

October 20, 2004

Ron Bohannon, PE
Tierra West LLC
8509 Jefferson NE
Albuquerque, NM 87113

**Re: North Heritage Hills Subdivision, Unit 3 Grading Certification
Engineer's Stamp dated 9-30-04, (D20/D9)**

Dear Mr. Bohannon,

P.O. Box 1293

Based upon the information provided in your submittal dated 10-6-04, the above referenced certification is approved for Release of Financial Guarantee.

Albuquerque

If you have any questions, you can contact me at 924-3986.

New Mexico 87103

www.cabq.gov

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept.
Development and Building Services

C: Marilyn Maldonado, CPN 608582
file

DRAINAGE REPORT

for

North Heritage Hills Subdivision Phase III

5468.81

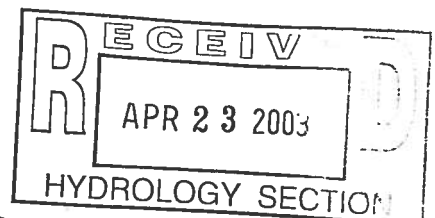
685.81

Prepared by

Tierra West, LLC
8509 Jefferson NE
Albuquerque, New Mexico 87113

Prepared for

Patrick McGavick
First Mark Homes
3916 Juan Tabo NE, Suite 26
Albuquerque, New Mexico 87111



April 2003

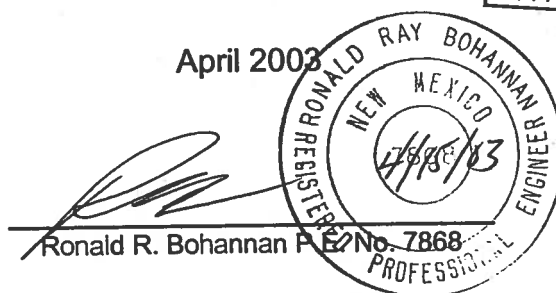


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Location

North Heritage Hills is a proposed 91 unit single family subdivision. It is located south of Paseo Del Norte between Barstow Street and Ventura Street, NE. The project is being developed in three phases. Phase 1 consists of the area from Barstow Street to seven lots east of Rough Rider Road, and has already been constructed. Phase 2 is also complete and consists of the next 20 lots to the east of Phase 1. Phase 3 will consist of 6 lots on a hammerhead cul-de-sac and will complete the subdivision. Originally the subdivision was planned to extend to Ventura Street, however, the zoning on that area has since been changed to SU-2 for C1. The purpose of this report is to provide the drainage analysis and management plan for Phase III of the subdivision.

Existing Drainage Conditions

The site has been previously approved under D20-D9, and Phases 1 and 2 are completed.

Phase 3 is currently undeveloped. During the previous phases of the project, Basins C and B were divided into developed and undeveloped portions. Currently, the undeveloped flows from Phase 3 are being diverted into two desilting ponds. Clean water overflows from the desilting ponds into Palomar Avenue and the drainage channel at the south property line. When Phase 3 is constructed these desilting ponds will be removed and relocated to the east side of Phase 3. The desilting ponds will capture the flows from the future commercial development located east of Phase 3.

All upland flows from the east that would impact the site are collected in a storm sewer located in Ventura Street and directed south to the Domingo Baca Arroyo. All flow is diverted to the Domingo Baca Arroyo as referenced in the drainage report for Ridgefield North Subdivision (D-20/D8A).

FIRM Map and Soil Conditions

The site is located on FIRM Map section 35001C0141 D as shown on the attached excerpt. The map shows that the site does not lie within any 100-year flood plains.

The site contains three different soils from the Soil Conservation Service Soil Survey of Bernalillo County. These are Tijeras and Embudo gravelly fine sandy loams, and an Embudo-Tijeras complex. All of the soils have a moderate hazard of water erosion and medium runoff.

On-Site Drainage Management Plan

The site is being developed in three phases. Phases 1 and 2 of the project are already constructed.

The proposed drainage management plan is to collect the developed flows in Palomar Avenue and a drainage channel and then convey the flows to an existing storm sewer (built with Phase I) in Barstow. The existing storm sewer in Barstow will convey the flows south to the existing improved Domingo Baca channel. The site was originally divided into four basins. These basins have been revised to account for the phasing of the subdivision as shown on the Developed Basin Layout exhibit. Basin B3, with a developed flow rate of 0.80 cfs, will drain to a drainage easement located on the south property line and from there drain to the previous phases and be picked up by the 36" storm sewer system in Barstow. Basin C3, with a developed flow rate of 3.26 cfs, will drain to Palomar Avenue and then into the same storm sewer system. The storm sewer continues in Barstow Street and discharges into the existing Domingo Baca Arroyo.

