

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

October 11, 2024

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

RE: 13400 Pino Ridge Place NE
Permanent C.O. – Accepted
Engineer's Certification Date: 10/03/2024
Engineer's Stamp Date: 10/6/23
Hydrology File: E23D039

Dear Mr. Soule:

PO Box 1293

Based on the Certification received 10/09/2024 and the site visit on 10/10/2024, this letter serves as a "green tag" from Hydrology Section for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

Albuquerque

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

NM 87103

Sincerely,

www.cabq.gov

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



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: 13400 PINO RIDGE PL **Building Permit #:** _____ **Hydrology File #:** _____

DRB#: _____ **EPC#:** _____ **Work Order#:** _____

Legal Description: LOT 26 MOUNTAIN HIGHLANDS

City Address: 13400 PINO RIDGE PL

Applicant: _____ **Contact:** _____

Address: _____

Phone#: _____ **Fax#:** _____ **E-mail:** _____

Other Contact: RIO GRANDE ENGINEERING

Contact: DAVID SOULE

Address: PO BOX 93924 ALB NM 87199

Phone#: 505.321.9099 **Fax#:** 505.872.0999 **E-mail:** david@riograndeengineering.com

TYPE OF DEVELOPMENT: _____ PLAT ☒ RESIDENCE _____ DRB SITE _____ ADMIN SITE

Check all that Apply:

DEPARTMENT:

☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION

TYPE OF SUBMITTAL:

