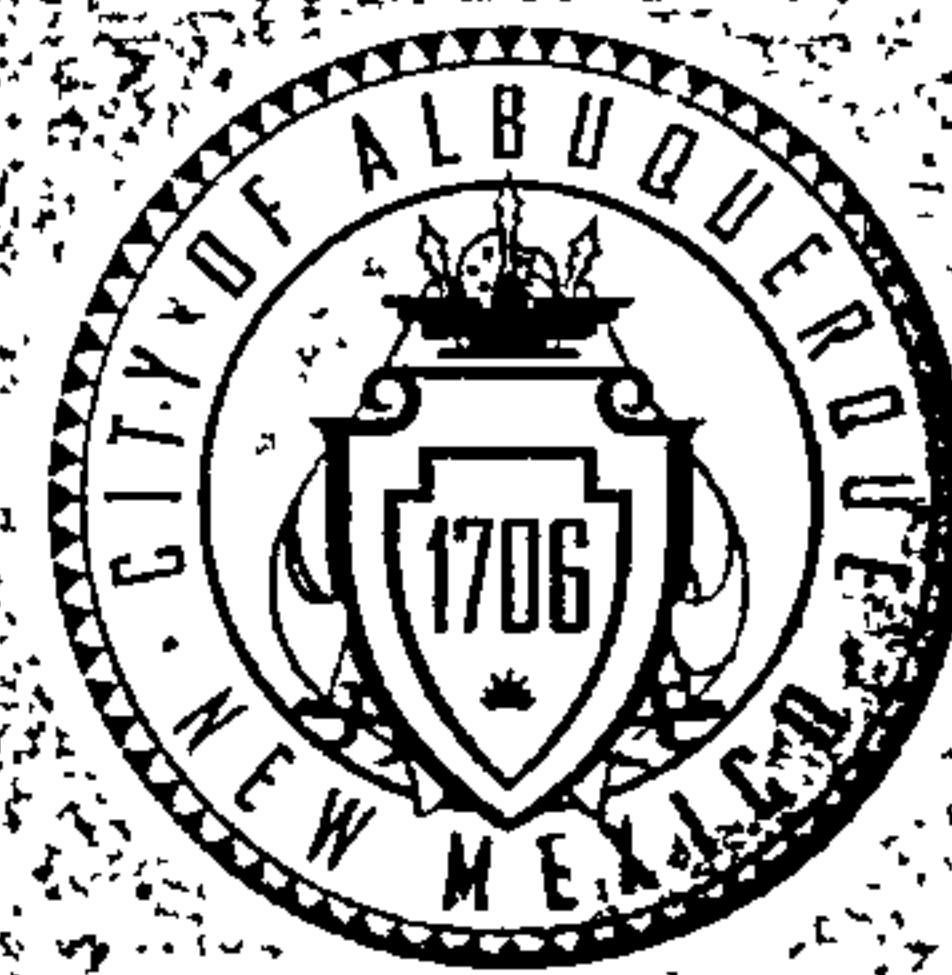


CITY OF ALBUQUERQUE



May 18, 2011

Manuel Tarin III, P.E.
AECOM/DMJM H&N
201 Third St. NW
Albuquerque, NM 87102

**Re: APS Emerson Elementary/Kindergarten Addition,
620 Georgia Street SE,
Permanent Certificate of Occupancy – Transportation Development
Engineer's Stamp dated 05-17-11 (L18-D026)
Certification dated 05-18-11**

Dear Mr. Tarin,

Based upon the information provided in your submittal received 05-17-11,
Transportation Development has no objection to the issuance of a Permanent Certificate
of Occupancy. This letter serves as a "green tag" from Transportation Development for
a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

If you have any questions, you can contact me at 924-3630.

Sincerely,

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

C: CO Clerk
File

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: APS EMERSON ELEMENTARY KINDERGARTEN ADDN. ZONE MAP: L-18/DD24
DRB#: L-18/0-26 EPC#: _____ WORK ORDER#: _____

BLOCKS 22 + 23, MESA PARK ADDN, ALBUQ., NM AS THE SAME IS SHOWN
LEGAL DESCRIPTION: ON MAP FILED IN BERN. CNTY CLERKS OFFICE, NM ON 8/31/1923
CITY ADDRESS: 620 GEORGIA ST. SE, ALB., NM 87108

ENGINEERING FIRM: AECOM CONTACT: MANNY TARIN
ADDRESS: 201 THIRD ST., SUITE 600 PHONE: 889-4137
CITY, STATE: ALBUQ., NM ZIP CODE: 87102

OWNER: APS CONTACT: ANNELLE DARBY
ADDRESS: 915 OAK ST. SE PHONE: 848-8818
CITY, STATE: ALB., NM ZIP CODE: 87106

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

SURVEYOR: HIGH MESA CONSULTING GROUP CONTACT: _____
ADDRESS: 6010-B MIDWAY PARK BLVD., NE PHONE: 345-4250
CITY, STATE: ALB., NM ZIP CODE: 87109

CONTRACTOR: VIGIL CONTRACTING SERVICES, INC. CONTACT: LOREN VIGIL
ADDRESS: 1514 COORS SW PHONE: 877-6325
CITY, STATE: ALB., NM ZIP CODE: 87121

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

**HYDROLOGY
SECTION**

DATE SUBMITTED: 5/17/2011 BY: JHL 2-c

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



May 18, 2011

Manuel Tarin III, P.E.
AECOM
201 Third St. NW Ste 600
Albuquerque, NM 87102

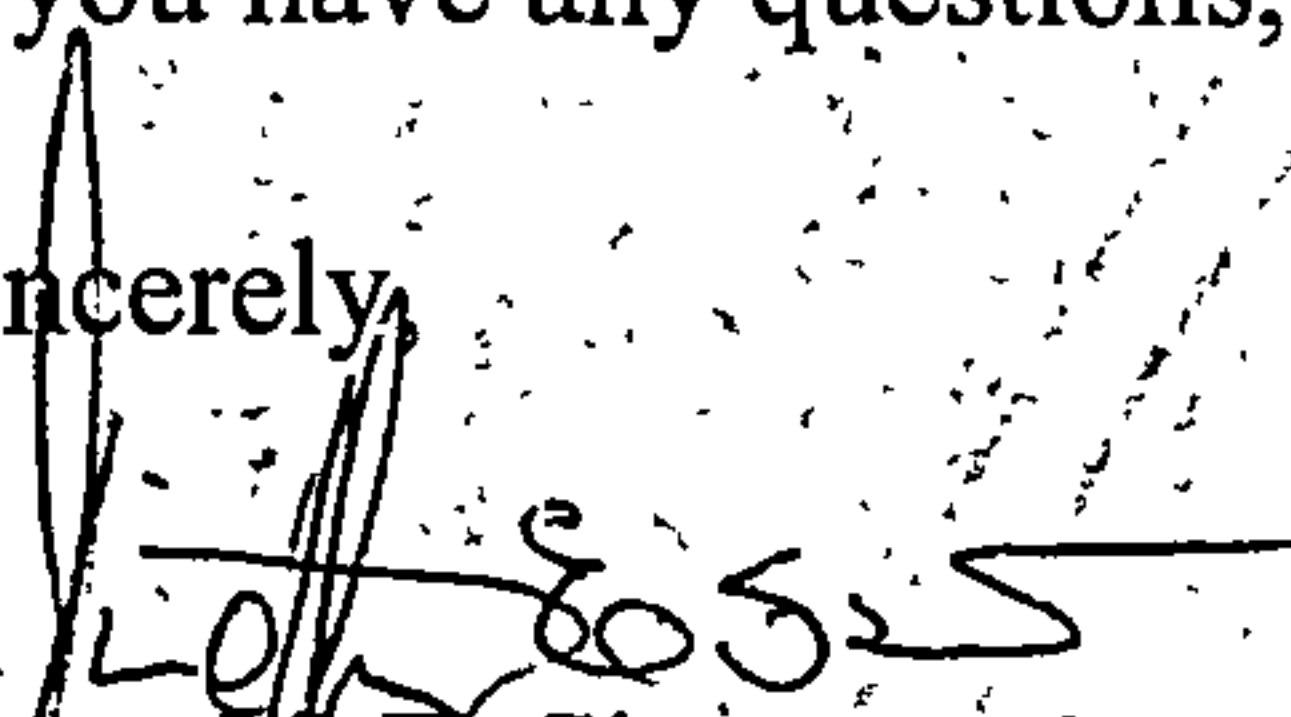
**Re: Emerson Kindergarten & Fine Arts Addition, 620 Georgia St NE,
Request for Permanent C.O. - Approved
Engineer's Stamp dated: 11-17-09 (C-09/D001B)
Certification dated: 05-17-11**

Dear Mr. Tarin,

Based upon the information provided in the Certification received 05-17-11, the above referenced Certification is approved for a release of a Permanent Certificate of Occupancy by Hydrology.

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

Sincerely,


Timothy B. Sims,
Plan Checker—Hydrology Section
Development and Building Services

C: CO Clerk—Katrina Sigala
File

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: APS EMERSON ELEMENTARY KINDERGARTEN ADDTN. ZONE MAP: L-18/0024
DRB#: L-18/026 EPC#: _____ WORK ORDER#: _____
BLOCKS 22 + 23, MESA PARK ADDN, ALBUQ., NM AS THE SAME IS SHOWN

LEGAL DESCRIPTION: ON MAP FILED IN BERN. CNTY CLERKS OFFICE, NM ON 8/31/1923
CITY ADDRESS: 620 GEORGIA ST. SE, ALB., NM 87108

ENGINEERING FIRM: AECOM CONTACT: MANNY TARIN
ADDRESS: 201 THIRD ST., SUITE 600 PHONE: 889-4137
CITY, STATE: ALBUQ., NM ZIP CODE: 87102

OWNER: APS CONTACT: ANNELLE DARBY
ADDRESS: 915 OAK ST. SE PHONE: 848-8818
CITY, STATE: ALB., NM ZIP CODE: 87106

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

SURVEYOR: HIGH MESA CONSULTING GROUP CONTACT: _____
ADDRESS: 6010-B MIDWAY PARK BLVD., NE PHONE: 345-4250
CITY, STATE: ALB., NM ZIP CODE: 87109

CONTRACTOR: VIGIL CONTRACTING SERVICES, INC. CONTACT: LOREN VIGIL
ADDRESS: 1514 COORS SW PHONE: 877-6325
CITY, STATE: ALB., NM ZIP CODE: 87121

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:

- ☐ SLA/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

**HYDROLOGY
SECTION**

DATE SUBMITTED: 5/17/2011 BY: Phil Z. e

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



December 1, 2009

Dave Larrow, PE
AECOM
201 Third St, NW, Ste 600
Albuquerque, NM 87102

**Re: Emerson Elementary Kindergarten Add'n Grading and Drainage Plan
Engineer' Stamp dated 11-17-09 (L18-D26)**

Dear Mr. Larrow,

Based upon the information provided in your submittal dated 11-17-09, the above referenced plan is approved for Building 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 of the grading plan per the DPM checklist will be required.

