

# CITY OF ALBUQUERQUE

*Planning Department*  
Alan Varela, Interim Director



*Mayor Timothy M. Keller*

September 9, 2021

Ron Hensley, P.E.  
The Group  
Branding Iron Rd. SE  
Rio Rancho, New Mexico 87124

RE: **8505 Mesa Rain Rd. NW**  
**Watershed Subdivision**  
**Grading and Drainage Plan**  
**Engineers Certification Date 9/8/21**  
**Engineers Stamp Date 7/7/2021 (H09D017A8)**

Mr. Hensley,

Based upon the information provided in your submittal received 9/8/2021, this plan is approved for Building Permit by Hydrology.

**Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist is required.**

If you have any questions, please contact me at 924-3986 or [earmijo@cabq.gov](mailto:earmijo@cabq.gov).

Sincerely,

Ernest Armijo, P.E.  
Principal Engineer, Planning Dept.  
Development Review Services

PO Box 1293

Albuquerque

NM 87103

[www.cabq.gov](http://www.cabq.gov)



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

**Project Title:** \_\_\_\_\_ **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** \_\_\_\_\_

**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_

**Legal Description:** \_\_\_\_\_

**City Address:** \_\_\_\_\_

**Applicant:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Owner:** \_\_\_\_\_ **Contact:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**TYPE OF SUBMITTAL:** \_\_\_\_\_ PLAT (\_\_\_# OF LOTS) ☒ RESIDENCE \_\_\_\_\_ DRB SITE \_\_\_\_\_ ADMIN SITE

**IS THIS A RESUBMITTAL?:** \_\_\_\_\_ Yes ☒ No

**DEPARTMENT:** \_\_\_\_\_ TRAFFIC/ TRANSPORTATION ☒ HYDROLOGY/ DRAINAGE

Check all that Apply:

### TYPE OF SUBMITTAL:

- ☐ ENGINEER/ARCHITECT CERTIFICATION
- ☐ PAD CERTIFICATION
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ DRAINAGE MASTER PLAN
- ☐ DRAINAGE REPORT
- ☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
- ☐ ELEVATION CERTIFICATE
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ TRAFFIC IMPACT STUDY (TIS)
- ☐ OTHER (SPECIFY) \_\_\_\_\_
- ☐ PRE-DESIGN MEETING?

### TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☒ BUILDING PERMIT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ SITE PLAN FOR SUB'D APPROVAL
- ☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ SO-19 APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☒ GRADING/ PAD CERTIFICATION
- ☐ WORK ORDER APPROVAL
- ☐ CLOMR/LOMR
- ☐ FLOODPLAIN DEVELOPMENT PERMIT
- ☐ OTHER (SPECIFY) \_\_\_\_\_

