City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 21, 2000

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Callew Medico
Santa Fe, New Mexico 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). Lot 20A, Block 27, Perea Addition. ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY APPROVAL. ENGINEER'S STAMP DATED DECEMBER 17, 1999.

Dear Mr. Gomez:

Based upon the information provided in your December 22, 1999 submittal, the above referenced project is approved for Certificate of Occupanny. Said approval also covers the public alley which had been submitted separately on December 10, 1999.

If I can be of further assistance, please feel free to contact me at (505) 924-3984.

Sincerely,

John P.Murray, P.E.
Hydrology

c: WR
File

DRAINAGE INFORMATION SHEET

APPLICANT'S NAME: ROBERT D. & CATHY S. GORMAN ZONE ATLAS/DRNG. FILE #: G15/J13-071

DRB #: 97-323 & ZA97-370 EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: LOT 20A, BLOCK 27 PEREA ADDITION, (FORMERLY LOTS 20,21,22,23)

CITY ADDRESS: 1201 LOMAS BOULEVARD

ENGINEERING FIRM: TIERRA ENGINEERING CONSULTANTS, INC CONTACT: MICHAEL D. GOMEZ

ADDRESS: 1599 S. ST. FRANCIS DR., STE B, SANTA FE, NM 87505 PHONE: (505) 982-2845

OWNER: ROBERT D. & CATHY S. GORMAN CONTACT: ROBERT GORMAN

ADDRESS: P.O. BOX 25164, ALBUQUERQUE, NM 87125 PHONE: (505) 243-5442

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: WILSON SURVEYING, INC. CONTACT: JOHN WILSON

ADDRESS: 809 COPPER AVE., NW, ALBUQUERQUE, NM PHONE: (505) 243-6434

CONTRACTOR: RICHARD GORMAN CONTACT: RICHARD GORMAN

ADDRESS: P.O. BOX 884, SANTA FE, NM 87504 PHONE: (505) 988-9549

TYPE OF SUBMITTAL:
- ___ DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- ___ GRADING PLAN
- ___ EROSION CONTROL PLAN
- X ENGINEER'S CERTIFICATION
- ___ OTHER _____

PRE-DESIGN MEETING:
- ___ YES
- ___ NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:
- ___ SKETCH PLAT APPROVAL
- ___ PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV PLAN FOR BLDG. PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- X CERTIFICATE OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ SUBDIVISION CERTIFICATION
- ___ OTHER _____ (SPECIFY)

DATE SUBMITTED: NOVEMBER 30, 1999

BY: MICHAEL D. GOMEZ

Revised 02/98

RECEIVED
DEC 22 1999
HYDROLOGY SECTION

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 27, 1999

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). DRAINAGE REPORT AND SO#19 DATA WITH ENGINEER'S STAMP DATED 9/15/98, AND GRADING AND DRAINAGE PLAN (ORIGINAL DATE FOR ENGINEER'S STAMP OF 8/7/98) FOR BUILDING PERMIT AND SO#19 PERMIT APPROVALS.

Dear Mr. Gomez:

Reference is made to C.O.A. letter dated October 1, 1998 subject as above. Somehow the resubmittal addressing the retitling of the G&D Plan and the Engineer's Stamp Date bypassed the log in process. This letter is to document that the Grading and Drainage Plan stamped September 15, 1998 is the approved plan of record.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P.Murray, P.E.
Hydrology

c: R.D.Gorman, Esq.
Andrew Garcia
File

CITY OF
Albuquerque

October 1, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). DRAINAGE REPORT AND SO#19 DATA WITH ENGINEER'S STAMP DATED 9/15/98, AND GRADING AND DRAINAGE PLAN (ORIGINAL DATE FOR ENGINEER'S STAMP OF 8/7/98) FOR BUILDING PERMIT AND SO#19 PERMIT APPROVALS.

Dear Mr. Gomez:

Based on the information provided on your September 18, 1998 resubmittal, City Hydrology has the following comments:

The "Conceptual" Grading & Drainage Plan should be retitled simply the Grading & Drainage Plan since you have furnished an appropriate analysis in the Drainage Report. As noted in C.O.A. letter of 8/28/98, "Conceptual" G&D can not be used for Building Permit Approval.

Please add the SO#19 data to the G&D Plan (Plates 3&4) to form the approved G&D Plan for inclusion in the construction sets prior to sign-off by Hydrology. Add 9/15/98 date to Stamp.

A separate permit is required for construction within the City right-of-way. A copy of the approval letter must be on hand when applying for the excavation permit.

Improvements to the Public Alley on the west must go through DRC for approval.

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P.Murray, P.E.
Hydrology

c: R.D.Gorman, Esq.
~~Arlene Portillo~~
~~D.Salas, St. Maint.~~

c: Andrew Garcia
File

CITY OF
Albuquerque

September 3, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). CONCEPTUAL GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED AUGUST 7, 1998.

Dear Mr. Gomez:

Based on the information provided on your August 10, 1998 submittal and conversations with you and Mr. Gorman following your receipt of our letter dated August 28,1998, City Hydrology has the following additional comments:

Since detailed topography is not available and the area is quite flat, off site flows may be calculated by estimating the contributing area(s) involved.

The removal of the CMU retaining wall must not adversely affect the existing drainage trough directly abutting on the north. RE: Estrada Office Building (J13-D48).

The alley improvements appear in order and should not affect the gararges to the west.

The SO#19 Permit will cover the new sidewalk culvert as well as the tie-in to the existing COA catch basin (storm inlet). The size of the sidewalk culvert should be indicated on the G&D Plan and verified using the standard weir formula.

The drainage analysis per the DPM will furnish the necessary data on ponding, etc.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: R. D. Gorman, Esq.
Andrew Garcia
File

CITY OF
Albuquerque

August 28, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). CONCEPTUAL GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED AUGUST 7, 1998.

Dear Mr. Gomez:

Based on the information provided on your August 10, 1998 submittal, City Hydrology has the following comments:

CONCEPTUAL G&D Plan can not be used for Building Permit Approval.

While the plan set included several sheets of cross sections, the drainage analysis required by Section 22.2, Hydrology of the Development Process Manual (DPM) was not submitted for review; therfore, it is not possible to either evaluate or validate your proposed plan. Be sure that the issue of off-site flows and those of the Pre-Design Meeting are addressed.

Your attention is invited to Section 22.7 for valuable checklists.

A SO#19 Permit will be required to tie into the existing COA catch basin (storm inlet). This requires a standard set of notes and signature blocks on the G&D Plan.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: Andrew Garcia
File

DRAINAGE INFORMATION SHEET

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DRB #: 97-323-& ZA97-370 EPC #: _____ WORK ORDER #: _____

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OWNER: ROBERT D. & CATHY S. GORMAN CONTACT: ROBERT GORMAN

ADDRESS: P.O. BOX 25164, ALBUQUERQUE, NM 87125 PHONE: (505) 243-5442

ARCHITECT: _____ CONTACT: _____

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TYPE OF SUBMITTAL:
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PRE-DESIGN MEETING:
- ___ YES
- ___ NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:
- ___ SKETCH PLAT APPROVAL
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- ___ S. DEV. PLAN FOR SUB'D APPROVAL
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- ___ FOUNDATION PERMIT APPROVAL
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- _X_ CERTIFICATE OF OCCUPANCY APPROVAL
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- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ SUBDIVISION CERTIFICATION
- ___ OTHER _____ (SPECIFY)

DATE SUBMITTED: NOVEMBER 30, 1999

BY: MICHAEL D. GOMEZ

See Cofan Bldg

RECEIVED
DEC 10 1999
HYDROLOGY SECTION

Revised 02/98

Mrs Lawson's
garage

08/24/99 TUE 12:40 FAX 5059243864 PWD/1 STOP SHOP ☑001

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	0549
CONNECTION TEL	97682765
SUBADDRESS	
CONNECTION ID	
ST. TIME	08/24 12:36
USAGE T	03'29
PGS.	5
RESULT	OK

FAX

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT AND BUILDING SERVICES
(ONE STOP SHOP)
600 2ND STREET - PLAZA DEL SOL - 2ND FLOOR WEST
FAX NO. 924-3864

DATE: 24 AUG 1999

TIME: 12:35 PM

NO. OF PAGES: 4
(INCLUDING COVER PAGE)

TO: LOREN MEINZ

FROM: JOHN MURRAY

COMMENTS:

Please deliver to Pam Lujan, Permits Sect.
She did not receive FAX on 5th Fl
THANKS

FAX

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT AND BUILDING SERVICES
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DEVELOPMENT AND BUILDING SERVICES
(ONE STOP SHOP)
600 2ND STREET - PLAZA DEL SOL - 2ND FLOOR WEST
FAX NO. 924-3864

DATE: _____

TIME: _____

NO. OF PAGES: _____
(INCLUDING COVER PAGE)

TO: _____

FROM: _____

COMMENTS:

08/24/99 TUE 09:01 FAX 5059243864 PWD/1 STOP SHOP 001

****
*** ERROR TX REPORT ***
****

TX FUNCTION WAS NOT COMPLETED

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SUBADDRESS		
CONNECTION ID		
ST. TIME	08/24	09:01
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RESULT	NG	
	0	#018

FAX

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT AND BUILDING SERVICES
(ONE STOP SHOP)
600 2ND STREET - PLAZA DEL SOL - 2ND FLOOR WEST
FAX NO. 924-3864

Hand Delivered (8/24 @ Noon)
SO#19 (4 Sheets)

DATE: 24 Aug 1999

TIME: 8:55 AM

NO. OF PAGES: 3
(INCLUDING COVER PAGE)

Oct 1, 1998
Oct 27, 1999

TO: Pam Lujan, Permits Section

FROM: J MURRAY, Hydrology

Ltr'y Jack

COMMENTS:

Letters Approving SO#19 Permit
(I am going through our file to check)

****
*** ERROR TX REPORT ***
****

TX FUNCTION WAS NOT COMPLETED

TX/RX NO	0546	
CONNECTION TEL		97682804
SUBADDRESS		
CONNECTION ID		
ST. TIME	08/24 09:08	
USAGE T	00'00	
PGS.	0	
RESULT	NG	
	0	#018

FAX

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT AND BUILDING SERVICES
(ONE STOP SHOP)
600 2ND STREET - PLAZA DEL SOL - 2ND FLOOR WEST
FAX NO. 924-3864

DATE: 24 Aug 1999

TIME: 8:55 AM

NO. OF PAGES: 3
(INCLUDING COVER PAGE)

TO: Pam Lujan, Permits Section

FROM: J Murray, Hydrology

COMMENTS:

Letters Approving SO#19 Permit
(I am going through our file to check)

COMPLAINT FORM

PUBLIC WORKS DEPARTMENT
HYDROLOGY DIVISION
DEVELOPMENT SECTION
768-2650

Date Complaint Received:_____

Zone Atlas/Drainage File No.: _____ Complaint File No.: _____

Complainant: _____ Phone #: _____

Address/Location: _____

Complaint: _____

Referred to: _____

Investigation-Comments: _____

Follow-up: _____

Resolved by: _____ Date: _____

10AM 7/6

Mrs Ladson

Bob Gorman
243-5442

In & Out

Solid Waste

12th & Lomas 7/1

Gorman

Sincal 947

Complaint

Alley

LEAVE GRAVEL

Trash Pickup

Dumpsters

Blacktop

→ Problem

Mr. Estrado

→ Barnie Montoya

Chris Kalsbeek Stillbrook

5123 Willow Creek NW

Paradise Meadows

Unit 2
Lot 9
BX6

858-1800

Retaining Wall ←

→ Encroachment

7/1

884-0700
Pete.