If you have any questions, I can be reached at (505) 924-3986.

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Sincerely,

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

C: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: EMERSON ELEMENTARY KINDER. ADAPT. ZONE MAP: L-18/D024
DRB#: _____ EPC#: _____ WORK ORDER#: _____
BLOCKS 22 + 23, MESA PARK ADDITION, ALBUQUERQUE, NM AS THE
LEGAL DESCRIPTION: SAME IS SHOWN ON PLAT FILED IN BERN. CNTY. CLARKS OFFICE, NM ON 8/31/1923
CITY ADDRESS: 620 GEORGIA ST. SE, ALBUQ., NM 87108

ENGINEERING FIRM: AECOM CONTACT: MANNY TAREN
ADDRESS: 201 THIRD ST. NW, SUITE 600 PHONE: 889-4137
CITY, STATE: ALB., NM ZIP CODE: 87102

OWNER: APS CONTACT: ANNELLE DABBY
ADDRESS: 915 OAK ST. SE. PHONE: 848-8818
CITY, STATE: ALB., NM 87106 ZIP CODE: 87106

ARCHITECT: AECOM CONTACT: DAVE WALLERSTEDT
ADDRESS: 201 THIRD ST. NW, SUITE 600 PHONE: 889-4345
CITY, STATE: ALB., NM ZIP CODE: 87102

SURVEYOR: HIGH MESA CONSULTING GROUP CONTACT: _____
ADDRESS: 6010-B MIDWAY PARK BLVD. NE PHONE: 345-4250
CITY, STATE: ALB., NM ZIP CODE: 87109

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

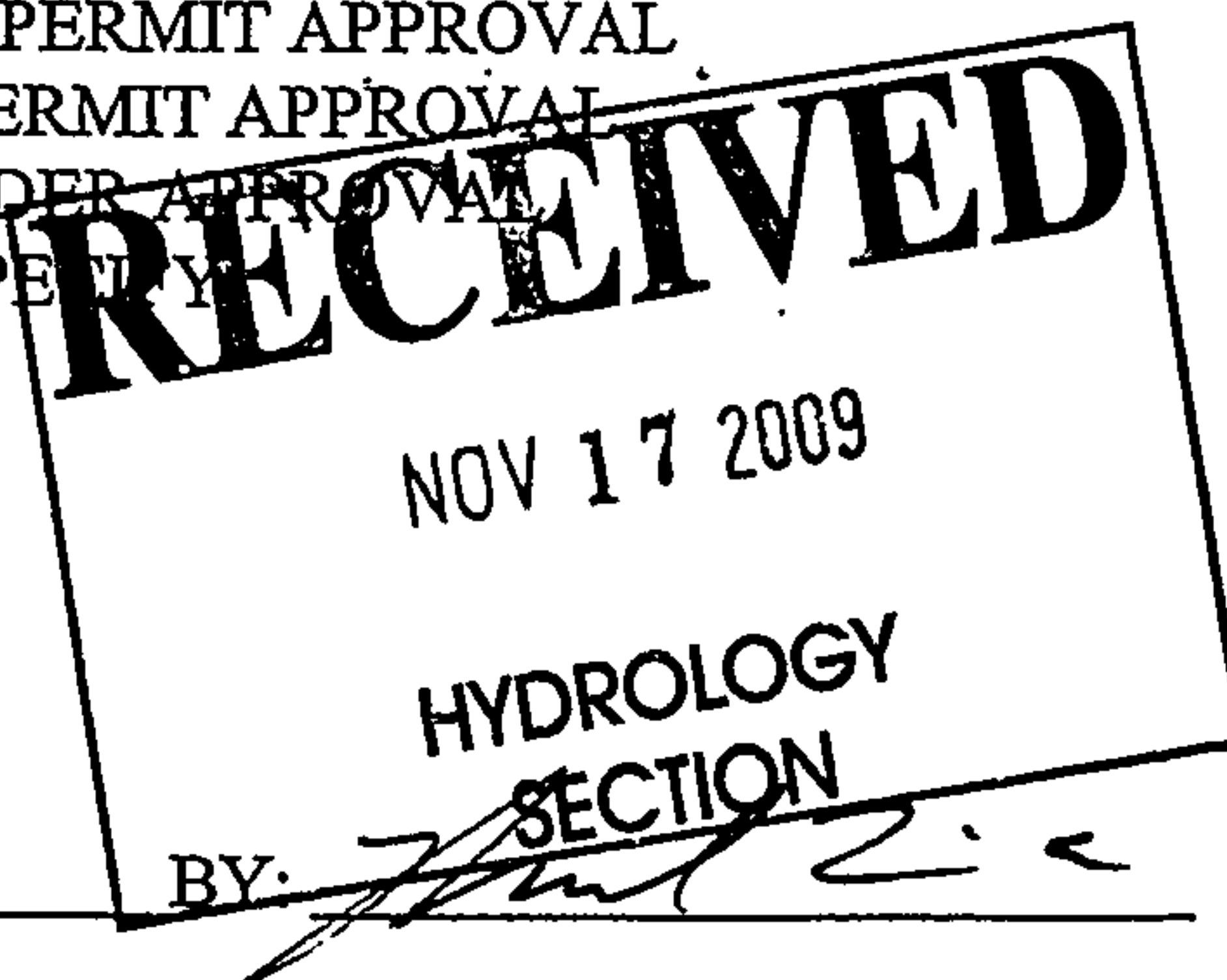
TYPE OF SUBMITTAL:
____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
☒ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
____ EROSION CONTROL PLAN
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB 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: 11/17/09

OWES \$150.00



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.

November 17, 2009

Mr. Bradley L. Bingham, PE
City of Albuquerque, Development Services
PO Box 1293
Albuquerque, NM 87120

Subject: Response to Grading and Drainage Review Comments for Emerson Elementary School Kindergarten Addition, COA letter dated November 9, 2009

Dear Mr. Bingham:

We have reviewed your comments regarding the grading and drainage submittal for approval and have the following responses for your consideration. The responses below correspond to each of your bulleted items.

- Agreed.
- The total length of the 48 inch cmp is assumed to be 200 feet long and can accommodate only about a quarter of the runoff from basin 1. The portion of storm drainage that remains will accumulate to a water surface elevation of approximately 5324.30, which is about 4 inches above the top of grate. The volume of water accumulated at the surface should take approximately 8 hours to pump down.
- According to APS maintenance staff, the pump is working. APS will replace the pump as needed.
- A copy of sheet C501 is provided for your reference and information.
- It is possible the force main pipe will be in conflict with the new drainage system. We have provided a note to verify the depth of the force main pipe and adjust as necessary.
- There are a couple reasons basin 3 cannot flow directly out to Georgia Street. 1. The project was designed based on LEED standards and no additional storm water flow can be discharged directly to adjacent systems without routing it through a BMP device. 2. Portions of the patio area are below the adjacent sidewalk grade.
- The parking lot channel is 3.5 feet wide and build notes are shown on a parking lot site plan sheet.

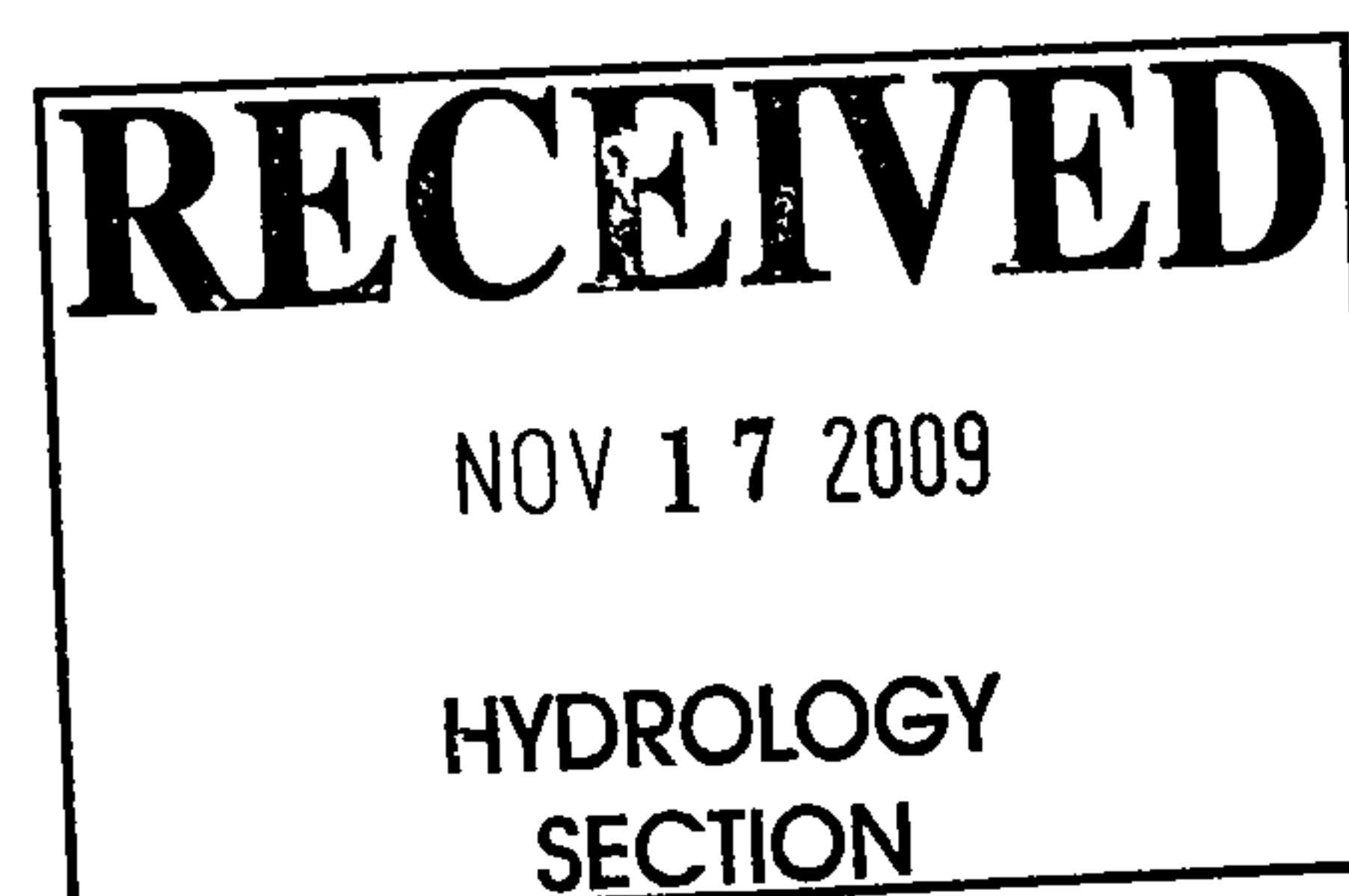
We will formally submit the updated grading and drainage plan for your approval.