Phase 3, which consists of 6 lots and a cul-de-sac, will follow the approved drainage report. The developed flows will drain to Palomar Avenue and the southern drainage channel. The desilting ponds will be relocated from the east side of Phase 2 to the east side of Phase 3. The area east of Phase 3 was originally planned to be part of this residential development but has been recently rezoned to SU-2 for C1 purposes. The commercial development is still

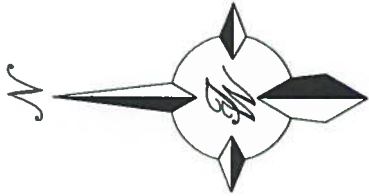
HERITAGE HILLS
PHASE II

PALOMAR AVE.
46' ROW

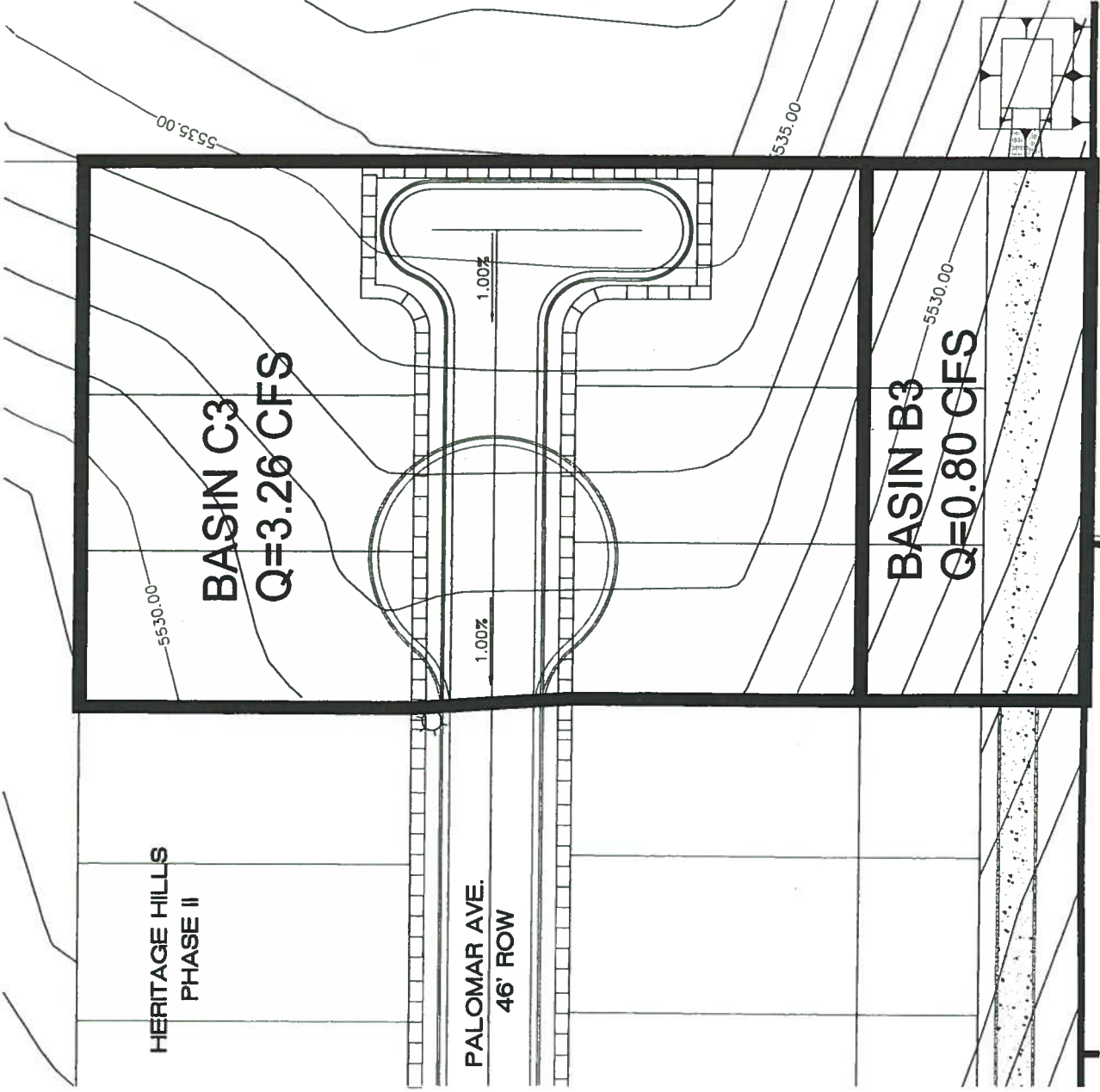
HERITAGE HILLS UNIT 6

BASIN C3
Q=3.26 CFS

BASIN B3
Q=0.80 CFS



PROPOSED BASIN LAYOUT



included in the North Heritage Hills Master Plan and is allowed to discharge 11.13 cfs to Palomar Avenue and 2.08 cfs to the south discharge channel.

Calculations

The Weighted E method from the "City of Albuquerque Development Process Manual Volume 11 – Design Criteria, 1997 Revision" was used to calculate the runoff and volume for the site.

Summary

There are two developed basins proposed for the site. Basin C3 has a developed runoff flow of 3.26 cfs and Basin B3 has a developed runoff flow of 0.80 cfs. All flows will eventually drain into the existing Domingo Baca Arroyo. During Phase 3, two desilting ponds will intercept the undeveloped flow from the commercial portion of the site.

Weighted E Method

On-Site Basins

Basin	Area		Treatment A		Treatment B		Treatment C		Treatment D		100-Year			10-Year		
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
C3	35,609	0.82	0%	0	26%	0.21	26%	0.21	48%	0.39	1.707	0.116	3.26	0.975	0.066	2.01
B3	10,166	0.23	0%	0	40%	0.09	40%	0.09	20%	0.05	1.356	0.026	0.80	0.692	0.013	0.46
Total	45,775	1.05		0.00		0.31		0.31		0.44		0.143	4.05		0.080	2.46

Equations:

Weighted E = $Ea \cdot Aa + Eb \cdot Ab + Ec \cdot Ac + Ed \cdot Ad$ / (Total Area)

Volume = Weighted D * Total Area

Flow = $Qa \cdot Aa + Qb \cdot Ab + Qc \cdot Ac + Qd \cdot Ad$

Excess Precipitation, E (Inches)			
Zone 3	100-Year	10 - Year	
E _a	0.66	0.19	
E _b	0.92	0.36	
E _c	1.29	0.62	
