

|  |          |
|--|----------|
| <b>Equations:</b>  |          |
| Weighted E = Ea* <i>A</i> a + Eb* <i>A</i> b + Ec* <i>A</i> c + Ed* <i>A</i> d / (Total Area)  |          |
| Volume = Weighted D * Total Area   |          |
| Flow = Qa * <i>A</i> a + Qb * <i>A</i> b + Qc * <i>A</i> c + Qd * <i>A</i> d   |          |
| 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 |
| <b>ONSITE Conditions</b>   |          |
| FIRST FLUSH WATER QUALITY VOLUME   |          |
| REQUIRED   | PROVIDED |
| (CF)   | (CF)     |
| WATER QUALITY  | 155      |
| 50% of the 100-year-24-hour  | 944      |
|  | 1035     |
| <b>Narrative</b>   |          |
| This site is within the SAD 227 Master Drainage plan boundaries. The site is to maintain existing drainage patterns. Since the lot can drain to the adjacent street we are to retain 50% of the 100-year, 24-hour storm volume generated. We are ponding the water harvest volume generated by the site. Since the downstream improvements have been constructed the site will drain to the adjacent roadway. Due to existing block wall upland flows impact this site, in the event a block get turned this site will except and pass the flows. The flush volume is retained on site. This plan is in conformance to the <u>masterplan</u> |          |

LOT 13  
BLOCK 2  
UNSER CLIFFS SUBDIVISION

BUILD RETENTION POND  
TOP=5324.25  
BOTTOM=5323.75  
PROPOSED VOLUME=284 CU. FT.

BUILD RETENTION POND  
TOP=5324.00  
- BOTTOM=5323.50  
PROPOSED VOLUME=751 CU. FT.

| Point # | Elevation | North      | East       | Description |
|---------|-----------|------------|------------|-------------|
| 20000   | 3204.60   | 3244646.33 | 1490399.05 | LS 14730    |
| 20001   | 3204.60   | 3244647.26 | 1490399.57 | LS 14730    |
| 20044   | 3202.00   | 3244602.02 | 1490366.36 | SAC 101 201 |
| 20027   | 3204.60   | 3244606.94 | 1490400.95 | CL 101H     |