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

IS THIS A RESUBMITTAL?: _____ Yes ☒ No

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:** _____

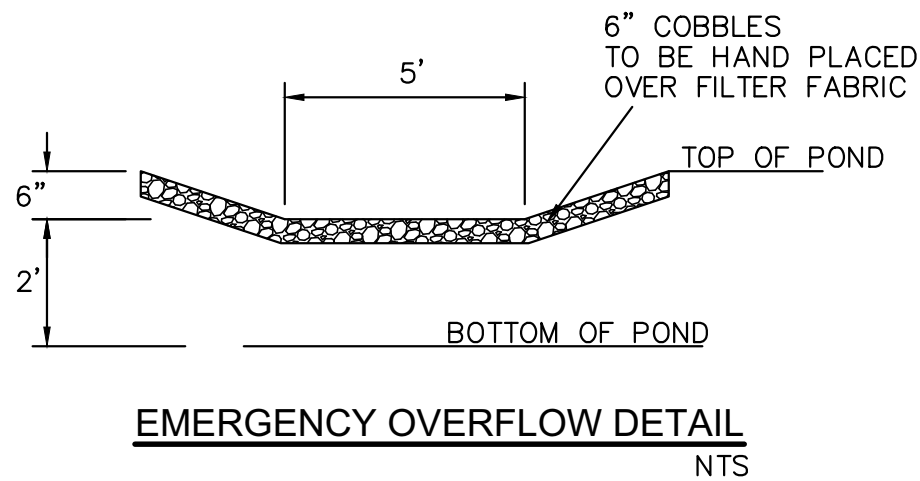
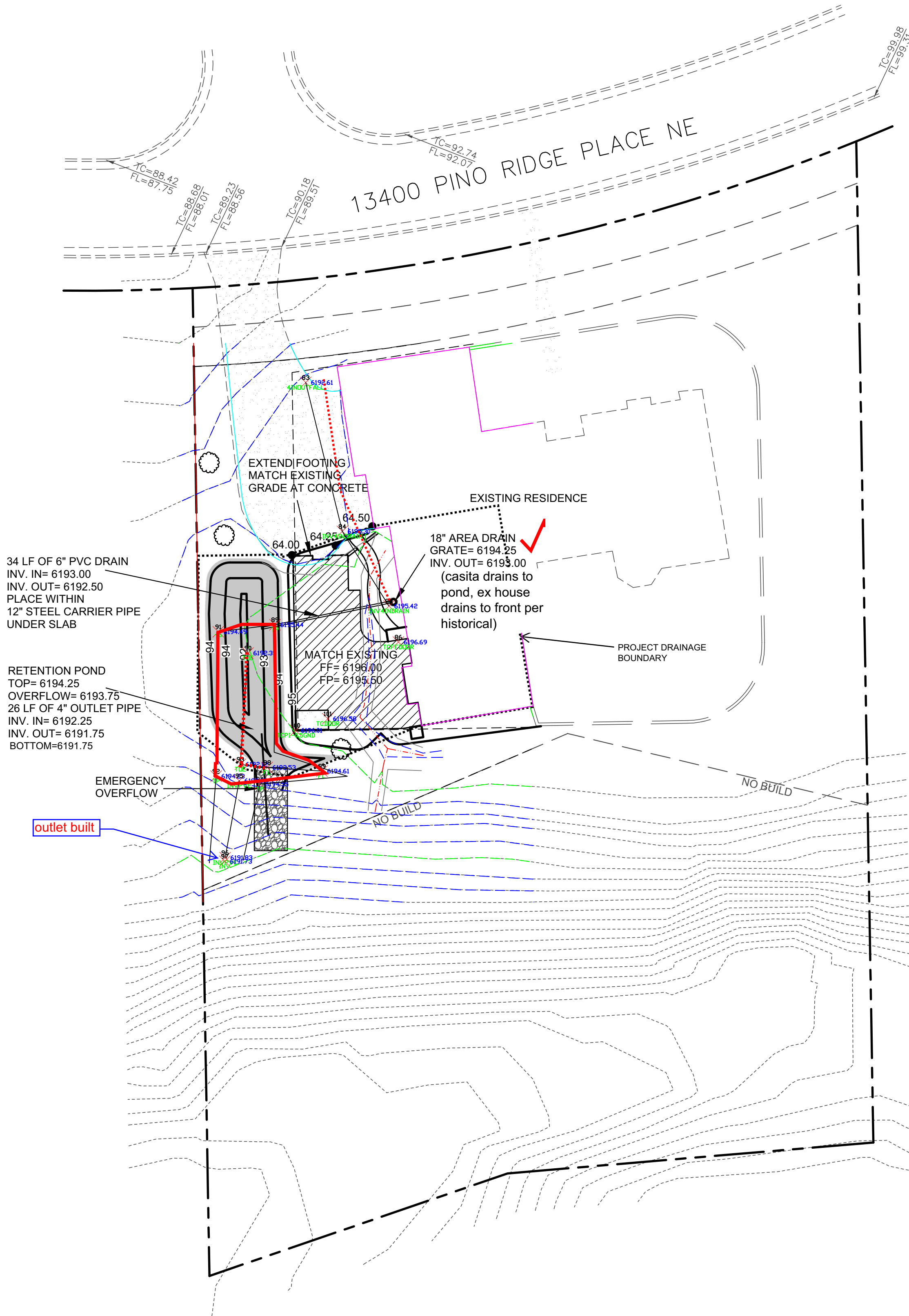
COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

