

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

April 7, 2025

David Soule, P.E.
Rio Grande Engineering
P.O. Box 93924
Albuquerque, NM 87199

RE: 13515 Pino Ridge PI NE
Grading and Drainage Plan
Engineer's Stamp Date: 3/30/25
Hydrology File: E23D040
Case # HYDR-2025-00105

Dear Mr. Soule:

Based upon the information provided in your submittal received 3/30/2025, the Grading plan is **approved** for Building Permit and Grading Permit. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PRIOR TO CERTIFICATE OF OCCUPANCY:

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 505-924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3314 or amontoya@cabq.gov.

Sincerely,

Anthony Montoya, Jr., P.E., CFM
Senior Engineer, Hydrology
Planning Department, Development Review Services

BASIN DATA

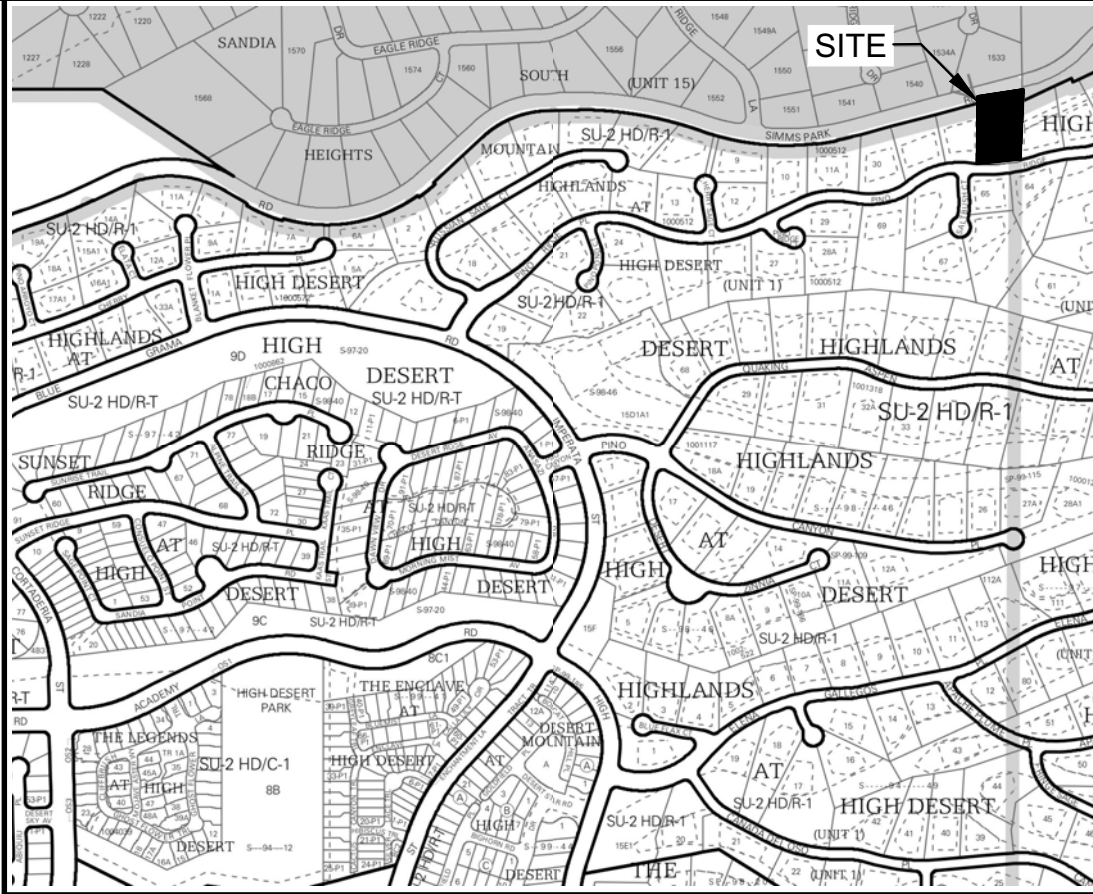
Basin	Area (sf)	Area (acres)	Treatment A %	Treatment B %	Treatment C %	Treatment D %	Q100 GENERATED	V100 GENERATED	Q100 DISCHARGED
EXISTING	37991	0.872	100%	0.8722	0.0%	0.0000	0.0%	0.0000	1.66
TOTALPROPOSED	37991	0.872	45%	0.3925	10.0%	0.0872	26.0%	0.2268	19%
PROPOSED TO POND	25760	0.591	22%	0.1301	25.0%	0.1478	25.0%	0.1478	28%
REMAINING LOT	12231	0.281	93%	0.2624	0.0%	7.0%	0.0197	0%	0.0000