Norma Larsen 243-8205

2 pm 7/1
No Ans

COMPLAINT FORM

PUBLIC WORKS DEPARTMENT
HYDROLOGY DIVISION
DEVELOPMENT SECTION
768-2650

Date Complaint Received:_____

Zone Atlas/Drainage File No.: _____ Complaint File No.: _____

Complainant: _____ Phone #: _____

Address/Location: _____

Complaint: _____

Referred to: _____

Investigation-Comments: _____

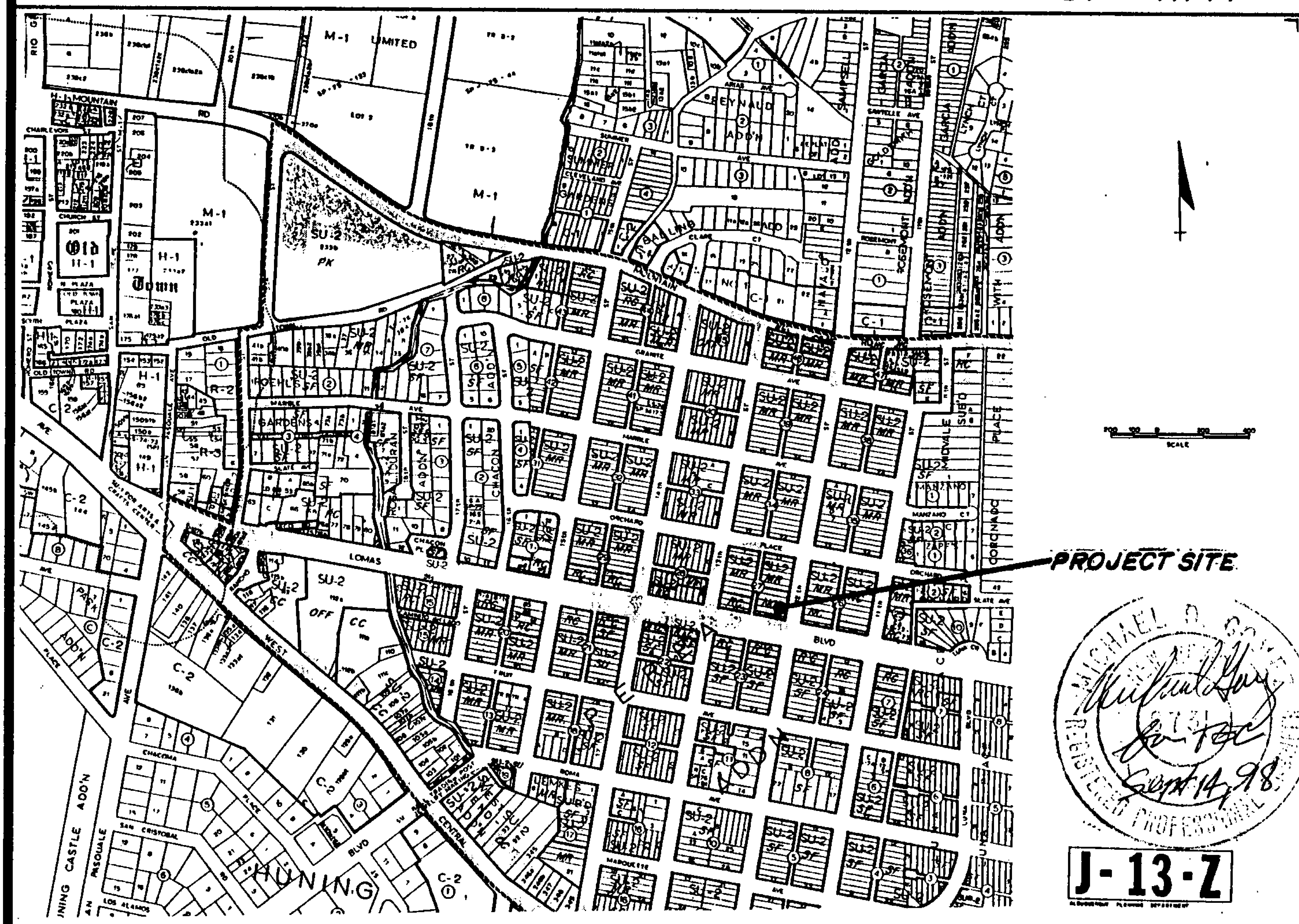
Follow-up: _____

Resolved by: _____ Date: _____

Temp - 30 day
Oct 7, 1999

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



LOCATION MAP

LEGAL DESCRIPTION OF PROPERTY SERVED: LOT 2~~0~~3-A, BLOCK 27, PEREA ADDITION

BENCH MARK: ACS NO. 12-J13 ACS ELEV. 4954.85

NOTICE TO CONTRACTOR

1. An excavation/contruction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.

2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with City of Albuquerque Standard Sprcifications for Public Works Construction 1986.

3. Two working days prior to any excavation, contractor must contatct Line Locating Service, 765-1234, for location of existing utilities.

4. Prior to construction, the contrator shall excavate and verify the horizontal and vertical locations of all constructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.

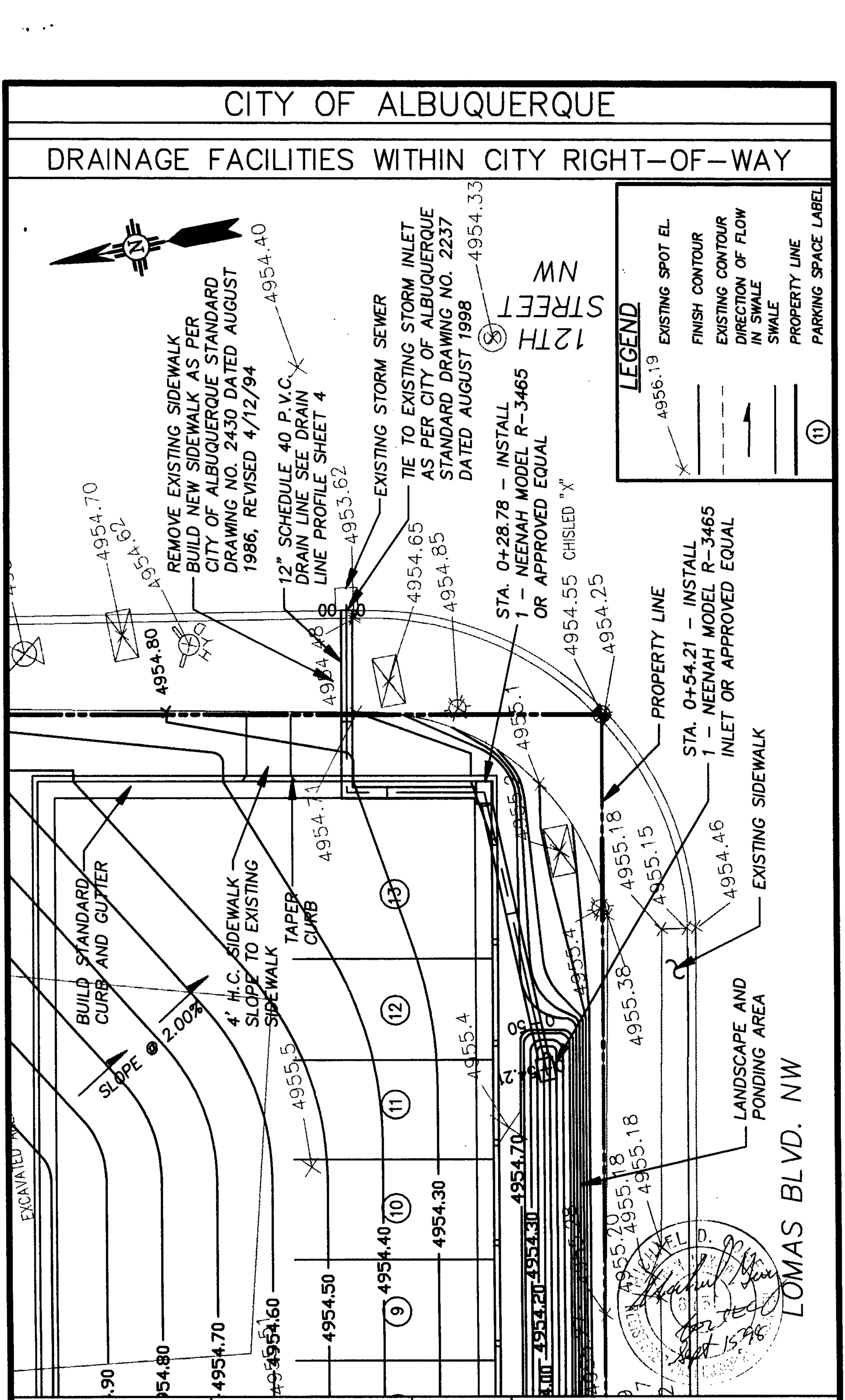
5. Backfill compaction shall be according to <u>RESIDENTIAL</u> street use.

6. Maintenance of these facilities shall be the responsibility of the owner of the property served.

APPROVALS	NAME	DATE	TITLE: GORMAN PROFESSIONAL BUILDING DOWNTOWN ALBUQUERQUE CATCH BASIN & DRAIN LINE	
HYDROLOGY				
INSPECTOR			PERMIT NO. SHEET 1 OF 4	MAP NO. J13
CONSTRUCTION ENGINEER				

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



APPROVALS	NAME	DATE
HYDROLOGY		
INSPECTOR		
CONSTRUCTION ENGINEER		

TITLE: GORMAN PROFESSIONAL BUILDING
DOWNTOWN ALBUQUERQUE
CATCH BASIN & DRAIN LINE

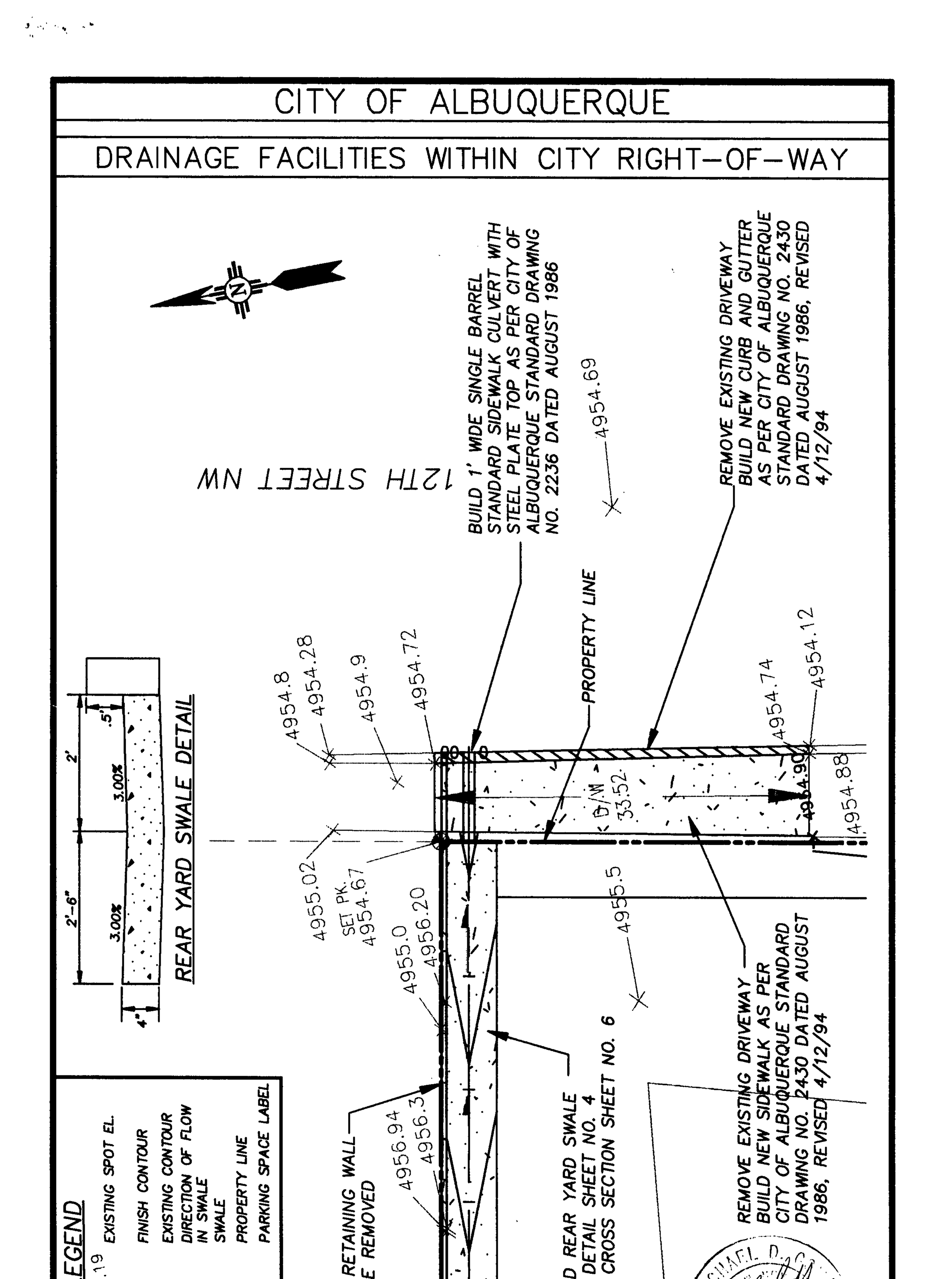
PERMIT NO.

SHEET 2 OF 4

MAP NO. J13

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



APPROVALS	NAME	DATE
HYDROLOGY		
INSPECTOR		
CONSTRUCTION ENGINEER		

TITLE: GORMAN PROFESSIONAL BUILDING
DOWNTOWN ALBUQUERQUE
CATCH BASIN & DRAIN LINE

PERMIT NO.

SHEET 3 OF 4

MAP NO. J13

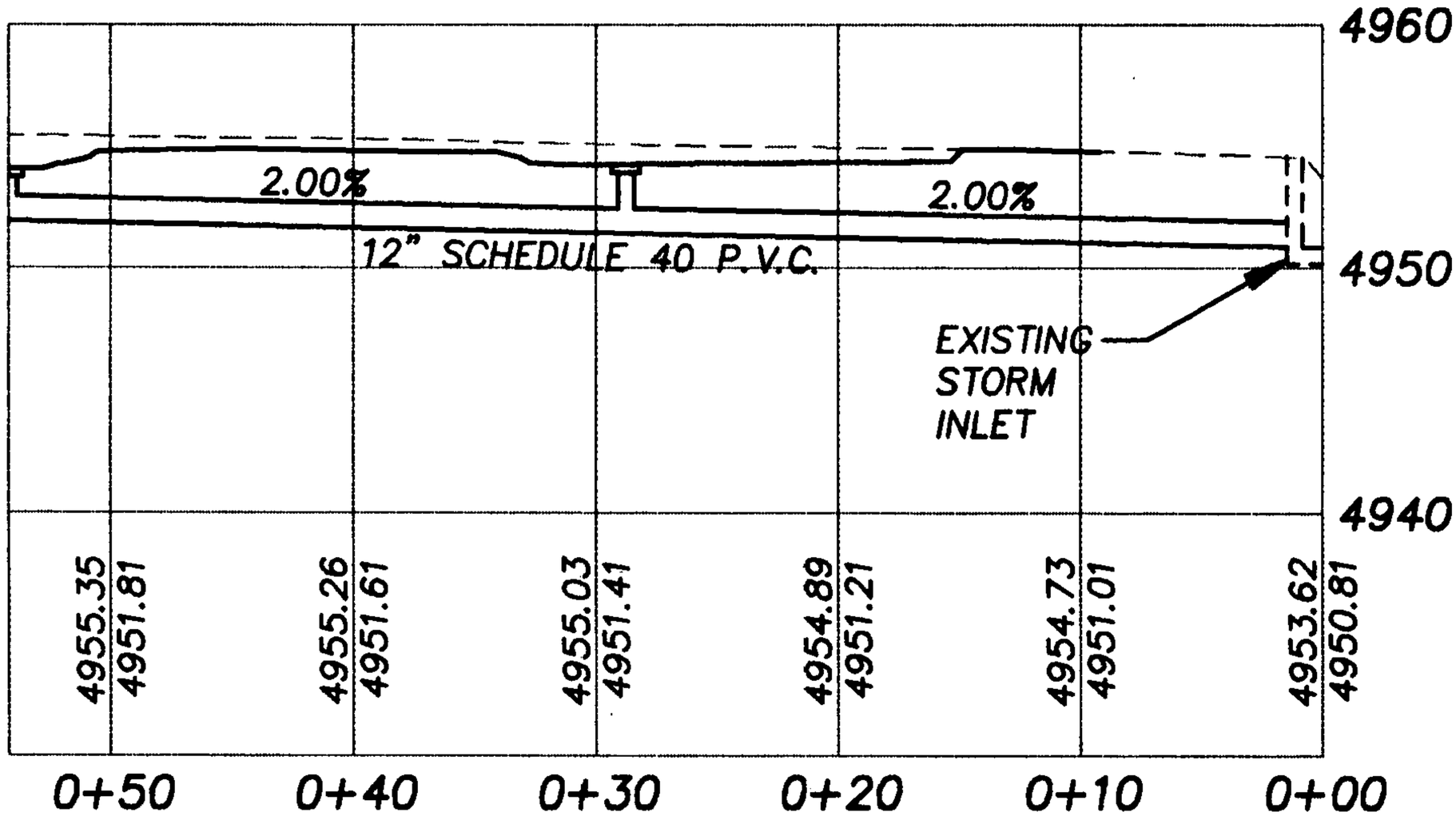
CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

STA. 0+54.21 – INSTALL
1 – NEENAH MODEL R-3465
INLET OR APPROVED EQUAL

STA. 0+28.78 – INSTALL
1 – NEENAH MODEL R-3465
INLET OR APPROVED EQUAL

STA. 0+00 TIE TO EXISTING
STORM INLET AS PER CITY
OF ALBUQUERQUE STANDARD
DRAWING NO. 2237 DATED
AUGUST 1998



DRAIN LINE PROFILE

SCALE: 1" = 10'

MICHAEL D. GORMAN
REGISTERED PROFESSIONAL ENGINEER

APPROVALS	NAME	DATE
HYDROLOGY		
INSPECTOR		
CONSTRUCTION ENGINEER		

TITLE: GORMAN PROFESSIONAL BUILDING
DOWNTOWN ALBUQUERQUE
CATCH BASIN & DRAIN LINE

PERMIT NO.

