PLANS/PLATS ON FILE

FILE DESC: E-17/0017

PLANS/PLATS 13

ENGINEERS ARCHITECTS PHOTOGRAMMETRISTS

BOHANNAN-HUSTON INC.

COURTYARD I, 7500 JEFFERSON STREET, N.E. ALBUQUERQUE, NEW MEXICO 87109 (505) 823-1000
UNIVERSITY PLAZA, SUITE 104, 330 GARFIELD SANTA FE, NEW MEXICO 87501 (505) 988-7671
6713 VISCOUNT BLVD. EL PASO, TEXAS 79925 (915) 778-4491

RECEIVED
MAY 12 1988
HYDROLOGY SECTION

May 10, 1988

Mr. Roger Green
City Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Arroyo Treatment at Olive Garden Restaurant

Dear Mr. Green:

In accordance with your letter on April 27, 1988, enclosed is a copy of the 28 Day Compressive Strength Test results for the soil cement.

If you have any questions or comments, please do not hesitate to call.

Sincerely,

William L. Vreeke

William L. Vreeke, P.E.
Construction Manager

Enclosure

WLV/br
Job No. 88181.00

PRINCIPALS
LARRY W. HUSTON
MICHAL M. EMERY, P.E.
DANA C. WOOD, P.E.
ANDRES ARAGON-VIAMONTE
DARRELL L. WADE, P.E.
JAMES V. DOMENICK, P.E.
BRIAN G. BURNETT, P.E.

WESTERN TECHNOLOGIES INC.
8305 Washington Place, N.E.
Albuquerque, New Mexico 87113
(505) 823-4488

LABORATORY REPORT

COMPRESSIVE STRENGTH TESTS ON SOIL CRETE

RECEIVED BY MAY 2 1988

Client: Trammell Crow Company
P O Box 25346
Albuquerque, New Mexico 87125

Job. No.
Lab./Invoice No. 32480234
Date of Report 4-11-88

Project: Bear Canyon Arroyo
Location: San Mateo & Bear Canyon Arroyo
Contractor: -
Architect/Engineer: -/-
Source of Sample: Spillway lining
Material Supplier: -
Measured Slump, in.: -
Ticket Number: -
Measured Air Content, %: -
Batch Size cu. yds.: -
Ambient Air Temperature, °F: -
Mix Identification: -
No. of Specimens Molded: 6
Design Strength, psi: 700 / 7 days
Size of Specimens: 4 x 4
Max. Size Aggregate, in.: sand
Sampled By: P.May/WT Date: 3-30-88
Time in Mixer: - hrs. - min.
Submitted By: P.May/WT Date: 3-30-88
Water Added on Job, gal.: -
Authorized By: Client/B.Vreske Date: 3-30-88
Test Procedure
Remarks:

Specimen Marking If Any	Date Tested	Specimen Age in Days	Compressive Strength Maximum Load		Type Fracture If Other Than Cone	UNIT WEIGHT	Tested By
			Pounds Force	psi			
	4-06-88	7	9,900	790		116.2	A.C.
	4-06-88	7	11,050	880		116.4	A.C.
	4-06-88	7*	9,550	760		116.0	K.H.
	4-27-88	28	16,700	1330		118.0	K.H.
	4-27-88	28	16,200	1290		116.1	K.H.
	4-27-88	28	18,000	1430		116.2	K.H.

Copies to 3-Client
1-Bohannan-Huston

*average seven day break 810

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR	CHIEF ADMINISTRATIVE OFFICER	DEPUTY CAO PUBLIC SERVICES	DEPUTY CAO PLANNING/DEVELOPMENT
KEN SCHULTZ	GENE ROMO	FRANK MARTINEZ	BILL MUELLER

April 27, 1988

William L. Vreeke, P.E.
Bohannan-Huston, Inc.
7500 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: ENGINEER'S CERTIFICATION OF ARROYO TREATMENT AT OLIVE GARDEN RESTAURANT, RECEIVED APRIL 18, 1988 FOR CERTIFICATE OF OCCUPANCY APPROVAL (E-17/D~~16~~17)

Dear Mr. Vreeke:

The above referenced submittal dated April 14, 1988 is acceptable as certification that the soil cement treatment meets plans and specifications. Please forward a copy of the 28 day compressive strength break results of the soil cement, when available.

