



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 22, 1996

**Craig Hoover, PE
Bohannon Huston, Inc.
7500 Jefferson NE
Albuquerque, NM 87109**

**RE: ENGINEER'S CERTIFICATION FOR UNIT 1 HIGHLANDS @ H.D. (E-23/D3C)
RECEIVED JANUARY 16, 1996 FOR FINANCIAL GUARANTY RELEASE
ENGINEER'S STAMP DATED 1-12-96**

Dear Mr. Hoover:

Based on the information included in the submittal referenced above, City Hydrology accepts the Engineer's Certification of the Desiltation Ponds on Tracts 15E & 15F. Contact Terri Martin to obtain the Financial Guaranty Release for City Project Number 5097.90.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,

**John P. Curtin, P.E.
Civil Engineer, Hydrology**

**c: Andrew Garcia
Terri Martin, CPN 5097.90**



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 1, 1995

Kevin Patton
Bohannon Huston, Inc.
7500 Jefferson NE
Albuquerque, NM 87109

RE: ROUGH GRADING APPROVAL FOR TRACT 15A, UNIT 1 OF HIGHLANDS AT
HIGH DESERT SUBDIVISION (E-23/D3C) ENGINEER'S STAMP DATED
1/24/95

Dear Mr. Patton:

Based upon the information supplied in your 1/25/95 submittal, the referenced project is approved for Rough Grading Permit. Please check with Environmental Health Division on whether or not a Topsoil Disturbance Permit will be required.

If I can be of further assistance, feel free to contact me at 768-3622.

Sincerely,

Scott Davis
PWD, Hydrology Division

c: Doug Collister
Larry Caudill
Andrew Garcia
File



City of Albuquerque

P. O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103
PUBLIC WORKS DEPARTMENT

April 22, 1997

CERTIFICATE OF WORK ORDER COMPLETION

Doug Collister
High Desert Investment Corp.
13000 Academy Road NE
Albuquerque, NM 87111

**RE: HIGHLANDS AT HIGH DESERT UNIT 2-A SUBDIVISION PROJECT NO.
5097.92 (MAP NO. E-23)**

Dear Sir:

This is to certify that the City of Albuquerque accepts Project No. 5097.92 as being completed according to approved plans and construction specifications. Please be advised this certificate of completion and acceptance shall only become effective upon final plat approval and filing in the office of the Bernalillo County Clerk's Office.

The project is described as follows:

- The project consisted of installation of utilities sanitary sewer and water. Also included was street related work, curb and gutter, paving, and striping on Buffalograss from Canada del Oso to the cul-de-sac terminus as shown on sheets 1 thru 10 of the City approved project plans.
- A drainage crossing structure built on Buffalograss at the AMAFCA easement.

95021793

8920

9501049

EASEMENT AGREEMENT

This Easement Agreement, between High Desert Investment Corporation, a New Mexico corporation ("Grantor"), whose address is P.O. Box 91976, Albuquerque, New Mexico 87199, the City of Albuquerque, a New Mexico municipal corporation ("City"), whose address is P. O. Box 1293, Albuquerque, New Mexico 87103 and High Desert Residential Owners Association, Inc., a New Mexico non-profit corporation, whose address is P. O. Box 91976, Albuquerque, New Mexico 87199 ("Owners Association").

1. Grant of Easement. Grantor grants to City an easement for the conveyance of surface storm water (the "Easement") on, over, across and through the following described property (the "Property"):

Those portions of Tract 15A, High Desert as indicated in the Plat of Tract 15A, 15B, 15C and 15D at High Desert filed February 9, 1995 in Map Book 95C, Folio 46, records of Bernalillo County, New Mexico (the "Plat") which are (i) outside of the building envelopes for the lots located in such Tract 15A as indicated on recorded plats of Tract 15A from time to time (the "Building Envelopes") and (ii) outside the AMAFCA drainage easements in such Tract 15A indicated on the Plat

STATE OF NEW MEXICO
COUNTY OF BERNALILLO
FILED FOR RECORD

1995 MAR -3 PM 12:10

BK 95-58920-1
JUDY D. WOOD
CO. CLERK
J. Jarama

and grants to Owners Association and the City (to the extent necessary to exercise its rights under this Easement Agreement) the right to maintain and repair the Property and the Easement and the right to remove trees, bushes, undergrowth and any other obstacles upon the Property if such items interfere with the appropriate use or function of the Easement.

2. Grantor's, Owners Association's and Owner's Responsibility for Easement. Grantor, Owner's Association and the Owner of portions of the Property ("Owner" or "Owners"), (Grantor and Owners only as to the portion of the Property owned thereby), will be responsible for conveying any storm water flows across the Property in a controlled manner to ensure the flows do not result in substantial damage to the Property, adjoining properties or downstream properties. Grantor, Owners Association and Owners (Grantor and Owners only as to the portion of the Property owned thereby) will be responsible for conveying all flows to the Property from the City's adjoining right-of-way in a controlled manner to ensure the flows do not result in substantial damages to the Property, adjoining properties or downstream properties. Grantor, Owners Association and Owners, (Grantor and Owners only as to the portions of the Property owned thereby), will be responsible for constructing drainage improvements upon, maintaining, repairing and modifying the Easement and the Property, and if City requires, removing improvements constructed on the Easement or the Property ("Maintenance and Repair"), all in accordance with City standards including but not limited to the Drainage Reports and Drainage Plans for the tracts subject to the Easement which Drainage Reports and Drainage Plans are approved by City from time to time. Grantor, Owners Association and Owners (Grantor and Owners only as to the portions of the Property owned thereby) will be responsible for all costs of the Maintenance and Repair under

this Agreement. Neither Grantor, nor Owners, nor Owners Association will permit the Easement to constitute a hazard to the health or safety of the general public or to interfere with City's use of City's adjoining property. The Maintenance and Repair of the Easement and Property will be in accordance with standards required by City per the relevant approved Drainage Reports and Drainage Plans for Tract 15A, High Desert. Grantor, Owners Association and Owners (Grantor and Owners only as the portion of the Property owned thereby) covenant that all Maintenance and Repair under this Agreement and any drainage improvements constructed on the Easement and the Property will not result in substantial damage to adjoining or downstream properties and the Easement and the Property and will conform with all applicable laws, ordinances and regulations. Each Owner, only as to the portion of the Property owned thereby, will be responsible to maintain any walkways, driveways or paths crossing the Property.

3. Reserved Rights. Grantor reserves to itself, and to its successors and assigns, all rights accruing from the ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of and activities of the Property that are not expressly prohibited by or inconsistent with Chapter 14, Article 5, Revised Ordinances of the City of Albuquerque (1994) (the "Drainage Ordinance") and the purpose of the Easement. Without limiting the foregoing, Grantor will have and expressly reserves the following right subject to

written approval by City, which approval will not be unreasonably withheld:

A. The right to grant easements over portions of the Property to the appropriate parties as necessary for underground utilities including but not limited to water, sewer, gas, electricity, telephone and cable t.v.;

B. The right to locate and pave walkways, driveways and paths across the Property;

C. The right to locate, install and maintain on the Property landscaping and related irrigation facilities or structures; and

D. The right to grant easements to Owners Association for purposes of landscaping and irrigation of landscaping on the Property and the maintenance of such landscaping and irrigation facilities.

4. Maintenance and Repair of City Property. In addition to its responsibilities for Maintenance and Repair with respect to the Easement and the Property, Grantor, Owners Association and Owners (Grantor and each Owner only as to those portions adjacent to the portion of the Property owned thereby) will also be responsible to perform Maintenance and Repair (the term "Maintenance and Repair" hereafter meaning Maintenance and Repair to the Easement, Property and City Property) for those portions of City's property within Tract 15A, High Desert subject to the Easement from the back of the curbs of any streets located within City rights-of-way to the rights-of-way boundary lines

(the "City Property") to ensure the flows do not result in substantial damage to the Property, adjoining properties, downstream properties or the City Property. Grantor, Owners Association and Owners (Grantor and each Owner only as to those portions adjacent to the portion of the Property owned thereby) will be solely responsible for all costs for Maintenance and Repair related to the City Property. The Maintenance and Repair of the City Property will be in accordance with City standards including but not limited to the Drainage Reports and Drainage Plans for the tracts subject to the Easement which Drainage Reports and Drainage Plans are approved by City from time to time.

5. Role of Owners Association and Owners. All parties recognize that all responsibility for Maintenance and Repair provided for in this Agreement, although the obligation of Grantor, Owners Association and Owners (Grantor and each Owner only as such maintenance relates to the portion of the Property owned thereby), will be primarily the responsibility of Owners Association and secondarily the responsibility of Grantor and the Owners. Owners Association will be the primary and initial responsible party and, except as required in this paragraph, City will use its good faith efforts, but be under no obligation, to require performance first by Owners Association of any Maintenance and Repair or other action required under this Agreement. City will use its good faith efforts, but be under no obligation, to only require performance by Grantor or each Owner (as to Grantor's or such Owner's portion of the Property owned)

or Grantor and the Owners collectively in the following instances: (i) Owners Association, after notice and opportunity to act pursuant to this Agreement, has failed to perform the Maintenance and Repair required under this Agreement or (ii) Owners Association, pursuant to its governing documents, has ceased to exist or function.

6. Limitation of City's Liability. Except any damage resulting from the negligent acts or errors or omissions of City, City will have no responsibility or liability resulting from or arising in connection with (i) any storm drainage on the Property, the Easement or the Building Envelopes; (ii) any Maintenance and Repair performed on the Property or the Easement or the City Property by Grantor, Owner's Association, any Owner or the City (iii) any damage to any property, structures or improvements located on the Property or within the Building Envelopes caused by any storm drainage or any Maintenance and Repair (iv) any damage to any portion of the Property or Building Envelopes owned by Grantor or Owner caused by any storm drainage or any Maintenance and Repair or (v) any inspection performed by City pursuant to Section 8, below.

7. Warranties. Grantor covenants and warrants that it is the owner in fee simple of the Property and that it has a good lawful right to convey the Property or any part thereof and that the Grantor will forever warrant and defend the title to the Property against all claims from all persons or entities.

8. City's Right of Entry; Indemnification. City has the right to enter upon the Property or any portion thereof to perform inspections of the Easement or Property it deems appropriate, and will make good faith efforts, but be under no obligation, to make such entry at reasonable times, upon 10 (ten) days written notice to the then current Owners of the Property to be entered and Owners Association.

9. Demand for Maintenance or Repair; Failure to Perform by Owners Association.

A. If City determines that Owners Association has not adequately performed its obligations under this Agreement relating to the Property, the Easement or the City Property, City, will use good faith efforts, but be under no obligation, to, as its first action, send written notice ("Notice") to Owners Association requiring Owners Association to perform the Maintenance and Repair of the Easement or Property or City Property, or remove any facilities therein, within thirty (30) days ("Deadline") of receipt of the Notice, as provided under this Agreement or if such Maintenance and Repair is not possible within thirty (30) days, to commence and diligently pursue such Maintenance and Repair within such thirty (30) day period. Owners Association will comply promptly with the requirements of the Notice at Owners Association's sole expense.

B. If Owners Association fails to comply with the terms of the Notice by the Deadline, City may then send written notice to Grantor and Owners who own those portions of

the Property affected (the "Notice to Owners") requiring each of Grantor and such Owners (as to the portion of the Property owned thereby) to perform the Maintenance and Repair of the Easement or Property or City Property, or remove any facilities therein, within thirty (30) days ("Owners Deadline") of receipt of the Notice to Owners, as provided under this Agreement or if such Maintenance and Repair is not possible within thirty (30) days, to commence and diligently pursue such Maintenance and Repair within such thirty (30) day period. Grantor and Owners will comply promptly with the requirements of the Notice at Grantor's and Owner's sole expense (Grantor and each Owner as to the portion of the Property owned thereby).

