

DR49:2

CABEZON COMMUNITIES

DRAINAGE IMPLEMENTATION

PLAN

April 8, 2004

Addendum 1 Attached
1-21-05

Curb North LLC.

Prepared by

WILSON
& COMPANY
ENGINEERS & ARCHITECTS

2600 The American Rd, SE
Suite 100
Rio Rancho, NM 87124

WILSON
& COMPANY

DR49:2

**WILSON
& COMPANY**

2600 American Rd. SE, Suite 100
Rio Rancho, NM 87124
505-898-8021
505-898-8501 Fax

Albuquerque
Colorado Springs
Denver
Fort Worth
Houston
Kansas City
Lenexa
Los Angeles
Omaha
Phoenix
Rio Rancho
Salina
San Bernardino

20 January 2005

Mr. Ralph Montoya, P.E.
City of Rio Rancho
Rio Rancho, NM 87124

**Re: Cabezon Communities Drainage Implementation Plan -
Amendment 1**

Mr. Montoya:

**In the Approved drainage implementation plan for the Cabazon Communities Dated April
2004. The language under FEMA Flood Plains reads as follows:**

FEMA FLOOD PLAINS

FEMA floodplains shown in Figures 1 and 2 will be removed or revised through the CLOMR/LOMR process by the developer. CLOMR(s) and LOMR(s) will be submitted to FEMA through the City of Rio Rancho, based upon the planned drainage improvements shown in Figure No. 2. The developer understands that building permits will not be issued for lots located in high-hazard areas designated on FEMA Flood Insurance Rate Maps, and will be expeditious in requesting the map revisions.

We request that this language be amended to the following:

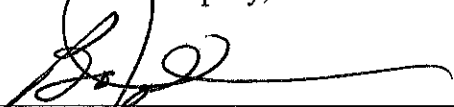
FEMA FLOOD PLAINS

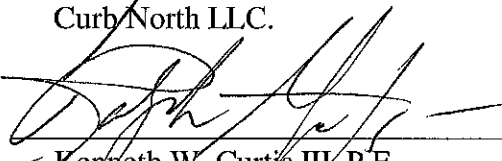
FEMA floodplains shown in Figures 1 and 2 will be removed or revised through the CLOMR/LOMR process by the developer. CLOMR(s) and LOMR(s) will be submitted to FEMA through the City of Rio Rancho, based upon the planned drainage improvements shown in Figure No. 2. Building permits for lots located in existing high-hazard areas designated on FEMA Flood Insurance Rate Maps will be available for issue

once there is an approved CLOMR in place that shows the lot to be taken out of the Flood Plain, the construction of the infrastructure in accordance with the approved CLOMR, and a "guarantee" that the LOMR be completed to fruition. Guarantee shall be in the form of submitting *proof* that a LOMR has been submitted to FEMA with the appropriate submittal fees and the Engineer is under contract for completion of that LOMR.

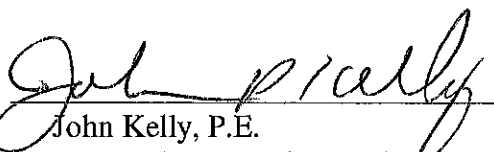
The following signatures constitute agreement with this amendment. The agreement will put the amendment into effect immediately. All other portions of the Cabezon Communities Drainage Implementation Plan remain as approved.

By:  Date: 1/20/05
Daniel S. Aguirre, P.E.
Wilson & Company, Inc.

By:  Date: 1/21/05
Bo Johnson, P.E.
Curb North LLC.

By:  Date: 1/20/05
for Kenneth W. Curtis III, P.E.
City of Rio Rancho City Engineer

By:  Date: 1-20-05
David Stoliker, P.E.
SSCAFCA Executive Director

By:  Date: 1-20-05
John Kelly, P.E.
AMAFCA Executive Engineer

FEDERAL EMERGENCY MANAGEMENT AGENCY
PAYMENT INFORMATION FORM

Community Name: _____

Project Identifier: _____

THIS FORM MUST BE MAILED, ALONG WITH THE APPROPRIATE FEE, TO THE ADDRESS BELOW OR FAXED TO THE FAX NUMBER BELOW.

Type of Request:

☐ MT-1 application

☒ MT-2 application

FEMA
Fee Charge System Administrator
P.O. Box 22787
Alexandria, VA 22304
FAX (703) 317-3076

☐ EDR application

FEMA Project Library
3601 Eisenhower Avenue
Alexandria, VA 22304
FAX (703) 751-7391

Request No.: _____ (if known)

Amount: \$3800.00

☐ INITIAL FEE* ☐ FINAL FEE ☐ FEE BALANCE** ☐ MASTER CARD ☐ VISA ☒ CHECK ☐ MONEY ORDER

*Note: Check only for EDR and/or Alluvial Fan requests (as appropriate).

**Note: Check only if submitting a corrected fee for an ongoing request.

COMPLETE THIS SECTION ONLY IF PAYING BY CREDIT CARD

CARD NUMBER

EXP. DATE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----

Month	Year
-------	------

Date _____

Signature _____

NAME (AS IT APPEARS ON CARD): _____
(please print or type)

ADDRESS: _____
(for your credit card receipt please print or type)

DAYTIME PHONE: _____

CURB NORTH INC
PH. 875-1721
5160 SAN FRANCISCO NE
ALBUQUERQUE, NM 87109

1480

95-7242/3070

1-6-05

DATE

© HARLAND CAMBRIDGE

PAY TO THE
ORDER OF

National Flood Insurance Program

\$ 3,800.⁰⁰

Three Thousand Eight Hundred

no 100

DOLLARS



Security
Features
Details on
Back



CHARTER BANK

4400 OSUNA ROAD NE
ALBUQUERQUE, NM 87109

FOR

[Signature]

MP

⑆307072427⑆ 0070017873⑆ 1480

IN WITNESS WHEREOF, the parties have set their hands the day and year first above

written.

SOUTHERN SANDOVAL COUNTY ARROYO
FLOOD CONTROL AUTHORITY,
a political subdivision of the State of New Mexico,

By: [Signature]
Its: CA

Attest: Donald A. King

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

This instrument was acknowledged before me on May 1, 2006, by John Chaney, Chairman of the Southern Sandoval Arroyo Flood Control Authority, a political subdivision of the State of New Mexico, on behalf of said Authority.

Laura J. Davis
NOTARY PUBLIC

My Commission Expires:

1/12/07



OFFICIAL SEAL
Laura J. Davis
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 1/12/07

THE CITY OF RIO RANCHO,
a New Mexico municipal corporation.

SANDOVAL COUNTY
200624510
Book-409 Page- 24510
4 of 4
05/16/2006 03:03:12 PM

By: [Signature]
Its: [Signature]

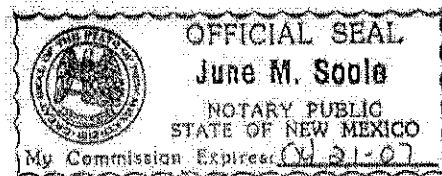
Attest: Kathleen Chenaveth

STATE OF NEW MEXICO)
COUNTY OF SANDOVAL) ss.

This instrument was acknowledged before me on April 12, 2006, by Kenneth W. Curtis III, City Engineer of the City of Rio Rancho, a New Mexico municipal corporation, on behalf of the City.

[Signature]
NOTARY PUBLIC

My Commission Expires:
04-21-07



WQ ISSUE

LETTER OF TRANSMITTAL

TO: **Ken Curtis, P.E.**

City of Rio Rancho
Public Infrastructure Department
3900 Southern Blvd. SE
Rio Rancho, New Mexico 87124

Date:	4/27/2006	Job No:	
Re:	Cabezon - Vacation of Drainage Easement		

WE ARE SENDING YOU: ☒ Attached ☐ Under Separate Cover Via _____ The following items:

COPIES	DESCRIPTION
1	Revised vacation easement for Cabezon
1	Document showing revisions
1	SSCAFCA mark-up copy of easement

THESE ARE TRANSMITTED as checked below:

<input type="checkbox"/> For Approval	<input type="checkbox"/> Approved as Submitted	<input type="checkbox"/> Resubmit	_____ Copies for Approval
<input type="checkbox"/> For Your Use	<input type="checkbox"/> Approved as Noted	<input type="checkbox"/> Submit	_____ Copies for Distribution
<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned for Corrections	<input type="checkbox"/> Return	_____ Corrected Prints
<input type="checkbox"/> For Review & Comment	<input type="checkbox"/> _____		
<input type="checkbox"/> FOR BIDS DUE	_____ 2000	<input type="checkbox"/> Prints Returned After Loaned to Us	

REMARKS

Ken:

I met with David Stoliker and Bob Foglesong to review the easement document which resulted in the changes that are attached. In general we added the park tracts, which were not included originally, a few roads, and a couple of typo's. I am forwarding this same package to Bernie Metzgar for his review. The intent is to have SSCAFCA sign on Monday (5/1) at their Executive Committee meeting, and ready for City signature hopefully that same day.

COPY TO: _____

SIGNED: _____

Tim McDonough

CITY OF RIO RANCHO
DEPARTMENT OF
PUBLIC INFRASTRUCTURE
RECEIVED ON: 05-04-06
TRACKING NUMBER: 06-0712

RECEIVED: _____

If enclosures are not as noted, kindly notify us at once.

VACATION OF PUBLIC DRAINAGE EASEMENT

THIS VACATION OF EASEMENT is executed this 12 day of May, 2006, by the City of Rio Rancho (the "City") and Southern Sandoval Arroyo Flood Control Authority ("SSCAFCA").

WHEREAS, a 138.4137 acre public drainage easement (the "Easement") was granted to the City and SSCAFCA in the Amended Plat for Cabezon Subdivision filed in the office of the County Clerk of Sandoval County, New Mexico on March 17, 2004, in Volume 3, Folio 2396-B and in Rio Rancho Estates Plat Book Number 17, Pages 1-9;

WHEREAS, The grant of the Easement provided that upon completion of the drainage facilities (the "Drainage Facilities") in Parcels A, B and C of Cabezon Subdivision (re-designated A-1, A-2, B-1 and C-1 on the Second Amended Plat of Cabezon Subdivision referenced herein below), the owners of property subject to the Easement could seek a reduction of the Easement;

WHEREAS, the Drainage Facilities are nearly complete and the owners of the property subject to the Easement have requested a reduction of the Easement; and

WHEREAS, the City and SSCAFCA have determined that the Drainage Facilities are nearly complete and that it is proper to reduce the Easement.

