

Basin	Area	Area	Treatment A	Treatment B	Treatment C	Treatment D	Weighted E	100-Year, 6-hr	24-hr
(sq ft)	(acres)	% Impervious	% Impervious	% Impervious	% Impervious	(ac-ft)	(ac-ft)	Flow	Volume
ALLOWED	11526.00	0.262	0%	0%	20%	0.000	0.000	0.000	0.000
PROPOSED	11526.00	0.262	0%	0%	20%	0.000	0.000	0.000	0.000
COMPARISON	2664.00	0.061	0%	0%	20%	0.000	0.000	0.000	0.000

Equations:

Weighted E = E_A*A_A + E_B*A_B + E_C*A_C + E_D*A_D / (Total Area)

Volume = Weighted E * 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: zone 1
E_A= 0.44 Q_A= 1.29
E_B= 0.87 Q_B= 2.83
E_C= 0.99 Q_C= 4.37
E_D= 1.97 Q_D= 8.37

ON-SITE Conditions

DRAINAGE SUMMARY

REQUIRED (CF)

PROVIDED (CF)

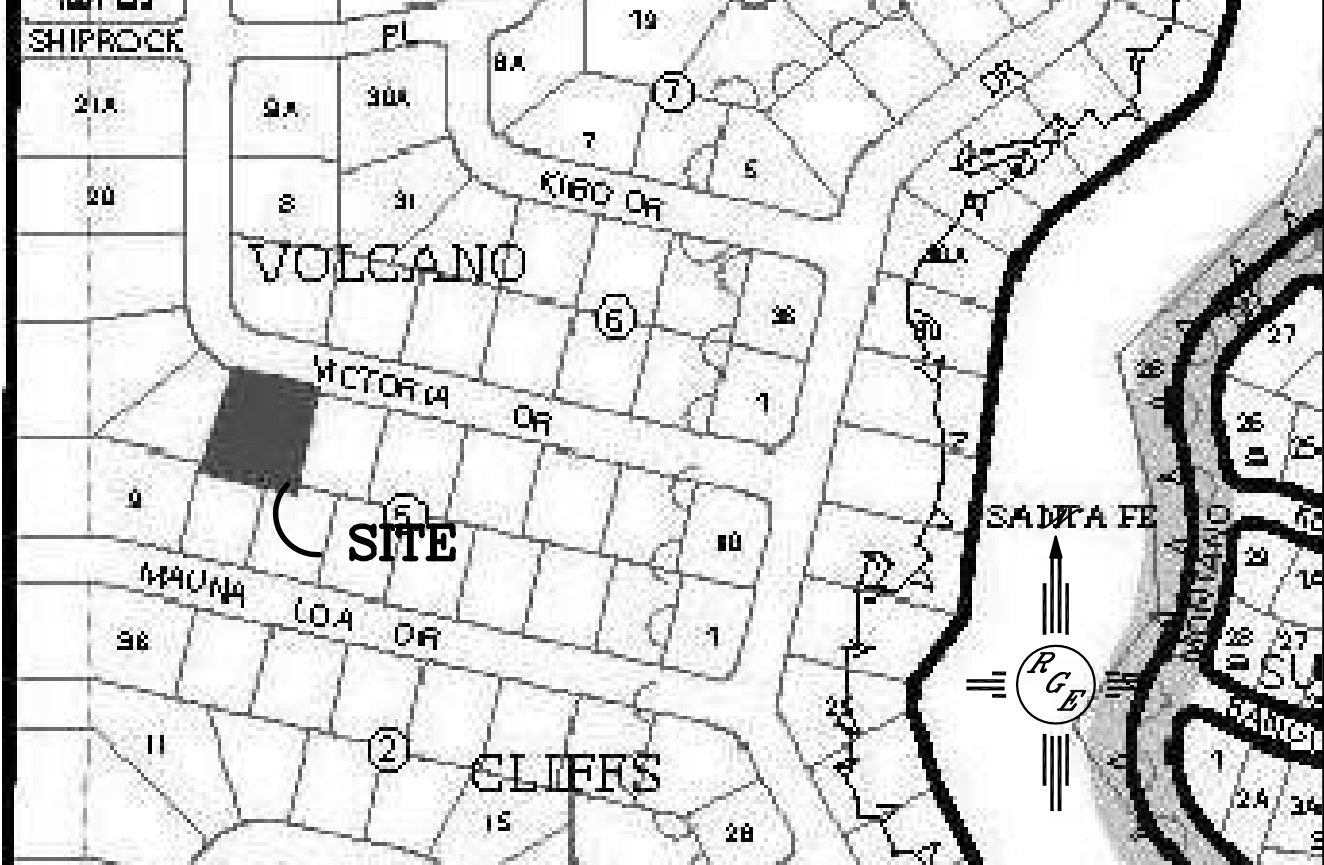
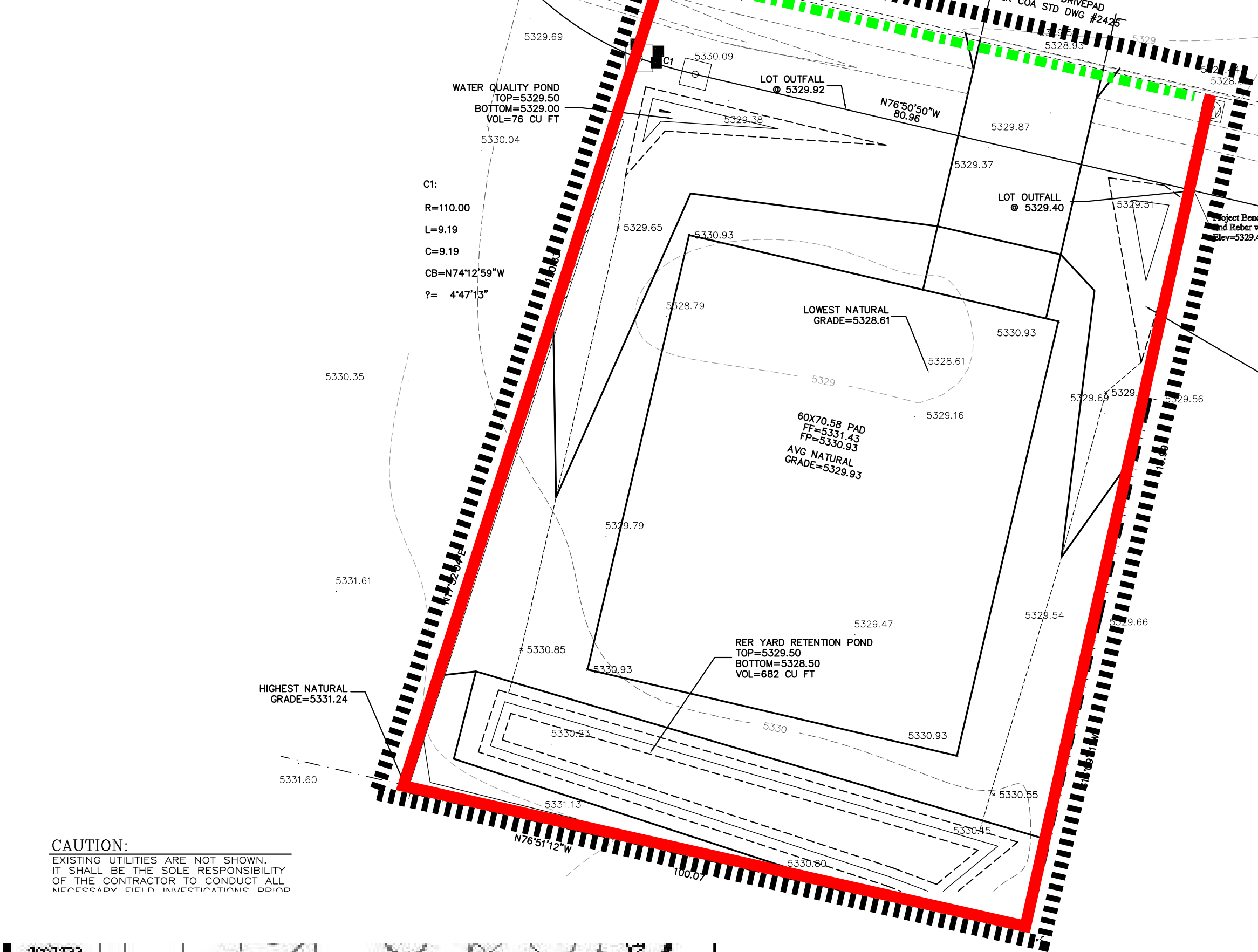
WATER QUALITY

