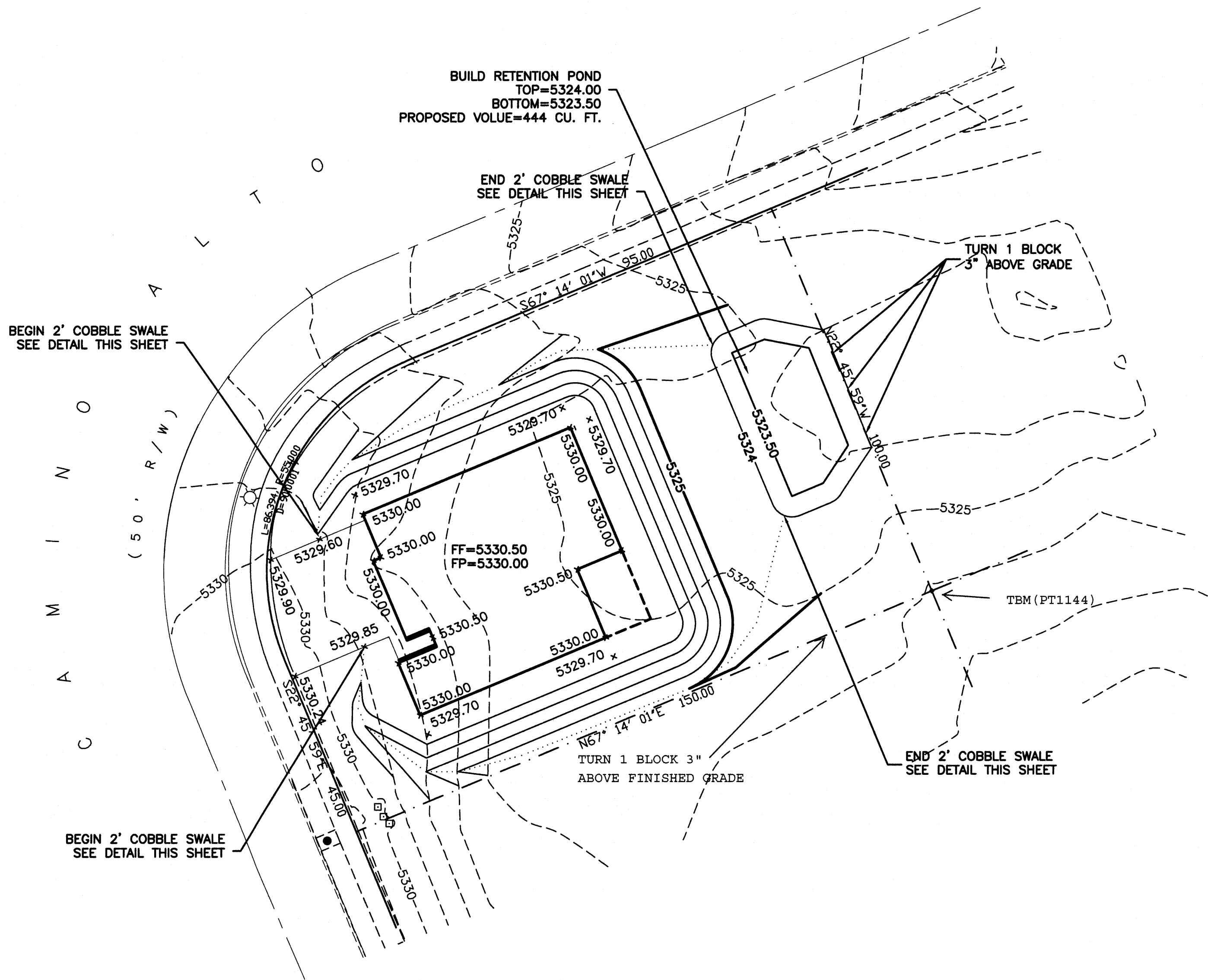


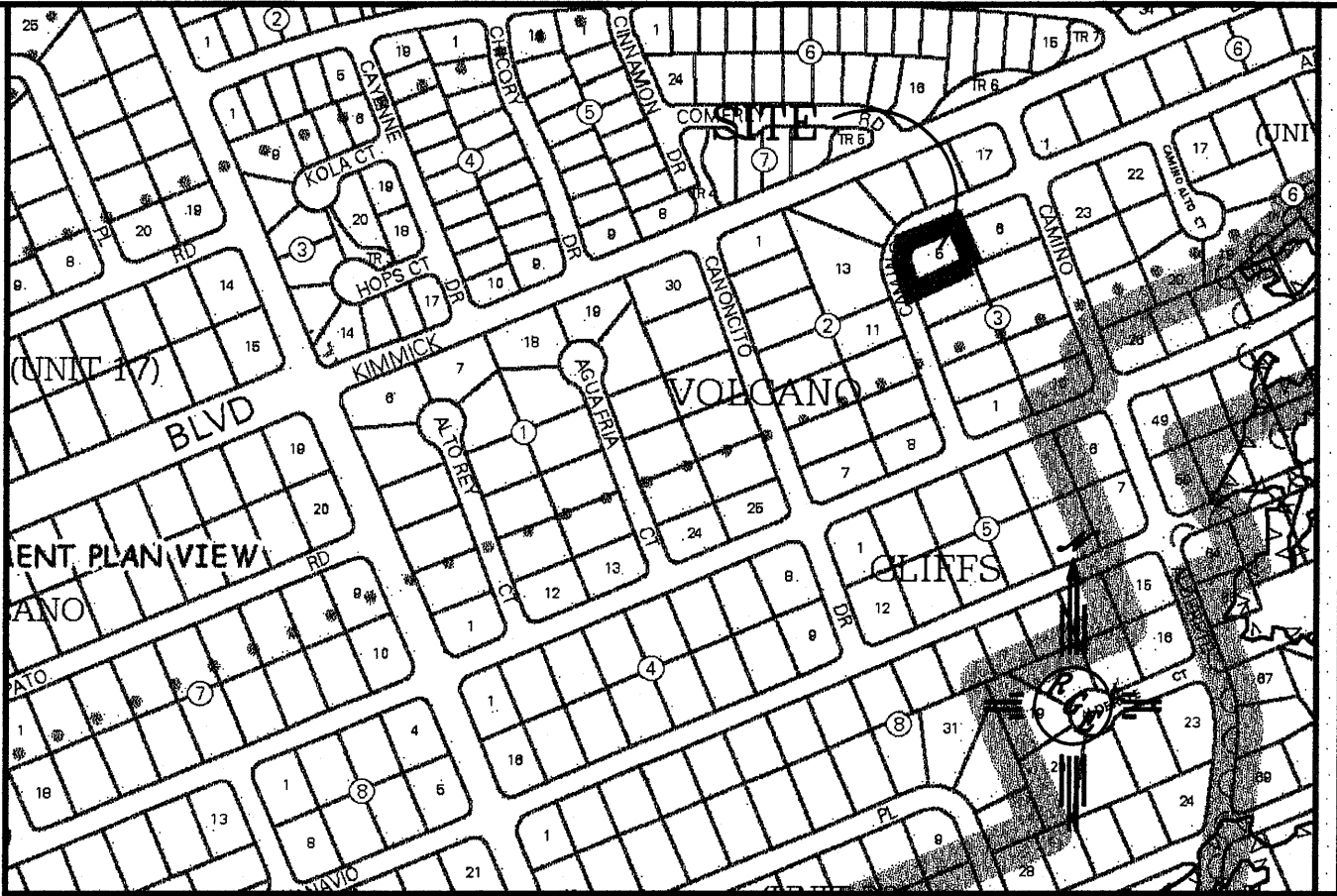
CAUTION:
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OF THE CONTRACTOR TO CONDUCT ALL
NECESSARY FIELD INVESTIGATIONS PRIOR
TO ANY EXCAVATION TO DETERMINE THE
ACTUAL LOCATION OF UTILITIES & OTHER
IMPROVEMENTS.