Yours sincerely,

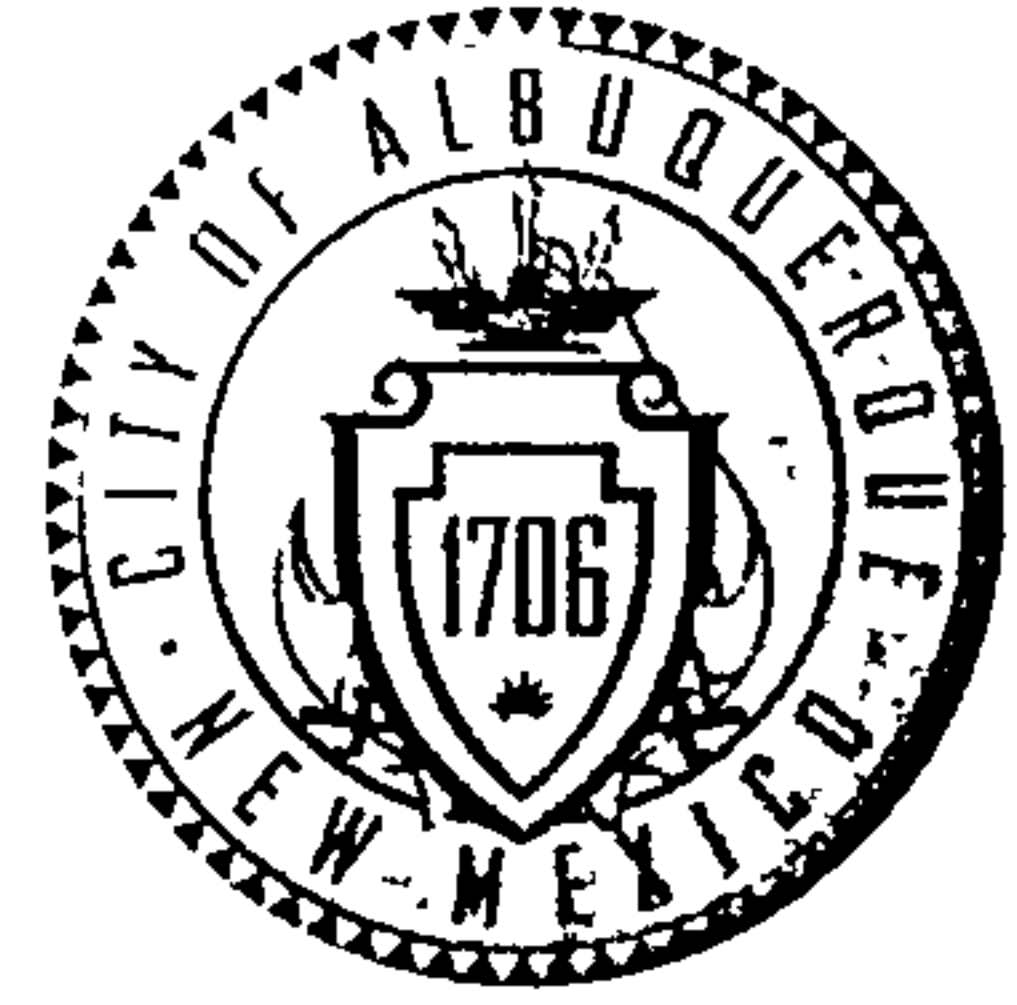


Dave Larrow, PE

DL/mt



CITY OF ALBUQUERQUE



February 8, 2010

David Larrow, P.E.
DMJM H&N / AECOM
201 Third St. NW Suite 600
Albuquerque, NM 87102

Re: Emerson Elementary School Kindergarten Addition / Parking Lot Modifications
620 Georgia Street SE, Traffic Circulation Layout
Engineer's Stamp dated 02-04-10 (L18-D026)

Dear Mr. Larrow,

The TCL submittal received 02-04-10 is approved for Building Permit. The plan is stamped and signed as approved. A copy of this plan will be needed for each of the building permit plans. Please keep the original 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.**

PO Box 1293

Albuquerque

NM 87103

www.abq.gov

If a temporary CO is needed, a copy of the original TCL that was stamped as approved by the City will be needed. This plan must include a statement that identifies the outstanding items that need to be constructed or the items that have not been built in "substantial compliance," as well as the signed and dated stamp of a NM registered architect or engineer. 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 must stamp, sign, 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,

Kristal D. Metro, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services

C: File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV 12/2005)

PROJECT TITLE: EMERSON ELEMENTARY KINDERGARTEN ADDTN. ZONE MAP: L-18 / DOZ 4
DRB#: _____ EPC#: _____ WORK ORDER#: _____
BLOCKS 22 + 23, MESA PARK ADDN, ALBUQ., NM AS THE SAME IS SHOWN

LEGAL DESCRIPTION: ON PLAT FILED IN BERN. CNTY CLERKS OFFICE, NM ON 8/31/1923
CITY ADDRESS: 620 GEORGIA ST. SE, ALB., NM 87108

ENGINEERING FIRM: AECOM CONTACT: MANNY TARIN
ADDRESS: 201 THIRD ST., SUITE 600 PHONE: 889-4137
CITY, STATE: ALB., NM ZIP CODE: 87102

OWNER: APS CONTACT: ANNELLE DABY
ADDRESS: 915 OAK ST. SE. PHONE: 848-8818
CITY, STATE: ALB. NM ZIP CODE: 87106

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

SURVEYOR: HIGH MESA CONSULTING GROUP CONTACT: _____
ADDRESS: 6010-B MIDWAY PARK BLVD. NE PHONE: 345-4250
CITY, STATE: ALB., NM ZIP CODE: 87109

CONTRACTOR: VIGIL CONTRACTING SVC. INC CONTACT: LOREN VIGIL
ADDRESS: 1514 COORS SW PHONE: 877-6325
CITY, STATE: ALB., NM ZIP CODE: 87121

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:

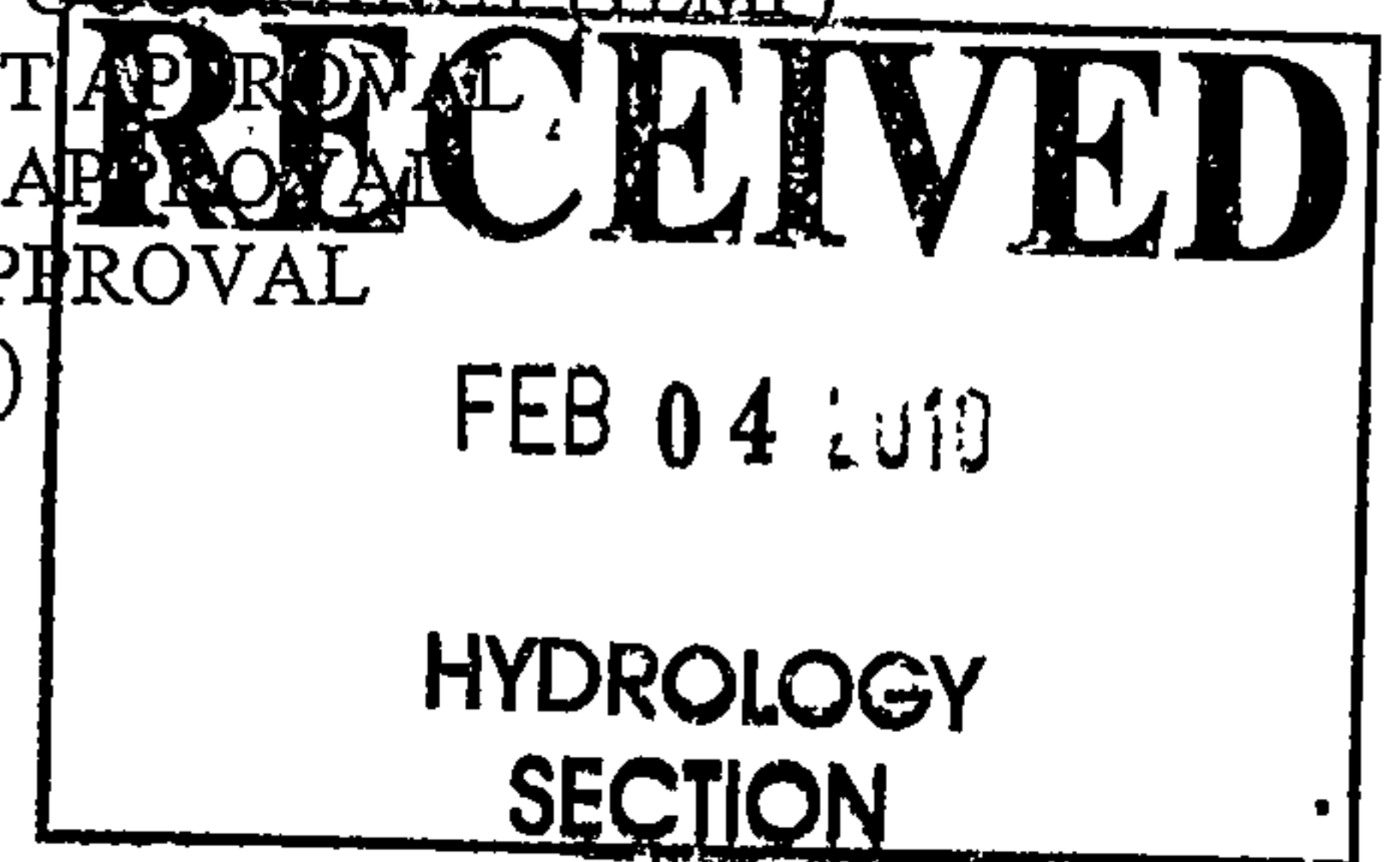
☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: 2/4/10 BY: Paul Z...