FLOOD CONTROL (ENTIRELOT)

FLOOD CONTROL (REARONLY)

Remarks

This site is within the S&D 227 Master Drainage plan boundaries. The site is to maintain existing patterns and drain to the roadway to the north per the master drainage plan. The site does exceed the S&D 228 developed conditions assumptions, therefore ponding of 66 cfs is required. Due to existing rear grades being lower than the rear yard all water the entire 100 cfs generated existing will appear to prevent excess lot drainage, any flow from the upland north is allowed to enter and pass across site to west. This plan is in conformance to the master drainage plan.



7924 VICTORIA

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.

Basin	Area	Area	Treatment A	Treatment B	Treatment C	Treatment D	Weighted E	100-Year, 6-hr	24-hr
(sq ft)	(acres)	% Impervious	% Impervious	% Impervious	% Impervious	(ac-ft)	(ac-ft)	Flow	Volume
ALLOWED	11526.00	0.262	0%	0%	20%	0.000	0.000	0.000	0.000
PROPOSED	11526.00	0.262	0%	0%	20%	0.000	0.000	0.000	0.000
COMPARISON	2664.00	0.061	0%	0%	20%	0.000	0.000	0.000	0.000

Equations:

Weighted E = E_A*A_A + E_B*A_B + E_C*A_C + E_D*A_D / (Total Area)

Volume = Weighted E * 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: zone 1
E_A= 0.44 Q_A= 1.29
E_B= 0.87 Q_B= 2.83
E_C= 0.99 Q_C= 4.37
E_D= 1.97 Q_D= 8.37

ON-SITE Conditions

DRAINAGE SUMMARY

REQUIRED (CF)

PROVIDED (CF)

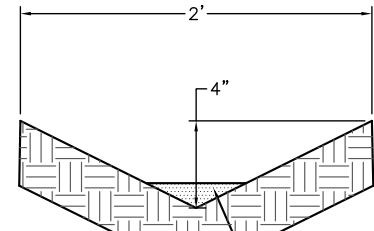
WATER QUALITY

FLOOD CONTROL

TOTAL GENERATION

Remarks

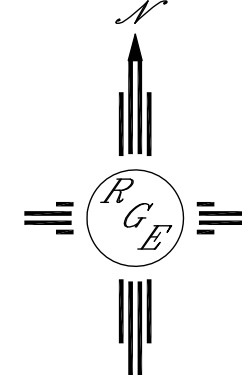
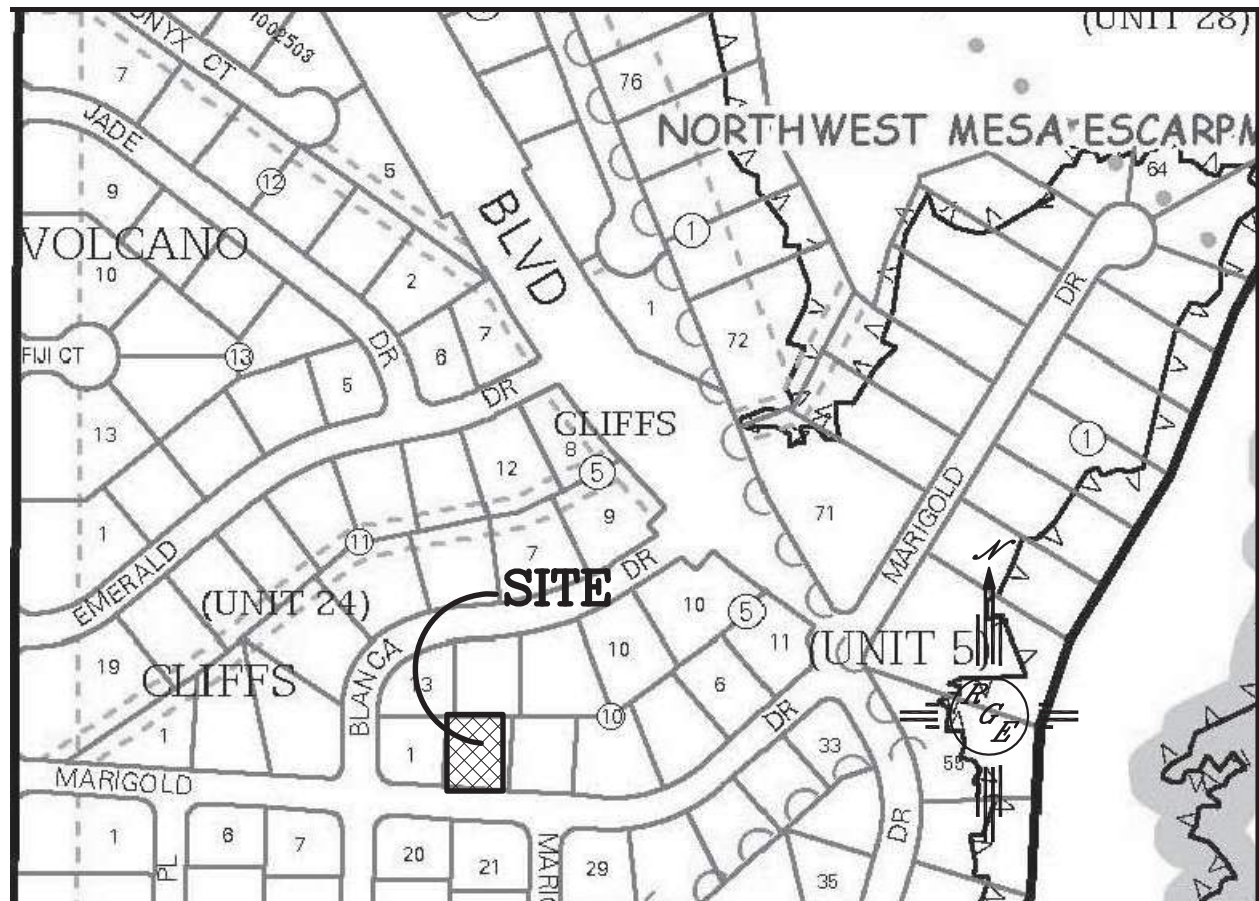
This site is within the S&D 227 Master Drainage plan boundaries. The site is to maintain existing patterns and drain to the adjacent property to the south and to the east per the master drainage plan. The site does exceed the S&D 228 developed conditions assumptions, therefore ponding is required. Due to the site not being able to drain to the street, the rear yard retention pond holds the 6-hour volume. Upland flow is not impacting property due to grade/pat on adjacent lot during the 6-hour event. This plan is in conformance to the master drainage plan.