Point Table				
Point #	Elevation	Northing	Easting	Description
1144	5326.10	1518201.43	1502211.28	SRBC 2455
1145	5325.28	1518035.49	1502220.92	SRBC 11100
1148	5329.65	1518196.58	1502026.24	CL SAS NH
1151	5327.27	1518271.74	1502054.48	CL SAS NH

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.



LEGAL DESCRIPTION:
LOT 5 BLOCK 3, UNIT 22 VOLCANO CLIFFS SUBDIVISION

- 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. SURVEY PROVIDED BY ALDRICH LAND SURVEYING, BASED UPON NAVD 1988 DATUM.

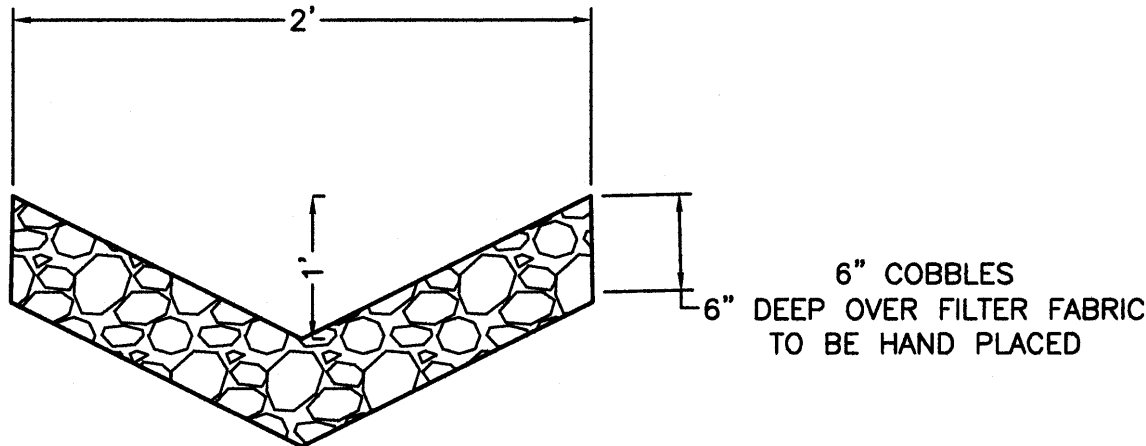
Weighted E Method

Basin	Area (sf)	Area (acres)	Treatment A				Treatment B				Treatment C				Treatment D				Weighted Volume (ac-ft)	Flow cfs
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	%	(acres)	%	(acres)		
NATIVE	14237.00	0.327	80%	0.261	10%	0.033	10%	0.0327	0%	0.000	0.518	0.014	0.50							
ALLOWED	14237.00	0.327	0%	0	10%	0.033	40%	0.1307	50%	0.163	1.448	0.039	1.16							
PROPOSED	14237.00	0.327	0%	0	32%	0.105	42%	0.1373	26%	0.085	1.142	0.031	0.98							
total																				

Equations:
Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)
Volume = Weighted D * Total Area
Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad
Where for 100-year, 6-hour storm- zone 1
Ea= 0.44 Qa= 1.29
Eb= 0.67 Qb= 2.03
Ec= 0.99 Qc= 2.87
Ed= 1.97 Qd= 4.37