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.

PLEASE CALL ME WHEN READY.



CITY OF ALBUQUERQUE



November 9, 2009

Dave Larrow, PE
AECOM
201 Third St, NW, Ste 600
Albuquerque, NM 87102

**Re: Emerson Elementary Kindergarten Add'n Grading and Drainage Plan
Engineer' Stamp dated 10-2-09 and 10-4-09(L18-D26)**

Dear Mr. Larrow,

Based upon the information provided in your submittal dated 11-4-09, the above referenced plan cannot be approved until the following comments are addressed.

- Please date your stamp one date and make it different from what was previously submitted. This will make it easier to track and sign off on the Building Permit if there is a unique date for each submittal
- Since you are pumping all basins (1, 2 and 3), the volume generated by all basins should be accounted for. Your calculations infer that the existing 48 inch CMP is adequate for basin 1 but my calculations show that pipe must be more than 630 feet long to contain all of basin 1. Since it is probably only 200 feet long or so, some of basin 1 must remain above ground before it can be pumped out. Please provide this water surface elevation.
- Is the existing pump working? My information is that the pump needs to be replaced with a duplex type pump.
- Please provide invert elevations for all new piping, new inlets or provide sheet C501.
- Will the force main outlet pipe conflict with the inflow pipes of basin 2 & 3?
- I still don't understand why basin 3 can't drain to Georgia through a sidewalk culvert. This would save a tremendous amount of cost to the project.
- How wide is the parking lot channel and where are the build notes for it?

If you have any questions, I can be reached at (505) 924-3986.

Sincerely,

Bradley L. Bingham

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

C: file

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 1, 2004

Scott McGee, PE
Isaacson & Arfman, P.A.
128 Monroe Street NE
Albuquerque, NM 87108

**RE: Emerson Elementary School Addition Grading and Drainage Plan
Engineer's Stamp dated 6-21-04 (L18/D26)**

Dear Mr. McGee:

Based on the information provided in your submittal received 6-22-04, the above referenced plan is approved for Building Permit and SO#19 Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

A separate permit (SO#19) is required for construction within City R/W. A copy of this approval letter must be on hand when applying for the excavation permit.

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

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

Sincerely,

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

C: Pam Lujan, PWD
Matt Cline, PWD
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: EMERSON E.S. ADDITION ZONE MAP/DRG. FILE #: L-18 / D26
 DRB #: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: EMERSON ELEMENTARY SCHOOL
 CITY ADDRESS: 620 GEORGIA SE

ENGINEERING FIRM: Isaacson & Arfman, P.A.
 ADDRESS: 128 Monroe Street NE
 CITY, STATE: Albuquerque, NM

CONTACT: SCOTT MCGEE
 PHONE: (505) 268-8828
 ZIP CODE: 87108

OWNER: APS
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: _____
 PHONE: _____
 ZIP CODE: _____

ARCHITECT: WESTWORK ARCHITECTS
 ADDRESS: 2403 SAN MATEO NE, STE 5-2
 CITY, STATE: ABQ, NM

CONTACT: CINDY TERRY
 PHONE: 884-5252
 ZIP CODE: 87110

SURVEYOR: WILSON & Co.
 ADDRESS: _____
 CITY, STATE: _____

CONTACT: _____
 PHONE: _____
 ZIP CODE: _____

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

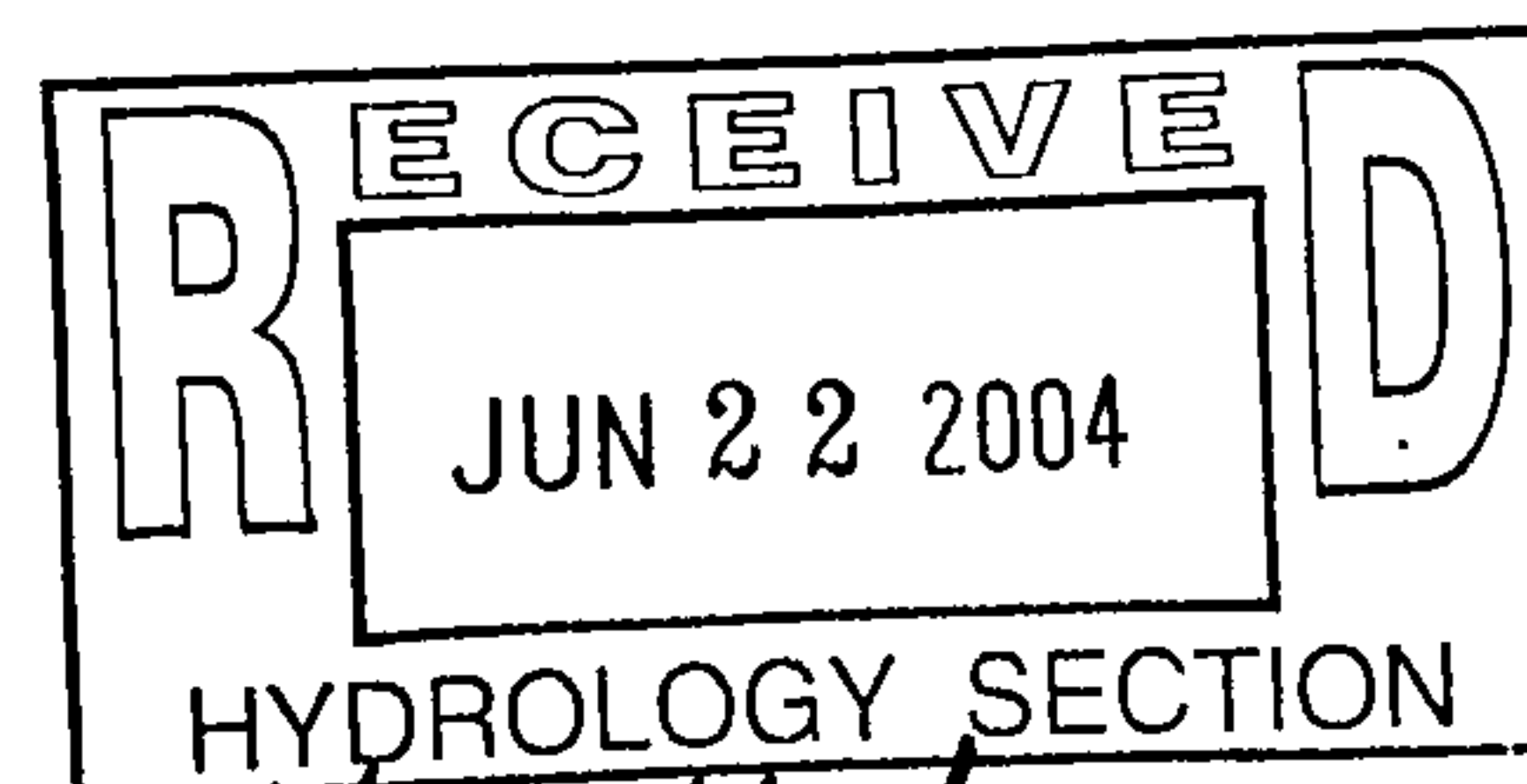
Resubmittal

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☒ NO
- ☐ COPY PROVIDED

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)



DATE SUBMITTED: JUNE 21, 2004 BY: Scott M McGee

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.

ONE STOP SHOP
CITY OF ALBUQUERQUE PLANNING DEPARTMENT
Development & Building Services

PAID RECEIPT

APPLICANT NAME

AGENT

ADDRESS

PROJECT & APP #

PROJECT NAME

\$ 469099/4916000 Conflict Management Fee

\$ 441006/4983000 DRB Actions

\$ 441006/4971000 EPC/AA/LUCC Actions & All Appeals

\$ 441018/4971000 Public Notification

\$ 50.00 441006/4983000 DRAINAGE PLAN REVIEW OR TRAFFIC IMPACT STUDY***
() Major/Minor Subdivision () Site Development Plan (X) Bldg Permit
() Letter of Map Revision () Conditional Letter of Map Revision
() Traffic Impact Study

\$ 50.00 TOTAL AMOUNT DUE

***NOTE: If a subsequent submittal is required, bring a copy of this paid receipt with you to avoid an additional charge.

268-8858
ISAACSON AND ARFMAN, P.A.
128 MONROE ST. NE
ALBUQUERQUE, NM 87108

PAY TO THE ORDER OF City of Albuquerque

DATE 5/21/04

\$ 50.00

Fifty + 00/100

WELLS FARGO
Wells Fargo Bank New Mexico, N.A.
200 Lomas NW
Albuquerque, NM 87102
www.wellsfargo.com

FOR bldg permit #1291

RECEIVED 5/21/2004
26500 M. 00 M. Fee 00.00

ACCOUNT 4971000

15797

95-219-176
1070
1350743997

TREASURY DIVISION

015797 1070021921350743997

J24 Misc \$50.00
CK \$50.00
CHANGE \$0.00



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 11, 2004

Scott McGee, PE
Isaacson & Arfman, P.A.
128 Monroe Street NE
Albuquerque, NM 87108

**RE: Emerson Elementary School Addition Grading and Drainage Plan
Engineer's Stamp dated 4-23-04 (L-18/D26)**

Dear Mr. McGee:

Based on the information provided in your submittal received 5-21-04, the above referenced plan cannot be approved for Building Permit until the following comment is addressed:

- The runoff south of the proposed hallway classroom addition does not appear to have an outfall point. Please rectify this.

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

Sincerely,

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

C: File

CITY OF ALBUQUERQUE



October 20, 2009

Dave Larrow, PE
AECOM
201 Third St, NW, Ste 600
Albuquerque, NM 87102

**Re: Emerson Elementary Kindergarten Add'n Grading and Drainage Plan
Engineer' Stamp dated 10-2-09 (L18-D26)**

Dear Mr. Larrow,

Based upon the information provided in your submittal dated 10-13-09, the above referenced plan cannot be approved until the following comments are addressed.

- Please provide enough spot elevations in Kentucky and Southern to adequately show waterblocks at the drives, and the interface of the building with the street.
- Provide spot elevations at critical locations of the new curb in the parking lot to construct it.
- How wide is the channel and where are the build notes for it?
- How is the patio drainage going to be alleviated? No pipe or inlet is shown or calculations provided.
- Do basins 2 and 3 actually contribute to the new underground detention pond in basin 1? Has this pond been sized for the volume of runoff generated? Please provide pond calculations and pump curves for the lift station.
- How is basin 3 runoff conveyed to the parking lot pond? Please show all piping and build notes.

