

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 28, 1992

Timothy R. Volz
U.R.S. Consultants, Inc.
1040 S. Eighth Street
Colorado Springs, CO 80906

RE: DRAINAGE PLAN FOR PONDEROSA RESERVOIR NO. 2
(F-21/D058A) ENGINEER'S STAMP DATED 7/20/92

Dear Mr. Volz:

Based on the information provided on your July 22, 1992 resubmittal, the above referenced site is approved for Building Permit.

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

Prior to Certificate of Occupancy release, we will need a copy of the acceptance letter for the work order construction.

If I can be of further assistance, please feel free to contact me at 768-2650.

Sincerely,

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/ses/WPHYD3494

cc: Alan Martinez

File

PUBLIC WORKS DEPARTMENT

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Ponderosa Reservoir No. 2 ZONE ATLAS/DRNG. FILE #: F-21/D58A
 DRB #: _____ EPC #: 2-91-50 WORK ORDER #: _____
 LEGAL DESCRIPTION: Academy Place Subdivision Tract designated as Park
 CITY ADDRESS: 10600 Osuna Road NE
 ENGINEERING FIRM: URS Consultants, Inc. CONTACT: Timothy R. Volz
 ADDRESS: 1040 S. 8th St., Colorado Spgs, CO 80906 PHONE: (719) 634-6699
 OWNER: City of Albuquerque - PWD CONTACT: Gary Tibljas
 ADDRESS: P.O. Box 1293, 87103 PHONE: 505-857-8702
 Landscape ARCHITECT: Morrow & Company CONTACT: Liz Reardon
 ADDRESS: 210 La Veta NE, 87108 PHONE: (505) 268-2266
 SURVEYOR: Tyree Surveying, Inc. CONTACT: Ron Tyree
 ADDRESS: 201-C Eubank Blvd. NE, 87123 PHONE: (505) 298-0660
 CONTRACTOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

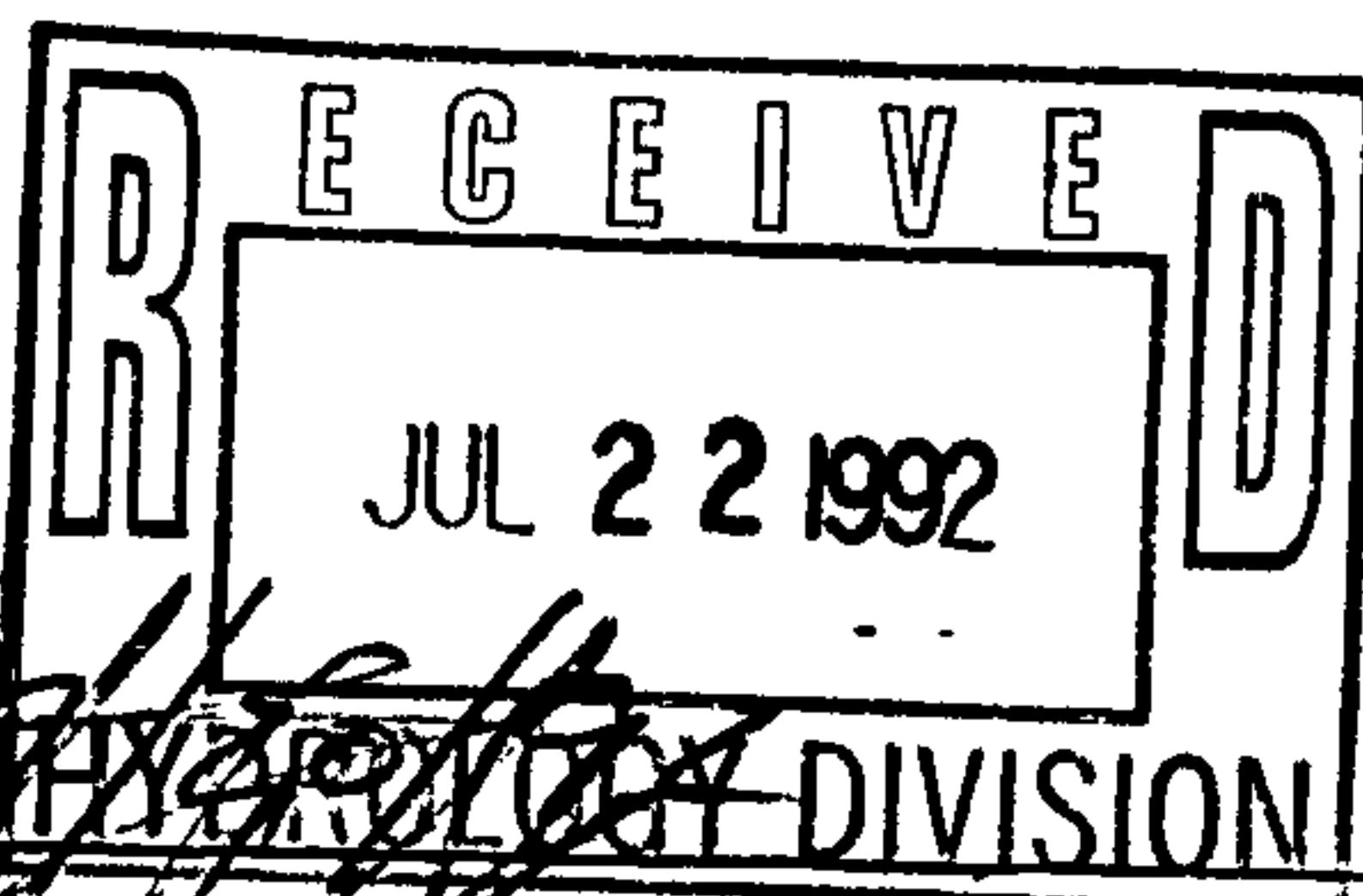
- ☒ DRAINAGE REPORT
- ☒ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☐ ENGINEER'S CERTIFICATION
- ☐ OTHER

PRE-DESIGN MEETING:

- ☒ YES (DRT)
- ☐ 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: _____
 BY: Timothy R. Volz, P.E.
Project Manager

