

Temporary Erosion and Sediment Control Plan

Legend

Construction Entrance

Limits of Disturbance

NPDES Permit Board

Silt Fence

Soil Information

100% Alameda sandy loam (0-5% slopes)

K-factor: 0.24

Bulk density, 1/3 bar: 1.42 grams/cubic centimeter

Soil information included as attachment.

Note 1) 814 Solutions did not create grading and drainage plan. Plan was edited by 814 Solutions to include stormwater measures.

Note 2) Construction and NPDES BMP installation schedule and additional BMP guidelines are included as an attachment to this TESCP.

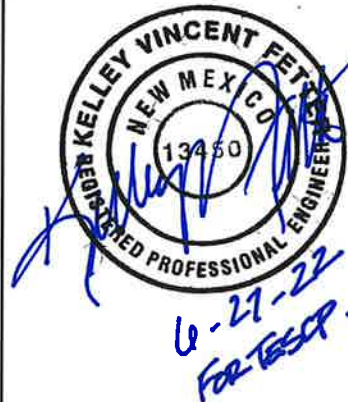
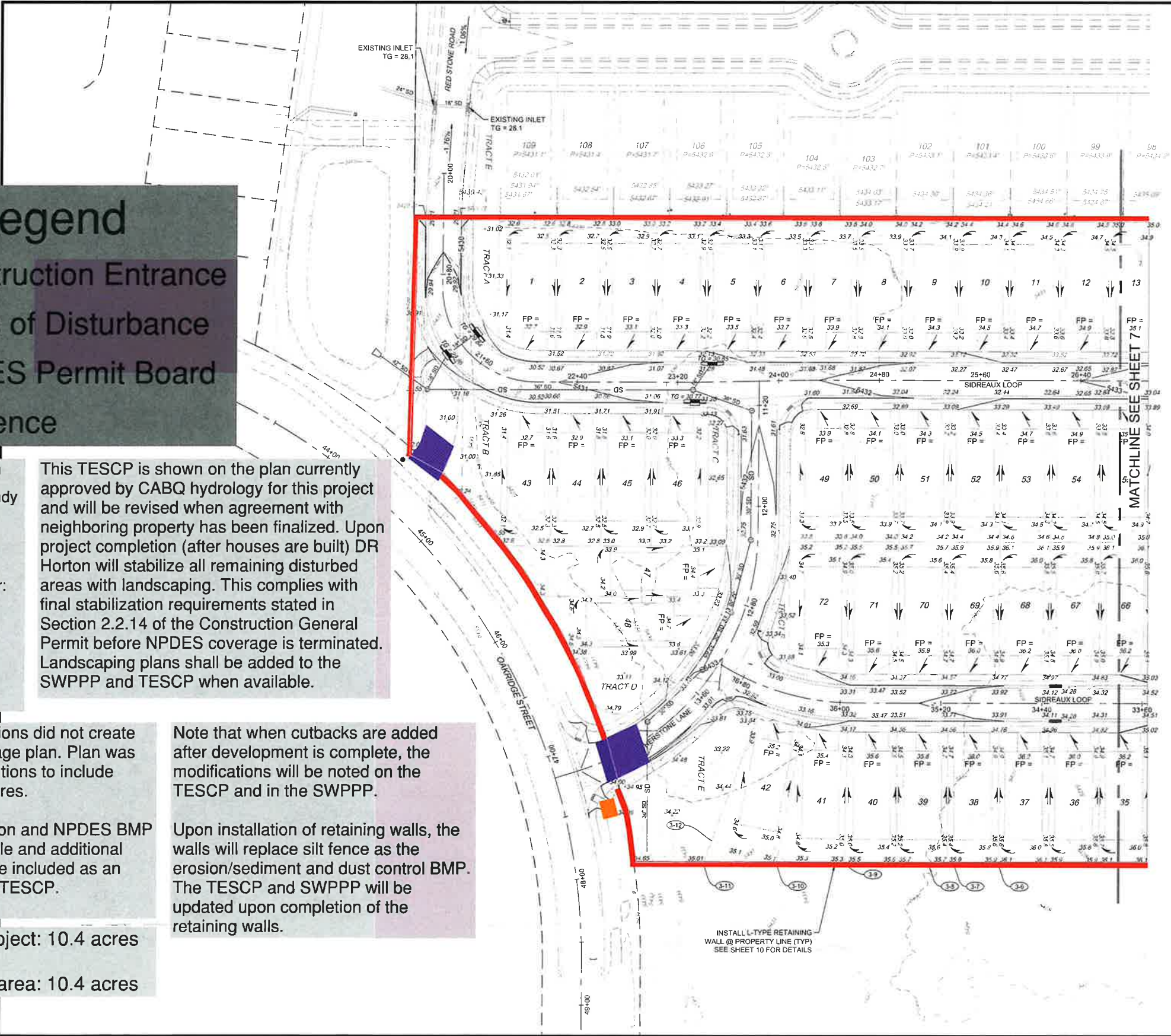
Total area of project: 10.4 acres