PLACE 3/4" GRAVEL AT FLOWLINE FOR EROSION PROTECTION

EARTHEN SWALE DETAIL

NTS



CAUTION:

EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY UTILITY INVESTIGATIONS.

Basin	Area	Area	Treatment A	Treatment B	Treatment C	Treatment D	Weighted E	100-Year, 6-hr	24-hr
(sq ft)	(acres)	% Impervious	% Impervious	% Impervious	% Impervious	(ac-ft)	(ac-ft)	Flow	Volume
ALLOWED	11526.00	0.262	0%	0%	20%	0.000	0.000	0.000	0.000
PROPOSED	11526.00	0.262	0%	0%	20%	0.000	0.000	0.000	0.000
COMPARISON	2664.00	0.061	0%	0%	20%	0.000	0.000	0.000	0.000

Equations:

Weighted E = E_A*A_A + E_B*A_B + E_C*A_C + E_D*A_D / (Total Area)

Volume = Weighted E * 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: zone 1
E_A= 0.44 Q_A= 1.29
E_B= 0.87 Q_B= 2.83
E_C= 0.99 Q_C= 4.37
E_D= 1.97 Q_D= 8.37

ON-SITE Conditions

DRAINAGE SUMMARY

REQUIRED (CF)

PROVIDED (CF)