The Encroachment Agreement making Trammell Crow Company responsible for maintenance of the soil cement treatment has been recorded with the County Clerk and will be terminated after permanent arroyo treatment is in place.

If there are any further questions, call me at 768-2650.

Cordially,

Roger A. Green PE

Roger A. Green, P.E.
C.E./Hydrology Section

xc: Paul Silverman, Trammell Crow
Gary Wright, General Mills

RAG/bsj

ENGINEERS ARCHITECTS PHOTOGRAMMETRIST

BOHANNAN-HUSTON INC.

COURTYARD I, 7500 JEFFERSON STREET, N.E. ALBUQUERQUE, NEW MEXICO 87109 (505) 823-1000

April 14, 1988

RECEIVED
APR 18 1988
HYDROLOGY SECTION

Mr. Roger Green
City Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Arroyo Treatment of Olive Garden Restaurant

Dear Mr. Green:

The soil cement arroyo bank treatment for the above referenced project has been constructed according to plans and specifications. This letter is in response to the items required for approval as listed in your letter to Dan Grochowski on March 25, 1988:

1. A final inspection for the arroyo improvements was not scheduled, however, I hope that you will visit the site at your earliest convenience and call me if you have any comments or questions.

2. The Certification of Substantial Compliance is enclosed.

3. A copy of the compaction test results for the subbase is enclosed.

4. A copy of the compaction test results for the soil cement is enclosed.

5. A copy of the excavation permit is enclosed.

All the requirements for final approval have been addressed. Please accept the project for Certificate of Occupancy approval. If you have any questions, please do not hesitate to call me.

Sincerely,

Albert M. Thu

for WILLIAM L. VREEKE, P.E.
Construction Manager

AMT/dam

Enclosures

cc: Pat Wylie
Mark Mullane

Job No. 88181.01

PRINCIPALS
LARRY W. HUSTON
MICHIAL M. EMERY, P.E.
ANDRES ARAGON-VIAMONTE
BRIAN G. BURNETT, P.E.

DRAINAGE INFORMATION SHEET

PROJECT TITLE: ARROYO TREATMENT OF OLIVE GARDEN RESTAURANT ZONE ATLAS/DRNG. FILE #: E-17-Z

LEGAL DESCRIPTION: PORTION OF TRACT A-1-A TRIANGLE REALTY, INCORPORATED

CITY ADDRESS: _____

ENGINEERING FIRM: BOHANNAN-HUSTON INC. CONTACT: WILLIAM L. VREEKE

ADDRESS: 7500 JEFFERSON NE PHONE: 823-1000

OWNER: TRAMELL CROW COMPANY CONTACT: MARK MULLANE

ADDRESS: 40 FIRST PLAZA PHONE: 843-7525

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: SPARLING CONSTRUCTION CO. CONTACT: PAT WYLIE

ADDRESS: _____ PHONE: 821-1034

RECEIVED
APR 18 1988
HYDROLOGY SECTION

PRE-DESIGN MEETING:

___ YES

___ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____

EPC NO. _____

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: _____

BY: Albert M. Shu FOR WILLIAM L. VREEKE

CERTIFICATE OF SUBSTANTIAL COMPLIANCE

I, William L. Vreeke of the firm of Bohannan-Huston, Inc.

a Registered Professional Engineer in the State of New Mexico, and Project Engineer for the construction of the following facilities:

Arroyo Treatment, of Olive Garden Restaurant

Project No.: N/A Sheets 1 of 1

Including:

- [X] Storm Drainage
- [ ] Sanitary Sewer
- [ ] Water
- [ ] Curb and Gutter
- [ ] Paving

as constructed by Sparling Construction Company of Albuquerque, New Mexico under contract to Trammell Crow Company of Albuquerque, New Mexico

The Developer; do hereby certify that the facilities noted above have been inspected by me or under my direct supervision and have been constructed in substantial compliance with the City of Albuquerque Public Works Contract No. _____ contract documents and the construction drawings noted above to the best of my knowledge and belief.