Total disturbed area: 10.4 acres

This TESCP is shown on the plan currently approved by CABQ hydrology for this project and will be revised when agreement with neighboring property has been finalized. Upon project completion (after houses are built) DR Horton will stabilize all remaining disturbed areas with landscaping. This complies with final stabilization requirements stated in Section 2.2.14 of the Construction General Permit before NPDES coverage is terminated. Landscaping plans shall be added to the SWPPP and TESCP when available.

Note that when cutbacks are added after development is complete, the modifications will be noted on the TESCP and in the SWPPP.

Upon installation of retaining walls, the walls will replace silt fence as the erosion/sediment and dust control BMP. The TESCP and SWPPP will be updated upon completion of the retaining walls.



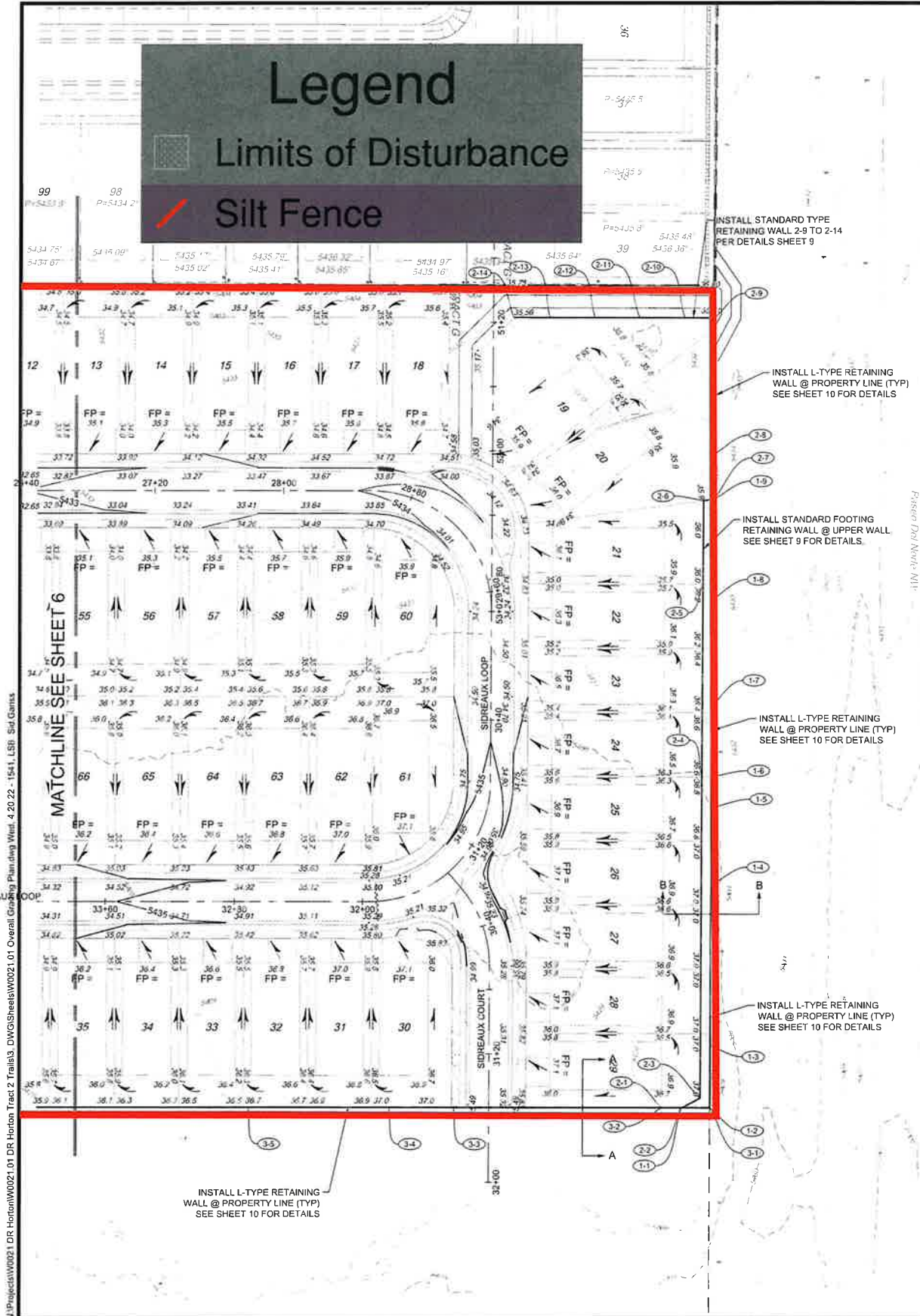
- NOTES:
- CURB AND GUTTER, SIDEWALKS, AND DRIVE PADS SHALL MATCH THE ELEVATIONS OF ABUTTING EXISTING AREAS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER.
  - THE SUBGRADE PREP SHALL EXTEND ONE FOOT BEYOND THE FREE EDGE OF NEW CURB AND GUTTER AND SIDEWALK.
  - CONTRACTOR TO TEST SUBGRADE R-VALUE PRIOR TO CONSTRUCTION. IN THE EVENT THE R-VALUE IS LESS THAN 50, REMOVE 2 FEET OF SUBGRADE MATERIAL AND IMPORT MATERIAL WITH R-VALUE GREATER THAN 50 OR CONTACT THE ENGINEER IMMEDIATELY SO THE PAVEMENT SECTION CAN BE MODIFIED.