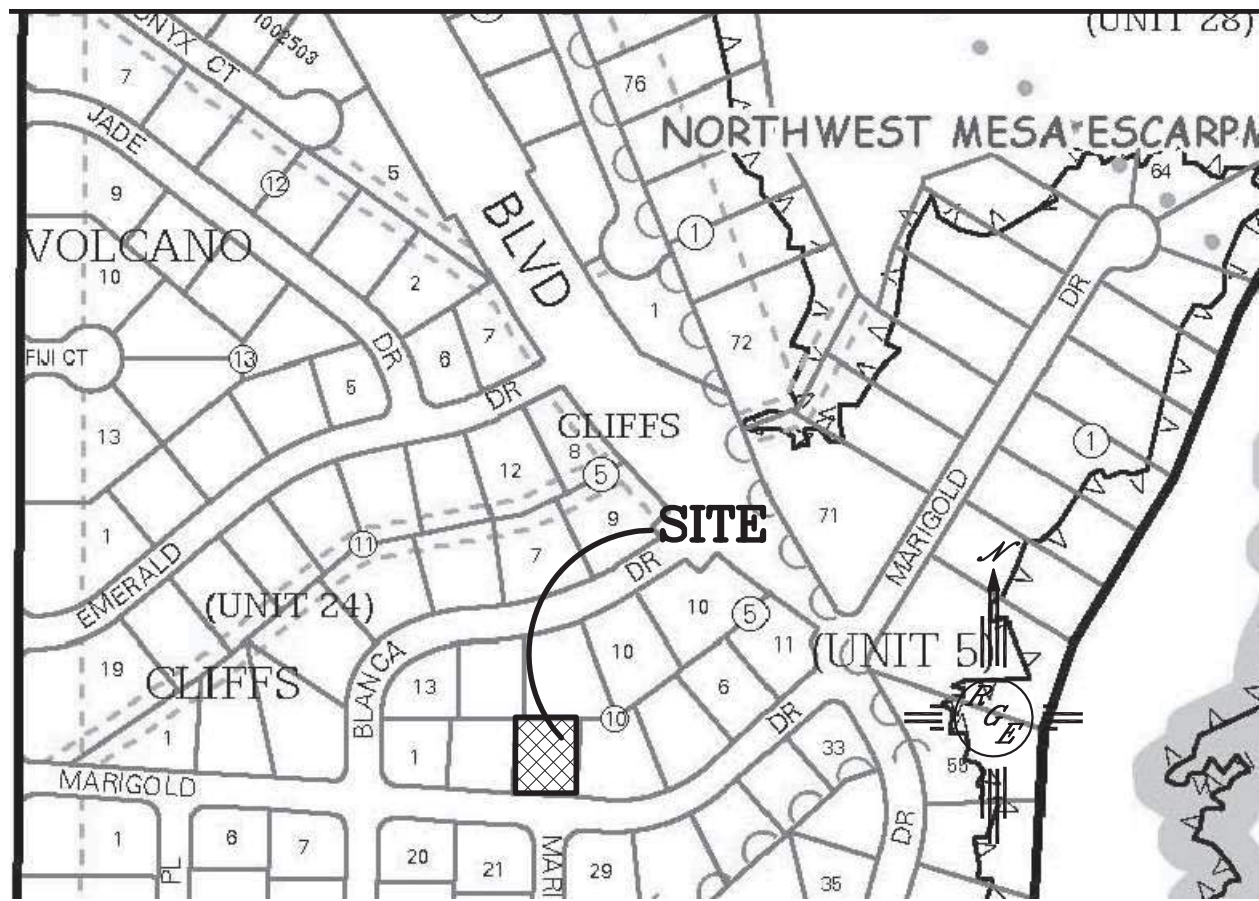
WATER QUALITY

FLOOD CONTROL

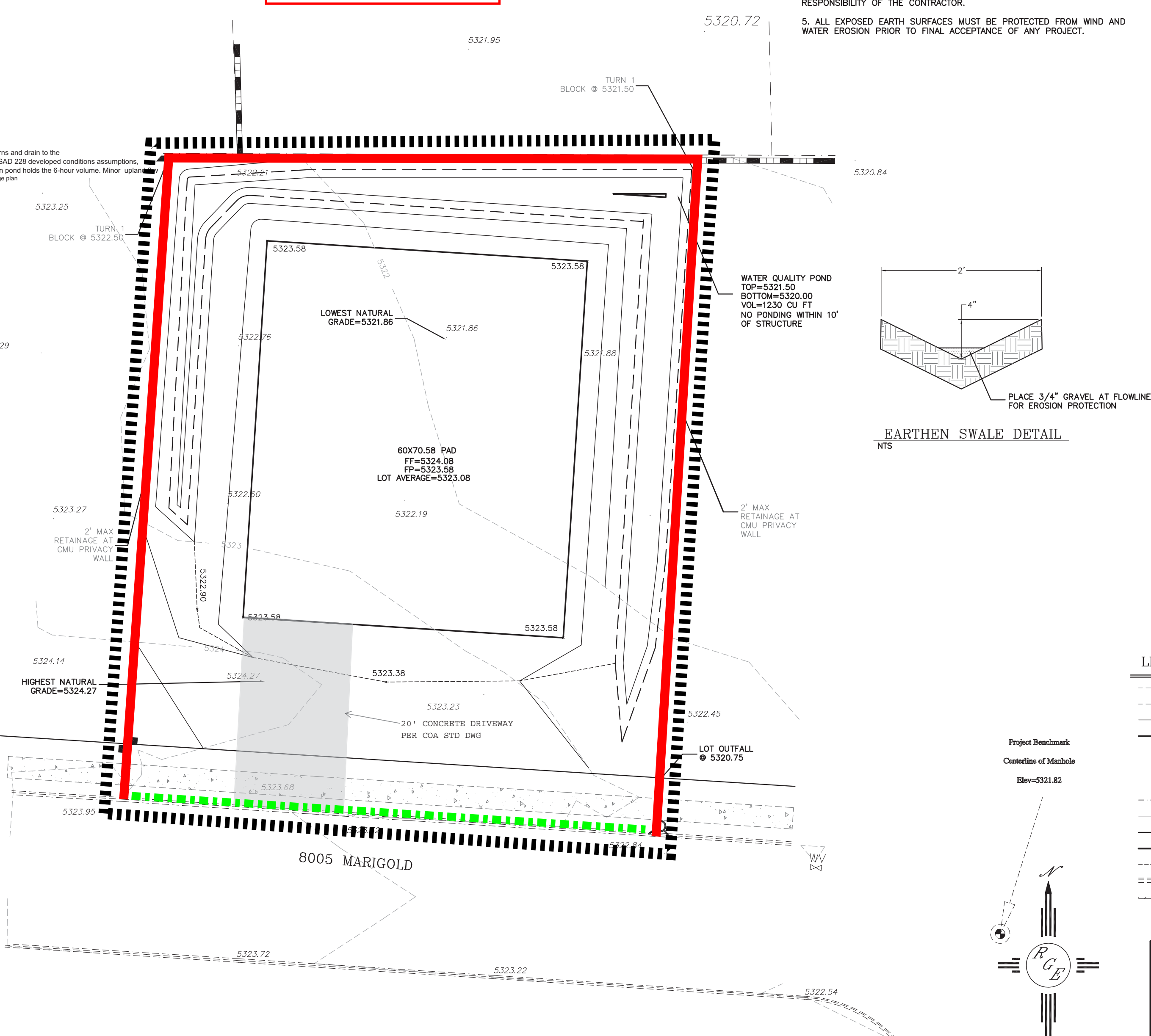
TOTAL GENERATION

Remarks

This site is within the S&D 227 Master Drainage plan boundaries. The site is to maintain existing patterns and drain to the adjacent property to the south and to the east per the master drainage plan. The site does exceed the S&D 228 developed conditions assumptions, therefore ponding is required. Due to the site not being able to drain to the street, the rear yard retention pond holds the 6-hour volume. Minor upland flow enters the site from the west and is allowed to pass into the property. This plan is in conformance to the master drainage plan.



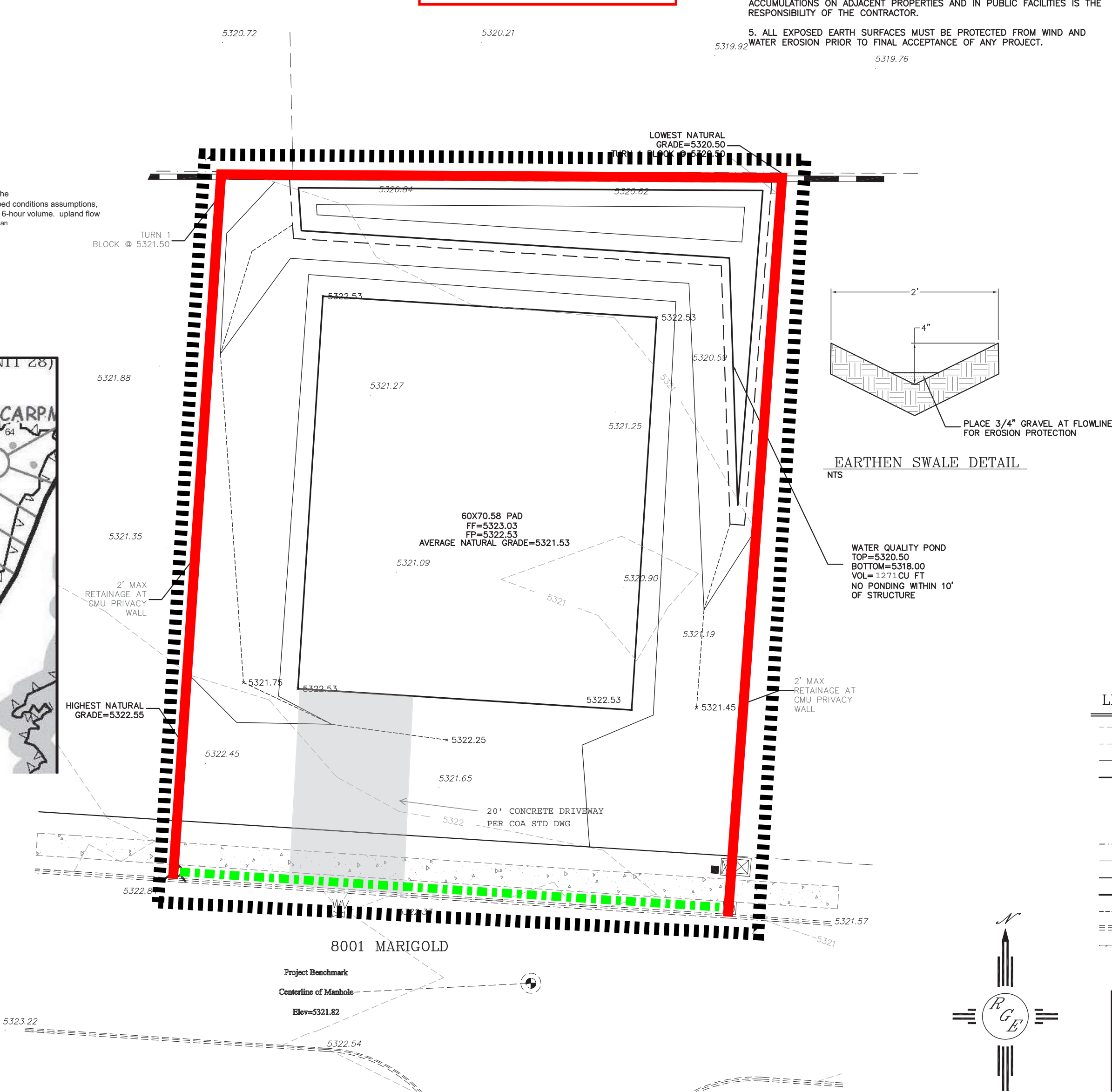
8001 MARIGOLD



CAUTION:

EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY UTILITY INVESTIGATIONS.

8005 MARIGOLD



EROSION CONTROL NOTES:

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5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.