10. Failure to Perform by Owners and Emergency Work by City.

A. If (i) Owners Association fails to comply with the terms of the Notice by the Deadline and subsequently Grantor or Owners fail to comply with the terms of the Notice to Owners by the Owners Deadline, or (ii) if the City determines before the Deadline or Owners Deadline that an emergency condition exists, that requires immediate action, City may perform the Maintenance and Repair indicated in the Notice or Notice to Owners itself. City may assess Grantor and Owners (Grantor and each Owner only as to that portion of the Property owned thereby and affected) for the cost of the work and for any other expenses or damages which result from the emergency condition or Grantor's or Owners' failure to perform under the

terms of the Notice to Owners. Grantor and each Owner will promptly pay City the amount assessed as appropriate for the portions of the Property owned thereby. If Grantor or an Owner fails to pay City within thirty (30) days after the City gives Grantor or such Owner written notice of the amount due, City may impose a lien against that portion of Property owned by Grantor or Owner, which lien will be imposed and foreclosed in the manner provided for in Sections 3-36-1 through 3-36-6 NMSA 1978. If feasible given the emergency condition, City will consult with Owners Association prior to Maintenance and Repair activity or work by City at the Property or City Property, with the understanding that Owners Association desires to minimize the use of concrete, rip rap and soil cement.

B. If at any time City determines in its sole discretion that a serious life-threatening or extensive property-threatening emergency situation exists at the Property, City may perform the Maintenance and Repair or any other work it determines to be reasonably necessary to abate the emergency situation. City may assess Grantor and the Owners (Grantor and each Owner only as to that portion of the Property owned thereby and affected) for the cost of the Maintenance and Repair and work and for any other expenses or damages which result from the emergency situation. Grantor and each Owner will promptly pay City the amount assessed, as appropriate for the portions of the Property owned thereby. If Grantor or an Owner fails to pay City within thirty (30) days after City gives such Owner written

notice of the amount due, City may impose a lien against that portion of the Property owned by Grantor or Owner, which lien will be imposed and foreclosed in the manner provided for in Sections 3-36-1 through 3-36-6 NMSA 1978. If feasible given the emergency condition, City will consult with Owners Association prior to Maintenance and Repair activity or work by City at the Property or City Property, with the understanding that Owners Association desires to minimize the use of concrete, rip rap and soil cement.

11. Liability of City for Repair after Notice or as a Result of Emergency. City will not be liable to Grantor, Owners Association or any Owner for any damages resulting from City's repair or maintenance following Notice to Owners Association or Notice to Owners as required in this Agreement or in an emergency unless the damages are the result of the reckless conduct or negligence of City.

12. Insurance.

A. General Conditions. Owners Association will procure and maintain in full force and effect during the term of this Agreement such insurance as required in this section. City will be named as an additional insured on the policies of insurance. Policies of insurance will be written by companies authorized to write such insurance in New Mexico, and they will be in a form satisfactory to City and properly filed and approved by the Superintendent of Insurance, State of New Mexico. The

insurance may be written in one or more policies. Owners Association will:

(1) Include any and all contractors and subcontractors performing any work on the Property (the "Contractors and Subcontractors") in its insurance policies; or

(2) Require the Contractors and Subcontractors to secure insurance to protect itself against all hazards enumerated herein that are not covered by Owners Association's policies.

(3) All certificates of insurance (or policies) will provide that thirty (30) days written notice be given to the Director of Risk Management, City of Albuquerque, P.O. Box 1293, Albuquerque, New Mexico 87103, before a policy is cancelled, materially changed or not renewed. A certificate or policy that states that failure to give such notice imposes no obligation on the insurance company is unacceptable to City.

(4) Owners Association will not violate the terms or prohibitions of insurance policies required to be furnished by Owners Association. Owners Association will promptly notify City of any claim or loss exceeding the amount of the deductible under such insurance policies, and certify that proper notice has been given the appropriate insurance carrier.

B. Approval of Insurance. Even though a "Notice to Proceed" may have been given, Owners Association will not permit any Contractor or Subcontractor to begin any work under this Agreement until the required insurance has been obtained and

the proper certificates (or policies) filed with City. Neither approval nor failure to disapprove certificates, policies or the insurance by City will relieve Owners Association or any Contractor or Subcontractor of full responsibility to maintain the required insurance in full force and effect.

C. Commercial General Liability Insurance.

Owners Association will procure and maintain during the term of this Agreement a comprehensive general liability insurance policy with liability limits in amounts not less than \$1,000,000 combined single limit of liability for bodily injury, including death, and property damage in any one occurrence. Said policies of insurance must include coverage for all operations performed by Owners Association under this Agreement, including coverage for collapse (C), explosion (X) and underground (U) liability coverage, and contractual liability coverage which will specifically insure the indemnification provisions of this Agreement.

D. Owners and Contractors Protective Liability Insurance. Owners Association shall procure and maintain during the term of the Easement and this Agreement, an owners and contractors protective liability insurance policy with liability limits in amounts not less than \$1,000,000 combined single limit of liability bodily injury, including death, and property damage in any one occurrence.

13. Indemnification. Grantor indemnifies and saves City, its officials, agents and employees harmless from all

claims, actions, omissions, suits and proceedings arising out of or, resulting from Grantor's Maintenance and Repair or use of the Easement or Property or City Property, except those resulting from or caused by the negligent acts or reckless misconduct of City. Owners Association indemnifies and saves City, its officers, agents and employees from all claims, actions, suits and proceedings arising out of, or resulting from Owners Association's Maintenance and Repair or use of the Easement and Property or City Property, except those resulting from or caused by the negligent acts or reckless misconduct of City. 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. The indemnification of High Desert Investment Corporation as Grantor under this Section is specifically limited as set forth in Section 24 of this Agreement.

14. Release of Agreement and Termination of Easement.

This Agreement may be released and the Easement terminated or vacated if the Easement is no longer required for the protection

of the public health, safety and welfare, by City filing a "Notice of Release" and vacation action required per the Subdivision Ordinance with the Bernalillo County Clerk or by following the then current process for the release, termination or vacation of an easement. The Notice of Release must be signed by City's Chief Administrative officer, or its designee, and the approval of the City Hydrologist must be endorsed thereon. Upon termination or vacation of the Easement, ownership of the Easement will revert to and revest in Grantor, its successors and assigns, as fully and completely as if the grant of the Easement had never been executed by Grantor and the Easement will then become void. If requested, City will convey Easement to Grantor, its successors and assigns by quit claim deed.

15. Assessment. Nothing in this Agreement will be construed to relieve Grantor, its heirs, assigns, and successors from an assessment against the Property for improvements to the Property under a duly authorized and approved Special Assessment District.

16. Notice. For purposes of giving formal written notice to Owners Association, Owners Association's address is:

High Desert Residential Owners Association, Inc.
P. O. Box 91976
Albuquerque, New Mexico 87199

Notice may be given to the Owners Association either in person or by mailing the notice by first class U.S. mail, postage paid. Owners Association may change its address by giving written notice of the change by Certified Mail, return

receipt requested, to the City Public Works Department, P. O. Box 1293, Albuquerque, New Mexico 87103. For purposes of giving formal written notice to each Owner, each Owner's address is that address found on the County of Bernalillo, New Mexico's current property tax rolls. Notice may be given to each Owner either in person or by mailing the notice by first class U.S. mail, postage paid.

17. Binding on Grantor's Property. The Easement and obligations contained herein will be binding on Grantor, its assigns and successors and on the Property and will constitute covenants running with title to the Property until released by the City. The covenants and obligations of Owners Association set forth herein will be binding on Owners Association, its heirs, personal representatives, assigns and successors.

18. Entire Agreement; Governing Law. This Agreement contains the entire agreement of the parties and supersedes any and all other agreements or understanding, oral or written, whether previous to the execution hereof or contemporaneous herewith regarding this subject matter. This Agreement will be governed by and interpreted in accordance with the laws of the State of New Mexico.

19. Changes to Agreement. Changes to this Agreement will not be binding unless made in writing, signed by all parties.

20. 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.

21. 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.

22. No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

23. No Rights Granted or Conferred. This Agreement and the Easement are not intended to and do not grant or confer rights to any utilities on the public or confer any benefits as third party beneficiaries except those rights specifically granted and conferred herein.

24. High Desert Investment Corporation. The rights, obligations and liabilities of High Desert Investment Corporation, as Grantor or otherwise under this Agreement will automatically cease as to a portion or lot of the Property upon the transfer or conveyance of such portion or lot of the Property by High Desert Investment Corporation to a subsequent Owner. Upon such transfer or conveyance, High Desert Investment Corporation will relinquish its rights and will be released from any obligation or liability under this Agreement as to the portion or lot conveyed.

25. Assignment. Owners Association may assign its rights and obligations, including obligations to perform any

Maintenance and Repair, under this Agreement but only to a person or entity capable of performing such obligations and acceptable to City. Provided, however, that this Section will not limit any party's ability to obtain a contractor to perform the party's maintenance obligations under this Agreement.

Dated: 3/2/95, 1995.

GRANTOR:
HIGH DESERT INVESTMENT
CORPORATION, a New Mexico
corporation

By Dan Hallist
Its President
Dated 2-27-95
By Richard A. Ellum
Its Treasurer
Dated 2-27-95

CITY OF ALBUQUERQUE

By [Signature]
Its [Signature]
Dated 3/2/95
KJC 3/2/95

OWNERS ASSOCIATION:
 HIGH DESERT RESIDENTIAL OWNERS
 ASSOCIATION, INC., a New Mexico
 non-profit corporation

By *Camela G. Scanlon*
~~*Donna H. Collister*~~

Its *President*

Dated *2-27-95*

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

This instrument was acknowledged before me on
February 27th, 19*95*, by *Donna H. Collister*,
President of High Desert Investment Corporation, a New
 Mexico corporation.

Donna H. Collister
 Notary Public

My commission expires:

7-14-98

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

This instrument was acknowledged before me on
February 27th, 1995, by Richard M. Elkins,
Treasurer of High Desert Investment Corporation, a New
 Mexico corporation.

Linda J. Miles
 Notary Public

My commission expires:

7-14-98

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

This instrument was acknowledged before me on
February 27th, 1995, by Pamela J. Scanlon,
President of High Desert Residential Owners
 Association, Inc., a New Mexico non-profit corporation.