SHEET 4 OF 4

MAP NO. J13

DRAINAGE INFORMATION SHEET

APPLICANT'S NAME: ROBERT D. & CATHY S. GORMAN **ZONE ATLAS/DRNG. FILE #:** G15 / J13-071

DRB #: 97-323 & ZA97-370 **EPC #:** _____ **WORK ORDER #:** _____

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ENGINEERING FIRM: TIERRA ENGINEERING CONSULTANTS, INC. **CONTACT:** MICHAEL D. GOMEZ

ADDRESS: NO. 4 CALLE MEDICO, SANTA FE, NM 87505 **PHONE:** (505) 982-2845

OWNER: ROBERT D. & CATHY S. GORMAN **CONTACT:** ROBERT GORMAN

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ARCHITECT: _____ **CONTACT:** _____

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TYPE OF SUBMITTAL:
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- X CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
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- X OTHER SO #19

PRE-DESIGN MEETING:
- X YES
- ___ NO
- X COPY PROVIDED

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- X BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY APPROVAL
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- ___ DRAINAGE REQUIREMENTS
- ___ SUBDIVISION CERTIFICATION
- X OTHER SO #19 (SPECIFY)

DATE SUBMITTED: SEPTEMBER 15, 1998

BY: ROBERT D. GORMAN

Revised 02/98

RECEIVED
SEP 18 1998
HYDROLOGY SECTION

9/18

Mr Gorman
brought these
in @ 11 AM today
Please Log In
Thanks
JK

e! #o@.

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT SERVICE / HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO. J13 **DATE:** 7/8/98
PLANNING DIVISION NO'S:EPC: **ZONING:** SU NC **DRB:**
97323(Minor Plat)
SUBJECT: Gorman Professional Building
STREET ADDRESS (IF KNOWN): 1201 Lomas Blvd. NW
SUBDIVISION NAME: Perea Addn Lots 20-23 (23A?)

APPROVAL REQUESTED: Building Permit & DRC approval

ATTENDANCE: Fred J. Aguirre-City Hydrologist
Mike Gomez, PE,Tierra Engr

FINDINGS:
Hydrology's Requirements:
An approved drainage plan is required for building permit approval.
Given that this is an infill site, free discharge is acceptable to a City R/W.
The drainage plan must provide a design for the entire alley.
Transportation Requirements:
The alley adjacent to this site must be paved to city standards.
The alley section in the vicinity of Lomas must be 24'.
Twenty five-foot radius curb-returns at Lomas is required.
Unused drivepads must be replaced with curb / gutter and sidewalk.
Minimum alley slope is 0.5%.

THE UNDERSIGNED AGREES THAT THE ABOVE FINDINGS ARE SUMMERIZED ACCURATELY AND ARE SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THEY ARE NOT REASONABLE OR THAT THEY ARE BASED ON INACCURATE INFORMATION.

SIGNED: Fred J. Aguirre 7/8/98 **SIGNED:**
TITLE :City Hydrologist **TITLE :**

****NOTE**** PLEASE PROVIDE A COPY OF THIS RECAP WITH YOUR DRAINAGE SUBMITTAL.

CITY OF
Albuquerque

August 28, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). CONCEPTUAL GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED AUGUST 7, 1998.

Dear Mr. Gomez:

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Sincerely,

John P. Murray, P.E.
Hydrology

c: Andrew Garcia
File

FAX

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT AND BUILDING SERVICES
(ONE STOP SHOP)
600 2ND STREET - PLAZA DEL SOL - 2ND FLOOR WEST
FAX NO. 924-3864

DATE: 31 AUG '98

TIME: 2:10 PM

NO. OF PAGES: 2
(INCLUDING COVER PAGE)

TO: M.D GOMEZ, PE

FROM: J.P MURRAY, PE

COMMENTS: GORMAN PROF. BLDG

Mr. Aguirre assures me that the acceptance of free discharge for this infill site was NOT a carte blanche waiver on COA's Drainage Submittal Requirements, e.g., off-site flows, public alley, tie-in to COA catch basin.

Marked up copy of SO#19 Notes & Signature Block

CITY OF
Albuquerque

September 3, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). CONCEPTUAL GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED AUGUST 7, 1998.

Dear Mr. Gomez:

Based on the information provided on your August 10, 1998 submittal and conversations with you and Mr. Gorman following your receipt of our letter dated August 28,1998, City Hydrology has the following additional comments:

Since detailed topography is not available and the area is quite flat, off site flows may be calculated by estimating the contributing area(s) involved.

The removal of the CMU retaining wall must not adversely affect the existing drainage trough directly abutting on the north. RE: Estrada Office Building (J13-D48).

The alley improvements appear in order and should not affect the gararges to the west.

The SO#19 Permit will cover the new sidewalk culvert as well as the tie-in to the existing COA catch basin (storm inlet). The size of the sidewalk culvert should be indicated on the G&D Plan and verified using the standard weir formula.

The drainage analysis per the DPM will furnish the necessary data on ponding, etc.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: R. D. Gorman, Esq. ✓
Andrew Garcia
File

GORMAN OFFICE BUILDING
DRAINAGE REPORT

I. INTRODUCTION

The proposed Gorman Office Building is to be located at the intersection of Lomas Blvd. and 12th Street. A pre-design meeting was held on July 8, 1998, (see attached conference recap). According to Mr. Fred Aguirre, P.E. this is an in fill site and free discharge is acceptable to the City right-of-way. A pond is provided for landscaping and water harvesting. Catch basins are provided on-site to drain the pond and parking lots. As per correspondence from Mr. John Murray, P.E. (see attached) an SO # 19 is required to tie to the existing catch basin and for a proposed sidewalk culvert.

According to discussions with the City staff the paved alley is required to drain to the south to avoid exacerbating the existing drainage conditions in the alley. It was decided by City staff that the alley could sheet flow across the Gorman parking lot and that a drainage covenant would be sufficient to allow this.

II. REFERENCES

1. Chapter 22, Drainage Flood Control and Erosion Control.
2. "Handbook of Hydraulics," by Brater & King, 6th Edition

III. METHODOLOGY

As per reference 1, the rational method is used for this project, since drainage areas are very small.

IV. PRECIPITATION ZONES

The site is in precipitation Zone 2 as per Table A-2, Reference 1, the following precipitation applicable at the site:

100 Year Precipitation	
Duration	Depth (Inches)
P_{60}	2.01
P_{360}	2.35
P_{1440}	2.75
$P_{4\ days}$	3.30
$P_{10\ days}$	3.95

V. PEAK DISCHARGE - EXISTING CONDITIONS

A. The Drainage Conditions in the area are presented in Figure 1. The area in the vicinity of the site is extremely flat. There is a low area in the alley north of the site. The Existing Conditions Drainage Map is presented in Figure 2. Q_1 consists of on-site Areas draining to the southwest. Q_2 consists of on-site and off-site alley and roof areas which drain through the alley to the north. The Drainage Condition Adjoining the Alley are presented in Figure 3. The area of the roofs and drainage patterns were estimated based upon field inspections during a moderate rain storms. The characteristics of each drainage area are as follows:

EXISTING CONDITIONS DRAINAGE BASINS		
	Q_1	Q_2
Area of impervious concrete and pavement (land treatment D)	0.217 AC	0.056 AC
Area of impervious roofs (land treatment D)	0	0.021 AC
Area of gravel (land treatment C)	0	0.030 AC
Area of compacted earth (land treatment C)	0.036 AC	0
Total Area	0.253 AC	0.107 AC

The existing drainage area upstream of the site consists of impervious roofs and pavement (land treatment D) and a gravel driveway (land treatment C).

B. Calculate time of concentration by the SCS upland method

$T_c = L_1/V_1/ 3600$ Sec/Hour

$V = K * \sqrt{s * 100}$

K = 1 for Paved Areas, bare or disturbed soil areas.

1. For Basin Q_1

S = 0.009 Ft/Ft

L = 140 Feet

V = 0.9 Ft/Sec

$T_c = L_1/V_1/3600 = 140/0.9/3600 = 0.04$ Hours

Since $T_c < 0.2$ Hour

Use $T_c = 0.2$ Hours

2. For Basin Q_2

S = 0.007 Ft/Ft

L = 95 Feet

V = 0.84 Ft/Sec

$T_c = L_1/V_1/3600 = 95/0.84/3600 = 0.03$ Hours

Since $T_c < 0.2$ Hour

Use $T_c = 0.2$ Hours

C. For the existing condition the runoff at the site is as follows:

As per Table A-10, for Zone 2 the peak intensity is as follows:

5.05	100 Year
3.41	10 Year
2.04	2 Year

As per Table A-11, the C values in Zone 2 are as follows:

Zone	100 Year	10 Year	2 Year
A	0.31	0.11	0.0
B	0.45	0.28	0.04
C	0.62	0.50	0.29
D	0.93	0.92	0.91

1. For the 100 year event

$Q_1 = 0.93\ (5.05)\ 0.217 + 0.62\ (5.05)\ 0.036$

$Q_1 = 1.02 + 0.11 = 1.13$ CFS

$Q_2 = 0.93\ (5.05)\ 0.056 + 0.93\ (5.05)\ 0.021 + 0.62\ (5.05)\ 0.03$

$Q_2 = 0.26 + 0.10 + 0.09 = 0.45$ CFS

2. For the 10 year event

$Q_1 = 0.92\ (3.41)\ 0.217 + 0.50\ (3.41)\ 0.036$

$Q_1 = 0.68 + 0.05 = 0.73$ CFS

$Q_2 = 0.92\ (3.41)\ 0.056 + 0.92\ (3.41)\ 0.021 + 0.50\ (3.41)\ 0.03$

$Q_2 = 0.17 + 0.06 + 0.05 = 0.28$ CFS

3. For the 2 year event

$Q_1 = 0.91\ (2.04)\ 0.217 + 0.29\ (2.04)\ 0.036$

$Q_1 = 0.40 + 0.02 = 0.42$ CFS

$Q_2 = 0.91\ (2.04)\ 0.056 + 0.91\ (2.04)\ 0.021 + 0.29\ (2.04)\ 0.03$

$Q_2 = 0.10 + 0.04 + 0.02 = 0.16$ CFS

VI. PEAK DISCHARGE - DEVELOPED CONDITIONS

A. The Developed Conditions Drainage Map is presented in Figure 4. Based upon discussion with City Staff the alley is to be regraded to drain to the southeast. $Q_{1\,Dev}$ consists of on-site areas draining to the southeast and includes the paved alley and roofs adjacent to the alley. $Q_{2\,Dev}$ consists of runoff from the new office building which is being routed adjacent to the property in a concrete swale through a sidewalk culvert to 12th Street. The characteristics of each drainage area are as follows:

DEVELOPED CONDITIONS DRAINAGE BASINS		
	$Q_{1\,Dev}$	$Q_{2\,Dev}$
Area of impervious including pavement (land treatment D)	0.197 AC	0.014 AC
Area of impervious roofs (land treatment D)	0.021 AC	0.092 AC
Area of landscaping (land treatment C)	0.022 AC	0
Total Area	0.240 AC	0.106 AC

B. Calculate time of concentration by the SCS upland method

$T_c = L_1/V_1/ 3600$ Sec/Hour

$V = K * \sqrt{s * 100}$

K = 1 for Paved Areas, bare or disturbed soil areas.