FIRST FLUSH VOLUME=7217' 4212-253 CF

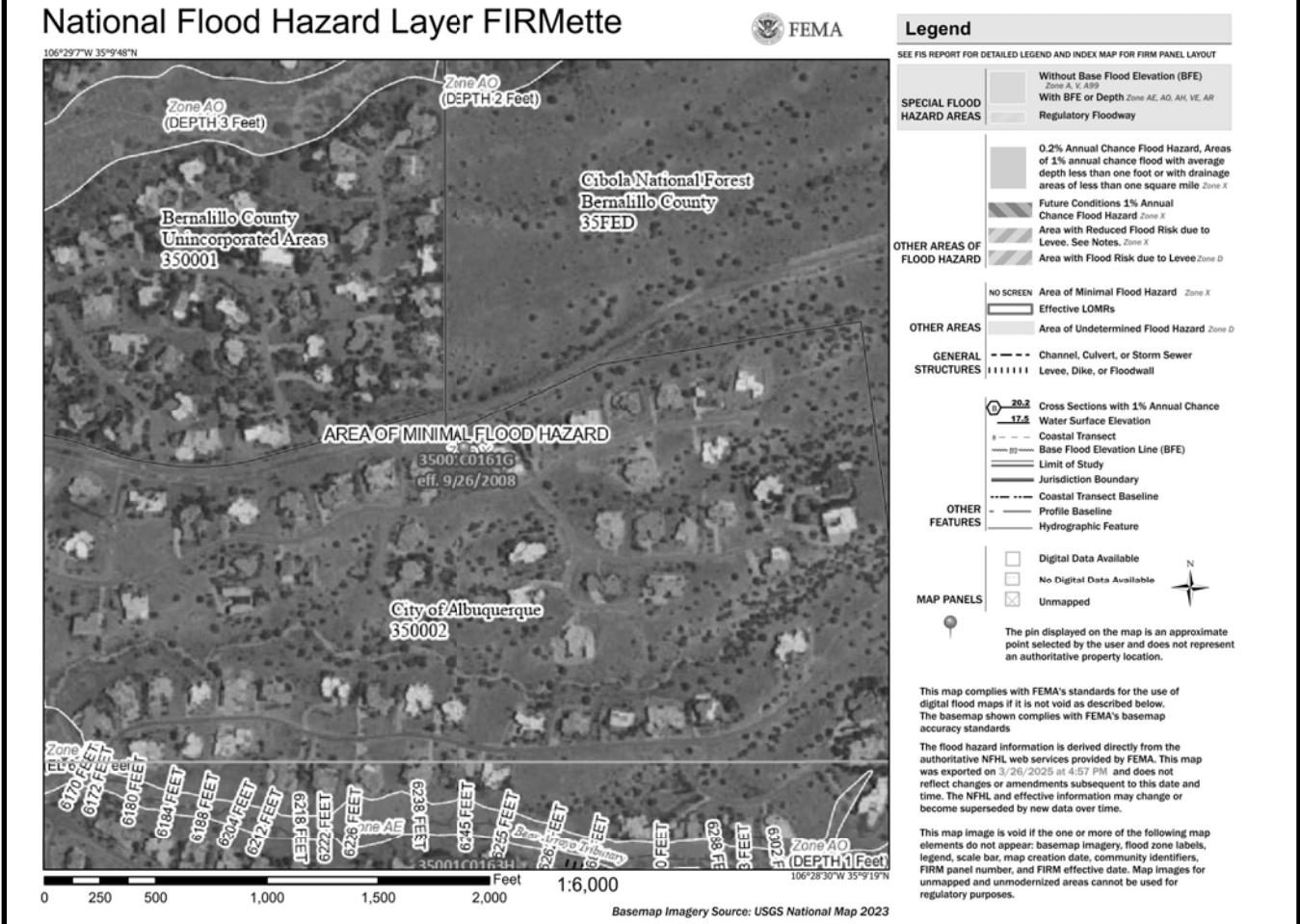
Narrative
The subject property is located within a drainage master plan for desert highlands. The private development guidelines require the existing site discharge to be matched. This drainage solution will collect all developed flow with a water quality pond that retains the water quality volume and meters out less than the historical discharge utilizing an outlet pipe. The site retains 903 cf for water quality and discharges at a peak rate of 1.21 cfs, which is less than the historical discharge of 1.66 cf The pond has an emergency overflow to the street

