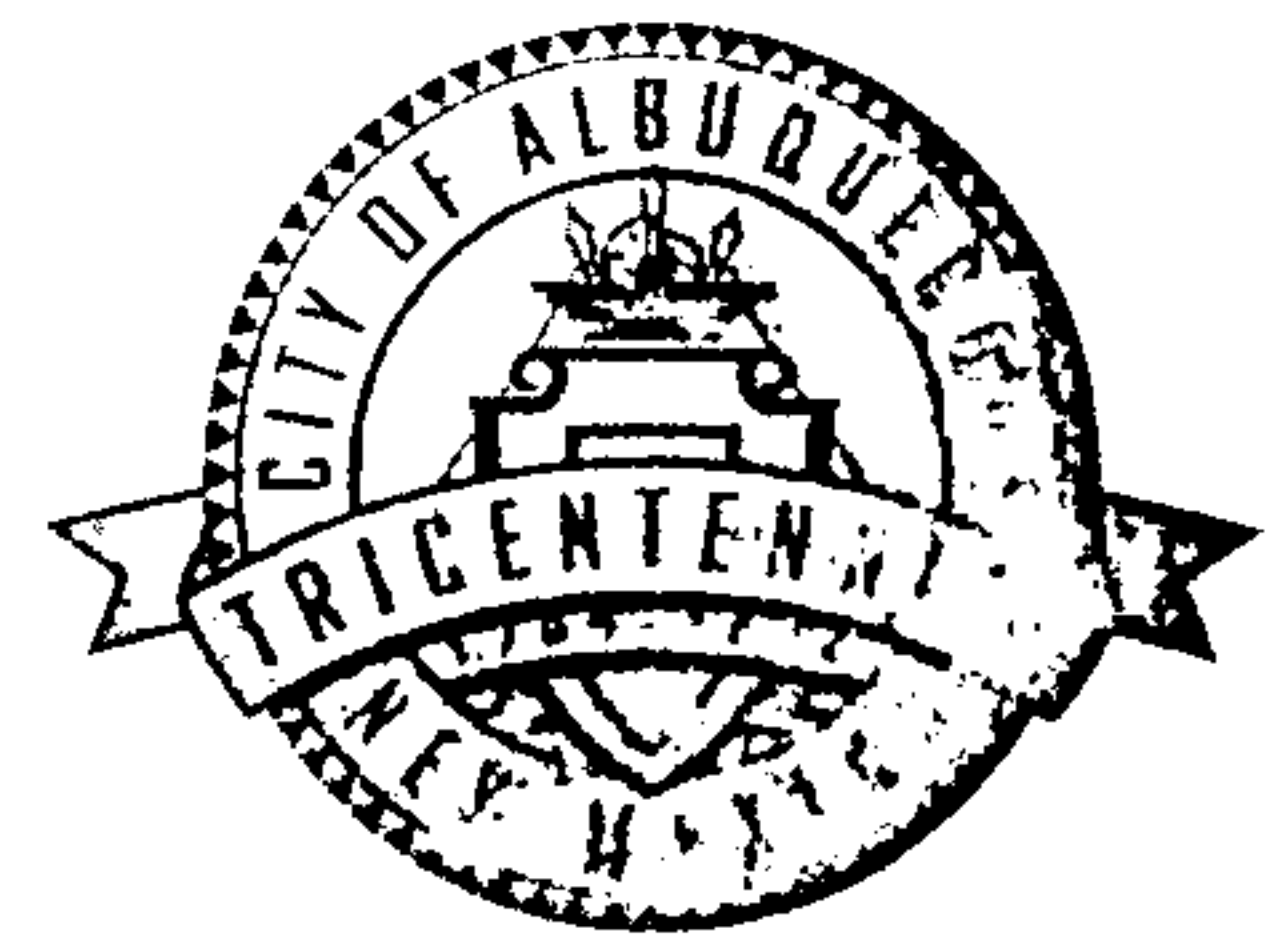


CITY OF ALBUQUERQUE



February 7, 2007

Mr. Verlyn A. Miller, P.E.
Miller Engineering Consultants
3500 Comanche NE Suite S
Albuquerque, NM 87107

Re: RCI Building
1111 Menaul NE
Approval of Permanent Certificate of Occupancy (C.O.)
Engineer's Stamp dated 4/6/06 (H-15/D56)
Certification dated 2/6/07

Mr. Miller,

P.O. Box 1293

Based upon the information provided in your submittal received 2/6/07, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3695.

New Mexico 87103

Sincerely,

Curtis A. Cherne
Engineering Associate - Hydrology
Development and Building Services

www.cabq.gov

C: Katrina Sigala
File

DRAINAGE ENGINE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: RCI, INC EDUCATION BUILDING H-15/D56
DRB#: _____ EPC#: _____ ZONE MAP/DRG. FILE # _____
WORK ORDER#: _____

LEGAL DESCRIPTION: F-2-B-2 BROADBENT BUSINESS PARK
CITY ADDRESS: 1111 MENAUL N.E

ENGINEERING FIRM: MILLER ENGINEERING
ADDRESS: 3500 COMANCH N.E
CITY, STATE: ALB. N.M

CONTACT: VENLIP MILLER
PHONE: 286-7771
ZIP CODE: 87107

OWNER: RCI, INC
ADDRESS: 1111 MENAUL N.E
CITY, STATE: ALB. N.M

CONTACT: ANGELA VIGIL
PHONE: 255-5501
ZIP CODE: 87107

ARCHITECT: NCA ARCHITECTS
ADDRESS: 1306 RIO GRANDE N.W
CITY, STATE: ALB N.M 87104

CONTACT: DAVE PURITZ
PHONE: 255-6400
ZIP CODE: 87104

SURVEYOR: ALB. SURVEY
ADDRESS: 2119 MENAUL N.E
CITY, STATE: ALB N.M

CONTACT: VLAD JUNIE
PHONE: 884-2036
ZIP CODE: 87107

CONTRACTOR: RICHARDSON & RICHARDSON
ADDRESS: 4100 MENAUL N.E
CITY, STATE: ALB N.M 87116

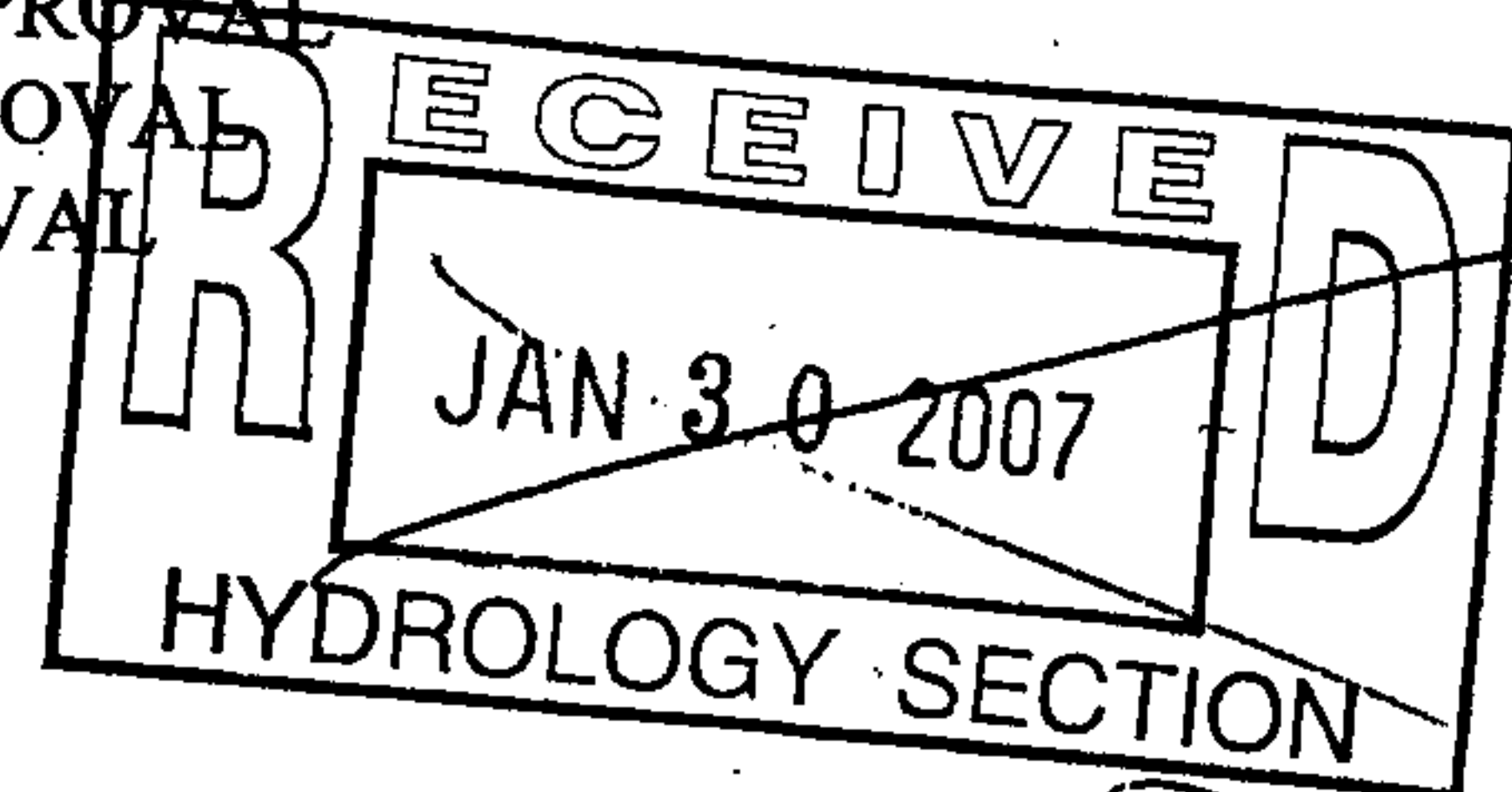
CONTACT: BOB PETERSON
PHONE: 881-2268
ZIP CODE: 87110

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL G & D PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☒ TRAFFIC CIRCULATION LAYOUT
- ☒ ENGINEER/ARCHITECT CERT (TCL)
- ☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
- ☐ ENGINEER/ARCHITECT CERT (AA)
- ☐ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:

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



WAS A PRE-DESIGN CONFERENCE ATTENDED:

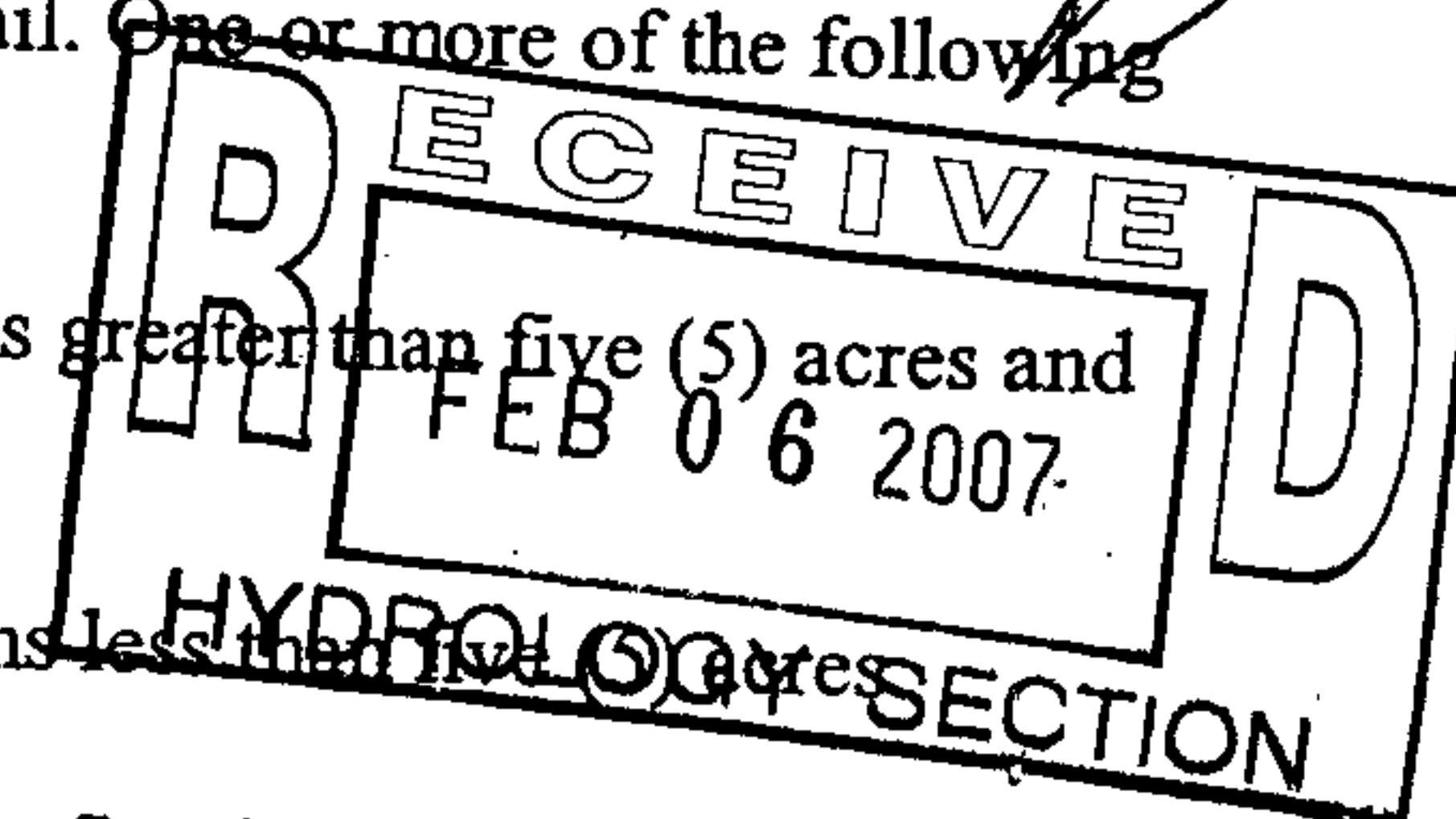
☐ YES

☐ NO

☐ COPY PROVIDED

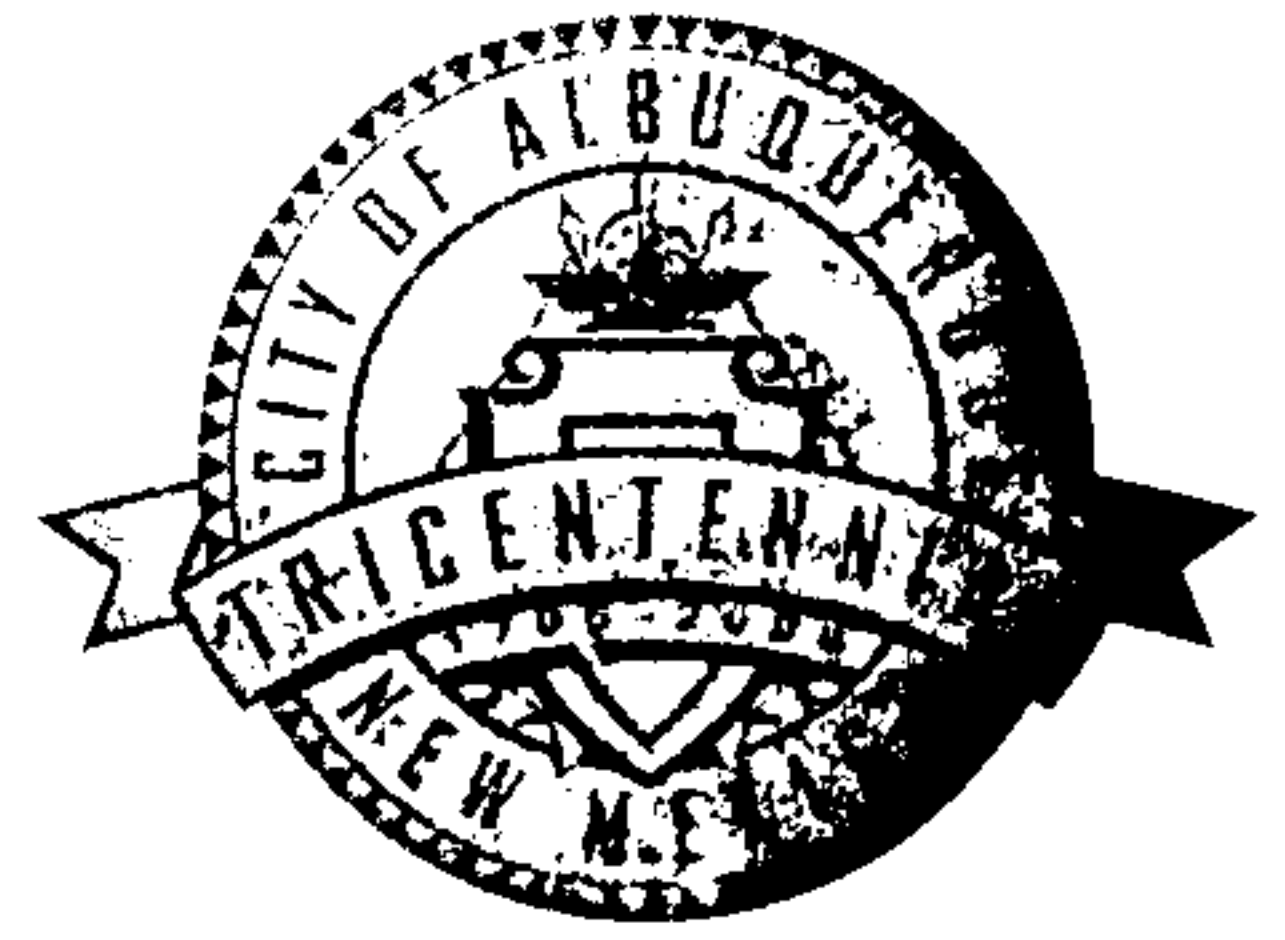
SUBMITTED BY: R. Peterson - Robert Peterson DATE: 02/06/07

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



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

CITY OF ALBUQUERQUE



June 12, 2006

Verlyn A. Miller, P.E.
Miller Engineering Consultants
95 Hwy 344 N., Suite 2
P.O. Box 520
Edgewood, NM 87015

Re: RCI Building Grading and Drainage Plan
Engineer's Stamp dated 6-1-06 (H15/D56)

Dear Mr. Miller,

P.O. Box 1293

Based upon the information provided in your submittal dated 6-2-06, the above referenced plan is approved for Grading Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Albuquerque

If you have any questions, you can contact me at 924-3695.

New Mexico 87103

www.cabq.gov

Sincerely,

Curtis A. Cherne

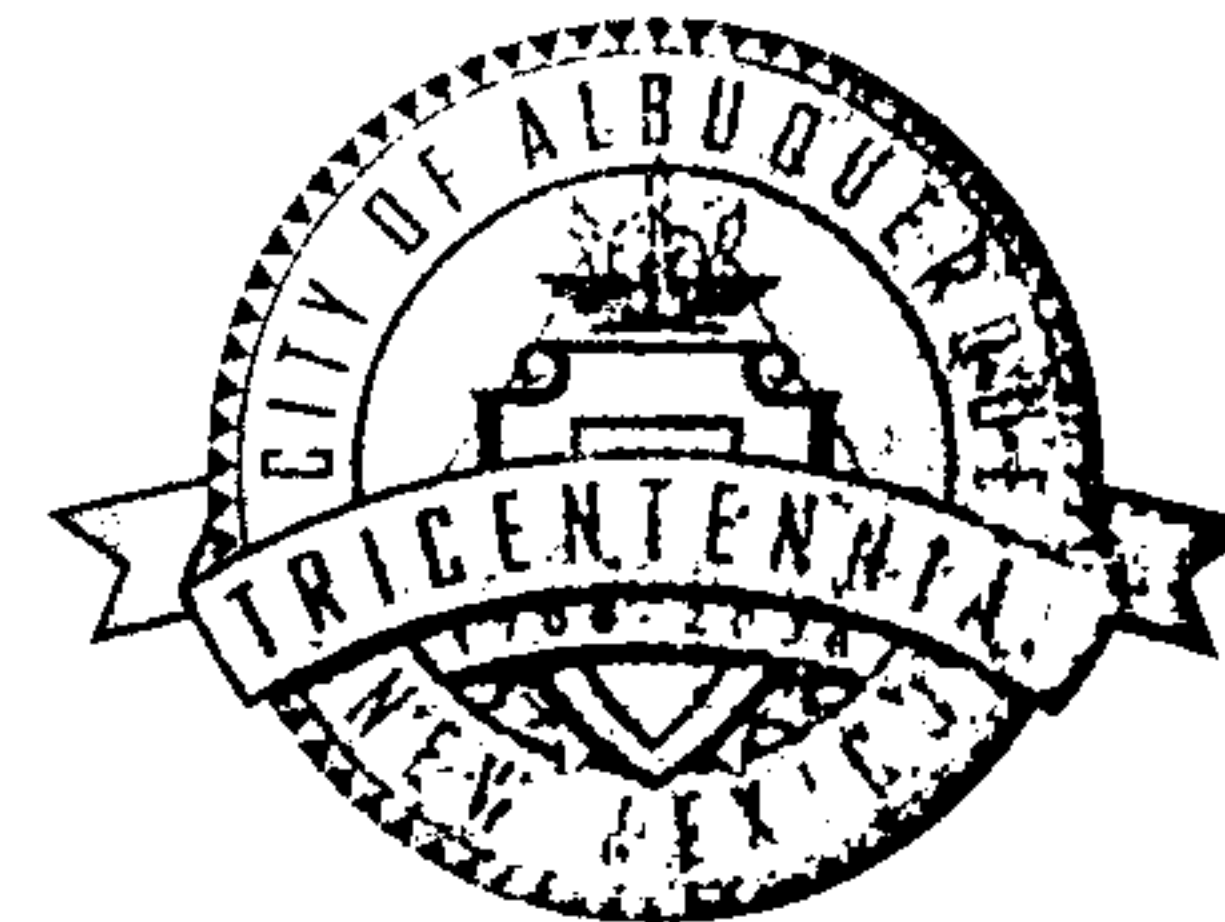
Curtis A. Cherne, E.I.
Engineering Associate, Planning Dept.
Development and Building Services
CCB

C: file

*Architect to 6-13-06
submit for bldg
permit, Miller
was for only
get grading permit.*

*Curtis
6-22-06 - Ryan to submit for
bldg permit tomorrow for*

CITY OF ALBUQUERQUE



June 22, 2006

Verlyn A. Miller, P.E.
Miller Engineering Consultants
95 Hwy 344 N., Suite 2
P.O. Box 520
Edgewood, NM 87015

Re: RCI Building Grading and Drainage Plan
Engineer's Stamp dated 4-6-06 (H15/D56)

Dear Mr. Miller,

Based upon the information provided in your submittal dated 6-21-06, the above referenced plan is approved for Building Permit and SO19 Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Curtis A. Cherne, E.I.
Engineering Associate, Planning Dept.
Development and Building Services
BLB

C: file
Antoinette Baldonado, Excavation and Barricading
Edward Elwell, Street/Storm Drain Maintenance

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

CITY OF ALBUQUERQUE



June 22, 2006

Verlyn A. Miller, P.E.
Miller Engineering Consultants
95 Hwy 344 N., Suite 2
P.O. Box 520
Edgewood, NM 87015

Re: RCI Building Grading and Drainage Plan
Engineer's Stamp dated 4-6-06 (H15/D56)

Dear Mr. Miller,

P.O. Box 1293

Based upon the information provided in your submittal dated 6-21-06, the above referenced plan is approved for Building Permit and SO19 Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Albuquerque

Also, prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

New Mexico 87103

If you have any questions, you can contact me at 924-3695.

www.cabq.gov

Sincerely,

Curtis A. Cherne, E.I.
Engineering Associate, Planning Dept.
Development and Building Services

BU

has to add

Wentworth and Ed

C: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: RCI EDUCATION BUILDING ZONE MAP: H-15/D56
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: LOT # F-2-B-2
CITY ADDRESS: 1111 MENAUL NE BD 1

ENGINEERING FIRM: MILLER ENGINEERING CONTACT: VERLYN MILLER
ADDRESS: 95 HIGHWAY 344 N PHONE: ~~255~~ 256 7771
CITY, STATE: EDGEWOOD NM 87105 ZIP CODE: _____
015

OWNER: RCI INC CONTACT: _____
ADDRESS: 1111 MENAUL NE PHONE: 255 5501
CITY, STATE: ABQ ZIP CODE: 87107

ARCHITECT: NCA ARCHITECTS CONTACT: DAVE PURCH
ADDRESS: 1306 RIO GRANDE BLVD NW PHONE: 255 6400
CITY, STATE: _____ ZIP CODE: 87104

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER'S CERT (TCL)
☐ ENGINEER'S CERT (DRB SITE PLAN)
☐ OTHER (SPECIFY) _____

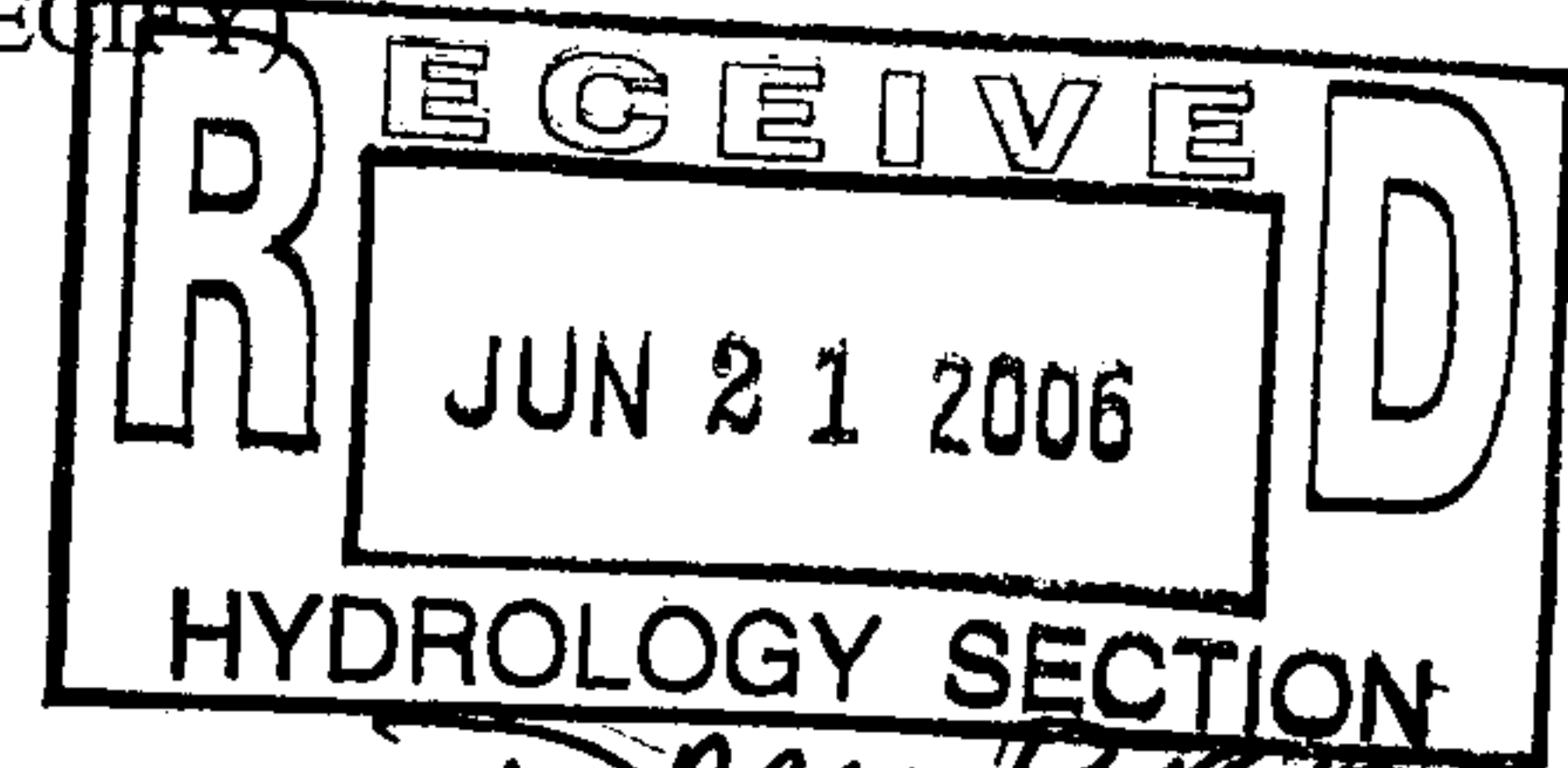
CHECK TYPE OF APPROVAL SOUGHT:

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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

☐ YES
☐ NO
☐ COPY PROVIDED

DATE SUBMITTED: 6/21/06 BY: DAVE PURCH



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

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2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE



