HYDROLOGY E18/D5a 1 of 2 2 PLANS

E18/D5a

2 Plans

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

April 3, 1985

Thornton D. Schwenk
Boyle Engineering Corporation
3939 San Pedro Drive, NE Suite D
Albuquerque, New Mexico 87110

RE: CERTIFICATION FOR NORTHSIDE PRESBYTERIAN HOSPITAL
(E-18/D5A) STAMP DATED MARCH 4, 1985

Dear Mr. Schwenk:

Based on the information provided on your March 25, 1985 resubmittal, certification for the referenced drainage plan is acceptable.

If you have any questions or comments regarding this project, please call me at 766-7644.

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

March 18, 1985

Thornton D. Schwenk, P.E.
Boyle Engineering Corporation
3939 San Pedro Drive, NE Suite D
Albuquerque, New Mexico 87110

RE: CERTIFICATION FOR NORTHSIDE PRESBYTERIAN HOSPITAL
(E-18/D5A) RECEIVED MARCH 7, 1985

Dear Mr. Schwenk:

Based on the information provided on your March 7, 1985 submittal, certification for the referenced drainage plan cannot be accepted until the concerns listed are addressed:

1. New information sheet designating resubmittal for certification.

2. Certification statement of substantial compliance within plan signed and dated by Engineer.

If you have any questions or comments regarding this project, please call me at 766-7644.

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj

E18/D5A

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Northside Presbyterian Hospital (North Satellite Hospital) ZONE ATLAS/DRNG. FILE #: ~~F18-D29~~ ~~E18-D29Z~~

LEGAL DESCRIPTION: Tract B-5, Unit 5, Academy Acres Subdivision, filed 1-11-84 Vol.C3,Folio 2.

CITY ADDRESS: 5901 Harper Dr., NE

ENGINEERING FIRM: Boyle Engineering Corporation CONTACT: Thornton D. Schwenk

ADDRESS: 3939-D San Pedro, N.E. PHONE: 883-7700

OWNER: Southwest Community Health Services CONTACT: Gordon Aird

ADDRESS: 5901 Harper Dr., NE PHONE: 823-8500

ARCHITECT: Stevens,Mallory,Pearl & Campbell CONTACT: Chris Willadsen

ADDRESS: 115 Amherst Dr. SE PHONE: 255-8668

SURVEYOR: Albuquerque Survey Company CONTACT: Fred Sanchez

ADDRESS: 2119 Menaul Blvd, NE PHONE: 884-2036

CONTRACTOR: Klinger Construction CONTACT: Tom Novak

ADDRESS: 2400 Louisiana, NE PHONE: 881-4961

RECEIVED
MAR 07 1985
HYDROLOGY SECTION

PRE-DESIGN MEETING:

___ YES

_X_ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____

EPC NO. Z-77-74-2

PROJ. NO. _____

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

___ GRADING PLAN

___ EROSION CONTROL PLAN

_X_ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

_X_ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 3-4-85

BY: Thornton D Schwenk

Boyle Engineering Corporation

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

505 / 883-7700

RECEIVED
MAR 07 1985
HYDROLOGY SECTION

March 4, 1985
AL-S01-209-01

Design Hydrology Section
City of Albuquerque
123 Central Ave., NW
Albuquerque, New Mexico 87102

ATTN: Mr. Fred J. Aguirre, Civil Engineer/Hydrology

RE: ENGINEER'S CERTIFICATION OF COMPLIANCE WITH APPROVED DRAINAGE REPORT, NORTHSIDE PRESBYTERIAN HOSPITAL (NPH)
5901 HARPER DR., NE, E18-D29, F18-D29

Dear Fred:

The Drainage Report for the NPH project (dated June 8, 1982, with Rev. No. 1 dated May 11, 1983) was approved by Brian Burnett on May 23, 1983. A copy of the approved Special Order No. 19 drawings for "Construction of Drainage Facilities Within City Right-of-Way" are furnished with this submittal.

Planned construction on an adjacent parcel on the Hospital's North Campus resulted in a modification of the main ponding area and a relocation of an 18-inch CMP at the northwest corner of the NPH site. These changes were reported in the Drainage Report for the Northside Professional Office Building (NPOB), 6100 Pan American Highway, NE, (E18-D29a), which was approved by Billy Goolsby on July 3, 1984.

Based on our survey of as-built information, we hereby state that the as-built drainage features for the NPH site are in substantial compliance with the original NPH Report, as modified by the approved NPOB Report. We therefore recommend issuance of the Certificate of Occupancy.

Please call if you have any questions.

Sincerely,

BOYLE ENGINEERING CORPORATION

Thornton D. Schwenk

Thornton D. Schwenk, P.E.
Senior Civil Engineer

cc: Gordon Aird, Administrator, NPH
Chris Willadsen, SMPC
Tom Novak, Klinger Constructors, Inc.

Klinger Constructors, Inc.

March 4, 1985

Mr. Bernie Montoya
City of Albuquerque,
Hydraulogy Dept.

Re: Northside Presbyterian Hospital
5901 Harper Drive NE

Dear Bernie,

Per our discussion, Boyle Engineering has made a survey for verification of the site drainage. Their calculations will formally be submitted to you in the next few days. At this time we request a temporary final for the purpose of obtaining a certificate of occupancy for the owner.

Thank you for your cooperation and please call if you have any further questions.

Sincerely,

KLINGER CONSTRUCTORS, INC.

TNovak

Thomas R. Novak
Project Engineer

TRN/jc

3.4.85
Gordon R Aird
Administrator
Northside Presbyterian Hospital

American Financial Center • Bldg. #4, Suite 110 • 2400 Louisiana Blvd. N.E.
Box 35489 • Albuquerque, New Mexico 87176 • (505) 881-4961
N.M. License No. 20545

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

September 11, 1984

Mr. Thornton Schwenk
Boyle Engineering Corp.
3939-D San Pedro, N.E.
Albuquerque, New Mexico 87110

RE: DRAINAGE ANALYSIS FOR FREE DISCHARGE FOR PRESBYTERIAN HOSPITAL-NORTH CAMPUS (E17-D29B) RECEIVED JULY 27, 1984

Dear Mr. Schwenk:

The above referenced plan, dated July 20, 1984 is approved.

Please attach a copy of this approved plan to the construction set prior to issuance of the building permit.

If I can be of further assistance, please contact me at 766-7644.

Sincerely yours,

Carlos A. Montoya
Civil Engineer/Hydrology

cc
Greg Olson Assistant City Engineer/Design

CAM/bm

Boyle Engineering Corporation

consulting engineers

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

505 / 883-7700

August 21, 1984
AL-S14-100-51

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

ATTN: Mr. Carlos A. Montoya, Design Hydrology Section

RE: ADDENDUM NO. 1 TO DRAINAGE REPORT E18-D29B, FREE DISCHARGE FROM PRESBYTERIAN HOSPITAL NORTH CAMPUS, E-17-Z & E-18-Z

Dear Carlos:

As you requested on August 20, we are providing you with a summary of the 100-year flow calculations for the various phases of development on the referenced 34 acres. Please note that the improvements to the Pino Arroyo will be in place before the 34-acre site is fully developed. This means the net flow under the East Frontage Road of I-25 and to the Beta Channel is ultimately reduced, even after our detention ponds are removed.

Please call if you have any further questions.

Sincerely,

BOYLE ENGINEERING CORPORATION

Thornton D. Schwenk

Thornton D. Schwenk, P.E.
Senior Civil Engineer

cc: Gordon Aird, Southwest Community Health Services

RECEIVED
AUG 22 1984
HYDROLOGY SECTION

DRAINAGE ANALYSIS

OF

DOWNSTREAM FACILTIES TO JUSTIFY FREE DISCHARGE

FROM THE

34-ACRE NORTH CAMPUS OF PRESBYTERIAN HOSPITAL

ALBUQUERQUE, NEW MEXICO

TRACT B-5, UNIT 5

ACADEMY ACRES SUBDIVISION

July 20, 1984

(Addendum No. 1, August 21, 1984)

Prepared by

BOYLE ENGINEERING CORPORATION

I. DRAINAGE AREAS AND "C" FACTORS: (Plate 22.2 C-1, DPM)

SCS Soil Group: B

ITEM NO.	DESC.	AREA (acres)	IMPERVIOUS AREA
A	APCH	9.210	2.954
B	NPH	9.810	5.000
C	NPOB	3.262	3.055
D	Pond M-1	0.553	0.0
E	Pond M-2	0.769	0.0
F	Undevel.	7.066	0.0
		30.670*U	11.009

APCH = Site of Anne Pickard Convalescent Hospital
NPH = Site of Northside Presbyterian Hospital
NPOB = Site of Northside Professional Office Building

* 3.31 acres drain to Harper Avenue. Therefore, the area draining to Frontage Road culverts = 33.98 - 3.31 = 30.67 acres.

(Reference: North Satellite Hospital Drainage Study, Areas 1, 2 & 3: 0.36 + 1.68 + 1.27 = 3.31 acres)

II. PHASED CONSTRUCTION

1. WITH PONDS, BUT DEVELOPMENT OF REMAINING SITE INCOMPLETE

APCH & NPH sites (controlled discharge from Ponds M-1 & M-2)	=	15.0
NPOB site (free discharge)	=	13.5
Undeveloped site south of Tract B-5-B	=	9.2
		37.7 cfs

+83 = 120.7 cfs

2. WITHOUT PONDS, BUT DEVELOPMENT OF REMAINING SITE STILL INCOMPLETE

Avg. percent impervious = 11.009/30.670 x 100 = 35.9

Avg. "C" factor = 0.50

+83

Q_{100} = 0.50 (4.65)(30.670) = 71.3 cfs

3. WITHOUT PONDS, REMAINING SITE DEVELOPED TO 94% IMPERVIOUS

0.94 (0.553 + 0.769 + 7.066) = 7.885 acres impervious

Avg. Percent impervious (11.009 + 7.885)/ 30.67 x 100 = 61.6

Avg. "C" factor = 0.64

+83 = 174.3 cfs

Q_{100} = 0.64 (4.65)(30.670) = 91.3 cfs

Although the total flow leaving the site is increased from 37.7 to 91.3 cfs between the existing phase and the final phase, the total flow reaching the culverts from other sources (i.e., the frontage road ditch) is actually reduced from the flows now existing due to the improvements upstream in the Pino Arroyo.

Thornton D. Schwenk

REGISTERED PROFESSIONAL ENGINEER
STATE OF
No. 4739
NEW MEXICO
THORNTON D. SCHWENK

8-21-84

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

August 14, 1984

Mr. Thornton D. Schwenk
Boyle Engineering Corp.
3939-D San Pedro NE
Albuquerque, NM 87110

REF: DRAINAGE REPORT ON FREE DISCHARGE OF NORTH CAMPUS PRESBYTERIAN HOSPITAL (E18-D29B) RECEIVED JULY 27, 1984

Dear Mr. Schwenk:

I have reviewed the above referenced plan and forward the following comments:

1. Please send us a set of drawings of the proposed 83" x 57" CMP approved by NMSHD. Will the lower discharge floods run into the proposed 83" x 57" CMP? What type of structure will connect the existing 2-36" RCP with the proposed 83" x 57" CMP arch?

2. Please delineate the basins that will input to the proposed 83" x 57" CMP arch.

3. Verify the adequacy of the Beta Channel to accept the added discharge from the North Campus Presbyterian Hospital. Also, please address erosion problems.

