

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

August 25, 2022

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

**RE: 13420 Osage Orange Rd NE - Addition
Grading and Drainage Plan
Engineer's Stamp Date: 08/10/22
Hydrology File: E23D031**

Dear Mr. Soule:

Based upon the information provided in your submittal received 08/12/2022, the Grading and Drainage Plan is approved for Building Permit. Since this is an addition, a pad certification is not needed for this project. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PO Box 1293

Albuquerque

NM 87103

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.

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

www.cabq.gov

Sincerely,

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



City of Albuquerque

Planning Department
Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: 13420 OSAGE ORANGE Building Permit #: _____ Hydrology File #: _____

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

Legal Description: LOT 53 UNIT 2 OVERLOOK

City Address: 13420 OSAGE ORANGE

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 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

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?

- 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) _____

IS THIS A RESUBMITTAL?: Yes No

DATE SUBMITTED: _____ By: _____

COA STAFF: _____

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

Weighted E Method
per city of Albuquerque Development Process Manual- chapter 22

Basin	Area (sq)	Area (acres)	Treatment				100-Year, 6-hr		10-day					
			% (acres)	% (acres)	% (acres)	% (acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Volume (ac-ft)				
BASIN A (proposed)	4303.00	0.099	28%	0.02765932	28%	0.026	20%	0.01976	26%	0.026	1.568	0.013	0.32	0.016
BASIN B (proposed)	5942.00	0.136	10%	0.01364096	20.0%	0.027	17.0%	0.02319	53%	0.072	2.240	0.025	0.53	0.035
BASIN C (proposed)	6878.00	0.158	66%	0.10421212	26.0%	0.041	0.0%	0	8%	0.013	1.016	0.013	0.39	0.015
NATIVE	17123.00	0.393	75%	0.29481749	25.0%	0.088	0.0%	0	0%	0.000	0.808	0.026	0.88	0.026

Equations:
Weighted E = Ea**A*a + Eb**A*b + Ec**A*c + Ed**A*d / (Total Area)
Volume = Weighted D * Total Area
Flow = Qa * *A*a + Qb * *A*b + Qc * *A*c + Qd * *A*d
Where for 100-year, 6-hour storm
Ea= 0.76 Qa= 2.09
Eb= 0.95 Qb= 2.73
Ec= 1.2 Qc= 3.41
Ed= 3.34 Qd= 4.78

DRAINAGE NARRATIVE
THIS SITE IS GOVERNED BY THE HIGH DESERT MASTER DRAINAGE PLAN. THE DOWN STREAM IMPROVEMENTS ARE IN PLACE. THE IMPROVEMENT INCLUDE TWO ADDITIONS DUE TO THIS SITE BEING GOVERNED BY THE GUIDELINES FOR SUSTAINABILITY. THE SITE MUST MATCH THE HISTORICAL 100-YEAR, 6-HOUR PEAK DISCHARGE RATE. THE SITE HISTORICALLY DISCHARGES 88 CFS. THE DEVELOPED SITE WILL CONTAIN THREE DRAINAGE BASINS. BASIN A CONTAINS THE FRONT OF HOUSE AND LOT. THIS BASIN DISCHARGES 32 CFS THAT PASSES THROUGH A WATER QUALITY POND. BASIN B CONTAINS THE MAJORITY OF THE HOUSE AND A PORTION AROUND THE HOUSE. THIS BASIN GENERATES 53 CFS THAT IS CAPTURED BY A WATER QUALITY DETENTION POND. THE PEAK DISCHARGE IS REDUCED TO 14 CFS LEAVING THE POND AND A WATER QUALITY VOLUME OF 16 CF IS CAPTURED. BASIN C IS THE REMAINING PORTION OF THE LOT AND WILL DISCHARGE 42 CFS AS SHEET FLOW. THE COMBINED PROPOSED DISCHARGE WILL BE 85 CFS WHICH IS LESS THAN NATIVE CONDITIONS. THE PONDS CAPTURE 137 CF FOR WATER QUALITY.