E _d	2.36	1.5	

Peak Discharge (cfs/acre)			
Zone 3	100-Year	10 - Year	
Q _a	1.87	0.58	
Q _b	2.6	1.19	
Q _c	3.45	2	
Q _d	5.02	3.39	

150

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mapped

D20/D009A

AGREEMENT AND COVENANT

This Agreement and Covenant, between the City of Albuquerque, New Mexico ("City") and **RIDGEFIELD WEST LLC**, ("User") is made in Albuquerque, New Mexico and is entered into as of the date of recording this Agreement with the Bernalillo County Clerk.

1. Recital. The User is the owner of certain real property ("User's Property") located at **SOUTH OF PASEO DEL NORTE, BETWEEN PALOMAR AND BARSTOW**, in Albuquerque, New Mexico, and more particularly described as: (give legal description and filing information)

A TRACT OF LAND COMPRISING OF LOTS 20A AND TRACT B, NORTH HERITAGE HILLS UNIT 1 (OCTOBER 11, 1996, IN VOLUME 96C, FOLIO 431)

The City is the owner of certain real property, easement or public right-of-way ("City's Property") in the vicinity of, contiguous to, abutting or within User's Property, and more particularly described as:

SEE ATTACHED EXHIBIT "A"

The User wishes to construct upon, improve or repair and to maintain the following "Improvement" on the City's Property (or already has done so):

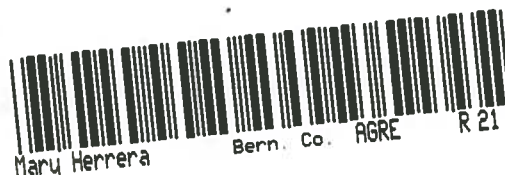
A sketch of the proposed or existing Improvement is attached as Exhibit A and made a part of this Agreement.

The City agrees to permit the Improvement to exist on the City's Property provided the User complies with the terms of this Agreement.

2. City Use of City's Property and City Liability. The City has the right to enter upon the City's Property at any time and perform whatever inspection, installation, maintenance, repair, modification or removal ("Work") it deems appropriate without liability to the User. If the Work affects the Improvement the City will not be financially or otherwise responsible for rebuilding or repairing the Improvement. The User promptly will repair the Improvement to the City's satisfaction. User will pay the cost of repairing the Improvement.