1. For Basin $Q_{1\,Dev}$

S = 0.005 Ft/Ft

L = 100 Feet

V = 0.7 Ft/Sec

$T_c = L_1/V_1/3600 = 100/0.7/3600 = 0.04$ Hours

Since $T_c < 0.2$ Hour

Use $T_c = 0.2$ Hours

2. For Basin $Q_{2\,Dev}$

$S = 0.005$ Ft/Ft

$L = 125$ Feet

$V = 0.71$ Ft/Sec

$T_c = L_1/V_1/3600 = 125/0.71/3600 = 0.05$ Hours

Since $T_c < 0.2$ Hour

Use $T_c = 0.2$ Hours

C. For the developed condition the runoff at the site is as follows:

As per Table A-10, for Zone 2 the peak intensity is as follows:

5.05	100 Year
3.41	10 Year
2.04	2 Year

As per Table A-11, the C values in Zone 2 are as follows:

Zone	100 Year	10 Year	2 Year
A	0.31	0.11	0.0
B	0.45	0.28	0.04
C	0.62	0.50	0.29
D	0.93	0.92	0.91

1. For the 100 year event

$Q_{1\,Dev} = 0.93\ (5.05)\ 0.197 + 0.93\ (5.05)\ 0.021 + 0.62\ (5.05)\ 0.022$

$Q_{1\,Dev} = 0.92 + 0.01 + 0.07 = 1.00$ CFS

$Q_{2\,Dev} = 0.93\ (5.05)\ 0.014 + 0.93\ (5.05)\ 0.092$

$Q_{2\,Dev} = 0.06 + 0.43 = 0.49$ CFS

2. For the 10 year event

$Q_{1\,Dev} = 0.92\ (3.41)\ 0.197 + 0.92\ (3.41)\ 0.021 + 0.50\ (3.41)\ 0.022$

$Q_{1\,Dev} = 0.62 + 0.06 + 0.04 = 0.72$ CFS

$Q_{2\,Dev} = 0.92\ (3.41)\ 0.014 + 0.92\ (3.41)\ 0.092$

$Q_{2\,Dev} = 0.04 + 0.29 = 0.32$ CFS

3. For the 2 year event

$Q_{1\,Dev} = 0.91\ (2.04)\ 0.197 + 0.91\ (2.04)\ 0.021 + 0.29\ (2.04)\ 0.022$

$Q_{1\,Dev} = 0.36 + 0.04 + 0.01 = 0.41$ CFS

$Q_{2\,Dev} = 0.91\ (2.04)\ 0.014 + 0.91\ (2.04)\ 0.092$

$Q_{2\,Dev} = 0.02 + 0.17 = 0.19$ CFS

VII. CHECK SIDEWALK CULVERT CAPACITY

A standard sidewalk culvert, with steel plate top, drawing 2236, dated August 1986, is proposed. The weir formula is used to check the sidewalk culvert capacity.

$Q = CLH^{3/2}$

Q = Discharge in CFS

C = Discharge coefficient

L = Length of weir

H = depth of flow

The width of the sidewalk culvert is 1 foot. The maximum allowable depth of flow is 0.5 feet. As per Reference No. 2, Table 5-3, the value of C for a broadcrested weir with a depth of 0.4 feet and a width of weir of 1 foot is 2.72.

The capacity of the proposed sidewalk culvert is

$Q = CLH^{3/2}$

$Q = 2.72\ (1)\ (0.50)^{3/2}$

$Q = 0.96$ CFS

The calculated 100 year flow is 0.49 CFS. The calculated depth of flow through the sidewalk culvert is

$Q = CLH^{3/2}$

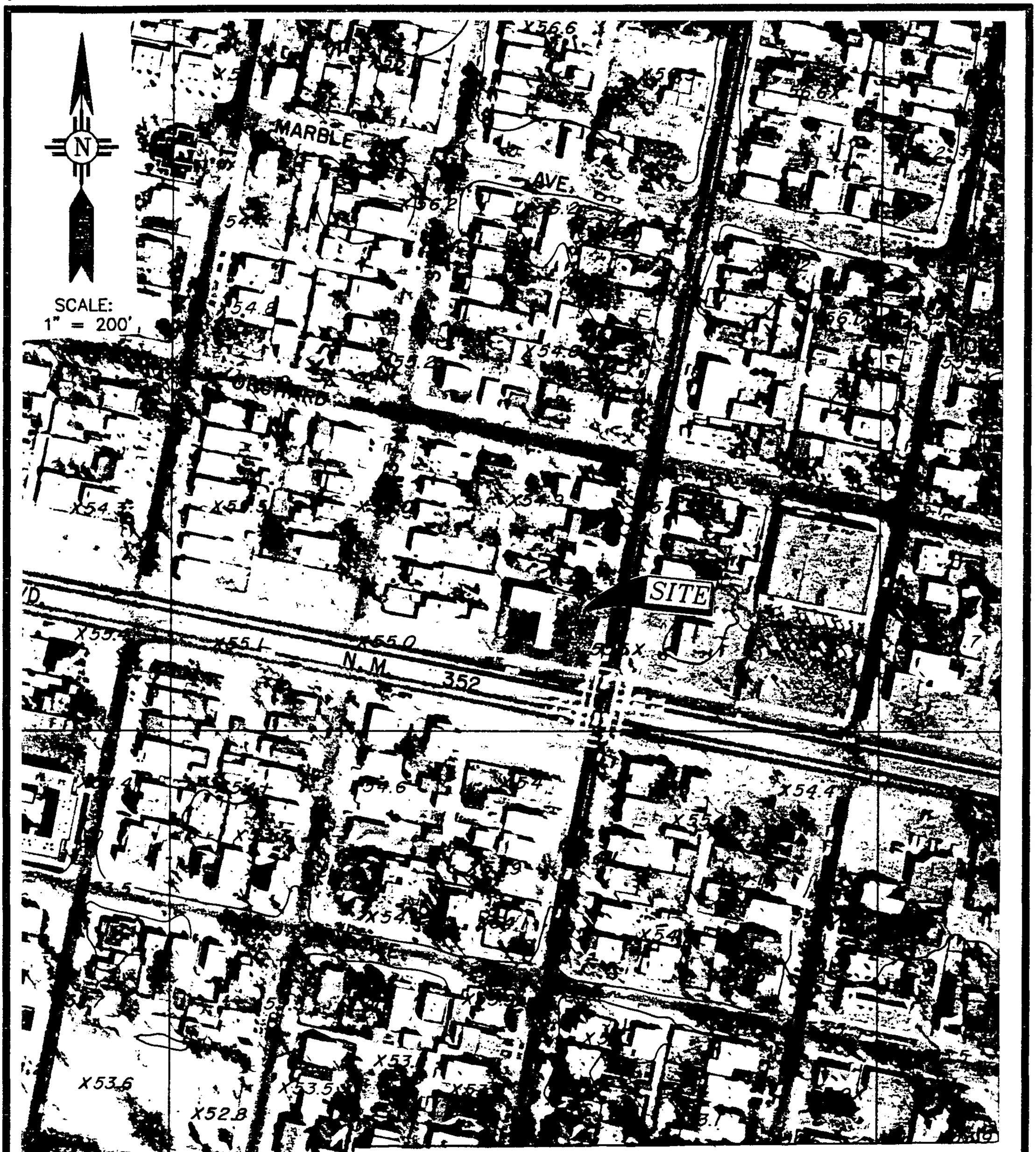
H = 0.32 feet thus the sidewalk culvert has more than adequate capacity for the design flow.

VIII. CONCLUSIONS

The sidewalk culvert as proposed is adequate. Ponding is not required, although it is being provided (see pre-design memo). The quantities of runoff from this project are extremely small and the 12" drain line and on-site catch basins can easily handle the design flows.

APPENDIX A

FIGURES



REFERENCE:
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT A PORTION OF METROPOLITAN ALBUQUERQUE, ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO TOPOGRAPHIC MAP NO. J-13, DATED MARCH 21, 1976.

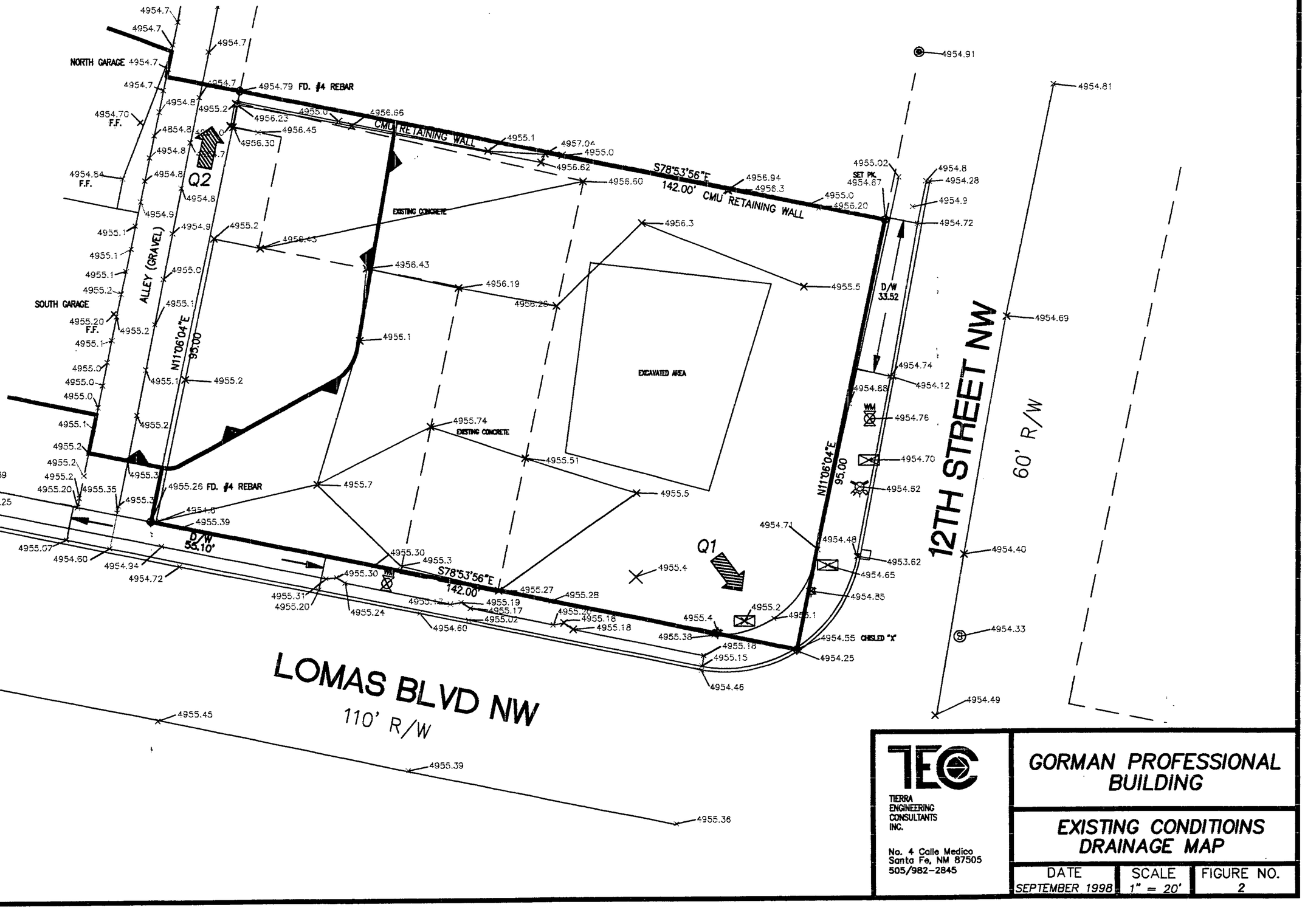
TIERRA
ENGINEERING
CONSULTANTS
INC.

No. 4 Calle Medico
Santa Fe, NM 87505
505/982-2845

GORMAN PROFESSIONAL BUILDING

DRAINAGE MAP

DATE	SCALE	FIGURE NO.
SEPTEMBER 1998	1" = 200'	1



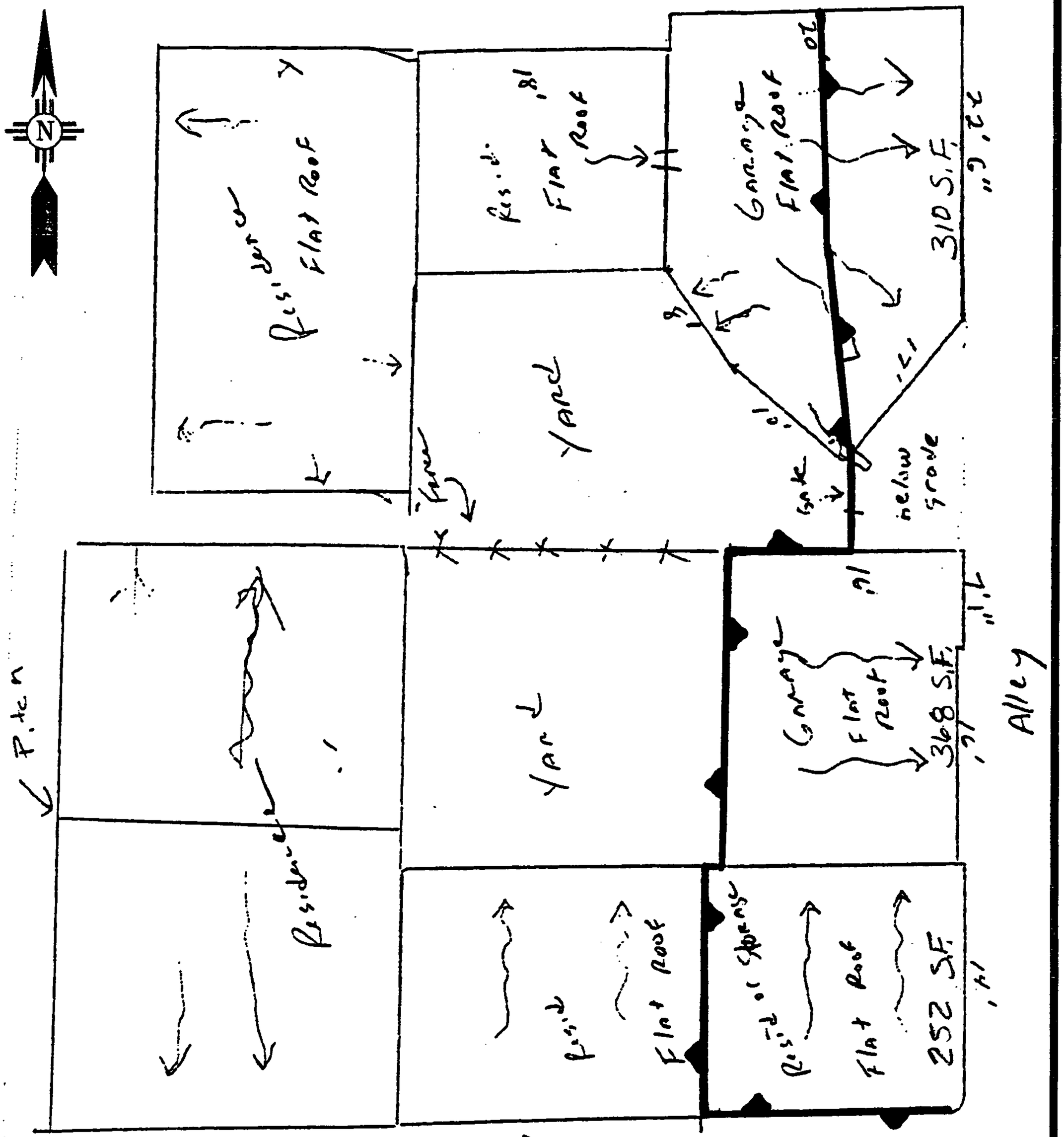
TIERRA ENGINEERING CONSULTANTS INC.