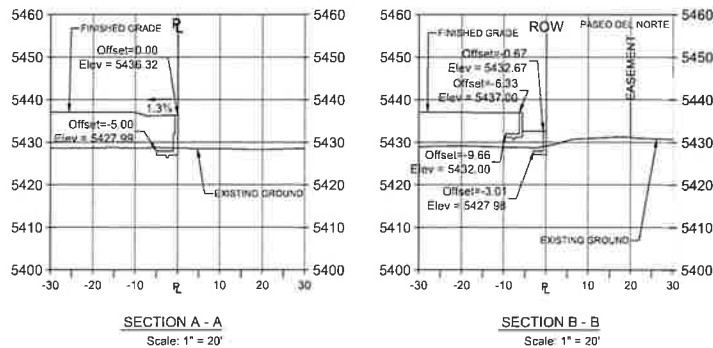
CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT ENGINEERING DIVISION		VOLCANO MESA AT THE TRAILS GRADING PLAN	
Design Review Committee	City Engineer Approval	Last Design Update	
Project No. 738489	Zone Map No. C-9-Z	Sheet 6	of 29



# Temporary Erosion and Sediment Control Plan



RETAINING WALL TABLE				
WALL POINT	TOP OF WALL	TOP OF FOOTING ELEVATION	WALL HEIGHT (FT)	APPROX. DISTANCE
1-1	32.67	31.33		
1-2	32.67	STEP FOOTING 27.33	1.33 - 5.33	17.2
			5.33	39.0
1-3	32.67	27.33/28.00	4.67	99.0
1-4	32.67	28.00/28.67	4.00	47.0
1-5	32.67	28.67/29.33	3.33	19.0
1-6	32.67	29.33/30.00	2.67	44.0
1-7	32.67	30.00/30.67	1.33	66.1
1-8	32.67	30.67/31.33	1.33	62.0
1-9	32.67	31.33		
2-1	37.33	36.00		
2-2	37.33	STEP FOOTING 32.00	1.33 - 5.33	12.5
2-3	37.33	32.00	5.33	12.6
2-4	37.33/36.67	32.00	5.33	200.0
2-5	36.67/36.00	32.00	4.67	120.0
2-6	36.00	32.00	4.00	52.0
2-7	36.00	32.00/31.33	4.00	6.0
2-8	36.00	31.33/32.00	4.67	28.0
2-9	36.00	32.00	4.00	85.0
2-10	36.00	32.00/32.67	4.00	18.5
2-11	36.00	32.67/33.33	3.33	28.0
2-12	36.00	33.33/34.00	2.67	28.0
2-13	36.00	34.00/34.67	2.00	28.0
2-14	36.00	34.67	1.33	21.0
3-1	32.67	28		
3-2	37.33/36.67	28	9.33	30
3-3	36.67/37.33	28	8.67	130
3-4	37.33	27.33/28.00	9.33	40
3-5	37.33/36.67	27.33	9.33	88
3-6	36.67/36.00	27.33/28.00	9.33	202.6
3-7	36.00	28.00/28.67	8.00	35
3-8	36.00	28.67/29.33	7.33	20
3-9	36.00	29.33/30.00	6.67	66
3-10	36.00/35.33	30.00	6.00	54
3-11	35.33	30.00	5.33	57
3-12	35.33	STEP FOOTING 34.00	5.33	20