None Needed 4. Show new easements & R/W that will be required due to the new proposal.

5. Will the proposed 8' x 8' CBC on the Pino Arroyo at I-25 convey the 100 year flood? Plate one (1) of the Bohannan-Huston report indicates 1600 cfs for the 100 year storm.

check

6. Please delineate the pond elevations on the drawings at:

   A. Inlet of proposed 83" x 57" CMP.

   B. Pond between proposed 83" x 57" CMP and 1-8'x8' CBC.

   C. Pond between 1-8'x8' CBC and existing 2-6'x6' CBC.

Sincerely yours,

Carlos A. Montoya

Carlos A. Montoya
City/County Flood Plain Admin.

CAM:mrk

Interstate Industrial Tract
Drainage Study a/
upland Basin

Nov 81

Plate 1A.
Job No 11300 } dwg.
Drainage study

Pino Arroyo & Beta Arroyo.
improvements between Jefferson St.
& interstate 25

Prepared for Clifford
Bohannan - Huston
Sept 13, 1983

DAN BUCHLY & ASSOCIATES

Real Estate Development
and Consulting

November 8, 1983

Mr. Fred Aguirre
City Engineering Division
City of Albuquerque
401 Marquette NW
Alb. NM 87102

Dear Fred:

Enclosed is a copy of our conceptual master plan of the northside Presbyterian area per your request.

Sincerely,

W. D. Buchly

WDB/jc

E18-D29

2201 San Pedro, N.E.
Bldg. 1, Suite 1200-D
Albuquerque, New Mexico 87110

(505) 884-2220

STEVENS, MALLORY, PEARL & CAMPBELL, P.A.
ARCHITECTS
115 AMHERST DRIVE, S.E. ALBUQUERQUE, NEW MEXICO 87106 505-255-8668

October 25, 1983

Bob Cole, Planner
City Planning Dept.
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

Re: North Satellite Hospital
Site Development Plan

Dear Bob:

Our submittal for DRB signatures complies with DRB comments and Planning comments to EPC. We have not received the written comments from the EPC hearing of October 20, 1983, but do want to respond to the one comment left hanging - that being the one concerning native landscaping. .In your absence this week, we discussed this with Randy Traynor, and he suggested this letter of our intent be addressed to you to hopefully satisfy your concerns and to allow for final sign-offs on the Plan.

We would propose to install some native planting as shown, but with the following changes to our original intent. Instead of standard seeding or hydro-mulching of seed, we would propose drill seeding to insure that the seed would take better. Also, a hay mulch would be added to facilitate germination. The proposed seed mix is 2½ lbs. galleta grass, 2 lbs. stream bank wheat grass, 1½ lbs. blue gramma grass, 2 oz. high plains grassland blend flowers per 1000 sf.

The southern periphery of the adjacent Convalescent Hospital is landscaped with a similar mix, which is what we will attempt to integrate with at this time. Although the hospital is negotiating with a volunteer organization at the present to intensely landscape - with a park - the whole area in native plantings.

We hope this meets with your approval.

Sincerely,

J. Chris Willadser
Project Architect

JCW/jd

DONALD P. STEVENS AIA
ROBERT G. MALLORY AIA
GEORGE CLAYTON PEARL FAIA
C. ROBERT CAMPBELL AIA

Boyle Engineering Corporation

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

consulting engineers

505 / 883-7700

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

October 13, 1983
AL-S01-209-01

ATTN: Mr. Fred J. Aguirre, Civil Engineer/Hydrology

RE: CORRELATION OF SITE DEVELOPMENT PLAN AND APPROVED DRAINAGE REPORT FOR THE NORTHSIDE PRESBYTERIAN HOSPITAL

Dear Fred:

To summarize our discussion in your office yesterday, I am listing the following items:

1. To avoid possible confusion, please bear in mind that there are two case numbers having to do with the site of the Northside Presbyterian Hospital (North Satellite Hospital, 5901 Harper Dr., N.E.):

   DRB-83-554 Site Development/Landscaping Plan (Scheduled for public hearing before the EPC on October 20, 1983, as Z-77-74-2)

   DRB-83-597 Replat of Parcels B-1-A AND B-2-A (Signature approval was delegated to Gene Mares for October 18, 1983 DRB meeting)

2. During the initial presentation of DRB-83-554 on September 27, you raised the folowing question: would the Drainage Report prepared by Boyle Engineering need to be revised in light of the fact that the Site Development Plan considers only first phase construction and does not include future phases?

3. The Drainage Report (Revision 1, dated May 11, 1983) was approved by Brian Burnett of your office on May 23, 1983. That report presumed a worst-case condition, i.e., planned future phases were taken onto account in assigning coefficients of runoff, in computing storm runoff, and in locating and sizing storm drainage facilities. We wish to affirm that these facilities, as designed, need no modification to accommodate just the first phase of development. Therefore, the report itself needs no further revision to agree with the first phase of development as shown on the Site Development Plan now under review, or with the construction drawings presently being used on site by Klinger Constructors, Inc.

4. In view of this explanation, you said you would have no further problems in correlating the Site Development Plan with the approved Drainage Report. We thank you for making your decision known to other reviewing bodies, if and when necessary.

Sincerely,

BOYLE ENGINEERING CORPORATION

Thornton D. Schwenk

Thornton D. Schwenk, P.E.
Senior Civil Engineer

Enclosures

cc: John Salazar, Esq., Rodey law firm
Gene Mares, Planning Division
LaVand Syverson, SCHS
Gordon Aird, SCHS
Don Stevens, SMPC
Fred Burns, B.E.C.

OF COUNSEL
DON L. DICKASON

PEARCE C. RODEY (1889-1958)

WILLIAM A. SLUAN
JACKSON G. ARIN
JOHN D. ROBB
CHARLES B. LARRABEE
JAMES C. RITCHIE
JOHN P. EASTHAM
WILLIAM C. SCHAB
RAY H. RODEY
ROBERT D. TAICHERT
ROBERT H. ST. JOHN
JOSEPH J. MULLINS
DUANE C. GILKEY
MARK K. ADAMS
ROBERT G. McCORKLE
PETER G. PRINA
BRUCE HALL
JOHN P. SALAZAR
WILLIAM S. DIXON
JOHN P. BURTON
REX D. THROCKMORTON
JONATHAN W. HEWES
GENE C. WALTON
RICHARD C. MINZNER
W. ROBERT LASATER, JR.
RICHARD K. BARLOW
CHARLES L. SAUNDERS
MARK C. MEIERING
VICTOR R. MARSHALL
ROBERT A. JOHNSON
PAUL D. BARBER
JOE L. McLAUGHERTY
JAMES S. STARZYNSKI
CATHERINE T. GOLDBERG
DONALD B. MONNHEIMER
KENNETH J. FERGUSON
STANLEY N. HATCH
DIANE FISHER
M. RICHARD BEITLER, JR.
TRAVIS R. COLLIER
ROBERT D. PARK
BEN H. ALLEN
JASON A. SEDERQUIST
JO SARTON BRAYER
EDWARD RICCO
W. MARK HOWERY
PATRICK M. SHAY
NANCY J. APPLEBY
ANDREW M. IVES, JR.
JAY R. HONE
DEBRA ROMERO THAL
JAMES L. RASMUSSEN
PATRICK M. MACIAS
EDWARD W. SHEPHERD, JR.
ELLEN G. THORNE
WAYNE G. CHEW

RODEY, DICKASON, SLOAN, AKIN & ROBB, P. A.
COUNSELLORS AND ATTORNEYS AT LAW
20 FIRST PLAZA, SUITE 700
P. O. BOX 1888
ALBUQUERQUE, NEW MEXICO 87103
TELEPHONE 765-5900
AREA CODE 505
TELECOPIER 765-5903
TELEX 660401

SANTA FE OFFICE:
MARCY PLAZA, SUITE 101
123 EAST MARCY STREET
P. O. BOX 1357
SANTA FE, NM 87501-1357
TELEPHONE 984-0100
AREA CODE 505

RIO RANCHO OFFICE:
JEMEZ PROFESSIONAL BLDG.
3615 RIO RANCHO BLVD.
SUITE 203 A
P. O. BOX 15423
RIO RANCHO, NM 87124
TELEPHONE 765-5900
AREA CODE 505

September 30, 1983

Mr. Gene Mares
City Planning Division
6th Floor, City Hall
Albuquerque, New Mexico 87102

HAND DELIVERED

Re: Southwest Community Health Services
(Northside Presbyterian Hospital located at the northeast corner of I-25 Frontage Road and Harper Drive, N.E.)
DRB-83-554; Z-77-74-2

Dear Mr. Mares:

With your permission and pursuant to your authorization, we are having hand delivered today a revised site development/landscaping plan and attached elevations with regard to the above referenced matter to all departments which have previously received a copy of the original site development/landscaping plan for the project.

Revisions have been made to the site development/landscaping plan in light of comments made by Development Review Board members at the Development Review Board meeting of Tuesday, September 27, 1983. This matter will be considered by the Environmental Planning Commission at its study session on October 13, 1983 and at a public hearing by the EPC on October 20, 1983. Therefore, we would like the EPC to have the benefit of the revised plan prior to the October 13, 1983 study session. It is our understanding that Randy Traynor of the City Planning Division is the Planner to whom this case has been assigned. We are, therefore, sending Mr. Traynor a copy of the enclosed materials as well.

It is our understanding that should any of the individuals who are receiving a copy of these materials have any further comments in

light of the revisions that their comments should be forwarded to Randy Traynor of the City Planning Division.

Note: This is not a request for additional comments. Discretion left to individual agencies or departments
Gene

Sincerely,

RODEY, DICKASON, SLOAN, AKIN & ROBB, P.A.

By: John P. Salazar
John P. Salazar

APPROVED:
Gene Mares
Gene Mares 9/30/83

JPS/gb

Enclosure

Hand delivered with enclosure on September 30, 1983 to the following:

cc: City Planning Division
Attn: Randy Traynor

Albuquerque Public Schools
Attn: Leonard Greenspan

AMAFCA
Attn: Dan Sabo

City Engineering
Attn: Fred Aguirre

Council of Governments
Attn: Joe Quintana

Environmental Health
Attn: Larry Caudill

Fire Department
Attn: Bob Casis

Neighborhood Coordination
Attn: Mary Lou Haywood

Parks & Recreation
Attn: Janet Saiers

Police Planning
Attn: Pat Everise

Real Estate Officer
Attn: Val Valdez

Refuse Removal Division
Attn: Sam Trujillo

Traffic Engineer
Attn: Bob Fosnaugh

Transportation
Attn: Jim Milton

Transit
Attn: Leora Jaeger

Water Resources
Attn: Brian Pirooz

Zoning Enforcement Officer
Attn: Bob Romero

Boyle Engineering Corporation

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

consulting engineers

505 / 883-7700

June 1, 1983

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

Attn: Mr Brian G. Burnett

RECEIVED
JUN 0 2 1983
CITY ENGINEER

RE: NORTH SATELLITE HOSPITAL
DRAINAGE REPORT

Dear Brian:

Regarding your letter of May 23, 1983 and enclosed certification, we can not certify or sign such a document. The assurance that the drainage facilities are constructed in accordance with the approved drainage report and construction plans and specifications is the responsibility of the Owner and not Boyle Engineering Corp.

Upon completion of construction and if authorized by the Owner, Boyle Engineering will perform such surveys to determine the record dimensions and elevations applicable to the drainage aspects of the project and will so certify to those dimensions. Authorization has been requested to perform the necessary surveys and certification.