ONSITE Conditions
FIRST FLUSH WATER QUALITY VOL
REQUIRED (CF) PROVIDED (CF)
WATER QUALITY 105 444

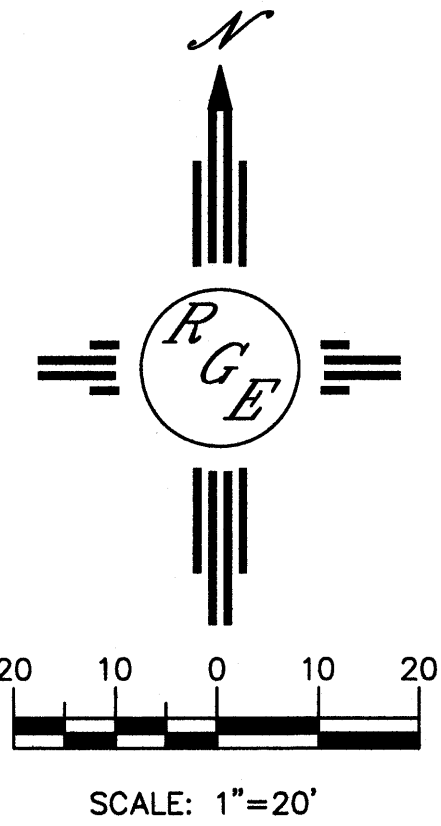
Narrative
This site is within the SAD 228 Master Drainage plan boundaries. The site is to maintain existing patterns and drain to the the adjacent property per the master drainage plan. We are ponding the water harvest volume generated by the site we are allowing the upland flow to pass thru the site. This plan has a shallow water harvest pond in excess of the drainage regulations. This plan is in conformance to the masterplan