SEE SHEET 2 FOR
DRAINAGE CALCULATIONS
AND AHYMO MODEL

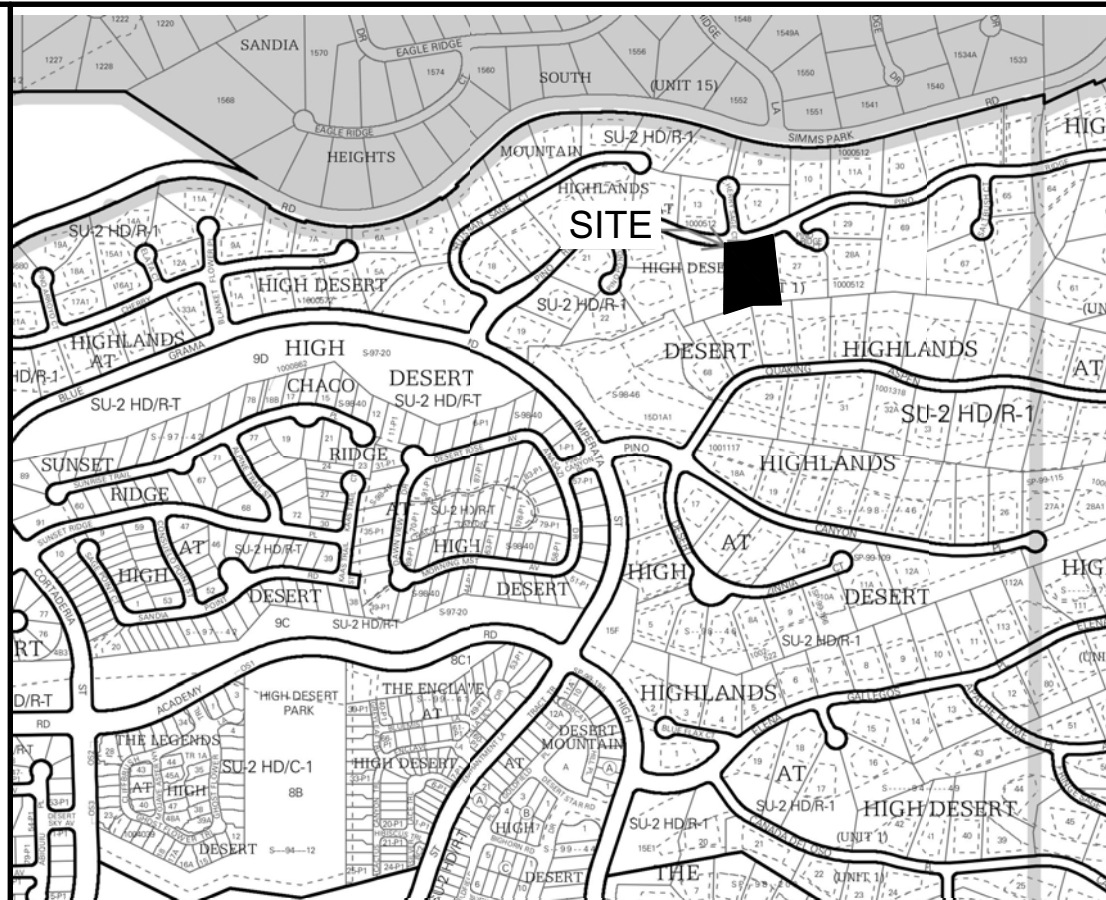
I David Soule, NMPE 14522, of the firm Rio Grande Engineering, hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intend of the approved plan dated 10/6/23 . The certification is submitted in support of a request for CERTIFICATE OR OCCUPANCY. The record information presented heron is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project.



