE COURSE DRIVEWAY.

GEOTECHNICAL REPORT.

TEN FEET OF BUILDING.

PERIMETER PONDING

2000

875

275

POND VOLUME = 1581 CF

Volume

1006 CF

575 CF

76.0

76.7

76.0

75.0

- PROTECT EXISTING TREE.
- 8. PERVIOUS WALKWAY (FLAGSTONE, PAVERS, CRUSHER FINES, O.E.)

BUILDING DESIGN NOTE

THE BUILDING PAD AREA SHALL BE PREPARED AND COMPACTED PER THE

THE BUILDING DESIGN SHALL ADDRESS PONDED STORM WATER WITHIN

WITH AGGREGATE BASE COURSE PAVING.

PAD GRADE = 4977.7 (MIN). OVERFLOW ELEVATION 4976.67.

HYDROLOGY WITH A FLAT GRADING SCHEME AS FOLLOWS:

- EACH LOT IS REQURIED TO STORE THE 100-YEAR 10-DAY VOLUME. ALL ROOF FLOW WILL BE DIRECTED TO THE STORMWATER RETENTION
- WALLS WILL BE CONSTRUCTED ON THE PROPERTY LINES TO CONTAIN THE 100-YEAR 10-DAY MAXIMUM RETENTION VOLUME.
- SINCE ALL STORMWATER IS RETAINED ON THE PROPERTY, NO SEPARATE STORM WATER QUALITY VOLUME IS REQUIRED.

PROPOSED IMPERVIOUS AREA

THE PROPOSED IMPERVIOUS AREA (SHOWN SHADED) = 4,315 SF

INCLUDING PATIOS, WALKS, AND DRIVEWAY. THE STREET IS PERVIOUS

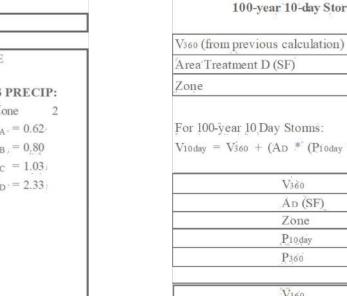
THE PROPOSED IMPERVIOUS AREA IS APPROXIMATELY 49% OF THE TOTAL PROPERTY AREA.

MASTER DRAINAGE PLAN CALCULATED 100-YEAR 10-DAY VOLUME FOR THIS LOT = 1,554CF (BASED ON IMPERVIOUS AREA OF 3,933 SF).

THE REQUIRED 100-YEAR 10-DAY VOLUME INCREASES TO 1,631 CF BASED ON THE PROPOSED IMPERVIOUS AREA.

SEE POND CALCULATIONS THIS SHEET.

HYDROLOGY CALCULATIONS



For 100-year 10 Day Storms: $V_{10day} = V_{360} + (A_D * (P_{10day} - P_{360})/12" per foot)$

100-year 10-day Storm Volume

AD (SF) Zone P360 V360 + imp. area

otal Volume (V10 day)

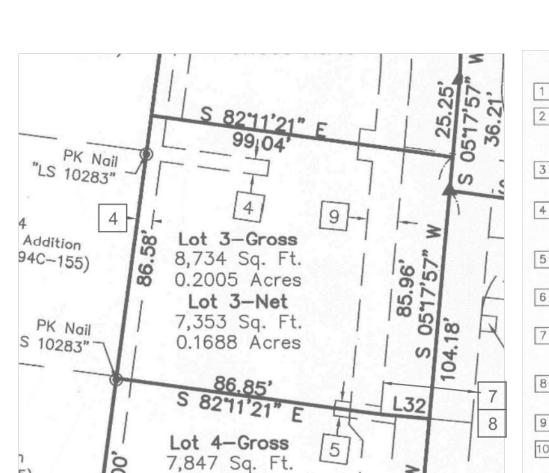
SHEET NUMBER

SHEET TITLE

CG-101

Grading &

Drainage Plan



Easement Notes

THE FILING OF THIS PLAT

- 1 EXISTING 7' P.U.E. (1/7/2000, 2000C-7) 2 EXISTING PRIVATE ACCESS EASEMENT FOR THE BENEFIT DF LOT 6-A-1 (1/7/2000, 2000C-7) SHOWN HEREON
- EXISTING 10' PNM JOINT ELECTRIC AND GAS EASEMENT (9/25/2002, PG. 2644, DOC. NO. 2002122989)
- 4 PRIVATE 5' IRRIGATION LINE EASEMENT, BENEFITING LOTS 1-8 AND MAINTAINED BY THE UNDERLYING OWNER GRANTED WITH THE FILING OF THIS PLAT
- 5 WATER METER EASEMENT GRANTED TO ABCWUA WITH THE FILING OF THIS PLAT
- 6 FIRE HYDRANT EASEMENT GRANTED TO ABCWUA WITH THE FILING OF THIS PLAT 7 PRIVATE ACCESS EASEMENT, BENEFITING LOTS 1-8 AND
- 8 PUBLIC WATER AND SEWER EASEMENT GRANTED TO ABCWUA WITH THE FILING OF THIS PLAT

MAINTAINED BY THE UNDERLYING OWNER GRANTED WITH

- 9 10' P.U.E. GRANTED WITH THE FILING OF THIS PLAT 10 20' PUBLIC WATERLINE EASEMENT GRANTED TO
- ABCWUA WITH THE FILING OF THIS PLAT