PROJECT TITLE: Ponderosa Reservoir No. 2 ZONE ATLAS/DRNG. FILE #: F-21-1058A
DRB #: _____ EPC #: 2-91-50 WORK ORDER #: _____
LEGAL DESCRIPTION: Academy Place Subdivision Tract designated as Park
CITY ADDRESS: 10600 Osuna Road NE
ENGINEERING FIRM: URS Consultants, Inc. CONTACT: Timothy K. Volz
ADDRESS: 1040 S. 8th St., Colorado Spgs, CO 80906 PHONE: (719) 634-6699
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CONTRACTOR: _____ CONTACT: _____
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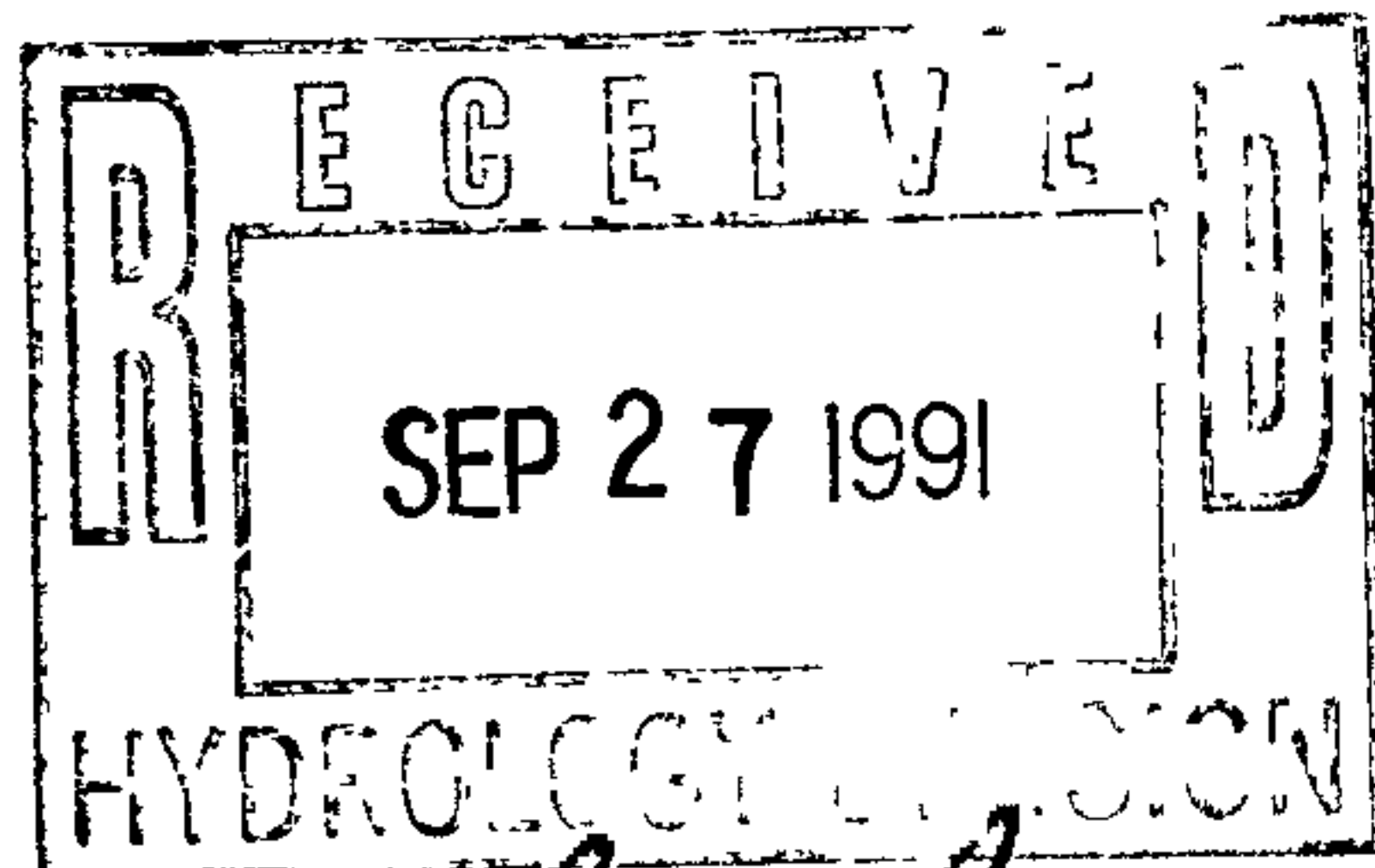
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☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER _____ (SPECIFY)

PRE-DESIGN MEETING:

☒ YES (DRT)
☐ NO
☐ COPY PROVIDED

DATE SUBMITTED: September 27, 1991

BY: _____

Timothy K. Volz, P.E.

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
PLANNING DIVISION

F21 / D58A
AGENDA NUMBER: 14
ENVIRONMENTAL PLANNING COMMISSION
OCTOBER 17, 1991
Z-91-50

Z-91-50 URS Consultants agent for City of Albuquerque Public Works Department request site development plan approval for the Park Tract of the amended Academy Place Subdivision (a.k.a. El Oso Grande Park) zoned R-1 located south of Osuna Road between Morris NE and Juan Tabo NE containing approximately 11 acres. (F-21)

COMMENTS FROM OTHER DEPARTMENTS:

ENVIRONMENTAL HEALTH DEPARTMENT

Air Pollution Control Division

"No adverse comments. A Top Soil Disturbance Permit is required prior to any earthwork."

FIRE DEPARTMENT/Planning

No comment received.

LAND RESOURCES & REGULATION DEPARTMENT

Real Property

No comment received.

Zoning Enforcement

"No adverse comments."

NEIGHBORHOOD SERVICES

"John B. Roberts Neighborhood Association & San Gabriel Area Neighborhood Association (both recognized neighborhood associations) have been notified. Gutierrez Area Neighborhood Association has also been notified."

PLANNING DEPARTMENT

Capital Improvement

No comment received.

PARKS AND RECREATION DEPARTMENT/Administration

"This Public Works Department proposal was presented to the Parks and Recreation Advisory Board on September 18, 1991. The Board unanimously approved the proposal and site plan as shown as an "extraordinary public facility" within a park. Other coordination issues, including revegetation and maintenance of the native plant area were discussed, with Public Works' staff accepting complete responsibility."

OFFICE OF OPEN SPACE

"No adverse comment."

POLICE DEPARTMENT/Planning

"No adverse comments."

SOLID WASTE MANAGEMENT DEPARTMENT/Refuse Division

No comment received.

PUBLIC WORKS DEPARTMENT

Hydrology

"An approved Conceptual Grading and Drainage Plan is required for Site Development Plan sign-off."

Transportation Planning

"An existing bike trail along the Bear Canyon Arroyo is designated on the Bikeways Master Plan. This requirement appears to be addressed by the submittal."

Transportation Development

"No adverse comment on site plan."

Utility Development

"No comment."

TRANSIT DEPARTMENT

"No adverse comments."

COMMENTS FROM OTHER AGENCIES:

ALBUQUERQUE FLOOD CONTROL AUTHORITY

"The site is adjacent to the Bear Canyon concrete channel. The City of Albuquerque designed this channel and maintains it.

The National Flood Insurance Program, "Flood Insurance Rate Map" (Community-Panel No. 3500002-0018a) has not been revised to reflect this existing condition. Technical information needs to be submitted to the Federal Emergency Management Agency (FEMA) so they can prepare a Letter of Map Revision (LOMR) for this section of the Bear Arroyo. The Drainage Plan should be revised to reflect the existing and proposed flood map status."

ALBUQUERQUE PUBLIC SCHOOLS

"No adverse comment."

MIDDLE RIO GRANDE COUNCIL OF GOVERNMENTS

"No adverse comment."

PLANNING DIVISION COMMENTS TO THE ENVIRONMENTAL PLANNING COMMISSION, OCTOBER 17, 1991

Request Summary:

The applicant is requesting a site development plan approval for a water reservoir located within the eastern portion of an existing park containing approximately 2.25 acres.