**Planning Department
Transportation Development Services Section**

January 30, 2007

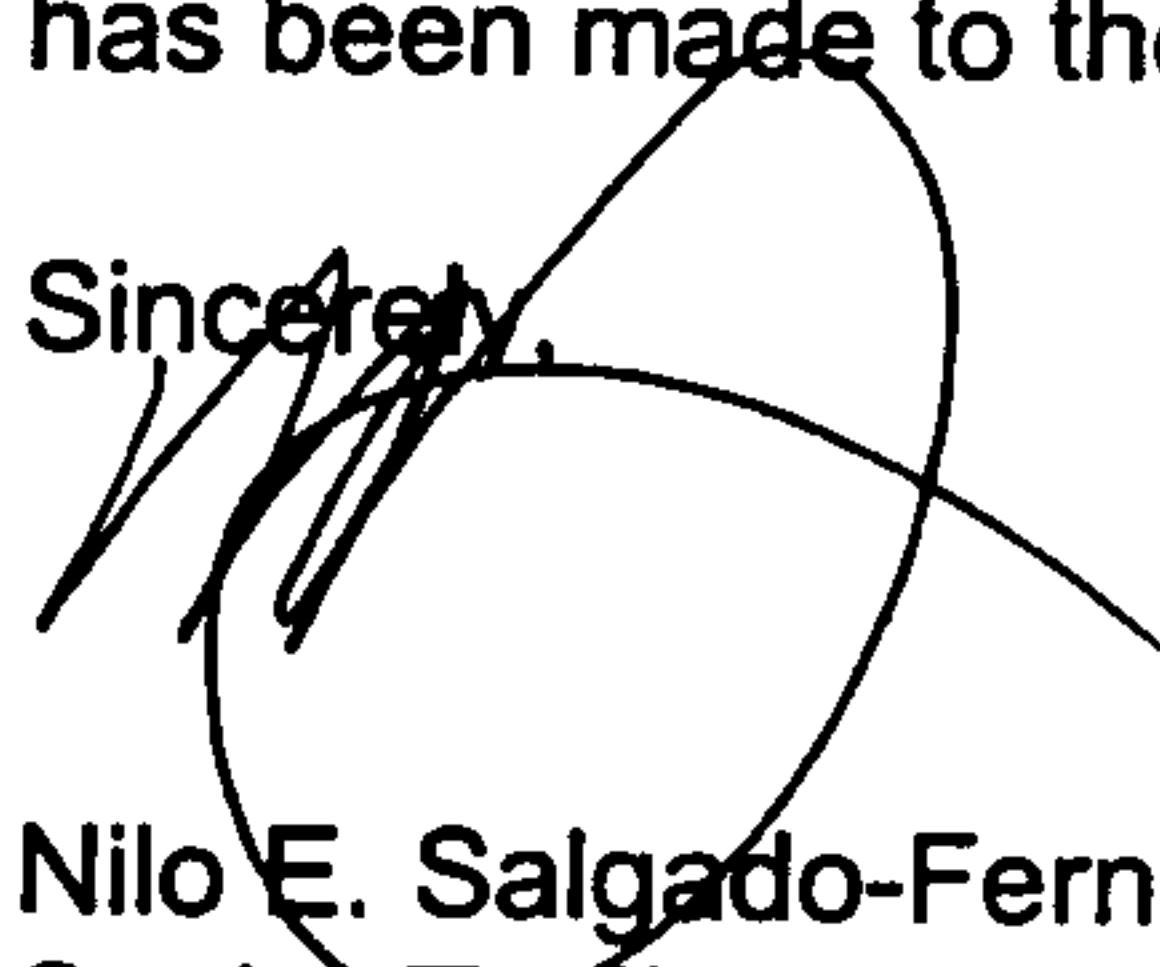
Robert Calvani, Registered Architect
1306 Rio Grande NW
Albuquerque, NM 87104

Re: Certification Submittal for Final Building Certificate of Occupancy for
RCI Education Bldg, [H-15 / D56]
1111 Manual NE
Architect's Stamp Dated 01/18/07

Dear Mr. Calvani:

The TCL / Letter of Certification submitted on January 30, 2006 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Sincerely,


Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

c: Engineer
Hydrology file
CO Clerk

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

H-15/D56

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: RCI, INC EDUCATION BUILDING ZONE MAP/DRG. FILE # _____
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: F-2-B-2 BROADBENT BUSINESS PARK
CITY ADDRESS: 1111 MENAUL N.E

ENGINEERING FIRM: MILLER ENGINEERING
ADDRESS: 3500 COMANCH N.E
CITY, STATE: ALB. N.M

CONTACT: VENLIP MILLER
PHONE: 286-7771
ZIP CODE: 87107

OWNER: RCI, INC.
ADDRESS: 1111 MENAUL N.E
CITY, STATE: ALB. N.M

CONTACT: ANGELA VIGIL
PHONE: 255-5501
ZIP CODE: 87107

ARCHITECT: NCA ARCHITECTS
ADDRESS: 1306 RIO GRANDE N.W
CITY, STATE: ALB N.M 87104

CONTACT: DAVE PURITZ
PHONE: 255-6400
ZIP CODE: 87104

SURVEYOR: ALB. SURVEY
ADDRESS: 2119 MENAUL N.E
CITY, STATE: ALB N.M

CONTACT: VLAD JUNIE
PHONE: 884-2036
ZIP CODE: 87107

CONTRACTOR: RICHARDSON + RICHARDSON
ADDRESS: 4100 MENAUL N.E
CITY, STATE: ALB N.M 87116

CONTACT: BOB PETERSON
PHONE: 881-2268
ZIP CODE: 87116

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☒ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL SOUGHT:

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

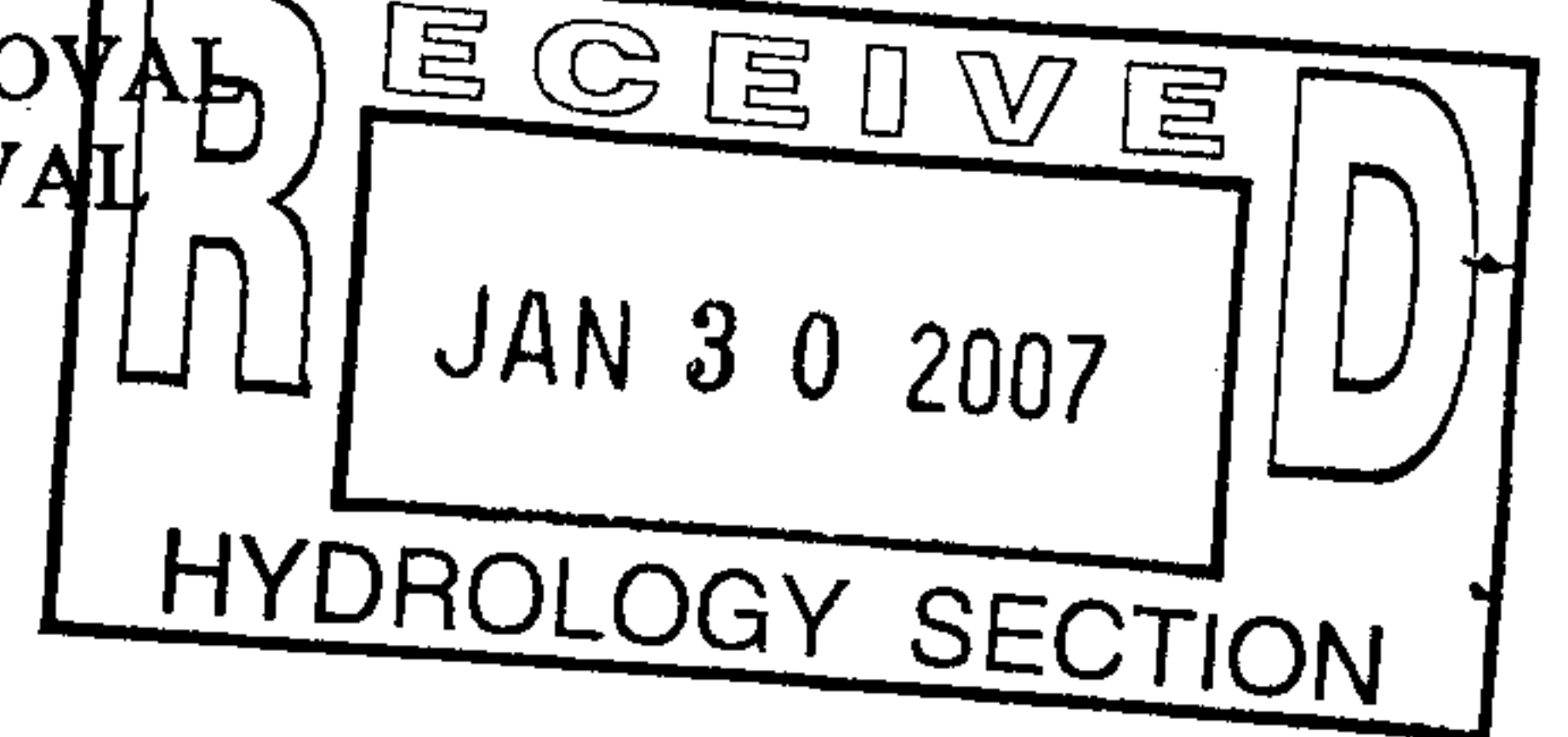
WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☐ NO
☐ COPY PROVIDED

SUBMITTED BY: R. Peterson - Robert Peterson DATE: 1-30-07

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

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





Robert M. Calvani
John C. Layman
Myron A. Saldyt
Thomas Wilber

January 18, 2007

Nilo Salgado-Fernandez, Senior Engineer
City of Albuquerque
Transportation Development Section
600 2nd Street NW
Albuquerque, NM 87102

924-3630

RE: Letter of Substantial Completion for Transportation
RCI Education Building
1111 Menaul NE
Albuquerque, NM 87107

Dear Mr. Salgado-Fernandez:

I, Robert Calvani, AIA, of the firm NCA, hereby certify that this project is in substantial compliance in accordance with the design intent of the approved traffic plan dated 4/26/06. The record information edited onto the original design document has been obtained by Bob Peterson of the firm Richardson and Richardson. I further certify that I have personally visited the project site on January 18, 2007 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for a Certificate of Occupancy.

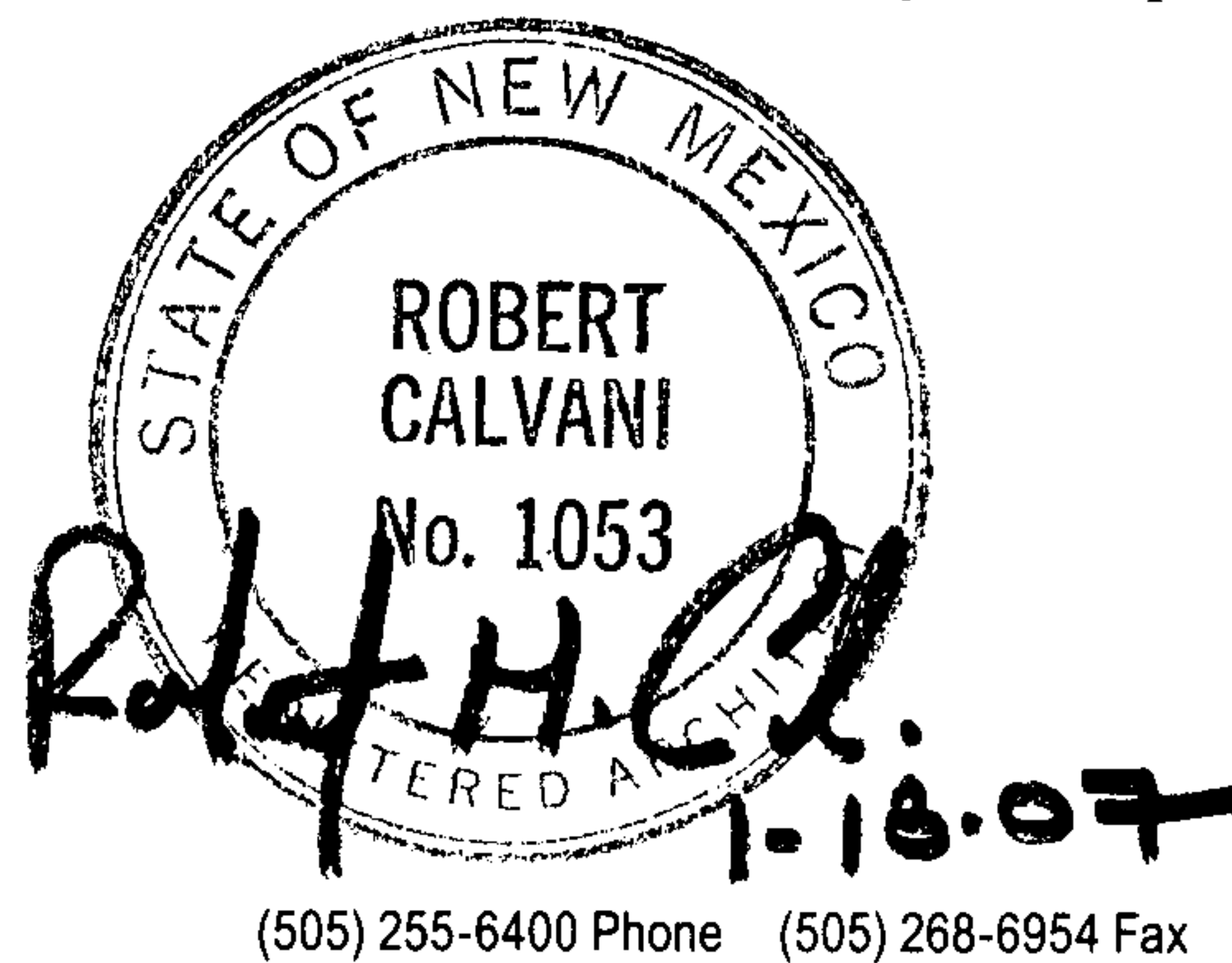
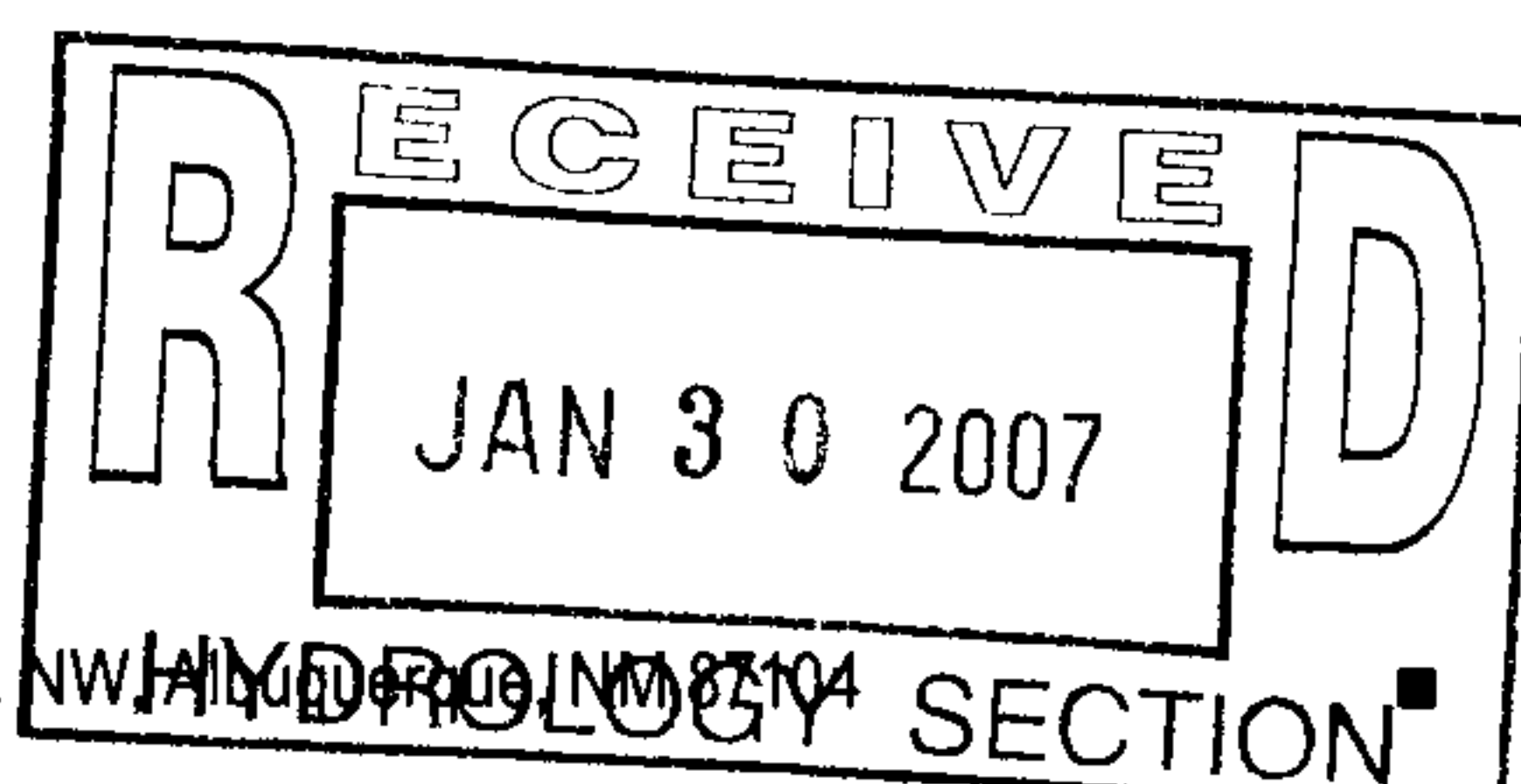
There are no exceptions and/or qualifications.

