



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 18, 2003

Gilbert Aldaz, PE
Applied Engineering & Survey, Inc.
1605 Blair Dr. NE
Albuquerque, NM 87112

Re: Arno Subdivision Grading and Drainage Plan
Engineer's Stamp dated 8-11-03 (J14/D146)

Dear Mr. Aldaz,

Based upon the information provided in your submittal dated 8-11-03, the above referenced plan cannot be approved for Preliminary Plat until the following comments are addressed.

- The DPM states that the normal depth can be no higher than the top of curb and the depth plus velocity head ($d+v^2/2g$) cannot exceed 0.2 feet above the top of curb. There will need to be a transition to standard curb somewhere near Arno.
- The retaining wall must be made of masonry or concrete. Railroad tie retaining walls don't work to divert water and the City has had a fair number of complaints from homeowners whose walls have failed. Who will maintain the sediment pond and swales?
- Please provide the benchmark on the plan.

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

Sincerely,

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

C: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: ARNO SUBDIVISION ZONE MAP/DRG. FILE #: J-14
DRB #: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract R, Lomas and Broadway Area
CITY ADDRESS: 824 Arno Street

ENGINEERING FIRM: Applied Engineering Inc.
ADDRESS: 1605 Blair Drive NE
CITY, STATE: Albuquerque NM

CONTACT: Gilbert Aldaz
PHONE: 237-1456
ZIP CODE: 87112

OWNER: GREATER ALBUQ. Housing
ADDRESS: 110 22nd Street SW
CITY, STATE: Albuquerque, NM

CONTACT: Louis Kolker
PHONE: 244-1614
ZIP CODE: 87105

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Southwest Surveying
ADDRESS: 333 Lomas Blvd NE
CITY, STATE: Albuquerque, NM

CONTACT: Dan Grancy
PHONE: 998-0383
ZIP CODE: 87102

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

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

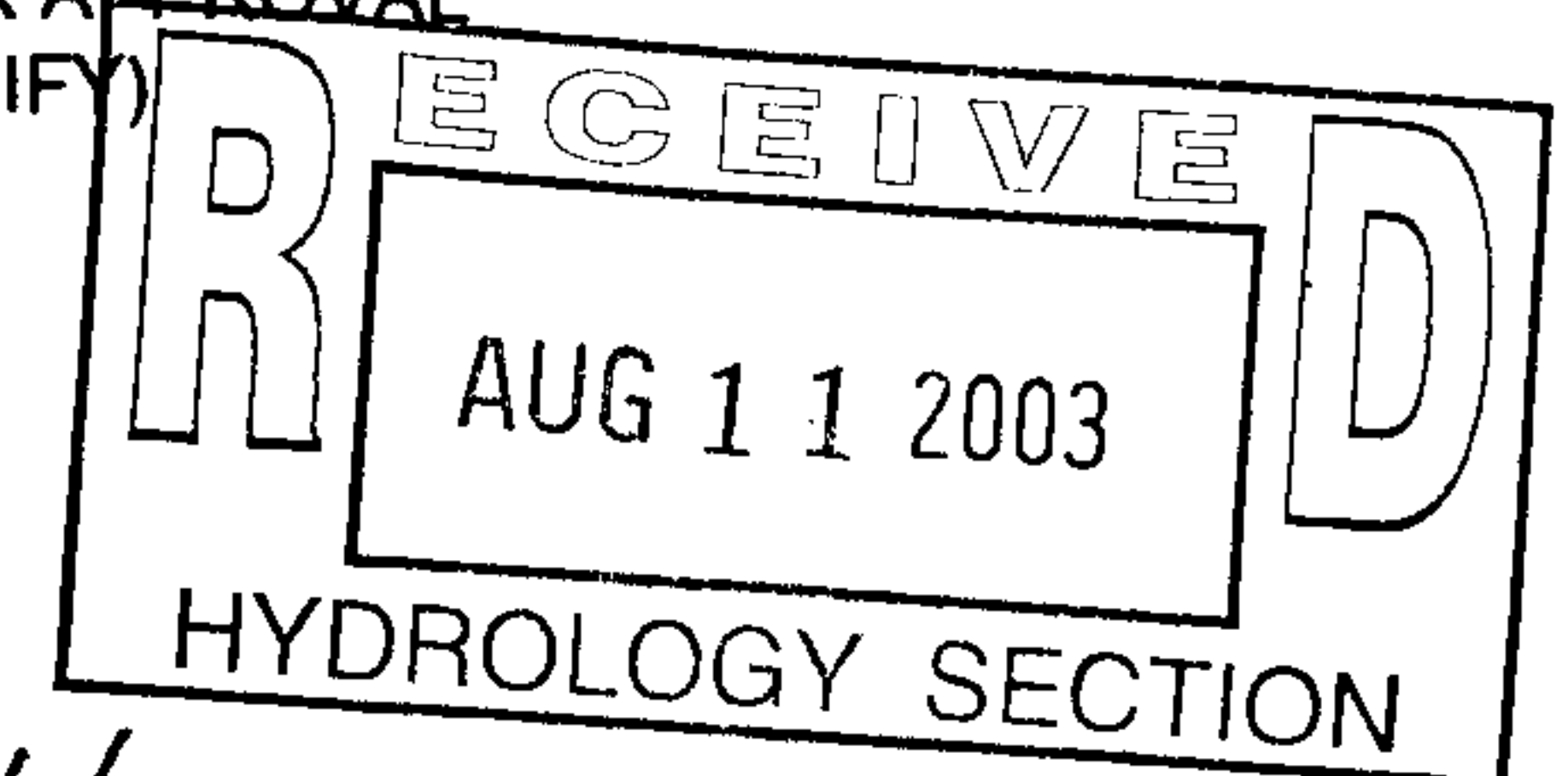
CHECK TYPE OF APPROVAL SOUGHT:

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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☒ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: 08-11-03 BY: Gilbert Aldaz



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

1. **Conceptual Grading and Drainage 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 subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 16, 2004

Gilbert Aldaz, PE
Applied Engineering & Survey, Inc.
1605 Blair Dr. NE
Albuquerque, NM 87112

Re: Arno Subdivision Grading and Drainage Plan
Engineer's Stamp dated 12-30-03 (J14/D146)

Dear Mr. Aldaz,

Based upon the information provided in your submittal dated 12-30-03, the above referenced plan is approved for Preliminary Plat action by the DRB. Once that board has approved the plan, please submit a mylar copy for my signature in order to obtain a Grading Permit.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. Refer to the attachment that is provided with this letter for details. If you have any questions please feel free to call the Municipal Development Department, Hydrology section at 768-3654 (Charles Caruso) or 768-3645 (Bryan Wolfe).

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

Sincerely,

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

C: Chuck Caruso, CoA
file

5-14/0146

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: ARNO SUBDIVISION ZONE MAP/DRG. FILE #: ~~14-137~~
DRB #: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tract R, Lomas and Broadway Area
CITY ADDRESS: 824 Arno Street

ENGINEERING FIRM: Applied Engineering Inc. CONTACT: Gilbert Aldaz
ADDRESS: 1605 Blair Drive NE PHONE: 237-1456
CITY, STATE: Albuquerque NM ZIP CODE: 87112

OWNER: GREATER ALBUQ. Housing CONTACT: Louis Kolker
ADDRESS: 110 2nd Street SW PHONE: 244-1614
CITY, STATE: Albuquerque, NM ZIP CODE: 87105

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

SURVEYOR: Southwest Surveying CONTACT: Dan Grancy
ADDRESS: 333 Lomas Blvd NE PHONE: 998-0303
CITY, STATE: Albuquerque, NM ZIP CODE: 87102

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

CHECK TYPE OF SUBMITTAL:

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

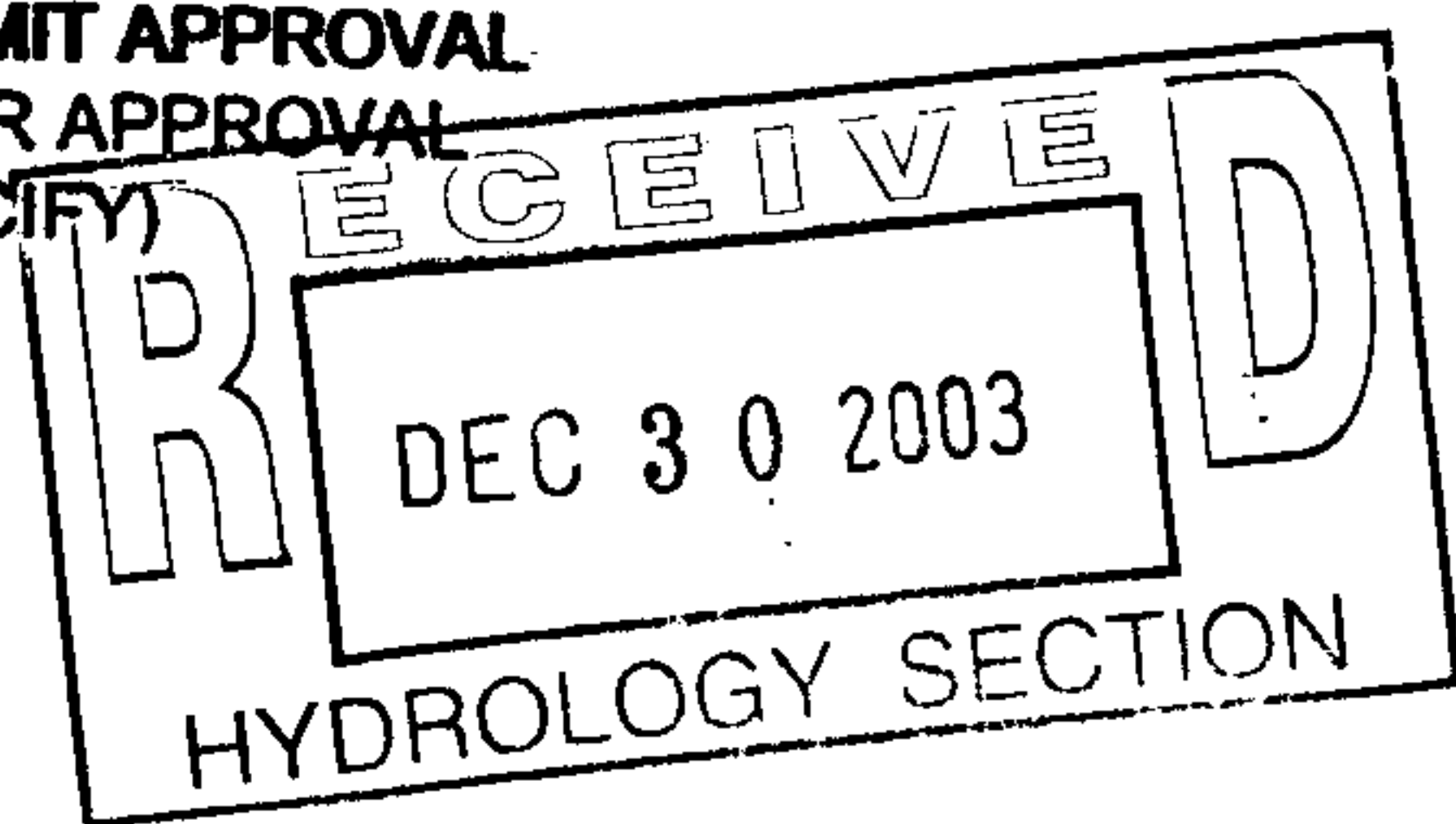
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- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☒ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: 12-30-03 BY: Gilbert Aldaz



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

1. Conceptual Grading and Drainage 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 subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

Applied Engineering and Surveying, Inc.

Civil Engineering, Land Planning & Surveying



December 30, 2003

Mr. Bradley L. Bingham, P.E.
Senior Engineer Planning Dept
Development and Building Services
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: RESPONSES TO YOUR COMMENTS DATED SEPTEMBER 18, 2003
FOR THE E.L. PORVENIR SUBDIVISION, (ARNO SUBDIVISION)
GRADING AND DRAINAGE PLAN (J-19/D37), ENGINEER'S STAMP
DATED AUGUST 11, 2003

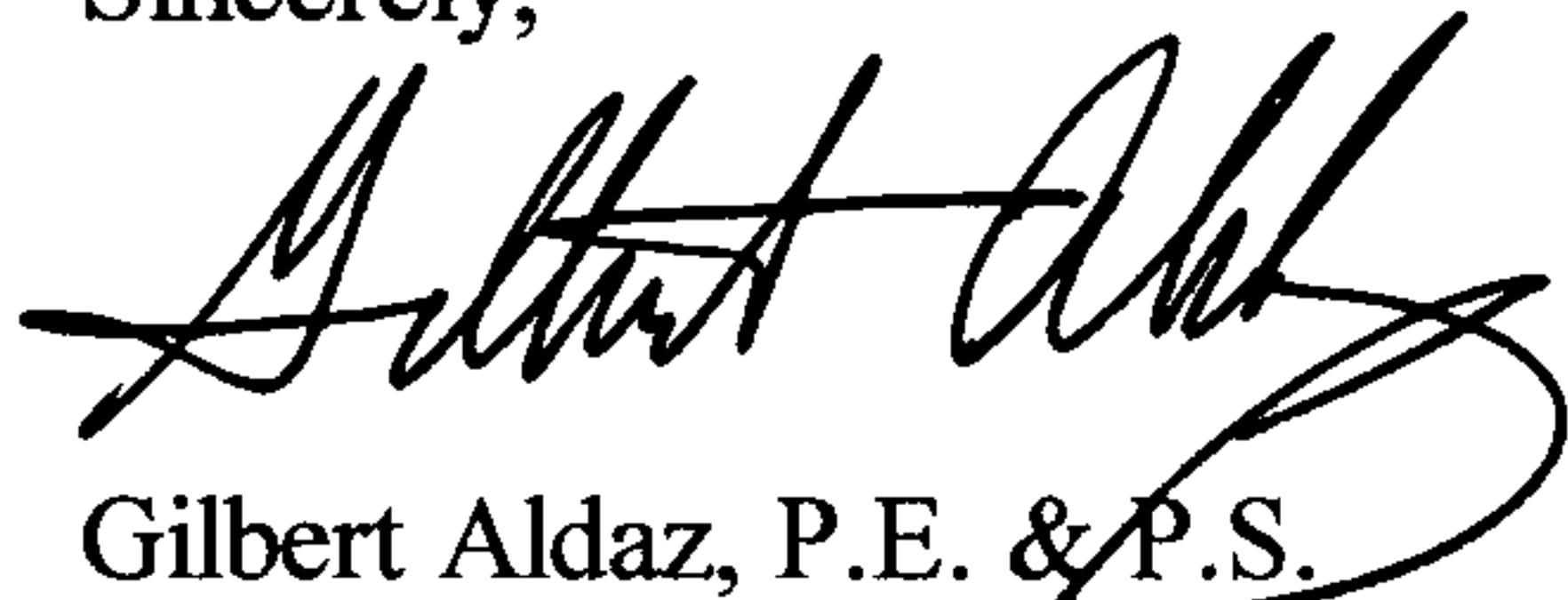
Dear Mr. Bingham:

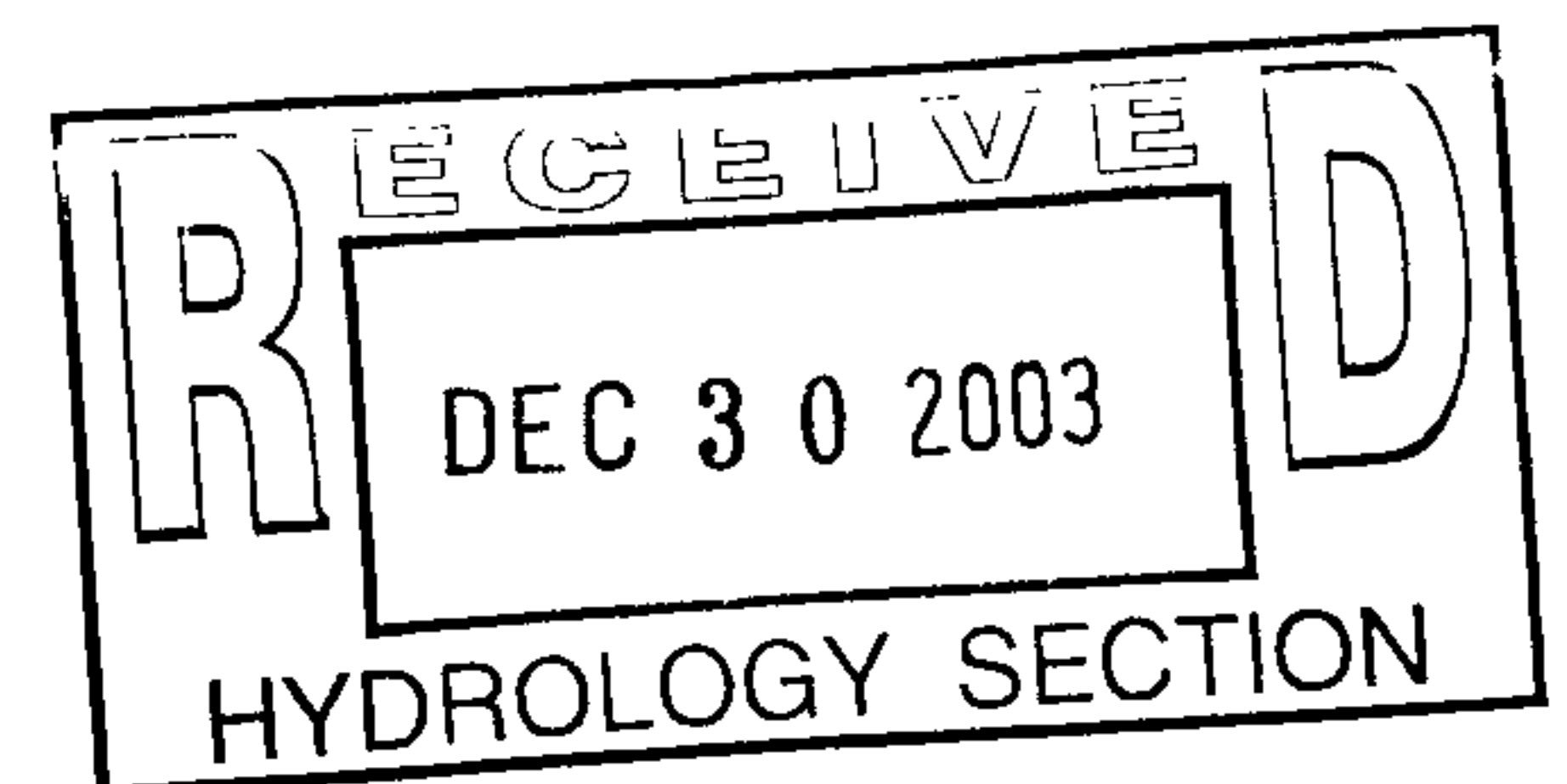
Please consider the following responses to address your comments:

1. Please see attached calculations, the plan is to move the sidewalk behind the mountable curb for approximately 95 feet east of Arno Street in-order to maintain the velocity head within a hardscape structure.
2. As per our discussions the details for the railroad tie retaining wall show concrete placed in the hole for the railroad ties, also the requirement of depth of burial equal to height should sustain the wall for quite some time. The sediment pond and swales will be maintained by the private property owners, such maintenance language will also be included in the plat.
3. A bench mark is now included on the plan.