Applicable Plans and Policies:

The Albuquerque/Bernalillo County Comprehensive Plan designates this area as Established Urban. The goal is to create a quality urban environment which perpetuates the tradition of identifiable, individual but integrated communities within the metropolitan area and which offers variety and maximum choice in housing, transportation, work areas, and life styles, while creating a visually pleasing built environment.

Development on this site is also guided by the Bear Canyon Arroyo Corridor Plan. The objective of the plan is to build trails and trail connections to larger recreational and commuter networks for walkers, runners, bicyclists, equestrians and people with physical limitations.

This proposal must also be submitted to the Parks Advisory Board for recommendation (Enactment Number 79-1989, approval of unusual facilities for parks and open space land). In addition Council Bill No. R-328 sets forth guidelines for the siting and development of future water reservoirs.

Area Characteristics and Zoning History:

This is a request for site plan approval to locate the Ponderosa Reservoir No. 2 within the El Oso Grande Park. Originally the Ponderosa Reservoir was scheduled to be located adjacent to the existing Ponderosa Reservoir No. 1 located south of Montgomery Boulevard north of Morris. A site development plan for reservoir No. 2 was approved by the EPC in May 1987 (Z-87-45). This decision was appealed to the City Council in July, 1987 by a group of neighbors in proximity of the existing reservoir site. The City Council approved the appeal, authorizing an independent consulting firm to perform an alternative siting study for reservoir No 2 (AC-87-20).

URS consultants has submitted a letter, dated August 30, 1991, further outlining the history of Ponderosa Reservoir No. 2. This letter notes Council Bill R-328 was enacted which prohibited the construction of any domestic water storage reservoir on a site not designated or authorized with a Rank Two Facility Plan. However, this legislation exempted the construction of a second reservoir at the existing Ponderosa site.

A major neighborhood concern was the height of the water tank (35.5 feet) and the setback from adjacent rear property lines (30 feet). The opponents noted the reservoir exceeded height limitations in the R-1 zone of 26 feet. A height variance was requested from the Zoning Hearing Examiner in October 1988. The Zoning Hearing Examiner denied the request.

The Public Works Department is now proposing to locate the Ponderosa water Reservoir No. 2 within the El Oso Grande Park. This park is located north of Montgomery Boulevard and the existing Ponderosa Reservoir No. 1 site. The El Oso Grande Park is a typical City park designed for a variety of uses. The major portion of the park is landscaped in turf and trees. The eastern portion of the park is presently undeveloped and landscaped in native vegetation. The proposed reservoir is to be located on the eastern portion of the Park containing approximately 2 acres.

The site is bordered by single family home developments to the north and west zoned SU-1/PRD, the Technical Vocational Institute to the south zoned R-1, and two vacant tracts zoned R-2 and C-1 to the east.

Analysis:

The site will be the location for a water reservoir. The reservoir is to be partially buried as required by Resolution 328. Section 2. B. of Resolution 328, sets forth the site development standards for new sites. Section 2.B. generally states: reservoirs abutting residential zones shall be constructed completely or nearly completely underground. Earthen berms will often be appropriate in order to minimize the apparent mass of a reservoir which is visible to view by many people. In addition, reservoir sites shall be well landscaped.

The top of the reservoir will be approximately 10 feet from natural ground level. The reservoir will be bermed over and revegetated with native plant material.

Landscaping:

Ground cover on the site will be a blend of native grasses consisting of Blue Gramma, Buffalo, Sand Lovegrass, Galleta Grass and Indian Ricegrass. The site will also contain several types of shrubs and flowers. The applicant has selected Desert Willow trees which is an acceptable tree for the area.

Ingress and Egress/parking and pedestrian paths:

Although the site is close to Osuna Road, the plan does not show an access point to the reservoir for inspection and maintenance. Periodic inspections and other maintenance will require access to the area. Some type of access point and parking acceptable to staff should be designed.

The Bear Canyon Arroyo Corridor Plan requires this area provide appropriate pedestrian and bicycle paths. The site plan shows several pedestrian paths leading to benches and shade structures with benches distributed throughout the site. The shade structures have been located at the top of the reservoir creating a destination point. The pedestrian paths and bicycle path is part of the overall network recommended by the Bear Canyon Plan. All pedestrian and bicycle paths must not exceed the 5% slope to accommodate the handicapped.

Signage:

While it is typical for a sign to be placed at the location of a public facility, no elevations have been submitted for review.

Findings:

1. The site development plan submitted meets the minimum requirements of the Zoning Code.
2. The site development plan meets the requirements of Resolution 328 concerning site location and design for new water reservoirs.
3. The site development plan meets the requirements of the Bear Canyon Arroyo Corridor Plan.
4. The Parks Advisory Board is recommending approval of the site plan request.

RECOMMENDATION:

APPROVAL OF Z-91-50, a site development plan, is recommended based on the preceding Findings subject to the following Conditions:

Conditions:

1. An access point acceptable to staff shall be submitted for approval.
2. Elevations and dimensions for signage shall be approved by Planning staff if any are intended on the site.
3. A conceptual grading and drainage plan shall be approved by the Development Review Board prior to final sign off.


Carl Benavides
Associate Planner

CB/lj

12725

cc: City of Albuquerque, Public Works Department, P.O. Box 1293, Albuquerque, NM; 87103
URS Consultants, 1040 South 8th Street, Colorado Springs, CO; 80906
John B. Roberts, Marti Partridge, 5207 Vista de Cerro NE, Albuquerque, NM; 87111
John B. Roberts, Laura Gilliom, 5210 Vista Bonita NE, Albuquerque, NM; 87111
Gutierrez Area, Tom Stuart, 9501 Dona Rowena NE, Albuquerque, NM; 87111
San Gabriel Area, Ann Riley, 10301 Karen NE, Albuquerque, NM; 87111
Dan Jones, 3917 Inca NE, Albuquerque, NM; 87111

IT IS REQUESTED THAT THE APPLICANT/AGENT BE PRESENT AT THE HEARING.

**APPLICATION FOR ZONE MAP AMEN NT
AND/OR DEVELOPMENT PLAN**

INSTRUCTIONS: PRINT OR TYPE IN BLACK INK ONLY. Use additional sheets, if necessary. Thirty (30) copies (Annexation, forty copies) of all attachments must be submitted with the application and, after folding, shall not exceed 8 1/2 by 14 inches.

Applicant's Name: CITY OF ALBUQUERQUE PUBLIC WORKS DEPT. requests

☐ **Zone Map Amendment** ☒ **Development Plan Review** ☐ **Annexation**
Type of Plan : Site Development Plan

For Lot(s): N/A **Block(s):** N/A **in Subdivision/Addition** Academy Place
Tracts A, A-A, B-1, B1-2, C-1
Presently Zoned R-1 **and proposed to be zoned as** R-1 **located at:**

Street Address (No. if any): 10600 Osuna Road NE

Between Morris NE **Street and** Juan Tabo NE **Street**

Total Land Area Covered by Application: Acres 2.25 Square Feet 97,991

Number of DU's Proposed 0 **DU's Per Gross Acre** 0 **DU's Per Net Acre** 0

Uniform Property Code Number: 1-021-061-360-218-402-26
(18 digit property tax Number issued by County Assessor)

NOTE: Neighborhood Notification form must accompany application.