No. 4 Calle Medico
Santa Fe, NM 87505
505/982-2845

GORMAN PROFESSIONAL BUILDING

EXISTING CONDITIOINS DRAINAGE MAP

DATE	SCALE	FIGURE NO.
SEPTEMBER 1998	1" = 20'	2



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CONSULTANTS
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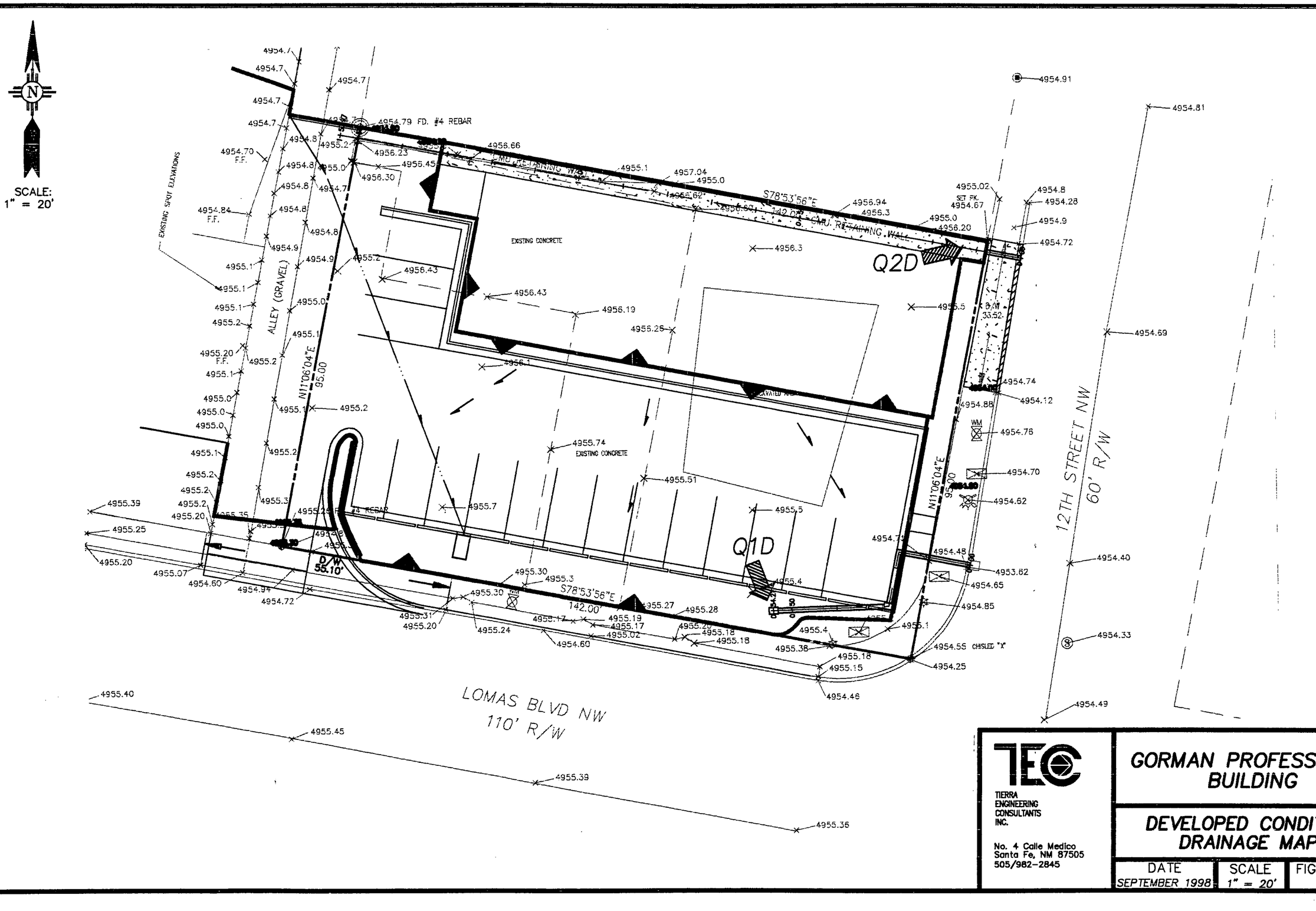
No. 4 Calle Medico
Santa Fe, NM 87505
505/982-2845

GORMAN PROFESSIONAL BUILDING

DRAINAGE CONDITIONS ADJOINING ALLEY

DATE	SCALE	FIGURE NO.
SEPTEMBER 1998	N.T.S.	3



TIERRA ENGINEERING CONSULTANTS INC.

No. 4 Calle Medico
Santa Fe, NM 87505
505/982-2845

GORMAN PROFESSIONAL BUILDING

DEVELOPED CONDITIOINS DRAINAGE MAP

DATE	SCALE	FIGURE NO.
SEPTEMBER 1998	1" = 20'	4

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 27, 1999

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). DRAINAGE REPORT AND SO#19 DATA WITH ENGINEER'S STAMP DATED 9/15/98, AND GRADING AND DRAINAGE PLAN (ORIGINAL DATE FOR ENGINEER'S STAMP OF 8/7/98) FOR BUILDING PERMIT AND SO#19 PERMIT APPROVALS.

Dear Mr. Gomez:

Reference is made to C.O.A. letter dated October 1, 1998 subject as above. Somehow the resubmittal addressing the retitling of the G&D Plan and the Engineer's Stamp Date bypassed the log in process. This letter is to document that the Grading and Drainage Plan stamped September 15, 1998 is the approved plan of record.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P.Murray, P.E.
Hydrology

c: R.D.Gorman, Esq.
Andrew Garcia
√File

CITY OF
Albuquerque

October 1, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). DRAINAGE REPORT AND SO#19 DATA WITH ENGINEER'S STAMP DATED 9/15/98, AND GRADING AND DRAINAGE PLAN (ORIGINAL DATE FOR ENGINEER'S STAMP OF 8/7/98) FOR BUILDING PERMIT AND SO#19 PERMIT APPROVALS.

Dear Mr. Gomez:

Based on the information provided on your September 18, 1998 resubmittal, City Hydrology has the following comments:

The "Conceptual" Grading & Drainage Plan should be retitled simply the Grading & Drainage Plan since you have furnished an appropriate analysis in the Drainage Report. As noted in C.O.A. letter of 8/28/98, "Conceptual" G&D can not be used for Building Permit Approval.

Please add the SO#19 data to the G&D Plan (Plates 3&4) to form the approved G&D Plan for inclusion in the construction sets prior to sign-off by Hydrology. Add 9/15/98 date to Stamp.

A separate permit is required for construction within the City right-of-way. A copy of the approval letter must be on hand when applying for the excavation permit.

Improvements to the Public Alley on the west must go through DRC for approval.

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

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Sincerely,

John P.Murray, P.E.
Hydrology

c: R.D.Gorman, Esq.
~~Arlene Portillo~~
~~D.Salas, St. Maint.~~

c: Andrew Garcia
File

CITY OF
Albuquerque

September 3, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). CONCEPTUAL GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED AUGUST 7, 1998.

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The alley improvements appear in order and should not affect the gararges to the west.

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The drainage analysis per the DPM will furnish the necessary data on ponding, etc.

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Sincerely,

John P. Murray, P.E.
Hydrology

c: R. D. Gorman, Esq.
Andrew Garcia
File

Ortho photo map
or Topographic map
of NW corner of
12th & Loma.

9/11/98
A:50PM

9/12

Corp. of Engineers

2:30
Gorman
Called

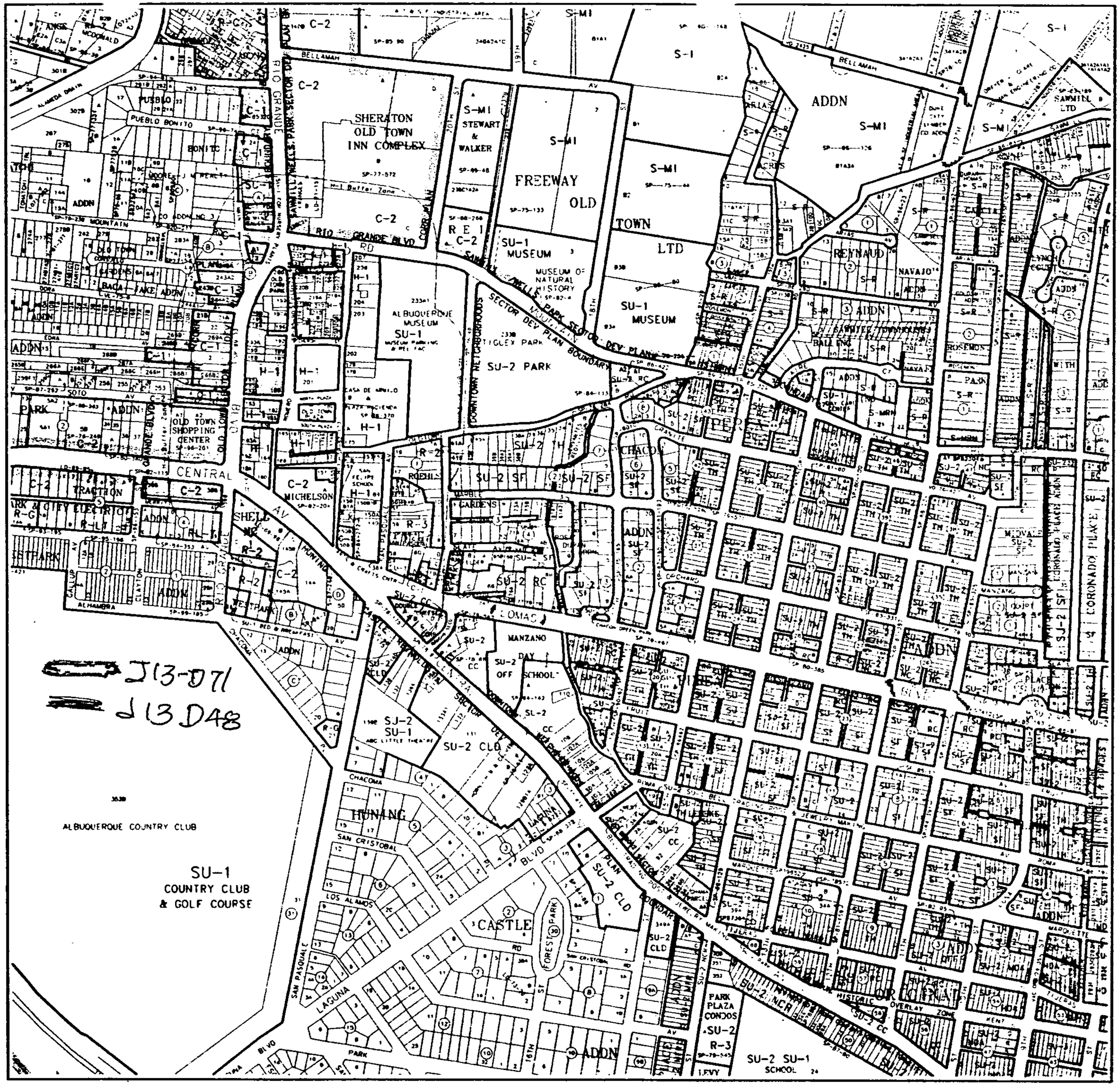
ROBERT D. GORMAN
ATTORNEY AT LAW

LAW OFFICES OF
ROBERT D. GORMAN
A PROFESSIONAL ASSOCIATION
(505) 243-5442

TWO WOODWARD CENTER
SUITE 101
700 LOMAS BOULEVARD, N.E.
ALBUQUERQUE, NM 87102

9/3
10:30 AM
Mr. Gorman called
ma back od
J-13 D 71
his office bldg

discussed
drainage submittal
needs. JG



GRAPHIC SCALE IN FEET

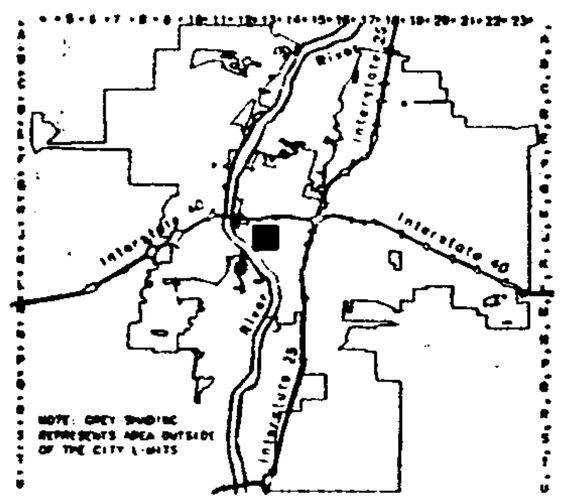
250 0 500 1000

CITY OF Albuquerque

A Albuquerque G Geographic I Information S System

PLANNING DEPARTMENT

Map Amended through October 28, 1996



LEGAL DESCRIPTION

TION

RGE

SEC 18

UNIFORM PROPERTY CODE

1-013-068

J-13-Z

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	3336
CONNECTION TEL	915059822641
SUBADDRESS	
CONNECTION ID	
ST. TIME	08/31 14:08
USAGE T	02'17
PGS.	2
RESULT	OK

FAX

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT AND BUILDING SERVICES
(ONE STOP SHOP)
600 2ND STREET - PLAZA DEL SOL - 2ND FLOOR WEST
FAX NO. 924-3864

DATE: 31 AUG '98

TIME: 2:10 PM

NO. OF PAGES: 2
(INCLUDING COVER PAGE)

TO: M.D GOMEZ, PE

FROM: J.P MURRAY, PE

COMMENTS: GORMAN PROF. BLDG

Mr. Aguirre assures me that the acceptance of free discharge for this infill site was NOT a carte blanche waiver on COA's Drainage Submittal Requirements, e.g., off-site flows, public alley, tie-in to COA catch basin.