I am available to meet to go over my comments and can be reached at (505) 924-3986.

Sincerely,

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

C: file



City of Albuquerque

December 14, 1999

Scott McGee, PE
Isaacson & Arfman
128 Monroe St. NE
Albuquerque, NM 87108

Re: Emerson Elementary School – Mini Gym Area
Grading and Drainage Plan
Engineer's Stamp dated 10-18-99 (L18/D26)

Dear Mr. McGee,

Based upon the information provided in your submittal dated 10-19-99, the above referenced site can be approved for Building Permit once the following items have been addressed:

1. Please label all new curb proposed as well as all removals with this phase or update your legend. It was a little confusing what was being built when.
2. What modifications are proposed to the concrete swale in the north parking lot?

The site plan (TCL) was reviewed by and disapproved by Transportation. Their comments are enclosed. For your next submittal, please make sure that your grading and drainage plan matches the TCL exactly.

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

Sincerely,

Bradley L. Bingham
Bradley L. Bingham, PE
Hydrology Review Engineer

C: file



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 25, 1999

Edith Cherry and James See Reg. Architects,
220A Gold Ave S.W.
Albuquerque, New Mexico 87102

Re: Site Plan submittal for building permit approval for Mini Gym Building at Emerson Elementary School, 620 Georgia St. S.E., Albuquerque Public Schools, [L-18/D026], No Architect's Stamp.

Dear Ms. Cherry or Mr. See,

The location referenced above requires modification to the Site Plan prior to Building Permit release as stated on the attached comments and marked up Site Plan.

Please resubmit revised Site Plan after addressing typed and marked up comments. Submit Plan along with typed comments and all red-lined, mark-up copies.

Sincerely,



Mike Zamora,
Commercial Plan Checker

cc:
Engineer
Hydrology File
Office File



City of Albuquerque

April 6, 2000

Scott McGee, P.E.
Isaacson & Arfman, PA
128 Monroe Street, NE
Albuquerque, NM 87108

RE: GRADING PLAN FOR **EMERSON ELEMENTARY SCHOOL**, ENGINEER'S STAMP
DATED 2/8/00, SUBMITTED FOR PAVING PERMIT APPROVAL (L-18/D26)

Dear Mr. McGee,

Based upon the information provided in your March 28, 2000, submittal, the project referred to above is approved for paving permit.

If you have any questions, please call me at 924-3988.

Sincerely,

Stuart Reeder, P.E.

Stuart Reeder, P.E.
Hydrology Division

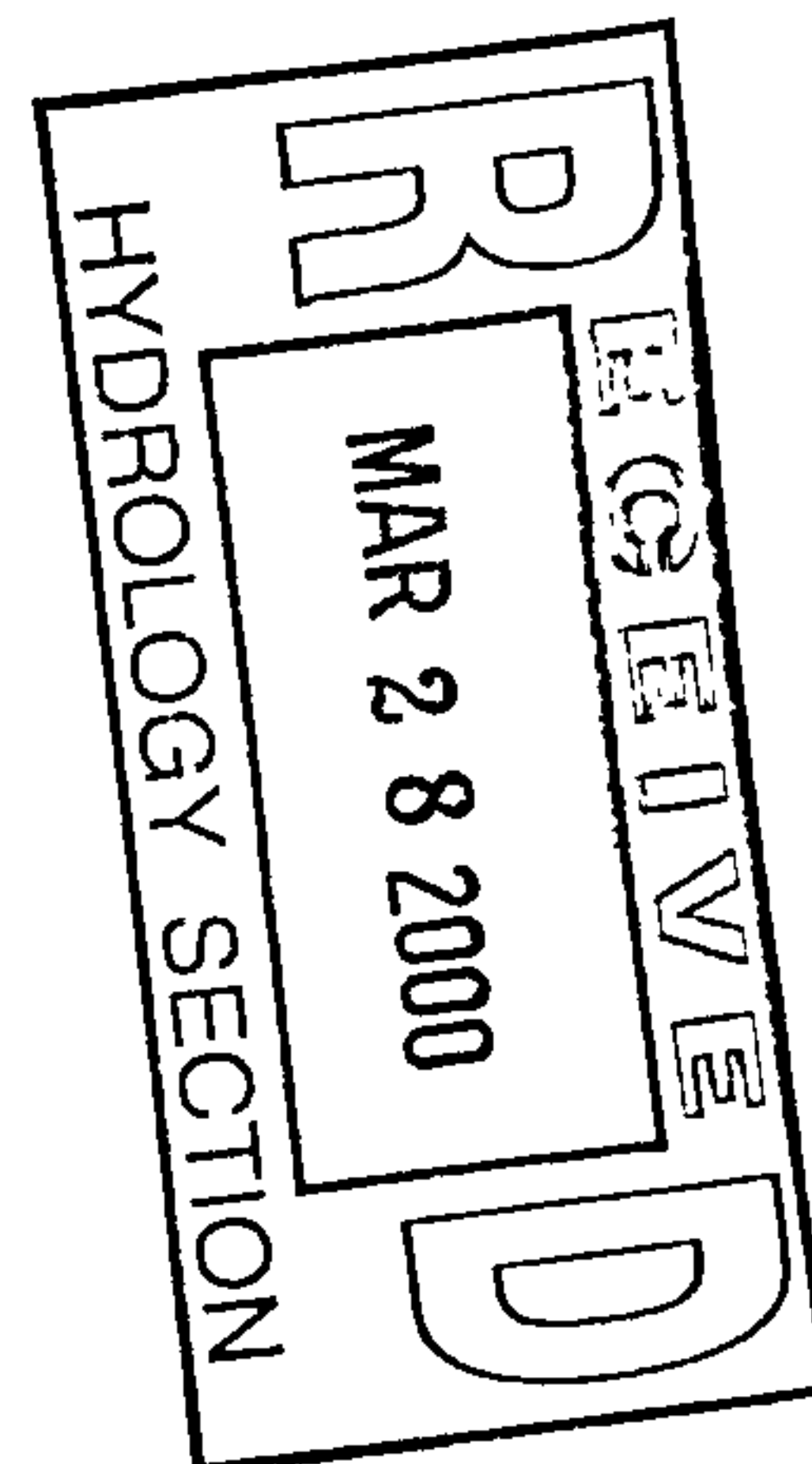
xc: Whitney Reiersen
✓File



ISAACSON & ARFMAN, P.A.

Consulting Engineering Associates

*Thomas O. Isaacson, PE & LS • Fred C. Arfman, PE
Scott M. McGee, PE*



March 28, 2000

Mr. Bradley Bingham, PE
Hydrology Division/PWD
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: Emerson Elementary School (L18/D26)

Dear Mr. Bingham:

Enclosed are two prints of the revised Grading Plan which address your 12/14/99 comments as follows:

1. The parking area at the southeast corner of the site is proposed to be built in two phases. The portion proposed to be constructed by this project is shown with solid line work while the northerly portion is noted as future curb and is shown with dashed line work. Limits of new asphalt paving are now shown on Sheet C2 for the area north of the proposed mini-gym. The Architect's Site Plan also addresses this with keyed notes.
2. The existing concrete swale, in the north parking lot, is shown to be removed on the Architect's Demolition Plan. The portion within the Trumbull Avenue right-of-way will remain.

If you should have any questions, please call me at 268-8828.

Sincerely,

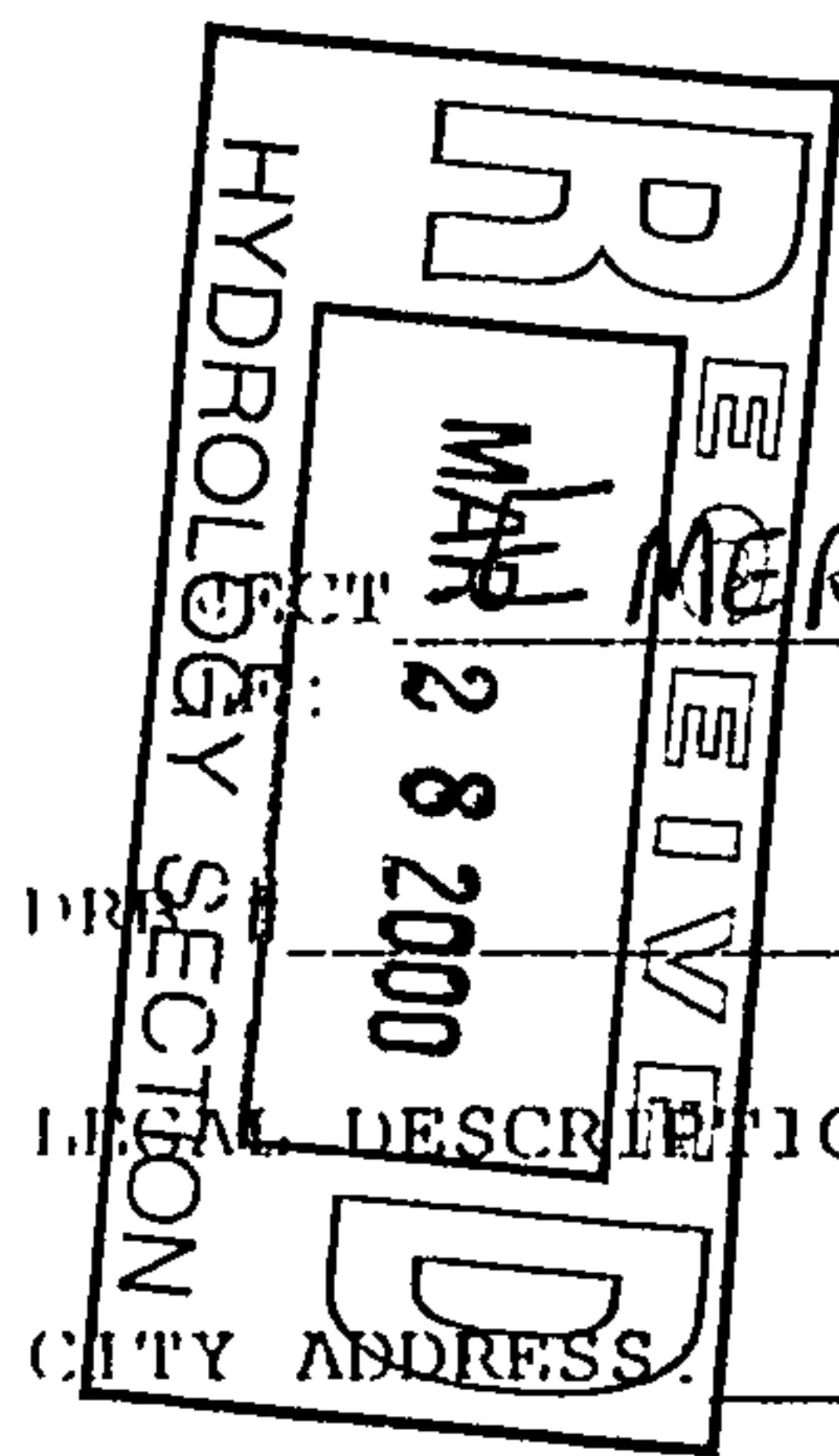
ISAACSON & ARFMAN, P.A.