There are no deficiencies and/or required corrections.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the traffic aspects of this project. Those relying on the record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Robert Calvani (Stamp)
(typed architect's name)

1/18/07
Date



1306 Rio Grande Blvd. NW Albuquerque, NM 87104

www.nca-architects.com

(505) 255-6400 Phone (505) 268-6954 Fax

CITY OF ALBUQUERQUE



**Planning Department
Transportation Development Services Section**

June 23, 2006

Dave Puritz
NCA Architects
1306 rio Grande Blvd. NW
Albuquerque, NM 87104

Re: Traffic Circulation Layout (TCL) Submittal for Building Permit Approval for
Offices and Warehouse for RCI Building [H-15/D-56]
(1111 Menaul Blvd.), Albuquerque, NM
Engineer's/Architect's Stamp Dated 06-22-2006

Dear Mr. Puritz,

The TCL submittal dated June 23, 2006 is approved for building permit. The plan is stamped and signed as approved. Two copies of the plan that is stamped as approved will be required: one for each of the building permit plans and the original to be kept by you to be used for certification of the site for final C.O. for Transportation. **Public infrastructure or work done within City Right-of-Way shown on these plans is for information only and is not part of approval. A separate DRC and/or other appropriate permits are required to construct these items.**

If a temporary CO is needed then a copy of the original TCL that was stamped as approved by the City which includes a statement that identifies the outstanding items that need to be constructed or the items that have not been built in "substantial compliance". This statement requires a NM registered architect or engineer stamp to be dated. Submit this TCL with a completed Drainage and Transportation Information Sheet to Hydrology at the Development Services Center of Plaza Del Sol Building.

When the site is completed and a final C.O. is requested, use the original City stamped approved TCL for certification. A NM registered architect or engineer needs stamp and date the certification TCL along with indicating that the development was built in "substantial compliance" with the TCL. Submit this certification TCL with a completed Drainage and Transportation Information Sheet to Hydrology at the Development Services Center of Plaza Del Sol Building.

Once verification of certification is completed and approved, notification will be made to Building Safety to issue Final C.O. To confirm that a final C.O. has been issued, call Building Safety at 924-3306.

Sincerely,

Wilfred A. Gallegos, PE
Development and Building Services

cc: Hydrology file
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: PCI Building. ZONE MAP: H15/D56
DRB#: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: _____
CITY ADDRESS: 1111 MENAUL BLVD.

ENGINEERING FIRM: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

OWNER: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

ARCHITECT: NCA ARCHITECTS. CONTACT: DAVE PURITZ
ADDRESS: 1306 RIO GRANDE BLVD. NW PHONE: 255-6900
CITY, STATE: ALB. NH. ZIP CODE: 87104

SURVEYOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

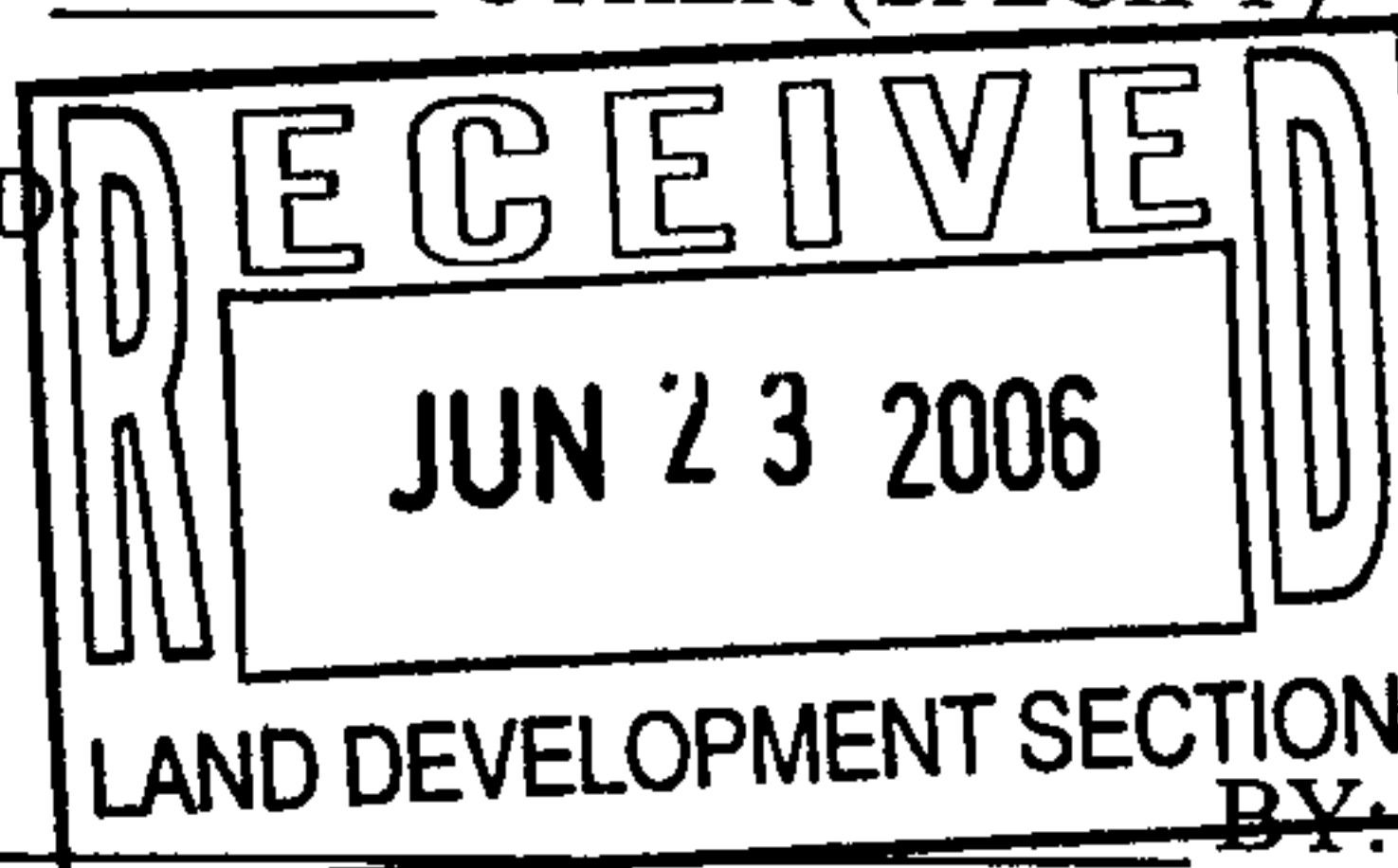
CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:
____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ EROSION CONTROL PLAN
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
☒ TRAFFIC CIRCULATION LAYOUT
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ OTHER (SPECIFY) _____

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

WAS A PRE-DESIGN CONFERENCE ATTENDED
____ YES
____ NO
____ COPY PROVIDED

DATE SUBMITTED: 6/23/06



APPROVED
6-23-06
wg-45

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

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

CITY OF ALBUQUERQUE



June 16, 2006

Dave Puritz
NCA Architects
1306 Rio Grande Blvd.
Albuquerque, NM 87104

Re: 1111 Menaul Blvd NE, Traffic Circulation Layout
Architect's Stamp dated 06-01-06 (H15-D56)

Dear Mr. Puritz,

Based upon the information provided in your submittal received 06-08-06, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. Provide a vicinity map.
2. Show the ADA ramp on the west side of Broadbent Parkway and ensure that it is ADA compliant.
3. What type of curbing will be used for note # 17? How will overflow parking access the gravel area?
4. Label all radii.
- 5.

If you have any questions, you can contact me at 924-3991.

Sincerely,

Wilfred Gallegos, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services
C: file

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

CITY OF ALBUQUERQUE



May 9, 2006

Verlyn Miller, PE
Miller Engineering Consultants
95 Hwy. 344 N. Suite 2 P.O. Box 520
Edgewood, NM 87015

Re: RCI Building Grading and Drainage Plan
Engineer's Stamp dated 4-6-06 (H15/D56)

Dear Mr. Miller,

Based upon the information provided in your submittal dated 4-6-06, the above referenced plan cannot be approved for Grading Permit until the following comments are addressed:

- There is no mention of proximity to a flood zone as required in the City's Development Process Manual. Please include a map showing the FIRM or as a minimum a discussion of proximity to a flood zone.
- Include SO19 instructions, "Drainage Facilities within City Right-of-Way Notice to Contractor" and signature block.

If you have any questions, you can contact me at 924-3695.

Sincerely,

Curtis A. Cherne, E.I.
Engineering Associate, Planning Dept.
Development and Building Services

BCB

C: file

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov



City of Albuquerque

December 16, 1999

Kim Kemper, P.E.
Kemper-Vaughan
3700 Coors Road NW
Suite C
Albuquerque, NM 87120

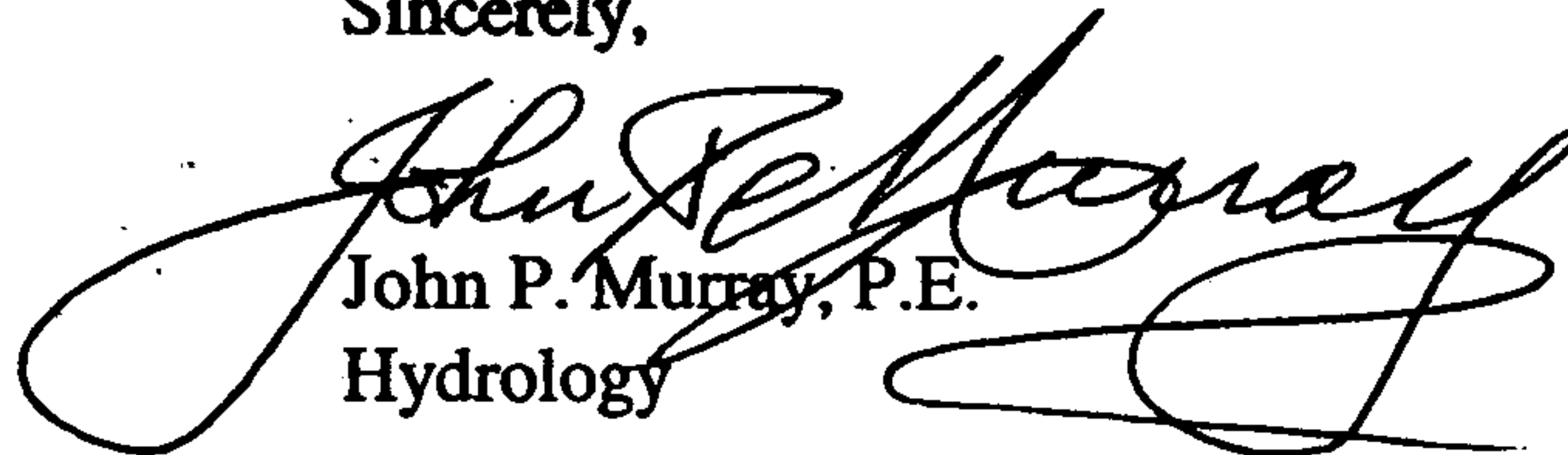
**RE: H.A.S.T. LLC OFFICE BLDG., TRACT F-2B-2, BROADBENT BUSINESS PARK
(H15-D56). ENGINEER'S CERTIFICATION FOR CERTIFICATE OF
OCCUPANCY APPROVAL. ENGINEER'S STAMP DATED NOVEMBER 12, 1999.**

Dear Mr. Kemper:

Based on the information provided on your November 12, 1999 submittal, the above referenced project is approved for Certificate of Occupancy.