NOW, THEREFORE, the City and SSCAFCA state as follows:

I. The portion of the Easement located on the following properties is hereby vacated and removed from such properties:

Tracts 7B, 16, 20 and 21B in the Cabezon Subdivision as shown on the Amended Plat thereof filed in the office of the County Clerk of Sandoval County, New Mexico on March 17, 2004, in Volume 3, Folio 2396-B and in Rio Rancho Estates Plat Book Number 17, Pages 1-9,

and

Tracts 1-A, 6-A, 8-A, 9-A, 10-A, 10-B, 15-A, , 18-A, 19-A, and 21-A in the Cabezon Subdivision as shown on the Second Amended Plat thereof filed in the office of the County Clerk of Sandoval County, New Mexico on May, 12, 2005, in Volume 3, Folio 2534-A, in Book 408, Pages 16898 and in Rio Rancho Estates Plat Book Number 18, Pages 36 - 41,

and

Lots 38 - 87, in Block 1; Lots 39 - 48 in Block 4; Lots 2 - 19 in Block 7; Tract B, Tract H; Corte de la Villa; Paseo de la Villa; and Corte Castellana, Avenida Castellana, Avenida Corazon, Avenida Comunidad, as shown on the Plat entitled

SANDOVAL COUNTY

200624510

Book-408 Page- 24510

2 of 4

05/16/2006 03:09:12 PM

"CORAZON AT CABEZON, a subdivision of Tracts 2 and 5A, Unit Sixteen"
filed in the office of the County Clerk of Sandoval County, New Mexico on June
9, 2003, in Book 408, Page 20762 and in Rio Rancho Estates Plat Book Number
18, Pages 49 - 51.

2. The remainder of the Easement located within Parcels A-1, A-2, B-1 and C-1
shall remain in force and effect.

[Signatures on the following pages]

Call Bernie

VACATION OF PUBLIC DRAINAGE EASEMENT

THIS VACATION OF EASEMENT is executed this ___ day of April, 2006, by the City of Rio Rancho (the "City") and Southern Sandoval Arroyo Flood Control Authority ("SSCAFCA").

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and

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Vol 3 3
Folio 2394-A ?

add
Tract 5 Park
Side

add
Avenida Castellana,
Avenida Corazon
and Avenida Comunidad

18-A, 19-A
-A

add Tract 14

VACATION OF PUBLIC DRAINAGE EASEMENT

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"CORAZON AT CABEZON, a subdivision of Tracts 2 and 5A, Unit Sixteen"
filed in the office of the County Clerk of Sandoval County, New Mexico on June
9, 2005, in Book 408, Page 20762 and in Rio Rancho Estates Plat Book Number
18, Pages 49 - 51.

2. The remainder of the Easement located within Parcels A-1, A-2, B-1 and C-1
shall remain in force and effect.

[Signatures on the following pages]

written.

By: _____

Its: _____

Attest: _____

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

This instrument was acknowledged before me on April _____, 2006, by _____, _____ of the Southern Sandoval Arroyo Flood Control Authority, a political subdivision of the State of New Mexico, on behalf of said Authority.

NOTARY PUBLIC

My Commission Expires:

THE CITY OF RIO RANCHO,
a New Mexico municipal corporation,

By: _____
Its: _____

Attest: _____

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

This instrument was acknowledged before me on April _____, 2006, by _____
_____, _____ of the City of Rio Rancho, a New Mexico
municipal corporation, on behalf of the City.

My Commission Expires:

NOTARY PUBLIC

VACATION OF PUBLIC DRAINAGE EASEMENT

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Deleted: April

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Deleted: -

Deleted: -

and

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Deleted: 15-B

Deleted: B

and

Lots 38 - 87, in Block 1; Lots 39 - 48 in Block 4; Lots 2 - 19 in Block 7; Tract B, Tract H; Corte de la Villa; Paseo de la Villa; and Corte Castellana, Avenida Castellana, Avenida Corazon, Avenida Comunidad, as shown on the Plat entitled

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2. The remainder of the Easement located within Parcels A-1, A-2, B-1 and C-1
shall remain in force and effect.

[Signatures on the following pages]

IN WITNESS WHEREOF, the parties have set their hands the day and year first above written.

**SOUTHERN SANDOVAL COUNTY ARROYO
FLOOD CONTROL AUTHORITY,**
a political subdivision of the State of New Mexico,

By: _____
Its: _____

Attest: _____

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

This instrument was acknowledged before me on April _____, 2006, by _____ of the Southern Sandoval Arroyo Flood Control Authority, a political subdivision of the State of New Mexico, on behalf of said Authority.

My Commission Expires: _____

NOTARY PUBLIC

THE CITY OF RIO RANCHO,
a New Mexico municipal corporation,

By: _____
Its: _____

Attest: _____

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

This instrument was acknowledged before me on April _____, 2006, by _____
_____ of the City of Rio Rancho, a New Mexico
municipal corporation, on behalf of the City.

My Commission Expires:

NOTARY PUBLIC



Federal Emergency Management Agency

Washington, D.C. 20472

NOV 14 2005

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Jim Owen
Mayor, City of Rio Rancho
3900 Southern Boulevard
Rio Rancho, NM 87124

Dear Mayor Owen:

IN REPLY REFER TO:

Case No.: 05-06-0661P

Follows Conditional

Case No.: 04-06-1222R

Community Name: City of Rio Rancho, NM

Community No.: 350146

Effective Date of
This Revision: NOV 14 2005

The Flood Insurance Study report and Flood Insurance Rate Map for your community have been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panel(s) revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals issued in your community.

Additional documents are enclosed which provide information regarding this LOMR. Please see the List of Enclosures below to determine which documents are included. Other attachments specific to this request may be included as referenced in the Determination Document. If you have any questions regarding floodplain management regulations for your community or the National Flood Insurance Program (NFIP) in general, please contact the Consultation Coordination Officer for your community. If you have any technical questions regarding this LOMR, please contact the Director, Federal Insurance and Mitigation Division of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) in Denton, Texas, at (940) 898-5127, or the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Sincerely,

Kevin C. Long, CFM, Project Engineer
Hazard Identification Section
Mitigation Division

For: Doug Bellomo, P.E., Chief
Hazard Identification Section
Mitigation Division

List of Enclosures:

Letter of Map Revision Determination Document
Annotated Flood Insurance Rate Map
Annotated Flood Insurance Study Report

cc: Mr. Robert C. Schulz, P.E.
Floodplain Administrator
City of Rio Rancho

Ms. Carolyn E. Donnelly, E.I.T., CFM
Design Engineer
Wilson & Company

Mr. Daniel S. Aguirre, P.E.
Wilson & Company

Mr. Bo K. Johnson P.E.
Curb North Inc.



Federal Emergency Management Agency
Washington, D.C. 20472

**LETTER OF MAP REVISION
DETERMINATION DOCUMENT**

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	City of Rio Rancho Sandoval County New Mexico	CHANNEL RELOCATION STORM DRAINS DETENTION BASIN	HYDRAULIC ANALYSIS HYDROLOGIC ANALYSIS NEW TOPOGRAPHIC DATA
	COMMUNITY NO.: 350146		
IDENTIFIER	Cabazon Communities Phase 1	APPROXIMATE LATITUDE & LONGITUDE: 35.23118°, -106.69241° SOURCE: USGS QUADRANGLE DATUM: NGVD 29	

**FLOODING SOURCE(S) &
REVISED REACH(ES)**

Tributary B – from approximately 1,300 feet downstream of its confluence with Arroyo D to approximately 800 feet upstream of 22nd Street
Arroyo D – from its confluence with Tributary B to approximately 600 feet upstream

SUMMARY OF REVISIONS

Tributary B

Arroyo D

Effective Flooding:	Zone AE	BFEs*	Zone AE	BFEs*
Revised Flooding:	Zone AE	BFEs	Zone X (unshaded)	No BFEs
Increases:	YES	YES	NONE	NONE
Decreases:	YES	YES	YES	YES

* BFEs – Base Flood Elevations

ANNOTATED MAPPING ENCLOSURES

ANNOTATED STUDY ENCLOSURES

TYPE: FIRM* NO.: 35043C0894 C Date: July 16, 1996

DATE OF EFFECTIVE FLOOD INSURANCE STUDY: July 16, 1996
PROFILE: 80P
PROFILE: 02P (Deleted)
PROFILE: 81P (Deleted)
PROFILE: 82P (Deleted)
PROFILE: 83P (Deleted)

* FIRM – Flood Insurance Rate Map; ** FBFM – Flood Boundary and Floodway Map; *** FHBM – Flood Hazard Boundary Map

DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMR Depot, 3601 Eisenhower Avenue, Alexandria, VA 22304. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Kevin C Long

Kevin C. Long, CFM, Project Engineer
Hazard Identification Section
Mitigation Division

106979 10.3.1.05060661 102IAC



Federal Emergency Management Agency
Washington, D.C. 20472

**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

NFIP regulations Subparagraph 60.3(b)(7) requires communities to ensure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained. This provision is incorporated into your community's existing floodplain management ordinances; therefore, responsibility for maintenance of the modified channel and storm drains rests with your community. We may request that your community submit a description and schedule of channel and storm drain activities.

COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance discharges computed in the submitted hydrologic model. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMR Depot, 3601 Eisenhower Avenue, Alexandria, VA 22304. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Kevin C. Long

Kevin C. Long, CFM, Project Engineer
Hazard Identification Section
Mitigation Division

106979 10.3.1.05060661 102IAC



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION (CONTINUED)

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Mr. Frank Pagano
Director, Federal Insurance and Mitigation Division
Federal Emergency Management Agency, Region VI
Federal Regional Center, Room 206
800 North Loop 288
Denton, TX 76209
(940) 898-5127

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMR Depot, 3601 Eisenhower Avenue, Alexandria, VA 22304. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Kevin C. Long, CFM, Project Engineer
Hazard Identification Section
Mitigation Division

106979 10.3.1.05060661 102IAC



Federal Emergency Management Agency
Washington, D.C. 20472

LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)

PUBLIC NOTIFICATION OF REVISION

Within 90 days of the second publication in the local newspaper, any interested party may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. This revision is effective as of the date of this letter. However, until the 90-day period has elapsed, the revised BFEs presented in this LOMR may be changed.

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below.