COMPARISON: 0.39 INCREASE

*routed basin b 0.14
0.85

Flow = Qa * *A*a + Qb * *A*b + Qc * *A*c + Qd * *A*d

Volume = Weighted D * Total Area

Weighted E = Ea**A*a + Eb**A*b + Ec**A*c + Ed**A*d / (Total Area)

Flow = Qa * *A*a + Qb * *A*b + Qc * *A*c + Qd * *A*d

Volume = Weighted D * Total Area

Weighted E = Ea**A*a + Eb**A*b + Ec**A*c + Ed**A*d / (Total Area)

Flow = Qa * *A*a + Qb * *A*b + Qc * *A*c + Qd * *A*d

Volume = Weighted D * Total Area

Weighted E = Ea**A*a + Eb**A*b + Ec**A*c + Ed**A*d / (Total Area)

Flow = Qa * *A*a + Qb * *A*b + Qc * *A*c + Qd * *A*d

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Weighted E = Ea**A*a + Eb**A*b + Ec**A*c + Ed**A*d / (Total Area)

Flow = Qa * *A*a + Qb * *A*b + Qc * *A*c + Qd * *A*d

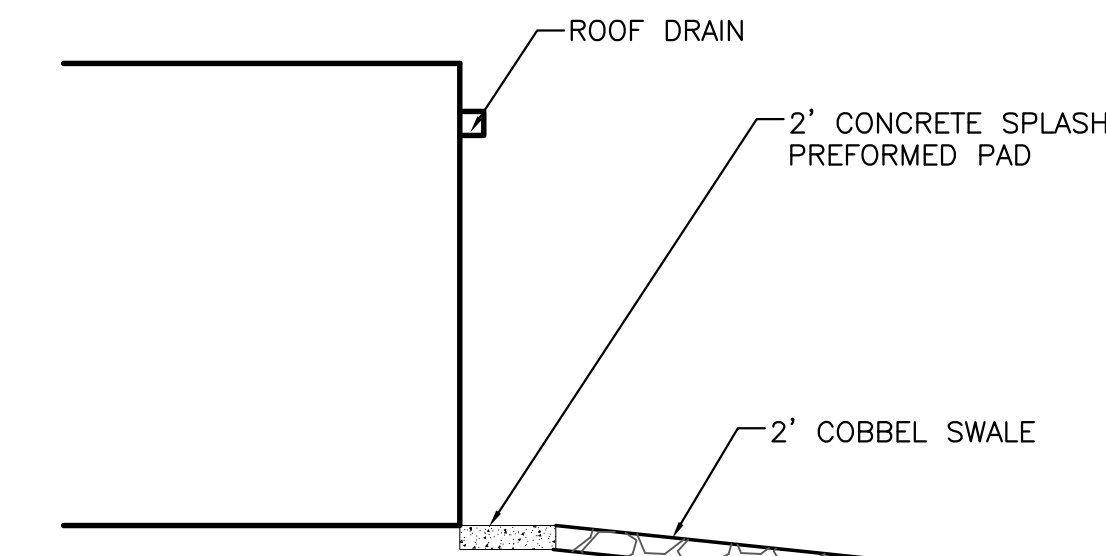
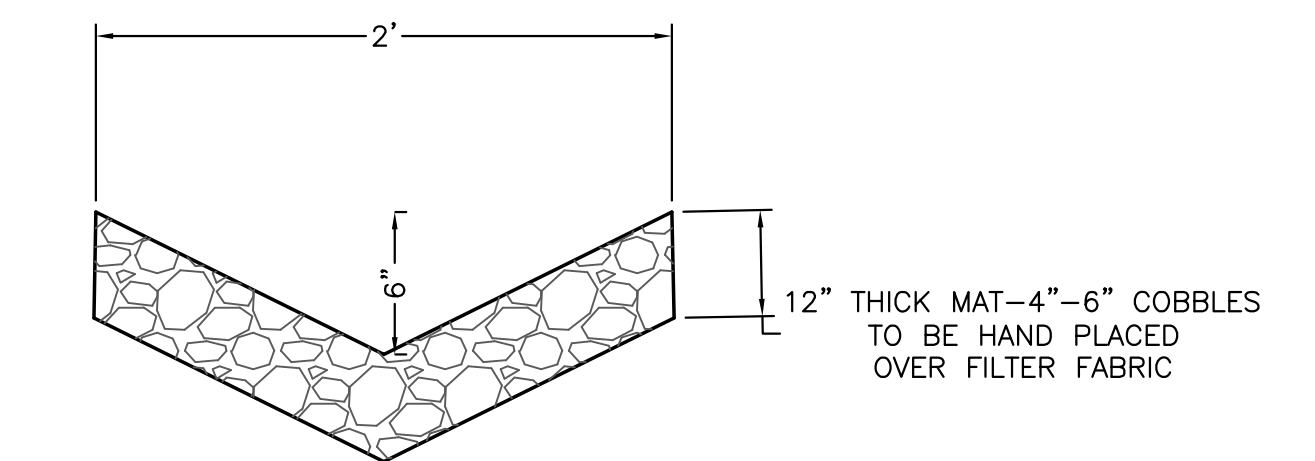
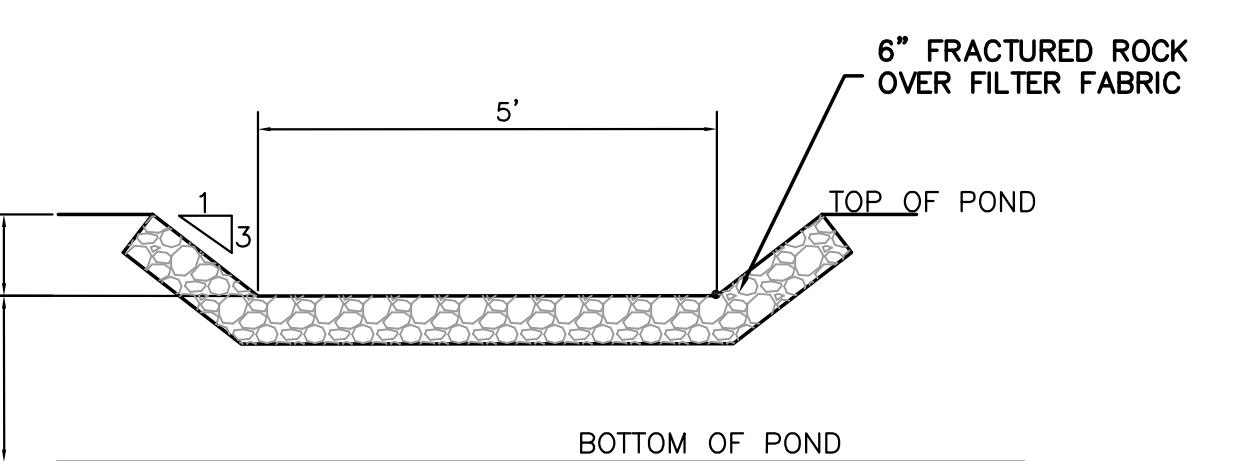
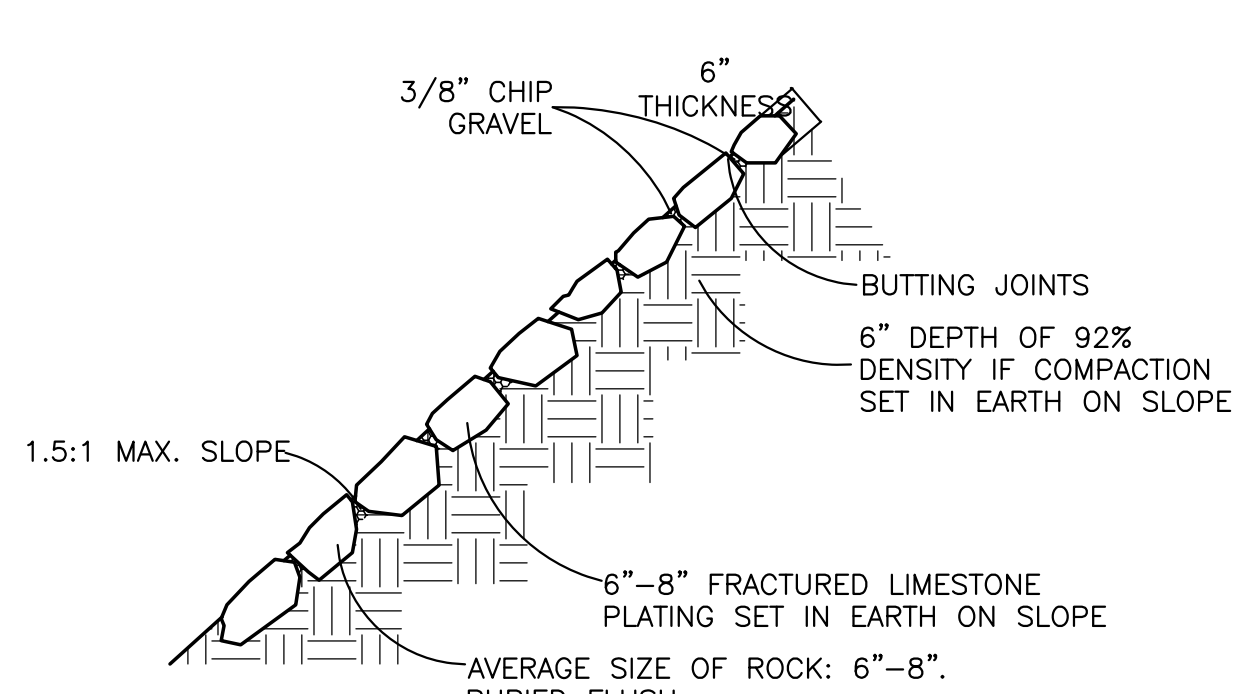
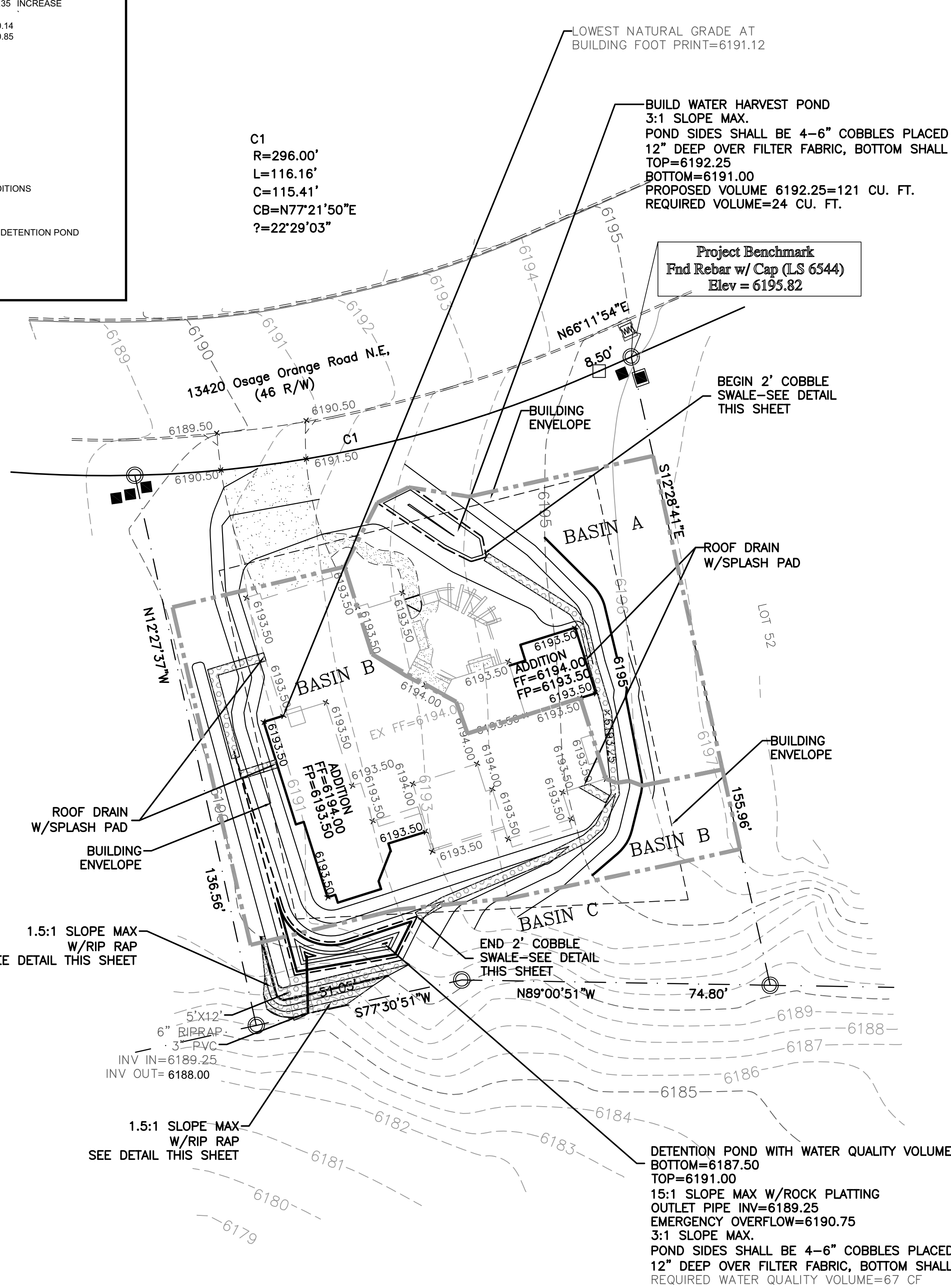
Volume = Weighted D * Total Area