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

Sincerely,


John P. Murray, P.E.
Hydrology

c: WR
✓ File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: H.A.S.T. LLC ZONE ATLAS/DRNG. FILE #: H-15/DO526

DRB#: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: TRACT F-2B-2, BROADBENT BUSINESS PARK

CITY ADDRESS: 1111 MENUAL BLVD

ENGINEERING FIRM: KEMPER-VAUGHAN CONS. ENGRS. CONTACT: KIM R. KEMPER

ADDRESS: 3700 COORS RD, NW SUITE C PHONE: 831-4520

OWNER: H.A.S.T., LLC CONTACT: Mr. HATCH

ADDRESS: 6501 AMERICAS PKWY PHONE: 883-5511

ARCHITECT: DURA BILT PRODUCTS CONTACT: BRAD LITLE

ADDRESS: 4808 JEFFERSON PHONE: 883-9100

SURVEYOR: RIO GRANDE SURVEYING CO., INC. CONTACT: REX VOLGER

ADDRESS: 3700 COORS RD NW SUITE C PHONE: 841-4511

CONTRACTOR: DURA BILT PRODUCTS CONTACT: BRAD LITLE

ADDRESS: 4808 JEFFERSON PHONE: 883-9100

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

☐ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAINAGE PLAN

☐ GRADING PLAN

☐ EROSION CONTROL PLAN

☒ 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

☒ CERTIFICATE OF OCCUPANCY APPROVAL

☐ GRADING PERMIT APPROVAL

☐ PAVING PERMIT APPROVAL

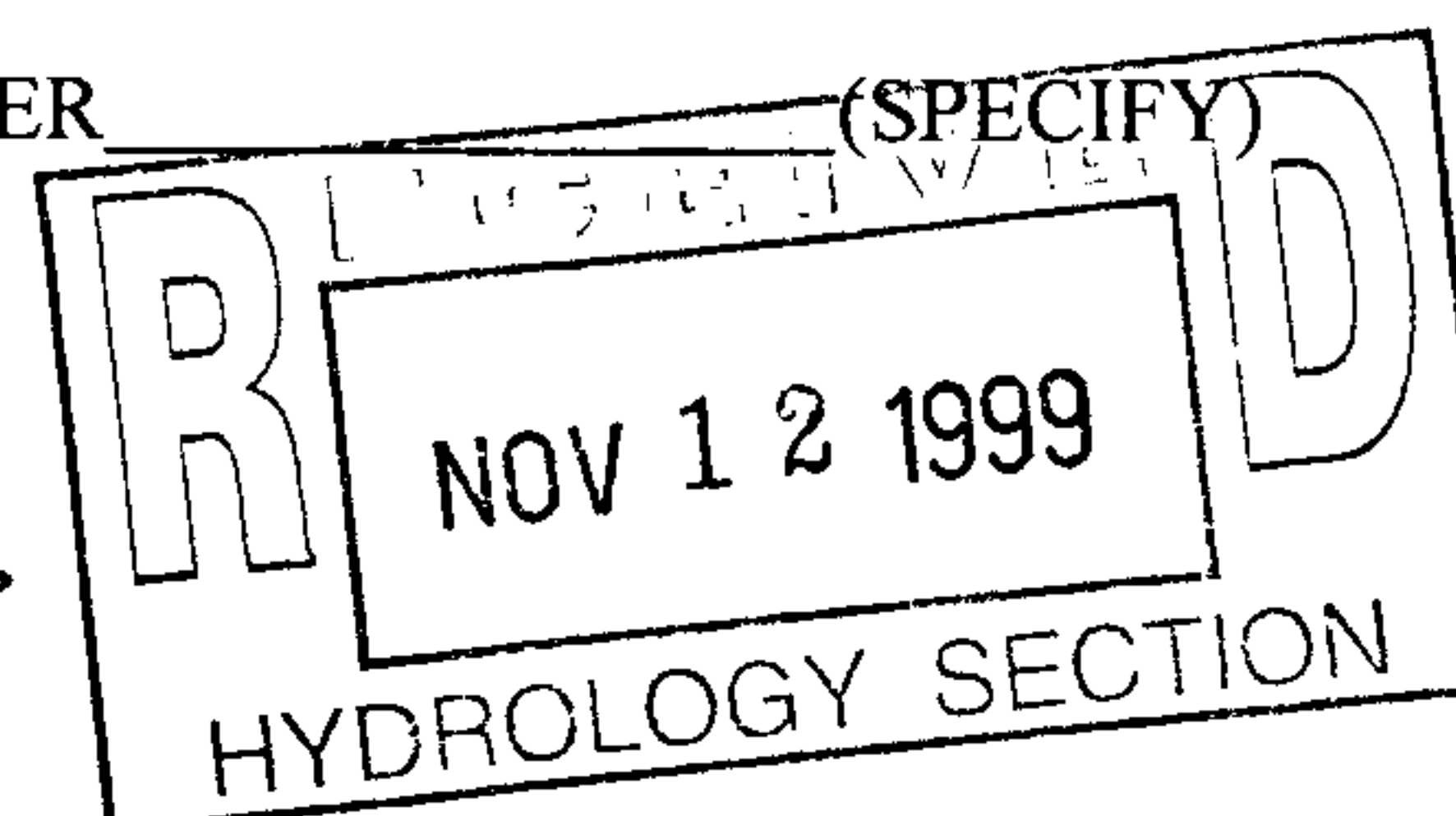
☐ S.A.D. DRAINAGE REPORT

☐ DRAINAGE REQUIREMENTS

☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 11-12-99

BY: [Signature]





City of Albuquerque

August 30, 1999

Kim Kemper, P.E.
Kemper-Vaughan
3700 Coors Road NW
Albuquerque, NM 87120

RE: H.A.S.T.,LLC - OFFICE BLDG. & STORAGE UNIT - BROADBENT BUSINESS PARK (H15-D56). GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED AUGUST 11, 1999.

Dear Mr. Kemper:

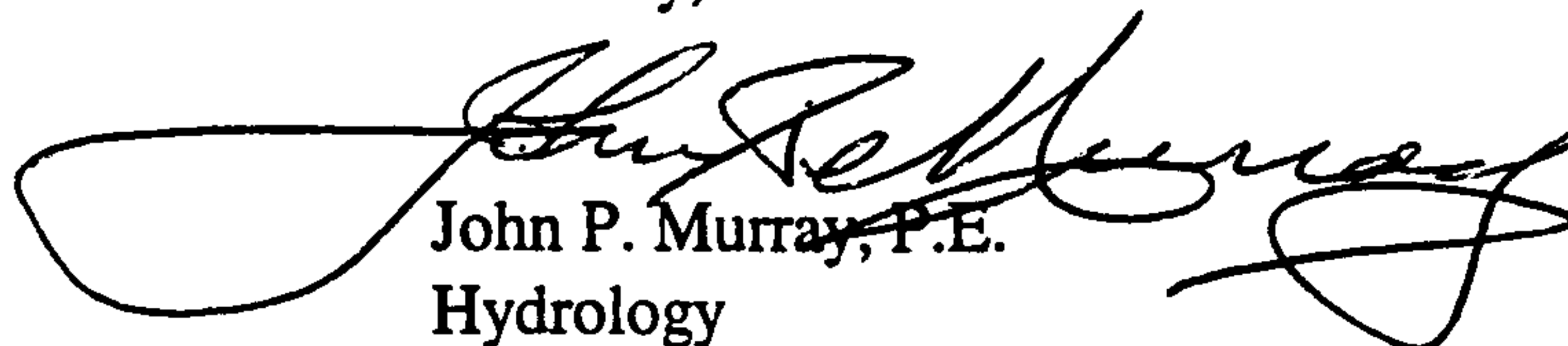
Based on the information provided on your August 16, 1999 submittal, the above referenced project is approved for Building Permit. The Storage Unit is now included with the Office Building construction instead of as a future phase.

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: ✓ File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 7, 1999

Kim Kemper, P.E.
Kemper-Vaughan
3700 Coors Road NW
Suite C
Albuquerque, NM 87120

***RE: H.A.S.T. LLC OFFICE BLDG., TRACT F-2B-2, BROADBENT BUSINESS PARK
(H-5-D56). DRAINAGE REPORT, GRADING AND DRAINAGE PLAN FOR
BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED APRIL 7, 1999.***

Dear Mr. Kemper:

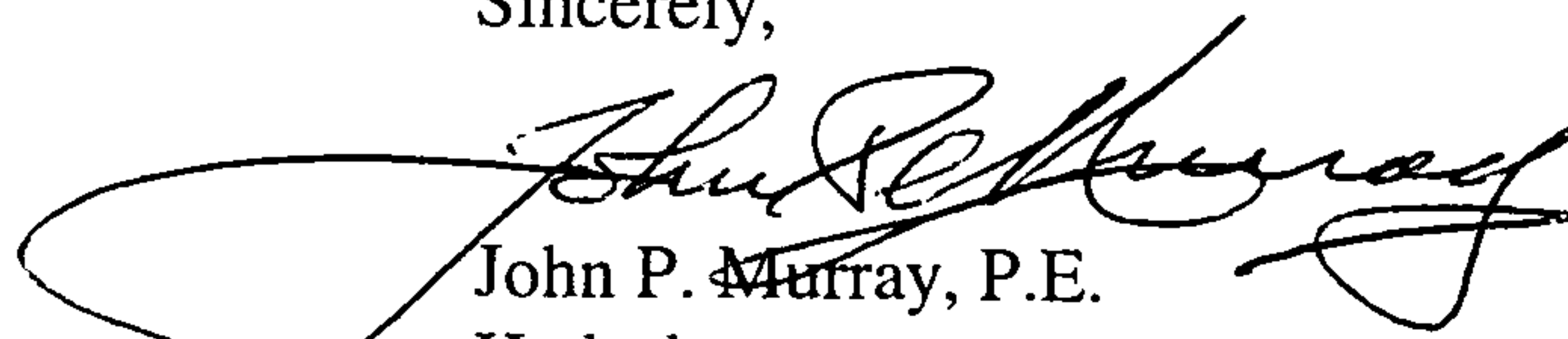
Based on the information provided on your April 7, 1999 submittal, the above referenced project is approved for Building Permit. Please note that both the G&D Plan and the Site Plan are labeled Sheet 1 of 1.

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

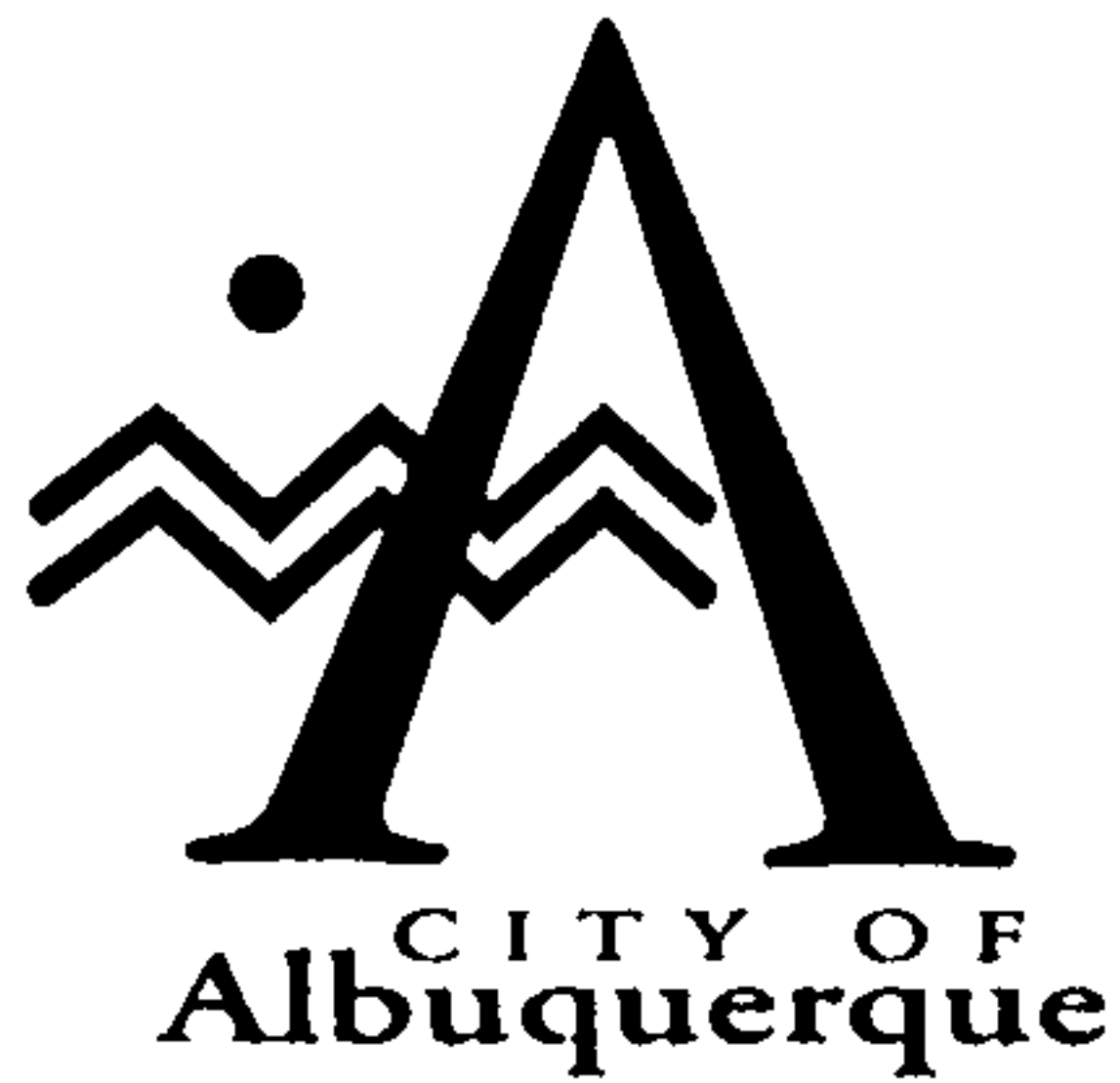
Prior to Certificate of Occupancy approval, an Engineer's Certification per the DPM will be Required.

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

Sincerely,


John P. Murray, P.E.
Hydrology

c: Andrew Garcia
File



Martin J. Chávez, Mayor

August 28, 1997

Greg Krenik
D. Mark Goodwin & Associates
P.O. Box 90606
Albuquerque, New Mexico 87199

RE: ENGINEER CERTIFICATION FOR WESTERN WIRELESS(H15-D56)
CERTIFICATION STATEMENT DATED 8/15/97

Dear Mr. Krenik:

Based on the information provided on your August 15, 1997 submittal, Engineer Certification for the above referenced site is acceptable.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia
File

Sincerely

Bernie J. Montoya CE
Associate Engineer





Martin J. Chávez, Mayor

Robert E. Gurulé, Director

April 14, 1997

Greg Krenik
D. Mark Goodwin & Associates
P. O. Box 90606
Albuquerque, New Mexico 87199

RE : REVISED DRAINAGE PLAN FOR WESTERN WIRELESS (H15-56) REVISION
DATED 4/9/97

Dear Mr. Krenik:

Based on the information provided on your April 10, 1997 resubmittal, the above referenced site is approved for Building Permit and SO19.