If you have any questions in this regard, please contact us.

BOYLE ENGINEERING CORPORATION

Frank D. Lovelady

Frank D. Lovelady, P.E.
Senior Civil Engineer

TO DR

RECEIVED
MAY 31 1983
CITY ENGINEER

Boyle Engineering Corporation

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

consulting engineers

505 883-7700

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

E18-D5A

May 27, 1983
AL-S14-100-50

ATTN: Mr. Fred J. Aguirre, Civil Engineer/Hydrology

RE: ENGINEER'S CERTIFICATION OF COMPLIANCE WITH APPROVED DRAINAGE PLAN, ANNE PICKARD CONVALESCENT HOSPITAL

Dear Fred:

As noted in my April 25, 1983 letter to you, the one remaining aspect of flood and erosion control to be completed at the hospital site was the seeding of the landscaped areas east and south of the building. I personally inspected these areas today and wish to report that the hydroseeding of both these areas has been completed. As the south area includes the unlined channel within the dedicated drainage easement, the Erosion Control Plan, as outlined by our January 29, 1982 Drainage Study (Plate VII and SMPC Landscaping Specification 02800) has now been implemented.

We therefore request full acceptance of the drainage features of this project and recommend issuance of the Certificate of Occupancy.

Please call me to confirm receipt of this letter or to answer any questions you may still have.

Sincerely,

BOYLE ENGINEERING CORPORATION

Thornton D. Schwenk

Thornton D. Schwenk, P.E.
Senior Civil Engineer

Enclosures

cc: Brian Burnett, Hydrology/City of Albuquerque
Jerry Mayfield, APCH
Gordon Aird, SCHS
Don Stevens, SMPC
Fred Burns, B.E.C.

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 23, 1983

Mr. Frank Lovelady
Boyle Engineering
3939 San Pedro NE, Suite D
Albuquerque, N.M. 87110

RE: NORTH-SATELLITE HOSPITAL - REVISED DRAINAGE REPORT

Dear Frank:

The referenced plan (revision dated 5/11/83) appears in substantial compliance with the original concept and is hereby approved.

In reference to the "Construction of Private Drainage Facilities in Public Right-of-Way", Bob Kielich and I have reviewed them and agree that the culverts provide an acceptable means of conveyance. As an aside, we have had very poor success with wire-tied rip-rap when an adequate filter is not provided. It is my opinion that properly sized material and filter blanket is more stable than the wire-tied approach. One fact we have observed is that the dumped material is more "forgiving" in the long term, whereas the wire-tied tends to end up as one large mass downstream of the culvert or channel. Two good references for designs of this type are "HEC-14; Hydraulic Design for Energy Dissipators for Culvert and Channels" and "Design of Stable Channels with Flexible Linings", published by the Federal Highway Administration.

It is my understanding that Boyle Engineering will be responsible for certification of the project, as was the case with the Anne Pickard Hospital. If this is correct, please sign the enclosed copy which establishes responsibility.

Thank you for your work on this project. If I can be of further help, please call.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/tsl

BOYLE ENGINEERING WILL BE RESPONSIBLE FOR CONSTRUCTION CERTIFICATION OF THE NORTH SATELLITE HOSPITAL AND THAT ALL INFORMATION SUPPLIED TO THE HYDROLOGY OFFICE SHALL BE IN COMPLIANCE WITH THE CERTIFICATION CHECKLIST CONTAINED IN THE DEVELOPMENT PROCESS MANUAL.

_____
APPROVED

_____
TITLE

_____
DATE

Boyle Engineering Corporation

Suite D
3929 San Pedro N.E.
Albuquerque, New Mexico 87110

RECEIVED
APR 29 1983
CITY ENGINEER

BDK

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

April 25, 1983
AL-S14-100-50

ATTN: Mr. Fred J. Aguirre, Civil Engineer/Hydrology

RE: EXTENSION OF TEMPORARY CERTIFICATE OF OCCUPANCY
ANNE PICKARD CONVALESCENT HOSPITAL

E18-D Sa

Dear Fred:

This letter is to confirm our conversation of this date, wherein you agreed to an extension to July 31, 1983, for the temporary Certificate of Occupancy for the Hospital.

This extension is made until the Erosion Control Plan, as outlined by the January 29, 1982 Drainage Study (Plate VII and SMPC Landscaping Specification 02800), can be fully implemented. Our office has been informed by the Architect (SMPC) that the Landscaping Contractor will begin seeding operations on May 1, 1983, and is expected to carry out the terms of his 90-day contract on or before July 31. As soon as this remaining site work has been completed, we will request full acceptance of this project for issuance of its "green tag".

Please call if you have any questions.

Sincerely,

BOYLE ENGINEERING CORPORATION

Thornton D Schwenk

Thornton D. Schwenk, P.E.
Senior Civil Engineer

Enclosures

cc: Brian Burnett, Hydrology/City of Albuquerque
Don C. Humphrey, APCH
Gordon Aird, SCHS
Don Stevens, SMPC
Fred Burns, B.E.C.

Boyle Engineering Corporation

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

consulting engineers

505 / 883-7700

April 21, 1983

Mr. Brian G. Burnett
Civil Engineer/Hydrology
Engineering Division
Municipal Development Dept.
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

RE: NORTH SATELLITE HOSPITAL
DRAINAGE STUDY
S01-209-01

Dear Brian:

In reference to the telephone conversation that Thornton and I had with you yesterday, attached are three prints of the North Satellite Hospital Drainage Report Plate II. This Plate has been revised to show the 30 foot drainage easement crossing the northern portion of the hospital property. Other minor revisions included making slight adjustments to the ditch contours to conform to the easement and minor revisions to some of the areas. If you have any questions, please do not hesitate to call.

Sincerely,

BOYLE ENGINEERING CORPORATION

Frank D. Lovelady

Frank D. Lovelady, P.E.
Senior Civil Engineer

Enclosure

Boyle Engineering Corporation

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

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

November 24, 1982

Attn: Brian Burnett
Civil Engineer/Hydrology

RE: DRAINAGE IMPROVEMENTS AT I-25 FRONTAGE ROAD
FOR SOUTHWEST COMMUNITY HEALTH SERVICES

Dear Brian:

A copy of the attached letter dated November 22, 1982, from Mr. Don Lepic will alert you to the requirement we will have of coordinating our design reviews of the proposed drainage improvements with the Highway Department and Bohannan-Huston, Inc. as well as with the City.

After reviewing the Bohannan-Huston report, we well attempt to demonstrate that our added design flows will not exceed the capacity of existing downstream structures under I-25.

Sincerely,

BOYLE ENGINEERING CORPORATION

Thornton D. Schwenk

Thornton D. Schwenk, P.E.
Senior Civil Engineer

TDS/mw
Enclosure

STATE OF NEW MEXICO
HIGHWAY DEPARTMENT

BRUCE KING
GOVERNOR

COMMISSION

Louis M. Whitlock
Chairman, Carlsbad

James W. Chaney
Vice-Chairman, Moriarty

Sosimo Padilla
Secretary, Albuquerque

Carlos Gallegos
Member, Las Vegas

Stephen T. "Bud" Richards
Member, Las Cruces

DEPARTMENT

Chief Highway Administrator
J.J. Hewett

General Office
P.O. Box 1149
Santa Fe, NM 87503
505-983-0100

District One Office
P.O. Box 231
Deming, NM 88030
505-546-2603

District Two Office
P.O. Box 1457
Roswell, NM 88201
505-622-8441

District Three Office
P.O. Box 3768-Station D
Albuquerque, NM 87110
505-821-4651

District Four Office
P.O. Box 30
Las Vegas, NM 87701
505-425-7521

District Five Office
P.O. Box 4127-Coronado Sta.
Santa Fe, NM 87503
505-983-0221

AN EQUAL
OPPORTUNITY
EMPLOYER

November 22, 1982

REF: I-IR-025-4(66)227, Gen.

RECEIVED
Boyle Engineering Corporation
NOV 24 1982
Albuquerque Office
FILE

Mr. Thornton Schwenk
Boyle Engineering Corporation
3939-D San Pedro, NE
Albuquerque, New Mexico 87110

RE: Southwest Community Health Services Drainage Improvements

Dear Mr. Schwenk:

As you have requested, portions of the I-25 Frontage Roads Drainage Structure Analysis, prepared by Bohannan-Huston, Inc., are attached. Use this data for determining your drainage requirements.

We can incorporate your drainage improvements into our I-25 Frontage Roads project, with the following conditions:

The improvements will be adequate for the design storm flow, will not cause the capacity of existing structures downstream to be exceeded, and will provide erosion-resistant channels throughout our right of way.

You will coordinate with and supply your plans to our consultant, Bohannan-Huston, Inc., in a timely manner to be incorporated into the frontage road plans, as our contractor will do all construction within our right of way,

The requirements of the City of Albuquerque are satsified,

An agreement is executed with the Department for payment of the required drainage improvements.

Very truly yours,

Donald E. Lepic
Donald E. Lepic
Technical Services Engineer

DEL/gs

xc: Kenneth E. Bower, Jr. -- John D. Winton -- Richard L. Russell
Harley V. Parr -- Mike Irwin, Bohannan-Huston, Inc.

Boyle Engineering Corporation

consulting engineers

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

505 / 883-7700

August 25, 1982

Mr. Brian G. Burnett
Civil Engineer/Hydrology
Engineering Division
Municipal Development Dept.
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

RE: NORTH SATELLITE
HOSPITAL DRAINAGE STUDY
S01-209-01

Dear Brian:

The following items are in response to your letter of June 30, 1982:

1. Area 2 covers only the pond itself. The drive adjacent on the east side flows around the corner directly into the catch basin on Harper Drive. As we discussed, this area is very small and will peak well before the storm sewer has reached capacity.

2. Area 3 runoff will be carried to the pond by curb cuts and rundowns as shown on plate II. Calculations for these are attached.

3. Runoff from the structure will be routed to the pond by carrying the roof drains underground and discharging them into the small pond between the road and the building.

4. Pond depths have been revised to not exceed 18". This is possible due to the capability of discharging freely into the storm drain as previously discussed.

5. Erosion control will be implemented. All areas that are to be graded and not paved will be seeded.

6. The design for the pipe connections to existing catch basin have been prepared on Special Order No. 19 mylar forms and are attached.

7. Grading - drainage plan will not be used for construction. However, the various drainage features will be incorporated on the Architects grading plan.

8. The item regarding certification has been discussed with our client. They feel this item needs further clarification as to the roll of city inspectors and the engineers responsibilities for certification.

Attached are the following items for your records.

1. Two copies of the report containing revised Plate II, calculations for the rundowns and Special Order 19 sheets for connecting to existing storm drain catch basins.

2. The original and 3 copies of Special Order 19 mylars, sheets 1 through 3 of 3.

If you have any questions regarding any of the above, please call.

Sincerely,

BOYLE ENGINEERING CORPORATION

Frank D. Lovelady

Frank D. Lovelady, P.E.
Senior Civil Engineer

FCL/mw

cc: SMPC w/attachments

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

F18 - D29

June 30, 1982

Mr. Frank Lovelady
Boyle Engineering Corporation
3939 D San Pedro N.E.
Albuquerque, N.M. 87110

RE: NORTH SATELLITE HOSPITAL DRAINAGE STUDY

Dear Frank:

I have reviewed the referenced report and forward the following comments:

1. Please clarify how runoff from Area 2 will enter the pond.

2. Is the runoff from Area 3 parking lot going to sheet flow into the pond? In the past, landscaping has been difficult to maintain primarily due to the frequency at which runoff occurs. Curb cuts and rundowns may be appropriate.