I have attached a revised copy of the grading and drainage plan, since some of the lots have shifted from the preliminary review. If you should have any questions, please do not hesitate to call me at 237-1456.

Sincerely,


Gilbert Aldaz, P.E. & P.S.



E.L. Porvenir Subd

Street Width = 24 Feet Face to Face

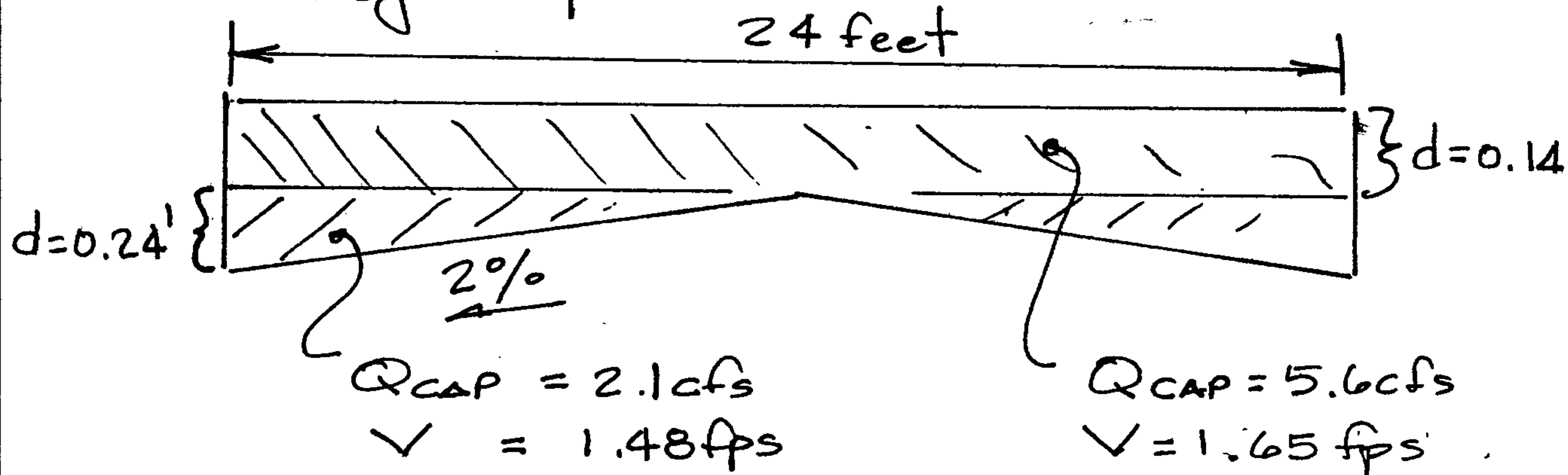
Mountable Curb Height = 0.33 feet

$$Q_{100} = 6.2 \text{ cfs (onsite)} + 3.5 \text{ cfs (offsite)}$$

$$Q_{100} = 9.7 \text{ cfs (total)}, \quad n = 0.017$$

$$S = 0.5\%$$

MANNINGS Equation



$$\text{Energy Head} = D + \frac{V^2}{2g}$$

$$= (0.14 + 0.24) + \frac{(1.48 + 1.65)^2}{2 \times 32.2}$$

$$= 0.42 \text{ feet} > 0.33 \text{ curb height } \underline{NG}$$

MOVE SIDEWALK BEHIND Mountable Curb
FOR 4 LOTS EAST OF ARNO STREET

See Sheet 2 for CALCS.

E.L. Porvenir Subd.

Calculate Transition from Std Curb to Mtbl.

Lot Impervious AREA (Typical)

$$= (25' \times 39') \text{ Dwelling} + (24' \times 12') \text{ Garage} \\ + (65' \times 10') \text{ Driv} = 1,913 \text{ SF Typical Lot} \\ \times 2 \text{ Lots} = 3,826 \text{ SF}$$

$$\text{Street Frontage} = 42.44 \text{ feet} \times [(24' \text{ F.to F.} \\ + (0.5' \times 2) \text{ curb} + 2 \times (4' \text{ sidewalk})] = 33' \times 42.44 \\ = 1400 \text{ SF}$$

$$\text{Total "D"} = 3,826 + 1,400 \text{ SF} = 5,226 \text{ SF}$$

Total AREA 2 Lots w/ Street

$$42.44' \times 210' = 8,912 \text{ SF}$$

Treatment "B" & "C" is 50% Each Remaining Area

$$= 0.50 \times (8,912 \text{ SF} - 5,226 \text{ SF}) = 1,843 \text{ SF}$$

Treatment

Area (Acs)