EROSION CONTROL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
- REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



VICINITY MAP: E-29-Z



FIRM MAP:

LEGAL DESCRIPTION:

LOT 34, UNIT 2 MOUNTAIN HIGHLANDS AT HIGH DESERT
CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

NOTES:

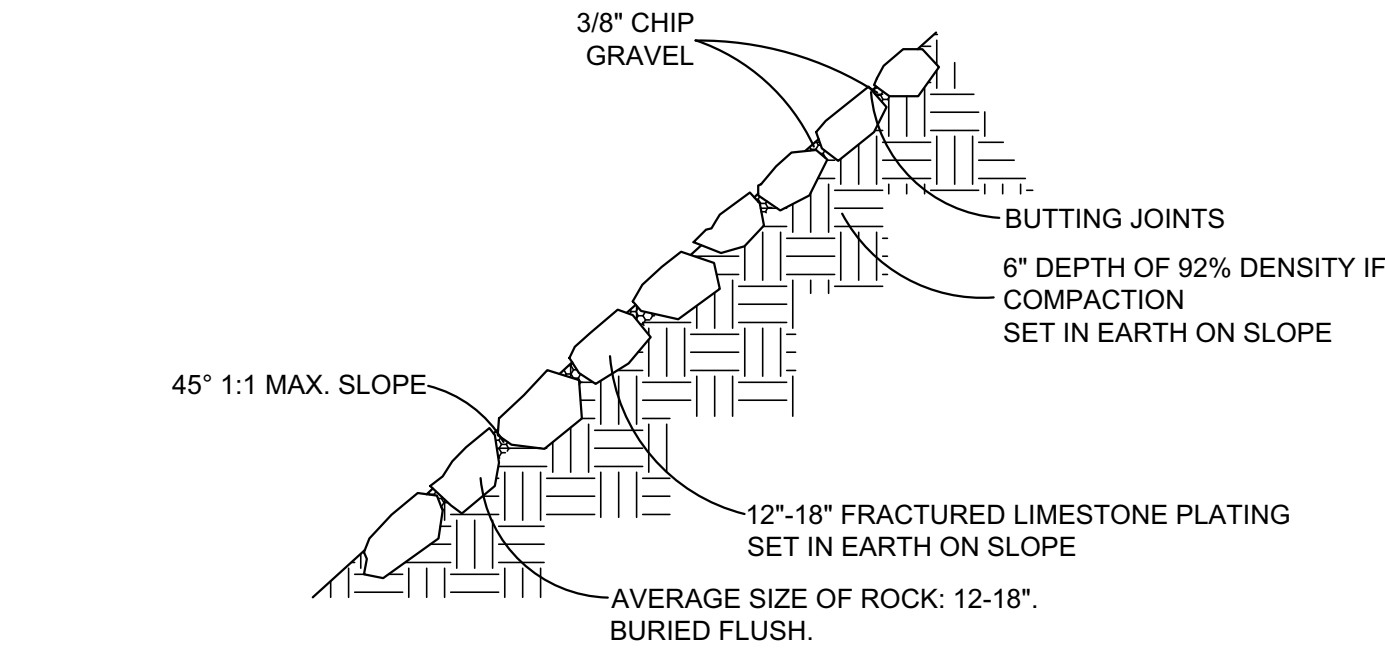
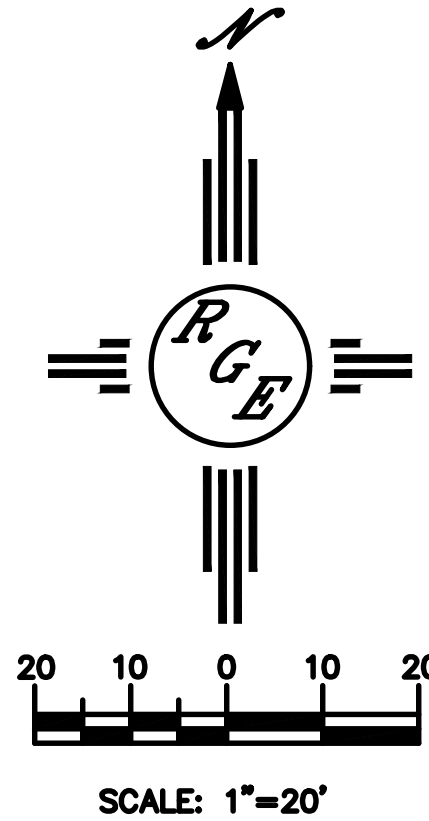
- ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
- ALL SLOPES SHALL BE 3:1 MAX. AND GRAVEL OR NATIVE SEEDING PRIOR TO CO.
- ANY PERIMETER WALLS MUST BE PERMITTED SEPARATELY ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.
- SURVEY INFORMATION PROVIDED BY B & C LAYOUT SERVICES USING NAVD DATUM 1988.
- LONG TERM MAINTAINANCE OF ALL PONDS, SWALES AND OVERFLOWS IS REQUIRED
- A PAD ELEVATION CERTIFICATION SHALL BE REQUIRED PRIOR TO RELEASE OF BUILDING PERMIT.