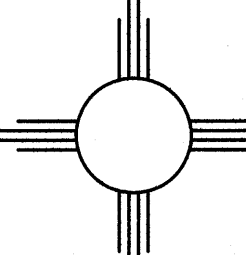


COBBLE SWALE DETAIL
NTS

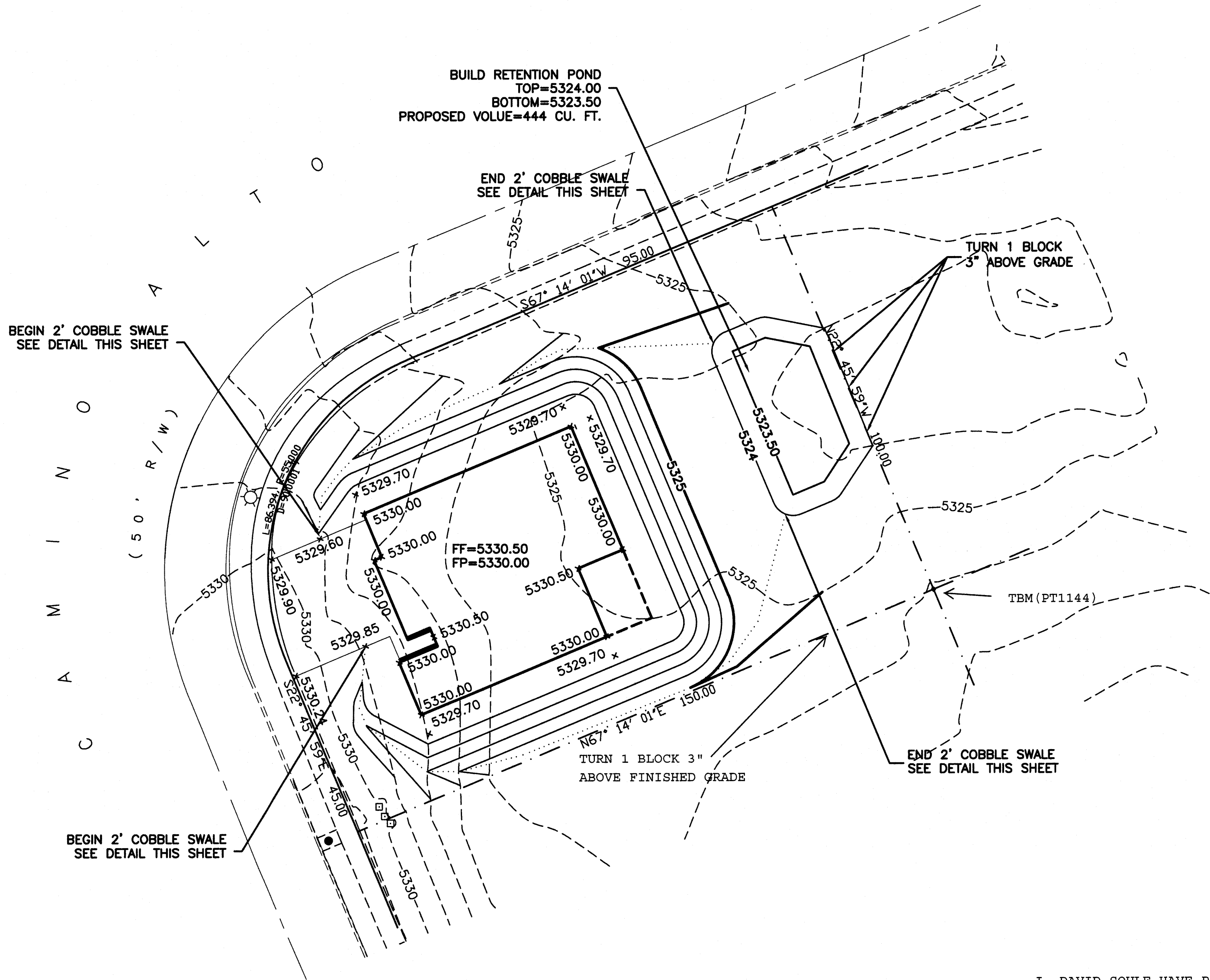
LEGEND

- 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
- CENTERLINE
- RIGHT-OF-WAY
- ===== EXISTING CURB AND GUTTER



ENGINEER'S SEAL  12/27/16 DAVID SOULE P.E. #14522	6320 CAMINO ALTO	DRAWN BY WCWJ DATE 12-27-16
	GRADING AND DRAINAGE PLAN	21647-LAYOUT-12-27-16
	 Rio Grande Engineering 1808 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872-0899	SHEET # — JOB # 21647

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Point Table				
Point #	Elevation	Northing	Easting	Description
1144	5326.10	1518201.43	1502211.88	SRBC 2435
1145	5325.28	1518035.49	1502200.92	SRBC ILLEG
1148	5329.85	1518198.58	1502026.24	CL SAS NH
1151	5327.27	1518271.74	1502054.48	CL SAS NH

I, DAVID SOULE HAVE PERSONALLY INSPECTED THE SITE. I HEREBY CERTIFY THE PAD HAS BEEN CONSTRUCTED SUCH THAT IT IS IN SUBSTANTIAL CONFORMANCE TO THE APPROVED GRADING PLAN DATED 12/27/17 BASED UPON APPROVAL FROM DESIGN ENGINEER THE PAD HAS BEEN CONSTRUCTED 4" LOWER. THE DRAINAGE CONCEPT HAS NOT CHANGED. I CERTIFY THE PAD IS AT A GRADE THAT CONFORMS TO THE APPROVED PLAN AND ACCEPTABLE FOR RELEASE OF BUILDING PERMIT



1/31/17

Weighted E Method

										100-Year, 6-hr.			
Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Volume (ac-ft)	Flow cfs	
			% (acres)	% (acres)	% (acres)	% (acres)	% (acres)	% (acres)					
NATIVE	14237.00	0.327	80%	0.261	10%	0.033	10%	0.0327	0%	0.000	0.518	0.014	0.50
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total													

Equations:

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Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

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Ea= 0.44
Eb= 0.67
Ec= 0.99
Ed= 1.97

Qa= 1.29
Qb= 2.03
Qc= 2.87
Qd= 4.37

ONSITE Conditions

FIRST FLUSH WATER QUALITY VOL
REQUIRED
(CF)

PROVIDED
(CF)