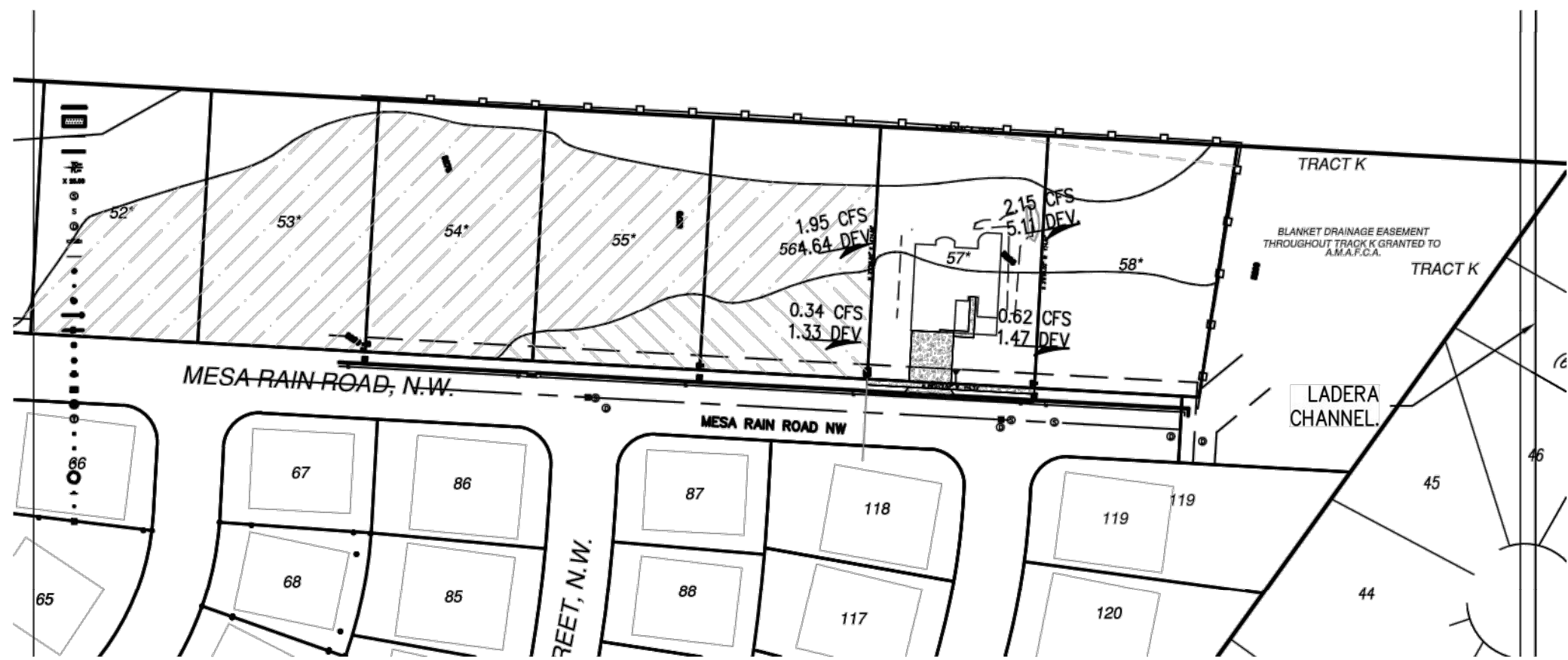
**DATE SUBMITTED:** \_\_\_\_\_ **By:** \_\_\_\_\_