LEGEND

- XXXX----- EXISTING CONTOUR
- XXXX----- EXISTING INDEX CONTOUR
- XXXX----- PROPOSED CONTOUR
- XXXX----- PROPOSED INDEX CONTOUR
- XXXX EXISTING SPOT ELEVATION
- XXXX PROPOSED SPOT ELEVATION
- BOUNDARY
- ADJACENT BOUNDARY
- ===== EXISTING CURB AND GUTTER
- PROPOSED EARTHEN SWALE
- PROPOSED RETAINING WALL
- PROPOSED ROCK PLATING
- PROPOSED CONCRETE

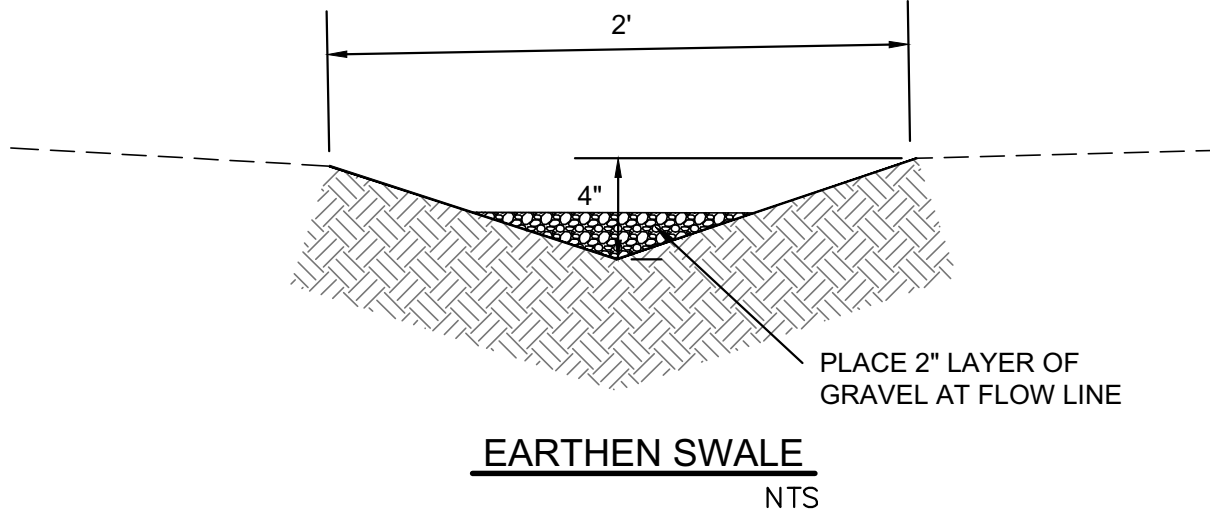
ENGINEER'S SEAL	LOT 34 U 2 MOUNTAIN HIGHLANDS AT HIGH DESERT 13515 PINO RIDGE PLACE NE	DRAWN BY DEM
DAVID SOULE REGISTERED PROFESSIONAL ENGINEER 14522	GRADING AND DRAINAGE PLAN	DATE 3-28-25
3/30/25	Rio Grande Engineering	13515 Pino Ridge Pl NE, Albuquerque, NM 87109 (505) 321-9099
DAVID SOULE P.E. #14522		SHEET # C1
		JOB #