APPLICANT INFORMATION:

Applicant's Mailing Address: P.O. Box 1293 **Phone:** 857-8200
Albuquerque, NM **Zip Code:** 87103

Applicant's Proprietary Interest in Property Owner
Agent if any: URS Consultants **Phone:** (719) 634-6699
Mailing Address: 1040 South 8th Street **Zip Code:** 80906
Colorado Springs, CO

APPLICANT SIGNATURE: [Signature] **Date:** 8/30/91
(Owner or Trustee of Property)

List Reason For Request on reverse side or attach separate sheet. See Cover Letter

FOR PLANNING STAFF USE ONLY

Application Received By: Allen L. Jaramall **Date:** Aug. 30, 1991

Fee: \$ No Fee **Paid:** \$ **Method of Payment:**

Cross-Ref.: AX- Z- S- **Other:**

No. of Signs Issued: 1 **ZHE or** EPC2

1 copy each to:
Research Analyst

Hearing Date: Oct. 17, 1991

Applicant

Z- 91-50

Graphics

Map Number: F-21



A PROFESSIONAL SERVICES ORGANIZATION

URS CONSULTANTS

1040 SOUTH 8TH STREET
COLORADO SPRINGS, CO 80906
TEL: (719) 634-6699
FAX: (719) 634-0182

SAN FRANCISCO
SEATTLE
DENVER
COLORADO SPRINGS
SACRAMENTO
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PARAMUS
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BUFFALO
NEW ORLEANS
ATLANTA
BOSTON
VIRGINIA BEACH
PITTSBURGH

August 30, 1991

Environmental Planning Commission
The City of Albuquerque
Planning Department
P.O. Box 1293
Albuquerque, NM 87103

Subject: Ponderosa Reservoir No. 2
Site Development Plan Approval

Dear Sirs:

The Ponderosa Reservoir No. 2 Application, Site Development Plans and Neighborhood Notification documents are attached for the Environmental Planning Commission's (EPC) review and approval. The purpose of Ponderosa Reservoir No. 2 is to provide needed water storage capacity to Zone 5E of the Montgomery Trunk.

The original Ponderosa Reservoir No. 2 was adjacent to the existing Ponderosa Reservoir No. 1 on Montgomery Boulevard north of Morris Road. The Site Development Plans for Ponderosa Reservoir No. 2 was reviewed and approved in May 1987 by the EPC. The EPC's decision was appealed to the City Council in July, 1987 by a neighborhood group who resided in the immediate proximity to the existing reservoir site. The Council repealed the EPC's decision and commissioned an independent engineering consulting firm to perform an alternative Siting Study for Ponderosa Reservoir No. 2. The alternative siting study was completed in September 1987 and identified Hahn Park, home of Roadrunner Little League as the recommended alternative site.

In November, 1987 Council Bill R-328 was enacted which prohibited the construction of any domestic water storage reservoir on a site not designated or authorized with a Rank Two Facility Plan. However, this legislation exempted the construction of a second reservoir at the existing Ponderosa site.

The primary objection by the neighborhood group opposing the construction of Ponderosa Reservoir No. 2 was the proposed reservoir's height (35.5 feet) and setback from adjacent rear property lines (30 feet). Of particular concern to the group was the height limitation of 26 feet on any structure established by the reservoir site's zoning classification of R-1.

Environmental Planning Commission

Page 2

A height variance request was submitted by the Public Works Department to the City Zoning Hearing Examiner in October, 1988. The request was denied by the Zoning Hearing Examiner. A subsequent appeal to City Council was made and subsequently denied.

Since this time, the Water Utility Division conducted an internal study of alternative sites including the Hahn Park Site. The resulting report dated December 1989 recommended the site at El Oso Grande Park to be superior to three other tank sites. In addition, the proposed site would comply with Council Bill R-328.

A meeting was held with the Parks Department to seek input and to discuss their concerns. On May 28, 1991, a neighborhood meeting was conducted to seek input from local residents. The Ponderosa Reservoir No. 2 Site Development plans reflect the input from the Parks Department and the neighborhood residents present at the meeting.

URS looks forward to working with the EPC on this important City project. URS is available to discuss any questions or concerns you may have.

Sincerely,

URS CONSULTANTS, INC.



Timothy R. Volz, P.E.
Project Manager

Enclosures As Stated

cc: Gary Tibljas, City of Albuquerque, P.W.D.

NEIGHBORHOOD NOTIFICATIO
ADDENDUM TO APPLICATION

This certifies that I, Gary Tibljas have notified via certified mail, return receipt request, two representatives of the following Recognized Office of Neighborhood Associations, as furnished of Neighborhood Coordination Office* regarding our application for

 ZONE MAP AMENDMENT
 X SITE DEVELOPMENT PLAN APPROVAL OR AMENDMENT
 ANNEXATION
 MAJOR SUBDIVISION
 VACATION OF PUBLIC RIGHT-OF-WAY
 PRIVATE SECTOR DEVELOPMENT PLAN

for property located at 10600 Osuna Road NE

Academy Place Subdivision Tracts A,A-A, B-1, B1-2, C-1

(legal description)

John B. Roberts

(Neighborhood Association)

(Neighborhood Association)

Gutierrez Area

(Neighborhood Association)

San Gabriel Area

(Neighborhood Association)

Dan Jones
3917 Inca NE 87111
299-1677

Marti Partridge

(Representative)

5207 Vista de Cerro NE 87111

(Address)

292-7428

(Phone)

Laura Gilliom

(Representative)

5210 Vista Bonita NE 87111

(Address)

299-5551

(Phone)

Tom Stuart

(Representative)

9501 Dona Rowena NE 87111

(Address)

299-1798 (H) 243-3736 (W)

(Phone)

Ann Riley

(Representative)

10301 Karen NE 87111

(Address)

293-5868

(Phone)

Certified by 

(Owner/Agent)

For City of Albuquerque

(Owner)

Printed name of person signing Gary Tibljas

Phone# 857-8207 Date 8/30/91

*The Neighborhood Coordination Office is located in the 5 Floor of the Old City Hall Building, 768-3790