A

0

B

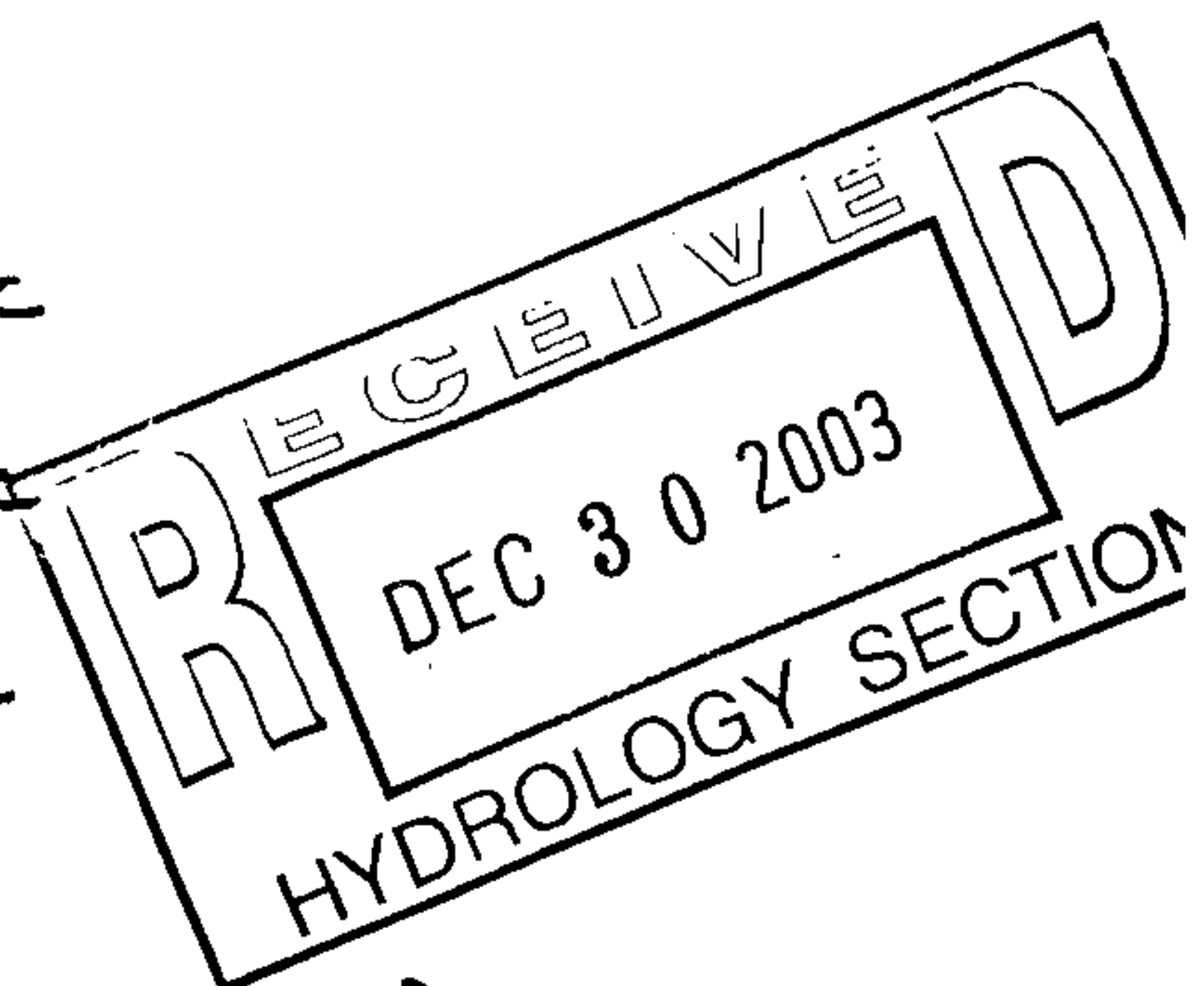
$$1,843 \text{ SF} = 0.04 \text{ AC}$$

C

$$1,843 \text{ SF} = 0.04 \text{ AC}$$

D

$$5,226 \text{ SF} = 0.12 \text{ AC}$$



$$Q_{2 \text{ Lots}} = (2.28 \times 0.04) + (3.14 \times 0.04) + (4.70 \times 0.12)$$