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

Also, a separate permit is required for construction within City R/W. A copy of this approval letter must be on hand when applying for the excavation permit.

Please, be advised that Engineer Certification per the DPM checklist will be required prior to release of the final C.O..

Also, no sediment will be allowed onto the public R/W from the proposed facilities.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia
File
Arlene Portillo

Sincerely

Bernie J. Montoya
Bernie J. Montoya CE
Engineering Associate

C: Andrew

Good for You, Albuquerque!

P.O. Box 1293, Albuquerque, New Mexico 87103





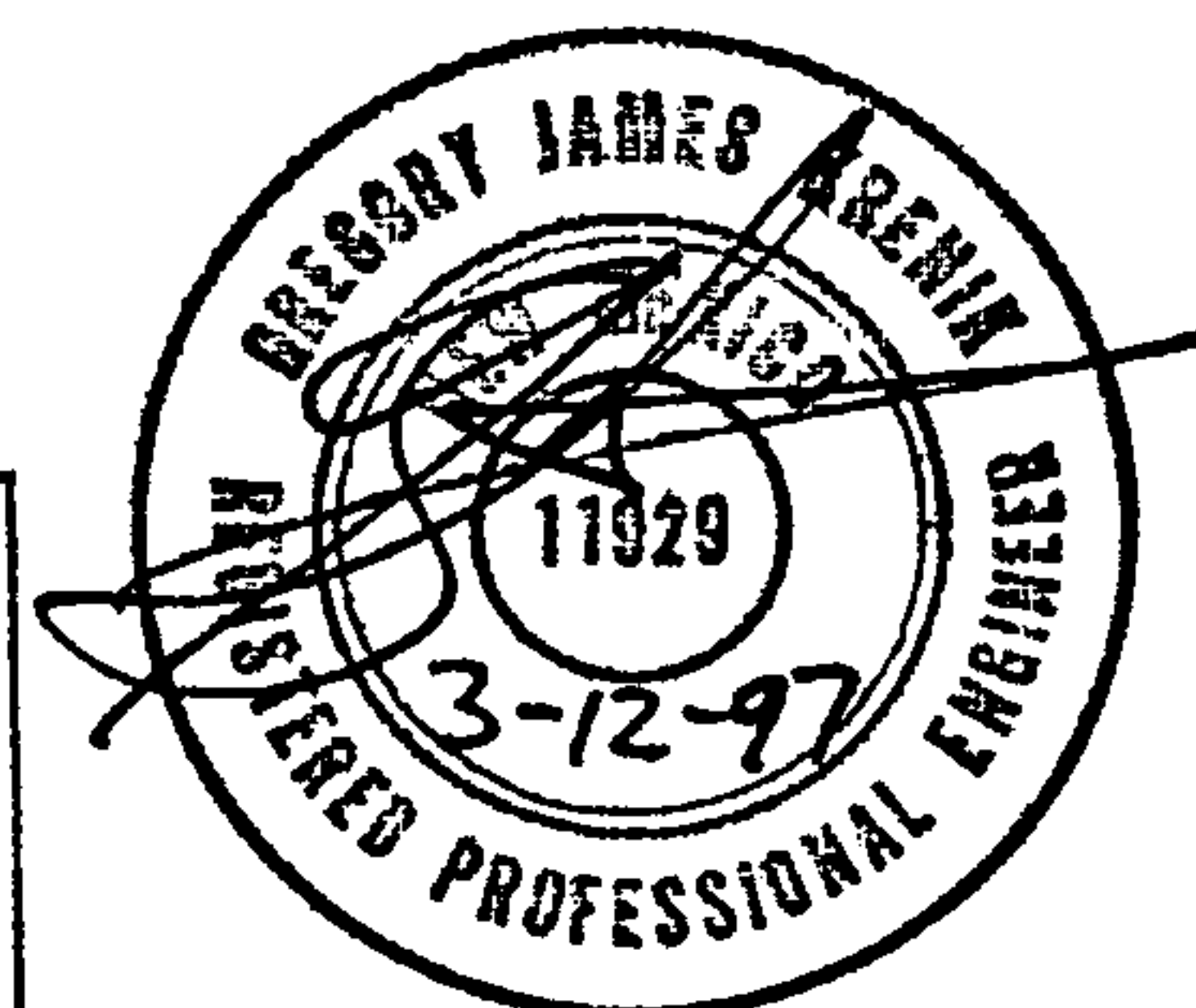
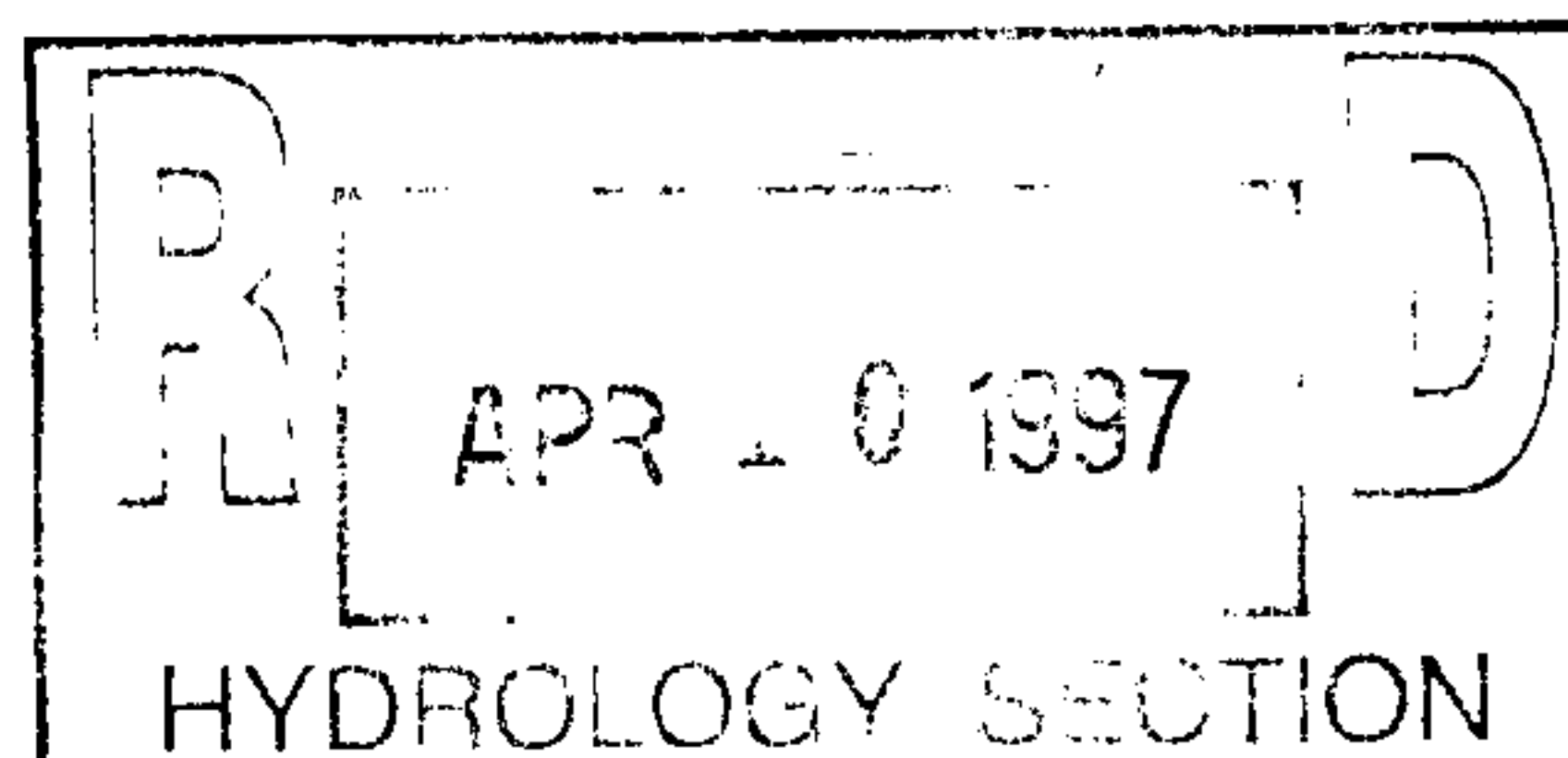
MARK GOODWIN

& ASSOCIATES
CONSULTING ENGINEERS

dmg

DRAINAGE CALCULATIONS
for
WESTERN WIRELESS

MARCH 1997



4-8-97



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT WESTERN WIRELESS
SUBJECT DRAINAGE CALCS
BY GJK DATE 3-12-97
CHECKED _____ DATE _____

SHEET 1 OF _____

REVISED 4-8-97

- THE SITE IS LOCATED IN THE BROADBENT BUSINESS PARK.
- AS PART OF THE MASTER GRADING AND DRAINAGE PLAN, PREPARED BY EASTERLING & ASSOCIATES DATED 10-16-85 AND REVISED 12-16-85, THIS SITE IS INCLUDED IN AREA "A".
- AREA "A" IS ALLOWED A DISCHARGE OF 33.6 CFS.
- TRACT E IS AN OFFSITE PARCEL ALLOWED TO DRAIN ONTO THIS PROPERTY. PER THE MASTER G+D PLAN IT IS ALLOWED 10.3 CFS DISCHARGE.
- TRACT E IS NOW CALLED THE "CLUBHOUSE INN" AND PER ITS GRADING AND DRAINAGE PLAN PART OF IT DISCHARGES ONTO OUR TRACT - AREA "A". WE WILL INCREASE OUR SITE DISCHARGE BY THIS AMOUNT.
- AREA "A" WILL BE SPLIT UP INTO TWO AREAS. 1) THE EAST PORTION TO BE THE WESTERN WIRELESS TRACT WHICH WE WILL DEVELOPE AT THIS TIME = 6.4872 AC and 2) THE WESTERN PORTION TO REMAIN UNDEVELOPED AT THIS TIME = 2.5077 AC
- THE SITE WILL BE DIVIDED INTO EIGHT DRAINAGE BASINS
 - BASIN 1 - INCLUDES THE HALF OF THE EAST PARKING AREA. THIS WILL DRAIN TO A DBL "O" INLET IN THE PARKING LOT
 - BASIN 2 - INCLUDES THE OTHER HALF OF THE EAST PARKING LOT AND DRAINS INTO A DBL "O" INLET.
 - THESE TWO BASINS WILL DISCHARGE TO THE CITY DRAINAGE CHANNEL TO THE NORTH THROUGH 24" RCP.
 - BASIN 3 - INCLUDES THE NORTH PART OF BLDG AND AREA NORTH OF THE BLDG - DIRECT DISCHARGE TO BROADBENT PARKWAY.
 - BASIN 4 - INCLUDES THE AREA SOUTH & WEST OF THE BLDG AND THE SOUTH PART OF THE BLDG. THIS WILL DISCHARGE TO THE ADJACENT UNDEVELOPED LOT.
 - BASIN 5 - INCLUDES THE AREA ADJACENT TO MENAUL AND WILL DISCHARGE TO MENAUL.
 - BASIN 6 - INCLUDES THE CITY DRAINAGE CHANNEL
 - BASIN 7 - INCLUDES THE UNDEVELOPED HALF OF THE SITE.
 - BASIN 8 - INCLUDES THE CLUBHOUSE INN RUNOFF.



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT WESTERN WIRELESS
SUBJECT DRAINAGE CALCS
BY GSK DATE 3-12-97
CHECKED _____ DATE _____

SHEET 2 OF _____

REVISED 4-8-97

• FIND ALLOWABLE DISCHARGE FOR THE WESTERN WIRELESS SITE

33.6 CFS ALLOWED PER MASTER PLAN

TOTAL SITE = 6.4872 + 2.5077 = 8.9949 AC

$33.6 / 8.9949 \times 6.4872 = 24.23$ CFS

• FIND DEVELOPED RUN OFF

BASIN	AREA	% B	% D	% A
1	1.1007	13.12	86.88	-
2	1.4912	9.33	90.67	-
3	1.7703	29.59	70.41	-
4	1.5859	4.97	95.03	-
5	0.2941	68.19	31.81	-
6	0.2450	0	100	-
7	2.5077	0	0	100
8	1.7330	16.37	83.63	-

$P_1 = 1.95$ in

$P_6 = 2.20$ in

$P_{24} = 2.60$ in

DT = 0.0333 HR

TP = 0.1333 HR

BASIN 8 HAD TO BE REDUCED BECAUSE WE
ARE REDIRECTING WATER ONTO OUR SITE INSTEAD
OF ONTO MENAUL BLVD.

POND SIZE

USE AN 15" ORIFICE $A = 1.227$ $Q = 0.6A\sqrt{2gh}$

ELEV	STORAGE	OUTFLOW
15	0.0	0.0
16	0.0003	3.62
17	0.0006	6.93
18	0.0014	9.11
19	0.0024	10.86
20	0.0033	12.36
21	0.0043	13.70
22	0.1448	14.92



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT WESTERN WIRELESS
SUBJECT DRAINAGE CALCS
BY GSK DATE 3-12-97
CHECKED _____ DATE _____

SHEET 3 OF _____

REVISED 4-8-97

FROM	HYMO	OUTPUT	SHEETS	6-14
BASIN	Q			
1	4.66			
2	6.45			
3	6.78			
4	7.03			
5	0.86			
6	1.12			
7	3.47	→	UNDEVELOPED LOT	
8	7.20			

BASINS 3, 4, 5, 6 ARE DIRECT DISCHARGE
 $Q = 6.78 + 7.03 + 0.86 + 1.12 = 15.79$ CFS

FROM SHEET 2
ALLOWABLE Discharge = 24.23 CFS
FIND NEW ALLOWABLE FOR BASINS 1 & 2

$$24.23 - 15.79 = 8.44 \text{ CFS}$$

ADD BASIN 8 TO FIND TOTAL MAXIMUM DISCHARGE FOR POND ROUTING.

$$Q = 8.44 + 7.20 = 15.64 \text{ CFS}$$

FROM HYMO OUTPUT SHEET 14

$$\text{PEAK DISCHARGE} = 13.98 \text{ CFS} < 15.64 \text{ OK}$$

$$\text{MAX WATER SURFACE ELEVATION} = 21.23$$

THIS WILL LEAVE A WATER DEPTH OF 0.23 IN BASIN 1.