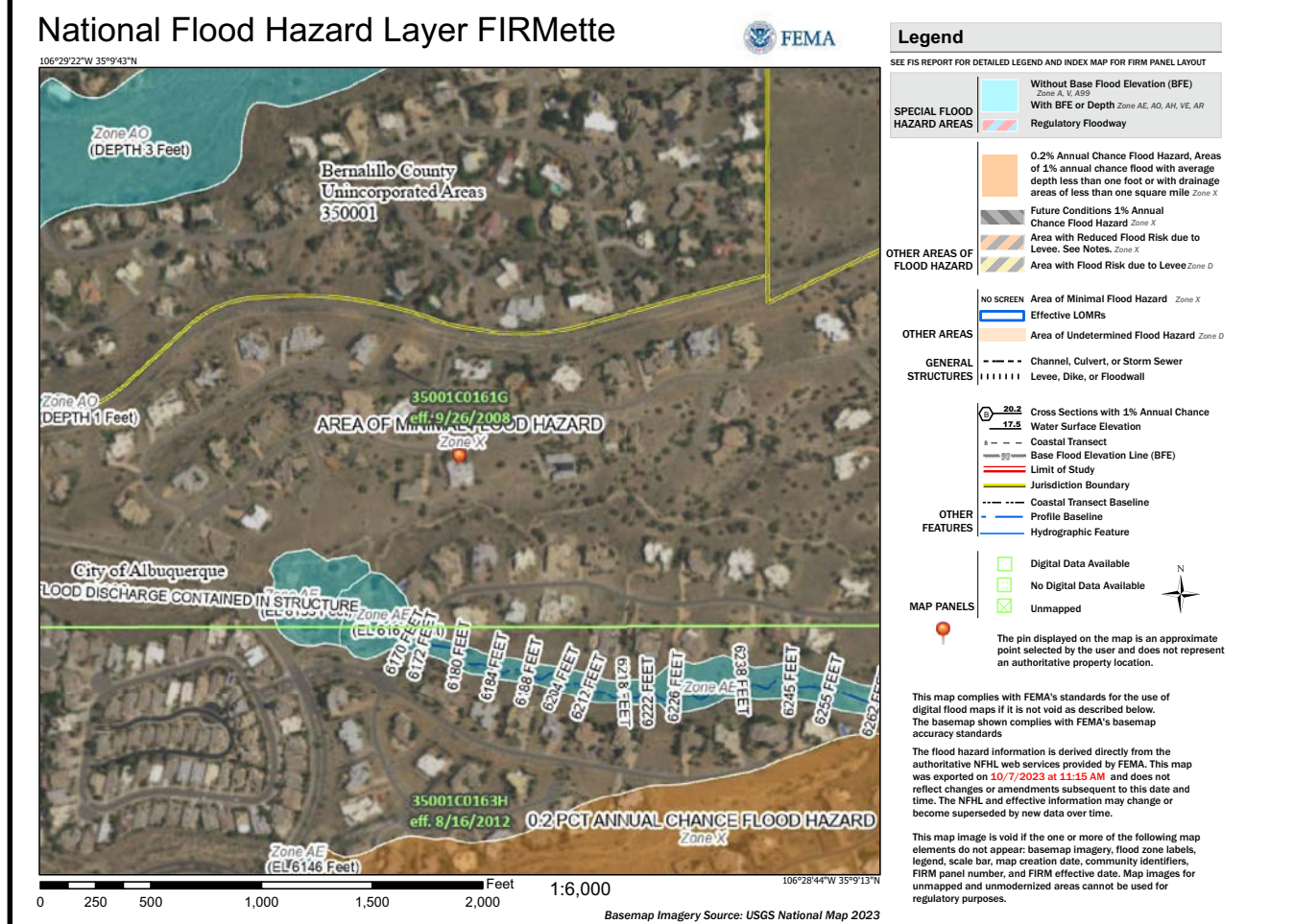
CAUTION:
EXISTING UTILITIES ARE NOT SHOWN.
IT SHALL BE THE SOLE RESPONSIBILITY
OF THE CONTRACTOR TO CONDUCT ALL
NECESSARY FIELD INVESTIGATIONS PRIOR
TO ANY EXCAVATION TO DETERMINE THE
ACTUAL LOCATION OF UTILITIES & OTHER
IMPROVEMENTS.

EROSION CONTROL NOTES:

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



VICINITY MAP: E-23-Z



FIRM MAP:

LEGAL DESCRIPTION:

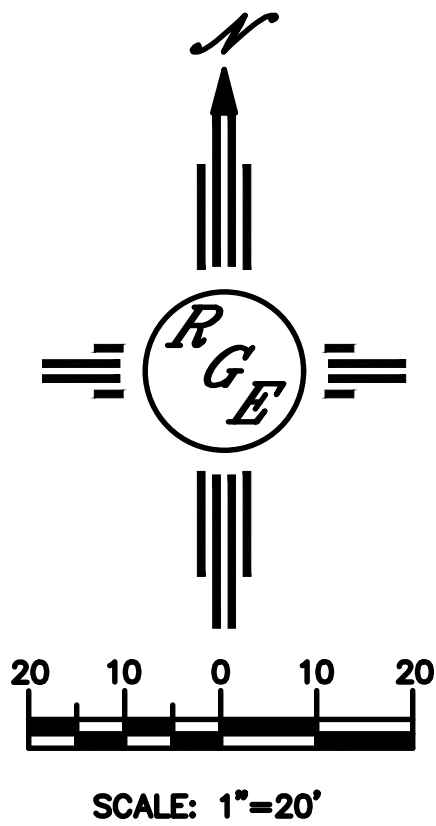
LOT 26, UNIT 1, MOUNTAIN HIGHLANDS AT HIGH DESERT
CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
2. ALL SLOPES SHALL BE 3:1 MAX. AND GRAVEL OR NATIVE SEEDING PRIOR TO CO.
3. ANY PERIMETER WALLS MUST BE PERMITTED SEPARATELY ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.
4. SURVEY INFORMATION PROVIDED BY COMMUNITY SCIENCES CORPORATION USING NAVD DATUM 1988.
5. 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 PONDING
=====	PROPOSED EMERGENCY OVERFLOW