$$= 0.78 \text{ cfs} / 2 \text{ Lots} \& \text{ Street}$$

$$Q_{\text{TOTAL}} = 9.65 \text{ cfs}, D_{\text{TOTAL}} = 0.33 \text{ feet}$$

$$D_{\text{REQD}} = 0.33 \text{ feet}$$

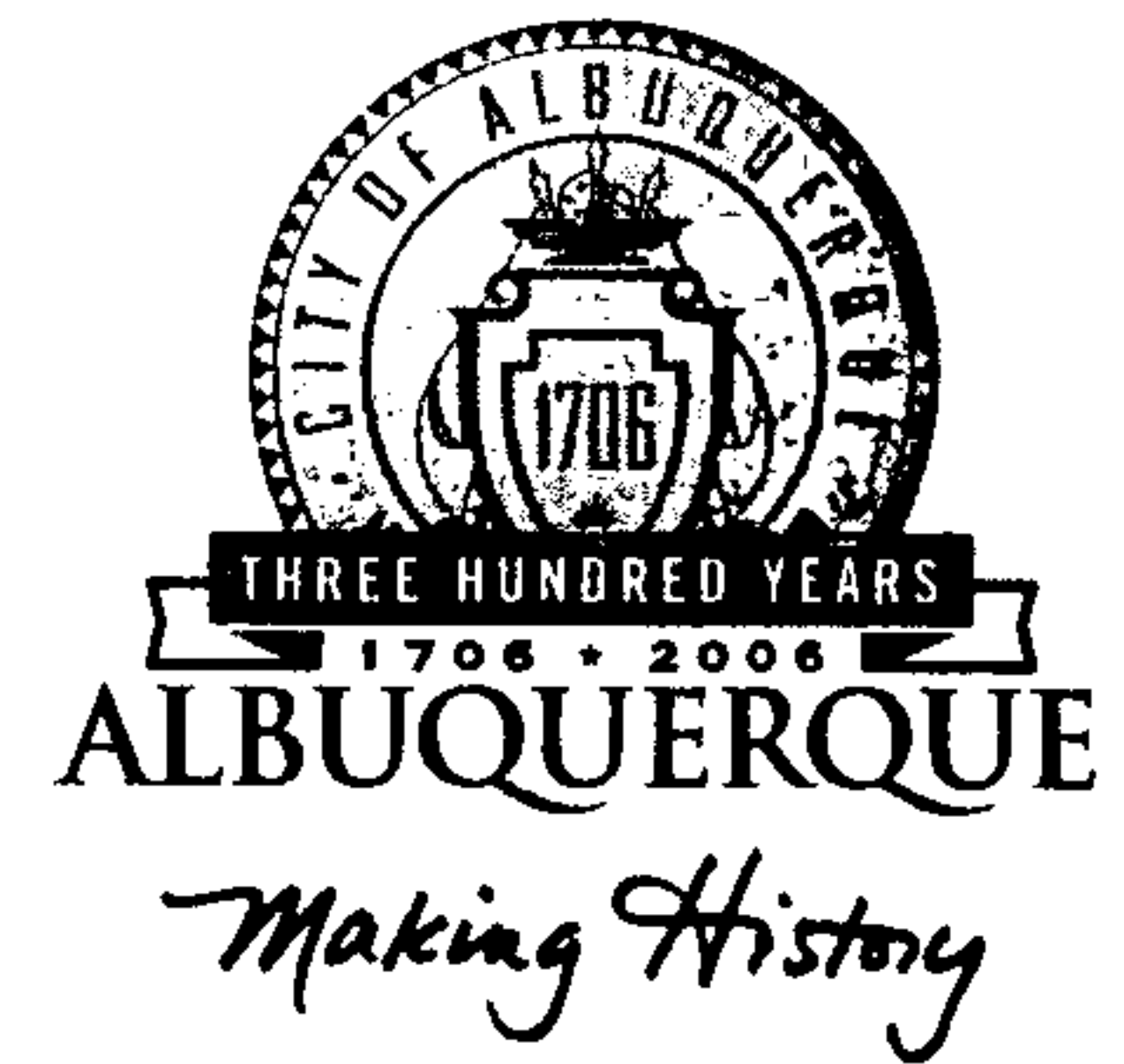
$$\text{PRORATE } Q_{\text{CURB HEIGHT}} = \frac{0.33}{0.38} \times 9.65 \text{ cfs} = 8.38 \text{ cfs for 4" CURB}$$

$$Q_{\text{DEFACT 4 LOTS}} = 9.65 \text{ cfs} - (2 \times 0.78 \text{ cfs}) = 8.09 \text{ cfs} < 8.38 \text{ cfs}$$

Sheet 2

OK

CITY OF ALBUQUERQUE



December 23, 2004

Mr. Gilbert Aldaz, PE
APPLIED ENGINEERING INC.
1605 Blair Drive NE
Albuquerque, NM 87105

RE: EL PORVENIR SUBDIVISION, (J-14/D146)
Engineers Certification for Release of Financial Guaranty
Engineers Stamp dated 12/30/2003
Engineers Certification dated 12/16/2004

Dear Gilbert:

P.O. Box 1293

Based upon the information provided in your Engineer's Certification Submittal dated 12/17/2004, the above referenced plan is adequate to satisfy the Grading and Drainage Certification for Release of Financial Guaranty.