Scott M. McGee, PE

SMM/rtl

Enclosure

DRAINAGE INFORMATION SHEET



PROJECT: EMERSON ELEMENTARY SCHOOL ZONE ATLAS/DRNG. L-18
FILE#:

EPC # _____ WORK ORDER # _____

LEGAL DESCRIPTION: EMERSON ELEMENTARY SCHOOL

CITY ADDRESS: 620 GEORGIA SE

ENGINEERING FIRM: Isaacson & Arfman, P.A. CONTACT: SCOTT MCGEE

ADDRESS: 128 Monroe Street NE PHONE: 268-8828

CITY, STATE: Albuquerque, NM ZIP CODE: 87108

OWNER: APS CONTACT: ANDRE LARROQUE

ADDRESS: 915 LOCUST SE PHONE: 242-5865

CITY, STATE: ALBUQ, NM ZIP CODE: 87106

ARCHITECT: CHERRY SEE CONTACT: CHAS. ROWLAND

ADDRESS: 220 A GOLD SW PHONE: 842-1278

CITY, STATE: ALBUQ, NM ZIP CODE: 87102

SURVEYOR: WILSON & CO. CONTACT: DAN AGUIRRE

ADDRESS: 4775 INDIAN SCHOOL RD NE PHONE: 254-4000

CITY, STATE: ALBUQ, NM ZIP CODE: 87110

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE: _____

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: 3/28/00
BY: Scott McGee
FOR ISAACSON & ARFMAN, P.A.



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 17, 2001

Scott McGee, P.E.
Isaacson & Arfman, P.A.
128 Monroe St NE
Albuquerque, New Mexico 87108

RE: EMERSON ELEMENTARY SCHOOL- MINI GYM (L-18/D26)
(Bounded by: Georgia, Kentucky, Trumbull, & Southern)
ENGINEERS CERTIFICATION FOR CERTIFICATE OF OCCUPANCY
ENGINEERS STAMP DATED 2/8/2000
ENGINEERS CERTIFICATION DATED 6/21/2000

Dear Mr. McGee:

Based upon the information provided in your Engineers Certification submittal dated 7/16/2001, the above referenced site is approved for a Permanent Certificate of Occupancy for Emerson Elementary School Mini-Gym.

If I can be of further assistance, please contact me at 924-3981.

Sincerely,

Teresa A. Martin
Hydrology Plan Checker
Public Works Department

3LB

C: Vickie Chavez, CAO
Drainage file
approval file

DRAINAGE INFORMATION SHEET

PROJECT: EMERSON ELEMENTARY SCHOOL ZONE ATLAS/DRNG. L-18/D26
 FILE#: _____

DRB # _____ EPC # _____ WORK ORDER # _____

LEGAL DESCRIPTION: EMERSON ELEMENTARY SCHOOL

CITY ADDRESS: 620 GEORGIA SE

ENGINEERING FIRM: Isaacson & Arfman, P.A. CONTACT: SCOTT MCGEE
 ADDRESS: 128 Monroe Street NE PHONE: 268-8828
 CITY, STATE: Albuquerque, NM ZIP CODE: 87108

OWNER: APS CONTACT: ANDRE LARROQUE
 ADDRESS: 915 LOCUST SE PHONE: 242-5865
 CITY, STATE: ALBUQ, NM ZIP CODE: 87106

ARCHITECT: CHERRY SEE CONTACT: CHAS. ROWLAND
 ADDRESS: 220 A GOLD SW PHONE: 842-1278
 CITY, STATE: ALBUQ, NM ZIP CODE: 87102

SURVEYOR: WILSON & CO. CONTACT: DAN AGUIRRE
 ADDRESS: 4775 INDIAN SCHOOL RD NE PHONE: 254-4000
 CITY, STATE: ALBUQ, NM ZIP CODE: 87110

CONTRACTOR: Longhorn Const. Services, Inc. CONTACT: ERIK CENIS
 ADDRESS: 9208 Long Lane, NE PHONE: (505) 858-1360
 CITY, STATE: Albuq, NM 87111 ZIP CODE: 87111

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERTIFICATION
☐ OTHER

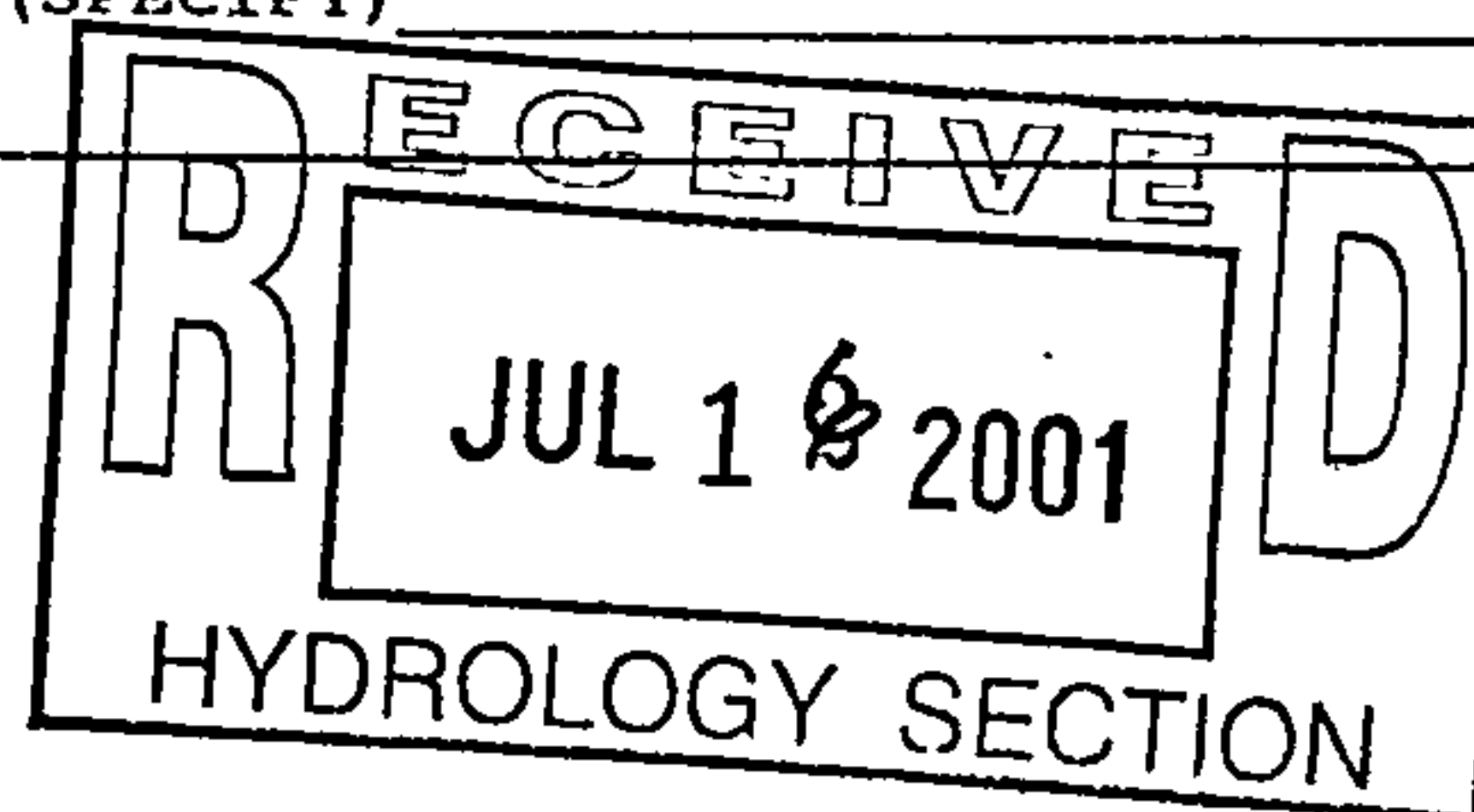
PRE DESIGN MEETING:

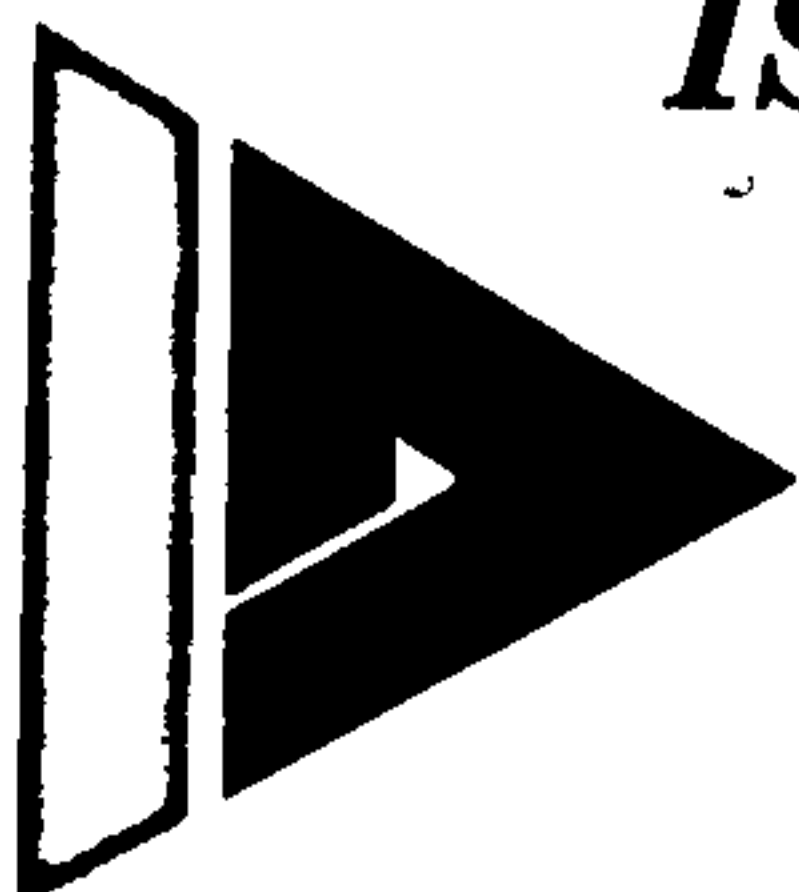
- ☐ YES
☐ NO
☐ COPY PROVIDED

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: 6/21/01
 BY: Scott M McGee
 FOR ISAACSON & ARFMAN, P.A.