3. Will runoff from the structure be routed to the Area 1 pond utilizing rundowns or improved swales?

4. Current policy requires pond protection when depths exceed 18". Please specify the type of protection that must be placed by each pond.

5. Erosion control measures must be implemented for any area that is graded but not developed (Area 4 may fall into this category). If necessary, please provide an erosion control plan for graded areas.

6. The designs for pipe connections to existing storm inlets should be approved by the Design Section. Special Order No. 19 maybe used for this purpose.

7. Is the grading-drainage plan going to be used as the construction plan? If so, the sheet should be updated per the guidelines contained in Drainage Report-Drainage Plan Checklist.

8. Due to the rather complex nature of this project, a City inspection may take several weeks. Therefore, certification by your firm may speed up the issuance of a Certificate of Occupancy. Please notify us if Boyle Engineering will be responsible for inspection and utilization of the project.

Please call if you have any questions concerning these matters.

Very truly yours,

Brian G. Burnett

Brian G. Burnett
Civil Engineer/Hydrology

BGB/tsl

R. Hellen 13?

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

ALBUQUERQUE NEW MEXICO 1706

RECEIVED APR 2 - 1982 CITY ENGINEER

April 21, 1982

need copies

Thornton D. Schewenk
Senior Civil Engineer
Boyle Engineering Corporation
Suite D - 3939 San Pedro, N.E.
Albuquerque, New Mexico 87110

Subject: REVIEW NO. 1265, FOREST HILLS DRIVE EXTENSION, MEMORANDUM OF UNDERSTANDING

Dear Mr. Schwenk:

I have reviewed your letter of March 16, 1982 regarding the improvement of Forest Hills drive east of the I-25 frontage road.

I am in agreement with items one and two of your letter. With regard to item three the City agreed to pay for the construction of the remainder of the two southerly permanent traffic lanes of Forest Hills Drive from the northwest corner of the hospital side to the frontage road (per item 3a of your letter). My recollection of the meeting is that the City made no commitment at the August 25th meeting concerning the construction of drainage improvements but that a subsequent meeting was held with the City Engineer to resolve City participation in drainage improvements (item 3b of your letter).

With regard to item four, the agreement was that Southwest Community Health Services would not be responsible for the construction of the two northerly lanes of Forest Hills, but the City did not agree that it would be a City cost to remove the transition and construct the two northerly lanes (most probably the construction of the northerly lanes will be handled by assessment of the adjoining property owner to the north). I have reviewed my recollections of the meeting with Mr. Beck and his recollections agree with mine.

The following comments regarding the proposed plans for the Forest Hills Drive extension are provided for your information.

Information please! — From who? None of us were there →

RSH	RSH	ADM	
HRD		SUR	
CIT		COUN	
DES		SEG	
RSP		FILE	
		RETURN	

30 Aug.
I was not at the 25 Aug meeting. I had asked during the review of the design that consultant furnish clarification of commitments made by the City. JK

EQUAL OPPORTUNITY EMPLOYER

1. The sidewalk on the south side of Forest Hills Drive should be omitted from construction at this time. The sidewalk will be constructed at a later date through the assessment process.

2. Why is the cattle guard inlet being constructed rather than simply allowing road drainage to follow directly into the road side ditch in the I-25 frontage road?

In summary the Transportation Department has agreed to pay for the construction of the two south permanent traffic lanes between the frontage road and the northwest corner of the hospital site. The question of the City participation in the cost of drainage improvements should be resolved with City Engineering.

Very truly yours,

Robert A. Fosnaugh
Traffic Engineer

cc: Joe Martin, Acting Director of Transportaion
Richard Olsen, Presbyterian Hospital
Richard Heller, City Engineer (attachment)
Bob Kielich, Assistant City Engineer

RAF/gjp

RECEIVED
APR 01 1982
TRAFFIC ENGINEERING DIVISION
City of Albuquerque

Boyle Engineering Corporation
consulting engineers
Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110
505 / 883 7700

March 16, 1982

City of Albuquerque
Attn: Mr. Robert Fosnaugh
Post Office Box 1293
Albuquerque, New Mexico 87103

RE: REVIEW NO. 1265, FOREST HILLS DRIVE EXTENSION, MEMORANDUM OF UNDERSTANDING

Dear Mr. Fosnaugh:

On August 25, 1981, a meeting was held at the City's Transportation Department offices to discuss the extension of Forest Hills Drive westward from Barnhart Street to the I-25 East Frontage Road. This meeting was attended by:

Edwin Beck, City

Robert Fosnaugh, City

Thomas Kennerly, City

Richard Olsen, Vice President, Presbyterian Hospital

Don Stevens, Stevens, Mallory, Pearl and Campbell

Fred Burns, Boyle Engineering Corporation

Mr. Burns and Mr. Stevens, as Engineer and Architect, respectively, were representing their mutual client, Southwest Community Health Services (SCHS). SCHS is the parent company for Presbyterian Hospital, which is constructing the Anne Pickard Convalescent Hospital adjoining the south R.O.W. of Forest Hills.

In view of Ed Beck's retirement from the City Staff in February 1982, it is necessary that the conceptual decisions reached at that meeting be documented in this memorandum of understanding.

For purposes of providing consulting services to our client, we understood that:

1. Due to anticipated traffic volume from subdivisions to the east, Forest Hills should be extended with same Arterial crosssection westward from the existing end of pavement (4 lanes and median).

2. Presbyterian Hospital would pay for:

   A. The construction of the two southerly permanent traffic lanes

which parallel the northern property line of their site (STA -0+11.58 to STA 7+33.62).

B. The construction of temporary transition paving to channel the existing 4 traffic lanes at STA -0+11.58 into the two lanes mentioned above.

3. The City would pay for:

A. The construction of the remainder of the two southerly permanent traffic lanes from the northwest corner of the hospital site (STA 7+33.62) to the Frontage Road (STA 12+82).

B. The two drainage improvements in the R.O.W. of State Highway 422 (I-25 East Frontage Road STA 0+10 and STA 3+00).

4. At a future date the City would remove the temporary transition pavement and construct the northerly two lanes of Forest Hills from STA -0+11.58 to STA 12+82.

Please sign below and return a copy for our files if you concur with our understanding of these decisions.

Sincerely,

BOYLE ENGINEERING CORPORATION

Thornton D. Schwenk

Thornton D. Schwenk, P.E.
Senior Civil Engineer

concur:

_____

TDS:pas

cc: Joseph Martin, Acting Director Transportation Department
Richard Olsen, Presbyterian Hospital
Bob Eielich, Assistant City Engineer

Boyle Engineering Corporation

Suite D
3939 San Pedro N.E.
Albuquerque, New Mexico 87110

consulting engineers

505 / 883-7700

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

July 20, 1984
S14-100-51

Attn: Billy J. Goolsby, P.E.
City/County Flood Plan Administrator

RE: DRAINAGE ANALYSIS OF DOWNSTREAM FACILITIES TO JUSTIFY FREE DISCHARGE FROM THE 34-ACRE NORTH CAMPUS OF PRESBYTERIAN HOSPITAL

Dear Billy:

The attached report is a culmination of several steps to justify free discharge from Tract B-5, Unit 5, of the Academy Acres Subdivision, Zone E18-E17. The previous drainage reports for the several interior parcels within the Tract are listed as references 1 through 3 in the report.

Please let me know if you encounter any questions during your review.

The contractor for the NMSHD I-25 project (Yeargin Western Constructors, Inc.) is presently negotiating a construction contract with the developer/owner (Southwest Community Health Services) for placing the necessary CMP arch culvert under the East Frontage Road.

Sincerely,

BOYLE ENGINEERING CORPORATION

Thornton D. Schwenk

Thornton D. Schwenk, P.E.
Senior Civil Engineer

cc: Gordon Aird, Southwest Community Health Services
Don Stevens, Stevens,Mallory,Pearl & Campbell

RECEIVED
JUL 27 1984
HYDROLOGY SECTION

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INFORMATION SHEET

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II. SCOPE

III. LOCATION

IV. EXISTING DRAINAGE CONDITIONS, NORTH CAMPUS

V. PROPOSED DRAINAGE CONDITIONS

VI. RESULTS AND CONCLUSIONS

VII. RECOMMENDATIONS

FIGURES & DRAWINGS

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INFORMATION SHEET

E18-D29b

PROJECT TITLE Presbyterian Hospital-North Campus, Justification for Free Discharge D29b TYPE OF SUBMITTAL Drainage Analysis

ZONE ATLAS PAGE NO. E-17 & 18 CITY ADDRESS Pan American Highway, N.E.

LEGAL DESCRIPTION Tract B-5 Academy Acres, Unit 5

ENGINEERING FIRM BOYLE ENGINEERING CORP. CONTACT Thornton D. Schwenk

ADDRESS 3939-D San Pedro, N.E. PHONE 883-7700

OWNER Southwest Community Health Services CONTACT Gordon Aird

ADDRESS 1100 Central S.E. PHONE 881-1447

ARCHITECT Stevens, Mallory, Pearl & Campbell CONTACT Don Stevens

ADDRESS 115 Amherst Drive, S.E. PHONE 255-8668

SURVEYOR D.T. Morrison Surveyor CONTACT D.T. Morrison

ADDRESS 1020 Texas, N.E. PHONE 256-7364

CONTRACTOR Klinger Construction CONTACT Tom Novak

ADDRESS 2400 Louisiana, N.E. PHONE 881-4961

PRE-DESIGN MEETING:

X YES
___ NO
X COPY OF CONFERENCE RECAP SHEET PROVIDED

RECEIVED JUL 27 1984 HYDROLOGY SECTION

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ SITE DEVELOPMENT PLAN APPROVAL
___ FINAL PLAT APPROVAL
___ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
X OTHER * (SPECIFY)

* Re-Plat to eliminate temporary drainage easement in accordance with Reversionary Language

DATE SUBMITTED: July 25, 2984

BY: Thornton D. Schwenk

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

HYDROLOGY SECTION PROJ. NO._____ DATE: 11/28/83

PLANNING DIVISION NO._____

CONFERENCE RECAP

SUBJECT: [redacted] Northside Professional (E17&18) Office Building

WHO	REPRESENTING
ATTENDANCE: Thornton Schwenk	
Robert Moraga	
Billy Goolsby	

FINDINGS: ① Update Master Plan for entire site showing Phase development.

② If demonstrated, ~~free disch~~ that downstream capacities will be constructed then free discharge will be allowed. For the interim, ponding is to be provided.

③ Drainage easements may be incorporated in ponding until pond is eliminated. Temporary fencing around pond required if depth is over 18". *

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED: Billy Goolsby SIGNED: Thornton A. Schwenk
SR. CIVIL ENGR.
TITLE: CE/Hydrology TITLE: BOYLE ENGINEERING CORP
DATE: 11/28/83 DATE: 11-28-83

* Coordination between City, State and developer should be entertained for the improvement to frontage road with particular attention to structure under detour.