3. User's Responsibility for Improvement. The User will be solely responsible for constructing, maintaining, repairing and, if required, removing the Improvement, all in accordance with standards required by the City as per the approved Grading and Drainage Plan **D20/D9** on file at the City Engineer's office. The User will be solely responsible for paying all related costs. The User will be solely responsible for paying all related costs. The User will not permit the Improvement to constitute a hazard to the health or safety of the general public or to interfere with the City's use of the City's Property. The User will conform with all applicable laws, ordinances and regulations.

4. Use of the Improvement. If the City's Property is a public right-of-way, it shall be open to the use of the general public at all times, subject to reasonable curtailment during periods of construction, maintenance or repair.



5. Demand for Repair, Modification or Removal. The City may send written notice ("Notice") to the User requiring the User to repair, modify or remove the Improvement within 30 days ("Deadline") and the User will comply promptly with the requirements of the Notice. If removal is demanded, the City also may require the User to return the City's Property to its original condition by the Deadline. The User will perform all required work by the Deadline, at User's sole expense.

6. Failure to Perform by User and Emergency Work by City. If the User fails to comply with the terms of the Notice by the Deadline stated, or, if the City determines that an emergency condition exists, the City may perform the work itself. The City then may assess the User for the cost of the work and for any other expenses or damages, which result from User's failure to perform. The User agrees promptly to pay the City the amount assessed. If the User fails to pay the City within thirty (30) days after the City gives the User written notice of the amount due, the City may impose a lien against User's Property for the total resulting amount.

7. Cancellation of Agreement and Release of Covenant. This Agreement may be canceled and User's covenants released by the City at will by the City's mailing to the User notice of the City's intention to record a Cancellation and Release with the Bernalillo County Clerk. The Cancellation and Release will be effective thirty (30) days after the date of mailing the notice to the User unless a later date is stated in the notice or the Cancellation and Release. After the effective date, the City will record the Cancellation and Release with the Bernalillo County Clerk.

8. Condemnation. If the City ever condemns any part of the User's Property, the User will forego all claims to compensation for any portion of User's structure, which encroaches, on City Property and for severance damage to the remaining portion of User's structure on User's Property.

9. Assessment. Nothing in this Agreement shall be construed to relieve the User, his heirs, assigns and successors from an assessment against User's Property for improvements to the City Property under a duly authorized and approved Special Assessment District. The parties specifically agree that the value of the Improvement will not reduce the amount assessed by the City.

10. Notice. For purposes of giving formal written notice to the User, User's address is:

RIDGEFIELD WEST LLC
ATTN: PATRICK MC GAVICK
3916 JUAN TABO NE, SUITE 26
ALBUQUERQUE, NM 87111

Notice may be given to the User either in person or by mailing the notice by regular U.S. mail, postage paid. Notice will be considered to have been received by the User within 3 days after the notice is mailed if there is no actual evidence of receipt. The User may change User's address by giving written notice of the change by certified mail, return receipt requested, to the City Engineer at P.O. Box 1293, Albuquerque, New Mexico 87103.

11. Indemnification. The User agrees to defend, indemnify and hold harmless the City, its officials, agents and employees from and against any and all claims, actions, suits or proceedings of any kind brought against said parties as a result of User's use of the City's Property. To the extent, if at all, Section 56-7-1 NMSA 1978 is applicable to this Agreement, this Agreement to indemnify will not extend to liability, claims, damages, losses or expenses, including attorney's fees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications by the indemnitee, or the agents or employees of the indemnitee; or



(2) the giving of or the failure to give direction or instructions by the indemnitee, where such giving or failure to give directions or instructions is the primary cause of bodily injury to persons or damage to property.

12. Term. This Agreement shall continue until revoked by the City pursuant to Section 7 above.

13. Binding on User's Property. The covenants and obligations of the User set forth herein shall be binding on User, his heirs assigns and successors and on User's Property and constitute covenants running with User's Property until released by the City.

14. Entire Agreement. This Agreement contains the entire agreement of the parties and supersedes any and all other agreements or understandings, oral or written, whether previous to the execution hereof or contemporaneous herewith.

15. Changes of Agreement. Changes to this Agreement are not binding unless made in writing, signed by both parties.

16. Construction and Severability. If any part of this Agreement is held to be invalid or unenforceable, the remainder of the Agreement will remain valid and enforceable if the remainder is reasonably capable of completion.