ISAACSON & ARFMAN, P.A.

Consulting Engineering Associates

Albuquerque, NM



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 26, 1999

Scott McGee, P.E.
Isaacson & Arfman, P.A.
128 Monroe Street NE
Albuquerque, New Mexico 87108

**RE: *Master Drainage Report for Emerson Elementary School (L18/D26) Engineer's Stamp
Dated 6/22/99.***

Dear Mr. McGee:

Based on the information provided, the above referenced Master Drainage Plan is acceptable to City Hydrology.

As you are aware, site specific Grading and Drainage Plans will be required prior to Building Permit release for construction of the future Phases. The site specific plans must be in compliance with this approved Master Drainage Plan.

If you have any questions, or if I may be of further assistance to you, please call me at 924-3982.

Sincerely,

Susan M. Calongne, P.E.
City/County Floodplain Administrator

c: Andre Larroque, APS
File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

June 3, 1999

Scott McGee, PE
Isaacson & Arfman, PA
128 Monroe Street NE
Albuquerque, NM 87108

**RE: GRADING & DRAINAGE PLAN FOR EMERSON ELEMENTARY (L-18/D26)
RECEIVED APR 16, 1999 FOR PAVING PERMIT
ENGINEER'S STAMP DATED 4/16/99**

Dear Mr. McGee:

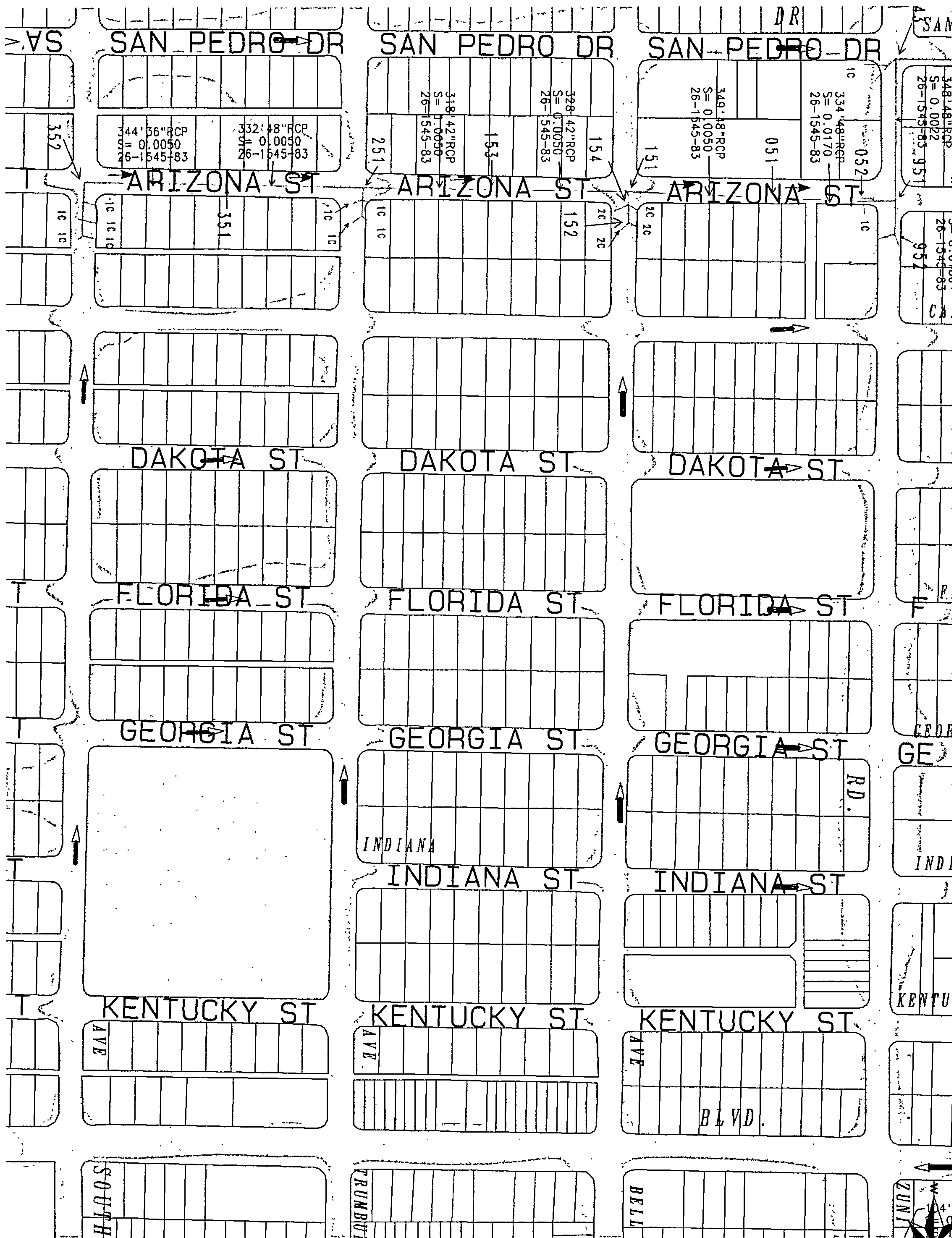
Based on the information included in the submittal referenced above, City Hydrology accepts the Grading & Drainage Plan for Paving Permit. Please submit an Engineer's Certification of grading and drainage when the project is completed.

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

Sincerely,

John P. Curtin, P.E.
Project Manager, PWD/Hyd

c: Inspector



MASTER DRAINAGE PLAN
FOR
EMERSON ELEMENTARY SCHOOL
SITE MODIFICATIONS

ALBUQUERQUE NEW MEXICO
JUNE 1999

Prepared by:

ISAACSON & ARFMAN, P.A.
128 Monroe Street, NE
Albuquerque, NM 87108
(505) 268-8828



Scott M. McGee

Scott M. McGee, PE

6/22/99
Date

TABLE OF CONTENTS

Introduction

Vicinity Map

I. Project Information

II. Site Characteristics

Conclusion & Recommendations

Pockets

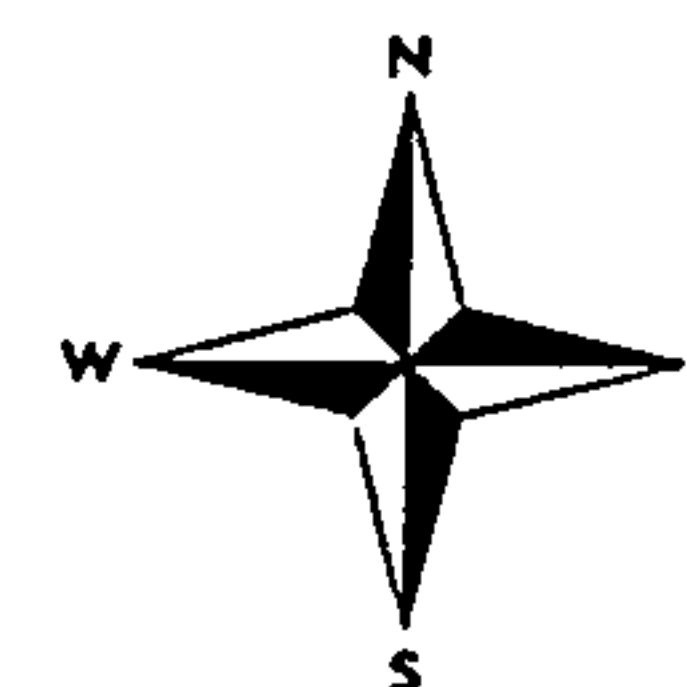
- **Approved Parking Area Grading & Drainage Plan (Phase One)**
- **Existing Site Plan**
- **Proposed Site Plan**