Linda J. Miles
 Notary Public

My commission expires:

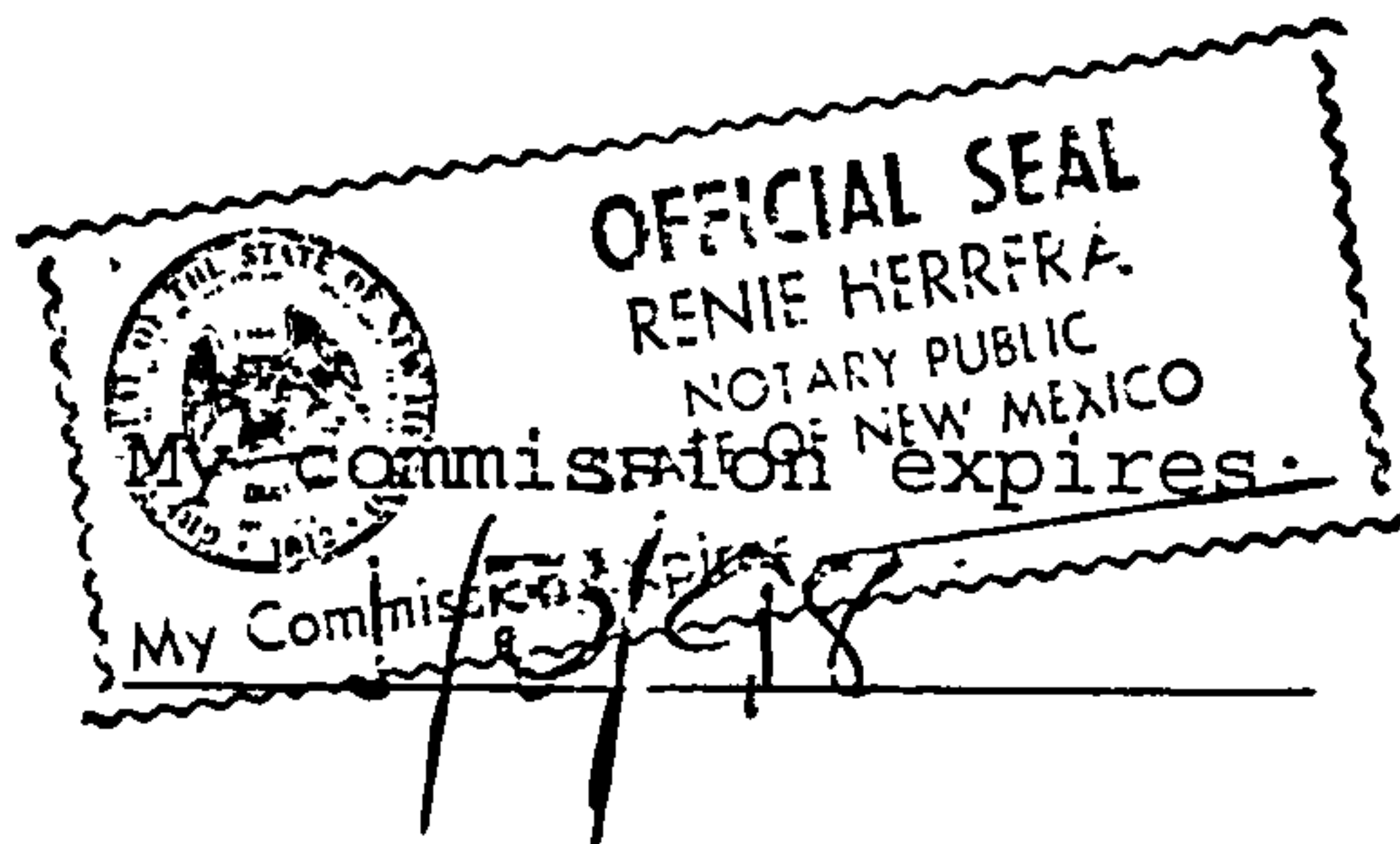
7-14-98

8939

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

This instrument was acknowledged before me on
4 March 2, 1995, by Lawrence Pae,
Chief Admin Officer of the City of Albuquerque, a New Mexico
municipal corporation.



Renie Herrera
Notary Public

109722

CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY)

2/27/95

PRODUCER

Talbot Agency, Inc.
P.O. Box 31670
Albuquerque, NM 87190-1670

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE **8940**

CODE

SUB-CODE

INSURED

High Desert Res. Owners Assoc.
P.O. Box 91976
Albuquerque NM 87199

COMPANY LETTER **A** Fireman's Fund Insurance Cos.

COMPANY LETTER **B**

COMPANY LETTER **C**

COMPANY LETTER **D**

COMPANY LETTER **E**

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	ALL LIMITS IN THOUSANDS	
A	GENERAL LIABILITY	MXX80594122	3/30/94	3/30/95	GENERAL AGGREGATE	2000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY				PRODUCTS-COMP/ OPS AGGREGATE	2000
	<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR.				PERSONAL & ADVERTISING INJURY	1000
	<input type="checkbox"/> OWNER'S & CONTRACTOR'S PROT.				EACH OCCURRENCE	1000
					FIRE DAMAGE (ANY ONE FIRE)	50
					MEDICAL EXPENSE (ANY ONE PERSON)	5
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT	
	<input type="checkbox"/> ANY AUTO				BODILY INJURY (PR. PER.)	
	<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (PR. ACC.)	
	<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE	
	<input type="checkbox"/> HIRED AUTOS					
	<input type="checkbox"/> NON-OWNED AUTOS					
	<input type="checkbox"/> GARAGE LIABILITY					
	EXCESS LIABILITY				<input type="checkbox"/> EACH OCCURRENCE	AGGREGATE
	<input type="checkbox"/> OTHER THAN UMBR. FORM					
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY	
					(EACH ACCIDENT)	
					(DISEASE-POL. LIM.)	
					(DISEASE-EA. EMPL.)	
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

CERTIFICATE HOLDER IS ADDITIONAL INSURED.

THE FOLLOWING LIAB. COVERAGES ARE PROVIDED: OWNER'S & CONTRACTOR'S,
CONTRACTUAL, XCU.

CERTIFICATE HOLDER

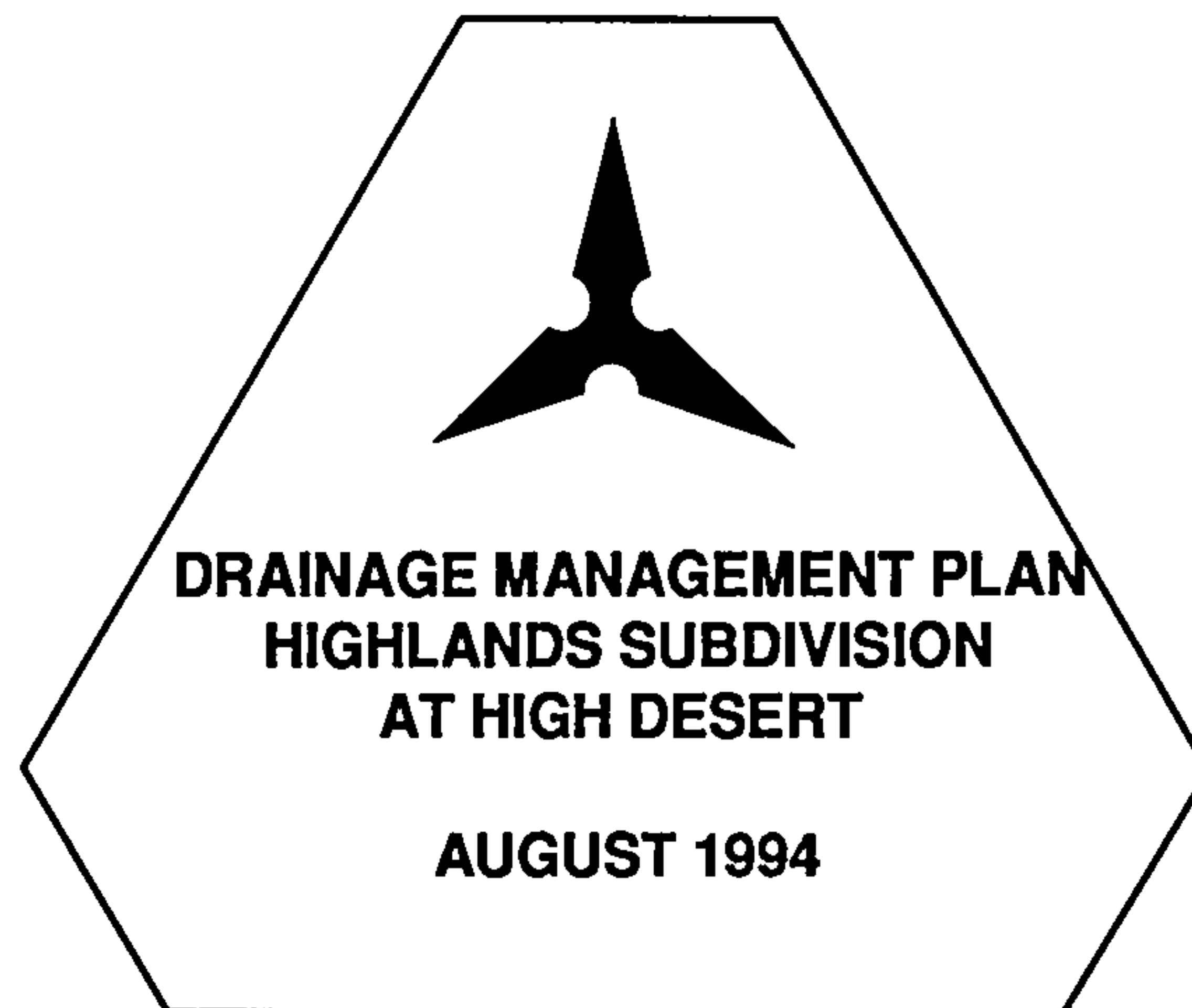
CITY OF ALBUQUERQUE
DIRECTOR OF RISK MANAGEMENT
P.O. BOX 1293
ALBUQUERQUE, NM 87103

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT

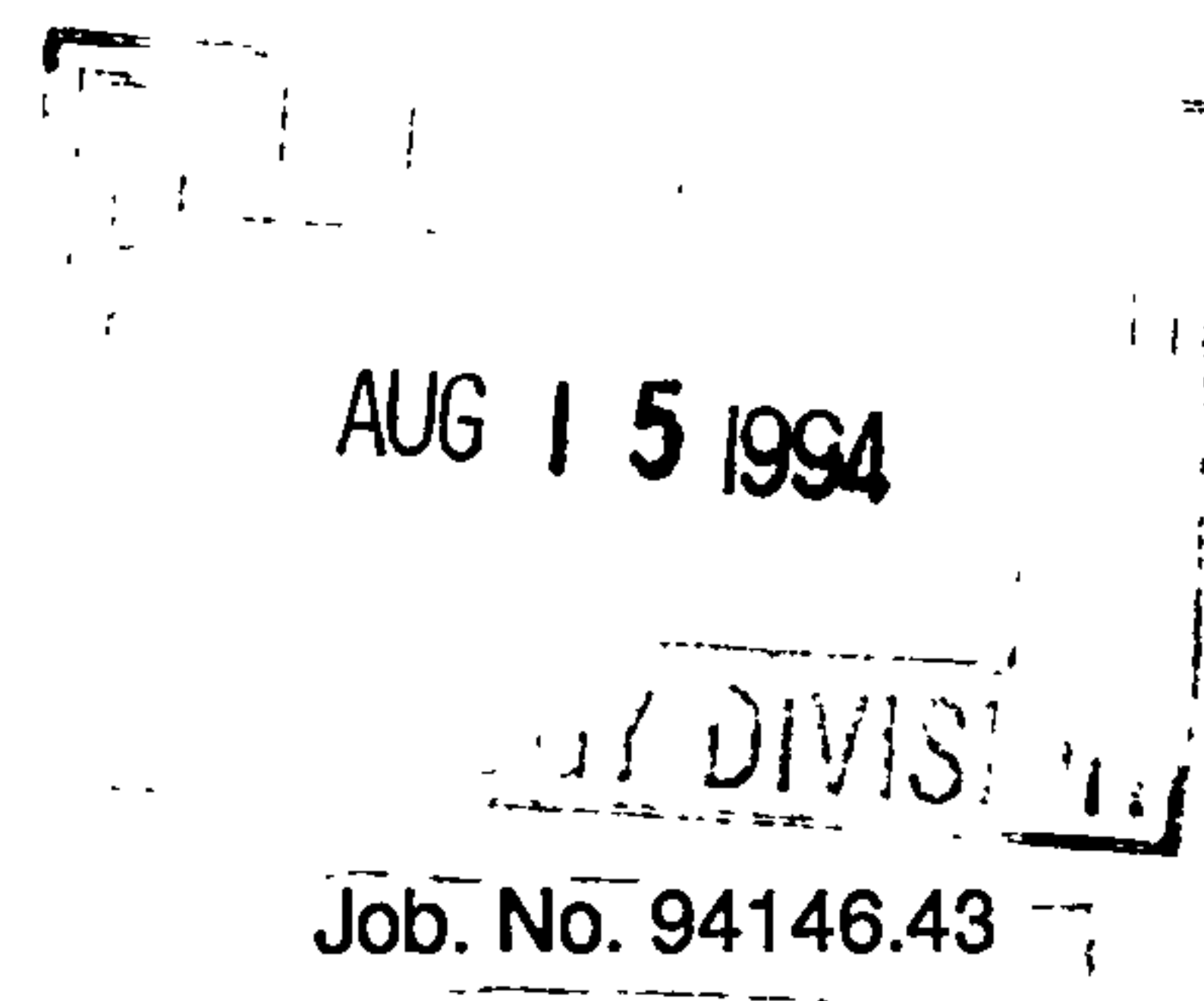
AUTHORIZED REPRESENTATIVE

Robert L. MacBee



THE HIGHLANDS SUBDIVISION HYDROLOGY AND DESIGN REPORT

Prepared for:
**HIGH DESERT INVESTMENT CORPORATION
6400 WYOMING BOULEVARD
ALBUQUERQUE, NM 87109**



Prepared by:



BOHANNAN-HUSTON INC.