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT



Z-91-50



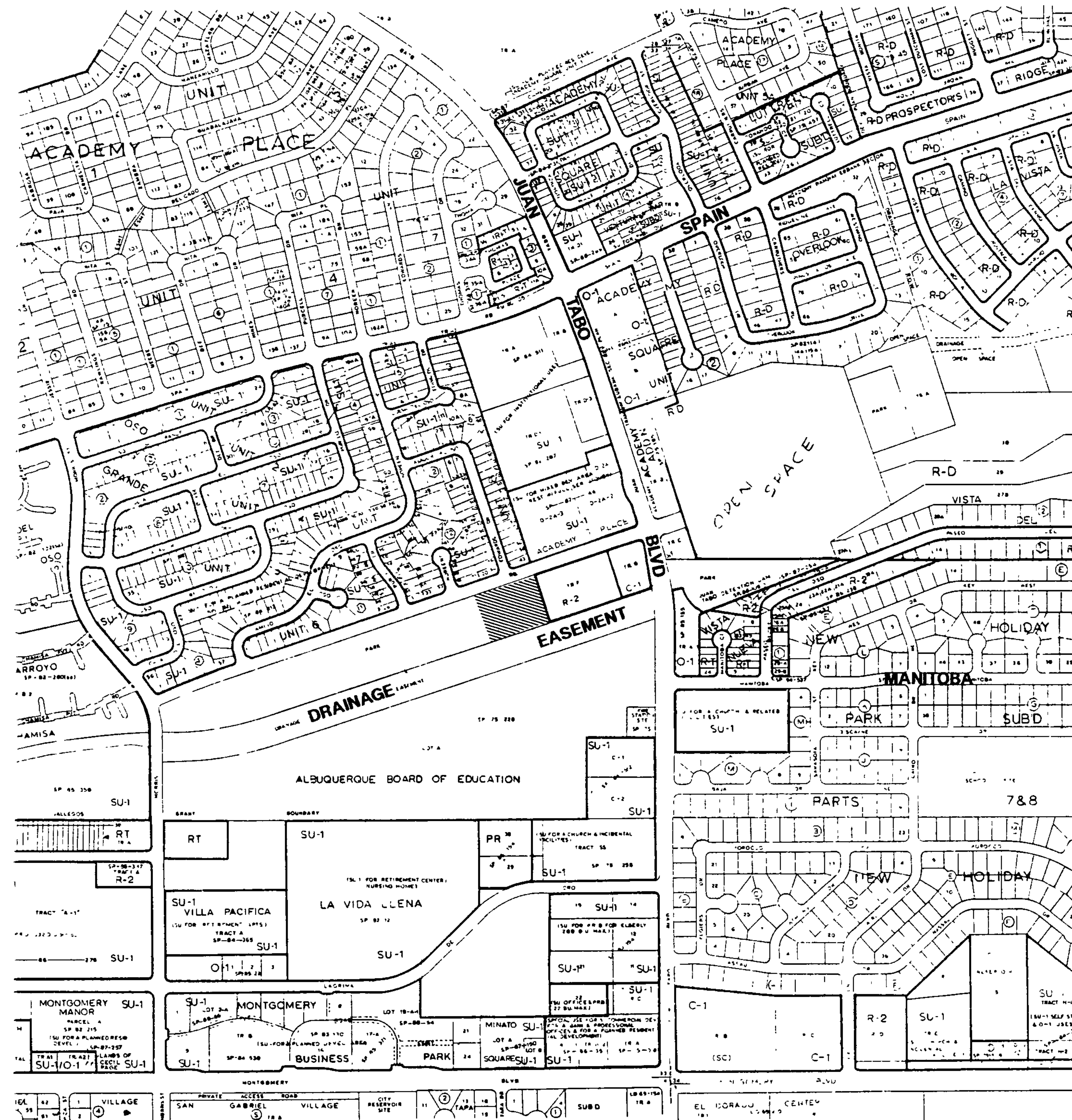
Z-91-50

URS Consultants agent for City of Albuquerque Public Works Department request site development plan approval for the Park Tract of the amended Academy Place Subdivision (a.k.a. El Oso Grande Park) zoned R-1 located south of Osuna Road between Morris NE and Juan Tabo NE containing approximately 11 acres. (F-21)

CARL

HEARING: 10-17-91 MAP: F-21

FILE: Z-91-50





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 10, 1991

Timothy R. Volz
URS Consultants, Inc.
1040 S. Eighth Street
Colorado Springs, Colorado 80906

RE: CONCEPTUAL DRAINAGE PLAN FOR PONDEROSA RESERVOIR NO. 2
(F-21/D58A) ENGINEER'S STAMP DATED AUGUST 19, 1991

Dear Mr. Volz:

Based on the information provided on your submittal of September 27, 1991, the referenced site is approved for Site Development.

Please be advised that prior to Building Permit and Work Order approval, the following must be addressed:

1. Outfall No. 1 if proposed must be coordinated through Roger Green at DRC. Also, the overflow structure must be included on the Work Order package.
2. Proposed six million gallon tank will create a certain percent of impervious area, therefore, your proposed runoff coefficient will not remain at .40. How much dirt are you proposing to place on top of the tank?
3. Bench marks - location, description and elevation of the:
 - A. Albuquerque Control Survey Vertical Datum
 - B. Temporary bench mark on-site permanently marked.
4. Please check your intensity rate. It is too low. You must find the six hour rainfall of the area and then plug into the $I = (6 \text{ hr rainfall}) (6.84) t_c^{-0.51}$ $t_c = 10$ minutes.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

(WP+2959)

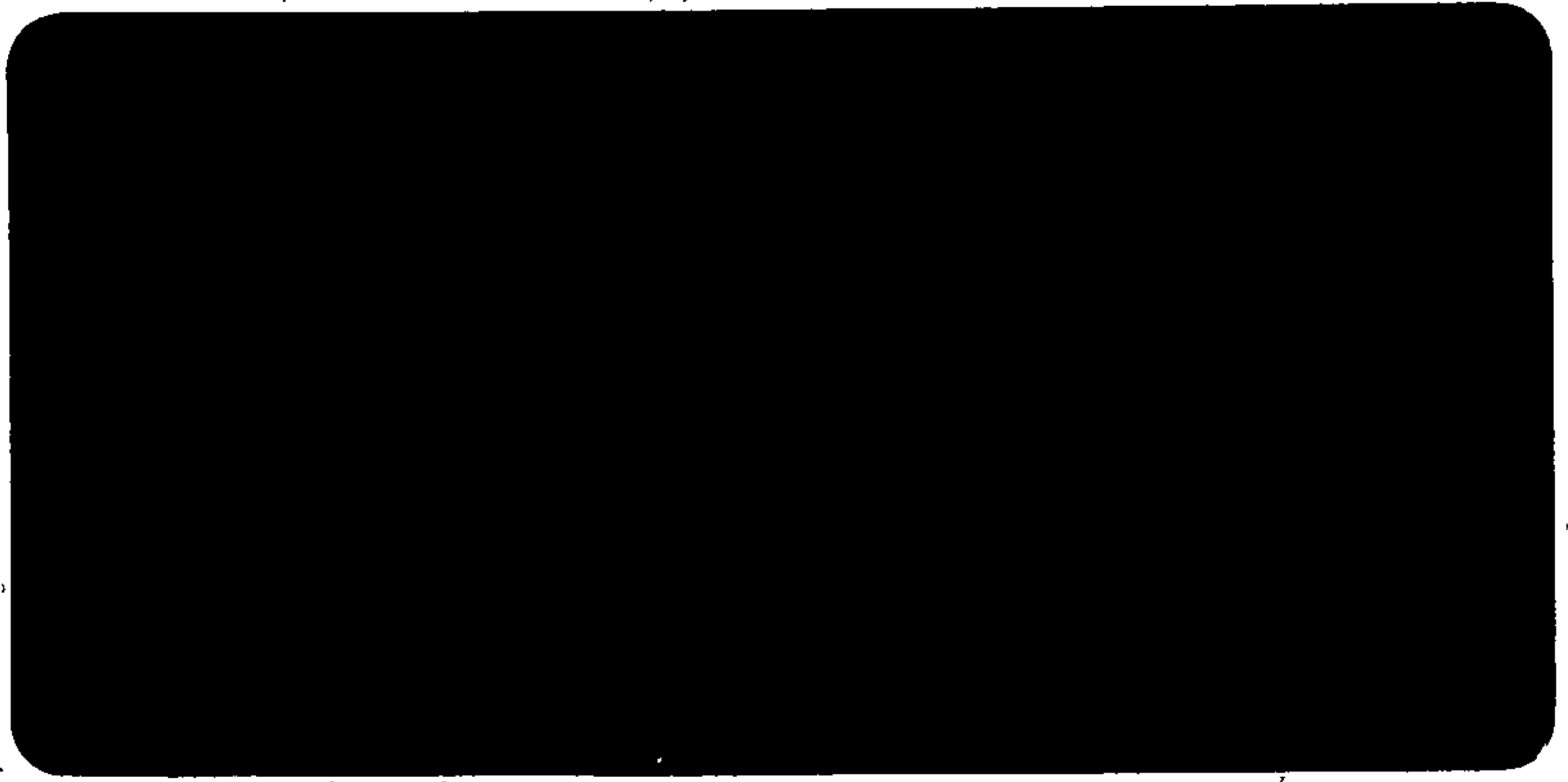
Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