LOCAL NEWSPAPER

Name: *Santa Fe New Mexican*

Dates: 11/23/2005 11/30/2005

PUBLIC NOTIFICATION

FLOODING SOURCE	LOCATION OF REFERENCED ELEVATION	BFE (FEET NGVD)		MAP PANEL NUMBER(S)
		EFFECTIVE	REVISED	
Tributary B	Approximately 1,300 feet downstream of confluence with Arroyo D	5,259	None	35043C0894 C
	Approximately 800 feet upstream of 22nd Street	5,355	None	35043C0894 C
Arroyo D	At confluence with Tributary B	5,286	None	35043C0894 C
	Approximately 600 feet upstream of confluence with Tributary B	5,299	None	35043C0894 C

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMR Depot, 3601 Eisenhower Avenue, Alexandria, VA 22304. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Kevin C. Long, CFM, Project Engineer
Hazard Identification Section
Mitigation Division

106979 10.3.1.05060661 102IAC

CHANGES ARE MADE IN DETERMINATIONS OF BASE FLOOD ELEVATIONS FOR THE CITY OF RIO RANCHO, SANDOVAL COUNTY, NEW MEXICO, UNDER THE NATIONAL FLOOD INSURANCE PROGRAM

On July 16, 1996, the Department of Homeland Security's Federal Emergency Management Agency identified Special Flood Hazard Areas (SFHAs) in the City of Rio Rancho, Sandoval County, New Mexico, through issuance of a Flood Insurance Rate Map (FIRM). The Mitigation Division has determined that modification of the elevations of the flood having a 1-percent chance of being equaled or exceeded in any given year (base flood) for certain locations in this community is appropriate. The modified Base Flood Elevations (BFEs) revise the FIRM for the community.

The changes are being made pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (Public Law 93-234) and are in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, Public Law 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65.

A hydraulic analysis was performed to incorporate the effects of placement of fill and construction of a storm drain system and a detention pond along Tributary B and Arroyo D. This has resulted in increases and decreases in SFHA width and increased and decreased BFEs for Tributary B from approximately 1,300 feet downstream of its confluence with Arroyo D to approximately 800 feet upstream of 22nd Street and a decrease in SFHA width and decreased BFEs for Arroyo D from its confluence with Tributary B to approximately 600 feet upstream. The table below indicates existing and modified BFEs for selected locations along the affected lengths of the flooding source(s) cited above.

Location	Existing BFE (feet)*	Modified BFE (feet)*
Tributary B:		
Approximately 1,300 feet downstream of confluence with Arroyo D	5,259	None
Approximately 800 feet upstream of 22nd Street	5,355	None
Arroyo D:		
At confluence with Tributary B	5,286	None
Approximately 600 feet upstream of confluence with Tributary B	5,299	None

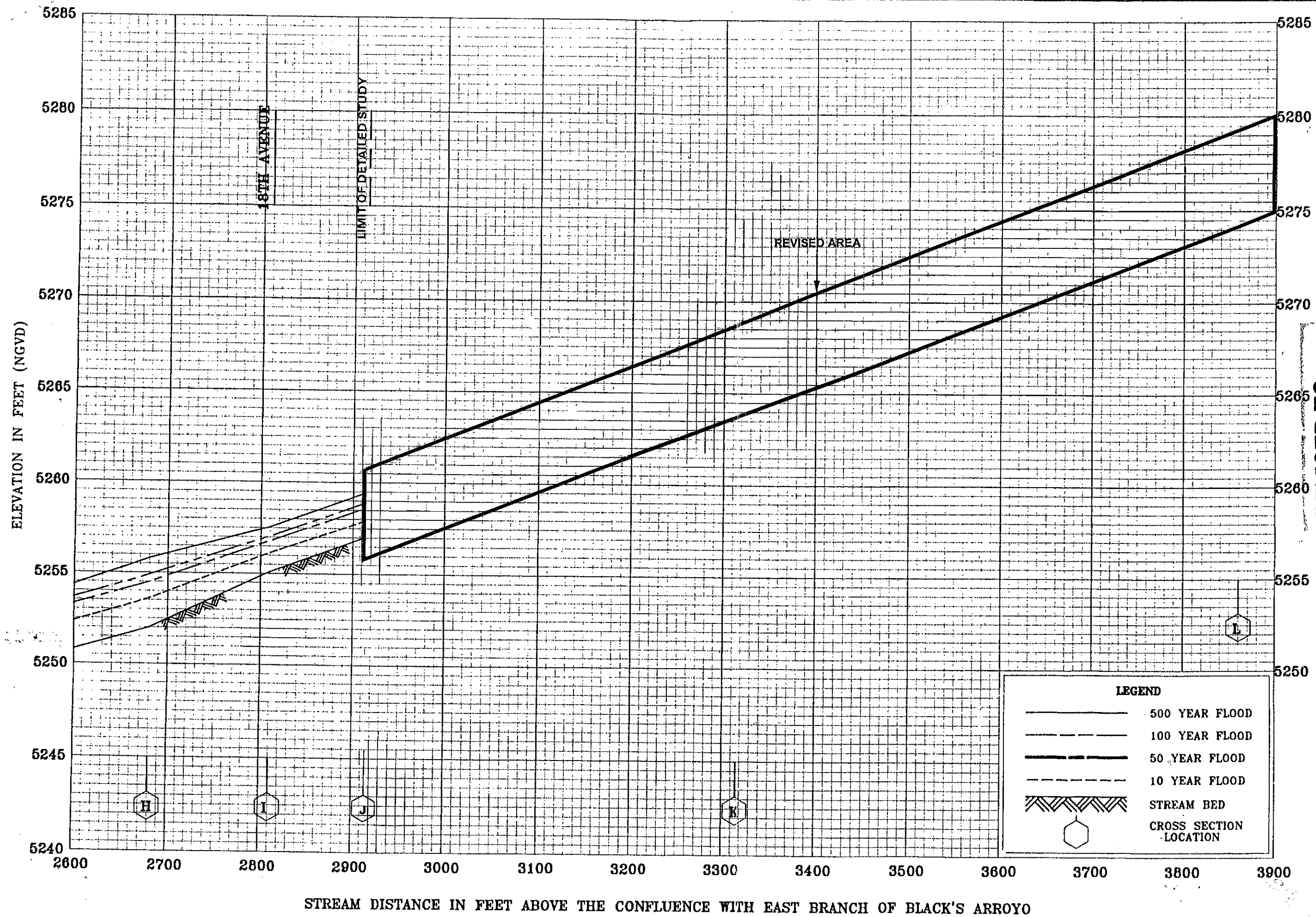
*National Geodetic Vertical Datum, rounded to nearest whole foot

Under the above-mentioned Acts of 1968 and 1973, the Mitigation Division must develop criteria for floodplain management. To participate in the National Flood Insurance Program (NFIP), the community must use the modified BFEs to administer the floodplain management measures of the NFIP. These modified BFEs will also be used to calculate the appropriate flood insurance premium rates for new buildings and their contents and for the second layer of insurance on existing buildings and contents.

Upon the second publication of notice of these changes in this newspaper, any person has 90 days in which he or she can request, through the Chief Executive Officer of the community, that the Mitigation Division reconsider the determination. Any request for reconsideration must be based on knowledge of changed conditions or new scientific or technical data. All interested parties are on notice that until the 90-day period elapses, the Mitigation Division's determination to modify the BFEs may itself be changed.

Any person having knowledge or wishing to comment on these changes should immediately notify:

The Honorable Jim Owen
Mayor, City of Rio Rancho
3900 Southern Boulevard
Rio Rancho, NM 87124



FEDERAL EMERGENCY MANAGEMENT AGENCY
 SANDOVAL COUNTY, NM
 AND INCORPORATED AREAS
 FLOOD PROFILES
 REFLECTING
 DATED NOV 14 2005
 TRIBUTARY B
 80P

TRANSMITTAL

City of Rio Rancho

Department of Public Works

3900 Southern Blvd. SE, P.O. Box 15550

Rio Rancho, New Mexico, 87174-0550

Phone (505) 891-5016, FAX (505) 891-5203

To Shannon Eubanks, Ralph Montoya

Address _____

Phone _____

Included with this transmittal are the following items

	Description	Comments
1		Cabezon DIP Addendum #1
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

Comments

Please bind or staple these to your copies of the DMP, including the one in the drainage study library. The DIP is not complete without this addendaum.

From Robert C. Schulz, PE, CFM

Date 3/3/2005

WILSON & COMPANY

2600 THE AMERICAN ROAD SE, SUITE 100
RIO RANCHO, NEW MEXICO 87124
(505) 898-8021
FAX (505) 898-8501

TRANSMITTAL

2/4/05
RECEIVED
97

Date:	01/24/05
Job No.:	X4-218-012-10
Re:	DIP- Addendum No. 1

To: City of Rio Rancho PWD
3900 Southern Blvd.
Rio Ranch, NM 87174

Attn: Mr. Ralph Montoya, P.E.

WE ARE SENDING YOU ☒ Attached ☐ Under Separate Cover via _____ the following items:

☐ Shop Drawings ☒ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

Copies	Date	Pages/Sheets	Description
1	01/20/05		Original Letter with Signatures

THESE ARE TRANSMITTED AS CHECKED BELOW:

- | | | |
|--|--|---|
| <input type="checkbox"/> For approval/signature | <input type="checkbox"/> Approved as submitted | <input type="checkbox"/> Resubmit _____ copies for approval |
| <input checked="" type="checkbox"/> For your use | <input type="checkbox"/> Approved as noted | <input type="checkbox"/> Submit _____ copies for distribution |
| <input type="checkbox"/> As requested | <input type="checkbox"/> Return _____ copies | <input type="checkbox"/> Return _____ corrected prints |
| <input type="checkbox"/> For review and comment | <input type="checkbox"/> _____ | |
| <input type="checkbox"/> FOR BIDS DUE _____, 20__ <input type="checkbox"/> PRINTS ON LOAN – RETURN TO WCEA AFTER BID | | |

Remarks: Thank you for your continued assistance.

COPY TO: File

SIGNED: Mario Juarez-Infante, P.E.

RECEIVED BY: _____

DATE: _____

WILSON & COMPANY

2600 THE AMERICAN ROAD SE, SUITE 100
RIO RANCHO, NEW MEXICO 87124

(505) 898-8021

FAX (505) 898-8501

8/4/04
RECEIVED
620
TRANSMITTAL

Date: 21 July 2004

Job No.: X3-218032

Re: Cabezon Drainage Implementation Plan

To: City of Rio Rancho
Public Works Dept.
3900 Southern Blvd. SE
Rio Rancho, NM 87124

Attn: Ralph Montoya, P.E.