BMP MAP LEGEND

LIMITS OF DISTURBANCE

PERIMETER BMP (SILT FENCE)

CUT BACK CURB

INLET/OUTLET PROTECTION

FLOW DIRECTION

VTC (VEHICLE TRACK-OUT CONTROL)

PORTABLE TOILETS

WASTE CONTAINER

CONCRETE WASHOUT



OPERATOR: DR HORTON, INC.

TOTAL SITE AREA: 4.5 ACRES
TOTAL DISTURBED AREA: 4.5 ACRES

RECEIVING WATERS: RIO GRANDE RIVER (TIJERAS ARROYO TO ALAMEDA BRIDGE), TIER 2 SEE ESC-4 FOR IMPAIRMENTS.

REFER TO THE ESC BMP DETAILS (ESC-3) FOR INSTALLATION, INSPECTION AND MAINTENANCE REQUIREMENTS.

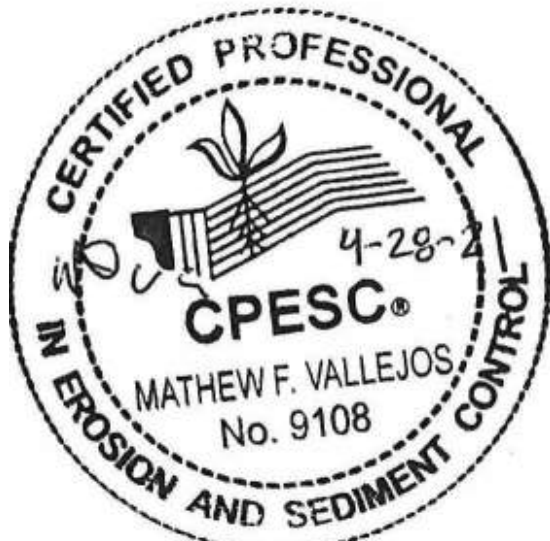
****GRADING PLAN BY OTHERS****

VOLCANO CLIFFS AT LA CUENTISTA

TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

Drawn By:
M. VALLEJOS, CPESC, CISEC

04/28/2021



ESC-2

Silt Fence Detail

Non-woven Silt Fence

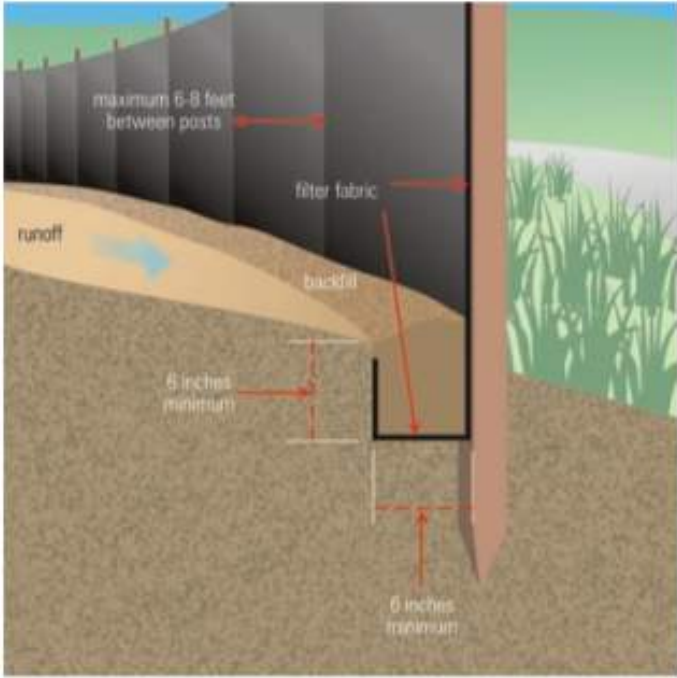
A silt fence is a temporary sediment barrier consisting of a geotextile attached to supporting posts and trenched into the ground. Intended to retain sediment that has been dislodged by stormwater.

Use silt fence as a perimeter control particularly at lower or down slope edge of a disturbed area. Leave space for maintenance between slope and silt fence or roll. Trench in the silt fence on the uphill side (6 in deep by 6 in wide). Install stakes on the downhill side of the fence. Curve silt fence up-gradient to help it contain runoff.

To maintain remove sediment when it reaches one-third of the height of the fence. Replace the silt fence where it is worn, torn, or otherwise damaged. Retrench or replace any silt fence that is not properly anchored to the ground. If the silt fence cannot be toed in properly due to existing hard surface, place mulch filter sock at base to prevent sediment from leaving site.

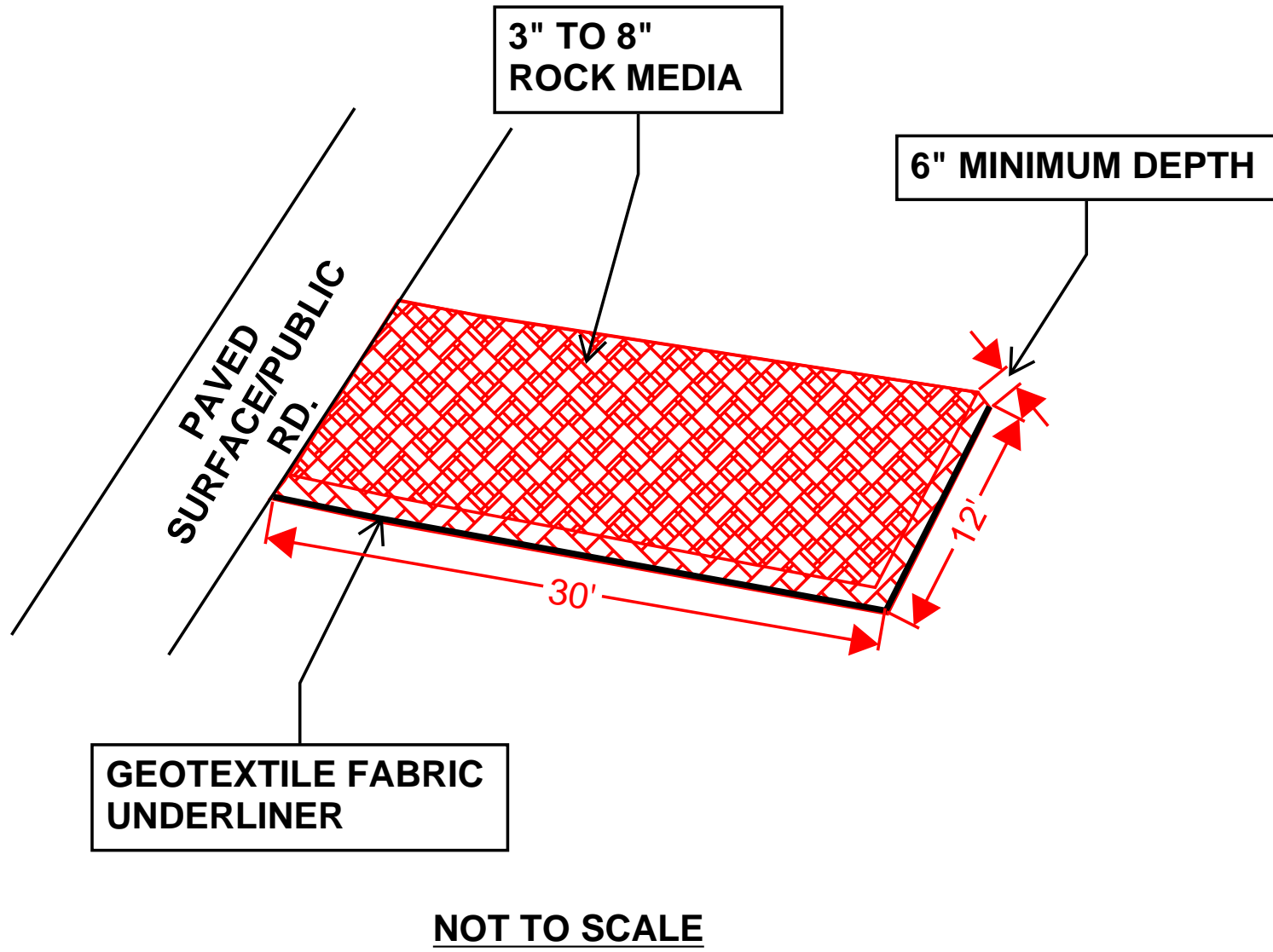
8’ max wood stake spacing and 10’ max spacing for steel T-post.