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

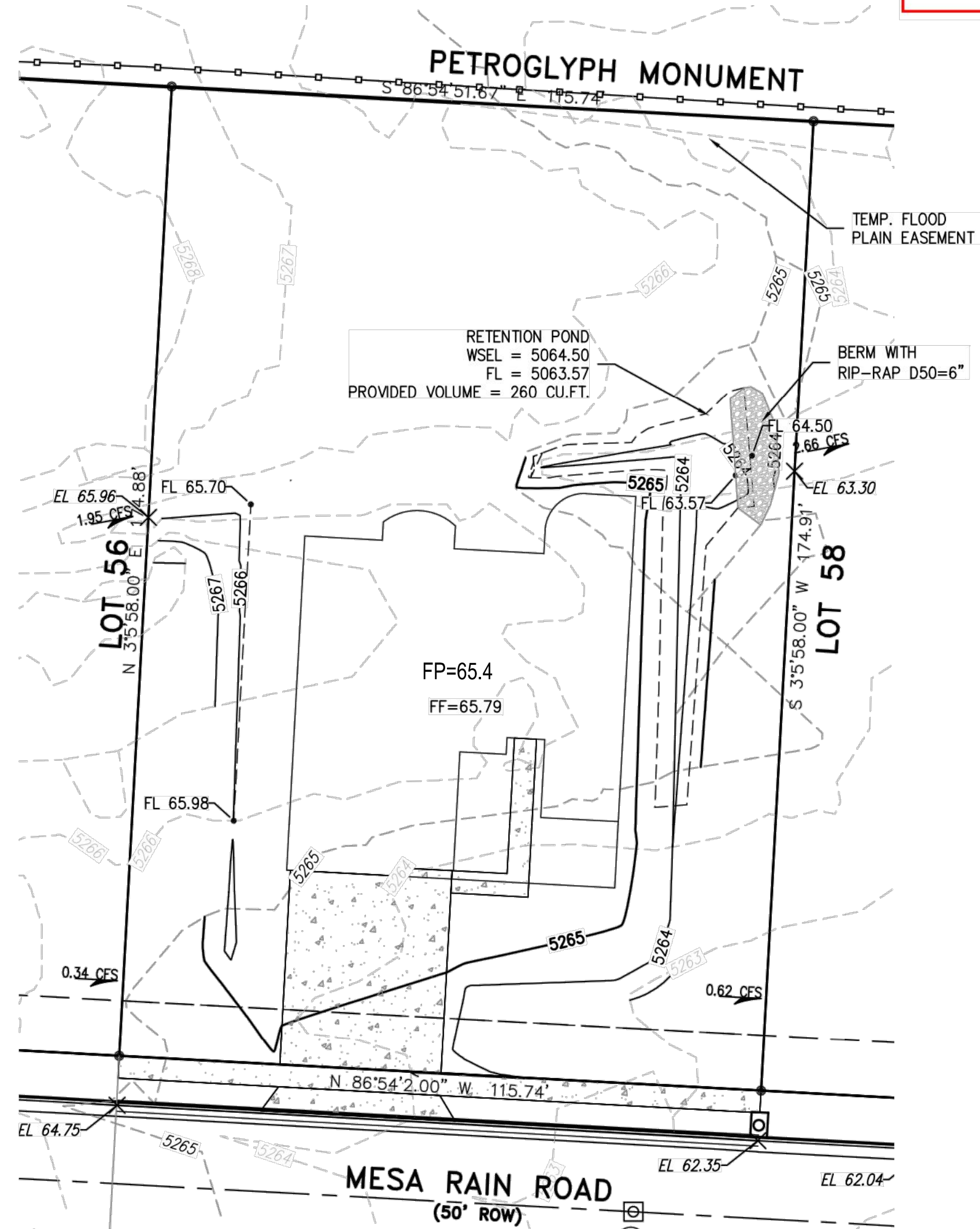
FEE PAID: \_\_\_\_\_





BASIN	AREA (sf)	TREATMENT A %	TREATMENT A sf	TREATMENT B %	TREATMENT B sf	TREATMENT C %	TREATMENT C sf	TREATMENT D %	TREATMENT D sf	WEIGHTED E	VOLUME (cu.-ft.)	FLOW (cfs)
BASIN A	65843	100%	65843	0%	0	0%	0	0%	0	0.4400	2414	1.95
BASIN B	11362	100%	11362	0%	0	0%	0	0%	0	0.4400	417	0.34

## OFFSITE BASINS



## LEGAL DESCRIPTION

LOT 57  
WATERSHED SUBDIVISION  
CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