PUBLIC WORKS DEPARTMENT

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER

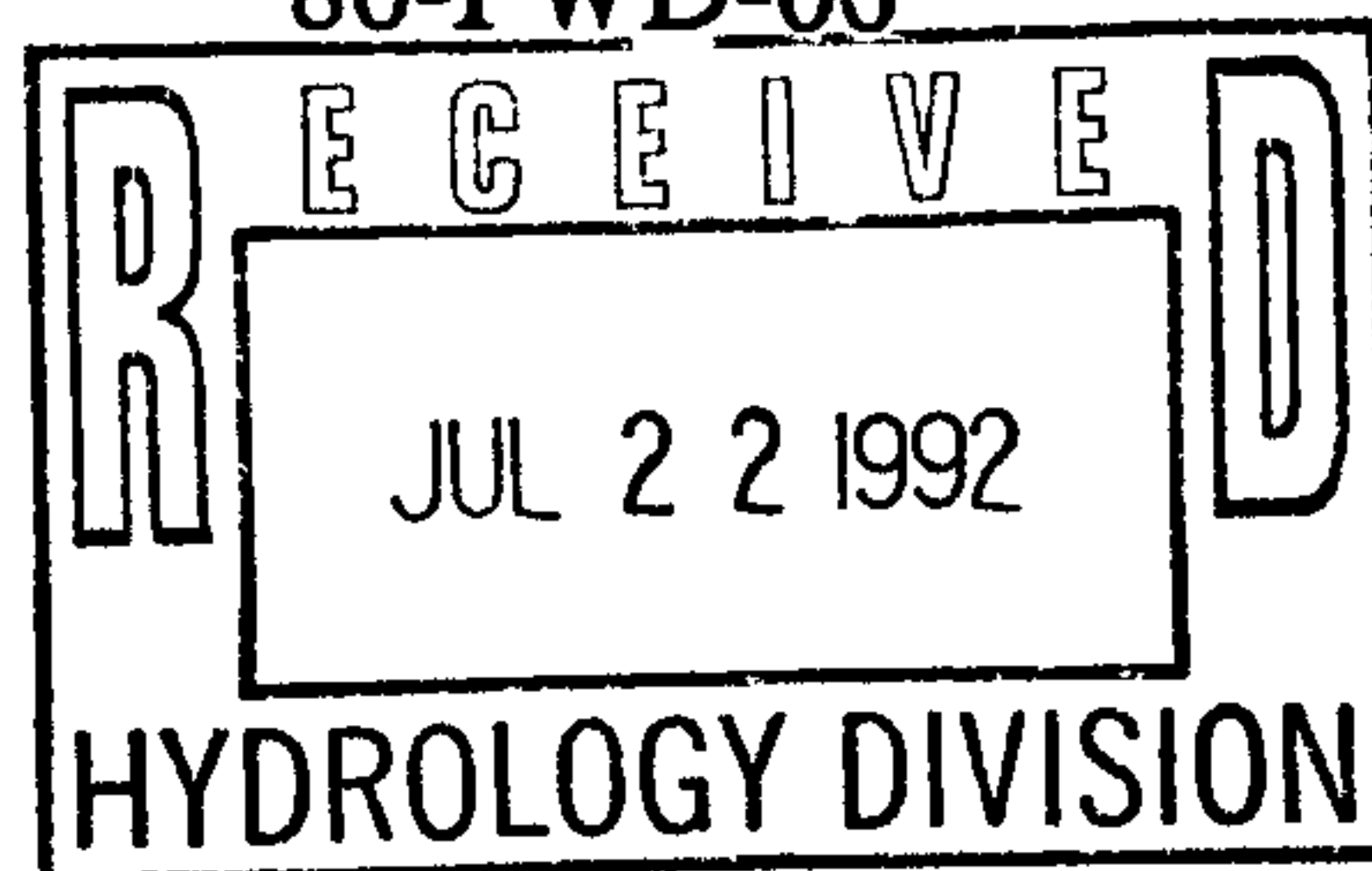


DRAINAGE REPORT AND PLAN

FOR

PONDEROSA RESERVOIR NO. 2

City of Albuquerque
Public Works Department
A/E Services Agreement
86-PWD-06



Prepared by
URS Consultants, Inc.
July 15, 1992

URS CONSULTANTS

1040 SOUTH 8TH STREET
COLORADO SPRINGS, CO 80906
TEL: (719) 634-6699
FAX: (719) 634-0182

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NEW ORLEANS
ATLANTA
BOSTON
VIRGINIA BEACH
PITTSBURGH

July 20, 1992

City of Albuquerque
Engineering Division/Design Hydrology Section
P.O. Box 1293
Albuquerque, NM 87103

Re: Ponderosa Reservoir No. 2
Drainage Report and Plan
URS Project No. 42041

DHS File No. F-21/D58A

Dear Sirs:

I am forwarding two copies of the Drainage Report and Plan for your review and approval. If you have questions or comments, please do not hesitate to call.

Sincerely,

URS CONSULTANTS, INC.



Timothy R. Volz, P.E.
Project Manager

TRV:dr

Enclosures

cc: Gary Tibljas

42041\072092.ltr

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I. GENERAL INFORMATION

A. Planning History

Ponderosa Reservoir No. 2 is a proposed 6 MG reservoir on the eastern most portion of El Oso Grande Park (Figure 1). The site contains approximately 1.8 acres. Development Plans, including a Conceptual Drainage Plan, were approved by the Environmental Planning Commission in December 1991. The Design Hydrology Section File Number assigned to this project is F-21/D58A.