WILLIAM L. VREEKE NEW MEXICO 8131 4/14/78 REGISTERED PROFESSIONAL ENGINEER

SEAL

Respectfully Submitted,

William L. Vreeke 4/14/78

Signature date

Attachments:

- [ ] Potability Tests
- [X] Test Reports
- [ ] As Built Drawings
- [X] Inspection Reports
- [ ] Final Estimate
- [ ] Manhole Data Sheets
- [ ] Valve Data Sheets

Work Order Date: _____

FINAL INSPECTION DATE: _____

WESTERN TECHNOLOGIES INC.
8305 Washington Place, N.E.
Albuquerque, New Mexico 87113
(505) 823-4488

LABORATORY REPORT

PHYSICAL PROPERTIES OF SOILS

Client: Trammell Crow Company
P.O. Box 25346
Albuquerque, NM 87125

RECEIVED APR 18 1988 HYDROLOGY SECTION

Job No.
Lab/Invoice No. 32480234
Date of Report 4-5-88
Reviewed By

Project: Bear Canyon Arroyo
Location: Albuquerque, NM — Sampled By: Bill Roberts/WT — Date: 3-29-88
Type of Material: Silty Sand — Submitted By: Bill Roberts/WT — Date: 3-29-88
Source of Material: 140' W. of run down — Authorized By: Bill Vreeke/Bohannan-Huston — Date: 3-29-88

Sieve Analysis, ASTM D422-

Sieve Size	% Passing Accumulative	Specification
3"		
2½"		
2"		100
1½"		
1"		
¾"		
½"		
⅜"		
¼"		
No. 4	100	55-85
8	69	
10	63	35-95
16	43	
30	26	
40	21	
50	18	
100	13	
200	8.2	5-25
Finer than 200 ASTM D1140-		

Soil Classification

Liquid Limit and Plasticity of Soils — Not Determined — LL = ____ PI = NP
ASTM D4318-

Moisture - Density Relations — Maximum Dry Density, pcf: 122.1 — Optimum Moisture, %: 5.1
☐ ASTM D698- ; ☒ ASTM D1557-78 ; Method A

Specific Gravity of Soils (minus No. 4 material)
ASTM D854- — Specific Gravity ____

Resistance 'R' Value of Compacted Soils
ASTM D2844- — 'R' Value ____

Other:

Copies to: 3-Client

WESTERN TECHNOLOGIES INC.
8305 Washington Place, N.E.
Albuquerque, New Mexico 87113
(505) 823-4488

LABORATORY REPORT

SOIL/AGGREGATE FIELD DENSITY TESTS

Client: Trammell Crow Company
P.O. Box 25346
Albuquerque, NM 87125

Job No.
Lab/Invoice No. 32480234
Date 4-6-88
Reviewed By D.C. Kyle

Project: Bear Canyon Arroyo
Location: Albuquerque, NM
Type of Material: Silty Sand/Soil Crete
Authorized By: Bill Vreeke/Bohannan-Huston
Date: 3-30-88
Source of Material: Native/Import
Tested/Calc. By: May/WT
Moisture/Density Relationship: ASTM D-1557 -78 Meth. A
Test Locations Designated By: Client

Test No.	Date	Location of Test Hole	Elevation of Test Datum †
1	3-30-88	30' W. of E. run down S. of Olive Garden Resturant	100'
2	3-30-88	Soil Crete 30' W. of E. run down S. of Olive Garden Resturant W. end	100' *
3	3-30-88	Soil Crete 30' W. of E. run down S. of Olive Garden Resturant E. end	100' *