1. CURB AND GUTTER, SIDEWALKS, AND DRIVE PADS SHALL MATCH THE ELEVATIONS OF ABUTTING EXISTING AREAS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER
2. THE SUBGRADE PREP SHALL EXTEND ONE FOOT BEYOND THE FREE EDGE OF NEW CURB AND GUTTER AND SIDEWALK
3. CONTRACTOR TO TEST SUBGRADE R-VALUE PRIOR TO CONSTRUCTION. IN THE EVENT THE R-VALUE IS LESS THAN 50, REMOVE 2 FEET OF SUBGRADE MATERIAL AND IMPORT MATERIAL WITH R-VALUE GREATER THAN 50 OR PAVEMENT THE ENGINEER IMMEDIATELY SO THE PAVEMENT SECTION CAN BE MODIFIED.



RESPEC

**COMMUNITY DESIGN SOLUTIONS**  
7770 JEFFERSON STREET NE, SUITE 200  
ALBUQUERQUE, NEW MEXICO 87109  
WWW.RESPEC.COM PHONE: (505)253-9718



CITY OF ALBUQUERQUE  
DEPARTMENT OF MUNICIPAL DEVELOPMENT  
ENGINEERING DIVISION

VOLCANO MESA AT THE TRAILS  
GRADING PLAN

Design Review Committee	City Engineer Approval	Least Design Update	Mo. Day/Yr	Mo. Day/Yr			
Project No.	738489	Zone Map No.	C-9-Z	Sheet	7	of	29



**Notes:**

1. Wire mesh is not required, but it is recommended as it will help prevent tearing due to increased wind speed or sediment/water load.
2. Pole spacing is not to exceed 10 feet between poles in straight-run sheet flow areas.
3. Pole spacing in a site's lower corners should be spaced approximately 6 feet apart or closer.
4. Silt fence is not created for use in high velocity situations, where flow is heavily concentrated. If concentrated flow does drain toward silt fence, then use additional BMPs to reduce the flow's velocity.
5. Silt fence fabric transition points should have posts interlocked with no gaps in the silt fence coverage.

**Silt Fence**

Source: City of Albuquerque  
Construction Site Manual 2018

**Sediment Control Log (SCL)**

**SC-2**

**Notes:**

1. It is recommended that wattles be trenched into the ground to a depth of approximately 1/3 of the diameter of the log. If trenching to this depth is not feasible or desirable, then a lesser trenching depth may be acceptable with more robust staking. Sandbags may be used on impervious surfaces.
2. Wattles that are 8 lb/ft or more do not need to be trenched.
3. Remove sediment from the upstream side of wattle when sediment accumulation is 1/2 the height of the wattle.
4. For parallel flow past the wattle joints, make sure the upstream wattle is on the interior side of the downstream wattle
5. Place wattle around stockpiles that are not being worked on or that are on impervious surfaces.

**Wattle/ Filter Sock/ Sediment Control Log**

Source: Urban Storm Drainage  
Criteria Manual Volume 3

**Vehicle Tracking Control (VTC)**

**SM-4**

**Notes:**

1. A stabilized construction entrance/exit shall be located at all access points where vehicles access the construction site from paved right-of-ways.
2. Sediment tracked onto paved roads is to be removed throughout the day and at the end of the day by shoveling or sweeping. Sediment may not be washed down storm sewer drains.
3. Some Vehicle Tracking Controls may need a wheel wash station. When a wheel wash is available, make sure to direct wash water to a sediment trap prior to discharge from the site.
4. Wash water may not contain soaps or chemicals, unless a separate permit is acquired.
5. A metal grate can be used in conjunction with an aggregate track-out pad. The grate should be regularly cleared of sediment, and help prevent track-out.
6. Make sure the Vehicle Tracking Control is not bypassed by the construction traffic.

**Vehicle Tracking Control**

Source: Urban Storm Drainage  
Criteria Manual Volume 3

**Notes:**

1. The preferred method to access a site is to cut the curb, so a ramp is not required. Placing curb cut in the same place as future entrance/exit can minimize work.
2. When cutting the curb, the cutting machine uses water, and the byproduct of the process is similar to concrete wash-out. Place byproduct in wash-out container.

**Notes:**

3. Laying lumber parallel to curb is an alternative, but this method is not to be used on high speed (35 MPH and greater) roads due to it being a road hazard.
4. Adding cold-mix asphalt with a pipe in the gutter is acceptable, but do not extend asphalt past the gutter into the paved portion of the roadway.
5. Vehicle Tracking Controls are still needed if using a ramp over a curb.