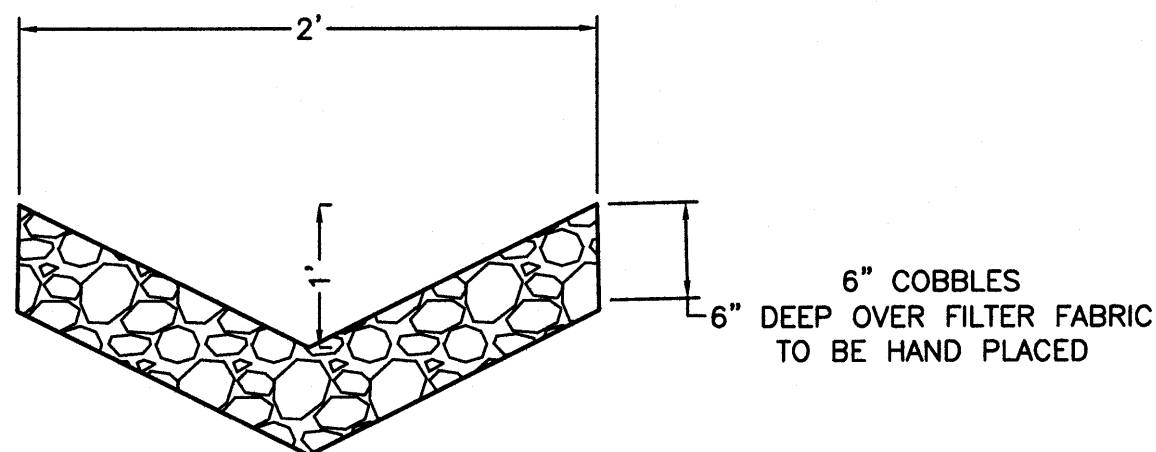
WATER QUALITY

105

444

Narrative

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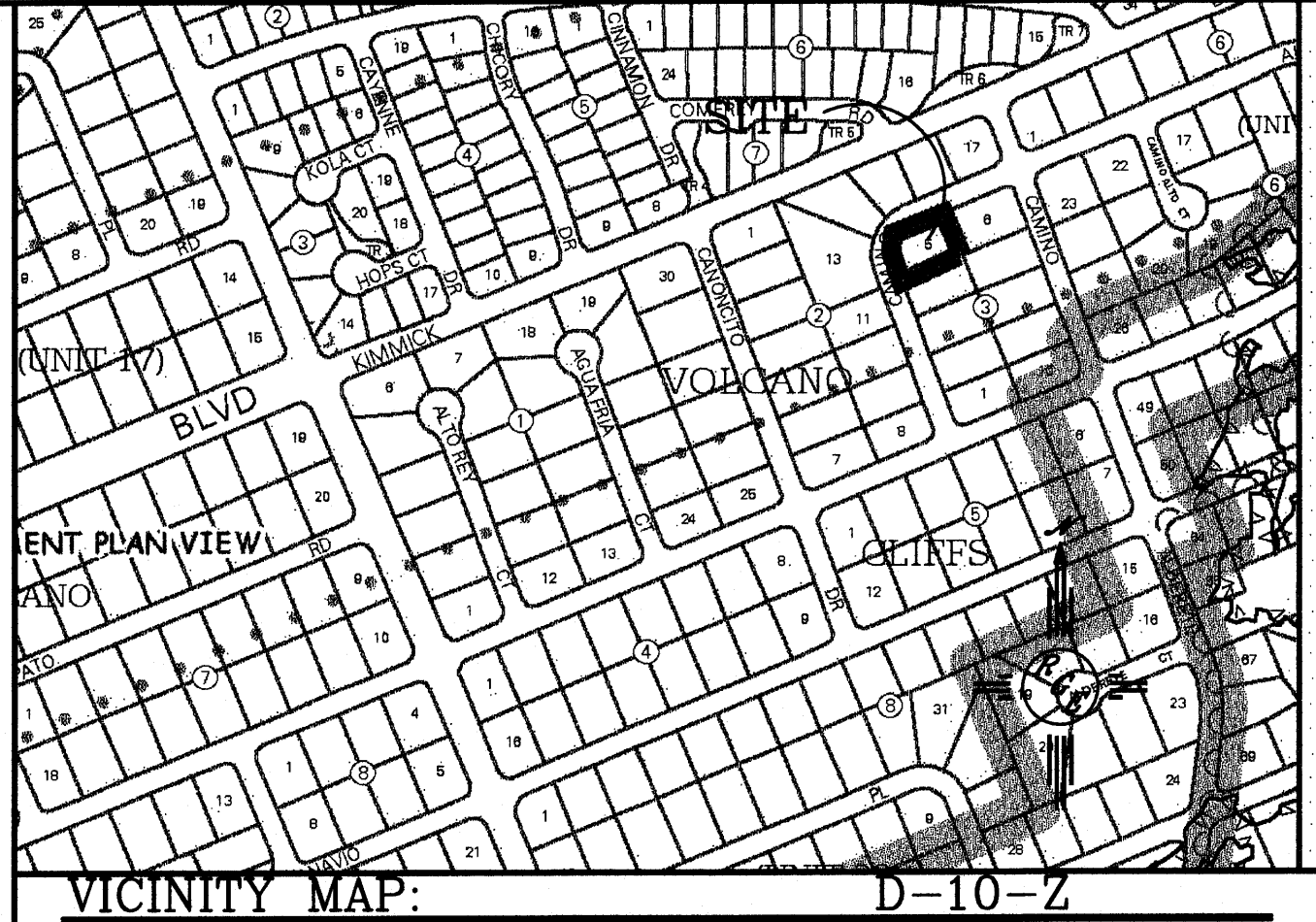