WE ARE SENDING YOU ☒ Attached ☐ Under Separate Cover via _____ the following items:

- ☐ Shop Drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

Copies	Date	Pages/Sheets	Description
1	7/20/04	1	Revised Cabezon DIP Figure 2
1	7/20/04	2	Letter re revisions
<i>CORR Staff - Hold till formal Addendum prepared. Discard on approval of Addendum.</i>			

THESE ARE TRANSMITTED AS CHECKED BELOW:

- ☐ For approval/signature ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Return _____ copies ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____, 20____ ☐ PRINTS ON LOAN - RETURN TO WCEA AFTER BID

Remarks: _____

COPY TO: Loern Mainz, AMAFCA

SIGNED: _____

RECEIVED BY: _____

DATE: _____

**WILSON
& COMPANY**

2600 American Rd. SE, Suite 100
Rio Rancho, NM 87124
505-898-8021
505-898-8501 Fax

Albuquerque
Colorado Springs
Denver
El Paso
Fort Worth
Houston
Kansas City
Las Cruces
Lenexa
Los Angeles
Phoenix
Rio Rancho
Salina
San Bernardino
Wichita
Wilson & Company
Latin America, LLC

20 July 2004

Tim M. (c) 400-6158

Mr. Ralph Montoya, P.E.
City of Rio Rancho, Public Works Dept.
3900 Southern Blvd.
Rio Rancho, New Mexico 87124

Mr. David Stoliker, P.E.
Executive Director, SSCAFCA
1041 Commercial Dr. SE
Rio Rancho, New Mexico 87124

RE: Revision to the Cabezón Drainage Implementation Plan

Gentlemen:

Attached is the revised Figure #2 for the Cabezón Communities Drainage Implementation Plan. As we discussed, a revision of this exhibit is due to a slight change in the internal drainage boundaries of Tract 7, identified on the Figure as drainage sub-basins 7A(a), 7A(b), 7A(c), and 7B and the final design of the drainage system for the subdivision located in Tract 7. The net result is a slight increase to the flows being introduced to Pond-1, and a slight reduction in flows in the storm drain system downstream of Pond-1. Changed values are shown in the following tables:

CUMULATIVE FULLY DEVELOPED FLOWS @ ANALYSIS POINTS

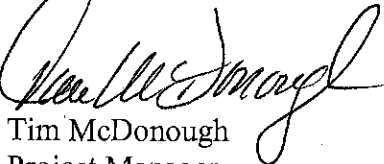
Analysis Point	Approved Flow (CFS)	Revised Flow (CFS)	Variance (CFS)
AP7	827	795	-32
AP8	120	120	NC
AP9	188	188	NC
AP10	1100	1132	+32
AP11	497	475	-22
AP12	502	475	-27
AP13	535	478	-57
AP14	631	550	-81

ALLOWABLE RELEASE RATES BY TRACTS

TRACT	Approved Allowable Flow (CFS)	Revised Allowable Flow (CFS)	Variance (CFS)
7A (TOTAL)	237	204	-33
7A(a)	104	67	-37
7A(b)	60	93	+33
7A(c)	73	44	-29
7B	141	133	-8

The additional flow to Pond-1 does not exceed the 25 AF volume originally approved and therefore requires no change. The above changes will be incorporated into the Cabezon Phase 2 DMP. With this letter and revised Figure #2, we request your approval for these revisions to the Cabezon Drainage Implementation Plan. If you have any questions please contact me or Mario Juarez-Infante. Your consideration of our request is appreciated.

**WILSON & COMPANY, INC.
ENGINEERS & ARCHITECTS**



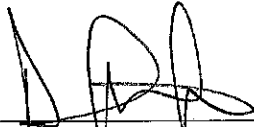
Tim McDonough
Project Manager

Cc: Loren Meinz, P.E., AMAFCA
Bo Johnson, P.E., Curb North, LLC
Dan Aguirre, P.E., Wilson & Company, Inc.


CABEZON COMMUNITIES

DRAINAGE IMPLEMENTATION PLAN

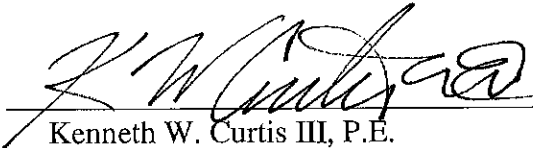
The Purpose of this Drainage Implementation Plan is to, 1) provide an overall map of the proposed drainage improvements for the Cabezon Communities Development, 2) to identify the specific components of the drainage improvements, 3) to relate individual development tracts to associated drainage improvements, 4) to identify the proposed drainage flows from the individual development tracts, and 5) to delineate any requirements or special conditions that apply to the development related to drainage. Recognizing that there are some areas of the drainage plan that are not detailed at this time, it is anticipated that some modification to this Implementation Plan may occur in the future, with the approval of the appropriate Agencies. The approved Cabezon Drainage Management Plan(s) are incorporated into this Drainage Implementation Plan by reference. This Drainage Implementation Plan is intended to define the overall policy for construction and implementation of drainage improvements, while the approved Drainage Management Plans provide the design requirements for those improvements. **Should technical design requirements in the approved Cabezon Drainage Management Plan(s) conflict with information in this Implementation Plan, the approved Drainage Management Plan(s) will prevail.**

By: 
Dan Aguirre, P.E.
Wilson & Company, Inc.

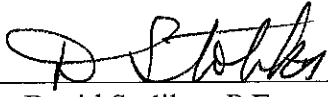
Date: 5/5/04

By: 
Bo Johnson, P.E.
Curb North LLC.

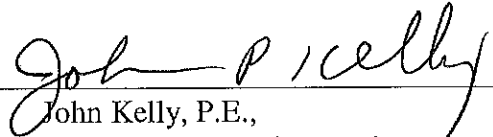
Date: 5/14/04

By: 
Kenneth W. Curtis III, P.E.
City of Rio Rancho City Engineer

Date: 5/18/04

By: 
David Stoliker, P.E.
SSCAFCA Executive Director

Date: MAY 19, 2004

By: 
John Kelly, P.E.,
AMAFCA Executive Engineer

Date: 5-11-04

CABEZON COMMUNITIES

DRAINAGE IMPLEMENTATION PLAN

Curb North LLC

Prepared by

WILSON
& COMPANY
ENGINEERS & ARCHITECTS

2600 The American Rd, SE
Suite 100
Rio Rancho, NM 87124

April 8, 2004

Supporting / Corresponding Documents

Black Arroyo Watershed Management Plan, August 2002

Cabazon Communities Master Plan, April 9, 2003

Cabazon Communities Phase 1, Drainage Management Plan, April, 2004

Cabazon Communities Phase 2, Drainage Management Plan, Pending Approval

CABEZON COMMUNITIES DRAINAGE IMPLEMENTATION PLAN

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FIGURE 1	Existing Conditions
FIGURE 2	Overall Drainage System

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APPENDIX A:	Drainage Requirements by Tract
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1. BACKGROUND

The Cabezon Communities Development encompasses approximately 900 acres of undeveloped land located in the City of Rio Rancho, Sandoval County. The area is generally bounded by the Sandoval County line on the south, Unser Blvd. on the west and Golf Course Blvd. to the east. The northern boundary is a variable line approaching existing development south of Southern Blvd. The east and west branches of the Black Arroyo traverse the site. The City of Rio Rancho desired to redevelop this area due to antiquated platting established in the late 1960s. Following failed attempts to proceed with the redevelopment, Curb North LLC, working with the City of Rio Rancho, has negotiated a redevelopment agreement, settling outstanding lawsuits, approved by the City of Rio Rancho Governing Body, and allowing for the redevelopment of this area.

Curb North LLC is proposing to develop this area for residential, mixed use and commercial uses. This implementation plan serves to identify the proposed drainage approach, discharge requirements, and proposed facilities for the effective management of on-site drainage. Thorough review of the Black Arroyo Watershed Master Plan (BLWMP) written by ASCG (2002) was conducted with attention to its recommendations and goals. When fully implemented, the Cabezon Communities Development will enhance the drainage and flood control infrastructure in the area, meet the community's storm water quality objectives and preserve the capacity of Black Dam.

The following criteria will be adopted with the approval of the Cabezon Drainage Implementation Plan:

1. There will be no free discharge of storm water until downstream facilities identified in this document are constructed.
2. The developer will provide water quality facilities to treat the first 0.25" of runoff from the development, and for the watershed, for a total volume of 44 AF.
3. No building permits will be issued for lots in the identified FEMA floodplain until a LOMR is completed and the flood plain removed.
4. Drainage Facility Plans will be submitted and approved by the City of Rio Rancho and SSCAFCA for each phase of development.

2. EXISTING CONDITIONS

The 900-acre Cabezon Development is located in Unit 16 West in the City of Rio Rancho. The area reflects the typical Rio Rancho Estates platting of predominately ½ acre lots, in a grid layout. Drainage in the area consists of the Black Arroyo East and West Branch and tributaries as shown in Figure No. 1. With the construction of Unser Blvd. and Golf Course Road, off-site flows from surrounding areas has been restricted to specific drainage facilities identified in the figure. North of Southern Blvd. offsite flows enter Unit 16 West from Western Hills Rd. (23rd Street) and the East Branch of Black Arroyo. These offsite flows are listed in Table No. 1.