13515 PINO RIDGE PLACE N.E.
42' R.O.W.

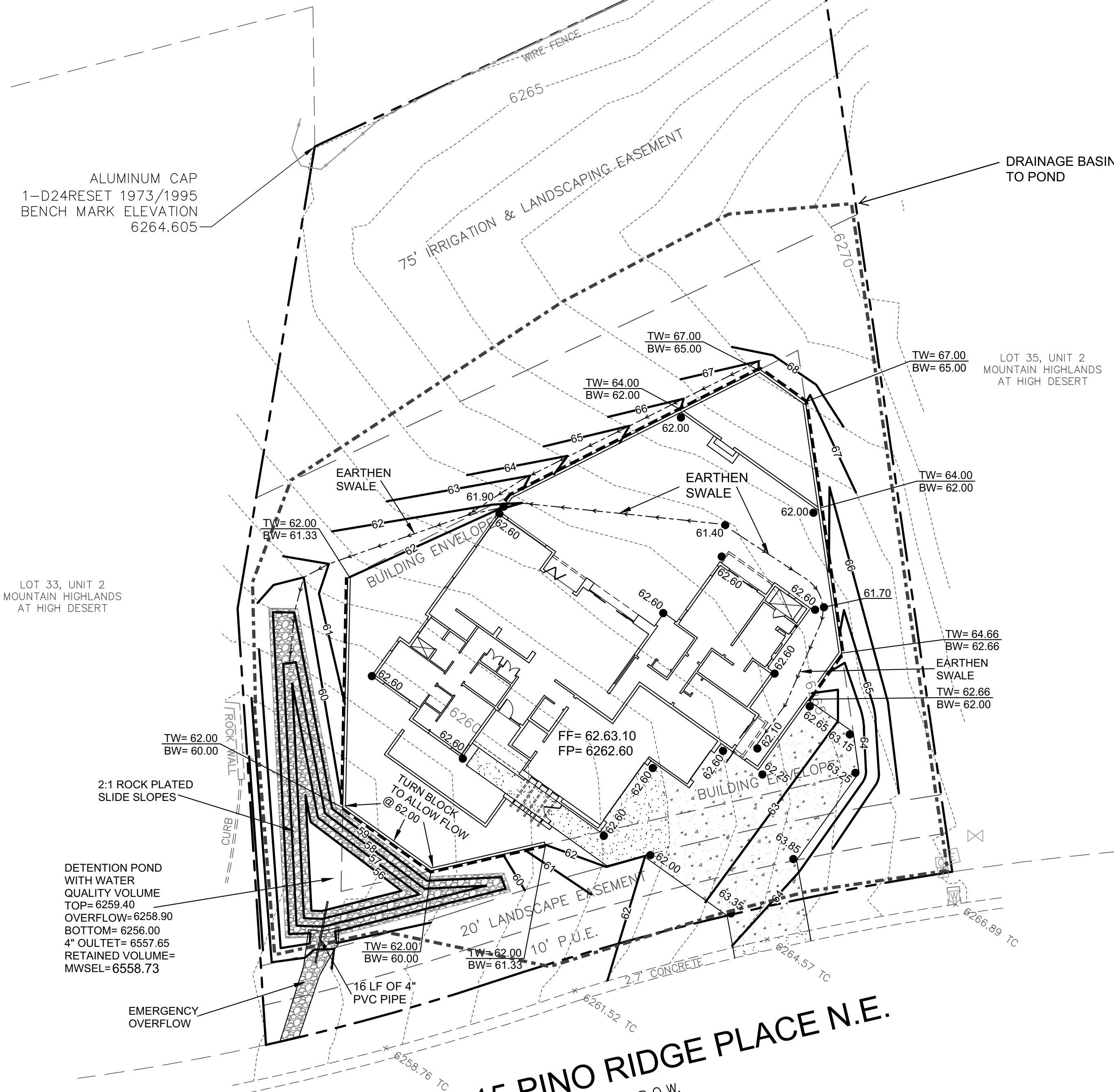


ROCK PLATING DETAIL
NTS

CONSTRUCT ALL SWALES AND EROSION PROTECTION (SHOWN HATCHED) BELOW ADJACENT GRADE TO ENSURE RUNOFF CAN BE CAPTURED AND CONVEYED PROPERLY.