**Access onto Curbed Sites**

Source: City of Albuquerque  
Construction Site Manual 2018

**Notes:**

1. Regularly collect and dispose of garbage and waste material into designated collection areas.
2. Cover and maintain dumpsters and waste receptacles. Add additional dumpster or increase frequency of waste collection if overflowing conditions occur. Consider secondary containment around waste collection areas to minimize the likelihood of contaminated discharges.
3. Routinely inspect containers and equipment to ensure that it is functioning properly without leaking.
4. Promptly clean up leaks, drips, and other spills. Train employees on proper clean up and spill response procedures.
5. Store containers, drums, and bags away from direct traffic routes to reduce container damage.
6. Store materials in accordance with directions in Material Safety Data Sheets (MSDSs).
7. Store container s on pallets or similar devices to prevent corrosion of containers that results from containers coming into contact with moisture on the ground.
8. Store toxic or hazardous liquids within curbed areas or secondary containments.
9. Frequent and proper training in good housekeeping techniques reduces the likelihood that chemicals or equipment will be mishandled.
10. Segregate and provide proper disposal options for hazardous material wastes.
11. Make sure the site has a Spill Protection Plan, Spill kit, and individuals trained on the location and workings of the plan and kit.
12. Create a designated on-site fueling and maintenance area that is clean and dry, has a spill kit, and ideally in a covered area.
13. Locate toilet facilities away from storm drain inlets and waterways to prevent accidental contamination of stormwater.
14. or outdoor painting and sanding; conduct these operations in designated areas that are paved or have a secondary containment in place. Clean up and dispose of excess paint, paint chips, protective coatings, grit waste, etc.
15. Provide tie-downs or stake downs for portable toilets.
16. For vehicle and equipment washing: ensure there is no discharge of soaps, solvents, or detergents in equipment and vehicle wash water. -(CGP 2017)
17. Recycle materials whenever possible (e.g. paper, wood, concrete, oil).

**Good Housekeeping**

Source: Urban Storm Drainage  
Criteria Manual Volume 3

**Notes:**

1. The proper inlet protection shall be used and maintained to prevent sediment and wastes from entering a stormwater drainage system and shall minimize the risk of flooding.
2. The type of inlet protection utilized shall depend on the inlet type, slope, and volume of flow.

**Notes:**

3. For inlets with a throat opening and a grate, the inlet shall be protected with a BMP that covers the throat and the grate.
4. For throat type of inlet protection, sediment shall not be higher than halfway up the BMP.
5. For mat type and one-piece style of BMP, more than 50% of the inlet protection must be clear of sediment and debris.

**Inlet Protection Part 1**

Source: City of Albuquerque  
Construction Site Manual 2018

**Notes:**

9. In residential subdivisions where there are inlets internal to the construction site, the style should change as the site is developed. When the site is mostly dirt, use a BMP that protects throat and grate. When the site has built more and less dirt is exposed, then a less restrictive style can be used to catch sediment in the gutter.

**Notes:**

10. Inlet protection constructed of silt fence surrounding the inlet may be used when the inlet is surrounded by stake-able dirt.
11. Inlet protection should be used for inlets/storm drains within the construction site/disturbed area, AND any inlets/storm drains outside the project area that may receive stormwater discharges from the construction site/disturbed area.

**Inlet Protection Part 2**

Source: City of Albuquerque  
Construction Site Manual 2018

**Earth Dikes and Drainage Swales (ED/DS)**

**EC-10**

**Notes:**

1. Earth dikes and drainage swales are typically used for controlling the flow path of runoff at a construction site; sometimes by diverting water away from sensitive areas, or by conveying water to treatment BMPs (sediment traps or basins).
2. Unlined berms/dikes or swales need to be compacted, and should only be used for intercepting sheet flow runoff (not intended for diversion of concentrated flows).
3. If there is recurring damage, consider installing rock check dams or lining with riprap.
4. If berms/dikes or swales are not permanent, then remove berms/dikes and fill channels when upstream area is stabilized. Immediately stabilize the disturbed area after the BMP removal.