ENGINEER'S SEAL	LOT 26 U 1,MNT HIGHLANDS 13400 PINO RIDGE PL	DRAWN BY DEM
DAVID SOULE NEW MEXICO REGISTERED PROFESSIONAL ENGINEER 10/6/23	DRAINAGE CALCULATION SHEET	DATE 10-6-23
DAVID SOULE P.E. #14522	 P.O. BOX 53924 ALBUQUERQUE, NM 87199 (505) 321-9099	13400 Pino Ridge Place.dwg
	SHEET # C ²	JOB #

BASIN DATA

Basin	Area (sf)	Area (acres)	Treatment A % (acres)	Treatment B % (acres)	Treatment C % (acres)	Treatment D % (acres)	Q100 GENERATED	V100 GENERATED	Q100 DISCHARGED		
EXISTING	4330	0.099	0%	0.0156	8.0%	0.0747	55.0%	0.0762	37%	0.0527	0.36
PROPOSED	4330	0.099	0%	0.0156	0.0%	0.0747	33.0%	0.0762	67%	0.0527	0.31
								HISTORICAL			0.36
								PROPOSED			0.31

Narrative
The subject property is located within a drainage master plan for desert hightlands. The private development guidelines require the existing site discharge to be matched. This project is an addition to an existing building. The scope of analysis is the affected drainage basin. The project limit discharges .36 cfs
The proposed improvements include the construction of a detention pond with water quality volume. The routed flow of .31 cfs is less than existing

VOLUME CALCULATIONS

ACTUAL ELEV.	DEPTH (FT)	AREA SF	VOLUME PER UNIT	VOLUME CUMULATIVI	VOLUME AC-FT	Q (CFS)
91.75	0.00	18.00	0	0	0.000	0.00
92.25	0.00	119.00	34.25	34.25	0.001	0.00
93.00	0.58	346.00	174.38	208.63	0.005	0.32
93.75	1.33	807.00	432.38	641.00	0.015	0.48

Orifice Equation

Q = CA SQRT(2gH)

C = 0.6
Diameter (in) 4
Area (ft^2)= 0.087266463
g = 32.2
H (ft) = Depth of water above center of orifice
Q (CFS)= Flow

AHYMO.OUT

AHYMO PROGRAM (AHYMO-S4) - Version: S4.01a - Rel: 01a
RUN DATE (MM/DD/YY) = 10/10/2023
START TIME (HR:MIN:SEC) = 12:59:03
INPUT FILE = and Settings\Owner\Desktop\2023 JOBS\2023220-13400 PINO RIDGE\pondrout101023.txt
USER NO.= RioGrandeSingleA41963517