CAUTION:
EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.



Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Q100 GENERATED	V100 GENERATED	Q100 DISCHARGED
			%	(acres)	%	(acres)	%	(acres)	%	(acres)			
EXISTING	3791	0.872	100%	0.8722	0%	0.0000	0%	0.0000	0%	0.0000	1.66	2291	1.66
TOTAL PROPOSED	3779	45%	0.3626	10.0%	0.0362	0.0000	0.1647	0.1647	0.1647	0.1647	2.4	1.1	1.1
PROPOSED TO POND	25760	0.591	22%	0.1301	25.0%	0.1478	25.0%	0.1478	28%	0.1656	1.83	3280	1.21
REMAINING LOT	12231	0.281	93%	0.2624	0.0%	0.0000	0.0%	0.0179	0%	0.0000	0.56	767	0.56

Narrative

The subject property is located within a drainage master plan for desert highlands. The private development guidelines require the existing site discharge to be matched. This drainage solution will collect all developed flow within a water quality pond that retains the water quality volume and meters out less than the historical discharge utilizing an outlet pipe. The site retains 903 cf for water quality and discharges at a peak rate of 1.21 cfs, which is less than the historical discharge of 1.66 cf. The pond has an emergency overflow to the street

VOLUME CALCULATIONS

	ACTUAL ELEV.	DEPTH (FT)	AREA SF	VOLUME PER UNIT	VOLUME CUMULATIVE	VOLUME AC-FT	Q (CFS)
OUTFALL	56.00	0.00	288.00	0	0	0.000	0.00
	57.65	0.00	744.00	903.00	903	0.021	0.00
	58.90	1.00	1391.00	1441.13	2344.13	0.054	0.95

Orifice Equation	
$Q = CA \text{ SQRT}(2gH)$	
C =	0.6
Diameter (in)	6
Area (ft^2)=	0.196349541
g =	32.2
H (ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

[illegible]

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0.0 2.100 0.2 7.050 0.0 22.000 0.0 16.950 0.0 21.900 0.00 0.06 57.68 0.002 0.02 14.45 0.01 57.66 0.021 0.01
0.0 2.150 0.1 7.200 0.0 22.150 0.0 17.100 0.0 22.000 0.10 0.12 57.71 0.021 0.02 14.55 0.01 57.66 0.021 0.01
0.0 2.400 0.1 7.150 0.0 22.300 0.0 17.250 0.0 22.200 0.10 0.12 57.88 0.003 0.11 14.75 0.01 57.66 0.021 0.01
0.0 2.550 0.1 7.500 0.0 22.450 0.0 17.400 0.0 22.350 0.10 0.12 58.00 0.004 0.11 14.95 0.01 57.66 0.021 0.01
0.0 2.700 0.0 7.650 0.0 22.600 0.0 17.550 0.0 22.500 0.10 0.12 58.14 0.004 0.10 15.15 0.01 57.66 0.021 0.01
0.0 2.850 0.0 7.800 0.0 22.750 0.0 17.700 0.0 22.650 0.10 0.12 58.27 0.009 0.10 15.35 0.01 57.66 0.021 0.01
0.0 3.000 0.0 7.950 0.0 22.900 0.0 17.850 0.0 22.800 0.10 0.12 58.41 0.009 0.10 15.55 0.01 57.66 0.021 0.01
0.0 3.150 0.0 8.100 0.0 23.050 0.0 18.000 0.0 22.950 0.10 0.12 58.54 0.009 0.10 15.75 0.01 57.66 0.021 0.01
0.0 3.300 0.0 8.250 0.0 23.200 0.0 18.150 0.0 23.100 0.10 0.12 58.67 0.014 0.10 15.95 0.01 57.66 0.021 0.01
0.0 3.450 0.0 8.400 0.0 23.350 0.0 18.300 0.0 23.250 0.10 0.12 58.81 0.014 0.10 16.15 0.01 57.66 0.021 0.01
0.0 3.600 0.0 8.550 0.0 23.500 0.0 18.450 0.0 23.400 0.10 0.12 58.94 0.017 0.10 16.35 0.01 57.66 0.021 0.01
0.0 3.750 0.0 8.700 0.0 23.650 0.0 18.600 0.0 23.550 0.10 0.12 59.08 0.017 0.10 16.55 0.01 57.66 0.021 0.01
0.0 3.900 0.0 8.850 0.0 23.800 0.0 18.750 0.0 23.700 0.10 0.12 59.21 0.017 0.10 16.75 0.01 57.66 0.021 0.01
0.0 4.050 0.0 9.000 0.0 23.950 0.0 18.900 0.0 23.850 0.10 0.12 59.35 0.017 0.10 16.95 0.01 57.66 0.021 0.01
0.0 4.200 0.0 9.150 0.0 24.100 0.0 19.050 0.0 24.000 0.10 0.12 59.48 0.017 0.10 17.15 0.01 57.66 0.021 0.01
0.0 4.350 0.0 9.300 0.0 24.250 0.0 19.200 0.0 24.150 0.10 0.12 59.62 0.017 0.10 17.35 0.01 57.66 0.021 0.01
0.0 4.500 0.0 9.450 0.0 24.400 0.0 19.350 0.0 24.300 0.10 0.12 59.75 0.017 0.10 17.55 0.01 57.66 0.021 0.01
0.0 4.650 0.0 9.600 0.0 24.550 0.0 19.500 0.0 24.450 0.10 0.12 59.89 0.017 0.10 17.75 0.01 57.66 0.021 0.01
0.0 4.800 0.0 9.750 0.0 24.700 0.0 19.650 0.0 24.600 0.10 0.12 60.02 0.017 0.10 17.95 0.01 57.66 0.021 0.01