ENGINEERS ARCHITECTS PHOTOGRAMMETRISTS SURVEYORS


COURTYARD I, 7500 JEFFERSON NE ALBUQUERQUE, NM 87109 TEL (505) 823-1000 FAX (505) 821-0892

AUGUST 1994

**PREPARED BY:
BOHANNAN-HUSTON INC.
COURTYARD I
7500 JEFFERSON STREET NE
ALBUQUERQUE, NM 87109**

Under the Supervision of:

Under the Supervision of:



The seal is circular with three concentric rings. The outermost ring contains the text "JAMES TOPMILLER" at the top and "REGISTERED PROFESSIONAL ENGINEER" at the bottom. The middle ring contains the text "NEW MEXICO". The innermost circle contains the number "9354".

James Topmiller

James Topmiller, P.E.

I. INTRODUCTION

A. Purpose and Scope

The purpose of this report is to provide site-specific drainage analysis for existing and proposed conditions, for a portion of Tract 15, currently referred to as the "Highlands," and to obtain preliminary and final plat approval. This report will reference and verify the following City of Albuquerque and the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) approved studies prepared for the High Desert Development: 1) the High Desert Drainage Management Master Plan, dated December 1993, 2) the Final High Desert Phase I Hydrology and Design Drainage Report, dated March 1994, and 3) the High Desert - Phase I Prudent Line Analysis, date March 1994.

The High Desert Drainage Management Master Plan, dated December 1993, was prepared to support future drainage plans submitted for the development of individual land parcels within High Desert, and to provide design guidance to the installation of main infrastructure to be constructed by High Desert in advance of or simultaneously with individual parcel development. In addition, it provides fully developed flow rates of basins that influence the Highlands Subdivision in the High Desert Development.

The Final High Desert Phase I Hydrology and Design Drainage Report, dated March 1994, was prepared to provide historic and proposed drainage conditions for Phases 1A and 1B of the High Desert Development. Existing flow rates of basins influencing the Highlands Subdivision in the High Desert Development after the construction of Phases 1A and 1B are included within that report.

The High Desert - Phase I Prudent Line Analysis, dated March 1994, was prepared to establish the prudent lines for the proposed High Desert Development

project. That report establishes prudent lines from fully developed flow rates of the basins influencing the Highlands Subdivision in the High Desert Development.

B. Prudent Lines

Please refer to the High Desert - Phase I Prudent Line Analysis, dated March 1994. The concept of the "prudent line" was established by AMAFCA. The Prudent Line represents the minimum setback necessary to provide protection for development from an active arroyo. The Prudent Line concept encompasses not only the floodplain necessary to pass the 100-year storm, but also represents the potential for natural arroyos to move laterally and degrade over time. The long-term effects are based on potential erosion associated from a "representative" annual storm event occurring for a 30-year period.

The Preliminary Grading and Drainage Plan enclosed contains the prudent lines calculated in the above mentioned report, which was approved by AMAFCA. The prudent lines will become drainage easements granted to AMAFCA with the filing of the Highlands plat. Building envelopes will not be located within the prudent lines;

II. METHODOLOGIES

Please refer to the High Desert Drainage Management Master Plan, dated December 1993, and the Final High Desert Phase I Hydrology and Design Drainage Report, dated March 1994, for methodologies used to prepare their individual reports or plans.

The methodology selected for hydrological comparison of the above mentioned reports or plans for proposed development is in accordance with the City of

Albuquerque's Development Process Manual, Chapter 22, as recently revised in January 1993 (DPM).

III. SITE LOCATION AND EXISTING CONDITIONS

The proposed site is a portion of Tract 15 within the High Desert Development located east of Tramway Boulevard between Simms Park Road and the Glenwood Hills Subdivision. The bulk of Tract 15 is located in the northeast corner of the High Desert Development and contains approximately 302 acres of undeveloped and undisturbed land. Please refer to the preliminary plat enclosed.

Tract 15 is currently proposed to be divided into six separate tracts, Tracts 15A - 15F. This report will reflect the development of Tracts 15A, 15B, 15C, 15E, 15F and a small portion of Tract 14 located due south. These tracts are located along the east side of High Desert Street from the corner of Academy Boulevard and Imperata Street. Tract 15D will not be developed at this time and therefore will not be analyzed.

Vegetation consists primarily of prairie grasses and juniper trees. Slopes in the project site range from 2% to 20%, with the majority of the project sloping at 5% to 8%. The Soil Conservation Service has classified the soils in this site area as Embudo-Tijeras complex, Embudo gravelly fine sandy loam and Tijeras gravelly fine sandy loam, all of which correspond to a common hydrological soil group classification of B.

IV. EXISTING HYDROLOGIC AND SITE DRAINAGE CONDITIONS

Please refer to the Final High Desert Phase I Hydrology and Design Drainage Report, dated March 1994, and the existing drainage conditions map enclosed with this report.

The above referenced report determines the storm water runoffs produced during 2-year, 10-year and 100-year, 6-hour storm events for the completed construction of Phases 1A and 1B in the High Desert Development. The runoffs determined in that report are the existing runoffs calculated for the Highlands Subdivision (Tract 15).

A. FEMA Floodplain

Please refer to the High Desert - Phase I Prudent Line Analysis, dated March 1994, and the FEMA floodplain map enclosed.

The Federal Emergency Management Agency (FEMA) established the limits of flooding from the 100-year storm for the major arroyos within the High Desert Development in the Flood Insurance Study (FIS), a report prepared for the City of Albuquerque, dated 1983. The only existing floodplain impacting the Highlands proposed development is located along the northern tract line of Tracts 15A and 15C, which are situated in the Bear Arroyo Tributary. The Bear Arroyo Tributary is a "dry" floodplain, due to the fact that the upstream flows within this arroyo have been diverted by the construction of a training dike to the South Pino Tributary Arroyo in the mid-1980s. Other nearby floodplains lie north and south of the proposed development in the South Pino Tributary Arroyo and the Bear Canyon Arroyo.

The prudent lines established in the above referenced report meet or exceed the boundaries of the floodplains not shown on the FEMA maps, but that lie in the existing arroyos in the Highlands Subdivision.

V. PROPOSED (DEVELOPED) HYDROLOGIC & HYDRAULIC CONDITIONS

Please refer to the High Desert Drainage Management Master Plan, dated December 1993, and the preliminary grading and drainage plan enclosed with this report.

The above referenced report has projected storm water runoff values for fully developed conditions within the High Desert Development in order to properly size downstream storm drain structures that are affected in the construction of Phases 1A and 1B. This report compares the projected land treatment percentages assumed in the above report with a more accurate estimate from our enclosed preliminary plat layout. The following results indicate approximately the same values with only negligible differences:

	Land Treatment Types (%)			
	A	B	C	D
High Desert Drainage Management Master Plan	60.03	6.45	7.23	26.29
The Highlands Subdivision Drainage Plan*	59.98	9.10	4.13	26.79

In determining the land treatment percentages, this report assumes that each lot contains a building envelope of 12,000 square feet of impervious area which is the maximum allowed. *This is a conservative estimate for our calculations since it is unlikely that the entire building envelope will be 100% impervious. In addition, most lots will not enclose a 12,000 square foot building envelope due to the existing constraints with the prudent lines.

Tracts 15A, 15B, 15C, 15E, 15F and a small portion of Tract 14 indicated on the preliminary plat define the proposed and future developed areas. Tracts 15E and 15F will contain detention/desilting ponds which will convey storm water runoff into the Academy Storm Drain. These tracts are to be granted to the High Desert Homeowners

Association and dedicated to the City of Albuquerque as a drainage easement when the final plat is filed.

Cross-Cut Drainage

The site proposes to preserve the natural terrain in every way possible. The site contains 113 lots on approximately 120 acres. Each lot contains a maximum building envelope of 12,000 square feet. The site will consist of cross-lot drainage which will require easement language on the final plat in order to legally permit storm water to maintain its natural course across public roadway and through private property. Property owners are required by covenant agreements to build only within their building envelope and to utilize drainage concepts (i.e. water harvesting) that will not produce concentrated flows outside of their envelope limits. Building or non-native landscaping will not be permitted outside building envelopes.

A. Academy Storm Drain / The Highland Ponds

The Academy Storm Drain construction plans are currently being drafted and will soon be submitted to the City of Albuquerque's Design Review Committee for review and comments. The construction plans will include the design of two detention/desiltation ponds located in Tracts 15E and 15F that are intended to serve the proposed Highlands Development. The Academy Storm Drain, which will begin at these two ponds, will primarily run west along the north side of Academy Boulevard until its intersection with Tramway Boulevard, where it will connect to the existing storm drain system already in place. The Academy Storm Drain will be a public storm drain owned and maintained by the City of Albuquerque.

B. The Highlands Roadways and Crossing Structures

The public roadways within the Highlands Subdivision are long and narrow cul-de-sacs that are intended to span existing floodplains, not the "prudent line" width. The intent of this report is to design roadways that will not significantly interrupt the existing route in which storm water runoff would naturally sheet flow. The proposed roadway widths vary from 22' F/F to 24' F/F and are situated between estate type curbs, please refer to the enclosed cross-sections. This will allow storm water to substantially maintain its natural course without consolidating into a concentrated flow. ?

We propose to span the existing floodplains with five simple span roadway bridges so that the existing arroyos will be left undisturbed (see enclosed cross-sections).

VI. CONCLUSION

The primary goals of this drainage plan for the Highlands Subdivision are to provide sound and innovative drainage management schemes that permit us to maintain the natural terrain with the least possible impact. The employment of drainage schemes accomplishes the above goals in a safe and adequate manner. We recommended that this plan be approved as requested.