SIZE STORM DRAIN SYSTEM

FROM NOMO SHEET 4

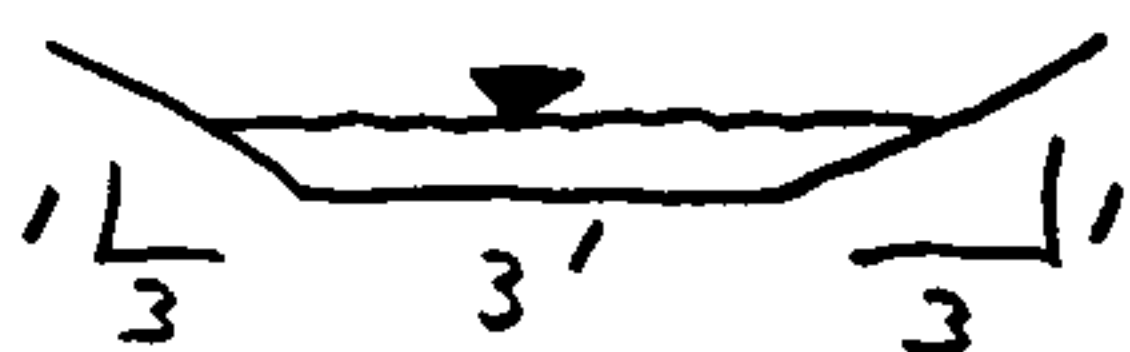
18" RCP @ 1.32% CAN CARRY 12 CFS

24" RCP @ 1.32% CAN CARRY 25 CFS

18" RCP @ 6.00% CAN CARRY 24 CFS

SIZE TEMPORARY SWALE ALONG WEST PROPERTY LINE

$$Q = 7.03 \quad S = 1\% \quad n = 0.017$$



$$d = 0.50$$

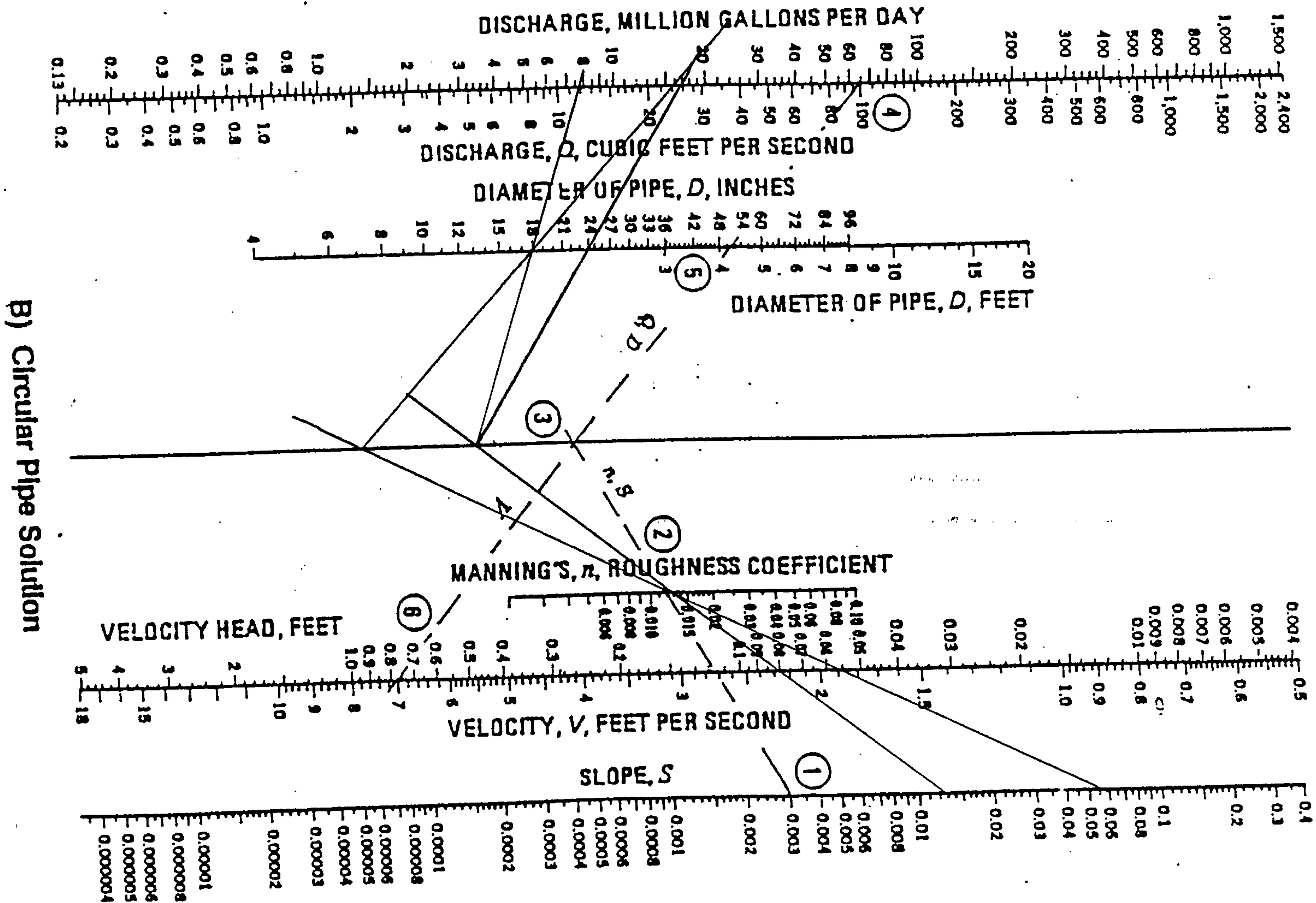
$$V = 4.717 \text{ F/S}$$

$$WP = 4.41$$

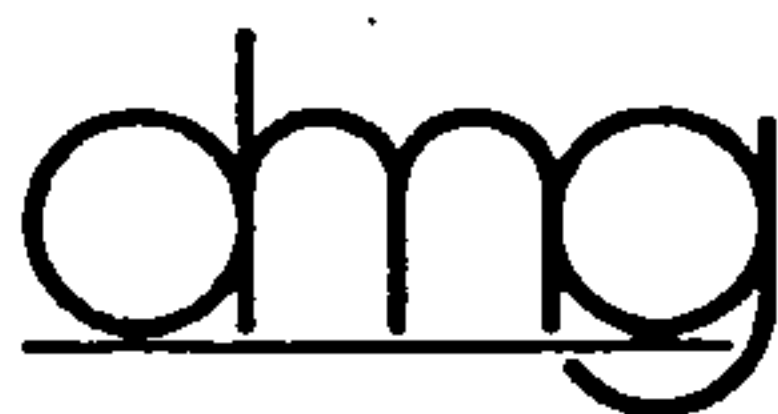
$$Q = 8.26 \text{ CFS} \approx 7.03 \text{ OK}$$

$$A = 1.75$$

Reference: American Concrete Pipe Association (1980).



B) Circular Pipe Solution



D. Mark Goodwin & Associates, P.A.
Consulting Engineers and Surveyors

PROJECT WESTERN WIRELESS
SUBJECT DRAINAGE CALCS
BY GJK DATE 4-8-97
CHECKED _____ DATE _____
SHEET 5 OF _____

THE 100 YR WATER SURFACE ELEVATION IS 21.23.

- THE INLET IN BASIN 1 HAS 0.23' OF WATER PONDED ABOVE THE GATE AT THE PEAK
- THE INLET IN BASIN 2 HAS THE 100 YR LEVEL 0.27' BELOW THE GATE AT THE PEAK.

SIZE INLETS FOR SUMP CONDITION

50% OF BASIN 8 GOES TO BASIN 1 AND 50% TO BASIN 2

INLET IN BASIN 1

$$Q = 4.66 + 7.20/2 = 8.26 \text{ CFS}$$

INLET IN BASIN 2

$$Q = 6.45 + 7.20/2 = 10.05 \text{ CFS}$$

$$Q/P = 3.0 H^{1.5}$$

P = Perimeter
= 17.0 FOR A DOUBLE "D"

USE BASIN 2

$$H = 0.34'$$

FOR EACH INLET TO OBTAIN PEAK FLOW
THE WATER WILL BE 0.34' ABOVE EACH
GATE IN BASIN 1 AND 2. OK

SIZE CURB OPENING FOR TEMPORARY DRAINAGE SWALE

$$Q = 7.03 \text{ CFS}$$

$$Q = 2.95 L H^{3/2}$$

USE 8" HIGH CURB

$$L = 4.35' \text{ USE } 5'$$

START

TIME=0.0

***** HYDROGRAPH FOR DISCHARGE FROM WESTERN WIRELESS
 INTO CITY DRAINAGE CHANNEL

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN
 RAIN ONE=1.95 IN RAIN SIX=2.20 IN
 RAIN DAY=2.60 IN DT=0.03333 HR

BASIN 1

COMPUTE NM HYD

ID=1 HYD NO=101 AREA=0.001720 SQ MI
 PER A=0 PER B=13.12 PER C=0 PER D=86.88
 TP=0.1333 HR MASS RAINFALL=-1
 ID=1 CODE=1

PRINT HYD

BASIN 2

COMPUTE NM HYD

ID=2 HYD NO=102 AREA=0.002330 SQ MI
 PER A=0 PER B=9.33 PER C=0 PER D=90.67
 TP=0.1333 HR MASS RAINFALL=-1
 ID=2 CODE=1

PRINT HYD

BASIN 3

COMPUTE NM HYD

ID=3 HYD NO=103 AREA=0.002766 SQ MI
 PER A=0 PER B=29.59 PER C=0 PER D=70.41
 TP=0.1333 HR MASS RAINFALL=-1
 ID=3 CODE=1

PRINT HYD

BASIN 4

COMPUTE NM HYD

ID=4 HYD NO=104 AREA=0.002478 SQ MI
 PER A=0 PER B=4.97 PER C=0 PER D=95.03
 TP=0.1333 HR MASS RAINFALL=-1
 ID=4 CODE=1

PRINT HYD

BASIN 5

COMPUTE NM HYD

ID=5 HYD NO=105 AREA=0.000460 SQ MI
 PER A=0 PER B=68.19 PER C=0 PER D=31.81
 TP=0.1333 HR MASS RAINFALL=-1
 ID=5 CODE=1

PRINT HYD

BASIN 6

COMPUTE NM HYD

ID=6 HYD NO=106 AREA=0.000383 SQ MI
 PER A=0 PER B=0 PER C=0 PER D=100
 TP=0.1333 HR MASS RAINFALL=-1
 ID=6 CODE=1

PRINT HYD

BASIN 7

COMPUTE NM HYD

ID=7 HYD NO=107 AREA=0.003918 SQ MI
 PER A=100 PER B=0 PER C=0 PER D=0
 TP=0.1333 HR MASS RAINFALL=-1
 ID=7 CODE=1

PRINT HYD

BASIN 8

COMPUTE NM HYD

ID=8 HYD NO=108 AREA=0.002708 SQ MI
 PER A=0 PER B=16.37 PER C=0 PER D=83.63
 TP=0.1333 HR MASS RAINFALL=-1
 ID=8 CODE=1

PRINT HYD

ADD HYD

PRINT HYD

ID=9 HYD NO=109 ID=1 ID=2
 ID=9 CODE=1

ADD HYD

ID=10 HYD NO=110 ID=8 ID=9

TE RESERVOIR

ID=11 HYD NO=111 INFLOW ID=10 CODE=24

OUTFLOW (CFS) STORAGE(AC-FT) ELEVATION(FT)

0.00	0.00	15.0
3.62	0.0003	16.0
6.93	0.0006	17.0
9.11	0.0014	18.0
10.86	0.0024	19.0
12.36	0.0033	20.0
13.70	0.0043	21.0
14.92	0.1448	22.0

PRINT HYD
ISH

ID=11 CODE=1

7

8

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
RUN DATE (MON/DAY/YR) = 04/08/1997
START TIME (HR:MIN:SEC) = 13:18:55 USER NO.= M_GOODWN.101
INPUT FILE = ww.dat

START TIME=0.0

***** HYDROGRAPH FOR DISCHARGE FROM WESTERN WIRELESS

***** INTO CITY DRAINAGE CHANNEL

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN: ONE=1.95 IN RAIN SIX=2.20 IN

RAIN DAY=2.60 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2

- PEAK AT 1.40 HR.

DT = .033330 HOURS END TIME = 5.999400 HOURS

.0000	.0009	.0018	.0028	.0037	.0047	.0057
.0068	.0078	.0089	.0101	.0112	.0124	.0136
.0149	.0161	.0175	.0188	.0203	.0217	.0233
.0248	.0265	.0282	.0300	.0319	.0338	.0359
.0380	.0403	.0427	.0481	.0539	.0600	.0733
.1028	.1484	.2138	.3031	.4204	.5700	.7563
.9836	1.1946	1.2828	1.3572	1.4233	1.4835	1.5390
1.5904	1.6385	1.6836	1.7260	1.7660	1.8038	1.8396
1.8735	1.9056	1.9361	1.9651	1.9926	1.9981	2.0032
2.0081	2.0126	2.0170	2.0211	2.0251	2.0289	2.0325
2.0360	2.0394	2.0427	2.0459	2.0489	2.0519	2.0548
2.0576	2.0604	2.0630	2.0656	2.0681	2.0706	2.0730
2.0754	2.0777	2.0799	2.0821	2.0843	2.0864	2.0885
2.0905	2.0925	2.0945	2.0964	2.0983	2.1002	2.1021
2.1039	2.1056	2.1074	2.1091	2.1108	2.1125	2.1141
2.1158	2.1174	2.1189	2.1205	2.1220	2.1236	2.1251
2.1265	2.1280	2.1295	2.1309	2.1323	2.1337	2.1351
2.1364	2.1378	2.1391	2.1404	2.1417	2.1430	2.1443
2.1456	2.1468	2.1480	2.1493	2.1505	2.1517	2.1529
2.1541	2.1552	2.1564	2.1575	2.1587	2.1598	2.1609
2.1620	2.1631	2.1642	2.1653	2.1664	2.1674	2.1685
2.1695	2.1705	2.1716	2.1726	2.1736	2.1746	2.1756
2.1766	2.1776	2.1785	2.1795	2.1805	2.1814	2.1824
2.1833	2.1842	2.1852	2.1861	2.1870	2.1879	2.1888
2.1897	2.1906	2.1915	2.1923	2.1932	2.1941	2.1949
2.1958	2.1966	2.1975	2.1983	2.1992	2.2000	

*BASIN 1

COMPUTE NM HYD ID=1 HYD NO=101 AREA=0.001720 SQ MI

PER A=0 PER B=13.12 PER C=0 PER D=86.88

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE
 CONSTANT, N = 7.106420
 UNIT PEAK = 5.8997 CFS UNIT VOLUME = .9976 B = 526.28
 P60 = 1.9500
 AREA = .001494 SQ MI IA = .10000 INCHES INF = .04000 I
 NCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
 = .033330

K = .131364HR TP = .133300HR K/TP RATIO = .985475 SHAPE
 CONSTANT, N = 3.583083
 UNIT PEAK = .55247 CFS UNIT VOLUME = .9746 B = 326.34
 P60 = 1.9500
 AREA = .000226 SQ MI IA = .50000 INCHES INF = 1.25000 I
 NCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
 = .033330

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.00

RUNOFF VOLUME = 1.80182 INCHES = .1653 ACRE-FEET
 PEAK DISCHARGE RATE = 4.66 CFS AT 1.500 HOURS BASIN AREA =
 .0017 SQ. MI.