Silt Fence Installation



Source: USEPA Guide for Construction Site

VEHICLE TRACK-OUT CONTROL



- DIMENSIONS NOTED CAN BE SITE RESTRICTIVE.

TYPICAL CONCRETE WASHOUT-BELOW GRADE



- Install appropriate signage to inform concrete equipment operators of the proper washout location.
- An appropriate stabilized entrance shall be installed where applicable. The length and width of the stabilized entrance may vary based on size and location of the washout.
- Washout facilities must be sized to contain washout water and solids.
- Typical dimensions are 10 feet long by 10 feet wide but may vary upon site limitations.
- Pit shall be delineated with Orange Filter Sock and A-Framed staked.
- The pit shall be lined with 10mil (minimum) polyethylene impermeable liner on the bottom and sides overlapping the top edges completing a leak-proof container.

GRAVEL BAG INLET PROTECTION



Inlet gravel bags are manufactured on site to fit in the gutter pan on the upstream side of the inlet. Filled with smooth rounded pea gravel. The ends are sealed with ½” #12 hog rings. The gravel bags are connected together with the hogs to help create weight and stability.

FABRIC PHYSICAL SPECIFICATIONS:

Property	Test Method	Woven (typical)
Fabric Weight	ASTDM D-5261	5 oz/sq./yd.
Grab Tensile (MD/TD)	ASTDM D-4632	350/220 lbs.
Trapezoid Tear (MD/TD)	ASTM D-4533	146/75 lbs.
Puncture	ASTM D-4833	112 lbs.
Mullen Burst	ASTM D-3786	388 psi.
UV Resistance (2000hrs)	ASTM D-4355	>70%
Water Flow	ASTM D-4355	195 gpm/sq-ft
Material		High Density Polyethylene (HPDE)

THE ABOVE VALUES ARE M.A.R.V. (minimum average roll values)



ESC Plan Standard Notes (2021-03-24)

1. All Erosion and Sediment Control (ESC) work on these plans, except as otherwise stated or provided hereon shall be permitted, constructed, inspected, and maintained in accordance with:
 - a. The City Ordinance § 14-5-2-11, the ESC Ordinance,
 - b. The EPA’s 2017 Construction General Permit (CGP), and
 - c. The City Of Albuquerque Construction BMP Manual.
2. All BMP’s must be installed prior to beginning any earth moving activities except as specified hereon in the Phasing Plan. Construction of earthen BMP’s such as sediment traps, sediment basins, and diversion berms shall be completed and inspected prior to any other construction or earthwork. Self-inspection is required after installation of the BMPs and prior to beginning construction.
3. Self-inspections - At a minimum a routine compliance self-inspection is required to review the project for compliance with the Construction General Permit once every 14 days and after any precipitation event of 1/4 inch or greater until the site construction has been completed and the site determined as stabilized by the city. Reports of these inspections shall be kept by the person or entity authorized to direct the construction activities on the site and made available upon request.
4. Corrective action reports must be kept by the person or entity authorized to direct the construction activities on the site and made available upon request.
5. Stabilization reports must be kept by the person or entity authorized to direct the construction activities on the site and made available upon request. Reports should include records of weed removal per City Ordinance (§ 9-8-1), sterilization, soil test results and recommendation, materials and manufacturer’s specifications for application rates, estimated functional longevity, methods of application, inspection and maintenance. The reduced self-inspection schedule in CGP 4.4.1 applies to stabilized area and any damaged or worn stabilization must be identified in the reports along with weed problems. Corrective actions for stabilization shall be documented in a stabilization report including actual rates and dates of stabilization, and the materials and manufacturer’s specifications used.
6. BMPs shall be inspected and maintained until all disturbed areas are stabilized in accordance with the Final Stabilization Criteria (CGP 2.2.14.b). Generally, all disturbed areas, other than structures and impervious surfaces, must have uniform perennial vegetation that provides 70 percent or more of the cover provided by native vegetation or seed the disturbed area and provide non-vegetative mulch that provides cover for at least three years without active maintenance. Final stabilization must be approved by the City of Albuquerque prior to removal of BMPs and discontinuation of inspections.

Coir Mat Inlet Protection



UV Resistance (ASTM D 4355 – 500 hour exposure) Tensile Properties (ASTM D 5035/ECTC)
(4 inch wide strip specimen)

Baseline Properties	
MD – Maximum Load (ppi)	14.6
TD – Maximum Load (ppi)	18.7
MD – Elongation @ Max Load (%)	19.3
TD – Elongation @ Max Load (%)	27.7

500 Hour Exposed Properties	
MD – Maximum Load (ppi)	10.2
TD – Maximum Load (ppi)	13.8
MD – Elongation @ Max Load (%)	16.9
TD – Elongation @ Max Load (%)	16.6

Light Penetration (ECTC Guidelines)	
Baseline Reading	125
Reading with sample	10
% Light Penetration	<8

Resiliency (ASTM D 6524)	
Pre-loading thickness (mils)	1943
Post-loading thickness (mils)	326
% change	-83