DRAINAGE ANALYSIS

OF

DOWNSTREAM FACILTIES TO JUSTIFY FREE DISCHARGE

FROM THE

34-ACRE NORTH CAMPUS OF PRESBYTERIAN HOSPITAL

ALBUQUERQUE, NEW MEXICO

TRACT B-5, UNIT 5

ACADEMY ACRES SUBDIVISION

July 20, 1984

I. PURPOSE

The purpose of this report is to present information and calculations showing that downstream drainage facilities are capable of carrying the storm runoff without the need for on-site ponding on the 34-acre North Campus of Presbyterian Hospital.

II. SCOPE

This report is limited to an investigation of only those facilities downstream of a proposed 83-inch x 57-inch corrugated metal pipe (CMP) arch culvert to be installed west of the site and under the east Frontage Road of I-25. It does not include a detailed drainage analysis of the on-site facilities, but assumes that the site is fully developed without on-site ponding. Upstream areas which have been constructed since 1972 are presumed to meet the restrictions of applicable drainage ordinances and resolutions, beginning with AMAFCA Resolution 1972-2. It is also presumed that

the Pino Arroyo improvements downstream of and beneath I-25 are in place, since plans have been developed and funding has been allocated to construct those improvements.

III. LOCATION

As shown in Figure 1, the site is a 33.98-acre parcel located within the City of Albuquerque and defined as Tract B-5 of Unit 5, Academy Acres Subdivision, filed January 11, 1984, in Volume C23, Folio 1, of the records of the County Clerk of Bernalillo County, New Mexico. The parcel is bounded by Harper Drive on the south, State Road 422 (I-25 E. Frontage Road) on the west, Forest Hills Drive on the north, and Academy Acres Subdivision on the east, but excludes Tract A of the Academy Acres Subdivision. Dedicated 30-ft drainage easements traverse the parcel from east to west.

IV. EXISTING DRAINAGE CONDITIONS, NORTH CAMPUS

A. Approved Drainage Reports on Interior Parcels

Further details and discussions of drainage solutions for the first three developments on the 34-acre parcel can be found in the following public documents on file with the City Engineer's Office.

Reference 1, E18-D15a,b,c

Anne Pickard Convalescent Hospital (APCH) Drainge Study, Revision No. 5, dated January 29, 1982, prepared by Boyle Engineering Corporation. The Drainage Certification for

this 18.5-acre site was approved by the City Engineer's office on May 31, 1983.

Reference 2, E18-D29

North Satellite Hospital (NSH) Drainage Study, Revision No. 1, dated May 11, 1983, prepared by Boyle Engineering Corporation. The Drainage study for this 20.5-acre site was approved on May 23, 1983, but certification of the project awaits completion of construction in late 1984. This study area overlapped approximately 10.7 acres of the APCH study area.

Reference 3, E18-D29a

Northside Professional Office Building (NPOB) Drainage Report, Revision No. 1, dated May 30, 1984, prepared by Boyle Engineering Corporation. The Drainage Study for this 3.26-acre site was approved on July 3, 1984, and construction commenced immediately.

B. Topography and Soils

Slopes on the site are generally from east to west. The high point is approximately 5214 MSL at the east property line. The low point is at elevation 5181 at the west property line. The distance between these points is 1240 feet, giving an average slope of 2.66%.

Original vegetative cover before development consisted of a light growth of native grass and brush. The natural soils at the site consist of inter-bedded layers of silty sand and sandy clay, which are described in the SCS Soil Survey of Bernalillo County as a Combination of "EmB - Embudo: gravelly, fine sandy loam", and "EtC - Embudo-Tijeras Complex". The Hydrologic Soil Group for both soils is "B".

C. On-Site Drainage Conditions

A 73,700 cu.ft. detention pond was constructed originally for the Anne Pickard Convalescent Hospital as shown in Figure 2.

Calculated 100-year flows of 83 cfs from the subdivision to the east (Academy Acres Unit 3) would pass through the pond and over ~~over~~ spillway within the 30-ft easement due to the fact that the 24-in pond drain has a design capacity of only 12 cfs. This pond is being temporarily relocated to the Temporary Drainage Easement shown on Figure 3.

Runoff from the remainder of the site and controlled discharge from the detention pond presently enter the ditch east of the Frontage Road where they flow slowly northward to two existing 36-inch culvert pipes which drain under Interstate 25 at Station 329+90.

In the event of the 100-year storm, the ditch within the right-of-way and a small strip of land within the site (approximately 5 feet wide) lie in the Zone A Flood Boundary as shown on the Floodway Maps, Community Panel Numbers 350002 16 &

17 published on September 15, 1983, by the Federal Insurance Administration.

This condition results because the two 36-in RCP's do not have sufficient capacity to pass the calculated flows coming from the North Campus site and the overflow from th Pino Arroyo. During the 100-year storm the water level would rise to approximately 5182.6 (Ref. 1) and therefore flow across the existing Frontage Road, as shown on the floodway map, with a depth of several inches. The proposed drainage improvements are designed to mitigate this flooding problem.

Two permanent drainage easements cross the parcel as shown in the "Grant of Permanent and Temporary Drainage Easements within Parcels "B-1-A" & "B-2-A", Unit Five, Academy Acres Subdivision", filed with the County on October 26, 1983, in Volume C22, Folio 90.

D. Off-Site Drainage Facilities

As shown in Figure 1, two existing 36-inch culverts, crossing beneath the East Frontage Road and Interstate 25, drain the project site to the area between I-25 and the West Frontage Road. The Beta Channel passes the site to the south, carrying flows beneath I-25 and both frontage roads. Details of the Beta Channel drainage structures are tabulated below.

TABLE 1

BETA CHANNEL DRAINAGE STRUCTURES

Location	Type	Size[b]	Maximum Capacity[c]
I-25	CBC[a]	2-8'x4'	480 cfs
I-25	CBC	1-8'x8'	620 cfs
West Frontage Road	CBC	2-6'x6'	830 cfs

(a) Concrete Box Culvert
(b) Width x Height
(c) See Text

The maximum capacities were determined using "Hydraulic Engineering Circular No. 5," U.S. Department of Commerce, Bureau of Public Roads, and the maximum allowable headwater depths. The values found agree with those found by Bohannan-Huston in their October, 1982, report "Interstate 25 Frontage Roads Drainage Structure Analysis" (448, 648 and 852 cfs for the double 8'x4', 8'x8' and double 6'x6' culverts, respectively). Water-level versus discharge relationships (head-discharge) were developed in the same manner for each structure to be used later when routing the storm flows.

Although improvements are planned for the Beta Channel downstream of the existing double 6'x6' box culvert, the planning process has not been completed to the point where the improved channel can be considered as existing. Therefore, the existing earthlined channel was used in the analysis.

Six 36-inch RCP culverts carry Pino Arroyo flows beneath I-25. It was found in the "Interstate Industrial Tract Drainage Study

of Contributing Basins," by Bohannan-Huston (November, 1981), that these culverts were undersized, resulting in the diversion of 987 cfs, from the 100-year storm, south across the western edge of the project site into the Beta Channel. As a result, the capacities of the Beta structures would be exceeded during the 100-year storm and flooding would occur. However, the City of Albuquerque has approved plans and allocated funds for the improvement of the Pino Arroyo and the replacement of the six 36-inch culverts with an 8'x8' CBC. When these improvements are made, storm flows will no longer be diverted south to the Beta Channel. For the purposes of this report, the City Drainage Ordinance allows the Pino improvements to be considered installed which results in a substantial decrease in the storm flows approaching the 2-36 inch RCP culverts.

V. PROPOSED DRAINAGE CONDITIONS

A. Criteria

The computations, conclusions and recommendations contained in this report are based on criteria found in the City of Albuquerque Development Process Manual, Volume 2, Design Criteria.

B. Drainage for the Entire 34-acre Site

A brief historical summary of the drainage solutions for the various parcels within the 34-acre site is given as follows:

The present detention pond was required under then-current drainage policy (1981), which stated that the difference in runoff between the developed and the undeveloped site had to be detained. This policy was relaxed with the enactment of Ordinance No. 63-1982 on October 4, 1982. Under the new ordinance, ponding is not required if it can be demonstrated that downstream drainage structures have sufficient capacities to carry the increased flows.

With the enactment of this ordinance, Southwest Community Health Services (SCHS) and its Consulting Drainage Engineer proceeded with investigations which indicated that appropriate downstream structures could be built or improved to eliminate the flooding problem adjacent to the North Campus property. Such construction would then permit free discharge from the 34-acre site and permit the elimination of the combined APCH and NSH detention pond. Full and efficient land use would then be possible.

As development and construction continues on the remaining land, interim ponding will still be provided until construction of the improved downstream facilities is complete. These same findings were set forth in the initial planning conference with the City Engineer/Hydrology on November 28, 1983, and are included in the present report for reference.

Proceeding concurrently with the Presbyterian Hospital work, the New Mexico State Highway Department and their consultant, Bohannan-Huston, Inc., completed the detail design of Project

I-IR-025-4(66) 227, which included certain drainage improvements in the Frontage Road system. The Bohannan-Huston report entitled, "Interstate 25 Frontage Roads, Drainage Structure Analysis", dated October 7, 1982, included recommendations to either extend existing structures within the highway right-of-way or to replace them if they had insufficient capacity.

Plate I of the Bohannan report recommended that the two 36" x 443' RCP's at Station 320+90 be replaced by one 84" RCP. An alternate, and less-costly, scheme was to leave the two 36-inch culverts in place and add a new 54" RCP which would supplement the capacity at the east inlets. However, due to budgetary limitations, the NMSHD decided that replacement costs of the undersized structures should be borne by the affected property owners and developers. Consequently the Bohannan proposal was deleted from the final contract drawings prior to bid-letting for their project. Instead, as shown on these drawings, the two 36-inch RCP's are to be extended 12 feet to accommodate the increased width of the new Frontage Road.

The NMSHD agreed to permit construction of the 54-inch pipe. This would be done by the State's Contractor, but at SCHS expense. (Reference November 28, 1983 letter from Don Lepic, TSE, to Dan Buchly, See Figure No. 4). However, further analysis contained within the present report indicated that the recommended 54-inch culvert would not be sufficient to pass the flows and still maintain backwater at an acceptable elevation

for the site. Accordingly, an 83" x 57" CMP arch culvert was designed to supplement the capacity of the existing two 36" RCP culverts and limit the high water level to elevation 5183.10. The construction of this proposed improvement under the East Frontage Road was approved by the NMSHD District Office on May 2, 1984, for incorporation in Project I-IR-025-4(66) 227. (See Figure 5 and Sheets 1 & 2 of Job S14-100-51).

C. Hydraulic Routing Through Off-Site Structures

In order to determine the proper size of culvert to supplement the existing 36" RCP culverts under the Frontage Road, a hydrologic analysis was carried out using previously developed data.

Hydrologic characteristics and inflow hydrographs for the 100-year storm were taken from the "Interstate Industrial Tract Drainage Study of Contributing Basins", by Bohannan-Huston. They used a computer program known as HYMO which utilizes the Soil Conservation Service rainfall-runoff relationship. The curve numbers used in their study for the relationship were based on the anticipated ultimate development and did not consider the effects of on-site ponding or specific site drainage characteristics which could result in predicted discharge values higher than those actually experienced.

The inflow hydrograph to the 83"x57" CMP arch and the two 36" RCP culverts is based on developed North Campus site conditions and no on-site ponding. It includes the off-site flows from

the areas upstream of the site and all local flows from within the project area.