*S AHYMO - DETENTION-PINO RIDGE
*S POND ROUTING

START TIME=0.0 PUNCH CODE=0

RAINFALL TYPE=2
QUARTER=0.0 ONE= 1.91 IN
SIX=2.60 IN DAY= 3.34 IN DT = 0.05 HR

AZ) - D1

24-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE AREAS (NM &

DT = 0.050000 HOURS END TIME = 24.000002 HOURS
0.0000 0.0046 0.0093 0.0144 0.0198 0.0254 0.0318
0.0409 0.0554 0.0709 0.0870 0.1044 0.1220 0.1401
0.1588 0.1777 0.1985 0.2202 0.2435 0.2697 0.2973
0.3343 0.3762 0.4280 0.4971 0.5749 0.6701 0.7816
1.2754 1.5267 1.7250 1.8246 1.9119 1.9746 2.0245
2.0680 2.0999 2.1291 2.1532 2.1759 2.1979 2.2177
2.2365 2.2532 2.2691 2.2847 2.2997 2.3149 2.3187
2.3234 2.3300 2.3381 2.3442 2.3502 2.3561 2.3618
2.3673 2.3727 2.3780 2.3833 2.3885 2.3934 2.3983
2.4031 2.4078 2.4125 2.4170 2.4214 2.4258 2.4301
2.4344 2.4386 2.4428 2.4469 2.4510 2.4550 2.4590
2.4629 2.4668 2.4706 2.4744 2.4782 2.4819 2.4856
2.4892 2.4928 2.4964 2.4999 2.5034 2.5068 2.5103
2.5136 2.5170 2.5203 2.5236 2.5269 2.5301 2.5333
2.5365 2.5396 2.5428 2.5458 2.5489 2.5519 2.5550
2.5580 2.5609 2.5638 2.5668 2.5696 2.5725 2.5754
2.5782 2.5810 2.5838 2.5865 2.5893 2.5920 2.5947
2.5973 2.6000 2.6027 2.6053 2.6080 2.6106 2.6133
2.6159 2.6185 2.6212 2.6238 2.6264 2.6291 2.6317
2.6343 2.6369 2.6395 2.6421 2.6447 2.6474 2.6499
2.6525 2.6551 2.6577 2.6603 2.6629 2.6655 2.6681
2.6706 2.6732 2.6758 2.6783 2.6809 2.6834 2.6860
2.6885 2.6911 2.6936 2.6962 2.6987 2.7013 2.7038
2.7063 2.7088 2.7114 2.7139 2.7164 2.7189 2.7214
2.7239 2.7264 2.7289 2.7314 2.7339 2.7364 2.7389
2.7414 2.7438 2.7463 2.7488 2.7512 2.7537 2.7561
2.7586 2.7611 2.7635 2.7660 2.7684 2.7708 2.7733
2.7757 2.7781 2.7806 2.7830 2.7854 2.7878 2.7902
2.7927 2.7951 2.7975 2.7999 2.8023 2.8047 2.8070
2.8094 2.8118 2.8142 2.8166 2.8189 2.8213 2.8237
2.8260 2.8284 2.8308 2.8331 2.8355 2.8378 2.8401
2.8425 2.8448 2.8472 2.8495 2.8518 2.8541 2.8565
2.8588 2.8611 2.8634 2.8657 2.8680 2.8703 2.8726
2.8749 2.8772 2.8795 2.8817 2.8840 2.8863 2.8886
2.8908 2.8931 2.8954 2.8976 2.8999 2.9021 2.9044
2.9066 2.9089 2.9111 2.9133 2.9156 2.9178 2.9200
2.9223 2.9245 2.9267 2.9289 2.9311 2.9333 2.9355
2.9377 2.9399 2.9421 2.9443 2.9465 2.9486 2.9508
2.9530 2.9552 2.9573 2.9595 2.9617 2.9638 2.9660
2.9681 2.9703 2.9724 2.9746 2.9767 2.9788 2.9810
2.9831 2.9852 2.9873 2.9894 2.9916 2.9937 2.9958
2.9979 3.0000 3.0021 3.0042 3.0063 3.0083 3.0104
3.0125 3.0146 3.0167 3.0187 3.0208 3.0229 3.0249
3.0270 3.0290 3.0311 3.0331 3.0352 3.0372 3.0392
3.0413 3.0433 3.0453 3.0473 3.0494 3.0514 3.0534
3.0554 3.0574 3.0594 3.0614 3.0634 3.0654 3.0674
3.0693 3.0713 3.0733 3.0753 3.0773 3.0792 3.0812
3.0831 3.0851 3.0871 3.0890 3.0910 3.0929 3.0948
3.0968 3.0987 3.1006 3.1026 3.1045 3.1064 3.1083
3.1102 3.1121 3.1140 3.1159 3.1178 3.1197 3.1216