RUNOFF VOLUME = 1.5283 INCHES
PEAK DISCHARGE RATE = 1.48 CFS AT 1.0731 ACRES-FEET
BASIN REMAINING PORPOSED NOT TO FLOOD
CAPACITY NN HYD ID# HYD NOD=150 DAM CODE=3873 NO MI
TFR=1.158 MEGALIN=1.1
TFR=1.158 MEGALIN=1.1

K = 0.16127M TTP = 0.11800M K/TTP RATIO = 1.19077E SHAPE CONSTANT, N = 2.982141
UNIT PWS = 0.0035 CFS UNIT VOLUME = 0.9814 200.37 PWS
AREA = 0.000419 MI2 LA = 0.62670 INCHES DMF = 1.6110 INCHES PER HOUR
RUNOFF COMPUTED BY PARTIAL ABSTRACTION INfiltration NUMBER METHOD DT = 0.05000
PREINT HYD ID#=4 CODE=4

TIME FLOW TIME FLOW TIME FLOW TIME FLOW
HRS CFS HRS CFS HRS CFS HRS CFS
0.000 0.0 0.800 0.0 1.600 0.5 2.400 0.0
0.000 0.0 1.000 0.0 1.800 0.2 2.600 0.0
0.000 0.0 1.200 0.0 2.000 0.0 2.800 0.0
0.000 0.0 1.400 0.0 2.200 0.0 3.000 0.0
PEAK DISCHARGE RATE = 0.7516 INCHES
PEAK DISCHARGE RATE = 0.58 CFS AT 0.0376 ACRES-FEET
ROUTED PROPOSED THROUGH POND
** ROUTE THE FLOW THROUGH THE PROPOSED RESERVOIR
ROUTED RESERVOIR ID#=5 NOD=1015 INFLOW=1 CODE=1
INFLUX(CFS) STORAGES=100 FT5 ELEV(FT)
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
0.95 0.054 0.054 0.054 58.90 58.90 58.90 58.90
*****

TIME INFLW ELEV VOLUME OUTFLOW
(SEC) (CFS) (FEET) (AC-FT) (CFS)
0.00 0.00 17.45 0.021 0.00
0.15 0.00 17.45 0.022 0.00
0.30 0.00 17.45 0.021 0.00
0.45 0.00 17.45 0.021 0.00
0.60 0.00 17.45 0.021 0.01
0.75 0.04 17.66 0.021 0.01

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[illegible]