HIGH DESERT - PHASE I BASIN SUMMARY

BASIN NO.	BASIN NAME	AREA (SQ.MILES)	LAND TREATMENT TYPES (%)				100 YEAR tp
			A	B	C	D	
1	NMBA-1A	0.1386	59.32	31.85	8.83	0.00	0.149
2	NMBA-1B	0.1050	83.48	10.20	3.75	2.57	0.195
3	NMBA-1C	0.0720	85.00	15.00	0.00	0.00	0.199
4	NMBA-2A	0.0260	98.00	2.00	0.00	0.00	0.133
5	NMBA-2B	0.0130	98.00	2.00	0.00	0.00	0.133
6	NMBA-2C	0.0410	98.00	2.00	0.00	0.00	0.133
7	NMBA-2D	0.0040	0.00	35.00	0.00	65.00	0.133
8	NMBA-4A	0.0120	71.00	15.00	0.00	14.00	0.133
9	NMBA-4B	0.0090	0.00	22.34	8.93	68.74	0.133
10	NMBA-4C	0.0350	0.00	22.88	9.15	67.97	0.133
11	NMBA-4D	0.0050	0.00	35.00	0.00	65.00	0.133
12	NMBA-5	0.0143	90.50	3.33	0.00	6.17	0.133
13	NMBA-6	0.0060	0.00	100.00	0.00	0.00	0.133
14	SMBA-1A	0.0550	98.00	2.00	0.00	0.00	0.133
15	SMBA-1B	0.0020	0.00	46.00	0.00	54.00	0.133
16	SMBA-2A	0.0120	46.00	13.14	6.57	34.29	0.133
17	SMBA-2B	0.0010	0.00	35.00	0.00	65.00	0.133
18	SBA-1	0.0170	0.00	37.88	12.63	49.50	0.133
19	SBA-2	0.0103	0.00	37.88	12.63	49.50	0.133
20	SBA-3	0.0107	0.00	37.88	12.63	49.50	0.133
21	NBA-1	0.0410	0.00	37.88	12.63	49.50	0.133
22	NBA-2	0.0050	0.00	100.00	0.00	0.00	0.133
23	NBT-1A	0.0780	93.49	1.76	2.72	2.03	0.208
24	NBT-1B	0.0040	74.85	0.00	8.00	17.15	0.133
25	NBT-2A	0.0110	88.32	4.64	1.84	5.20	0.186
26	NBT-2B	0.0830	96.00	2.00	2.00	0.00	0.142
27	NBT-4	0.0030	0.00	100.00	0.00	0.00	0.133
28	SBT-3	0.0400	100.00	0.00	0.00	0.00	0.133
29	SBT-4	0.0230	0.00	37.88	12.63	49.50	0.133
30	SBT-5	0.0050	0.00	36.26	0.00	63.24	0.133
31	SBT-6	0.0020	0.00	37.00	0.00	63.00	0.133

PHASE I - 100 YEAR

1

HYMO SUMMARY TABLE

Pg. 1

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	HYDROGRAPH AT ROUTED	NMBA1A	1 1	- 2	0.1386	238.4	NA	1.53	2.6
		NMBA1A	1		0.1386	238.4		1.53	
		RNMBA1A	2		0.1386	233.6		1.57	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED	NMBA1B	3	-	0.1050	135.8	NA	1.57	2.0
		AP1	2 & 3 4	4 5	0.2436	369.4		1.57	
		AP1	4		0.2436	369.4		1.57	
		RAP1	5		0.2436	325.3		1.60	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED	NMBA2A	1	-	0.0130	20.3	NA	1.50	2.4
		AP2	5 & 1 2	2 3	0.2566	341.7		1.60	
		AP2	2		0.2566	341.7		1.60	
		RAP2	3		0.2566	322.6		1.63	
	HYDROGRAPH AT ROUTED 42"	NMBA2B	4	-	0.0130	20.3	NA	1.50	2.4
		NMBA2B	4	5	0.0130	20.3		1.50	
		RAP2SS	5		0.0130	20.3		1.53	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED 54"	NMBA2C	6	-	0.0410	63.9	NA	1.50	2.4
		AP2A	5 & 6 7	7 1	0.0540	83.9		1.50	
		AP2A	7		0.0540	83.9		1.50	
		RAP2ASS	1		0.0540	84.4		1.53	
	HYDROGRAPH AT COMBINED FLOW AT	NMBA2D	2	-	0.0040	11.6	NA	1.50	4.5
		IMPSS	1 & 2	10	0.0580	95.5		1.53	
	HYDROGRAPH AT	NMBA1C	8	-	0.0720	85.4	NA	1.57	1.8
	COMBINED FLOW AT	AP3	3 & 8	9	0.3286	404.3		1.63	
	RESERVOIR HYD	POND3OUT	9	14	0.3286	299.9		1.77	
	COMBINED FLOW AT ROUTED 66"	AP3SS	10 & 14 2	2 3	0.3866	340.1		1.70	
		AP3SS	2		0.3866	340.1		1.70	
		RAP3SS	3		0.3866	340.9		1.70	
	HYDROGRAPH AT ROUTED 24"	NMBA4B	4	-	0.0090	27.0	NA	1.50	4.6
		NMBA4B	4	5	0.0090	27.0		1.50	
		RNMBA4B	5		0.0090	26.8		1.50	
	ROUTED 66"	RAP3SS	3	6	0.3866	340.9		1.70	
		RAP4	6		0.3866	340.0		1.70	
	COMBINED FLOW AT ROUTED 60"	AP5	5 & 6 7	7 8	0.3956	354.0		1.67	
		AP5	7		0.3956	354.0		1.67	
		RAP5	8		0.3956	355.3		1.67	
	HYDROGRAPH AT COMBINED FLOW AT	SMBA1B	1	-	0.0020	5.5	NA	1.50	4.2
		AP5A	8 & 1	8	0.3976	358.2		1.67	
	HYDROGRAPH AT	NMBA4C	9	-	0.0350	102.2	NA	1.50	4.5
	HYDROGRAPH AT	NMBA4A	10	-	0.0120	22.8	NA	1.50	2.9

1

A-2

PHASE I 100 TR

HYMO SUMMARY TABLE

Pg. 2

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	COMBINED FLOW AT ROUTED 60"	AP6	9&10 1	1 2	0.0470	125.0		1.50	
		AP6	1		0.0470	125.0		1.50	
		RAP6	2		0.0470	124.7		1.50	
	COMBINED FLOW AT HYDROGRAPH AT	RAP6	2& 8	3	0.4446	438.3		1.57	
	COMBINED FLOW AT ROUTED 66"	NMBA4D	4	-	0.0050	14.5	NA	1.50	4.5
		AP7	3& 4	5	0.4496	450.4		1.57	
		AP7	5	6					
		RAP7	6		0.4496	449.0		1.57	
	HYDROGRAPH AT	SMBA2B	7	-	0.0010	2.9	NA	1.50	4.5
	COMBINED FLOW AT	SMBA2B&A	6& 7	8	0.4506	451.5		1.57	
	HYDROGRAPH AT ROUTED	SMBA1A	9	-	0.0550	79.5	NA	1.50	2.2
		SMBA1A	9	10					
		RSMBA1A	10		0.0550	80.3		1.53	
	HYDROGRAPH AT	SMBA2A	1	-	0.0120	26.8	NA	1.50	3.4
	COMBINED FLOW AT	AP8	10& 1	2	0.0670	106.3		1.53	
	COMBINED FLOW AT ROUTED 72"	AP9	8& 2	3	0.5176	550.9		1.57	
		AP9	3	4					
		RAP9	4		0.5176	550.6		1.57	
	HYDROGRAPH AT	NMBA5	5	-	0.0143	24.1	NA	1.50	2.6
	COMBINED FLOW AT	RAP9	4& 5	6	0.5319	572.4		1.57	
	HYDROGRAPH AT	NMBA6	7	-	0.0060	12.3	NA	1.50	3.2
	COMBINED FLOW AT	AP10	6& 7	8	0.5379	583.4		1.57	
	HYDROGRAPH AT	NBA1	1	-	0.0410	111.5	NA	1.50	4.2
	HYDROGRAPH AT	NBA2	2	-	0.0050	10.3	NA	1.50	3.2
	COMBINED FLOW AT ROUTED	AP11	1& 2	3	0.0460	121.8		1.50	
		AP11	3	4					
		93.3	4		0.0460	120.7		1.53	
	COMBINED FLOW AT	AP12	4& 8	20	0.5839	693.9		1.57	
	HYDROGRAPH AT	SBA1	15	-	0.0170	46.2	NA	1.50	4.2
	HYDROGRAPH AT	SBA2	16	-	0.0103	28.0	NA	1.50	4.2
	HYDROGRAPH AT	SBA3	17	-	0.0107	29.1	NA	1.50	4.2
	HYDROGRAPH AT	NBT1A	1	-	0.0780	90.4	NA	1.60	1.8
	HYDROGRAPH AT	NBT1B	2	-	0.0040	8.0	NA	1.50	3.1
	ROUTED		2	3					
		NBT1B	2		0.0040	8.0		1.50	
		RNBT1B	3		0.0040	7.2		1.57	
	COMBINED FLOW AT	NBT1A&1B	1& 3	4	0.0820	97.2		1.60	
	HYDROGRAPH AT	NBT2A	5	-	0.0110	18.7	NA	1.50	2.6
	COMBINED FLOW AT	AP16	4& 5	6	0.0930	113.7		1.57	
	HYDROGRAPH AT	SBT3AP17	7	-	0.0400	65.4	NA	1.50	2.5
	HYDROGRAPH AT	SBT5	8	-	0.0050	14.4	NA	1.50	4.4
	COMBINED FLOW AT ROUTED	AP18	7& 8	9	0.0450	79.8		1.50	
		AP18	9	10					
		AP18	9		0.0450	79.8		1.50	

PHASE I - 10 YEAR

HYMO SUMMARY TABLE

Pg. 1

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	HYDROGRAPH AT ROUTED	NMBA1A	1 1	- 2	0.1386	99.4	NA	1.53	1.1
		NMBA1A	1		0.1386	99.4		1.53	
		RNMBA1A	2		0.1386	84.5		1.60	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED	NMBA1B	3	-	0.1050	51.8	NA	1.57	0.7
		AP1	2 & 3 4	4 5	0.2436	135.6		1.60	
		AP1	4		0.2436	135.6		1.60	
		RAP1	5		0.2436	115.0		1.67	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED	NMBA2A	1	-	0.0130	7.4	NA	1.53	0.8
		AP2	5 & 1 2	2 3	0.2566	119.1		1.67	
		AP2	2		0.2566	119.1		1.67	
		RAP2	3		0.2566	110.3		1.70	
	HYDROGRAPH AT ROUTED 42"	NMBA2B	4	-	0.0130	7.4	NA	1.53	0.8
			4	5					
		NMBA2B	4		0.0130	7.4		1.53	
		RAP2SS	5		0.0130	7.5		1.53	
	HYDROGRAPH AT COMBINED FLOW AT ROUTED 54"	NMBA2C	6	-	0.0410	23.3	NA	1.53	0.8
		AP2A	5 & 6 7	7 1	0.0540	30.7		1.53	
		AP2A	7		0.0540	30.7		1.53	
		RAP2ASS	1		0.0540	31.0		1.53	
	HYDROGRAPH AT COMBINED FLOW AT	NMBA2D	2	-	0.0040	7.2	NA	1.50	2.8
	HYDROGRAPH AT COMBINED FLOW AT	IMPSS	1 & 2	10	0.0580	37.9		1.53	
	HYDROGRAPH AT COMBINED FLOW AT	NMBA1C	8	-	0.0720	30.8	NA	1.57	0.6
	HYDROGRAPH AT COMBINED FLOW AT	AP3	3 & 8	9	0.3286	135.5		1.67	
	RESERVOIR HYD COMBINED FLOW AT ROUTED 66"	POND3OUT	9	14	0.3286	131.6		1.73	
		AP3SS	10 & 14 2	2 3	0.3866	149.9		1.70	
		AP3SS	2		0.3866	149.9		1.70	
		RAP3SS	3		0.3866	150.0		1.70	
	HYDROGRAPH AT ROUTED 24"	NMBA4B	4	-	0.0090	17.1	NA	1.50	2.9
			4	5					
		NMBA4B	4		0.0090	17.1		1.50	
		RNMBA4B	5		0.0090	17.0		1.50	
	ROUTED 66"		3	6					
		RAP3SS	3		0.3866	150.0		1.70	
		RAP4	6		0.3866	149.5		1.70	
	COMBINED FLOW AT ROUTED 60"	AP5	5 & 6 7	7 8	0.3956	157.2		1.70	
		AP5	7		0.3956	157.2		1.70	
		RAP5	8		0.3956	156.7		1.70	
	HYDROGRAPH AT COMBINED FLOW AT	SMBA1B	1	-	0.0020	3.3	NA	1.50	2.6
	HYDROGRAPH AT COMBINED FLOW AT	AP5A	8 & 1	8	0.3976	158.1		1.70	
	HYDROGRAPH AT	NMBA4C	9	-	0.0350	64.2	NA	1.50	2.8
	HYDROGRAPH AT	NMBA4A	10	-	0.0120	10.5	NA	1.50	1.3