FAX

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT AND BUILDING SERVICES
(ONE STOP SHOP)
600 2ND STREET - PLAZA DEL SOL - 2ND FLOOR WEST
FAX NO. 924-3864

DATE: 31 AUG '98

TIME: 2:10 PM

NO. OF PAGES: 2
(INCLUDING COVER PAGE)

FAX
(505) 982-
2641

TO: M.D GOMEZ, PE

FROM: JP MURRAY, PE

COMMENTS: GORMAN PROF. BLDG

Mr. Aguirre assures me that the acceptance of free discharge for this infill site was NOT a carte blanche waiver on COA's Drainage Submittal Requirements, e.g., off-site flows, public alley, tie-in to COA catch basin.

Marked up copy of SO#19 Notes & Signature Block

CITY OF
Albuquerque

October 1, 1998

CY DRAFT

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). DRAINAGE REPORT AND SO#19 DATA WITH ENGINEER'S STAMP DATED 9/15/98, AND GRADING AND DRAINAGE PLAN (ORIGINAL DATE FOR ENGINEER'S STAMP OF 8/7/98) FOR BUILDING PERMIT AND SO#19 PERMIT APPROVALS.

Dear Mr. Gomez:

Based on the information provided on your September 18, 1998 resubmittal, City Hydrology has the following comments:

The "Conceptual" Grading & Drainage Plan should be retitled simply the Grading & Drainage Plan since you have furnished an appropriate analysis in the Drainage Report. As noted in C.O.A. letter of 8/28/98, "Conceptual" G&D can not be used for Building Permit Approval.

Please add the SO#19 data to the G&D Plan (Plates 3&4) to form the approved G&D Plan for inclusion in the construction sets prior to sign-off by Hydrology. Add 9/15/98 date to Stamp.

A separate permit is required for construction within the City right-of-way. A copy of ~~this~~ the approval letter must be on hand when applying for the excavation permit.

Improvements to the Public alley on the west must go through DRC for approval.

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P.Murray, P.E.
Hydrology

c: R.D.Gorman, Esq.
Arlene Portillo
D.Salas, St. Maint.

c: Andrew Garcia
File

DRAFT

CITY OF
Albuquerque

September 30, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). DRAINAGE REPORT AND SO#19 DATA WITH ENGINEER'S STAMP DATED 9/15/98, AND GRADING AND DRAINAGE PLAN (ORIGINAL DATE FOR ENGINEER'S STAMP OF 8/7/98) FOR BUILDING PERMIT AND SO#19 PERMIT APPROVALS.

Dear Mr. Gomez:

NO ESA

Based on the information provided on your September 18, 1998 resubmittal, the above referenced project is approved for Building and SO#19 Permits. City Hydrology has the following comments:

The "Conceptual" Grading & Drainage Plan should be retitled simply the Grading & Drainage Plan since you have furnished an analysis in the Drainage Report. (As noted in C.O.A. letter of 8/28/98, "Conceptual" G&D can not be used for Building Permit Approval.)

Please combine the SO#19 data with the G&D Plan (Plates 3&4) as the approved G&D plan for inclusion in the construction sets prior to sign-off by Hydrology. Add 9/15/98 date to Stamp. A separate permit is required for construction within the City right-of-way. A copy of this approval letter must be on hand when applying for the excavation permit.

Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P.Murray, P.E.
Hydrology

Public Alley

c: R.D.Gorman, Esq.
Arlene Portillo
D.Salas, St. Maint.
Andrew Garcia
File

CITY OF
Albuquerque

August 28, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). CONCEPTUAL GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED AUGUST 7, 1998.

Dear Mr. Gomez:

Based on the information provided on your August 10, 1998 submittal, City Hydrology has the following comments:

CONCEPTUAL G&D Plan can not be used for Building Permit Approval.

While the plan set included several sheets of cross sections, the drainage analysis required by Section 22.2, Hydrology of the Development Process Manual (DPM) was not submitted for review; therfore, it is not possible to either evaluate or validate your proposed plan. Be sure that the issue of off-site flows and those of the Pre-Design Meeting are addressed.

Your attention is invited to Section 22.7 for valuable checklists.

A SO#19 Permit will be required to tie into the existing COA catch basin (storm inlet). This requires a standard set of notes and signature blocks on the G&D Plan.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: Andrew Garcia
File

Good for You, Albuquerque!

1505 982 2845

Mika Gomez

Returned his
call @ 11:15AM
8/31

TOLD —
NO 8/31
Gomez Concourse
Drainage
Calcs?
Needed

DRAINAGE INFORMATION SHEET

NW
5-13-71

APPLICANT'S NAME: Robert D. & Cathy S. Gorman **ZONE ATLAS/DRNG. FILE #:** G15

DRB #: 97-323 & ZA97-370 **EPC #:** _____ **WORK ORDER #:** _____

LEGAL DESCRIPTION: Lot 20A, Block 27 Perea Addition, (Formerly Lots 20, 21, 22, 23)

CITY ADDRESS: 1201 Lomas Blvd, NE

ENGINEERING FIRM: Tierra Engineering Consultants, Inc. **CONTACT:** Michael D. Gomez

ADDRESS: #4 Calle Medico, Santa Fe, NM 87505 **PHONE:** (505) 982-2845

OWNER: Robert D. & Cathy S. Gorman **CONTACT:** Robert Gorman

ADDRESS: P.O. Box 25164, Albuquerque, NM 87125 **PHONE:** (505) 243-5442

ARCHITECT: _____ **CONTACT:** _____

ADDRESS: _____ **PHONE:** _____

SURVEYOR: Wilson Surveying, Inc. **CONTACT:** John Wilson

ADDRESS: 809 Copper Avenue, NW, Albuquerque, NM **PHONE:** (505) 243-6434

CONTRACTOR: Richard Gorman **CONTACT:** Richard Gorman

ADDRESS: P.O. Box 884, Santa Fe, NM 87504 **PHONE:** (505) 988-9549

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT
___ DRAINAGE PLAN
_X_ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION
___ OTHER _____

PRE-DESIGN MEETING:

_X_ YES
___ NO
_X_ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ S. DEV. PLAN FOR SUB'D APPROVAL
___ S. DEV PLAN FOR BLDG. PERMIT APPROVAL
___ SECTOR PLAN APPROVAL
___ FINAL PLAT APPROVAL
___ FOUNDATION PERMIT APPROVAL
_X_ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ SUBDIVISION CERTIFICATION
___ OTHER _____ (SPECIFY)

DATE SUBMITTED: August 7, 1998

BY: Yvette Pena

RECEIVED
AUG 10 1998
HYDROLOGY SECTION

RECEIVED
AUG 10 1998
HYDROLOGY SECTION

Revised 02/98

Comment on
Covenant 2
RE: FJA NO

NO
Calcs!

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT SERVICE / HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO. J13 **DATE:** 7/8/98
PLANNING DIVISION NO'S:EPC: **ZONING:** SU NC **DRB:**
97323(Minor Plat)
SUBJECT: Gorman Professional Building
STREET ADDRESS (IF KNOWN): 1201 Lomas Blvd. NW
SUBDIVISION NAME: Perea Addn Lots 20-23 (23A?)

APPROVAL REQUESTED: Building Permit & DRC approval

ATTENDANCE: Fred J. Aguirre-City Hydrologist
Mike Gomez, PE,Tierra Engr

FINDINGS:
Hydrology's Requirements:
An approved drainage plan is required for building permit approval.
Given that this is an infill site, free discharge is acceptable to a City R/W.
The drainage plan must provide a design for the entire alley.
Transportation Requirements:
The alley adjacent to this site must be paved to city standards.
The alley section in the vicinity of Lomas must be 24'.
Twenty five-foot radius curb-returns at Lomas is required.
Unused drivepads must be replaced with curb / gutter and sidewalk.
Minimum alley slope is 0.5%.

THE UNDERSIGNED AGREES THAT THE ABOVE FINDINGS ARE SUMMERIZED ACCURATELY AND ARE SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THEY ARE NOT REASONABLE OR THAT THEY ARE BASED ON INACCURATE INFORMATION.

SIGNED: Fred J. Aguirre 7/8/98 **SIGNED:**
TITLE :City Hydrologist **TITLE :**

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH YOUR DRAINAGE SUBMITTAL.

LAW OFFICES OF ROBERT D. GORMAN
A Professional Association

Telephone (505) 243-5442

Two Woodward Center
Suite 101
700 Lomas Boulevard, NE
Albuquerque, New Mexico 87102

Mailing Address:
Post Office Box 25164
Albuquerque, New Mexico 87125
Fax Number (505) 247-1539

August 21, 1998

Our File No.:
GO07-014

Mr. Fred Aguirre, P.E.
City of Albuquerque-Hydrology Division
600 2nd Street NW
Plaza del Sol Building
Albuquerque, NM 87102

Re: 1201 Lomas NW

Dear Mr. Aguirre:

As you requested at our meeting concerning the drainage plan for the above property, I contacted Kevin Curran in the City Attorney's Office to obtain a form of covenant which would address your concerns. You indicated that you wanted an acknowledgement that water from the public alley would be allowed to drain on to my property as part of the drainage plan submitted. You requested that I acknowledge that the City will not be obligated to construct improvements to avoid the drainage described, and that I consent to the drainage from the alley.

The form of agreement provided to me by Mr. Curran was for a drainage facility on private property. I modified it to address your concerns. I believe the enclosed draft includes provisions that address all of your concerns. If you have any questions or need any revisions or additions to the agreement, please call.

I look forward to hearing from you.

Sincerely,

ROBERT D. GORMAN

RDG/csg
Enclosure

PRIVATE FACILITY
DRAINAGE COVENANT

This Drainage Covenant, between ROBERT D. GORMAN and CATHY S. GORMAN, husband and wife, ("Owner"),
whose address is 3212 Vista del Sur NW, Albuquerque, NM 87120, and
the City of Albuquerque, a New Mexico municipal corporation ("City"), whose address is P.O. Box 1293, Albuquerque, New Mexico 87103, is made in Albuquerque, Bernalillo County, New Mexico and is entered into as of the date Owner signs this Covenant.

1. Recital. The Owner is the owner of the following described real property located at [give legal description, and street address:]

> Lot 23-A, Block 27, Perea Addition as the same is shown and designated on the replat of lots 20 through 22 and the north 20' of Lot 23, Block 27, Perea Addition, said replat having been recorded on July 10, 1998, in Book 98C, page 199, Records of the County Clerk, of Bernalillo County, New Mexico, said property being more commonly known as 1201 Lomas Boulevard NW, Albuquerque, NM 87102.

in Bernalillo County, New Mexico (the "Property").

Pursuant to City ordinances, regulations and other applicable laws, the Owner is required to construct and maintain certain drainage facilities on the Property, and the parties wish to enter into this Covenant to establish the obligations and responsibilities of the parties.

2. Description and Construction of Drainage Facility. The Owner intends to construct certain improvements on the Property. In connection with the improvements, Owner intends to pave a portion of the public alleyway at the Owner's sole expense in accordance with the standards, plans and specifications approved by the City. The plans and specifications provide that a designated portion of the public alleyway may drain runoff in an easterly direction and on to the Property of Owner (said paving and grading activities being hereinafter referred to as "the Drainage Improvements".

3. Benefit to Property. The Owner acknowledges and understands that the Drainage Improvements required herein to be constructed are to be constructed for the benefit of Owners and at their request, in order to permit the intended improvements to be constructed on the Property.

4. Liability of City. The Owner understands and agrees that the City shall not be liable to the Owner, its heirs, successors or assigns, or to any third parties for any damages resulting from the Drainage Improvements, and the drainage of runoff from the public alleyway in the designated areas. The City shall not have any obligation to construct

improvements or drainage facilities to prevent drainage from the designated areas of the public alleyway on to the Property.

5. Assessment. Nothing in this Covenant shall be construed to relieve the Owner, its heirs, assigns and successors from an assessment against the Owner's Property for improvements to the Property under a duly authorized and approved Special Assessment District.

6. Binding on Owner's Property. The covenants and obligations of the Owner set forth herein shall be binding on the Owner, its heirs, assigns and successors and on the Owner's Property and constitute covenants running with the Owner's Property until released by the City. This Covenant can only be released by the City's Chief Administrative Officer with the concurrence of the City Engineer.

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

8. Changes to Covenant. Changes to this Covenant are not binding unless made in writing, signed by both parties.

9. Effective Date of Covenant. This Covenant shall be effective as of the date of signature of the Owner.

Dated_____, 1998_

OWNER:

_____ _____

ROBERT D. GORMAN CATHY S. GORMAN

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

The foregoing instrument was acknowledged before me this _____ day of _____, 1998, by ROBERT D. GORMAN and CATHY S. GORMAN, husband and wife.

_____
NOTARY PUBLIC

My Commission Expires:

_____

CITY OF ALBUQUERQUE:

Accepted:

By_____
Title_____
Dated_____

FAX

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT AND BUILDING SERVICES
(ONE STOP SHOP)
600 2ND STREET - PLAZA DEL SOL - 2ND FLOOR WEST
FAX NO. 924-3864

DATE: 28 Aug '98

TIME: 1:30 PM

NO. OF PAGES: 2
(INCLUDING COVER PAGE)

TO: M D Gomaz PE

FROM: J P Murray PE

COMMENTS: Gorman Prof Bldg
G&D Plan Comments

DRAINAGE INFORMATION SHEET

APPLICANT'S NAME: ROBERT D. & CATHY S. GORMAN ZONE ATLAS/DRNG. FILE #: G15 / J13-071

DRB #: 97-323 & ZA97-370 EPC #: WORK ORDER #:

LEGAL DESCRIPTION: LOT 20A, BLOCK 27 PEREA ADDITION, (FORMERLY LOTS 20, 21, 22, 23)

CITY ADDRESS: 1201 LOMAS BLVD., N.E.