The 100-year storm flows were routed through the existing structures utilizing the Soil Conservation Service TR-20 computer program. The program can route the hydrographs described previously through a structure based on the head-discharge relationship. The effect of ponding upstream of the structure is incorporated by determining the water level versus storage volume for the ponding area. These relationships were taken from the same Bohannan-Huston report as the hydrographs, as were the maximum allowable water surface elevations. A schematic of the routing scheme is presented in Figure 6.

It can be seen that the unponded flows will pass from the project site through the two 36-inch culvets and the 83"x57" CMP arch culvert. The inflow hydrograph to these structures had to be routed by hand since the program cannot divide flows through two structures. The outflow hydrographs are shown in Figure 7.

Flows through the 83"x57" CMP arch enter a ponding area between the I-25 on-ramp and I-25, where they combine with the upstream Beta Channel flows and the local runoff, then pass through the 8'x8' CBC beneath I-25. The outflow hydrograph through this structure is shown in Figure 8. Flows leaving the 8'x8' CBC enter another ponding area between I-25 and the West Frontage Road. Here, flows from the two 36-inch culverts and local

runoff are added to the Beta Channel flows. The combined flows then pass through the two 6'x6' CBC's where they continue in the Beta Channel to the Pino Arroyo. Figure 9 shows the outflow hydrograph for the double 6'x6' CBC.

VI. RESULTS AND CONCLUSIONS

Does not address Pino Arroyo.

A. The routing of the flows through the 83"x57" CMP arch and the two 36" RCP culverts resulted in peak discharges of 207 cfs and 140 cfs, respectively (See Figure 7), with a time-to-peak of 0.1 hours and a high water level at elevation 5183.10 feet.

B. Routing of the flows through the 8'x8' CBC shows a maximum discharge of 532 cfs at 0.4 hours (See Figure 8) with a maximum water level at elevation 5177.4 feet. above The maximum culvert capacity of 620 cfs has not been exceeded. Similarly, for the double 6'x6' CBC the predicted peak flow was 580 cfs, (See Figure 9) which is also below the maximum capacity of 830 cfs. The time-to-peak was 0.5 hours with the maximum water level at elevation 5167.6.

C. It can be seen from the time-to-peak values that the flows from the North Campus site will be passing through the Beta structures approximately 0.3 hours before the peak Beta flows. ? As a result, the structure capacities are not exceeded by introducing unponded flows from the North Campus site.

D. Therefore, the proposed construction of the 83"x57" CMP arch will protect against on-site flooding due to storm-runoff,

without increasing the threat of damage to downstream properties.

VII. RECOMMENDATIONS

For the complete development of the 34-acre parcel to eliminate the major on-site ponding and permit free discharge:

A. Construct the new 83"x57" CMP culvert and the associated slope protection within the Frontage Road right-of-way in accordance with drawings approved on May 2, 1984, by the NMSHD.

B. Eliminate the temporary pond and regrade the north parcel.

C. Replat the 34-acre parcel in accordance with the reversionary language in the Plat for Temporary Drainage Easement.

Respectfully Submitted,

BOYLE ENGINEERING CORPORATION

Thornton D. Schwenk

REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
No. 4730
THORNTON D. SCHWENK

Thornton D. Schwenk, P.E.
Senior Civil Engineer

OFFICIAL NOTIFICATION OF DECISION

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
PLANNING DIVISION
P.O. Box 1293, Albuquerque, NM 87103

Date: October 24, 1983

Southwest Community Health Services
Presbyterian Hospital Center
Albuquerque, New Mexico 87102

NOTIFICATON OF DECISION

File No: Z-77-74-2
Location: Portion of parcel B-2A, Academy Acres, Unit 5, located at the northeast corner of the intersection of I-25 and Harper Drive N.E. containing approximately 14.49 acres.

On October 20, 1983 the Environmental Planning Commission approved the site development plan for the above-noted case subject to Development Review Board sign-off and the following findings:

1. Individual parking spaces must be delineated on the plan.

2. Areas where native landscaping is to be used should be differentiated from areas where no landscape development is to occur. Type of native landscape materials and maintenance provisions (if any) should be specified.

3. The applicant and City Staff should carefully consider using sod rather than intense native landscaping.

4. The two north/south connections between this site and the Anne Pickard Hospital must be completed as a part of this phase.

5. An overall conceptual plan should be provided showing how this phase will integrate with the future phase to the west.

IF YOU WISH TO APPEAL THIS DECISION, YOU MUST DO SO BY NOV. 4, 1983 IN THE MANNER DESCRIBED BELOW. A NON-REFUNDABLE FILING FEE OF $40 IS REQUIRED AT THE TIME THE APPEAL IS FILED.

Appeal to the City Council: Any person aggrieved with any determination of the Environmental Planning Commission acting under this ordinance may file an appeal to the City Council by submitting written application on the Planning Division form to the Planning Division within 15 days of the Planning Commission's decision. The date the determination in question is issued is not included in the 15-day period for filing an appeal, and if the fifteenth day falls on a Saturday, Sunday or holiday as listed in the Merit System Ordinance, the next working day is considered as the deadline for filing the appeal. The City Council may decline to hear the appeal if it finds that all City plans, policies and ordinances have been properly followed. If it decides that all City plans, policies and ordinances have not been properly followed, it shall hear the appeal. Such appeal, if heard, shall be heard within 60 days of its filing.

YOU WILL RECEIVE NOTIFICATION IF ANY OTHER PERSON FILES AN APPEAL. IF THERE IS NO APPEAL YOU CAN RECEIVE BUILDING PERMITS AT ANY TIME AFTER THE APPEAL DEADLINE QUOTED ABOVE, PROVIDED ALL CONDITIONS IMPOSED AT THE TIME OF APPROVAL HAVE BEEN MET. SUCCESSFUL APPLICANTS ARE REMINDED THAT OTHER REGULATIONS OF THE CITY MUST BE COMPLIED WITH, EVEN AFTER APPROVAL OF THE REFERENCED APPLICATION(S).

Sincerely,

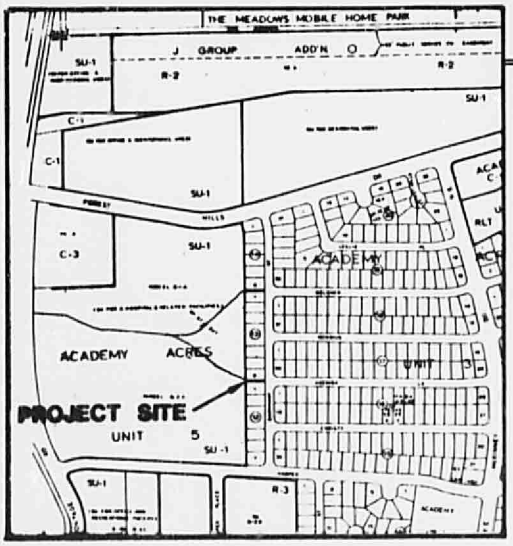
Deborah V. Hogan

Deborah V. Hogan,
Board Secretary

/dvh
cc: John P. Salazar, P.O. Box 1888; 87103

LETTER OF ADVICE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



VICINITY MAP

E-18

Jerry L.

REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
No. 4739
THORNTON D. SCHWENK

10-31-84

LEGAL DESCRIPTION:

TRACT B-5, UNIT 5,
ACADEMY ACRES SUBDIVISION
FILED 1-11-84, VOL. C23, FOLIO 1.

ELEVATION DATA:

A.C.S. Bench Mark: 10-E17 Located at the intersection of San Mateo Blvd. and the I-25 E. Frontage Rd., in the S.W. Quadrant of the intersection, A square chisled in the S.S.W. concrete curb return. Elev. 5192.29.

Site Bench Mark: Located at the N.E. corner of parcel B-5 along the S. curb of Forest Hills Dr., A square chisled in the concrete curb. Elev. 5213.62

NOTICE TO CONTRACTOR

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

2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with Public Works Contract No. 84-2.

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

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

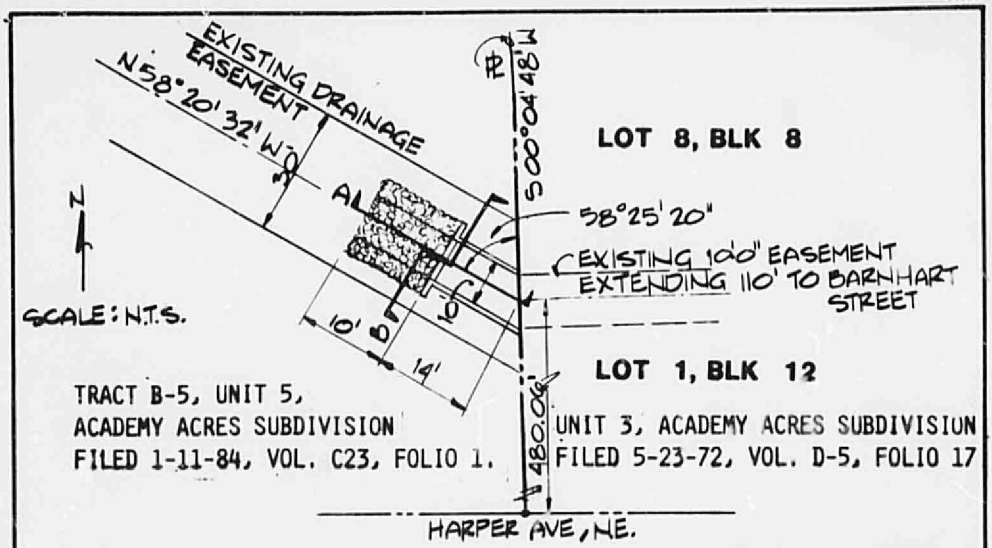
5. Backfill under the concrete spillway shall be compacted to 95% relative density.

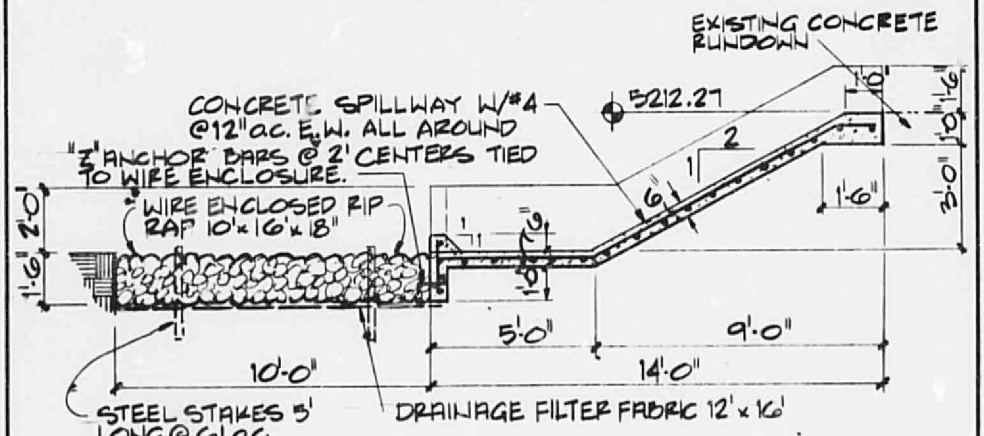
Kluger Const

D-178

CITY OF ALBUQUERQUE

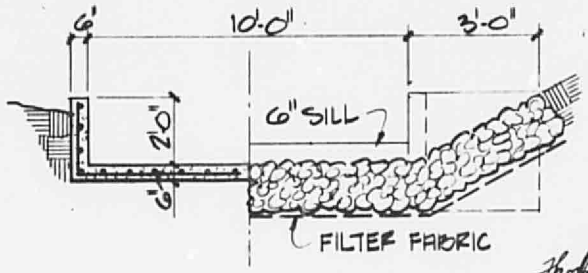
APPROVALS	ENGINEER	DATE	TITLE SPILLWAY FOR DRAINAGE RUNDOWN, NORTHSIDE PRESBY. HOSPITAL, 5901 HARPER DR., N.E.	
A.C.E. / DESIGN		11/07/84		
INSPECTOR	Thomas Cug	3-8-85	PERMIT NO. 16987	MAP
A.C.E. / FIELD		3-8-85	SHT. 1 OF 2	NO. E- 18