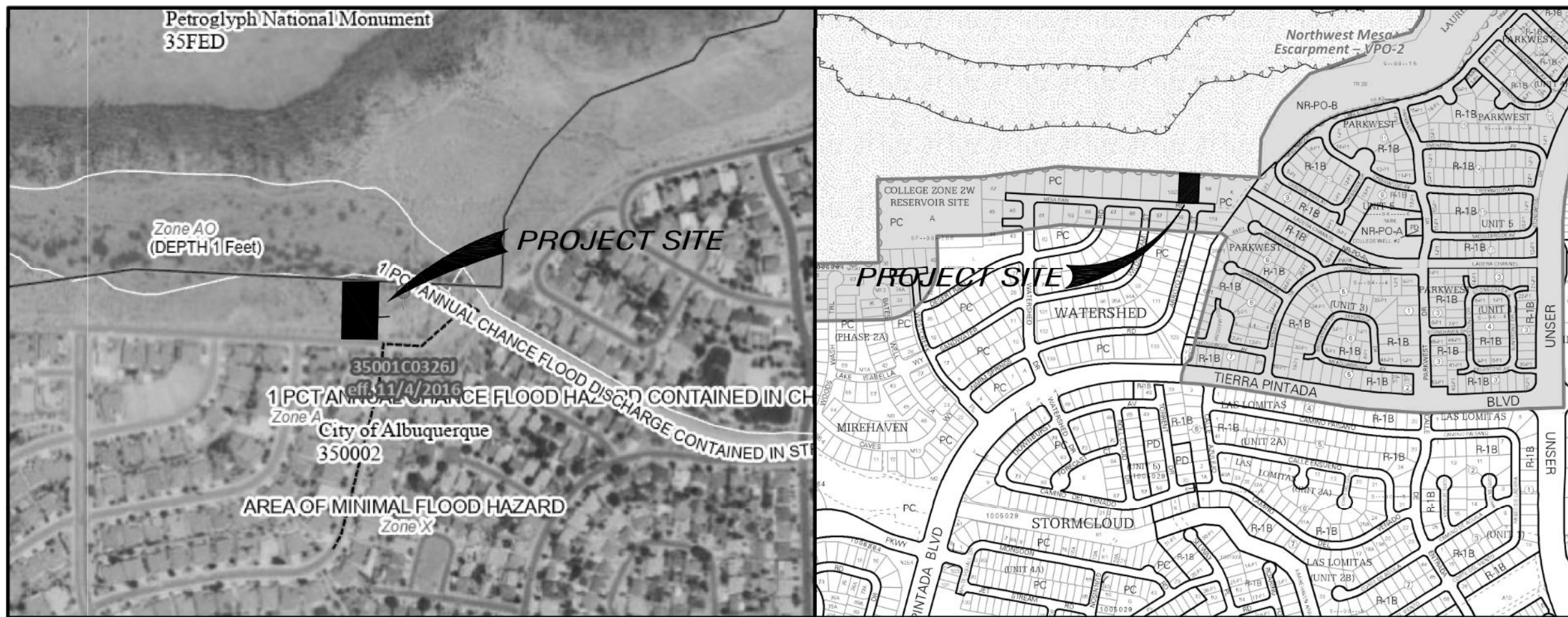
## APPROVED

DATE: 7/21/2021

BY: Ernest Arroyo

HydroTrans # H09D017A8

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE  
CONSIDERED TO BE A GUARANTEE OF THE ACCURACY OF ANY CITY  
ORDINANCE OR THE CITY OF ALBUQUERQUE. THE CITY OF ALBUQUERQUE  
SHALL NOT BE RESPONSIBLE FOR ANY DAMAGE TO PERSONS OR PROPERTY  
CAUSED BY THE USE OF THESE PLANS/REPORT. THE CITY OF ALBUQUERQUE  
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CAUSED BY THE USE OF THESE PLANS/REPORT.



FIRM MAP NO. 35001C0326J

VICINITY MAP H-09-Z

## DRAINAGE INFORMATION

### LOCATION & DESCRIPTION

THE PROPOSED SITE IS 0.46 ACRES LOCATED ON THE NORTH SIDE OF MESA RAIN ROAD WEST OF UNSER BLVD. AS SEEN ON THE VICINITY MAP.

### FLOODPLAIN STATUS

THE CONSTRUCTION OF THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0326J, DATED NOVEMBER 4, 2016 IS NOT WITHIN A DESIGNATED 100-YEAR FLOODPLAIN. AN EXHIBIT WITH THE SITE SHOWN ON THE FIRM PANEL IS INCLUDED ON THIS SHEET.

### METHODOLOGY

#### EQUATIONS:

WEIGHTED E =  $E_a * A_a + E_b * A_b + E_c * A_c + E_d * A_d / (\text{Total Area})$

FLOW =  $Q_a * A_a + Q_b * A_b + Q_c * A_c + Q_d * A_d$

WHERE FOR 100-YEAR, 6-HOUR STORM (ZONE1)

$E_a = 0.55$   $Q_a = 1.54$

$E_b = 0.73$   $Q_b = 2.16$

$E_c = 0.95$   $Q_c = 2.87$

$E_d = 2.24$   $Q_d = 4.12$

BASIN	AREA (sf)	TREATMENT A %	TREATMENT A sf	TREATMENT B %	TREATMENT B sf	TREATMENT C %	TREATMENT C sf	TREATMENT D %	TREATMENT D sf	WEIGHTED E	VOLUME (cu.-ft.)	FLOW (cfs)
EXISTING	20243	100%	20243	0%	0	0%	0	0%	0	0.4400	742	0.60
PROPOSED	20243	50%	10122	30%	6122	0%	0	20%	4000	0.8119	1370	0.99

### PRECIPITATION

THE 100-YR 6-HR DURATION STORM WAS USED AS THE DESIGN STORM FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 1 AS IDENTIFIED IN THE DEVELOPMENT PROCESS MANUAL, SECTION 6-2.

### EXISTING DRAINAGE

THE SITE IS WITHIN THE AREA OF THE WATERSHED SUBDIVISION DRAINAGE PLAN, H09D017A, WITH AN ALLOWABLE DISCHARGE OF 3.07 CFS/AC. GIVING THE LOT AN ALLOWABLE DISCHARGE OF 1.43 CFS. HISTORIC DRAINAGE WHICH ENTERS THE SITE FROM THE WEST DRAINS TO THE EXISTING FLOODPLAIN. THERE ARE TWO BASINS FROM ADJACENT PROPERTIES THAT DRAIN TO THIS SITE. THE MINIMAL FLOWS WILL BE DIRECTED TO THE HISTORIC POINTS OF DISCHARGE.