ENGINEERING FIRM: TIERRA ENGINEERING CONSULTANTS, INC. CONTACT: MICHAEL D. GOMEZ

ADDRESS: NO. 4 CALLE MEDICO, SANTA FE, NM 87505 PHONE: (505) 982-2845

OWNER: ROBERT D. & CATHY S. GORMAN CONTACT: ROBERT GORMAN

ADDRESS: P.O. BOX 25164, ALBUQUERQUE, NM 87125 PHONE: (505) 243-5442

ARCHITECT: CONTACT:

ADDRESS: PHONE:

SURVEYOR: WILSON SURVEYING, INC. CONTACT: JOHN WILSON

ADDRESS: 809 COPPER AVENUE, N.W., ALBUQUERQUE, NM PHONE: (505) 243-6434

CONTRACTOR: RICHARD GORMAN CONTACT: RICHARD GORMAN

ADDRESS: P.O. BOX 884, SANTA FE, NM 87504 PHONE: (505) 988-9549

TYPE OF SUBMITTAL:
- X DRAINAGE REPORT
- X DRAINAGE PLAN
- X CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- X OTHER SO #19

PRE-DESIGN MEETING:
- X YES
- ___ NO
- X COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:
- ___ SKETCH PLAT APPROVAL
- ___ PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- ___ S. DEV PLAN FOR BLDG. PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ SUBDIVISION CERTIFICATION
- X OTHER SO #19 (SPECIFY)

DATE SUBMITTED: SEPTEMBER 15, 1998

BY: ROBERT D. GORMAN

RECEIVED
SEP 18 1998
HYDROLOGY SECTION

Revised 02/98

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT SERVICE / HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO. J13 **DATE:** 7/8/98
PLANNING DIVISION NO'S:EPC: **ZONING:** SU NC **DRB:**
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SUBJECT: Gorman Professional Building
STREET ADDRESS (IF KNOWN): 1201 Lomas Blvd. NW
SUBDIVISION NAME: Perea Addn Lots 20-23 (23A?)

APPROVAL REQUESTED: Building Permit & DRC approval

ATTENDANCE: Fred J. Aguirre-City Hydrologist
Mike Gomez, PE,Tierra Engr

FINDINGS:
Hydrology's Requirements:
An approved drainage plan is required for building permit approval.
Given that this is an infill site, free discharge is acceptable to a City R/W.
The drainage plan must provide a design for the entire alley.
Transportation Requirements:
The alley adjacent to this site must be paved to city standards.
The alley section in the vicinity of Lomas must be 24'.
Twenty five-foot radius curb-returns at Lomas is required.
Unused drivepads must be replaced with curb / gutter and sidewalk.
Minimum alley slope is 0.5%.

THE UNDERSIGNED AGREES THAT THE ABOVE FINDINGS ARE SUMMERIZED ACCURATELY AND ARE SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THEY ARE NOT REASONABLE OR THAT THEY ARE BASED ON INACCURATE INFORMATION.

SIGNED: Fred J. Aguirre 7/8/98 **SIGNED:**
TITLE :City Hydrologist **TITLE :**

****NOTE**** PLEASE PROVIDE A COPY OF THIS RECAP WITH YOUR DRAINAGE SUBMITTAL.

CITY OF
Albuquerque

August 28, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). CONCEPTUAL GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED AUGUST 7, 1998.

Dear Mr. Gomez:

Based on the information provided on your August 10, 1998 submittal, City Hydrology has the following comments:

CONCEPTUAL G&D Plan can not be used for Building Permit Approval.

While the plan set included several sheets of cross sections, the drainage analysis required by Section 22.2, Hydrology of the Development Process Manual (DPM) was not submitted for review; therfore, it is not possible to either evaluate or validate your proposed plan. Be sure that the issue of off-site flows and those of the Pre-Design Meeting are addressed.

Your attention is invited to Section 22.7 for valuable checklists.

A SO#19 Permit will be required to tie into the existing COA catch basin (storm inlet). This requires a standard set of notes and signature blocks on the G&D Plan.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: Andrew Garcia
File

FAX

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
DEVELOPMENT AND BUILDING SERVICES
(ONE STOP SHOP)
600 2ND STREET - PLAZA DEL SOL - 2ND FLOOR WEST
FAX NO. 924-3864

DATE: 31 AUG '98

TIME: 2:10 PM

NO. OF PAGES: 2
(INCLUDING COVER PAGE)

TO: M.D GOMEZ, PE

FROM: JP MURRAY, PE

COMMENTS: GORMAN PROF. BLDG

Mr. Aguirre assures me that the acceptance of free discharge for this infill site was NOT a carte blanche waiver on COA's Drainage Submittal Requirements, e.g., off-site flows, public alley, free-in to COA catch basin.

Marked up copy of SO#19 Notes & Signature Block

CITY OF
Albuquerque

September 3, 1998

Michael D. Gomez, P.E.
Tierra Engineering Consultants, Inc.
#4 Calle Medico
Santa Fe, NM 87505

RE: GORMAN PROFESSIONAL BUILDING (J13-D71). CONCEPTUAL GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED AUGUST 7, 1998.

Dear Mr. Gomez:

Based on the information provided on your August 10, 1998 submittal and conversations with you and Mr. Gorman following your receipt of our letter dated August 28,1998, City Hydrology has the following additional comments:

Since detailed topography is not available and the area is quite flat, off site flows may be calculated by estimating the contributing area(s) involved.

The removal of the CMU retaining wall must not adversely affect the existing drainage trough directly abutting on the north. RE: Estrada Office Building (J13-D48).

The alley improvements appear in order and should not affect the gararges to the west.

The SO#19 Permit will cover the new sidewalk culvert as well as the tie-in to the existing COA catch basin (storm inlet). The size of the sidewalk culvert should be indicated on the G&D Plan and verified using the standard weir formula.

The drainage analysis per the DPM will furnish the necessary data on ponding, etc.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: R. D. Gorman, Esq. ✓
Andrew Garcia
File

GORMAN OFFICE BUILDING
DRAINAGE REPORT

I. INTRODUCTION

The proposed Gorman Office Building is to be located at the intersection of Lomas Blvd. and 12th Street. A pre-design meeting was held on July 8, 1998, (see attached conference recap). According to Mr. Fred Aguirre, P.E. this is an in fill site and free discharge is acceptable to the City right-of-way. A pond is provided for landscaping and water harvesting. Catch basins are provided on-site to drain the pond and parking lots. As per correspondence from Mr. John Murray, P.E. (see attached) an SO # 19 is required to tie to the existing catch basin and for a proposed sidewalk culvert.

According to discussions with the City staff the paved alley is required to drain to the south to avoid exacerbating the existing drainage conditions in the alley. It was decided by City staff that the alley could sheet flow across the Gorman parking lot and that a drainage covenant would be sufficient to allow this.

II. REFERENCES

1. Chapter 22, Drainage Flood Control and Erosion Control.
2. "Handbook of Hydraulics," by Brater & King, 6th Edition

III. METHODOLOGY

As per reference 1, the rational method is used for this project, since drainage areas are very small.

IV. PRECIPITATION ZONES

The site is in precipitation Zone 2 as per Table A-2, Reference 1, the following precipitation applicable at the site:

100 Year Precipitation	
Duration	Depth (Inches)
P_{60}	2.01
P_{360}	2.35
P_{1440}	2.75
$P_{4\ days}$	3.30
$P_{10\ days}$	3.95

V. PEAK DISCHARGE - EXISTING CONDITIONS

A. The Drainage Conditions in the area are presented in Figure 1. The area in the vicinity of the site is extremely flat. There is a low area in the alley north of the site. The Existing Conditions Drainage Map is presented in Figure 2. Q_1 consists of on-site Areas draining to the southwest. Q_2 consists of on-site and off-site alley and roof areas which drain through the alley to the north. The Drainage Condition Adjoining the Alley are presented in Figure 3. The area of the roofs and drainage patterns were estimated based upon field inspections during a moderate rain storms. The characteristics of each drainage area are as follows:

EXISTING CONDITIONS DRAINAGE BASINS		
	Q_1	Q_2
Area of impervious concrete and pavement (land treatment D)	0.217 AC	0.056 AC
Area of impervious roofs (land treatment D)	0	0.021 AC
Area of gravel (land treatment C)	0	0.030 AC
Area of compacted earth (land treatment C)	0.036 AC	0
Total Area	0.253 AC	0.107 AC

The existing drainage area upstream of the site consists of impervious roofs and pavement (land treatment D) and a gravel driveway (land treatment C).

B. Calculate time of concentration by the SCS upland method

$T_c = L_1/V_1/ 3600$ Sec/Hour

$V = K * \sqrt{s * 100}$

K = 1 for Paved Areas, bare or disturbed soil areas.

1. For Basin Q_1

S = 0.009 Ft/Ft

L = 140 Feet

V = 0.9 Ft/Sec

$T_c = L_1/V_1/3600 = 140/0.9/3600 = 0.04$ Hours

Since $T_c < 0.2$ Hour

Use $T_c = 0.2$ Hours

2. For Basin Q_2

S = 0.007 Ft/Ft

L = 95 Feet

V = 0.84 Ft/Sec

$T_c = L_1/V_1/3600 = 95/0.84/3600 = 0.03$ Hours

Since $T_c < 0.2$ Hour

Use $T_c = 0.2$ Hours

C. For the existing condition the runoff at the site is as follows:

As per Table A-10, for Zone 2 the peak intensity is as follows:

5.05	100 Year
3.41	10 Year
2.04	2 Year

As per Table A-11, the C values in Zone 2 are as follows:

Zone	100 Year	10 Year	2 Year
A	0.31	0.11	0.0
B	0.45	0.28	0.04
C	0.62	0.50	0.29
D	0.93	0.92	0.91

1. For the 100 year event

$Q_1 = 0.93\ (5.05)\ 0.217 + 0.62\ (5.05)\ 0.036$

$Q_1 = 1.02 + 0.11 = 1.13$ CFS

$Q_2 = 0.93\ (5.05)\ 0.056 + 0.93\ (5.05)\ 0.021 + 0.62\ (5.05)\ 0.03$

$Q_2 = 0.26 + 0.10 + 0.09 = 0.45$ CFS

2. For the 10 year event

$Q_1 = 0.92\ (3.41)\ 0.217 + 0.50\ (3.41)\ 0.036$

$Q_1 = 0.68 + 0.05 = 0.73$ CFS

$Q_2 = 0.92\ (3.41)\ 0.056 + 0.92\ (3.41)\ 0.021 + 0.50\ (3.41)\ 0.03$

$Q_2 = 0.17 + 0.06 + 0.05 = 0.28$ CFS

3. For the 2 year event

$Q_1 = 0.91\ (2.04)\ 0.217 + 0.29\ (2.04)\ 0.036$

$Q_1 = 0.40 + 0.02 = 0.42$ CFS

$Q_2 = 0.91\ (2.04)\ 0.056 + 0.91\ (2.04)\ 0.021 + 0.29\ (2.04)\ 0.03$

$Q_2 = 0.10 + 0.04 + 0.02 = 0.16$ CFS

VI. PEAK DISCHARGE - DEVELOPED CONDITIONS

A. The Developed Conditions Drainage Map is presented in Figure 4. Based upon discussion with City Staff the alley is to be regraded to drain to the southeast. $Q_{1\ Dev}$ consists of on-site areas draining to the southeast and includes the paved alley and roofs adjacent to the alley. $Q_{2\ Dev}$ consists of runoff from the new office building which is being routed adjacent to the property in a concrete swale through a sidewalk culvert to 12th Street. The characteristics of each drainage area are as follows:

DEVELOPED CONDITIONS DRAINAGE BASINS		
	$Q_{1\ Dev}$	$Q_{2\ Dev}$
Area of impervious including pavement (land treatment D)	0.197 AC	0.014 AC
Area of impervious roofs (land treatment D)	0.021 AC	0.092 AC
Area of landscaping (land treatment C)	0.022 AC	0
Total Area	0.240 AC	0.106 AC

B. Calculate time of concentration by the SCS upland method

$T_c = L_1/V_1/ 3600$ Sec/Hour

$V = K * \sqrt{s * 100}$

K = 1 for Paved Areas, bare or disturbed soil areas.

1. For Basin $Q_{1\ Dev}$

S = 0.005 Ft/Ft

L = 100 Feet

V = 0.7 Ft/Sec

$T_c = L_1/V_1/3600 = 100/0.7/3600 = 0.04$ Hours

Since $T_c < 0.2$ Hour

Use $T_c = 0.2$ Hours

2. For Basin $Q_{2\,Dev}$

$S = 0.005$ Ft/Ft

$L = 125$ Feet

$V = 0.71$ Ft/Sec

$T_c = L_1/V_1/3600 = 125/0.71/3600 = 0.05$ Hours

Since $T_c < 0.2$ Hour

Use $T_c = 0.2$ Hours

C. For the developed condition the runoff at the site is as follows:

As per Table A-10, for Zone 2 the peak intensity is as follows:

5.05	100 Year
3.41	10 Year
2.04	2 Year

As per Table A-11, the C values in Zone 2 are as follows:

Zone	100 Year	10 Year	2 Year
A	0.31	0.11	0.0
B	0.45	0.28	0.04
C	0.62	0.50	0.29
D	0.93	0.92	0.91

1. For the 100 year event

$Q_{1\,Dev} = 0.93\ (5.05)\ 0.197 + 0.93\ (5.05)\ 0.021 + 0.62\ (5.05)\ 0.022$

$Q_{1\,Dev} = 0.92 + 0.01 + 0.07 = 1.00$ CFS

$Q_{2\,Dev} = 0.93\ (5.05)\ 0.014 + 0.93\ (5.05)\ 0.092$

$Q_{2\,Dev} = 0.06 + 0.43 = 0.49$ CFS

2. For the 10 year event

$Q_{1\,Dev} = 0.92\ (3.41)\ 0.197 + 0.92\ (3.41)\ 0.021 + 0.50\ (3.41)\ 0.022$

$Q_{1\,Dev} = 0.62 + 0.06 + 0.04 = 0.72$ CFS

$Q_{2\,Dev} = 0.92\ (3.41)\ 0.014 + 0.92\ (3.41)\ 0.092$

$Q_{2\,Dev} = 0.04 + 0.29 = 0.32$ CFS

3. For the 2 year event

$Q_{1\,Dev} = 0.91\ (2.04)\ 0.197 + 0.91\ (2.04)\ 0.021 + 0.29\ (2.04)\ 0.022$

$Q_{1\,Dev} = 0.36 + 0.04 + 0.01 = 0.41$ CFS

$Q_{2\,Dev} = 0.91\ (2.04)\ 0.014 + 0.91\ (2.04)\ 0.092$

$Q_{2\,Dev} = 0.02 + 0.17 = 0.19$ CFS

VII. CHECK SIDEWALK CULVERT CAPACITY

A standard sidewalk culvert, with steel plate top, drawing 2236, dated August 1986, is proposed. The weir formula is used to check the sidewalk culvert capacity.