17. Captions. The captions to the sections or paragraphs of this Agreement are not part of this Agreement and will not affect the meaning or construction of any of its provisions.

CITY OF ALBUQUERQUE:

By: [Signature]
Chief Administrative Officer
Dated: 9-25-03

USER: RIDGEFIELD WEST LLC

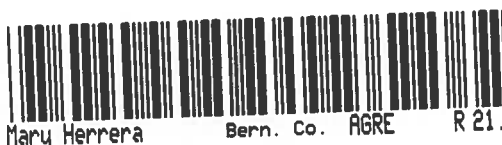
By: [Signature]
Title: member
Dated: 9/25/03

APPROVED:

[Signature] 9/25/03
Director, Public Works Dept.
9/25/03

Reviewed by:

[Signature] 9/25/03
City Engineer
H. alzuoz



STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

Gloria D. Saavedra
Notary Public

11-15-2003

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

My commission expires: 4-6-06

Bernice A. Smith
Notary Public

April 6, 2006



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Mary Herrera

Bern. Co. AGRE

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Page: 4 of 7

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LEGAL DESCRIPTION

26.5' x 32' TEMPORARY PONDING EASEMENT WITHIN LOT 20A AND TRACT "B" HERITAGE HILLS NORTH, UNIT 1:

A TEMPORARY PONDING EASEMENT LYING WITHIN LOT TWENTY A, (20A) AND TRACT "B", HERITAGE HILLS NORTH SUBDIVISION, UNIT ONE, (1), AS THE SAME ARE SHOWN AND DESIGNATED ON THE PLAT THEREOF, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON OCTOBER 11, 1996 IN VOLUME 96C, FOLIO 431, LYING AND SITUATE WITHIN THE ELENA GALLEGOS GRANT, PROJECTED SECTION 20, TOWNSHIP 11 NORTH, RANGE 4 EAST, NEW MEXICO PRINCIPAL MERIDIAN, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID EASEMENT, FROM WHENCE A TIE TO ALBUQUERQUE CONTROL SURVEY MONUMENT "2-D20-A" BEARS S 42°38'39" W, A DISTANCE OF 2885.10 FEET;

THENCE, FROM SAID POINT OF BEGINNING, N 00°19'44" E, A DISTANCE OF 26.50 FEET TO THE NORTHWEST CORNER OF SAID EASEMENT;

THENCE, S 89°40'16" E, A DISTANCE OF 32.00 FEET TO THE NORTHEAST CORNER OF SAID EASEMENT;

THENCE, S 00°19'44" W, A DISTANCE OF 26.50 FEET TO THE SOUTHEAST CORNER OF SAID EASEMENT;

THENCE, N 89°40'16" W, A DISTANCE OF 32.00 FEET TO THE POINT OF BEGINNING, SAID EASEMENT CONTAINING 0.0195 ACRES (848 SQUARE FEET), MORE OR LESS.



HERITAGE HILLS NORTH PHASE III TEMPORARY PONDING EASEMENT

EXHIBIT A

LOT 21A
HERITAGE HILLS NORTH
UNIT 2
(10/19/01, 2001C-282)

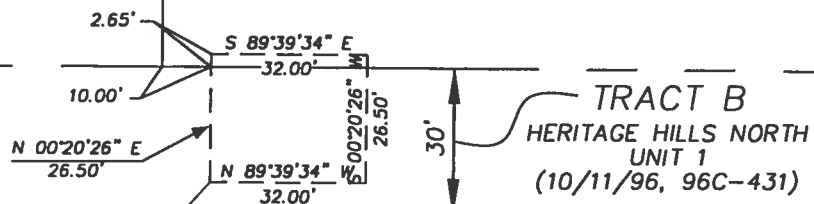
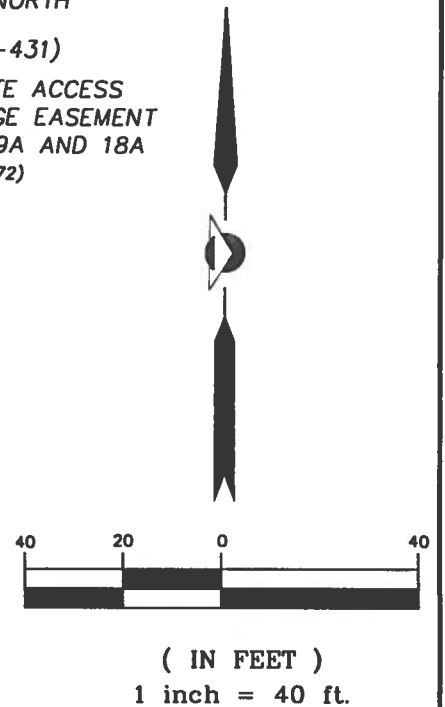
LOT 20A
HERITAGE HILLS NORTH
UNIT 1
(10/11/96, 96C-431)

EXISTING BLANKET PRIVATE ACCESS
AND TEMPORARY DRAINAGE EASEMENT
FOR LOTS 21A-1, 20A, 19A AND 18A
(09/05/03, 2003C-272)

PALOMAR AVE.