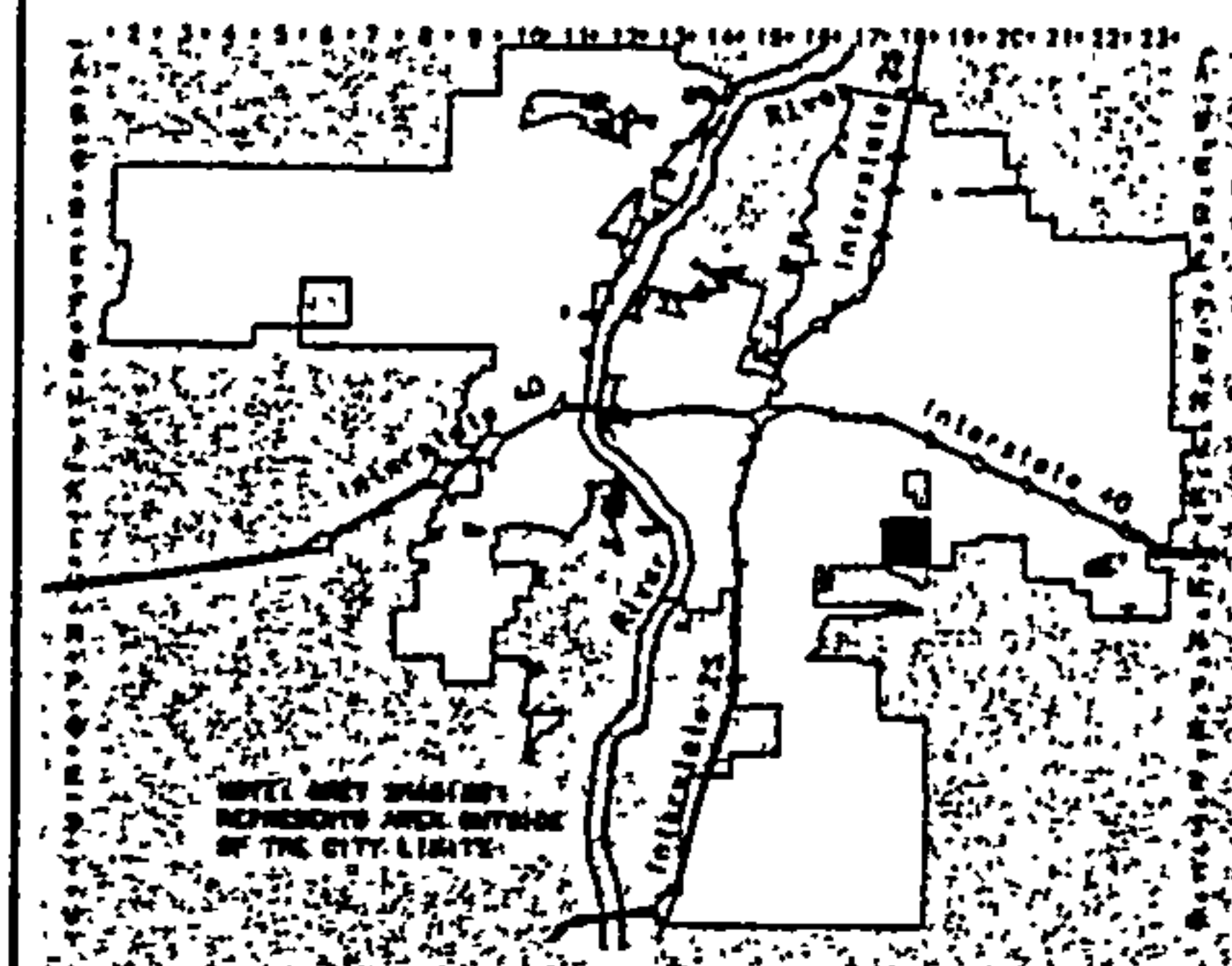
**CITY OF
Albuquerque**

A Business **G** Graphic **I** Information **S** System
PLANNING DEPARTMENT

© Copyright 1996



GRAPHIC SCALE IN FEET



Zone Atlas Page
L-18-Z

**Map Amended through
February 28, 1998**

INTRODUCTION

Emerson Elementary School is an existing APS facility located between Trumbull and Southern Avenues, and Georgia and Kentucky Streets. The site is planned to be modified in multiple phases.

The first phase will include the addition of a parking area, security trailer, and realignment of some existing portable buildings in the southeast corner of the site. This phase was submitted to the City for grading and drainage approval on 4/16/99 and was approved on 6/3/99 (L-18/D26).

The remaining phases will include the realignment of the remaining portable classroom buildings, the addition of a mini-gym, an additional parking area, and revisions to the existing parking area.

I. PROJECT INFORMATION

LEGAL DESCRIPTION: Emerson Elementary School

ADDRESS: 620 Georgia SE

ENGINEER: Isaacson & Arfman, P.A.
128 Monroe Street NE
Albuquerque, NM 87108
Attn: Scott M. McGee, PE
(505) 268-8828

SURVEYOR: Wilson & Company
(505) 254-4000

BENCHMARK: ACS Brasscap "7-L18" located in the southeast corner of
Louisiana Blvd. and Kathryn Ave. SE.
Elevation: 5335.04

TEMPORARY BENCHMARK: P-K nail shown at southeast corner of the site.
Elevation: 5326.69

SOILS: Soil is classified as Tijeras Gravelly fine sandy loam (Hydrologic Group 'B' soil) per Sheet 31 of the SCS Soil Survey of Bernalillo County.

TOTAL AREA: 8.27 Ac.
360,300 SF

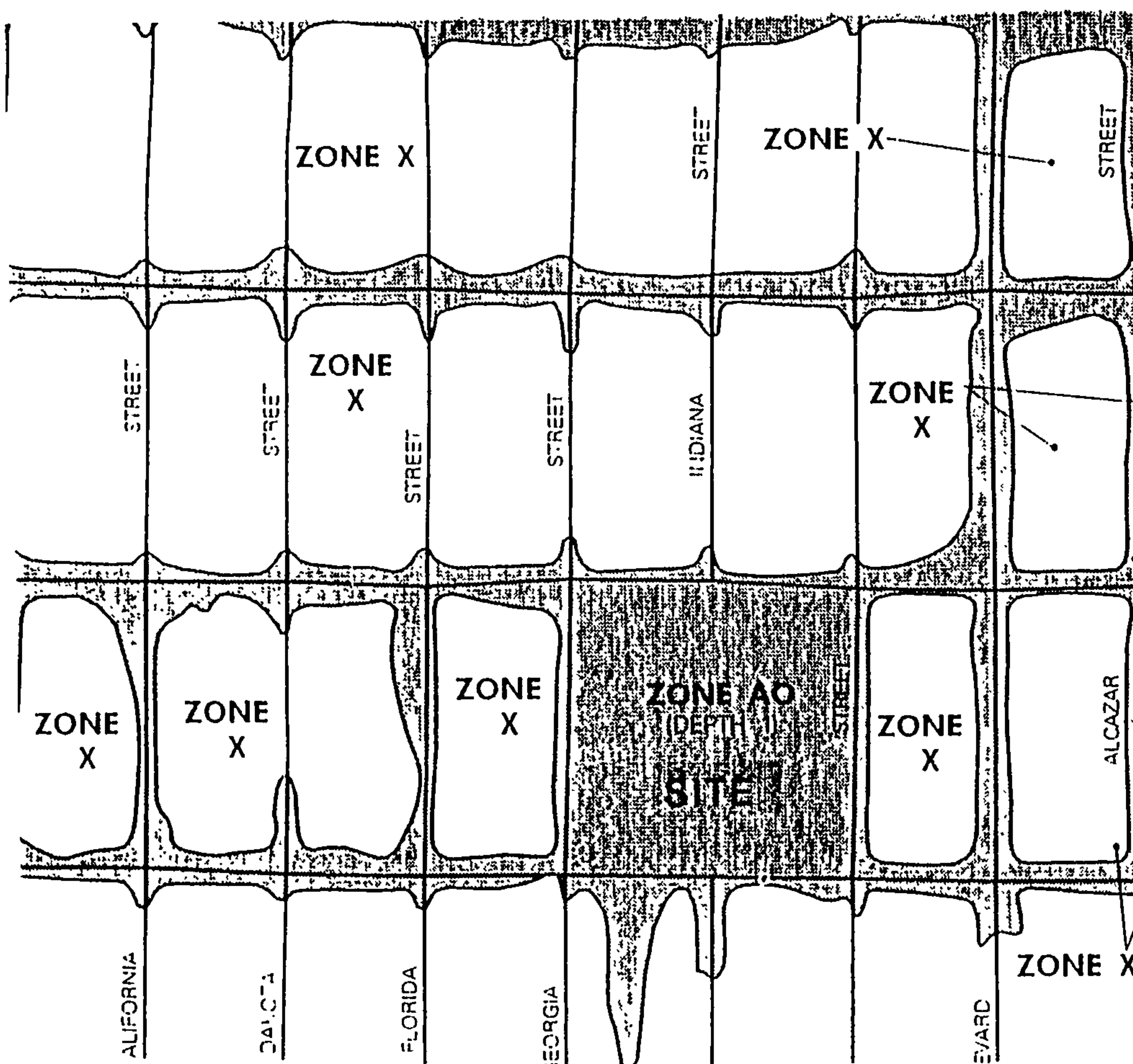
II. SITE CHARACTERISTICS

FLOOD HAZARD STATEMENT: The site is located within a 100-year flood zone A0 (Depth 1) as determined by Panel No. 354 of 825 of the September 20, 1996 edition of the F.E.M.A. maps.

EXISTING CONDITIONS: The site is presently developed with school buildings, parking, and grass and sand play areas. It slopes from the east to the west at approximately 1 to 2%, and is allowed free discharge to the surrounding streets. When Kentucky Street floods, the excess flows are allowed to sheet flow across the site. No additional offsite flows enter the site.

EXISTING HYDROLOGY:

- Precipitation Zone: 3
- Area: 8.27 Ac.
- Land Treatment: 0% A
56% B
10% C
34% D
- $Q_{100} = (0.56(2.60) + 0.10(3.45) + 0.34(5.02)) * 8.27 = 29.00 \text{ cfs}$
- $V_{100} = \frac{(0.56(0.92) + 0.10(1.29) + 0.34(2.36)) * 8.27}{12} = 0.99 \text{ Ac ft}$



4N

FEMA FLOOD PLAIN
MAP # 354 of 825

PROPOSED CONDITIONS: The site is planned to be modified in multiple phases. A grading and drainage plan will be submitted for each separate phase.

The first phase of modification has already been submitted and approved by the City Hydrology section (Report L-18/D26). This phase included the addition of a paved parking area for 84 cars, the relocation of four portable buildings and the addition of a security trailer. This first phase of development increases the percentage of impervious land, and to account for the proposed future modifications, Phase One was designed to decrease the site discharge by 2.7 cfs. This was achieved by draining the new parking area to a depressed median which has a controlled outflow of 0.33 cfs. A copy of the approved plan has been included in this report.

The order of the remaining phases of site modifications has not yet been determined. The future modifications include the realignment of the remaining portable classrooms, the addition of four new portable buildings, a new mini gym, an additional parking area, and revisions to the existing parking area. Please refer to the attached final site plan for the proposed modification locations. The proposed site changes will slightly increase the percentage of impervious areas. In order to offset the resulting runoff increase, the onsite detention pond

proposed with Phase One will effectively reduce the site's overall flow rates. Therefore the remaining site modifications should be allowed to have free discharge (refer to calculations).

PROPOSED HYDROLOGY: Phase One (approved, see attached for further details).

- Precipitation Zone: 3
- Land Treatment: 23% B
10% C
67% D
- Area: 1.12 Ac.
- Uncontrolled $Q_{100} = 4.8$ cfs
- $V_{100} = 7,820$ cf
- Controlled $Q = 0.33$ cfs
- V detained = 9,500 cf

FUTURE PHASES:

- Precipitation Zone: 3
 - Land Treatment: 25% B
31% C
44% D
 - Area: $8.27 - 1.12$ (Phase 1) = 7.15 Ac
 - $Q_{100} = (0.25(2.60) + 0.31(3.45) + 0.44(5.02)) * 7.15 = 28.09$ cfs
 - $V_{100} = \frac{(0.25(0.92) + 0.31(1.29) + 0.34(2.36)) * 7.15}{12} = 0.85$ Ac-ft
- $Q_{TOTAL} = 28.09$ cfs + 0.33 cfs = 28.42 cfs < 29.0 cfs

CONCLUSIONS & RECOMMENDATIONS

The proposed modifications for the Emerson Elementary School have been addressed in this report to show how the revised discharge will be limited to the historical rate. Grading and drainage plans for each separate phase will be provided at the time of development. The individual recommendations will be as follows:

1. As per the approved plan, a detention pond with controlled outflow will be constructed with Phase One improvements.
2. Future phases of development shall be allowed free discharge.