$Q = CLH^{3/2}$

Q = Discharge in CFS

C = Discharge coefficient

L = Length of weir

H = depth of flow

The width of the sidewalk culvert is 1 foot. The maximum allowable depth of flow is 0.5 feet. As per Reference No. 2, Table 5-3, the value of C for a broadcrested weir with a depth of 0.4 feet and a width of weir of 1 foot is 2.72.

The capacity of the proposed sidewalk culvert is

$Q = CLH^{3/2}$

$Q = 2.72\ (1)\ (0.50)^{3/2}$

$Q = 0.96$ CFS

The calculated 100 year flow is 0.49 CFS. The calculated depth of flow through the sidewalk culvert is

$Q = CLH^{3/2}$

H = 0.32 feet thus the sidewalk culvert has more than adequate capacity for the design flow.

VIII. CONCLUSIONS

The sidewalk culvert as proposed is adequate. Ponding is not required, although it is being provided (see pre-design memo). The quantities of runoff from this project are extremely small and the 12" drain line and on-site catch basins can easily handle the design flows.

APPENDIX A

FIGURES

REFERENCE:
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT A PORTION OF METROPOLITAN ALBUQUERQUE, ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO TOPOGRAPHIC MAP NO. J-13, DATED MARCH 21, 1976.

TIERRA
ENGINEERING
CONSULTANTS
INC.

No. 4 Calle Medico
Santa Fe, NM 87505
505/982-2845

GORMAN PROFESSIONAL BUILDING

DRAINAGE MAP

DATE	SCALE	FIGURE NO.
SEPTEMBER 1998	1" = 200'	1

SCALE:
1" = 20'

NORTH GARAGE

SOUTH GARAGE

ALLEY (GRAVEL)

N11°06'04"E 95.00

4954.79 FD. #4 REBAR

CMU RETAINING WALL

S78°53'56"E 142.00'

EXISTING CONCRETE

EXCAVATED AREA

4955.74 EXISTING CONCRETE

4955.26 FD. #4 REBAR

D/W 55.10'

S78°53'56"E 142.00'

Q1

Q2

SET PK. 4954.67

D/W 33.52

CHISLED "X"

WM

N11°06'04"E 95.00

12TH STREET NW

60' R/W

LOMAS BLVD NW

110' R/W

TIERRA ENGINEERING CONSULTANTS INC.

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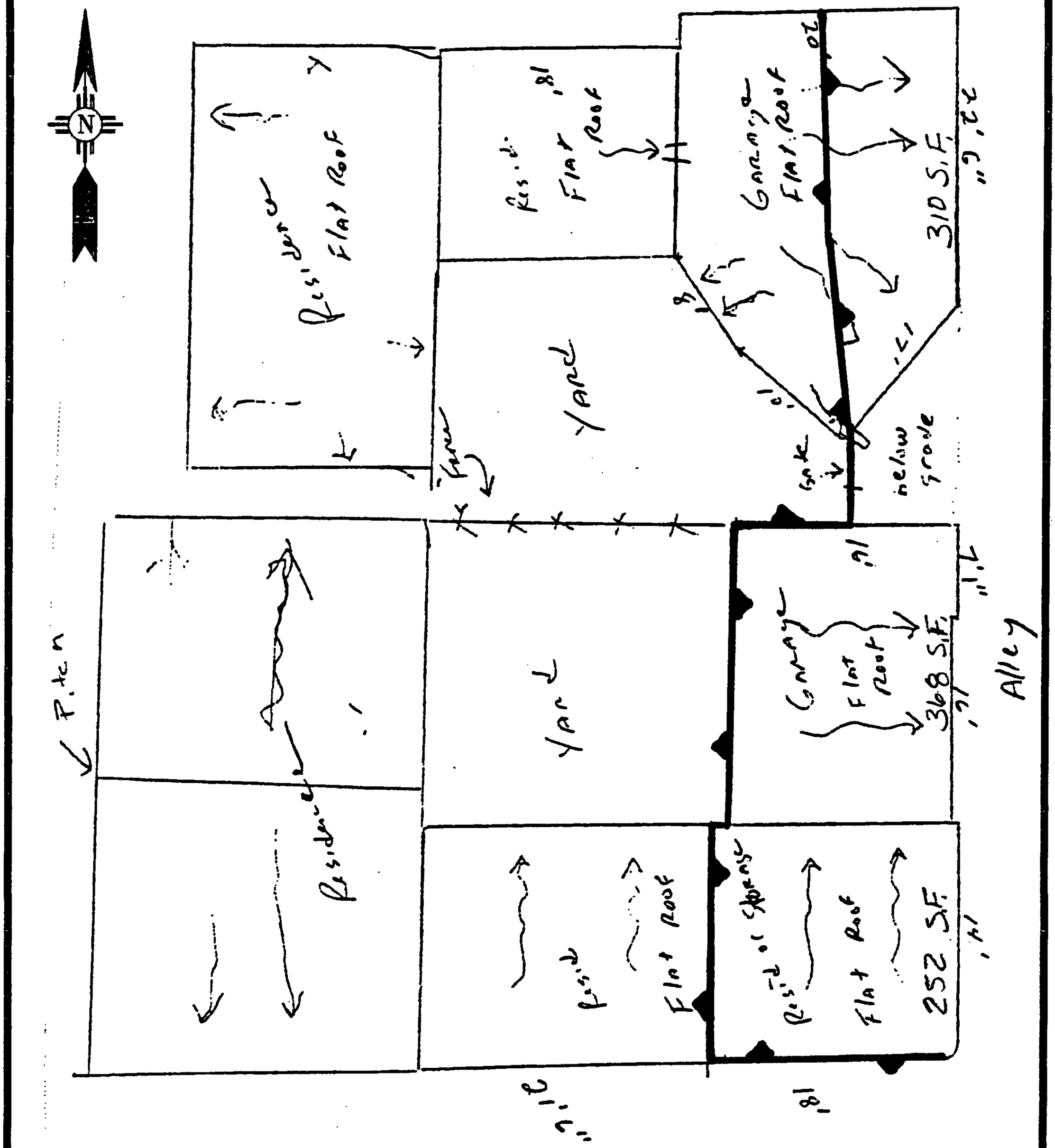
Santa Fe, NM 87505
505/982-2845

GORMAN PROFESSIONAL BUILDING

EXISTING CONDITIOINS DRAINAGE MAP

DATE	SCALE	FIGURE NO.
SEPTEMBER 1998	1" = 20'	2



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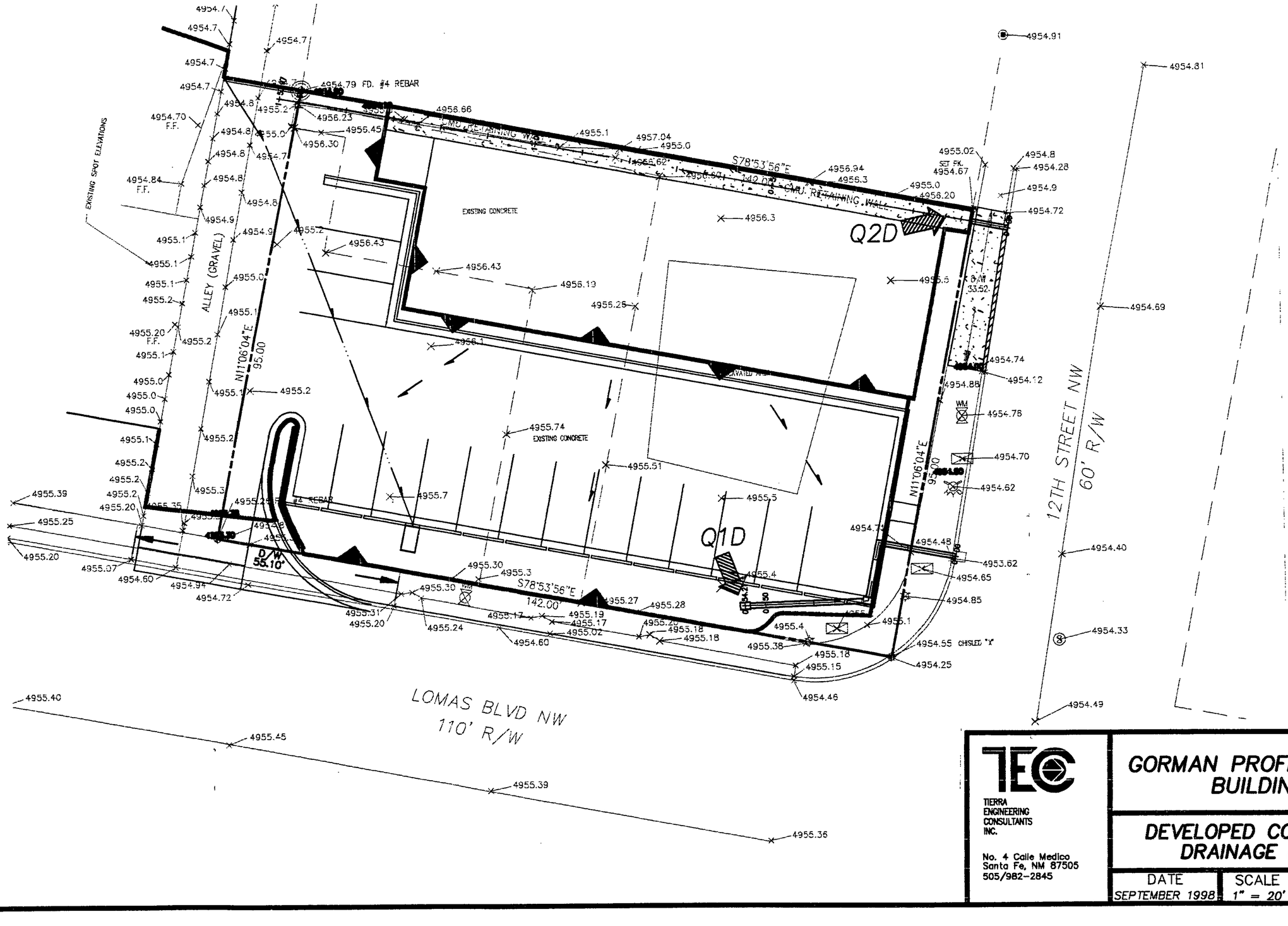
DRAINAGE CONDITIONS ADJOINING ALLEY

DATE	SCALE	FIGURE NO.
SEPTEMBER 1998	N.T.S.	3

SCALE:
1" = 20'



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GORMAN PROFESSIONAL BUILDING

DEVELOPED CONDITIOINS DRAINAGE MAP

DATE	SCALE	FIGURE NO.
SEPTEMBER 1998	1" = 20'	4

FIGURE 6

CITY OF ALBUQUERQUE

NOTICE OF D.R.C. MEETING

11-25-98
(DATE)

DRB NO: N/A
PROJECT NO: 4025 81
ZONE ATLAS: J-13

PROJECT NAME: Gorman Professional Bldg. ALLEY IMP.
LOCATION: Tomas + 12th ST.

TYPE OF PROJECT: AHBA X CIP ____ PWC ____ SAD ____ ALL PRIVATE ___

Contact Person: Michael Gomez **Phone:** 505-982-2845
Firm: Tierra Eng. Consultants

X Scheduled with the D.R.C. on 12-9-98 at 3:30 Plaza Del Sol/2nd Fl.
____ No DRC Meeting Scheduled. Please return any comments by _____

The Project Is Scheduled For:

/ / Design Report Review
/ / Pre-Design Meeting
X / Preliminary Plan Review
/ / Final Plan Review
/ / Signoff of Plans
/ / _____

The Project Relates To:

/ / Water / / San. Sewer / / Paving / / Storm Drainage / / _____

The Attached Package Includes:

/D/ Drawings /S/ Spec's /E/ Estimate /R/ Report /M/ Memo Only

Indicated below are the Departments/Divisions that have received project documents and/or are invited to attend. It will be the Project Managers responsiblity to notify consulting engineering firms of date and time of scheduled meetings.

/D DRC Chairman	Project Review Section	All Drawings
/D/ Traffic Repres	Transportation Development	All Drawings
/D Utility Dev.(Bob Kane)	Utility Design	All AHBA Drawings
/-/ Utility Dev.(Keith Reed)	Utility Design	All CIP Drawings
/D Hydro Repres. MURPHY	Hydrology	All Drawings
/D Const. Repres.	Construction	All Drawings
/D/ Ray Chavez	Traffic Operations	All Drawings
/D/ Sergio Miranda	Water (Shutoff Plan)	All Water Shutoff
/D CIP/Parks Repres.	Parks & Recreation	ALL Landscaping
/ / Andre Houle	Street Maintenance	All Paving
/ / Kevin Broderick	Utility Coordinator	ALL PWC & CIP
/ / Jim Hamel	Transit Department	CIP/Memo
/ / Joe Luehring	Construction Coordinator	CIP/Memo
/ / Jim Fink	Line Maintenance	CIP & SAS/Memo
/ / George Gee	City Architect	Arch. Drawings
/ / Lee Lunsford	SAD Engineer	SAD/Memo
/ / Tom Ellis	Park Mangement	Parks/Community Ctrs/APS
/ / Gene Bustamante	General Services Dept.	Arch. Drawings
/ / Greg Smith	PWD/Legal	Specs & Dwgs.
/ / Richard Sertich	Planning Department	CIP/Memos
/ / CIP Project Manager	CIP	CIP/Memos
/ / Donald Bartlett	Risk Management	Arch. Drawings
/ / _____	_____	_____

DRCNOTIC. 10/19/95

Doc