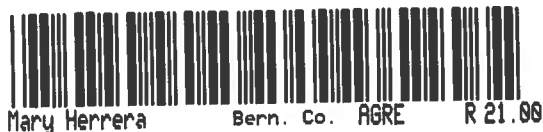
FUTURE
PHASE III

FUTURE
PHASE III



TRACT B
HERITAGE HILLS NORTH
UNIT 1
(10/11/96, 96C-431)

(TIE) S 42°38'39" W
2885.08'



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5881641
Page: 5 of 7
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ACS MONUMENT "2-D20-A"
NM STATE PLANE COORDINATES
NAD 1927
X=410,218.35
Y=1,516,110.28
EL=5378.787 NAVD 1929
GROUND TO GRID SCALE
FACTOR=0.99964777
DELTA ALPHA=0°10'23"

SURVEYOR'S CERTIFICATE

I, LARRY W. MEDRANO LICENSED UNDER THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THIS EASEMENT SURVEY WAS PREPARED BY ME OR UNDER MY DIRECTION FROM NOTES OF AN ACTUAL FIELD SURVEY, AND THE SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

LARRY W. MEDRANO

9/16/03
N.M.L.S. NO. 11993



PRECISION SURVEYS, INC.

8414-D JEFFERSON ST., N.E. PHONE 505 856 5700
ALBUQUERQUE, NEW MEXICO 87113 FAX 505 856 7900

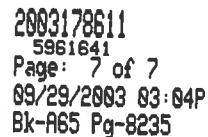


Exhibit A
Page 3 of 3

DRAINAGE AND TRANSPORTATION SHEET
(REV. 1/28/2003rd)

D-20/09

PROJECT TITLE: North Heritage Hills Phase III
DRB 1001374 EPC #:
ZONE MAP/DRG. FILE # D-20-Z
WORK ORDER #: 6085.82

LEGAL DESCRIPTION TRACT 21A-1, Heritage Hills North Subdivision Unit 2
CITY ADDRESS: Heritage Hills North Unit 2, Lots 38, 39, 40, 59, 60, and 61

ENGINEERING FIRM: Tierra West, LLC
ADDRESS: 8509 Jefferson NE
CITY, STATE: Albuquerque, NM
CONTACT: RONALD R. BOHANNAN
PHONE: (505) 858-3100
ZIP CODE: 87113

OWNER: Ridgefield West LLC
ADDRESS: 3916 Juan Tabo Blvd NE STE 26
CITY, STATE: Albuquerque, NM
CONTACT: Patrick McGavrick
PHONE: 271-1991
ZIP CODE: 87111

ARCHITECT: N/A
ADDRESS:
CITY, STATE:
CONTACT: N/A
PHONE:
ZIP CODE:

SURVEYOR: Precision Surveys
ADDRESS: 8414 Jefferson NE
CITY, STATE: Albuquerque, NM
CONTACT: Larry Medrano
PHONE: 856-5700
ZIP CODE: 87113

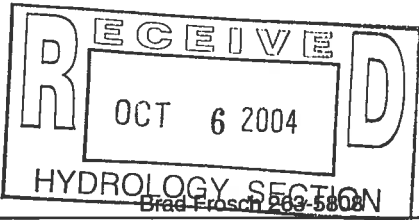
CONTRACTOR: Salls Brothers Const
ADDRESS: 7301 Reading Dr SE
CITY, STATE: Albuquerque, NM
CONTACT: Fred Salls
PHONE: 873-8780
ZIP CODE: 87105

CHECK TYPE OF SUBMITTAL:
☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL, **REQUIRES TCL or equal**
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEERS CERTIFICATION (TCL)
☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:
☒ SIA / FINANACIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D. APPROVAL
☐ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY (PERM.)
☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:
☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: 10/4/2004 BY: Brad Froesch 893-5808



Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

- 1. **Conceptual Grading and Drainage Plans:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
- 2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
- 3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.