*

*BASIN 2

COMPUTE NM HYD ID=2 HYD NO=102 AREA=0.002330 SQ MI
 PER A=0 PER B=9.33 PER C=0 PER D=90.67

TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE
 CONSTANT, N = 7.106420
 UNIT PEAK = 8.3407 CFS UNIT VOLUME = .9981 B = 526.28
 P60 = 1.9500
 AREA = .002113 SQ MI IA = .10000 INCHES INF = .04000 I
 NCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
 = .033330

K = .131364HR TP = .133300HR K/TP RATIO = .985475 SHAPE
 CONSTANT, N = 3.583083
 UNIT PEAK = .53221 CFS UNIT VOLUME = .9746 B = 326.34
 P60 = 1.9500
 AREA = .000217 SQ MI IA = .50000 INCHES INF = 1.25000 I
 NCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
 = .033330

PRINT HYD ID=2 CODE=1

RUNOFF VOLUME = 1.84960 INCHES = .2298 ACRE-FEET
 PEAK DISCHARGE RATE = 6.45 CFS AT 1.500 HOURS BASIN AREA =
 .0023 SQ. MI.

*

*BASIN 3

COMPUTE NM HYD ID=3 HYD NO=103 AREA=0.002766 SQ MI
 PER A=0 PER B=29.59 PER C=0 PER D=70.41
 TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE
 CONSTANT, N = 7.106420
 UNIT PEAK = 7.6890 CFS UNIT VOLUME = .9978 B = 526.28
 P60 = 1.9500
 AREA = .001948 SQ MI IA = .10000 INCHES INF = .04000 I
 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
 = .033330

K = .131364HR TP = .133300HR K/TP RATIO = .985475 SHAPE
 CONSTANT, N = 3.583083
 UNIT PEAK = 2.0037 CFS UNIT VOLUME = .9937 B = 326.34
 P60 = 1.9500
 AREA = .000818 SQ MI IA = .50000 INCHES INF = 1.25000 I
 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
 = .033330

PRINT HYD ID=3 CODE=1

PARTIAL HYDROGRAPH 103.00

RUNOFF VOLUME = 1.59419 INCHES = .2352 ACRE-FEET
 PEAK DISCHARGE RATE = 6.78 CFS AT 1.500 HOURS BASIN AREA =
 .0028 SQ. MI.

*

*BASIN 4

COMPUTE NM HYD ID=4 HYD NO=104 AREA=0.002478 SQ MI
 PER A=0 PER B=4.97 PER C=0 PER D=95.03
 TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE
 CONSTANT, N = 7.106420
 UNIT PEAK = 7.6890 CFS UNIT VOLUME = .9978 B = 526.28

P60 = 1.9500
AREA = .002355 SQ MI IA = .10000 INCHES INF = .04000 I
INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
= .033330 //

K = .131364HR TP = .133300HR K/TP RATIO = .985475 SHAPE
CONSTANT, N = 3.583083
UNIT PEAK = .30151 CFS UNIT VOLUME = .9537 B = 326.34
P60 = 1.9500
AREA = .000123 SQ MI IA = .50000 INCHES INF = 1.25000 I
INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
= .033330

PRINT HYD ID=4 CODE=1

PARTIAL HYDROGRAPH 104.00

RUNOFF VOLUME = 1.90456 INCHES = .2517 ACRE-Feet
PEAK DISCHARGE RATE = 7.03 CFS AT 1.500 HOURS BASIN AREA =
.0025 SQ. MI.

*

*BASIN 5

COMPUTE NM HYD ID=5 HYD NO=105 AREA=0.000460 SQ MI
PER A=0 PER B=68.19 PER C=0 PER D=31.81
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE
CONSTANT, N = 7.106420
UNIT PEAK = .57770 CFS UNIT VOLUME = .9786 B = .526.28
P60 = 1.9500
AREA = .000146 SQ MI IA = .10000 INCHES INF = .04000 I
INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
= .033330

K = .131364HR TP = .133300HR K/TP RATIO = .985475 SHAPE
CONSTANT, N = 3.583083
UNIT PEAK = .76793 CFS UNIT VOLUME = .9820 B = 326.34
P60 = 1.9500
AREA = .000314 SQ MI IA = .50000 INCHES INF = 1.25000 I
INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
= .033330

PRINT HYD ID=5 CODE=1

PARTIAL HYDROGRAPH 105.00

RUNOFF VOLUME = 1.10757 INCHES = .0272 ACRE-Feet
PEAK DISCHARGE RATE = 7.03 CFS AT 1.500 HOURS BASIN AREA =

.0005 SQ. MI.

12

*

*BASIN 6

COMPUTE NM HYD ID=6 HYD NO=106 AREA=0.000383 SQ MI

PER A=0 PER B=0 PER C=0 PER D=100

TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE
CONSTANT, N = 7.106420
UNIT PEAK = 1.5121 CFS UNIT VOLUME = .9922 B = 526.28
P60 = 1.9500
AREA = .000383 SQ MI IA = .10000 INCHES INF = .04000 I
INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
= .033330

PRINT HYD ID=6 CODE=1

PARTIAL HYDROGRAPH 106.00

RUNOFF VOLUME = 1.96722 INCHES = .0402 ACRE-FEET
PEAK DISCHARGE RATE = 1.12 CFS AT 1.500 HOURS BASIN AREA =
.0004 SQ. MI.

*

*BASIN 7

COMPUTE NM HYD ID=7 HYD NO=107 AREA=0.003918 SQ MI

PER A=100 PER B=0 PER C=0 PER D=0

TP=0.1333 HR MASS RAINFALL=-1

K = .161667HR TP = .133300HR K/TP RATIO = 1.212806 SHAPE
CONSTANT, N = 2.932607
UNIT PEAK = 8.1205 CFS UNIT VOLUME = .9979 B = 276.28
P60 = 1.9500
AREA = .003918 SQ MI IA = .65000 INCHES INF = 1.67000 I
INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
= .033330

PRINT HYD ID=7 CODE=1

PARTIAL HYDROGRAPH 107.00

RUNOFF VOLUME = .46777 INCHES = .0977 ACRE-FEET
PEAK DISCHARGE RATE = 3.47 CFS AT 1.533 HOURS BASIN AREA =
.0039 SQ. MI.

*

13

*BASIN 8

COMPUTE NM HYD

ID=8 HYD NO=108 AREA=0.002708 SQ MI

PER A=0 PER B=16.37 PER C=0 PER D=83.63

TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE
CONSTANT, N = 7.106420

UNIT PEAK = 8.9412 CFS UNIT VOLUME = .9981 B = 526.28
P60 = 1.9500

AREA = .002265 SQ MI IA = .10000 INCHES INF = .04000 I
INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
= .033330

K = .131364HR TP = .133300HR K/TP RATIO = .985475 SHAPE
CONSTANT, N = 3.583083

UNIT PEAK = 1.0853 CFS UNIT VOLUME = .9872 B = 326.34
P60 = 1.9500

AREA = .000443 SQ MI IA = .50000 INCHES INF = 1.25000 I
INCHES PER HOUR

RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT
= .033330

PRINT HYD

ID=8 CODE=1

PARTIAL HYDROGRAPH 108.00

RUNOFF VOLUME = 1.76085 INCHES = .2543 ACRE-FEET

PEAK DISCHARGE RATE = 7.20 CFS AT 1.500 HOURS BASIN AREA =

.0027 SQ. MI.

*

ADD HYD

ID=9 HYD NO=109 ID=1 ID=2

PRINT HYD

ID=9 CODE=1

PARTIAL HYDROGRAPH 109.00

RUNOFF VOLUME = 1.82916 INCHES = .3951 ACRE-FEET

PEAK DISCHARGE RATE = 11.11 CFS AT 1.500 HOURS BASIN AREA =

.041 SQ. MI.

*

ADD HYD

ID=10 HYD NO=110 ID=8 ID=9

PRINT HYD

ID=10 CODE=1

RUNOFF VOLUME = 1.80174 INCHES = .6494 ACRE-FEET
 PEAK DISCHARGE RATE = 18.31 CFS AT 1.500 HOURS BASIN AREA =
 .0068 SQ. MI.

*
 ROUTE RESERVOIR ID=11 HYD NO=111 INFLOW ID=10 CODE=24

OUTFLOW (CFS)	STORAGE(AC-FT)	ELEVATION(FT)
0.00	0.00	15.0
3.62	0.0003	16.0
6.93	0.0006	17.0
9.11	0.0014	18.0
10.86	0.0024	19.0
12.36	0.0033	20.0
13.70	0.0043	21.0
14.92	0.1448	22.0

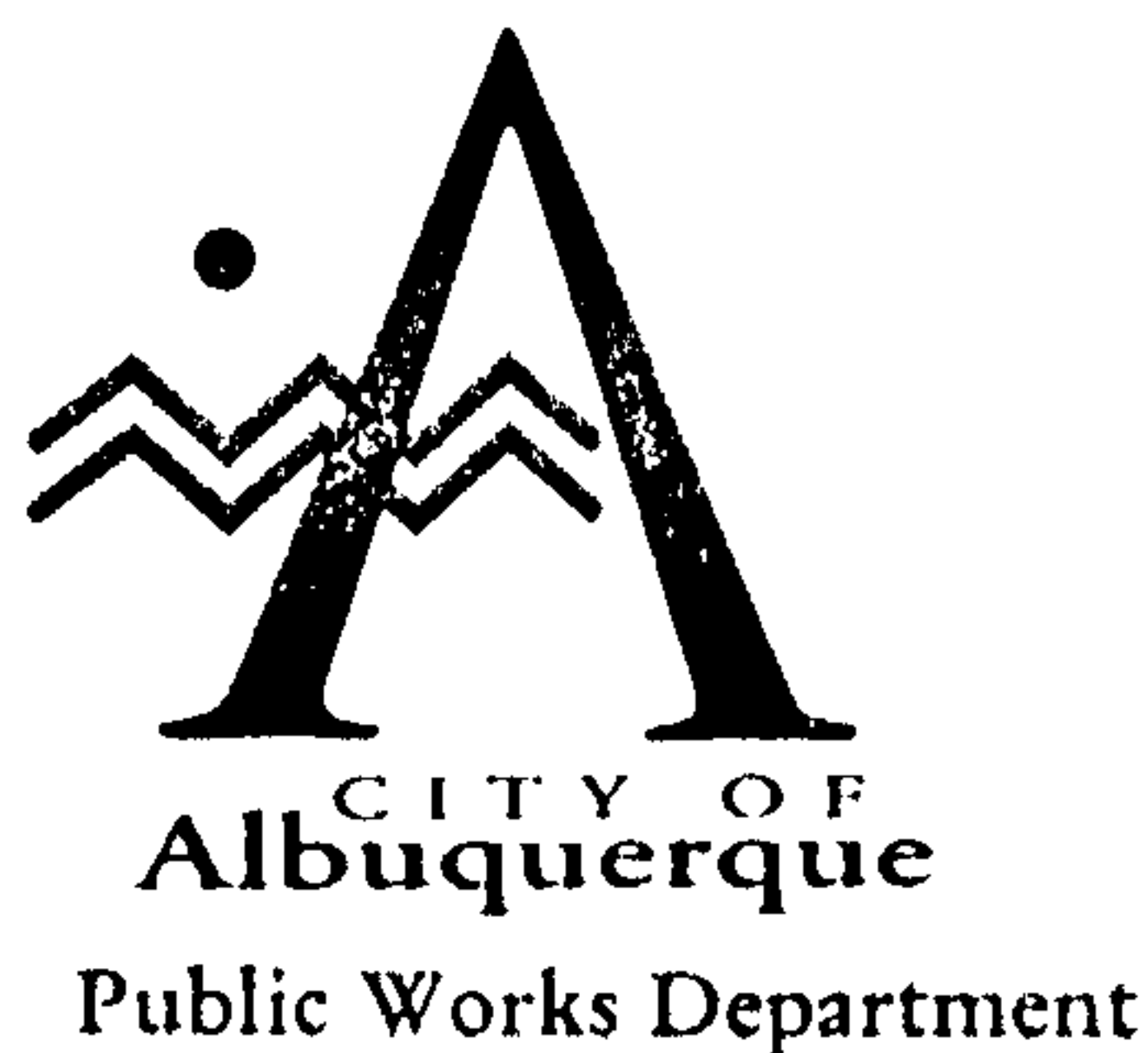
* * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	15.00	.000	.00
.80	.00	15.00	.000	.00
1.60	12.69	21.23	.036	13.98
2.40	.69	15.17	.000	.62
3.20	.09	15.02	.000	.08
4.00	.05	15.01	.000	.05
4.80	.06	15.02	.000	.06
5.60	.08	15.02	.000	.08
6.40	.01	15.00	.000	.01

PEAK DISCHARGE = 13.981 CFS - PEAK OCCURS AT HOUR 1.57
 MAXIMUM WATER SURFACE ELEVATION = 21.230
 MAXIMUM STORAGE = .0366 AC-FT INCREMENTAL TIME= .033330HR

PRINT HYD ID=11 CODE=1

RUNOFF VOLUME = 1.80175 INCHES = .6494 ACRE-FEET
 PEAK DISCHARGE RATE = 13.98 CFS AT 1.567 HOURS BASIN AREA =
 .0068 SQ. MI.



Martin J. Chávez, Mayor

Robert E. Gurulé, Director

April 3, 1997

Gregory J. Krenik
D. Mark Goodwin & Associates
P.O. Box 90607
Albuquerque, New Mexico 87199

RE: DRAINAGE PLAN FOR WESTERN WIRELESS (H15-D56) ENGINEER'S STAMP
DATED 3/14/97

Dear Mr. Krenik:

Based on the information provided on your March 17, 1997 submittal, listed are some concerns that will need to be addressed prior to final approval:

1. Please identify the 100-year water surface elevation at each inlet.
2. Hydraulics for all the proposed inlets.
3. What type of erosion and sediment control do you propose on your proposed drainage swale?
4. What is the elevation of 10-H15 ?
5. Location and direction of the roof drains.
6. If the proposed drainage swale is not a temporary facility, then you will need to design the release outlet like if there was sidewalk.

If I can be of further assistance, please feel free to contact me at 924-3986

C: Andrew Garcia

File

Sincerely

A handwritten signature in cursive script that reads 'Bernie J. Montoya'.

Bernie J. Montoya CE
Engineering Associate

Good for You, Albuquerque!