A

1/4"=1'-0"



B

1/4"=1'-0"

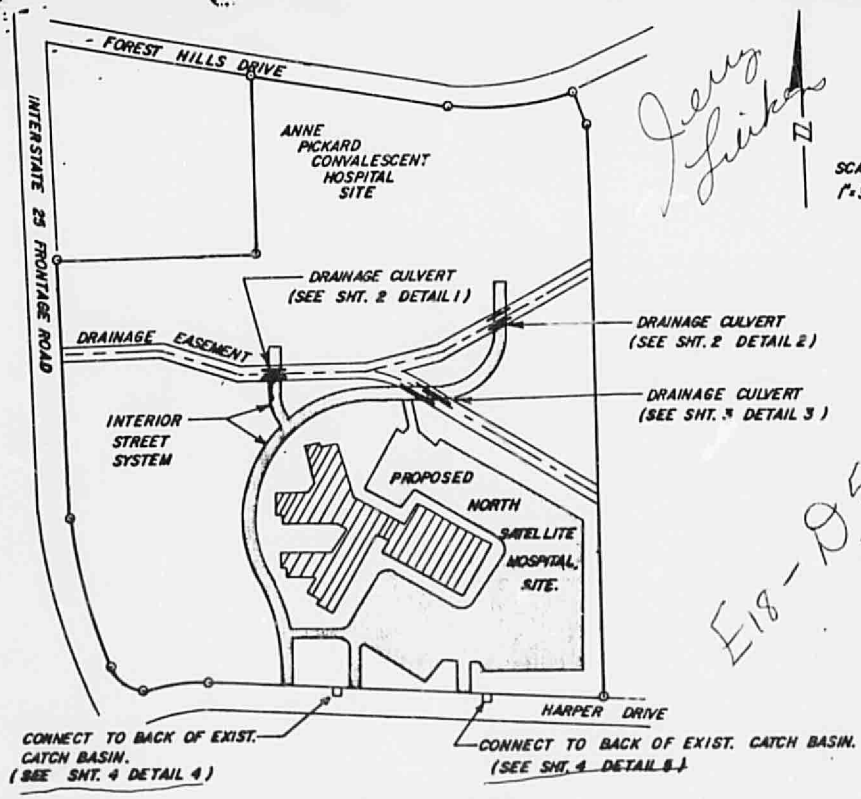
REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
No. 4739
THORNTON D. SCHWENK

D-178

10-31-84

CITY OF ALBUQUERQUE

APPROVALS	ENGINEER	DATE	TITLE SPILLWAY FOR DRAINAGE RUNDOWN, NORTHSIDE PRESBY. HOSPITAL, 5901 HARPER DR., N.E.	
A.C.E. / DESIGN		4/07/84		
INSPECTOR		3-8-85	PERMIT NO. SHT. 2 OF 2	MAP NO. E-18
A.C.E. / FIELD		3-8-85		



Jerry Lucas

E18-D50

VICINITY MAP

FRANK D. LOVELADY
NEW MEXICO
6512
May 17, 1983
PROFESSIONAL ENGINEER

BENCH MARK - CITY BENCH MARK 10-E17 LOCATED AT THE INTERSECTION OF SAN MATEO BLVD. AND EAST FRONTAGE ROAD OF I-25. IN THE SOUTHWEST QUADRANT OF THE INTERSECTION A SQUARE CHISELED IN A CONCRETE CURB AT THE SOUTH, SOUTHWEST CURB RETURN. ELEVATION = 5192.289'

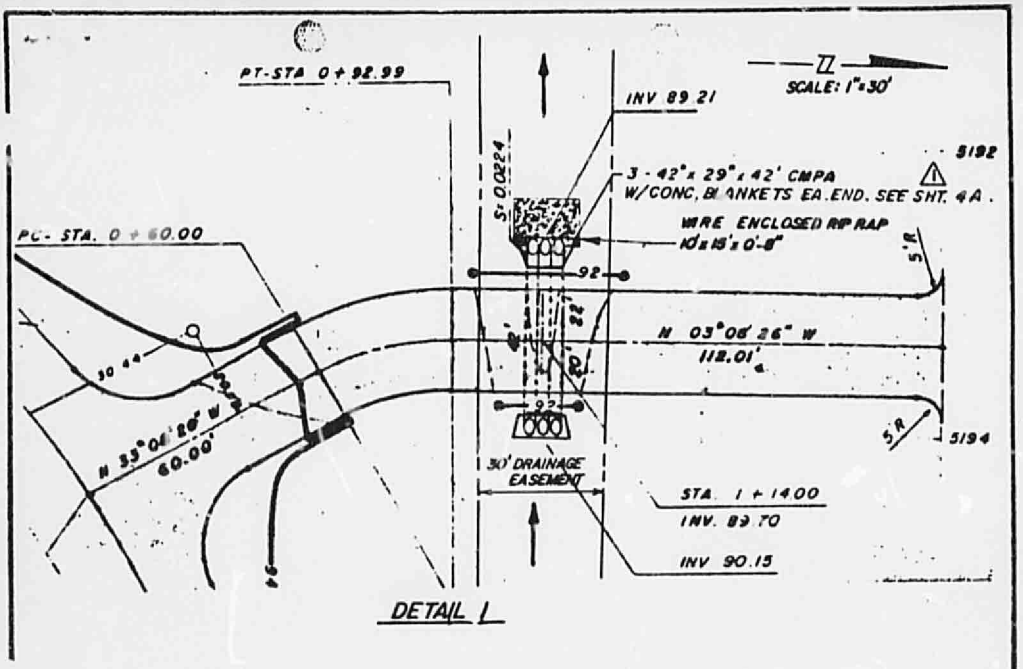
NOTICE TO CONTRACTOR

1. An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with "Contract Documents for City-Wide Utilities and Cash Paving No. 31".
3. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to Arterial street use.

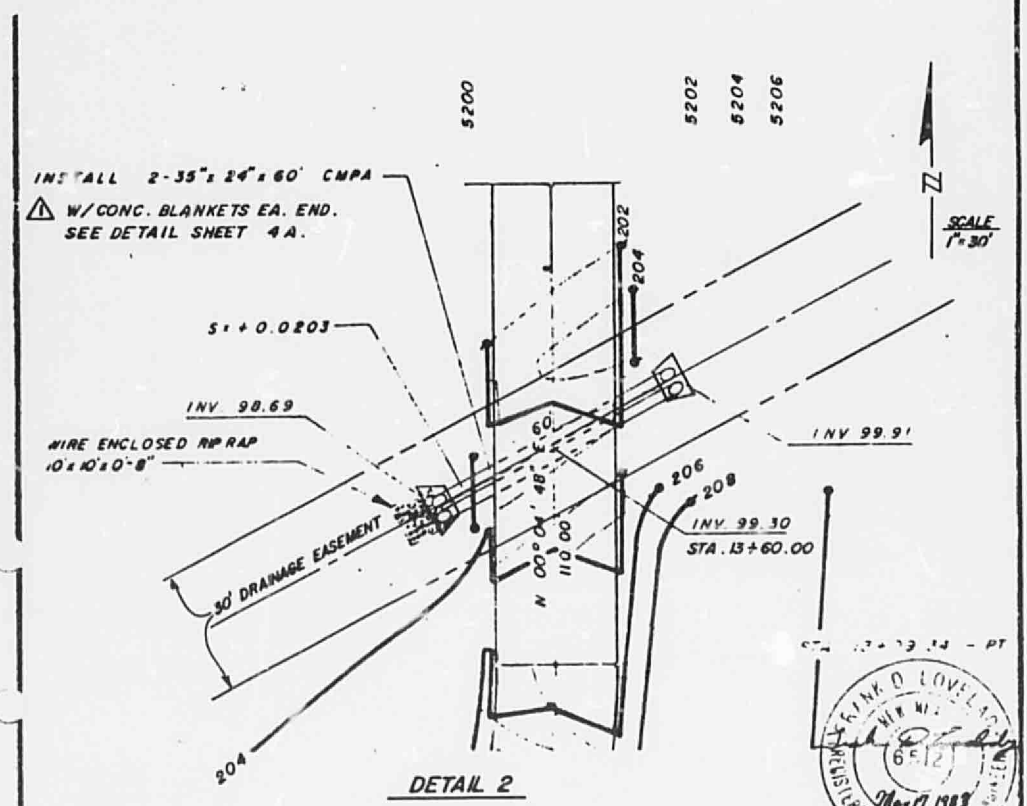
⚠ REV. 9-16-83 SHEET 4A ADDED. Klinger Const C-61

CITY OF ALBUQUERQUE

APPROVALS	ENGINEER	DATE	TITLE NORTH SATELLITE HOSPITAL VICINITY MAP & NOTICE TO CONTRACTOR	
A.C.E. / DESIGN		20 May 83		
INSPECTOR		3-8-85	PERMIT NO. 16987	MAP NO. E-18
A.C.E. / FIELD		3-8-85	SHEET NO. 1 of 4	



DETAIL 1



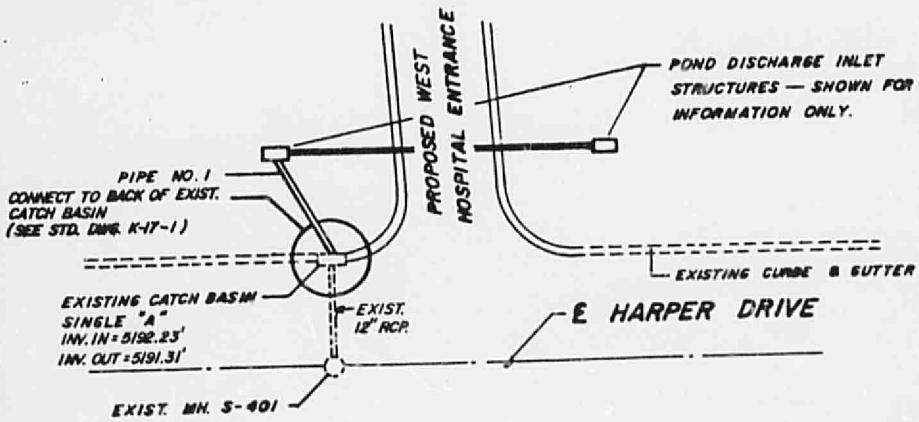
DETAIL 2

REV. 9-16-83 STEEL END SECTIONS REPLACED BY CONCRETE BLANKETS.