If you have any questions, you can contact me at 924-3982

Albuquerque

New Mexico 87103

www.cabq.gov

Sincerely,

Arlene V. Portillo
Plan Checker, Planning Dept.- Hydrology
Development and Building Services

C: Marilyn Maldonado, COA# 725491
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

EL PORVENIR

(REV. 1/28/2003rd)

D146

PROJECT TITLE: ARNO SUBDIVISION ZONE MAP/DRG. FILE #: J-14/D37
 DRB #: _____ EPC#: _____ WORK ORDER#: _____

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 CITY, STATE: Albuquerque NM

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OWNER: GREATER ALBUQ. Housing
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- ☐ CLOMR/LOMR
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- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
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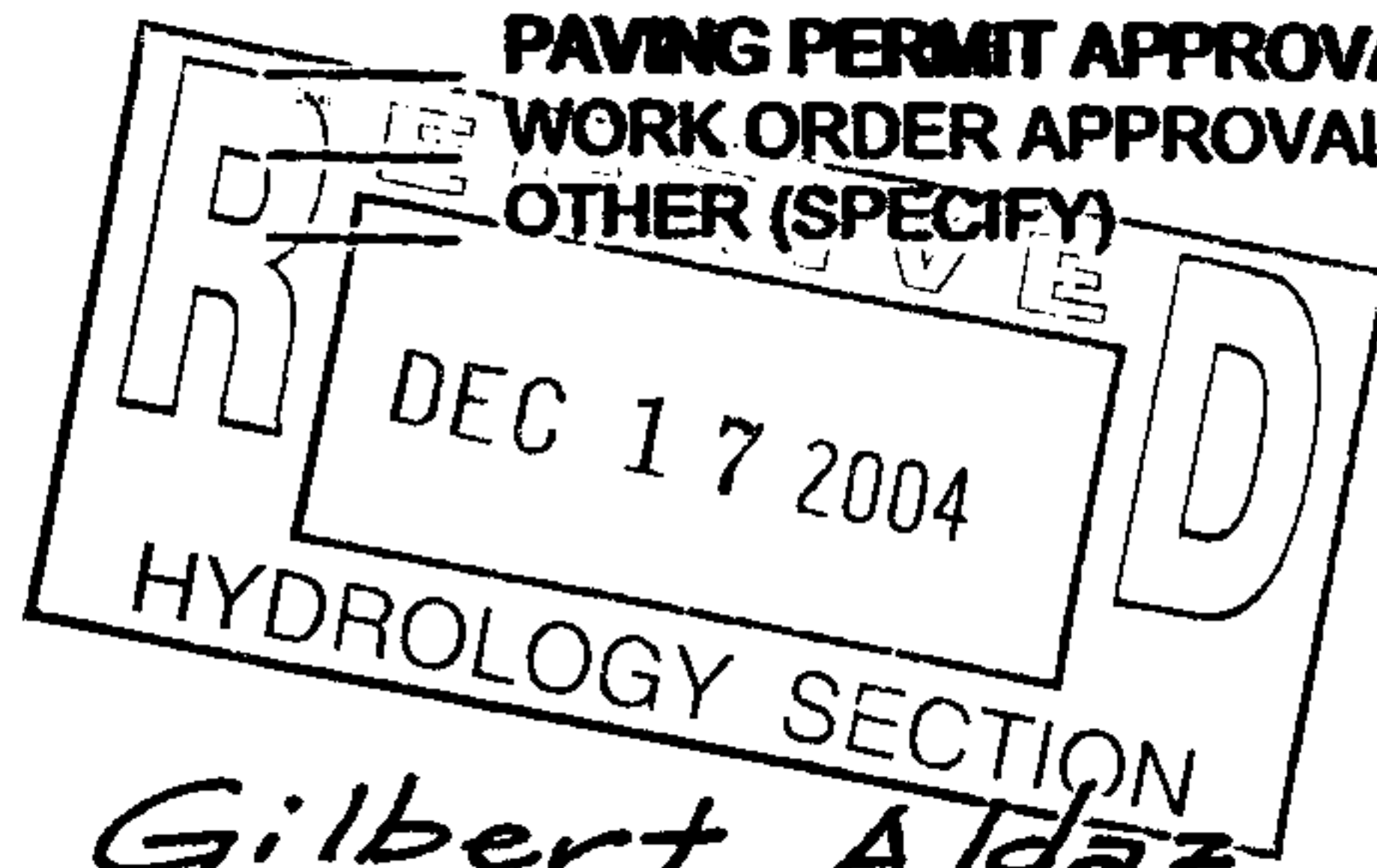
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- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
- ☐ NO
- ☐ COPY PROVIDED

DATE SUBMITTED: 12-17-04 BY: Gilbert Aldaz



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

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