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AHYMO.OUT

3.1235 3.1254 3.1273 3.1292 3.1310 3.1329 3.1348
3.1367 3.1385 3.1404 3.1422 3.1441 3.1459 3.1478
3.1496 3.1515 3.1533 3.1551 3.1569 3.1588 3.1606
3.1624 3.1642 3.1660 3.1678 3.1696 3.1714 3.1732
3.1750 3.1768 3.1786 3.1804 3.1822 3.1839 3.1857
3.1875 3.1893 3.1910 3.1928 3.1945 3.1963 3.1980
3.1998 3.2015 3.2033 3.2050 3.2067 3.2085 3.2102
3.2119 3.2136 3.2153 3.2170 3.2188 3.2205 3.2222
3.2239 3.2256 3.2272 3.2289 3.2306 3.2323 3.2340
3.2357 3.2373 3.2390 3.2407 3.2423 3.2440 3.2456
3.2473 3.2489 3.2506 3.2522 3.2538 3.2555 3.2571
3.2587 3.2603 3.2620 3.2636 3.2652 3.2668 3.2684
3.2700 3.2716 3.2732 3.2748 3.2764 3.2780 3.2796
3.2811 3.2827 3.2843 3.2858 3.2874 3.2890 3.2907
3.2921 3.2936 3.2952 3.2967 3.2983 3.2998 3.3013
3.3029 3.3044 3.3059 3.3074 3.3089 3.3105 3.3120
3.3135 3.3150 3.3165 3.3180 3.3195 3.3210 3.3224
3.3239 3.3254 3.3269 3.3283 3.3298 3.3313 3.3327
3.3342 3.3357 3.3371 3.3386 3.3400

*Basin EXISTING COMPUTE NM HYD ID=1 HYD NO=101 DA= .000155317 SQ MI
PER A=0 PER B=8 PER C=55 PER D=37
TP=-.138 MASSRAIN=-1

7.106428 K = 0.075210HR TP = 0.138000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N =
1.9100 UNIT PEAK = 0.21916 CFS UNIT VOLUME = 0.9550 B = 526.28 P60 =
AREA = 0.000057 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

4.350718 K = 0.113296HR TP = 0.138000HR K/TP RATIO = 0.820984 SHAPE CONSTANT, N =
1.9100 UNIT PEAK = 0.26796 CFS UNIT VOLUME = 0.9580 B = 377.91 P60 =
AREA = 0.000098 SQ MI IA = 0.36905 INCHES INF = 0.88333 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=1 CODE=3

PARTIAL HYDROGRAPH 101.00

FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME
CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS
0.000	0.0	0.0	4.950	0.0	9.900	0.0	14.850
0.0	19.800	0.0	5.100	0.0	10.050	0.0	15.000
0.0	19.950	0.0	5.250	0.0	10.200	0.0	15.150
0.0	20.100	0.0	5.400	0.0	10.350	0.0	15.300
0.0	20.250	0.0	5.550	0.0	10.500	0.0	15.450
0.0	20.400	0.0	5.700	0.0	10.650	0.0	15.600
0.0	20.550	0.0	5.850	0.0	10.800	0.0	15.750
0.0	20.700	0.0	6.000	0.0	10.950	0.0	15.900
0.0	20.850	0.0	6.150	0.0	11.100	0.0	16.050
0.0	21.000	0.0	6.300	0.0	11.250	0.0	16.200
0.0	21.150	0.0	6.450	0.0	11.400	0.0	16.350
0.0	21.300	0.0	6.600	0.0	11.550	0.0	16.500
0.0	21.450	0.0					