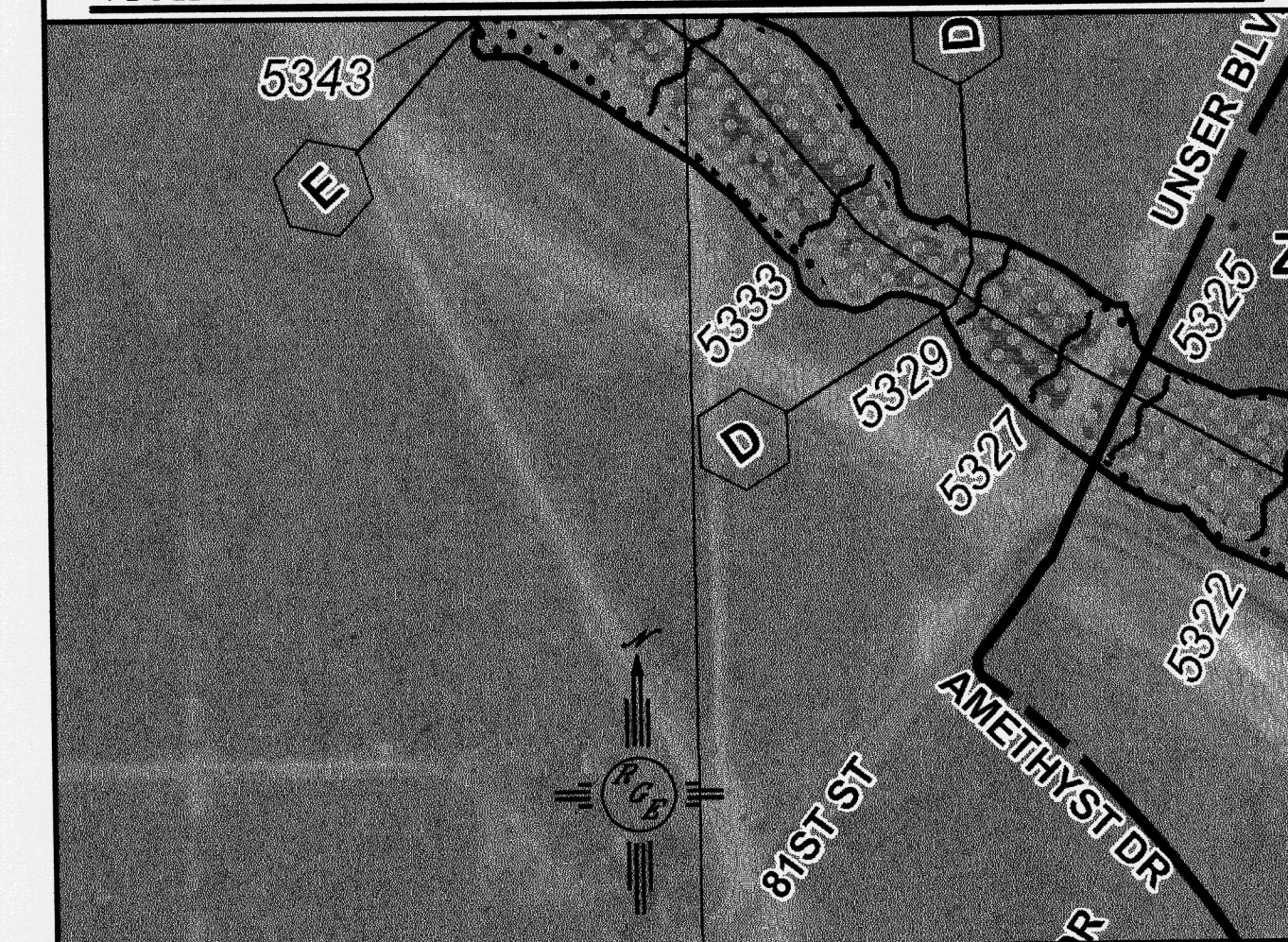
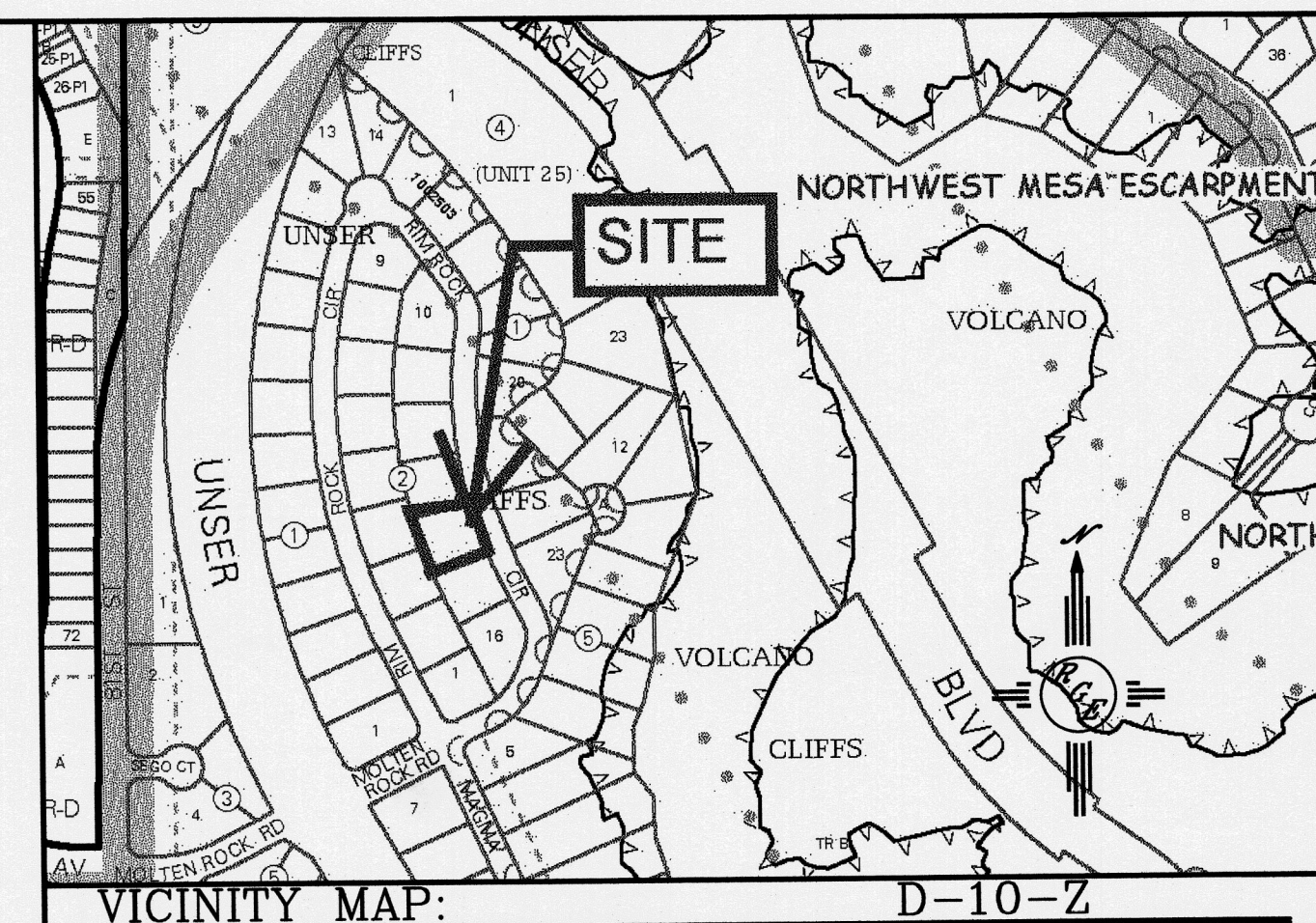
| Curve # | Length | Radius | Beta | Chord Direction | Chord Length |
|---------|--------|--------|------|-----------------|--------------|
| C1      | 205.00 | 900.00 | 6.90 | S29° 12' 47"E   | 204.94       |
| C2      | 129.61 | 900.00 | 6.90 | N29° 12' 47"W   | 129.54       |