PHASE I - 10 YEAR

HYMO SUMMARY TABLE

Pg. 2

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	COMBINED FLOW AT ROUTED 60"	AP6	9&10 1	1 2	0.0470	74.7		1.50	
		AP6	1		0.0470	74.7		1.50	
		RAP6	2		0.0470	74.3		1.50	
	COMBINED FLOW AT HYDROGRAPH AT	RAP6	2& 8	3	0.4446	195.2		1.63	
	COMBINED FLOW AT ROUTED 66"	NMBA4D	4	-	0.0050	9.0	NA	1.50	2.8
		AP7	3& 4	5	0.4496	200.5		1.63	
		AP7	5	6					
		RAP7	6		0.4496	200.5		1.63	
	HYDROGRAPH AT	SMBA2B	7	-	0.0010	1.8	NA	1.50	2.8
	COMBINED FLOW AT	SMBA2B&A	6& 7	8	0.4506	201.4		1.63	
	HYDROGRAPH AT	SMBA1A	9	-	0.0550	28.9	NA	1.53	0.8
	ROUTED		9	10					
		SMBA1A	9		0.0550	28.9		1.53	
		RSMBA1A	10		0.0550	28.6		1.53	
	HYDROGRAPH AT	SMBA2A	1	-	0.0120	14.6	NA	1.50	1.9
	COMBINED FLOW AT	AP8	10& 1	2	0.0670	42.7		1.53	
	COMBINED FLOW AT	AP9	8& 2	3	0.5176	232.3		1.60	
	ROUTED 72"		3	4					
		AP9	3		0.5176	232.3		1.60	
		RAP9	4		0.5176	232.5		1.63	
	HYDROGRAPH AT	NMBA5	5	-	0.0143	9.8	NA	1.50	1.0
	COMBINED FLOW AT	RAP9	4& 5	6	0.5319	239.3		1.60	
	HYDROGRAPH AT	NMBA6	7	-	0.0060	6.0	NA	1.50	1.5
	COMBINED FLOW AT	AP10	6& 7	8	0.5379	244.6		1.57	
	HYDROGRAPH AT	NBA1	1	-	0.0410	68.0	NA	1.50	2.5
	HYDROGRAPH AT	NBA2	2	-	0.0050	5.0	NA	1.50	1.5
	COMBINED FLOW AT	AP11	1& 2	3	0.0460	73.0		1.50	
	ROUTED		3	4					
		AP11	3		0.0460	73.0		1.50	
		93.3	4		0.0460	72.5		1.53	
	COMBINED FLOW AT	AP12	4& 8	20	0.5839	311.2		1.57	
	HYDROGRAPH AT	SBA1	15	-	0.0170	28.2	NA	1.50	2.5
	HYDROGRAPH AT	SBA2	16	-	0.0103	17.1	NA	1.50	2.5
	HYDROGRAPH AT	SBA3	17	-	0.0107	17.7	NA	1.50	2.5
	HYDROGRAPH AT	NBT1A	1	-	0.0780	33.0	NA	1.60	0.6
	HYDROGRAPH AT	NBT1B	2	-	0.0040	3.8	NA	1.50	1.4
	ROUTED		2	3					
		NBT1B	2		0.0040	3.8		1.50	
		RNBT1B	3		0.0040	3.2		1.57	
	COMBINED FLOW AT	NBT1A&1B	1& 3	4	0.0820	36.1		1.60	
	HYDROGRAPH AT	NBT2A	5	-	0.0110	7.6	NA	1.50	1.0
	COMBINED FLOW AT	AP16	4& 5	6	0.0930	42.8		1.57	
	HYDROGRAPH AT	SBT3AP17	7	-	0.0400	25.2	NA	1.50	0.9
	HYDROGRAPH AT	SBT5	8	-	0.0050	8.9	NA	1.50	2.7
	COMBINED FLOW AT	AP18	7& 8	9	0.0450	34.1		1.50	
	ROUTED		9	10					
		AP18	9		0.0450	34.1		1.50	

GENERAL NOTES:

1. EXISTING ZONING: SU-2HD/R-1
PROPOSED ZONING: SU-2HD/R-1
PROPOSED DEVELOPMENT:
LOW-DENSITY SINGLE FAMILY DETACHED RESIDENTIAL

2. AREAS:

TRACT	AREA (ACRES)	# OF LOTS	LAND TREATMENT TYPES (%)			
			A	B	C	D
15A	54.94	51	59.60%	10.77%	4.06%	25.57%
15B	27.84	28	60.23%	7.85%	4.21%	27.71%
15C	34.58	34	60.11%	8.69%	4.11%	27.09%
AVERAGE	117.36	113	59.98%	9.10%	4.13%	26.79%

NOTES:

Tracts 15E and 15F are the Highlands Drainage ponds

PROPOSED DENSITY:

TRACT 15A = 0.93 D.U./AC

TRACT 15B = 1.00 D.U./AC

TRACT 15C = 0.98 D.U./AC

3. MINIMUM NET LOT AREA: 0.5 ACRES
MINIMUM LOT WIDTH: 100 FEET
BUILDING ENVELOPES SHALL BE: 12,000 SF (OR LESS)
MINIMUM DISTANCE BETWEEN BUILDING ENVELOPES AND:
LOT LINES = 10 FEET
RIGHT-OF-WAY = 20 FEET
4. ALL STREETS, UTILITIES AND DRAINAGE IMPROVEMENTS,
AND THE MAINTENANCE THEREWITH, ARE TO BE DEDICATED
TO THE CITY OF ALBUQUERQUE.
5. TRACTS 15-E AND 15-F ARE TO BE DEDICATED TO THE
HIGH DESERT HOMEOWNERS ASSOCIATION WITH THE
FILLING OF THE PLAT. TRACTS 15-E AND 15-F ARE TO
BE GRANTED TO THE CITY OF ALBUQUERQUE PUBLIC
WORKS DEPARTMENT AS A DRAINAGE EASEMENT
WITH THE FILING OF THE PLAT.

BASIN LAND FULLY DEVELOPED CONDITIONS

BASIN NO.	BASIN NAME	AREA (SQ.MILES)	LAND TREATMENT TYPES (%)				tp
			A	B	C	D	
1	SBA-1	0.0170	0.00	37.88	12.63	49.50	0.133
2	SBA-2	0.0210	0.00	37.88	12.63	49.50	0.133
3	SBA-3						
4	SMBA-1	0.0240	44.49	12.71	6.35	36.45	0.133
5	SMBA-2	0.0410	46.00	13.14	6.57	34.29	0.133
6	SMBA-3	0.0120	46.00	13.14	6.57	34.29	0.133
7	NMBA-1	0.0490	73.88	14.60	5.23	6.29	0.133
8	NMBA-2	0.0260	58.37	6.35	7.04	28.25	0.133
9	NMBA-3A	0.0160	94.00	0.00	0.00	6.00	0.133
10	NMBA-3B	0.0320	0.00	35.41	11.81	52.78	0.133
11	NMBA-3C	0.0170	0.00	33.90	11.30	54.80	0.133
12	NMBA-3D	0.0130	0.00	35.07	11.68	53.25	0.133
13	NMBA-4A	0.0120	65.00	12.00	0.00	23.00	0.133
14	NMBA-4B	0.0090	0.00	22.34	8.93	68.74	0.133
15	NMBA-4C	0.0380	0.00	22.88	9.15	67.97	0.133
16	NMBA-5	0.0160	74.00	5.00	0.00	21.00	0.133
17	NMBA-6	0.006	0.00	100.00	0.00	0.00	0.133
18	NBA-1	0.0420	0.00	36.21	12.08	51.71	0.133
19	NBA-2	0.005	0.00	100.00	0.00	0.00	0.133
20	SBT-1	0.1386	53.38	27.73	8.83	10.06	0.145
21	SBT-2	0.0960	60.03	6.45	7.23	26.29	0.133
22	SBT-3	0.0370	0.00	48.68	9.46	41.86	0.133
23	SBT-4	0.0240	0.00	36.30	12.10	51.60	0.133
24	NBT-1	0.0700	81.44	0.00	4.43	14.13	0.138
25	NBT-2A	0.0230	75.00	10.00	3.00	12.00	0.133
26	NBT-2B	0.0330	0.00	36.41	12.14	47.58	0.133
27	NBT-3A	0.0140	75.00	2.00	1.00	22.00	0.133
28	NBT-3B	0.0270	0.00	36.59	12.20	51.21	0.133
29	NBT-4	0.003	0.00	100.00	0.00	0.00	0.133
30	SPT-1	0.2080	5.00	33.17	61.38	0.00	0.136
31	SPT-2	0.2360	5.00	8.05	86.95	0.00	0.153
32	SPT-3	0.0800	90.00	8.00	2.00	0.00	0.133
33	SPT-4	0.1270	89.25	7.60	2.30	0.85	0.189
34	SPT-5	0.1620	88.38	9.20	2.11	0.31	0.133
35	SPT-6A	0.0370	72.76	5.74	8.00	13.50	0.168
36	SPT-6B	0.1400	64.93	18.86	8.00	8.21	0.167