Table No. 1 Major Offsite Flows into Cabezon Communities

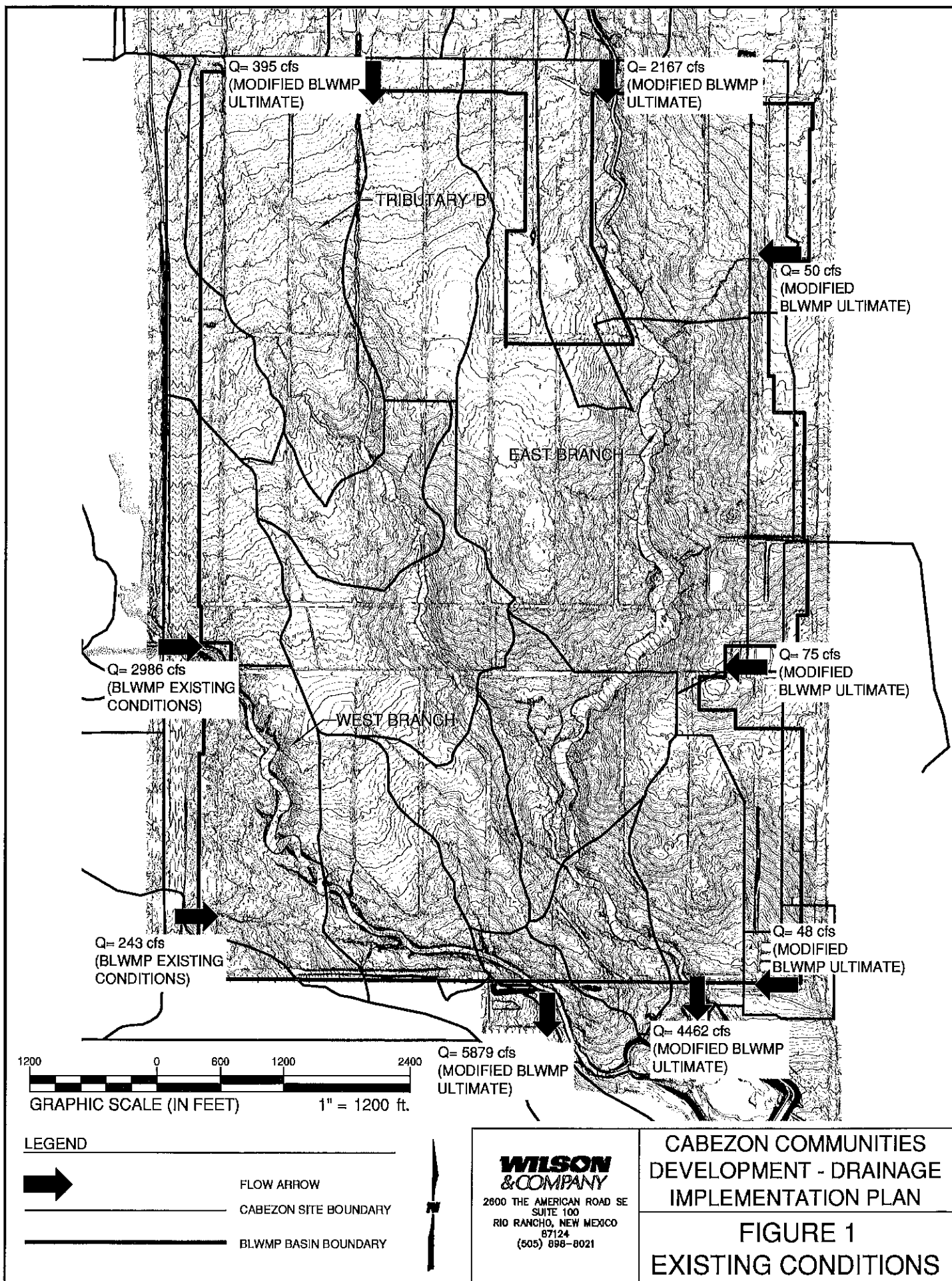
Identifier	100 Year Flow Rate
Western Hills Drainage	395 cfs (modified BLWMP Ultimate)
East Branch	2,167 cfs (modified BLWMP Ultimate)
West Branch crossing at Unser	2,986 cfs (BLWMP Existing)
Tributary E crossing at Gateway	243 cfs (BLWMP Existing)

Within Unit 16 west, drainage in the western half of the area is collected primarily in "Tributary B" which flows south and to the East Branch of Black Arroyo. In the eastern half of the Unit, drainage flows directly to the East Branch of Black Arroyo. In the southwestern corner of Unit 16 West, drainage flows into the West Branch of Black Arroyo. All of the drainage facilities are unimproved, and ultimately discharge into Black Dam located immediately south of Unit 16 West.

3. PROPOSED CONDITIONS

The goal of the drainage improvements within Cabezon Communities is to assure that storm water can be collected and conveyed to minimize flood hazards and protect human life and property. In addition, provisions for water quality enhancement were also considered to be consistent with requirements of the Clean Water Act, NPDES Phase II, and the Black Arroyo Watershed Management Plan (BLWMP).

A drainage conveyance system has been developed for the entire Cabezon Communities development that is shown in Figure No. 2. The overall system consists of storm drain piping, detention pond, arroyo channel lining, water quality features and the continued use of Black Dam. *It is important to note that Tracts 13 & 14 will, under the City approved redevelopment agreement, be conveyed to a third party who*



will be responsible for drainage facilities to serve those two tracts. Due to that agreement, no drainage improvements within those two tracts are included in the Cabezon Communities development documents.

Referring to Figure No. 2 the following permanent facilities are proposed:

1. Offsite flows from Western Hills, north of Cabezon Communities will be collected and conveyed in storm drain piping ranging in size from 48" to 78" to a water quality/detention pond located in Tract 17. The pond will be designed to provide a permanent sediment collection/water quality area with additional detention volume combined with a playing field, similar to the Rosko's field concept. This length of storm drain piping will also collect and convey drainage from Tracts 3, 4, 11, 7A, Western Hills Rd. and portions of Cabezon Blvd. The exact location of the discharge from these tracts to the proposed storm drain is not known at this time.
2. A 48" storm drain pipe will be constructed beginning at the intersection of Cabezon Blvd. and Trailside which will collect drainage from Tract 5A, and portions of Cabezon Blvd. and convey those flows to the detention pond in Tract 17.
3. A water quality/detention pond will be constructed in Tract 17 and incorporated into the park. The pond will provide 16 AF of volume for water quality and extended detention. In addition, for phase I the pond will be enlarged to 25 AF total to meet the storm water discharge requirements proposed in the Phase 1 DMP. Following the completion of the storm drain piping from the pond to the Black Arroyo East Branch, the pond in Tract 17 will be reduced to the 16 AF volume.
4. The water quality/detention pond will discharge into a storm drain pipe ranging in size from 60" to 84", which will convey the flow to the East Branch of the Black Arroyo. This storm drain will also convey flows from Tracts 7B, 15, 16, 18, and 8. The exact location of the discharge from these tracts is not known at this time.
5. Offsite flows from the Black Arroyo East Branch will be collected and directed into a lined channel that begins at the northern boundary of Cabezon Communities and continues to the inlet of Black Dam. The channel will collect drainage flows from Tracts 6, 19, 5B, 1, 2, 9, 10, 20, 21, and portions of Cabezon Blvd.. The exact location of the discharge from these tracts is not known at this time.
6. A 48" storm drain pipe will be constructed along on the north side of Cabezon Blvd. adjacent to the southern boundary of Tract 2 that will collect flows from Tracts 5C and portions of Cabezon Blvd. and discharge into the East Branch of the Black Arroyo.
7. Box culverts, will be constructed to contain storm water under Westside Blvd. discharging into the West Branch of Black arroyo downstream of Westside. Specific dimension and locations of the box culverts will be determined in coordination with the City and SSCAFCA.

8. In addition to the on-site facility, the developer is proposing to expand the existing AMAFCA Black Dam to provide water quality treatment for sediment, floatables and additional extended storage as required. This facility currently provides extended storage for flows from the Black Arroyo and expansion of the central facility, as opposed to additional remote ponds, would minimize ongoing maintenance requirements. The developer will work directly with AMAFCA for approvals to utilize this facility.
9. Drainage from the roadways will be collected and piped to the drainage system as identified in Appendix A. Drainage on Cabezon Blvd will collect in a median swale for additional water quality treatment and then discharged to the appropriate drainage system.

The development is required to provide water quality treatment for the first 0.25 inch of runoff from the Cabezon Development area. Given a total development of 900 acres, 18.75 acre-feet of water quality treatment is required for the Cabezon development. The developer has agreed, however, to construct a total of 44 AF of Water Quality Treatment volume to address flows from a larger drainage area identified in the BLWMP. Specific locations of the water quality features will be provided within the Drainage Management Plans for each phase of development. The developer has platted a drainage easement equal to the Lateral Erosion Envelope (LEE) for the East Branch (outside of Phase 1), a portion of Tributary B, and Arroyo D that provides the mechanism for insuring the water quality features are addressed. Water quality for Phase 1 is included in the Phase 1 DMP and construction documents.

Figure 2 presents an overall graphic display of the conveyance system and anticipated flows for the Cabezon Communities drainage infrastructure. The figure includes a table of all Analysis Points and associated flows and a table of each Tract and allowable discharge. The figure identifies the individual reaches of conveyance system to be constructed with an associated table listing the individual reaches of the conveyance system, description, and identifies the estimated construction cost for that reach. Appendix A lists the individual Tracts within the development and the drainage facilities required to serve those tracts.

4. SPECIAL CONDITIONS

BLACK ARROYO WATERSHED MANAGEMENT PLAN (BLWMP)

The BLWMP drainage model has been revised by ASCG Engineers, under contract to SSCAFCA, to more accurately reflect the land treatments north of Cabezon Communities. Offsite flows conveyed through Cabezon Communities comply with the revised model. Further, drainage flows are adjusted to include

existing and documented on-site ponds on commercial properties north of Cabezon Communities. The model revision and inclusion of existing commercial on-site ponds was approved by SSCAFCA and the Developer at the January 27, 2004 SSCAFCA Special Board meeting.

WATER QUALITY FEATURES

It is the intent of the developer to provide water quality treatment in one location, reducing O&M requirements. As noted in Section 3, Proposed Conditions, Item 8, the developer has begun discussions with AMAFCA to expand the Black Dam in a manner that would include water quality treatment, in lieu of multiple sites within Cabezon. Structures (inlet, outlet etc.) required for this site will be constructed in conjunction with the lowest reach of channel (CHR-1). Excavation to the full required capacity will be completed consistent with development and increased flows from the developed areas.

If expansion of the Black Dam for water quality treatment is unfeasible, the Master Plan proposed water quality features located at various locations along the East Branch of Black Arroyo would be implemented. Exact locations of these facilities cannot be determined until sufficient design work on those adjoining subdivisions is completed. In general, however, it can be assumed that the water quality features within Cabezon would be located within the LEE drainage easement shown on the bulk plat. Specific locations, sizes and descriptions of the water quality features will be submitted for approval in future Phase and subdivision DMPs, prior to the development of those areas.

WATER QUALITY FEATURES IN PARKS

In discussions with the City of Rio Rancho Department of Parks and Recreation it was understood that reasonable park area could be used for storm water quality features as long as the area continues to function as useable park space. If the water quality feature is such that the area is unusable as park space, no park impact fee credits will be allowed on the unusable area.