**Earth Berms/ Dikes/ Drainage Swales**

Source: Urban Storm Drainage  
Criteria Manual Volume 3

**Notes:**

1. When working in or adjacent to an arroyo or concrete channel, loose soil shall not be stockpiled or left in the low-flow area of the arroyo or channel. A berm or a similar BMP is to be constructed to divert flow into a low-flow area.
2. When working in or adjacent to an arroyo or concrete channel, pollutants (chemicals, debris, waste, etc.) shall not be left in the low-flow area of the arroyo or channel.
3. If there are active storm drains in the work zone, an energy dissipator is to be constructed at the pipe outfall to slow the velocity of the stormwater to less than 3 ft/sec at the end of the dissipator. A plunge pool constructed of large aggregate is the most common energy dissipator.
4. If there is an arroyo or channel draining into the work zone, and energy dissipator is to be constructed upstream of the confluence to slow the velocity of the stormwater to less than 3 ft/sec at the end of the dissipator. There are equations provided by the United States Bureau of Reclamation (USBR) and the Federal Highway Administration (FHWA) for sizing the energy dissipator and the aggregate.
5. If working adjacent to an arroyo or concrete channel, install BMPs to protect against or filter stormwater entering the drainage.

**Arroyo and Channel Construction**

Source: City of Albuquerque  
Construction Site Manual 2018

**Notes:**

1. Designated wash-out areas should be provided for any concrete, stucco, mortar, or paint operations. Wash-outs should be as far away as possible from waters of the U.S., stormwater inlets, or conveyances.
2. "Wash-out should be directed to leak-proof containers or leak proof and lined pit designed so that no overflows can occur due to inadequate sizing or precipitation." -CGP 2017

**Notes:**

3. If the concrete/stucco/mortar is firm when it contacts the soil, then it is not considered wash-out (not wet enough to infiltrate into the soil).
4. A centralized wash-out may be effective for concrete trucks. For stucco, mortar, and paint wash-outs, a local wash-out and wash-out education has been more successful in avoiding improper wash-outs.

**Wash-outs**

Source: City of Albuquerque  
Construction Site Manual 2018

# BMP Information Sheet



Project Name:
Owner:
Operator:

NPDES Permit #:
Date:
Sheet:



Volcano Mesa / The Trails Tract 2 - Preliminary Schedule																									
DR Horton Inc.																									
ID	Task Mode	Task Name	Duration	Start	Finish	Mar	Qtr 2, 2022	Apr	May	Jun	Qtr 3, 2022	Jul	Aug	Sep	Qtr 4, 2022	Oct	Nov	Dec	Qtr 1, 2023	Jan	Feb	Mar	Qtr 2, 2023	Apr	May
1		Volcano Mesa/The Trails Tract 2	266 days	Mon 5/2/22	Mon 5/8/23																				
2		Execute Contract/Permits	14 days	Mon 5/2/22	Thu 5/19/22																				
3		Mobilization	2 days	Fri 5/20/22	Mon 5/23/22																				
4		Clear and Grub	3 days	Tue 5/24/22	Thu 5/26/22																				
5		Drill/Blast for Utilities	150 days	Fri 5/27/22	Thu 12/22/22																				
6		Excavate/Haul Rock (19,280 cy)	150 days	Mon 6/27/22	Fri 1/20/23																				
7		Import (128,000 cy)	150 days	Tue 7/26/22	Mon 2/20/23																				
8		Finish Pads (72 ea)	12 days	Fri 2/10/23	Mon 2/27/23																				
9		Mobilize Utility Crew	2 days	Mon 11/21/22	Tue 11/22/22																				
10		Storm Drain (788 lf)	7 days	Wed 11/23/22	Thu 12/1/22																				
11		SAS Main (2,380 lf)	12 days	Fri 12/2/22	Mon 12/19/22																				
12		SAS Manholes (15 ea)	10 days	Tue 12/20/22	Mon 1/2/23																				
13		Sanitary Services (72 ea)	10 days	Tue 1/3/23	Mon 1/16/23																				
14		Water Main (incl. Offsite)(2,620 lf)	14 days	Tue 1/17/23	Fri 2/3/23																				
15		Curb and Gutter (3,800 lf)	5 days	Mon 2/6/23	Fri 2/10/23																				
16		Water Services/Tie-ins	15 days	Mon 2/13/23	Fri 3/3/23																				
17		Fillets and VG's	6 days	Mon 3/6/23	Mon 3/13/23																				
18		Drop Inlets (4)	10 days	Tue 3/14/23	Mon 3/27/23																				
19		Subgrade Prep	5 days	Tue 3/28/23	Mon 4/3/23																				
20		Paving	4 days	Tue 4/4/23	Fri 4/7/23																				
21		Adjustments/Signage	7 days	Mon 4/10/23	Tue 4/18/23																				
22		Substainal Completion	1 day	Tue 4/18/23	Tue 4/18/23																				
23		Final Acceptance	1 day	Mon 5/8/23	Mon 5/8/23																				