FULLY DEVELOPED CONDITIONS

HYMO SUMMARY TABLE

Pg. 2

0	DESCRIPTION	HYDROGRAPH LABEL	FROM ID NO	TO ID NO	AREA SQ MI	DISCHARGE CFS	CURVE NO	TIME TO PEAK HR	CFS PER ACRE
	HYDROGRAPH AT	SMBA2	1	-	0.0410	91.6	NA	1.50	3.4
	COMBINED FLOW AT	SMBA1&2	1&10	2	0.0650	145.6		1.50	
	COMBINED FLOW AT	AP9A	2& 4	3	0.2270	508.6		1.53	
	COMBINED FLOW AT	AP11	3& 7	8	0.2770	641.0		1.53	
	ROUTED	66"	8	4					
		AP11	8		0.2770	641.0		1.53	
		RAP11	4		0.2770	642.3		1.53	
	HYDROGRAPH AT	SMBA3	5	-	0.0120	26.8	NA	1.50	3.4
	COMBINED FLOW AT	AP12	4& 5	10	0.2890	668.3		1.53	
	ROUTED	72"	10	1					
		AP12	10		0.2890	668.3		1.53	
		AP13P	1		0.2890	665.7		1.53	
	HYDROGRAPH AT	NMBA6	3	-	0.0060	12.3	NA	1.50	3.2
	HYDROGRAPH AT	NMBA5	2	-	0.0160	31.5	NA	1.50	3.0
	COMBINED FLOW AT	NMBA5&6	3& 2	4	0.0220	43.8		1.50	
	HYDROGRAPH AT	NBA1	19	-	0.0420	115.5	NA	1.50	4.3
	HYDROGRAPH AT	NBA2	6	-	0.0050	10.3	NA	1.50	3.2
	COMBINED FLOW AT	NBATOT	19& 6	7	0.0470	125.8		1.50	
	COMBINED FLOW AT	AP13S	4& 7	5	0.0690	169.6		1.50	
	COMBINED FLOW AT	AP13	1& 5	20	0.3580	829.3		1.53	
	HYDROGRAPH AT	SBA1	15	-	0.0170	46.2	NA	1.50	4.2
	HYDROGRAPH AT	SBA2	16	-	0.0210	57.1	NA	1.50	4.2
	HYDROGRAPH AT	SBT1	1	-	0.1386	267.4	NA	1.53	3.0
	ROUTED		1	2					
		SBT1	1		0.1386	267.4		1.53	
		RSBT1	2		0.1386	261.5		1.57	
	HYDROGRAPH AT	SBT2	3	-	0.0960	214.4	NA	1.50	3.4
	COMBINED FLOW AT	AP19	2& 3	4	0.2346	465.9		1.53	
	ROUTED	66"	4	5					
		AP19	4		0.2346	465.9		1.53	
		RAP19	5		0.2346	461.3		1.53	
	HYDROGRAPH AT	NBT1AP20	6	-	0.0700	129.3	NA	1.50	2.8
	ROUTED	42"	6	7					
		NBT1AP20	6		0.0700	129.3		1.50	
		RAP19	7		0.0700	129.5		1.53	
	COMBINED FLOW AT	AP20A	7& 5	7	0.3046	590.9		1.53	
	ROUTED	66"	7	8					
		AP20A	7		0.3046	590.9		1.53	
		RAP20	8		0.3046	587.1		1.57	
	HYDROGRAPH AT	NBT2A	9	-	0.0230	45.2	NA	1.50	3.0
	COMBINED FLOW AT	NBT2A+	8& 9	10	0.3276	626.8		1.57	
	HYDROGRAPH AT	NBT2B	1	-	0.0330	89.8	NA	1.50	4.2
	COMBINED FLOW AT	NBT2B+	1&10	2	0.3606	706.5		1.53	
	HYDROGRAPH AT	SBT3	3	-	0.0370	95.7	NA	1.50	4.0
	COMBINED FLOW AT	AP21	2& 3	4	0.3976	798.6		1.53	
	ROUTED	78"	4	5					
		AP21	4		0.3976	798.6		1.53	
		RAP21	5		0.3976	794.5		1.57	
	HYDROGRAPH AT	NBT3A	6	-	0.0140	28.5	NA	1.50	3.1

HIGHLANDS - FULLY DEVELOPED CONDITIONS

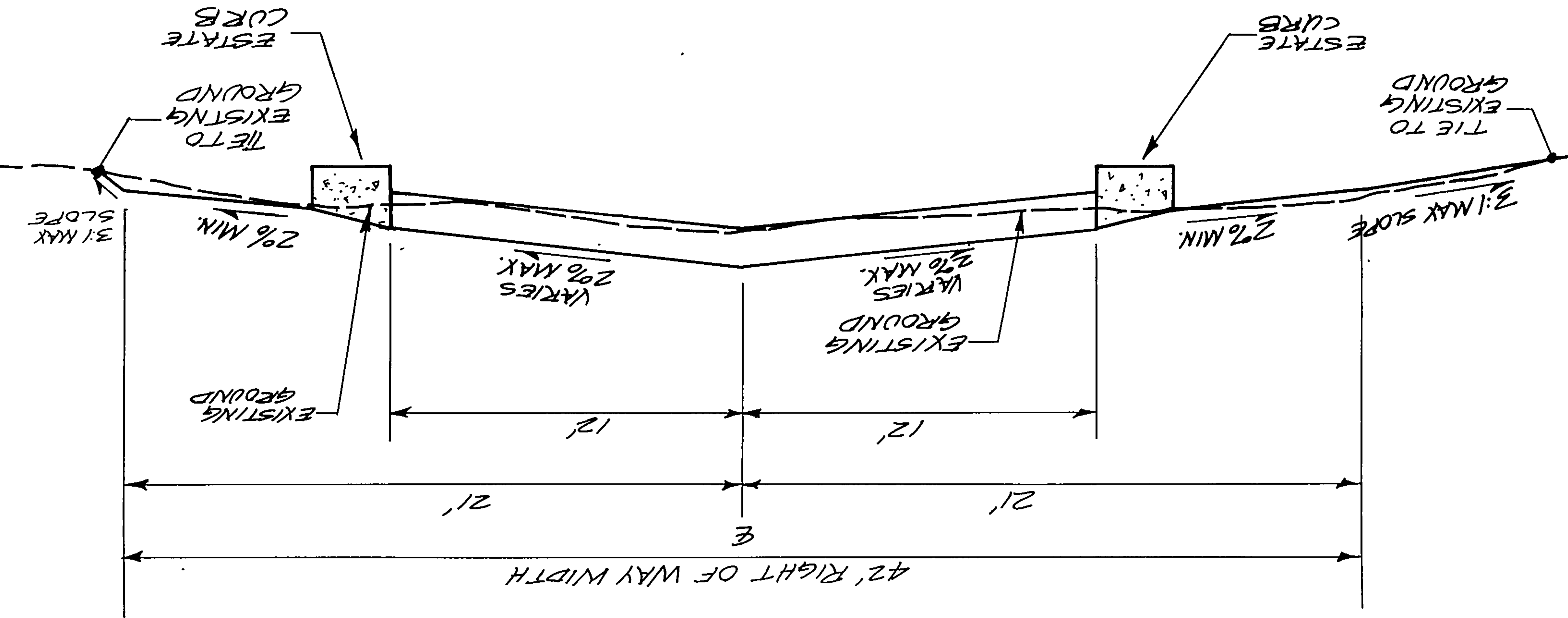
POINT	ARROYO/STATION ¹	Q(100) ¹ cfs	CONTRIBUTING POINTS	COMMENTS
P1	North Bear T. Sta 120+00	45		
P2	North Bear T. Sta 100+00	120/129		See note ²
P3	North SBT-Sta 133+00	15		
P4	North SBT-Sta 124+00	40		
P5	Middle SBT-Sta 136+00	76		
P6	Middle SBT-Sta 124+00	100		
AP1	Middle SBT-Sta 122+00	122	P4 & P6	
P7	Middle SBT-Sta 112+00	137		
P8	South SBT North -Sta 136+00	15		
P9	South SBT North -Sta 112+00	50		
P10	South SBT South -Sta 114+00	40		
AP2	South SBT North -Sta 112+00	99	P9 & P10	
AP3	Middle SBT-Sta 110+00	223	AP2 & P7	
P11	Middle SBT-Sta 100+00	311		
P12	North SBT2-Sta 110+00	47		
P13	Middle SBT2-Sta 110+00	34		
AP4	Middle SBT2-Sta 108+00	101	P12 & P13	
P14	Middle SBT2-Sta 100+00	113		
AP5	Middle SBT2-Sta 99+00	420/466	P11 & P14	See note ²

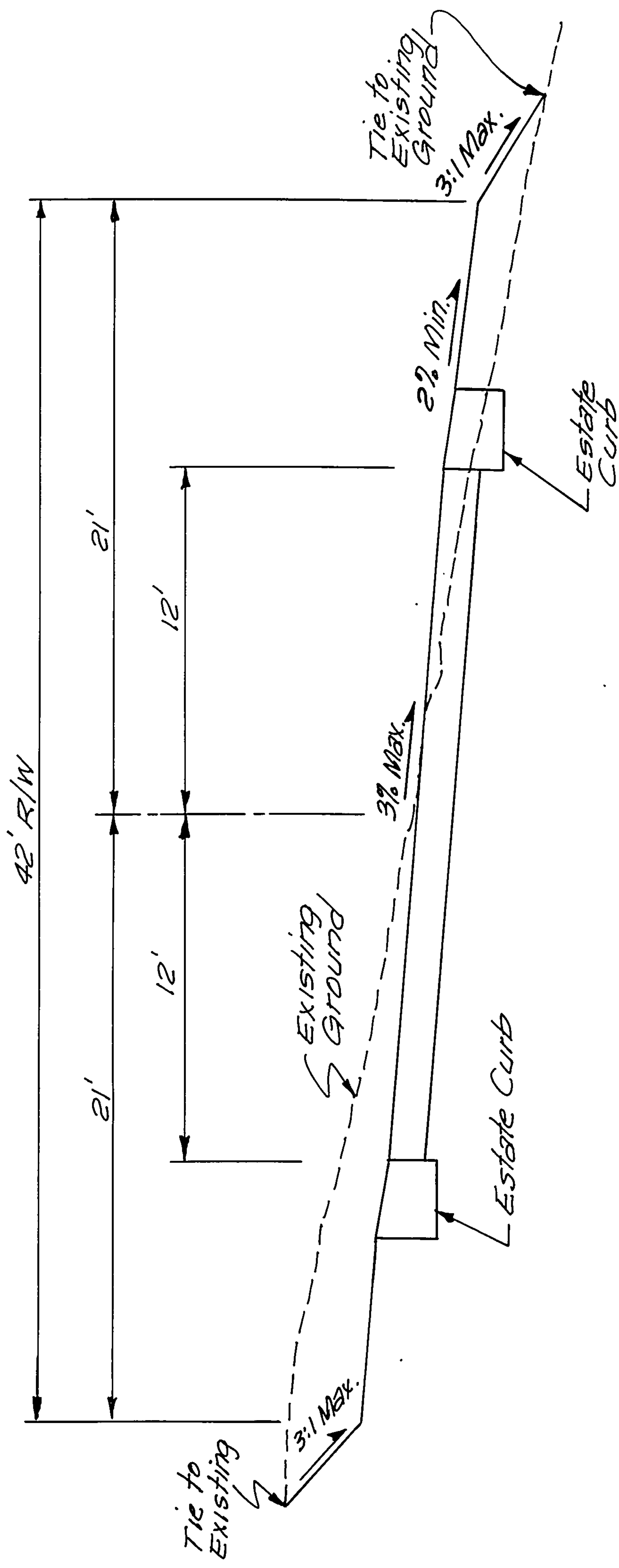
Notes

- ¹ Based on "High Desert -Phase 1 / Prudent Line Analysis / March 1994" report.
See Tables 6 & 7 on pages 28 & 29 of the report aforementioned.
- ² The first Q(100) corresponds to the report mentioned above.
The second (Q100) corresponds to the "High Desert /Drainage Management Master Plan " report
These two values differ due to a diferent bulking value used in their computations.

SCALE 1:5' HORIZ.
SCALE 1:2' VERT.