B. Site Description

The reservoir site is located at the east end of El Oso Grande Park. It is bounded by Osuna Road on the north, Bear Arroyo Drainage Channel on the south and an undeveloped parcel to the east.

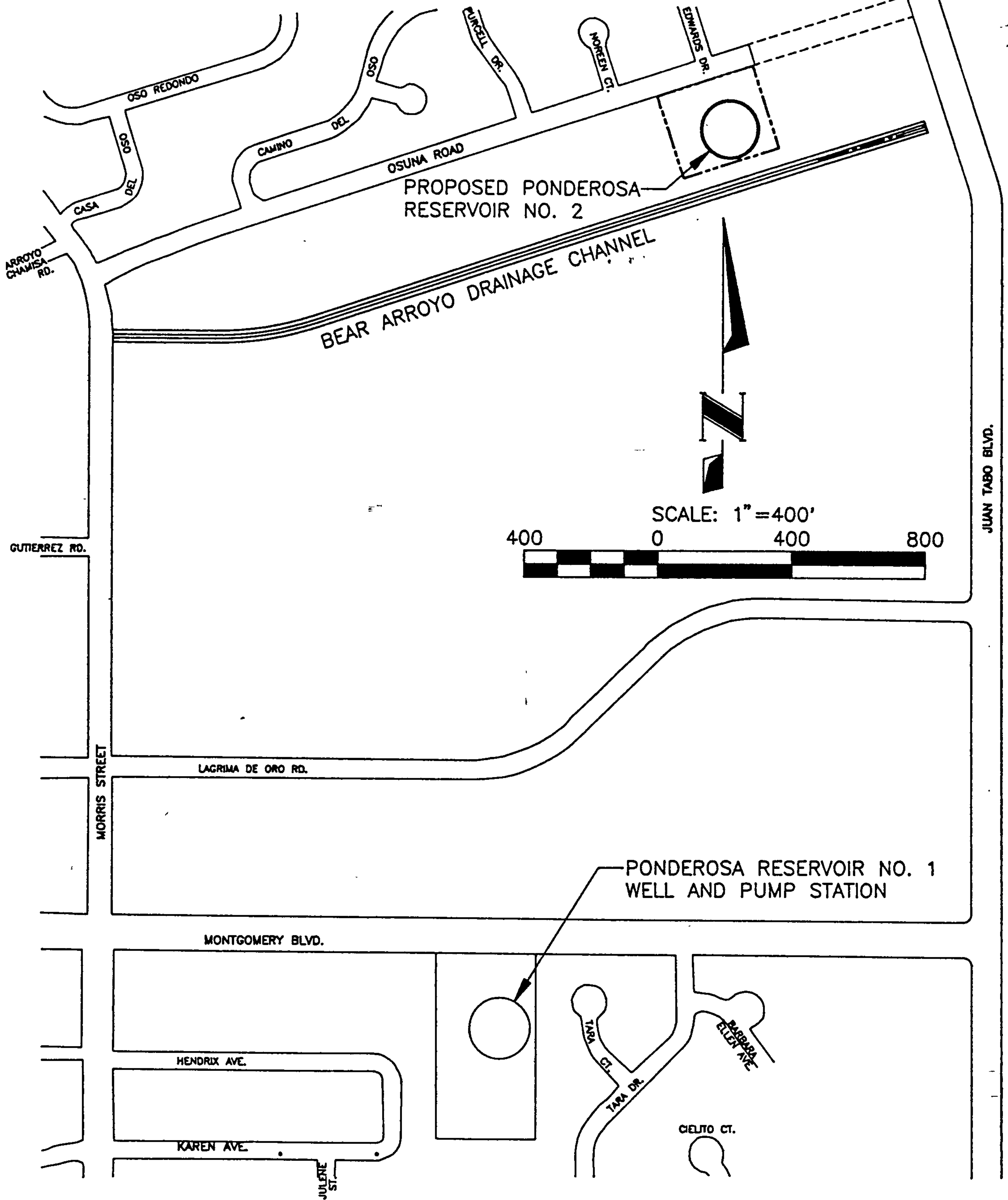
C. Flood Hazard

Figure 2 shows the site on a portion of the current Flood Insurance Rate Map. The map does not reflect a concrete channel that was constructed from Morris Street to Juan Tabo Boulevard. The concrete channel (26-2913-87) was designed to contain the 100 year flow of 2200 cfs.

It is assumed that a map revision was submitted to FEMA, but the current status is unknown.

D. Watershed Soils

Figure 3 shows the site on a portion of the appropriate Bernalillo County Soil Survey Map (Sheet 22). The site and the off-site basin soils are classified as EmB-Embudo gravelly fine sandy loam, Hydrologic Soils Group B.



URS
CONSULTANTS, INC.

VICINITY MAP

FIGURE 1



FIGURE 2 – FLOOD HAZARD MAP



FIGURE 3 – SCS SOILS MAP

II. EXISTING CONDITIONS

The site for Ponderosa Reservoir No. 2 generally slopes from east to west at approximately 3-4%. It is covered with natural vegetation and grasses, has an asphalt bike path along the south portion of the site, and a few trees or shrubs along the natural swale.

The runoff from the path and the area south of the bike path currently drain over land directly to Bear Arroyo channel.

The southeast corner of the site and an off-site basin to the east are tributary to an existing drainage structure near the southeast corner of the site. The structure consists of a 3-12" RCP to pass runoff under the bike path and a concrete apron between the pipe outfalls and the concrete channel (Bear Arroyo).

The northern part of the site and an off-site basin to the east drain across the site to an existing drainage structure approximately 500 feet west of the site. This structure is very similar to the on-site structure and allows runoff to pass under the bike path. Runoff quantities are relatively small because of the natural condition, soil type, and small tributary areas. There is very little potential for erosion and none is apparent across the site.

III. PROPOSED CONDITIONS

The proposed reservoir is to be completely buried with approximately three feet of soil cover and natural landscaping is to be entirely re-established. The proposed grading is intended to conform closely to the existing condition and not change basin characteristics. A slightly higher runoff factor was used for the proposed condition because of a small increase in impervious area. The only significant impact will be to the existing drainage structure on the site. The proposed reservoir location requires that the structure be relocated to the east. A single 18" RCP is recommended at the new location and the pipe will extend through the overflow structure wingwall and outfall to the concrete channel. It is assumed that historic runoff will be handled from the site east of the reservoir, and no provision will be made to handle developed runoff from the adjacent property. The construction drawings for the relocated outfall will be part of Ponderosa Reservoir No. 2 Construction Drawings (COA Project No. 4478.90).

IV. SUMMARY

A letter was received upon approval of the Conceptual Drainage Plan outlining items to be addressed prior to building permit. A copy of that letter is included in the appendix of this report. Items 2 and 4 have been addressed with the preparation of this report and plan. Items 1 and 3 will be addressed with the Construction Drawings for Ponderosa Reservoir No. 2.

Existing and proposed conditions are shown on the included Draining Plan and detailed hydrologic calculations are included in the appendix.