Weighted E = Ea**A*a + Eb**A*b + Ec**A*c + Ed**A*d / (Total Area)

Flow = Qa * *A*a + Qb * *A*b + Qc * *A*c + Qd * *A*d

Volume = Weighted D * Total Area

Weighted E = Ea**A*a + Eb**A*b + Ec**A*c + Ed**A*d / (Total Area)

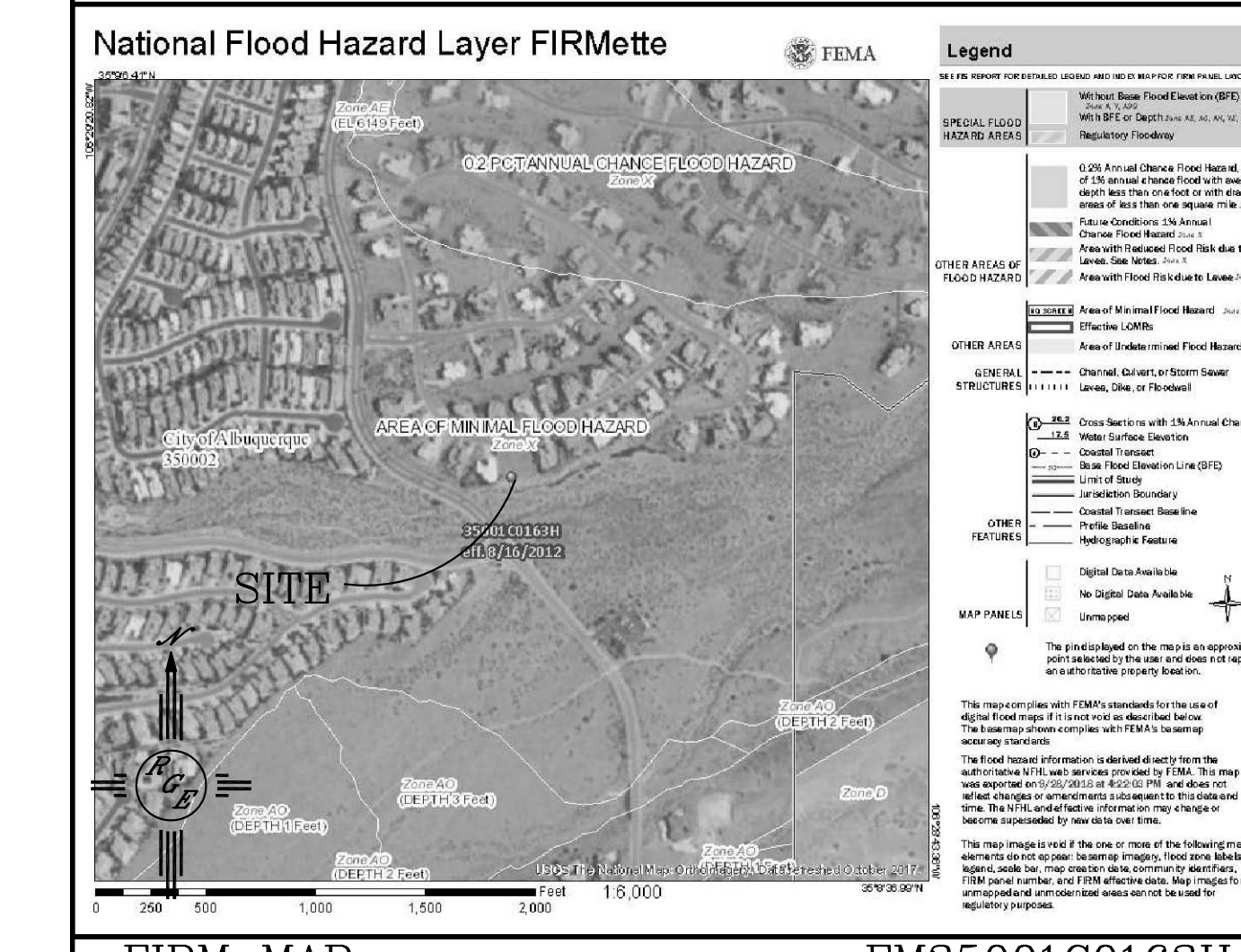
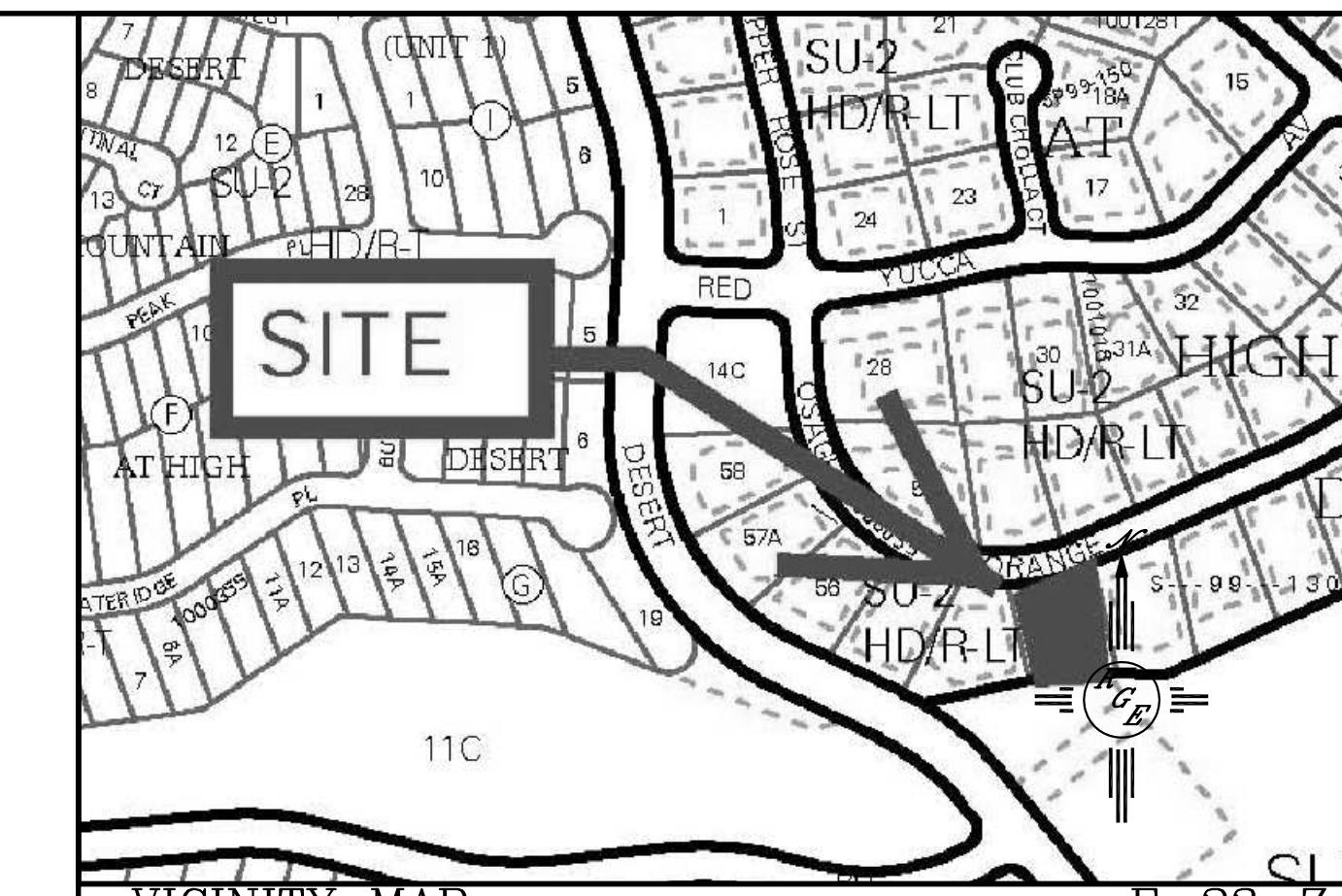


EROSION CONTROL NOTES:

- 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.