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AHYMO.OUT

FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME
CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS
0.000	0.0	0.0	4.950	0.0	9.900	0.0	14.850
0.0	19.800	0.0	5.100	0.0	10.050	0.0	15.000
0.0	19.950	0.0	5.250	0.0	10.200	0.0	15.150
0.0	20.100	0.0	5.400	0.0	10.350	0.0	15.300
0.0	20.250	0.0	5.550	0.0	10.500	0.0	15.450
0.0	20.400	0.0	5.700	0.0	10.650	0.0	15.600
0.0	20.550	0.0	5.850	0.0	10.800	0.0	15.750
0.0	20.700	0.0	6.000	0.0	10.950	0.0	15.900
0.0	20.850	0.1	6.150	0.0	11.100	0.0	16.050
0.0	21.000	0.0	6.300	0.0	11.250	0.0	16.200
0.0	21.150	0.0	6.450	0.0	11.400	0.0	16.350
0.0	21.300	0.0	6.600	0.0	11.550	0.0	16.500
0.0	21.450	0.3	6.750	0.0	11.700	0.0	16.650
0.0	1.800	0.1	6.900	0.0	11.850	0.0	16.800
0.0	21.600	0.0	7.050	0.0	12.000	0.0	16.950
0.0	1.950	0.1	7.200	0.0	12.150	0.0	17.100
0.0	21.750	0.0	7.350	0.0	12.300	0.0	17.250
0.0	2.100	0.0	7.500	0.0	12.450	0.0	17.400
0.0	21.900	0.0	7.650	0.0	12.600	0.0	17.550
0.0	2.250	0.0	7.800	0.0	12.750	0.0	17.700
0.0	22.050	0.0	7.950	0.0	12.900	0.0	17.850
0.0	2.400	0.0	8.100	0.0	13.050	0.0	18.000
0.0	22.200	0.0	8.250	0.0	13.200	0.0	18.150
0.0	2.550	0.0	8.400	0.0	13.350	0.0	18.300
0.0	22.350	0.0	8.550	0.0	13.500	0.0	18.450
0.0	2.700	0.0	8.700	0.0	13.650	0.0	18.600
0.0	22.500	0.0	8.850	0.0	13.800	0.0	18.750
0.0	2.850	0.0	9.000	0.0	13.950	0.0	18.900
0.0	22.650	0.0	9.150	0.0	14.100	0.0	19.050
0.0	3.000	0.0	9.300	0.0	14.250	0.0	19.200
0.0	22.800	0.0	9.450	0.0	14.400	0.0	19.350
0.0	3.150	0.0	9.600	0.0	14.550	0.0	19.500
0.0	22.950	0.0	9.750	0.0	14.700	0.0	19.650
0.0	3.300	0.0					
0.0	23.100	0.0					
0.0	3.450	0.0					
0.0	23.250	0.0					
0.0	3.600	0.0					
0.0	23.400	0.0					
0.0	3.750	0.0					
0.0	23.550	0.0					
0.0	3.900	0.0					
0.0	23.700	0.0					
0.0	4.050	0.0					
0.0	23.850	0.0					
0.0	4.200	0.0					
0.0	24.000	0.0					
0.0	4.350	0.0					
0.0	4.500	0.0					
0.0	4.650	0.0					
0.0	4.800	0.0					
0.0							

RUNOFF VOLUME = 2.44671 INCHES = 0.0203 ACRE-FEET
PEAK DISCHARGE RATE = 0.42 CFS AT 1.500 HOURS BASIN AREA = 0.0002 SQ. MI.

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AHYMO.OUT

* ROUTED PROPOSED THROUGH POND

* ROUTE THE TOTAL FLOW THROUGH THE PROPOSED RESERVOIR
ROUTE RESERVOIR ID=3 HYD NO=103 INFLOW=2 CODE=3
OUTFLOW(CFS) STORAGE(AC-FT) ELEV(FT)
0.00 0.001 92.25
0.32 0.005 93.00
0.48 0.015 93.75

* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	92.25	0.001	0.00
0.15	0.00	92.25	0.001	0.00
0.30	0.00	92.25	0.001	0.00
0.45	0.00	92.25	0.001	0.00
0.60	0.00	92.25	0.001	0.00
0.75	0.02	92.27	0.001	0.01
0.90	0.02	92.29	0.001	0.02
1.05	0.03	92.30	0.001	0.02
1.20	0.05	92.33	0.001	0.03
1.35	0.14	92.42	0.002	0.07
1.50	0.42	92.76	0.004	0.22
1.65	0.26	92.96	0.005	0.30
1.80	0.12	92.77	0.004	0.22
1.95	0.06	92.57	0.003	0.14
2.10	0.03	92.43	0.002	0.08
2.25	0.02	92.36	0.002	0.05
2.40	0.02	92.32	0.001	0.03
2.55	0.01	92.29	0.001	0.02
2.70	0.01	92.28	0.001	0.01
2.85	0.01	92.27	0.001	0.01
3.00	0.00	92.26	0.001	0.01
3.15	0.00	92.26	0.001	0.01
3.30	0.00	92.26	0.001	0.00