SECTION F-F

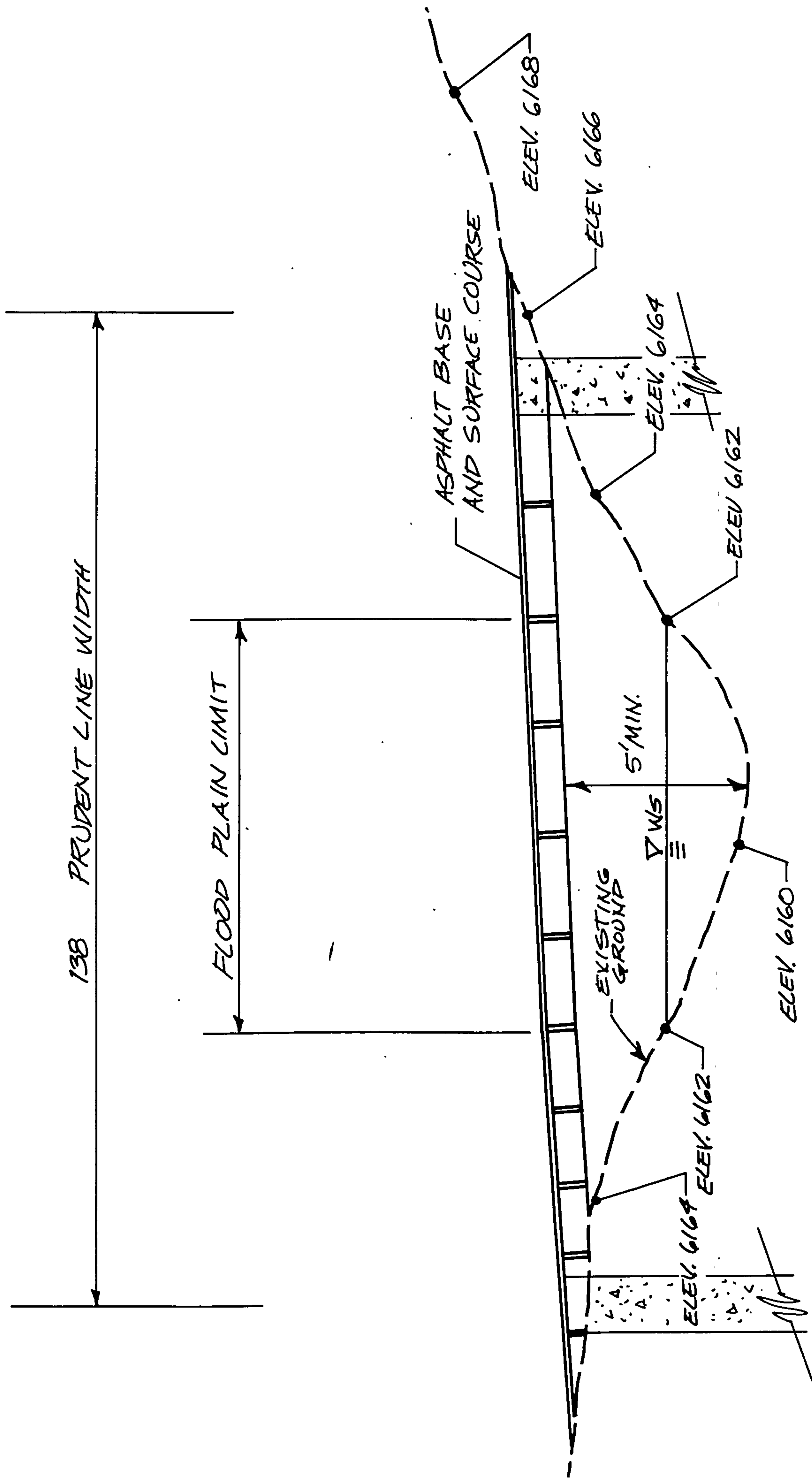




SECTION G-G

scales: 1" = 5' Horiz.
1" = 2' Vert.

CONCEPTUAL



* NOTE: TRANSVERSE SECTION THRU BRIDGE @ CL OF ROAD
SECTION A-A

PIECES MAY BE REQUIRED
WITHIN THE FLOODPLAIN

SCALE 1:20 HORIZ.
SCALE 1:4 VERT.

CONCEPTUAL

* NOTE:

PICERS MAY BE REQUIRED
IN THE FLOODPLAIN

105' PRUDENT LINE WIDTH

FLOOD PLAIN LIMITS

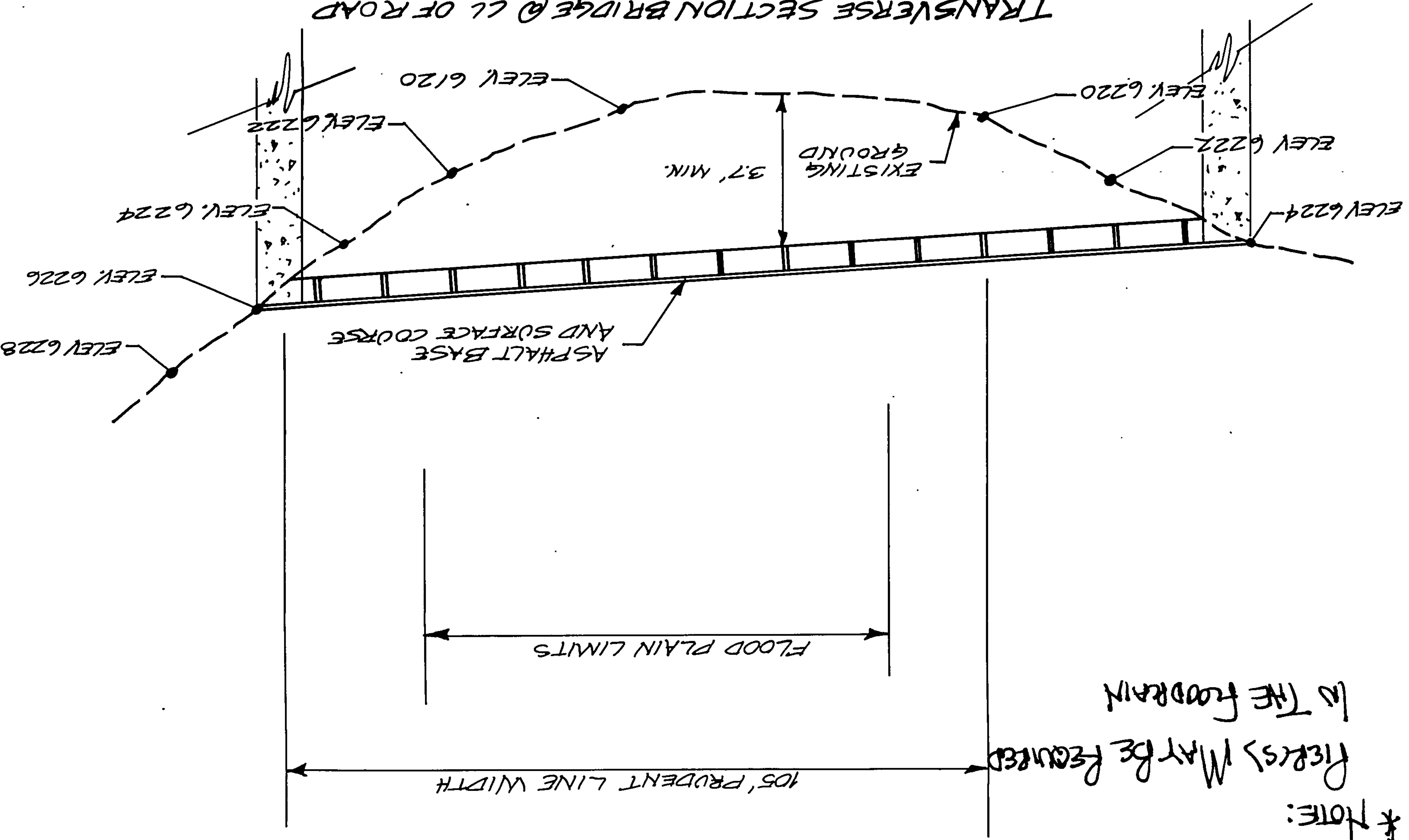
ASPHALT BASE
AND SURFACE COURSE

EXISTING
GROUND

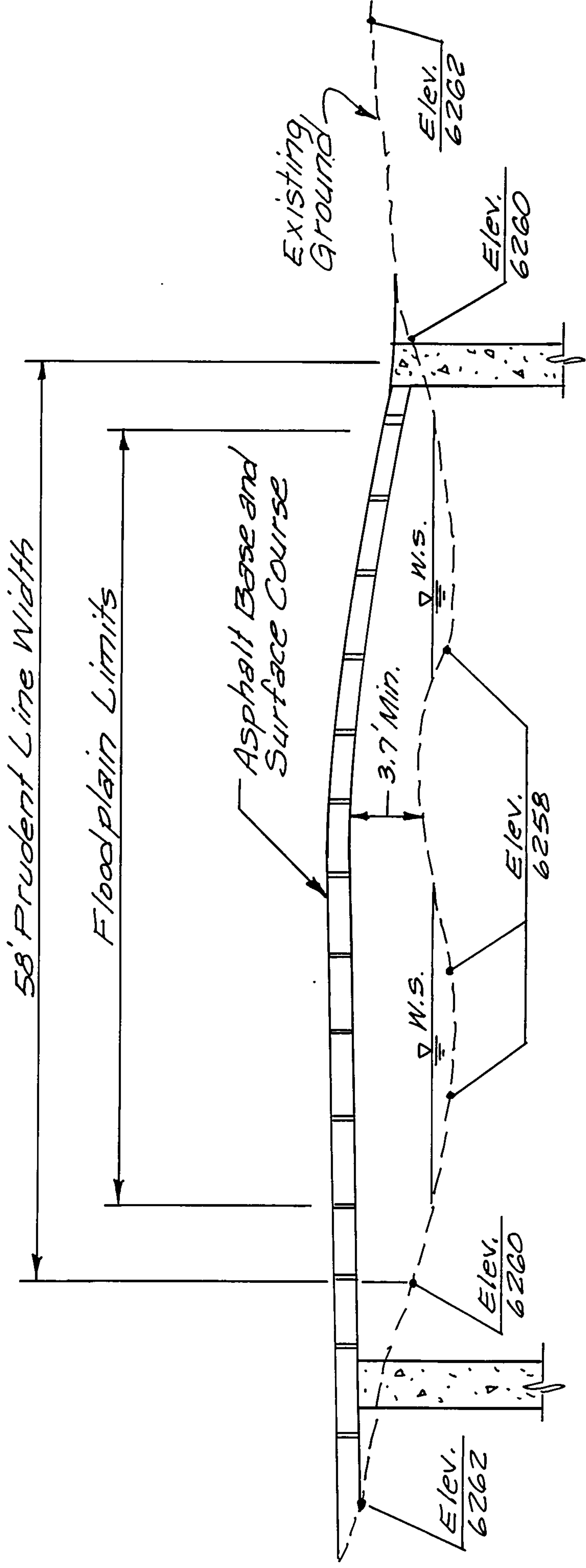
3.7' MIN.

TRANSVERSE SECTION BRIDGE @ CL OF ROAD
SECTION C-C

SCALE 1:20' HORIZ.
SCALE 1:4' VERT.



CONCEPTUAL



TRANSVERSE SECTION THROUGH BRIDGE
@ ∇ OF ROAD
(SECTION D-D)

* PIERS MAY BE
REQUIRED WITHIN
FLOODPLAIN

SCALES: 1" = 5' HORIZ.
1" = 2' VERT.

SCALE 1" = 10' HORIZ.
SCALE 1" = 8' VERT.

SECTION E-E

TRANSVERSE SECTION THRU BRIDGE @ CL OF ROAD

* PIERS MAY BE
REQUIRED WITHIN
FLOODPLAIN