FACILITY MAINTENANCE

Upon completion and acceptance of the drainage facilities the developer will turn over the ownership, operation and maintenance of the facilities to the appropriate governmental entity, SSCAFCA, the City of Rio Rancho, or AMAFCA. Prior to final acceptance of the drainage facilities, the developer will be responsible for the maintenance of the facilities, including any erosion within the development caused by storm water flows.

"TEMPORARY" DRAINAGE EASEMENTS

In prior discussions with City and SSCAFCA staff, the issue of guarantees that the total facilities would be completed should the developer fail to complete the development was discussed. To address this concern, the developer agreed to plat a drainage easement, equal to the lateral erosion envelope (LEE) on all major arroyos. The LEE extends approximately 200 to 300 feet each side of the East Branch, Arroyo D, and portions of Tributary B of the Black Arroyo, consuming a significant area of developable land. The developer agrees to plat this drainage easement as a "guarantee" that the improvements shown in Figure 2 will be completed, and as improvement are completed the City and SSCAFCA agree to vacate those drainage easements and allow development in those areas.

TEMPORARY DRAINAGE FACILITIES

As development proceeds in the phased manner, some temporary facilities will be required to manage storm water prior to construction of permanent downstream facilities. In Phase I, an additional 9 AF of temporary drainage pond capacity will be provided in the Tract 17 pond until the downstream storm drain is constructed to the East Branch. The temporary detention pond is sized to detain the 5 year storm, additional flow will be piped to the existing natural arroyo on the east side of Trailside Road. Should construction activity begin in Phase II Tracts north of Cabezon Blvd. prior to completion of the East Branch channel lining, temporary ponding will be provided within those tracts or Tract 19. The developer will be responsible for the maintenance of all temporary facilities including any repair due to extensive erosion or sediment within the development area or the Black Dam caused by storm water flows.

The developer is pursuing the establishment of a Public Improvement District (PID) within the Cabezon Community that will provide funding and maintenance of landscaping and other improvements that are outside of the typical maintenance of the public agencies. For example the PID would maintain the landscaping within the linear park along the Black Arroyo East Branch, subdivision entrances, and landscaping adjacent to the major roadways. Alternatively, should the PID prove unfeasible, a Master Homeowners Association is proposed to maintain those landscaped areas.

LOCAL OFF-SITE FLOWS

Local off-site flows from properties within Unit 16 West north and east of Cabezon Communities, existing flows from Golf Course Road and areas east of Golf Course Road (see figure No. 1) will be conveyed through Cabezon Communities from historic entry points.

FEMA FLOODPLAINS

FEMA floodplains shown in Figures 1 and 2 will be removed or revised through the CLOMR/LOMR process by the developer. CLOMR(s) and LOMR(s) will be submitted to FEMA through the City of Rio Rancho, based upon the planned drainage improvements shown in Figure No. 2. The developer understands that building permits will not be issued for lots located in high-hazard areas designated on FEMA Flood Insurance Rate Maps, and will be expeditious in requesting the map revisions.

HYDRAULIC / HYDROLOGIC MODELING

The implementation plan does not repeat modeling presented in the Master Plan or Phase DMPs rather this document, as requested, discusses the general approach to providing drainage facilities and the phasing approach. For detailed hydraulic / hydrologic modeling please refer to the Master Plan and Phase DMPs.

APPENDIX

A

CABEZON COMMUNITIES

DRAINAGE FACILITIES REQUIRED FOR FREE DISCHARGE - BY TRACT -

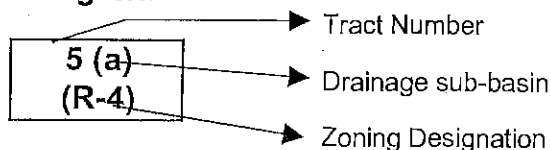
Tract	Required Facilities	Description of facilities required for free discharge
1 (R-1)	CHR-1 CHR-2 CHR-3 CHR-4	Concrete Lined channel from Westside Blvd. to the northern boundary of Tract 5 (CHR-1 thru 4)
2 (R-1)	CHR-1 CHR-2 CHR-3	Concrete Lined channel from Westside Blvd. to the northern boundary of Tract 2 (CHR-1 thru 3)
3 (R-4)	SDR-2 Pond-1 SDR-3 SDR-6 SDR-7	Storm Drain piping in Western Hills(SDR-6, 7), Tract 17(SDR-3), Water Quality Pond and Temporary Storage in Tract 17(WQ/DTP-1),Pond outlet and outlet storm drain discharging to existing Arroyo (SDR-2).
4 (R-4)	SDR-2 Pond-1 SDR-3 SDR-6 SDR-7	Storm Drain piping in Western Hills(SDR-6, 7), Tract 17(SDR-3), Water Quality Pond and Temporary Storage in Tract 17(WQ/DTP-1),Pond outlet and outlet storm drain discharging to existing Arroyo (SDR-2).
5 (a) (R-4)	Pond-1 SDR-5	Storm Drain piping in Cabezon Blvd. and Trailside (SDR-5), Water Quality Pond and Temporary Storage in Tract 17(WQ/DTP-1),Pond outlet and outlet storm drain discharging to existing Arroyo (SDR-2).
5 (b) (R-4)	CHR-1 CHR-2 CHR-3 CHR-4	Concrete Lined channel from Westside Blvd. to the northern boundary of Tract 5 (CHR-1 thru 4)
5 (c) (R-4)	CHR-1 CHR-2 SDR-4	Storm Drain piping in Cabezon Blvd.(SDR-4), Concrete Lined channel from Westside Blvd. to Cabezon Blvd (CHR-1 & 2)
6 (R-4)	CHR-1 CHR-2 CHR-3 CHR-4 CHR-5	Concrete Lined channel from Westside Blvd. to north boundary of Cabezon (CHR-1 thru 5)
7A (R-4)	SDR-2 Pond-1 SDR-3	Storm Drain piping in Tract 17(SDR-3), Water Quality Pond and Temporary Storage in Tract 17(WQ/DTP-1),Pond outlet and outlet storm drain discharging to existing Arroyo (SDR-2).
7B (R-4)	CHR-1 SDR-1	Storm Drain piping from Tract 15 to confluence of East Branch Channel (SDR-1). Concrete Lined channel from Westside Blvd. to confluence of SDR-6 (CHR-1)
8 (R-4)	CHR-1	Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1)
9 (R-4)	CHR-1	Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1)
10 (R-4)	CHR-1	Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1)
11 Comm.	SDR-2 Pond-1 SDR-3	Storm Drain piping in Tract 17(SDR-3), Water Quality Pond and Temporary Storage in Tract 17(WQ/DTP-1),Pond outlet and outlet storm drain discharging to existing Arroyo (SDR-2). Drainage from this Tract discharges at historic rates to Cabezon Blvd.
12 Comm.	BCR-1	Box Culverts from existing culvert in Unser extended under Westside Blvd. (BCR-1)
15 Mixed Use	CHR-1 SDR-1 SDR-2	Storm Drain piping from Tract 15 to confluence of East Branch Channel (SDR-1 & 2). Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1)

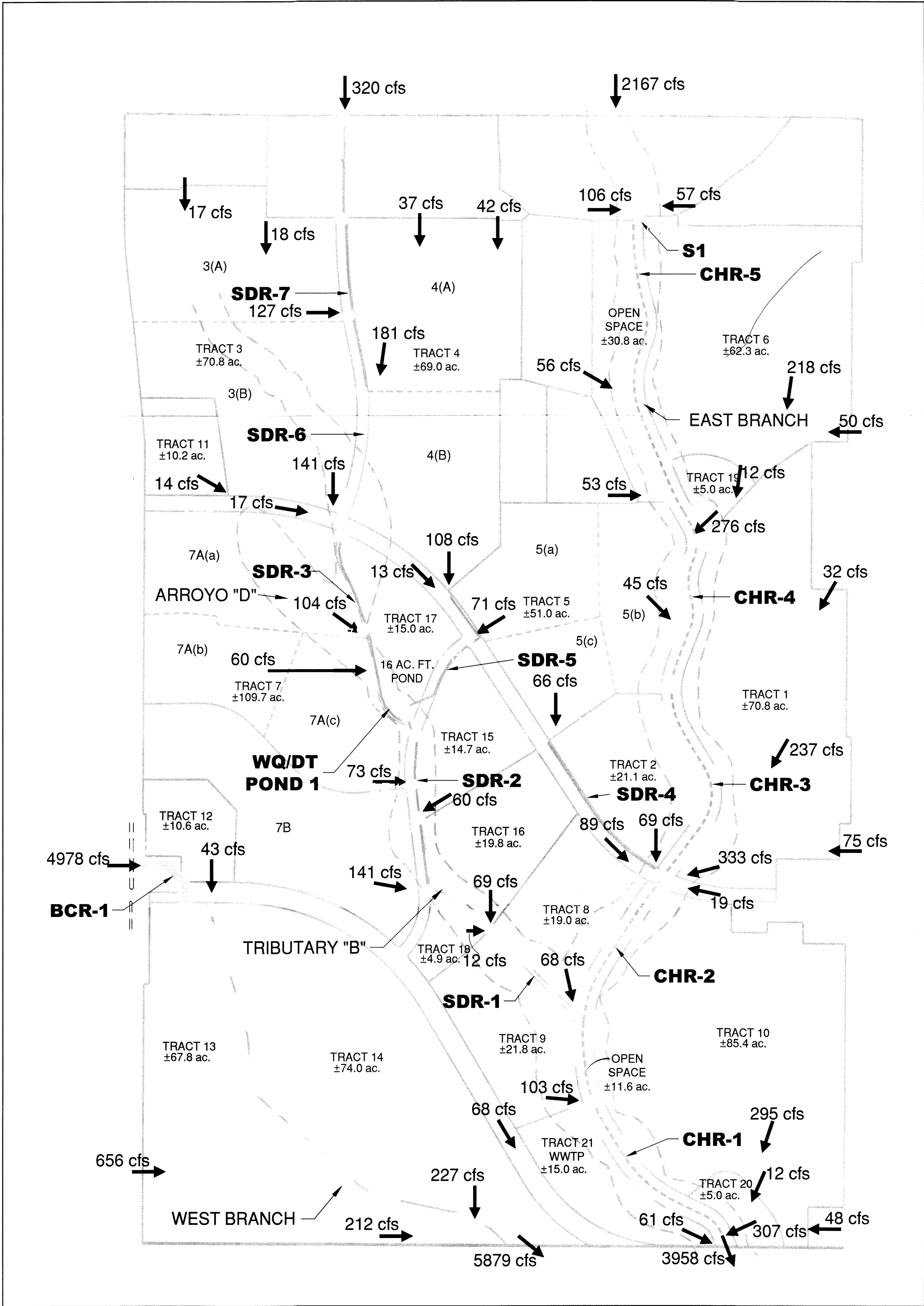
16 School	CHR-1 SDR-1	Storm Drain piping from Tract 16 to confluence of East Branch Channel (SDR-1). Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1)
17 Park	Pond-1 SDR-2	Water Quality Pond and Temporary Storage in Tract 17(WQ/DTP-1), Pond outlet and outlet storm drain discharging to existing Arroyo (SDR-2). <i>Temporary 25 AF pond will remain in place until CHR-1, SDR-1, and SDR-2 are completed. Once completed the pond will be reduced in volume to 16 AF.</i>
18 Park	CHR-1 SDR-1	Storm Drain piping from Tract 16 to confluence of East Branch Channel (SDR-1). Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1)
19 Park	CHR-1 CHR-2 CHR-3 CHR-4	Concrete Lined channel from Westside Blvd. to Tract 19 Park (CHR-1 thru 4)
20 Park	CHR-1	Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1)
21 WWTF	CHR-1	Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1)