APPENDIX



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 10, 1991

Timothy R. Volz
URS Consultants, Inc.
1040 S. Eighth Street
Colorado Springs, Colorado 80906

RE: CONCEPTUAL DRAINAGE PLAN FOR PONDEROSA RESERVOIR NO. 2
(F-21/D58A) ENGINEER'S STAMP DATED AUGUST 19, 1991

Dear Mr. Volz:

Based on the information provided on your submittal of September 27, 1991, the referenced site is approved for Site Development.

Please be advised that prior to Building Permit and Work Order approval, the following must be addressed:

1. Outfall No. 1 if proposed must be coordinated through Roger Green at DRC. Also, the overflow structure must be included on the Work Order package.
2. Proposed six million gallon tank will create a certain percent of impervious area, therefore, your proposed runoff coefficient will not remain at .40. How much dirt are you proposing to place on top of the tank?
3. Bench marks - location, description and elevation of the:
 - A. Albuquerque Control Survey Vertical Datum
 - B. Temporary bench mark on-site permanently marked.
4. Please check your intensity rate. It is too low. You must find the six hour rainfall of the area and then plug into the $I = (6 \text{ hr rainfall}) (6.84) t_c^{-0.51}$ $t_c = 10 \text{ minutes}$.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,


Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

PUBLIC WORKS DEPARTMENT

(WP#2959)

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER

SUBJECT DRAINAGE CALCULATIONS

OFFSITE BASINS CONTRIBUTING RUNOFF TO RESERVOIR
SITE ALONG EAST BOUNDARY

BASIN C

THIS OFFSITE BASIN IS BORDERED BY JUAN TABO TO THE EAST, OSUNA ROAD TO THE NORTH, AND PONDEROSA RESERVOIR NO. 2 TO THE WEST. IT IS PRESENTLY UNDEVELOPED.

RATIONAL METHOD WILL BE USED (AREA < 320 ACRES)

AREA = 1.7 ACRES

UNDEVELOPED, ASSUME IMPERVIOUS AREA = 0%

SOILS ARE 100% SCS SOILS GROUP B

USING PLATE 22.2 C-1, $C = 0.36$

FOR SMALL AREA ASSUME $t_c = 10$ MINUTES

USING PLATE 22.2 D-1 6 HR - 100 YR RAINFALL = 2.55"

$$I_{100} = (2.55)(6.84)(10)^{-0.51} = 5.39 \text{ "/HR}$$

USING PLATE 22.2 D-1 - 6 HR - 10 YR = (2.55)(.657) = 1.68"

$$I_{10} = (1.68)(6.84)(10)^{-0.51} = 3.55 \text{ "/HR}$$

PEAK FLOWS:

$$Q_{10} = CIA = (0.36)(3.55)(1.7) = 2.2 \text{ CFS}$$
$$Q_{100} = CIA = (0.36)(5.39)(1.7) = 3.3 \text{ CFS}$$

BASIN D

THIS OFFSITE BASIN IS BORDERED BY JUAN TABO TO THE EAST, BEAR ARROYO TO THE SOUTH, AND PONDEROSA RES. NO. 2 TO THE WEST. IT IS UNDEVELOPED. THE AREA, INTENSITIES, AND "C" FACTOR ARE IDENTICAL TO BASIN C.

$$Q_{10} = 2.2 \text{ CFS}$$
$$Q_{100} = 3.3 \text{ CFS}$$

BASIN A

THIS IS A SMALL BASIN AT THE SOUTHEAST CORNER OF THE SITE. IT WILL BE ENTIRELY LANDSCAPED. THE ROCK WALLS WILL ADD SOME IMPERVIOUS AREA.

ASSUME IMPERVIOUS AREA = 10-15% $\therefore C = 0.40$

(FROM PLATE 22.2 C-1, SCS SOILS GROUP B)

AREA = 0.2 ACRES

$T_c = 10$ MINUTES

PEAK FLOWS:

$$Q_{10} = CIA = (0.40)(3.55)(0.2) = 0.3 \text{ CFS}$$

$$Q_{100} = CIA = (0.40)(5.39)(0.2) = 0.4 \text{ CFS}$$

UNDEVELOP.
 $C = 0.36$

0.3 CFS

0.4 CFS

BASIN B

THIS BASIN ENCOMPASSES MOST OF RESERVOIR SITE AND THE AREA WEST OF THE SITE TRIBUTARY TO OUT FALL NO. 2.

ASSUME IMPERVIOUS AREA = 10-15% $\therefore C = 0.40$

(FROM PLATE 22.2 C-1, SCS SOILS GROUP B)

AREA = 3.1 ACRES

ASSUME $T_c = 10$ MINUTES FOR SMALL AREA

PEAK FLOWS:

$$Q_{10} = CIA = (0.40)(3.55)(3.1) = 4.4 \text{ CFS}$$

$$Q_{100} = CIA = (0.40)(5.39)(3.1) = 6.7 \text{ CFS}$$

UNDEVELOP.
 $C = 0.36$

4.0 CFS

6.0 CFS

DESIGN POINT 1

THIS IS A COMBINATION OF BASINS A, D.

AREA = 1.9 ACRES

$$C = \frac{(0.36)(1.7) + (0.40)(0.2)}{1.9} = 0.36$$

$T_c = 10$ MINUTES $\therefore I_{10} = 3.55, I_{100} = 5.39$

DESIGN POINT 1 (CONT.)

PEAK FLOWS:

UNDEVELOPED
C=0.36

$$Q_{10} = CIA = (0.36)(3.55)(1.9) = 2.4 \text{ CFS}$$

SAME

$$Q_{100} = CIA = (0.36)(5.39)(1.9) = 3.7 \text{ CFS}$$

SAME

DESIGN POINT 2

THIS IS A COMBINATION OF BASINS B, C WHICH IS
TRIBUTARY TO THE EXISTING OUTFALL APPROXIMATELY
500' WEST OF THE SITE.

AREA = 4.8 ACRES

$$C = \frac{1.7(.36) + 3.1(.40)}{4.8} = 0.39$$

TIME OF CONCENTRATION:

USING PLATE 22.2 B-1

SLOPE 3.5%, LENGTH = 1300', V = 1.1 FPS

$$T_c = 1300 / 1.1 * 60 = 19.7 \text{ MINUTES}$$

$$I_{10} = (1.68)(6.84)(19.7)^{-0.51} = 2.51 \text{ "/HR}$$

$$I_{100} = (2.55)(6.84)(19.7)^{-0.51} = 3.81 \text{ "/HR}$$

PEAK FLOWS:

UNDEVELOPED
C=0.36

$$Q_{10} = CIA = (.39)(2.51)(4.8) = 4.7 \text{ CFS}$$

4.3 CFS

$$Q_{100} = CIA = (.39)(3.81)(4.8) = 7.1 \text{ CFS}$$

6.6 CFS

DESIGN POINT 1 - CULVERT SIZING

Q = 3.7 CFS FOR 100-YEAR

ASSUME HW/D = 1.0

USE 18" RCP

18", HW/D = 1.0, Q = 5.5 CFS