C-61

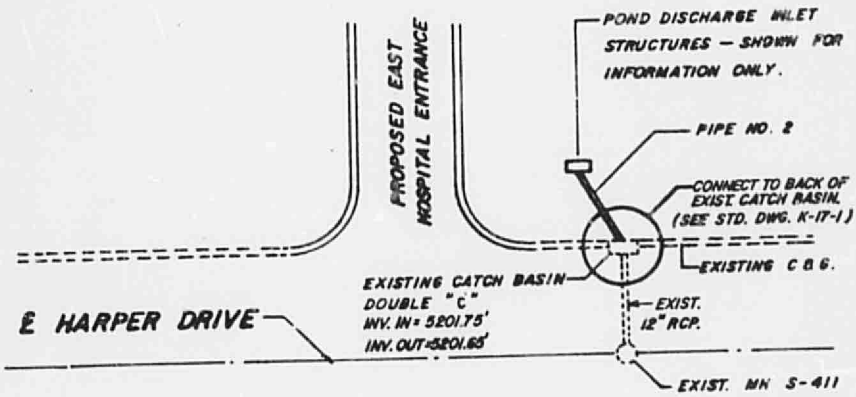
CITY OF ALBUQUERQUE

APPROVALS	ENGINEER	DATE	TITLE
A.C.E. / DESIGN	[illegible]	20 May 83	NORTH SATELLITE HOSPITAL CULVERT LAYOUTS WITHIN DEDICATED DRAINAGE EASEMENTS
INSPECTOR			PERMIT NO. / MAP NO. E-18
A.C.E. / FIELD	[illegible]	3/8/85	SHEET NO. 2 of 4



DETAIL 4 - CONNECTION TO EXIST. SINGLE "A" C.B.

N.T.S.



DETAIL 5 - CONNECTION TO EXIST. DOUBLE "C" C.B.

N.T.S.

FRANK O. LOVELADY
NEW MEXICO
6-12
REGISTERED PROFESSIONAL ENGINEER
May 17 1983

Frank O. Lovelady

PIPE DATA

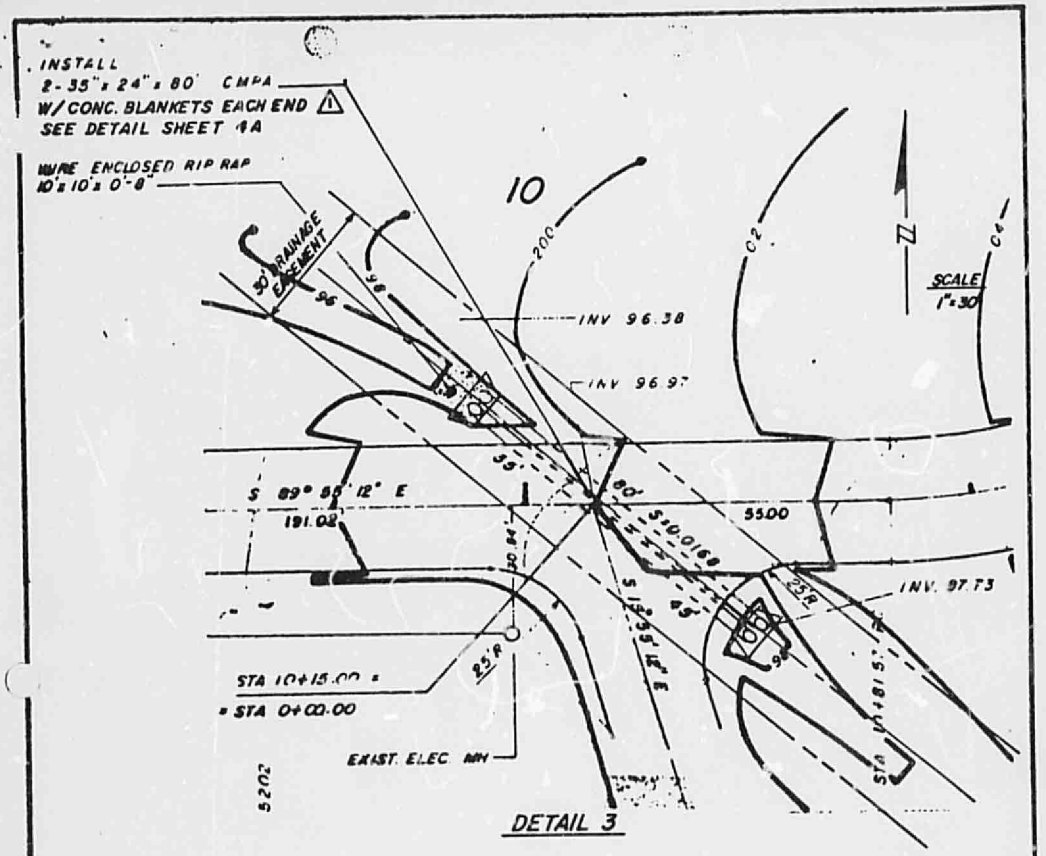
PIPE NO.	Ø	TYPE	LENGTH	INV. IN	INV OUT	SLOPE
1	12"	RCP	25'	5192.73	5192.23	0.02
2	12"	RCP	20'	5202.25	5201.75	0.025

C-61

CITY OF ALBUQUERQUE

APPROVALS	ENGINEER	DATE	TITLE NORTH SATELLITE HOSPITAL CONNECTION TO EXISTING CATCH BASINS IN HARPER DRIVE	
A.C.E. / DESIGN	[illegible]	20 May 83		
INSPECTOR	[illegible]	12/10/84	PERMIT NO.	MAP NO. E-18
A.C.E. / FIELD	[illegible]	3/8/85	SHEET NO. 4 of 4	

HYDROLOGY ○ E18/D5a 2 of 2 ○ 2 PLANS



FRANK D LOVELADY
NEW MEXICO
6512
REGISTERED PROFESSIONAL ENGINEER
May 17, 1983

⚠ REV. 9-16-83 STEEL END SECTIONS REPLACED BY CONCRETE BLANKETS

C-61

CITY OF ALBUQUERQUE

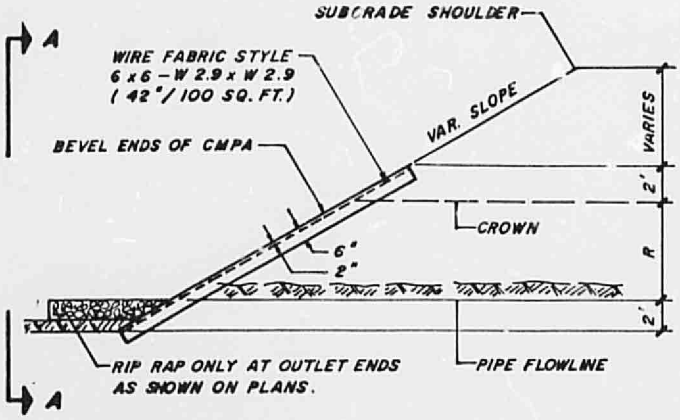
APPROVALS	ENGINEER	DATE
A.C.E. / DESIGN	J. Kelch	20 May 83
INSPECTOR		
A.C.E. / FIELD	W. F. McNamara	3/4/85

TITLE
NORTH SATELLITE HOSPITAL
CULVERT LAYOUTS WITHIN DEDICATED DRAINAGE EASEMENTS

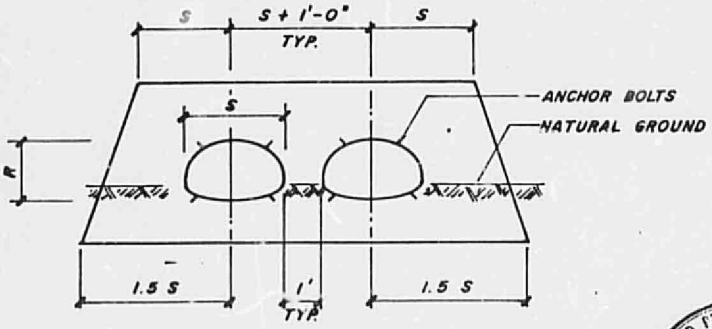
PERMIT NO.

SHEET NO. 3 of 4

MAP NO. E-18



CROSS SECTION THRU SLOPE



MULTIPLE CMPA INSTALLATION
SECTION A - A

NO SCALE

REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
No. 4739
THORNTON D. SCHWERK

GENERAL NOTE :

1. ANCHOR BOLTS SHALL BE 3/4"Ø x 6" GALV. HEX WITH DOUBLE NUTS. BOLTS SHALL BE SET AT APPROXIMATELY 2' CENTERS AROUND THE PERIMETER OF THE PIPE AT THE ℄ OF THE BLANKET AND SHALL BE BENT SO AS TO MAINTAIN THIS POSITION. ANCHOR BOLTS WILL BE CONSIDERED INCIDENTAL TO THE COMPLETION OF THE WORK AND NO MEASUREMENT OR PAYMENT WILL BE MADE THEREFOR.

⚠ REV. 9 - 16 - 83 STEEL END SECTIONS REPLACED WITH CONCRETE BLANKETS.

REF. NMSHD SERIAL DWG. BPB - 001 - 02

CITY OF ALBUQUERQUE

APPROVALS	ENGINEER	DATE	TITLE NORTH SATELLITE HOSPITAL
A.C.E. / DESIGN	J. Kielich	21 Sep 83	CONCRETE BLANKETS FOR EROSION CONTROL AT CULVERT INLETS & OUTLETS
INSPECTOR			PERMIT NO. / SHEET NO. 4A OF 5 / MAP NO. E-18
A.C.E. / FIELD	W. J. McNamara	3/8/85	

DRAINAGE INFORMATION SHEET

E18/D5A

PROJECT TITLE: Northside Presbyterian Hospital (North Satellite Hospital) ZONE ATLAS/DRNG. FILE #: E18-D29

LEGAL DESCRIPTION: Tract B-5, Unit 5, Academy Acres Subdivision, filed 1-11-84 Vol.C3,Folio 2.

CITY ADDRESS: 5901 Harper Dr., NE

ENGINEERING FIRM: Boyle Engineering Corporation CONTACT: Thornton D. Schwenk

ADDRESS: 3939-D San Pedro, N.E. PHONE: 883-7700

OWNER: Southwest Community Health Services CONTACT: Gordon Aird

ADDRESS: 5901 Harper Dr., NE PHONE: 823-8500

ARCHITECT: Stevens,Mallory,Pearl & Campbell CONTACT: Chris Willadsen

ADDRESS: 115 Amherst Dr. SE PHONE: 255-8668

SURVEYOR: Albuquerque Survey Company CONTACT: Fred Sanchez

ADDRESS: 2119 Menaul Blvd, NE PHONE: 884-2036

CONTRACTOR: Klinger Construction CONTACT: Tom Novak

ADDRESS: 2400 Louisiana, NE PHONE: 881-4961

PRE-DESIGN MEETING:

____ YES

_x_ NO

____ COPY OF CONFERENCE RECORD SHEET PROVIDED

RECEIVED MAR 25 1985 HYDROLOGY SECTION

DRB NO. _____

EPC NO. Z-77-74-2

PROJ. NO. _____

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT

____ DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAINAGE PLAN

____ GRADING PLAN

____ EROSION CONTROL PLAN

_X_ ENGINEER'S CERTIFICATION

RE-SUBMITTAL

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL

____ PRELIMINARY PLAT APPROVAL

____ SITE DEVELOPMENT PLAN APPROVAL

____ FINAL PLAT APPROVAL

____ BUILDING PERMIT APPROVAL

____ FOUNDATION PERMIT APPROVAL

_X_ CERTIFICATE OF OCCUPANCY APPROVAL

____ ROUGH GRADING PERMIT APPROVAL

____ GRADING/PAVING PERMIT APPROVAL

____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 3-22-85

BY: Thornton D. Schwenk

1973