**Volcano Mesa/The Trails Tract 2**

**5/2**

**5/8**

**Execute Contract/Permits** 5/19

**Mobilization** 5/23

**Clear and Grub** 5/26

**Drill/Blast for Utilities** 12/22

**Excavate/Haul Rock (19,280 cy)** 1/20

**Import (128,000 cy)** 2/20

**Finish Pads (72 ea)** 2/27

**Mobilize Utility Crew** 11/22

**Storm Drain (788 lf)** 12/1

**SAS Main (2,380 lf)** 12/19

**SAS Manholes (15 ea)** 1/2

**Sanitary Services (72 ea)** 1/16

**Water Main (incl. Offsite)(2,620 lf)** 2/3

**Curb and Gutter (3,800 lf)** 2/10

**Water Services/Tie-ins** 3/3

**Fillets and VG's** 3/13

**Drop Inlets (4)** 3/27

**Subgrade Prep** 4/3

**Paving** 4/7

**Adjustments/Signage** 4/18

**Substainal Completion** 4/18

**Final Acceptance** 5/8

**\*Note that dates may not be exact, but the sequencing of activities shall commence in the order shown. Additionally, gray boxes are 814 BMP schedule additions to DR Horton schedule.**

**814 will install inlet protection at new drains**

**DR Horton will stabilize all disturbed areas with landscaping. BMPs will**

Site Owner and Operator: DR Horton

Contact: Todd Warmkessel, Assistant Land Development Project Manager/OSHA/SWPPP Compliance

505 225-4760

twarmkessel@drhorton.com

Stormwater Team: TBD

BMP Installation: 814 Solutions installed silt fence.

Project Information:

Acres: 10.4

Expected area to be disturbed: 10.4 acres

Expected activities (including but not limited to):

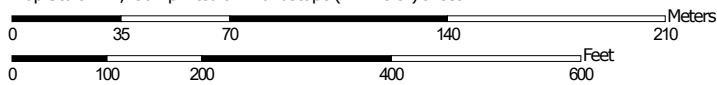
- Clearing and grubbing
- Excavation
- Grading
- Land development
- Utility installation
- Building
- Landscaping (all disturbed areas are expected to be paved or landscaped.
- If any disturbed areas remain, final stabilization within 14 days of last disturbance will either be seeded, rocked, or stabilized with other measures compliant with Section 2.2.14 of the Construction General Permit.

# K Factor, Whole Soil—Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico



Soil Map may not be valid at this scale.

Map Scale: 1:2,430 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84




**Natural Resources  
Conservation Service**

Web Soil Survey  
National Cooperative Soil Survey

6/2/2022  
Page 1 of 3
















## MAP LEGEND

### Area of Interest (AOI)







 Area of Interest (AOI)










### Soils

#### Soil Rating Polygons
















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#### Soil Rating Lines









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	Not rated or not available

#### Soil Rating Points

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	.64
	Not rated or not available

#### Water Features

	Streams and Canals
	Rails
	Interstate Highways
	US Routes
	Major Roads
	Local Roads
	Background
	Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico  
Survey Area Data: Version 16, Sep 12, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 22, 2021—Dec 2, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## K Factor, Whole Soil

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AmB	Alemeda sandy loam, 0 to 5 percent slopes	.24	19.4	100.0%
Totals for Area of Interest			19.4	100.0%

## Description

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

"Erosion factor Kw (whole soil)" indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Factor K does not apply to organic horizons and is not reported for those layers.