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.



LEGAL DESCRIPTION:

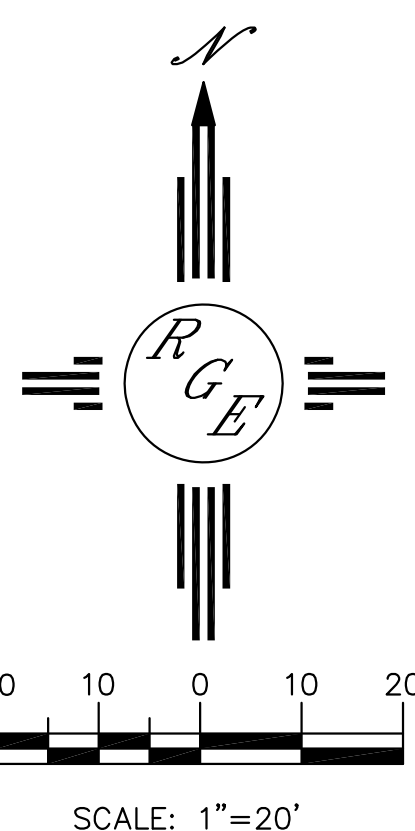
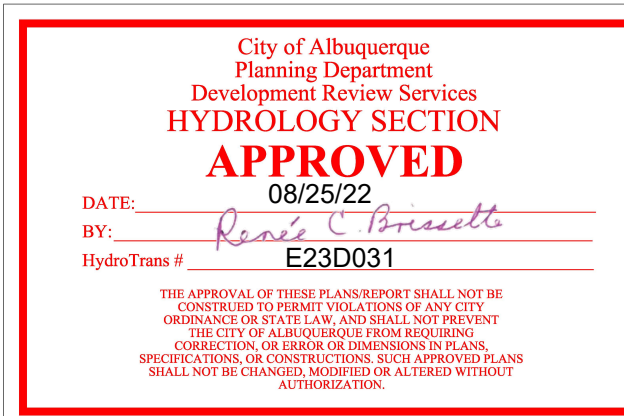
Lot 53, Overlook at High Desert, Unit 2

NOTES:

- ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
- ALL ROOF DRAINS SHALL HAVE A SLASH PAD AND 2' COBBLE SWALE THAT SHALL TIE TO MAIN COBBLES SWALES AROUND THE HOUSE PER DETAIL THIS SHEET.
- ALL DISTURBED AREAS SHALL BE RESEDED WITH APPROVED HIGH DESERT MIX WITHIN 30 DAYS AFTER THE END OF DISTURBANCE.
- ALL SLOPES SHALL BE 3:1 MAX. AND GRAVEL OR NATIVE SEEDING PRIOR TO CO.
- SURVEY PROVIDED BY COMMUNITY SCIENCES CORPORATION, BASED UPON NAVD 1988 DATUM.

LEGEND

---XXXX---	EXISTING CONTOUR
---XXXX---	EXISTING INDEX CONTOUR
---XXXX---	PROPOSED CONTOUR
---XXXX---	PROPOSED INDEX CONTOUR
---XXXX---	SLOPE TIE
• XXXXX	EXISTING SPOT ELEVATION
• XXXXX	PROPOSED SPOT ELEVATION
---	BOUNDARY
---	CENTRLINE
---	RIGHT-OF-WAY
---	PROPOSED CURB AND GUTTER
---	EXISTING EDGE OF ASPHALT
---	PROPOSED 1'-2' LANDSCAPE WALL
---	2' COBBLE SWALE-SEE DETAIL THIS SHEET
---	BASIN LIMITS



ENGINEER'S SEAL DAVID SOULE 14522 PROFESSIONAL ENGINEER	13420 OSAGE ORANGE	DRAWN BY: WCVJ
8/10/22	GRADING AND DRAINAGE PLAN	DATE: 8-09-22
DAVID SOULE P.E. #14522	Rio Grande Engineering 1606 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872-0399	218145-LAYOUT-10-02-19
		SHEET # 1 OF 2
		JOB # 21740