LOT 3  
BLOCK 2  
UNSER CLIFFS SUBDIVISION

LOT 15  
BLOCK 2  
UNSER CLIFFS SUBDIVISION

**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.

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.

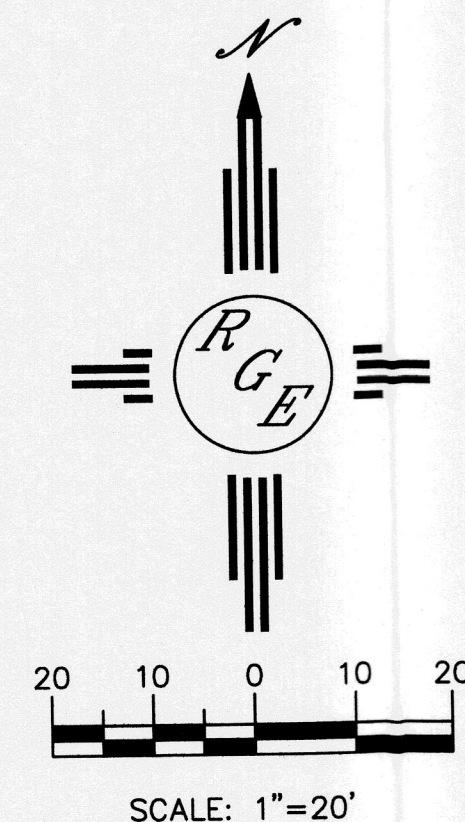
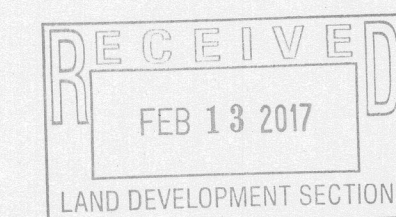



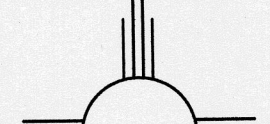
FIRM MAP: FM35001C0111G

LOT 11, BLOCK 13, VOLCANO CLIFFS, UNIT - 5

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

|                |                          |
|----------------|--------------------------|
| -----XXXX----- | EXISTING CONTOUR         |
| -----XXXX----- | EXISTING INDEX CONTOUR   |
| -----XXXX----- | PROPOSED CONTOUR         |
| -----XXXX----- | PROPOSED INDEX CONTOUR   |
| ▲              | SLOPE TIE                |
| • XXXX         | EXISTING SPOT ELEVATION  |
| • XXXX         | PROPOSED SPOT ELEVATION  |
| -----          | BOUNDARY                 |
| -----          | CENTERLINE               |
| -----          | RIGHT-OF-WAY             |
| =====          | EXISTING CURB AND GUTTER |
| =====          | PROPOSED CMU SCREEN WALL |



|  |   |                     |
|--|---|---------------------|
| ENGINEER'S<br>SEAL<br><br>  | KLOTIS RESIDENCE<br>6908 RIM ROCK NW      | DRAWN<br>BY WCWJ    |
|  | GRADING AND<br>DRAINAGE PLAN              | DATE<br>2-13-17     |
| <br><i>Rio Grande</i><br><i>Engineering</i><br>1606 CENTRAL AVENUE SE<br>SUITE 201<br>ALBUQUERQUE, NM 87106<br>(505) 872-0999 |   | 2/12-LAYOUT-2-11-17 |
|  | 1/13/17<br><br>DAVID SOULE<br>P.E. #14522 | SHEET #<br>—        |
|  |   | JOB #<br>21712      |