Major Roadways

Western Hills	SDR-2 Pond-1 SDR-3 SDR-6 SDR-7	Storm Drain piping in Western Hills(SDR-6, 7), Tract 17(SDR-3), Water Quality Pond and Temporary Storage in Tract 17(WQ/DTP-1), Pond outlet and outlet storm drain discharging to existing Arroyo (SDR-2).
Cabazon west of Western Hills	SDR-2 Pond-1 SDR-3 SDR-6 SDR-7	Storm Drain piping in Western Hills(SDR-6, 7), Tract 17(SDR-3), Water Quality Pond and Temporary Storage in Tract 17(WQ/DTP-1), Pond outlet and outlet storm drain discharging to existing Arroyo (SDR-2).
Cabazon east of Western Hills to Trailside	Pond-1 SDR-5	Storm Drain piping in Cabazon Blvd. and Trailside (SDR-5), Water Quality Pond and Temporary Storage in Tract 17(WQ/DTP-1), Pond outlet and outlet storm drain discharging to existing Arroyo (SDR-2).
Cabazon west of Trailside	CHR-1 CHR-2 CHR-3	Concrete Lined channel from Westside Blvd. to the northern boundary of Tract 2 (CHR-1 thru 3)
Trailside north of AP 14	CHR-1 SDR-1 SDR-2	Storm Drain piping from Tract 15 to confluence of East Branch Channel (SDR-1 & 2). Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1)
Trailside north of AP 14	CHR-1	Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1). Drainage from this reach flows to Westside Blvd.
Westside Blvd.	CHR-1	Concrete Lined channel from Westside Blvd. to confluence of SDR-1 (CHR-1)

Legend





CUMULATIVE, FULLY DEVELOPED FLOWS @ ANALYSIS POINTS

Analysis Point	Flow, cfs
AP1	320
AP2	336
AP3	423
AP4	589
AP5	24
AP6	721
AP7	827
AP8	120
AP9	188
AP10	1100
AP11	497
AP12	502
AP13	535
AP14	631
AP15	693
AP16	752
AP17	64
AP18	2167
AP19	2260
AP20	2578
AP21	2601
AP22	2908
AP23	3650
AP24	3958
AP25	4978
AP26	4976
AP27	5879

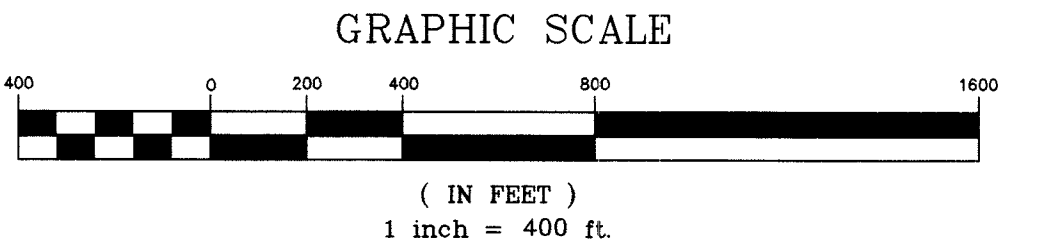
ALLOWED RELEASE RATES BY TRACT

Tract	Allowable Flow, cfs
1	237
2	69
3(TOTAL)	264
3(a)	123
3(b)	141
4(TOTAL)	241
4(a)	133
4(b)	108
5(TOTAL)	182
5(a)	71
5(b)	45
5(c)	66
6	218
7A(TOTAL)	237
7A(a)	104
7A(b)	60
7A(c)	73
7B	141
8	68
9	103
10	295
11	14
12	43
13	212
14	227
15	60
16	69
17	37
18	12
19	12
20	12
21	61

Identifier	Description	Length	Location	Estimated Cost
SDR-1	84-98" SD pipe	1500	Beginning at Trailside Rd. in the platted drainage R-O-W to the Black Arroyo East Branch Confluence	\$725,000.00
SDR-2	60-84" SD pipe	1600	Beginning with the outlet from the Water Quality /Detention pond in Tract 17, south in Trailside Rd. ending at platted drainage R-O-W on north side of Tract 18	\$575,000.00
SDR-3	78" SD pipe	1650	Along Tract 17 Western Boundary from Cabezon Blvd. to Water Quality/Detention pond in Tract 17	\$650,000.00
SDR-4	48/54" SD pipe	1275	In Cabezon Blvd. Along Tract 2 Western Boundary to the Black Arroyo East Branch Confluence	\$380,000.00
SDR-5	48" SD pipe	1275	Beginning in Cabezon Blvd. adjacent to Tract 5A south in Trailside Rd. to Water Quality/Detention pond in Tract 17	\$300,000.00
SDR-6	60/72" SD pipe	1300	In Western Hills Rd. from inlet flows from Tracts 3&4 to Cabezon Blvd.	\$425,000.00
SDR-7	54" SD pipe	1350	In Western Hills Rd. from the outlet of the existing storm drain to inlet flows from Tracts 3&4	\$375,000.00
WQ/DT Pond-1	16 af permanent volume + 9 af temporary volume		Located in Tract 17	
S1	Headwall/control structure		At the northern boundary of Cabezon Communities on the East Branch of Black Arroyo	\$30,000.00
CHR-1	Trapezoidal concrete channel, 10' bottom width, 6' depth. Sides sloped 2:1	2700	In the East Branch of Black Arroyo from a point at the confluence of the East Branch and SDR-6 to Black Dam, and including structures required for the Water Quality Feature at Black Dam	\$1,200,000.00
CHR-2	Trapezoidal concrete channel, 10' bottom width, 5' depth. Sides sloped 2:1	1440	In the East Branch of Black Arroyo from a point at north side of the crossing of Cabezon Blvd. to the confluence of the East Branch and SDR-6	\$480,000.00
CHR-3	Trapezoidal concrete channel, 10' bottom width, 5' depth. Sides sloped 2:1	1800	In the East Branch of Black Arroyo from a point at the pedestrian crossing at the southern boundary of Tract 5 to the crossing of Cabezon Blvd.	\$600,000.00
CHR-4	Trapezoidal concrete channel, 10' bottom width, 5' depth. Sides sloped 2:1	1800	In the East Branch of Black Arroyo from a point parallel to the southern boundary of MLK Elementary School to the pedestrian crossing at the southern boundary of Tract 5	\$600,000.00
CHR-5	Trapezoidal concrete channel, 10' bottom width, 5' depth. Sides sloped 2:1	2610	Beginning at the northern boundary of Cabezon Communities at the Black Arroyo East Branch to a point parallel to the southern boundary of MLK Elementary School	\$870,000.00
BCR-1	Box Culverts		In the West Branch of Black Arroyo at 19th St. (Westside Blvd.) from the existing culverts under Unser Blvd. extending 600' under Westside Blvd. connecting to the existing West Branch of Black Arroyo.	\$1,000,000.00

LEGEND

COMMERCIAL/SCHOOL
RESIDENTIAL
PARK/OPEN SPACE
FEMA 100 YEAR FLOOD PLAINS
LEE LIMITS
7B(b) CABEZON DRAINAGE SUB-BASIN
PROPOSED CHANNEL REACH
PROPOSED CHANNEL REACH