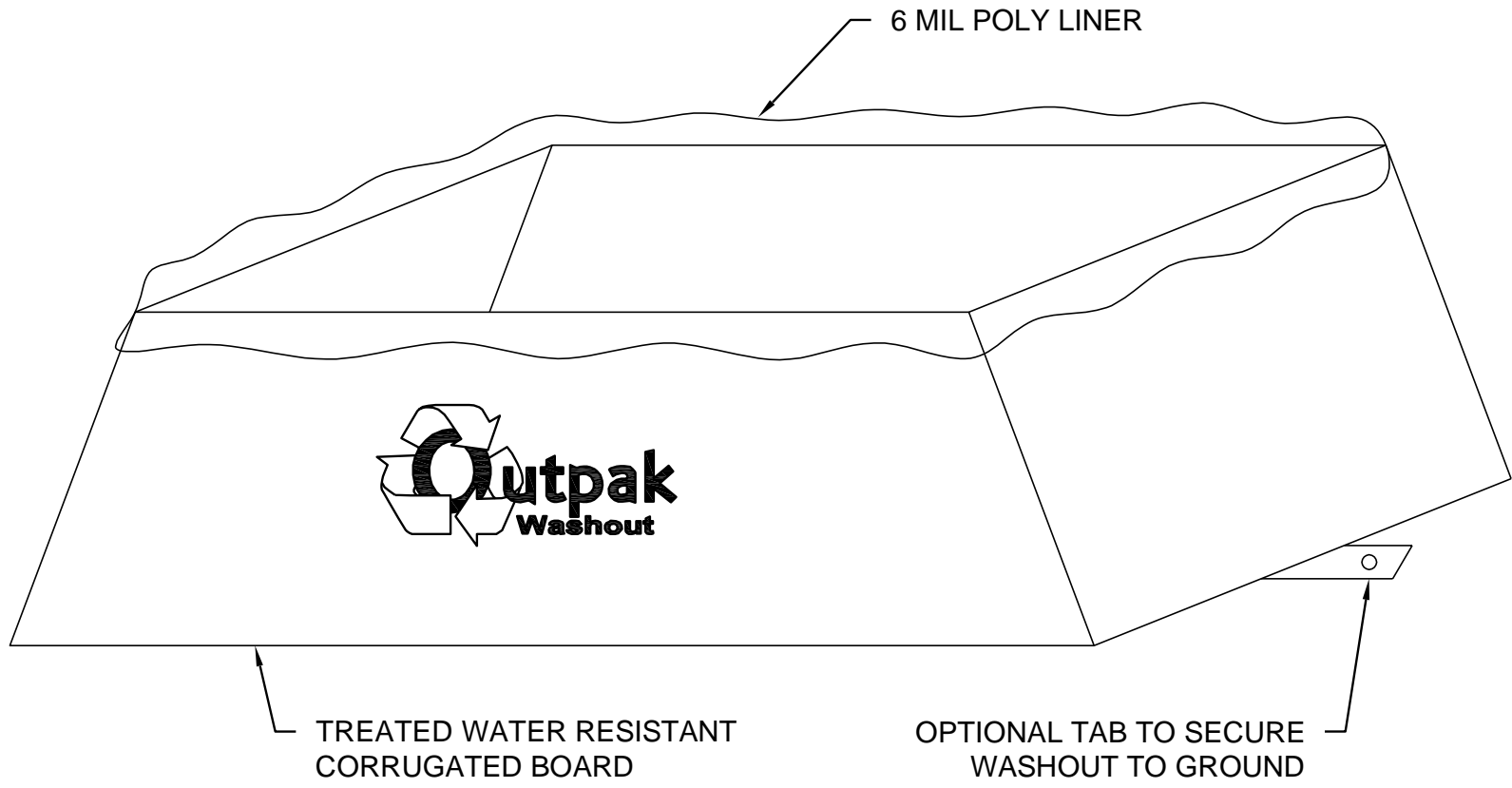
Swell (ECTC)	
Dry thickness (mils)	1984
Thickness after soak (mils)	2098
% change	6

Mass/Unit Area (ASTM D 6565)	
Mass/unit area (oz/sq. yd)	50.89
Mass/unit area (g/sq. meter)	1725

Water Absorption (ASTM D 1117/ECTC)	
Pre-soak Weight (grams)	69
Post-Soak (grams)	152
Weight change (grams)	82
% Weight Change	119

Smolder Resistance (ECTC)	
Maximum Burn Distance (in)	.29

Sediment Control (ASTM D 5141)	
Test material:	Sand sieved thru No. 10 sieve
Filtering Efficiency (%)	40.8
Flow Rate (liter/minute)	150



NOTES:

1. THE WASHOUT SHALL BE INSTALLED PRIOR TO USING MATERIALS THAT REQUIRE WASHOUT ON THIS PROJECT.
2. AS NECESSARY, SIGNS SHALL BE PLACED THROUGHOUT THE SITE TO INDICATE THE LOCATION OF THE WASHOUT.
3. THE WASHOUT AREA WILL BE REPLACED AS NECESSARY TO MAINTAIN CAPACITY FOR LIQUID WASTE.
4. WASHOUT RESIDUE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE FACILITY.
5. DO NOT WASHOUT INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
6. AVOID DUMPING EXCESS CONCRETE IN NON-DESIGNATED DUMPING AREAS.
7. LOCATE WASHOUT AT LEAST 50' (15 METERS) FROM STORM DRAIN, OPEN DITCHES, OR WATER BODIES.
8. THE WASHOUT SHALL BE USED ONLY FOR NON-HAZARDOUS WASTES.

OPERATOR: DR HORTON, INC.

TOTAL SITE AREA: 4.5 ACRES
TOTAL DISTURBED AREA: 4.5 ACRES

RECEIVING WATERS: RIO GRANDE RIVER
(TIJERAS ARROYO TO ALAMEDA BRIDGE),
TIER 2 SEE ESC-4 FOR IMPAIRMENTS.

REFER TO THE ESC BMP DETAILS (ESC-3)
FOR INSTALLATION, INSPECTION AND
MAINTENANCE REQUIREMENTS.

VOLCANO CLIFFS AT LA CUENTISTA

TEMPORARY EROSION AND SEDIMENT
CONTROL PLAN

Drawn By:
M. VALLEJOS, CPESC, CISEC

04/28/2021



ESC-3

Start/Date/Finish Date (dates to be marked on site plan by operator)	Construction Activity, BMPs, and locations
Initial Phases	Pre-Site Grading 1. Install perimeter BMPs (silt fence, erosion control logs, downstream inlet protection, etc.) 2. Construct VTC 3. Set up construction trailer, construction barrier, and material storage areas 4. Install sanitary facilities and dumpster 5. Implement stabilization procedures where work is complete or ceases (per section 2.2.14 of the 2017 EPA CGP)
Interim Phases	Site Grading/ Building Construction 1. Mass grade site 2. Construct utilities, infrastructure 3. Building, pavement construction 4. Implement stabilization procedures where work is complete or ceases (per section 2.2.14 of the 2017 EPA CGP)
Final Phases	Final Stabilization 1. Implement stabilization procedures where work is complete or ceases (per section 2.2.14 of the 2017 EPA CGP) 2. Prepare final seeding and landscaping 3. Monitor stabilized areas until final stabilization is reached 4. Remove temporary control BMPs and stabilize any areas disturbed by the removal

Nature of Construction Activity:

This project consists of new residential home construction. This project covers approximately 4.5 acres of the Volcano Cliffs at La Cuentista project. DR Horton, Inc. is responsible for all construction activities including earthwork, infrastructure, utilities, flatwork and vertical construction. The activities to occur on-site are consistent with residential home construction.