COBBLE SWALE DETAIL

NTS

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VICINITY MAP:

D-10-Z



FIRM MAP:

FM35001C0112G

LEGAL DESCRIPTION:

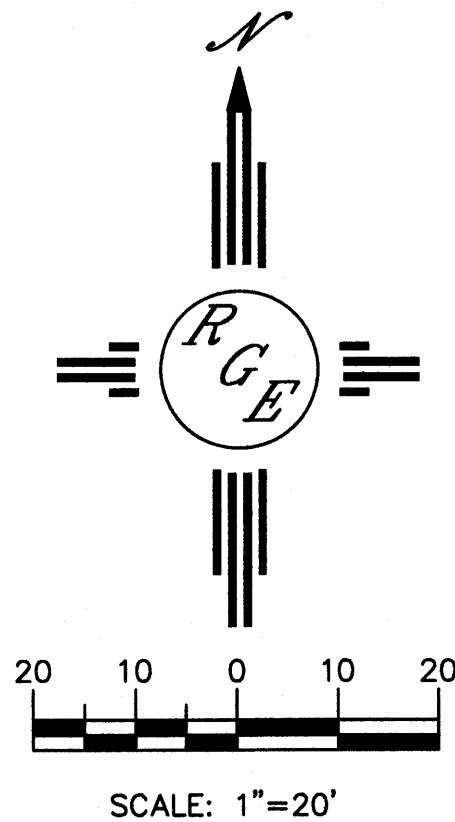
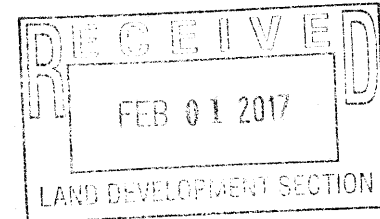
LOT 5 BLOCK 3, UNIT 22 VOLCANO CLIFFS SUBDIVISION


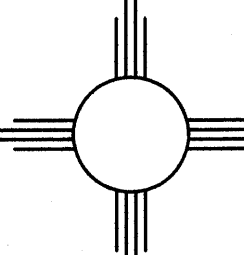
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LEGEND

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- ===== EXISTING CURB AND GUTTER



ENGINEER'S SEAL	6320 CAMINO ALTO	DRAWN BY WCWJ
 12/27/16		GRADING AND DRAINAGE PLAN
	 <i>Rio Grande Engineering</i> 1606 CENTRAL AVENUE SE SUITE 201 ALBUQUERQUE, NM 87106 (505) 872-0999	21647-LAYOUT-12-27-16
		SHEET # —
DAVID SOULE P.E. #14522		JOB # 21647