## Rating Options

*Aggregation Method:* Dominant Condition

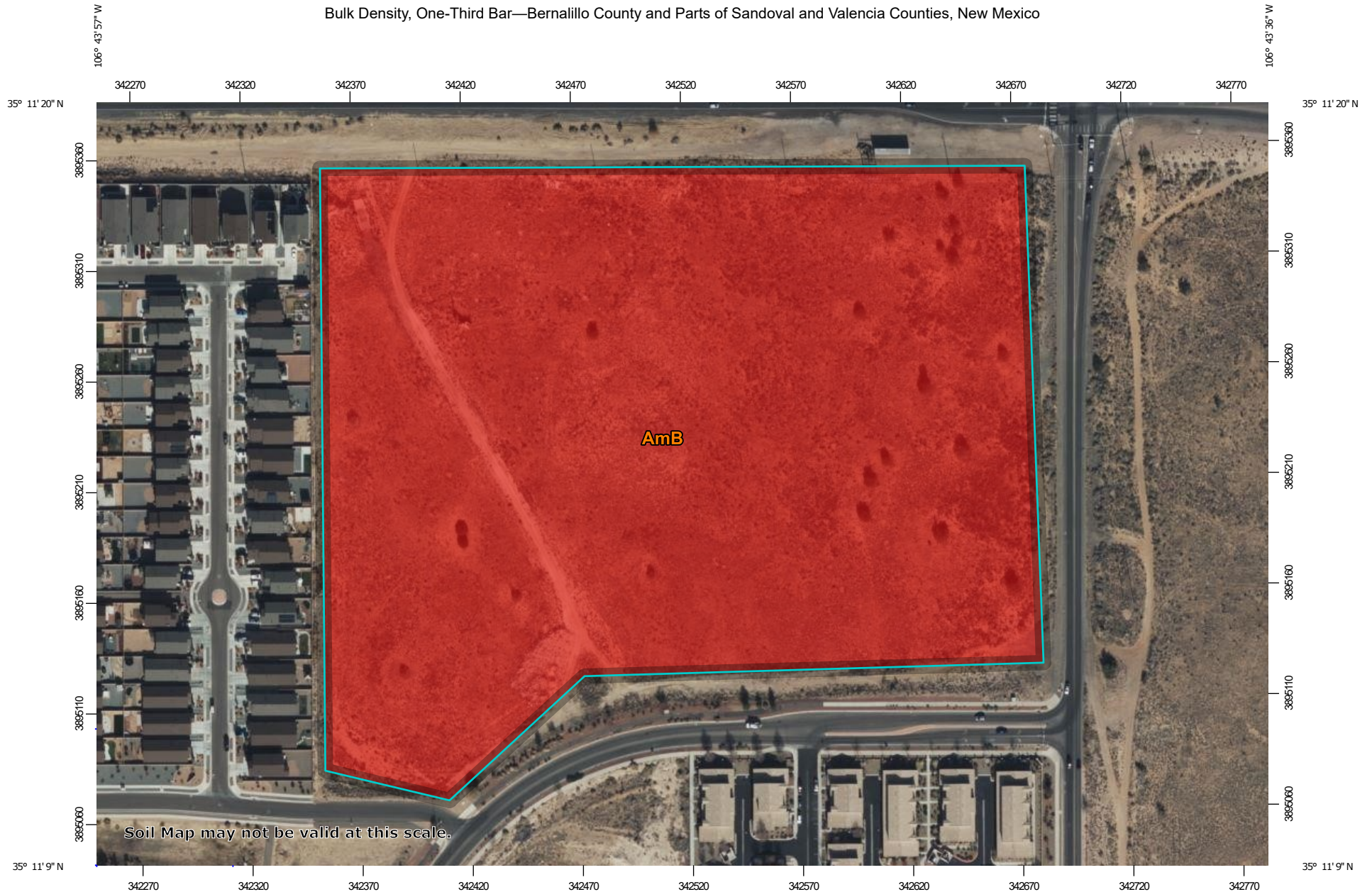
*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Layer Options (Horizon Aggregation Method):* Surface Layer (Not applicable)

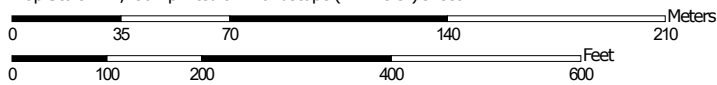


Bulk Density, One-Third Bar—Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico



Soil Map may not be valid at this scale.

Map Scale: 1:2,430 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84



**Natural Resources  
Conservation Service**


Web Soil Survey  
National Cooperative Soil Survey

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

## MAP LEGEND

### Area of Interest (AOI)



 Area of Interest (AOI)

### Soils



#### Soil Rating Polygons

 = 1.42  
 Not rated or not available

#### Soil Rating Lines

 = 1.42  
 Not rated or not available






#### Soil Rating Points

 = 1.42  
 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico  
Survey Area Data: Version 16, Sep 12, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 22, 2021—Dec 2, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



## Bulk Density, One-Third Bar

Map unit symbol	Map unit name	Rating (grams per cubic centimeter)	Acres in AOI	Percent of AOI
AmB	Alemeda sandy loam, 0 to 5 percent slopes	1.42	19.4	100.0%
<b>Totals for Area of Interest</b>			<b>19.4</b>	<b>100.0%</b>

### Description

Bulk density, one-third bar, is the oven-dry weight of the soil material less than 2 millimeters in size per unit volume of soil at water tension of 1/3 bar, expressed in grams per cubic centimeter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

### Rating Options

*Units of Measure:* grams per cubic centimeter

*Aggregation Method:* Dominant Component

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Interpret Nulls as Zero:* No

*Layer Options (Horizon Aggregation Method):* Depth Range (Weighted Average)

*Top Depth:* 0

*Bottom Depth:* 36

*Units of Measure:* Inches