Project/Site Name: Volcano Cliffs at La Cuentista
Project Street/Location: Kimmick Dr. NW and Unser Blvd. NW
City: Albuquerque
State: NM
Zip Code: 87114
County: BERNALILLO

Project Latitude: 35.16790 Longitude: -106.71752

Determination of Latitude/Longitude:

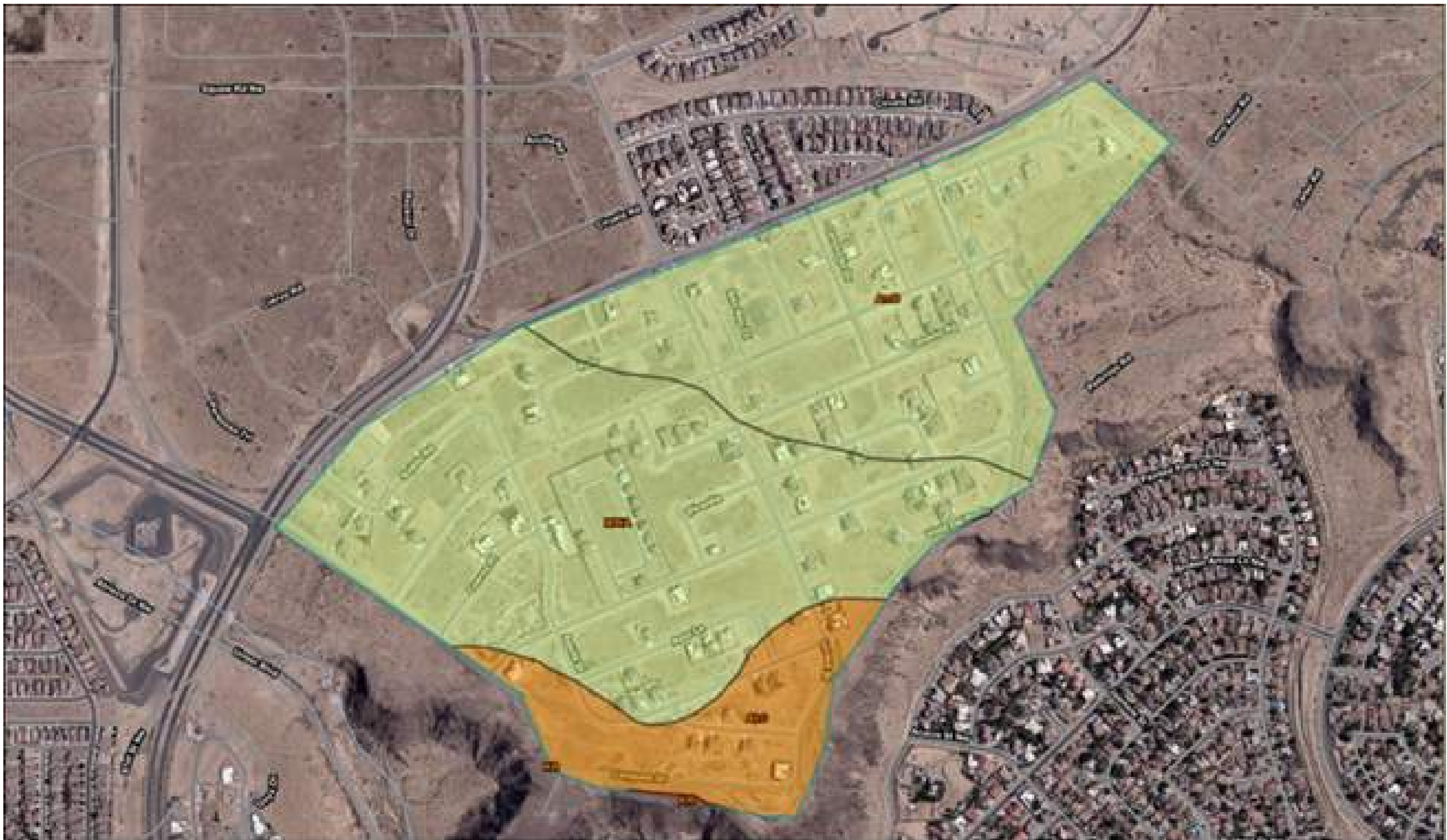
☐ USGS topographic map (scale:)
☐ EPA Web Site ☒ NM OpenEnviroMap ☐ GPS
☐ Other (please specify):

Function of Construction Activity:

☒ Residential ☐ Commercial ☐ Industrial ☐ Linear (roadway)
☐ Linear (Utility) ☐ Development ☒ Other (specify):

Is your project/site located on federally recognized Country Lands Yes ☐ No ☒

ROLE	COMPANY	REPRESENTATIVE NAME	PHONE	EMAIL
OPERATOR	DR HORTON, INC.	KEVIN GRIFFIN	505-206-8226	KTGRIFFIN@DRHORTON.COM
OWNER	DR HORTON, INC.	KEVIN GRIFFIN	505-206-8226	KTGRIFFIN@DRHORTON.COM
BMP MAINTENANCE	SUPERIOR STORMWATER SERVICES	TIM SLATUNAS	505-353-2558	TIM@SUPERIORSTORMWATER.COM
SWPPP INSPECTIONS	GREEN GLOBE ENVIRONMENTAL	TIM SLATUNAS	505-353-2558	TIM@GREENGLOBENM.COM



Rio Grande (Tijeras Arroyo to Alameda Bridge)			AU IR CATEGORY	LOCATION DESCRIPTION	
			5/5C	HUC: 13020203	Rio Grande-Albuquerque
AU ID	WQS REF	WATER TYPE	SIZE	ASSESSED	MONITORING SCHEDULE
NM-2105_51	20.6.4.105	RIVER	15.6 MILES	2020	2023
USE	ATTAINMENT	CAUSE(S)	FIRST LISTED	TMDL DATE	PARAMETER IR CATEGORY
IRR	Fully Supporting				
LW	Fully Supporting				
MWWAL	Not Supporting	Mercury - Fish Consumption Advisory PCBS - Fish Consumption Advisory Dissolved oxygen Temperature	2020 2010 2008 2010	2023 (est.) 2023 (est.)	5/5C 5/5C 5/5A 5/5A
PC	Not Supporting	E. coli	2020	6/30/2010	4A
PWS	Not Assessed				
WH	Fully Supporting				
AU Comment: TMDL for E. coli. Fish Consumption Advisory listings are based on NM's current fish consumption advisories for this water body. Per USEPA guidance, these advisories demonstrate non-attainment of CWA goals stating that all waters should be "fishable." Therefore, the impaired designated use is the associated aquatic life even though human consumption of the fish is the actual concern.					

Summary by Map Unit — Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico (NM600)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AkC	Akela-Rock outcrop complex, 1 to 9 percent slopes	.10	29.3	12.5%
AmB	Alameda sandy loam, 0 to 5 percent slopes	.24	87.7	37.5%
KR	Kokan-Rock outcrop association	.02	0.4	0.2%
MWA	Madurez-Wink association, gently sloping	.24	116.4	49.8%
Totals for Area of Interest			233.7	100.0%

OPERATOR: DR HORTON, INC.

TOTAL SITE AREA: 4.5 ACRES
TOTAL DISTURBED AREA: 4.5 ACRES

RECEIVING WATERS: RIO GRANDE RIVER (TIJERAS ARROYO TO ALAMEDA BRIDGE), TIER 2 SEE ESC-4 FOR IMPAIRMENTS.

REFER TO THE ESC BMP DETAILS (ESC-3) FOR INSTALLATION, INSPECTION AND MAINTENANCE REQUIREMENTS.

VOLCANO CLIFFS AT LA CUENTISTA
TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

Drawn By:
M. VALLEJOS, CPESC, CISEC

04/28/2021



ESC-4