### DEVELOPED CONDITION

THIS SITE WILL BE DEVELOPED AS A SINGLE FAMILY HOME WITH DEVELOPED RUNOFF ROUTED TO RETENTION PONDS WITH COMBINED VOLUME OF 307 CU.FT. THE PROPOSED TOTAL RUNOFF FROM THE LOT OF 0.99 CFS WILL DISCHARGE TO HISTORIC POINTS.

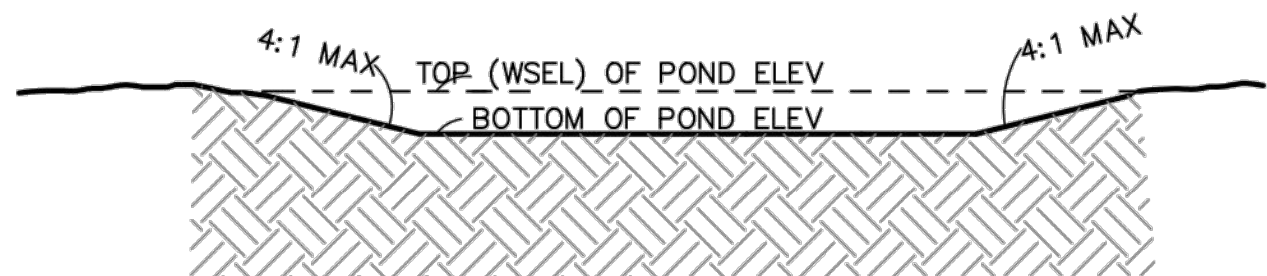
## REQUIRED WATER QUALITY VOLUME

LOT DRAINAGE AS DEPICTED ON THIS PLAN SHALL BE MAINTAINED.

LOT DEPICTED HEREON SHALL BE RESPONSIBLE FOR MAINTAINING WATER QUALITY RETENTION ON THE LOT IMMEDIATELY PRIOR TO DISCHARGE. THE VOLUME SHALL BE EQUAL TO: IMPERVIOUS AREA \* (0.44-0.10)/12 IN CUBIC FEET.

IMPERVIOUS AREA = 4,000 SQ.FT.

REQUIRED VOLUME =  $4,000 * (0.44-0.10)/12 = 113$  CU.FT.  
VOLUME PROVIDED = 260 CU.FT.



## LEGEND

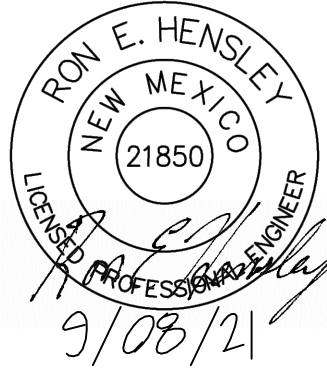
	FLOW ARROW
	SLOPE ARROW
	PROPOSED ELEVATION
	EXISTING ELEVATION
	GRADE BREAK
	EXISTING CONTOUR
	PROPOSED EASEMENT
	PROPOSED GRADE
	EXISTING WALL
	PROPOSED WALL

**THE**  
group

THE HENSLEY ENGINEERING GROUP  
300 BRANDING IRON RD. SE  
RIO RANCHO, NEW MEXICO 87124  
Phone:(505) 410-1622

## DRAINAGE CERTIFICATION

I, RON E. HENSLEY, NMPE 21850, OF THE FIRM THE GROUP, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED READY FOR BUILDING PERMIT IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 7/07/2021. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY TIMOTHY ALDRICH NMPS 7719, OF THE FIRM ALDRICH LAND SURVEYING. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 9/08/2021, AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR GRADING CERTIFICATION. THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.



REVISIONS	BY



**Stillbrooke**  
STILLBROOKE HOMES  
8801 JEFFERSON NE BLDG. A  
ALBUQUERQUE, NM 87113

GRADING AND DRAINAGE PLAN  
8505 MESA RAIN RD NW

DRAWN
DATE 06/15/20
JOB NUMBER
PLAN #
SHEET