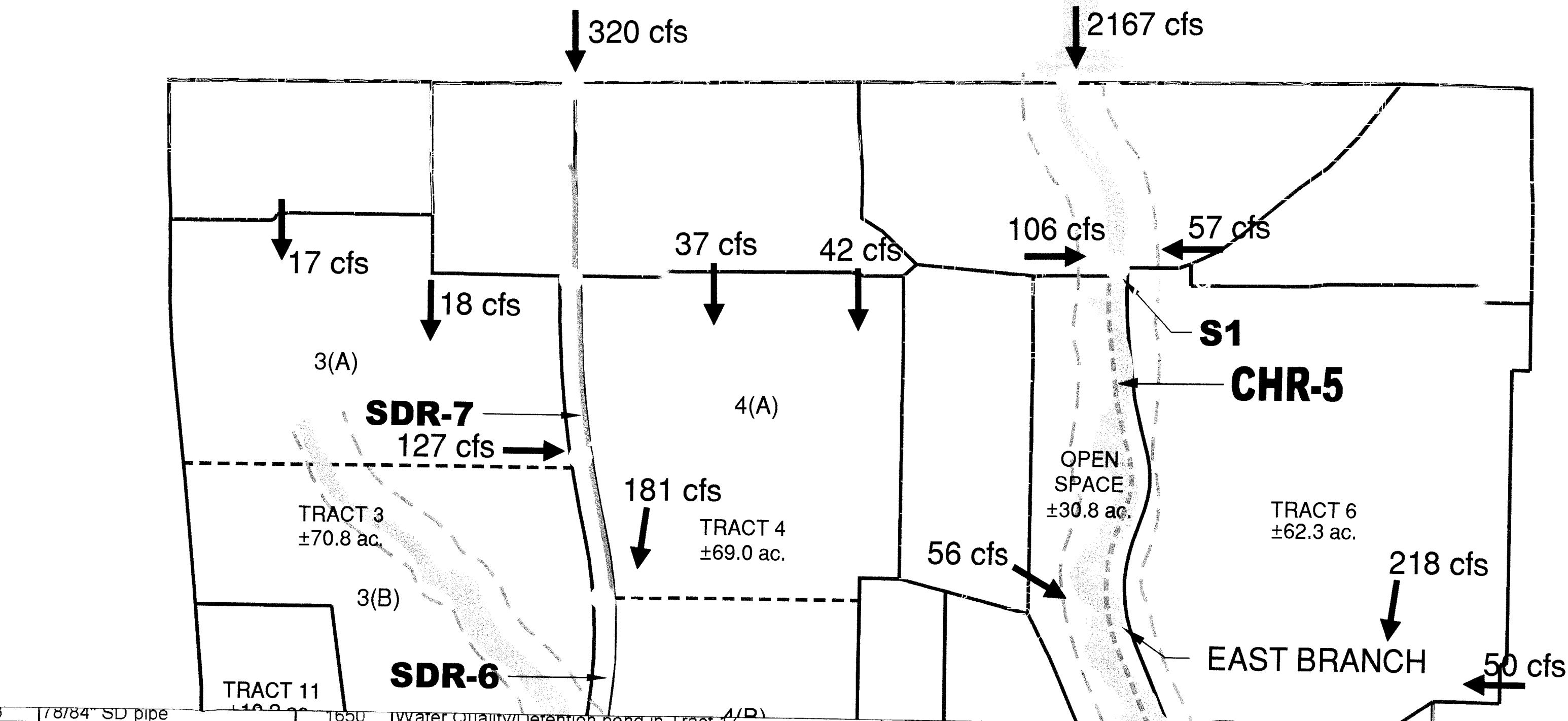


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CABEZON COMMUNITIES DEVELOPMENT - DRAINAGE IMPLEMENTATION PLAN FIGURE 2 - OVERALL DRAINAGE SYSTEM

CUMULATIVE, FULLY DEVELOPE
FLOWS @ ANALYSIS POINTS

Analysis Point	Flow, cfs
AP1	320
AP2	336
AP3	423
AP4	589
AP5	24
AP6	721
AP7	795
AP8	120
AP9	188
AP10	1132
AP11	475
AP12	475
AP13	478
AP14	550
AP15	602
12	45
13	212
14	227
15	60
16	69
17	37
18	12
19	12
20	12
21	61

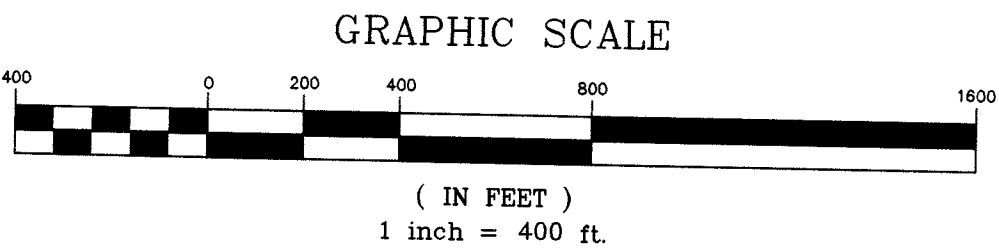


7/8" 84" SD pipe	1650	Water Quality/Detention pond in Tract 17	\$650,000.00
48" SD pipe	1000	Beginning in Cabezon Blvd. adjacent to Tract 5A south in Trailside Rd. to Water Quality/Detention pond in Tract 17	\$300,000.00
60-84" SD pipe	1550	Beginning with the outlet from the Water Quality /Detention pond in Tract 17, south in Trailside Rd. ending at platted drainage R-O-W on north side of Tract 18	\$575,000.00
84-98" SD pipe	1500	Beginning at Trailside Rd. in the platted drainage R-O-W to the Black Arroyo East Branch Confluence	\$725,000.00
25 af permanent volume		Located in Tract 17	
Headwall/control structure		At the northern boundary of Cabezon Communities on the East Branch of Black Arroyo	\$30,000.00
Trapezoidal concrete channel, 10' bottom width, 5' depth. Sides sloped 2:1	2610	Beginning at the northern boundary of Cabezon Communities at the Black Arroyo East Branch to a point parallel to the southern boundary of MLK Elementary School	\$870,000.00
Trapezoidal concrete channel, 10' bottom width, 5' depth. Sides sloped 2:1	1800	In the East Branch of Black Arroyo from a point parallel to the southern boundary of MLK Elementary School to the pedestrian crossing at the southern boundary of Tract 5	\$600,000.00
Trapezoidal concrete channel, 10' bottom width, 5' depth. Sides sloped 2:1	1800	In the East Branch of Black Arroyo from a point at the pedestrian crossing at the southern boundary of Tract 5 to the crossing of Cabezon Blvd.	\$600,000.00
Trapezoidal concrete channel, 10' bottom width, 5' depth. Sides sloped 2:1	1440	In the East Branch of Black Arroyo from a point at north side of the crossing of Cabezon Blvd. to the confluence of the East Branch and SDR-6	\$480,000.00
Trapezoidal concrete channel, 10' bottom width, 6' depth. Sides sloped 2:1	2700	In the East Branch of Black Arroyo from a point at the confluence of the East Branch and SDR-6 to Westside Blvd.	\$1,200,000.00
4 Box Culverts, 10'X8'	600 (ea.)	In the West Branch of Black Arroyo at 19th St. (Westside Blvd.) from the existing culverts under Unser Blvd. extending 600' under Westside Blvd. connecting to the existing West Branch of Black Arroyo.	\$1,000,000.00

LEGEND

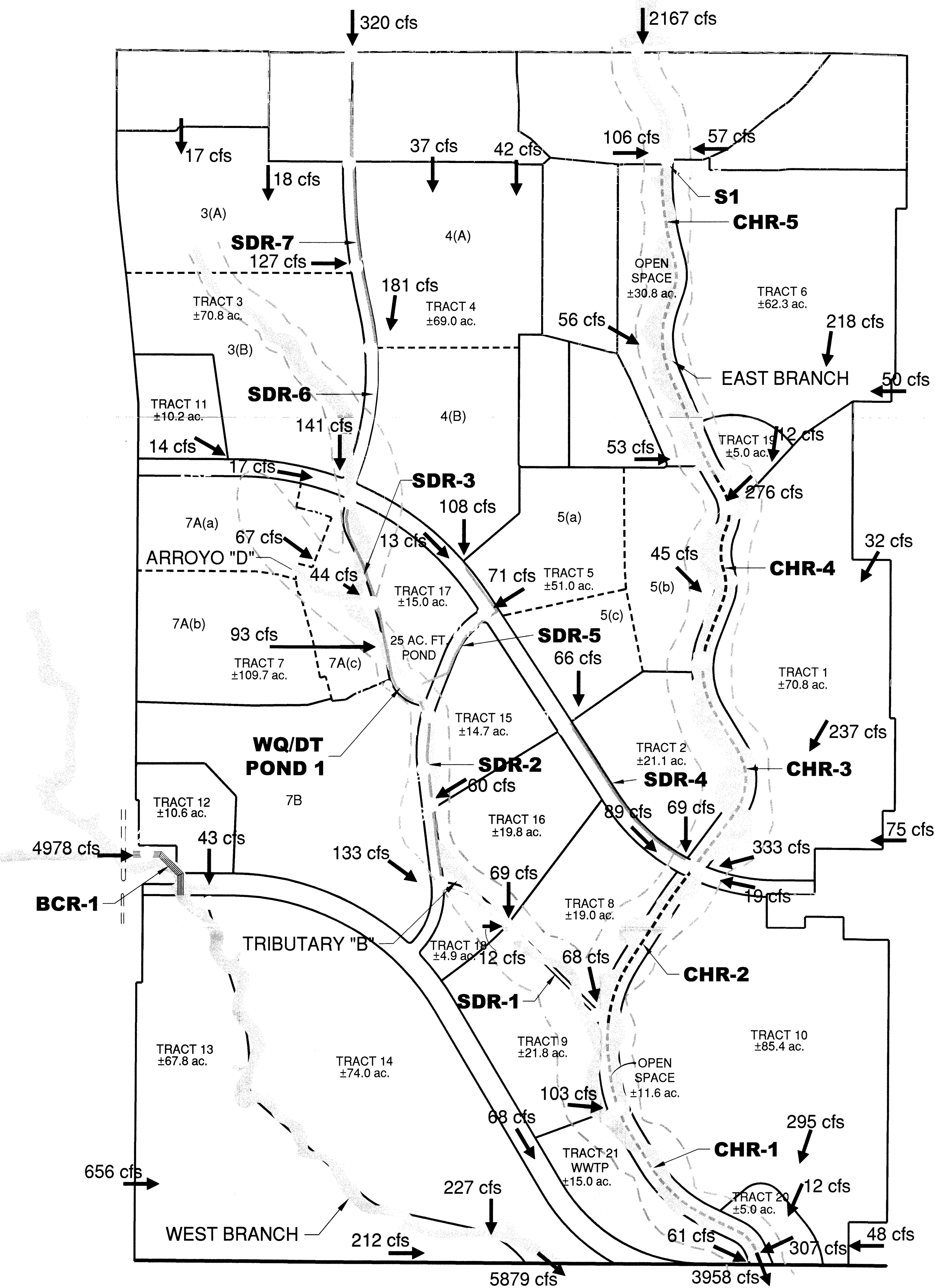
	COMMERCIAL/SCHOOL
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	PARK/OPEN SPACE
	FEMA 100 YEAR FLOOD PLAINS
	LEE LIMITS
	7B(b) CABEZON DRAINAGE SUB-BASIN
	PROPOSED CHANNEL REACH
	PROPOSED CHANNEL REACH

NOTE: REVISED
7/20/04 TO REFLECT
UPDATED
SUBDIVISION
BOUNDARIES



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CABEZON COMMUNITIES
DEVELOPMENT - DRAINAGE
IMPLEMENTATION PLAN
FIGURE 2 - OVERALL
DRAINAGE SYSTEM



CUMULATIVE, FULLY DEVELOPED
FLOWS @ ANALYSIS POINT

ALLOWED RELEASE RATES BY TRACT

Tract	Allowable Flow, cfs
1	237
2	69
3(TOTAL)	264
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5(b)	45
5(c)	66
6	218
7A(TOTAL)	204
7A(a)	67
7A(b)	93
7A(c)	44
7B	133
8	68
9	103
10	295
11	14
12	43
13	212
14	227
15	60
16	69
17	37
18	12
19	12
20	12
21	61

LEGEND

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