Test No.	Moisture Density Lab No.	Optimum Moisture %	Max. Dry Density pcf	In-Place Characteristics Moisture %	In-Place Characteristics Dry Density pcf	Relative Compaction %	Within Specs. †	Comments *
1		5.1	122.1	8.8	121.8	100	Yes	1-10-15
2		5.1	122.1	9.8	115.5	95	Yes	1-10-15
3		5.1	122.1	8.0	115.5	95	Yes	1-10-15

* Comments
1. Subgrade
2. Subbase Fill
3. Base Course
4. Backfill
5. Pavement Area
6. Below Footing Bottom
7. Above Footing Bottom
8. 100% min. req'd.
9. 98% min. req'd.
10. 95% min. req'd.
11. 90% min. req'd.
12. 85% min. req'd.
13. _____
14. Tested D-1556/AASHTO T-217
15. Tested ASTM D-2922/D-3017
16. Tested ASTM D-2922/AASHTO T-217
17. Rock correction applied to maximum dry density. AASHTO T-224 *
18. Other _____
19. Test Locations on Accompanying Site Plan
20. Specifications Unknown

† Datum 100'=finish subgrade
100'-finish surface

Note: Tests reported herein are not part of a continuous monitoring program of compaction operations and accordingly apply only to the actual location tested.

Copies to: 3-Client
1-Sparling Construction-Pat Wylie

WESTERN TECHNOLOGIES INC.
8305 Washington Place, N.E.
Albuquerque, New Mexico 87113
(505) 823-4488

LABORATORY REPORT

COMPRESSIVE STRENGTH TESTS ON SOIL CRETE

Client: Trammell Crow Company
P O Box 25346
Albuquerque, New Mexico 87125

Job. No.
Lab./Invoice No. 32480234
Date of Report 4-11-88

Project: Bear Canyon Arroyo
Location: San Mateo & Bear Canyon Arroyo
Contractor: -
Architect/Engineer: -/-
Source of Sample: Spillway lining
Material Supplier: -
Measured Slump, in.: -
Ticket Number: -
Measured Air Content, %: -
Batch Size cu. yds.: -
Ambient Air Temperature, °F: -
Mix Identification: -
No. of Specimens Molded: 6
Design Strength, psi: 700 / 7 days
Size of Specimens: 4 x 4
Max. Size Aggregate, in.: sand
Sampled By: P.May/WT Date 3-30-88
Time in Mixer: - hrs. - min.
Submitted By: P.May/WT Date 3-30-88
Water Added on Job, gal.: -
Authorized By: Client/B.Vreeke Date 3-30-88
Test Procedure
Remarks:

Specimen Marking If Any	Date Tested	Specimen Age in Days	Compressive Strength Maximum Load		Type Fracture If Other Than Cone	UNIT WEIGHT	Tested By
			Pounds Force	psi			
	4-06-88	7	9,900	790		116.2	A.C.
	4-06-88	7	11,050	880		116.4	A.C.
	4-06-88	7*	9,550	760		116.0	K.H.
	4-27-88	28					
	4-27-88	28					
	4-27-88	28					

Copies to 3-Client

*average seven day break 810

D.C. Smith

BOHANNAN-HUSTON, INC.
COURTYARD I
7500 JEFFERSON, NE
ALBUQUERQUE, NM 87109
823-1000

RECEIVED
APR 1 8 1989
HYDROLOGY SECTION

TO

DATE MARCH 27 1989	JOB NO. E8191.01
PROJECT SOIL CEMENT FOR OLIVE GARDEN RESTAURANT	
LOCATION	
CONTRACTOR SPARLING.	OWNER
WEATHER GOOD	TEMP. °at AM °at AM
PRESENT SITE	

THE FOLLOWING WAS NOTED:

Surveyors staked the area to be soil cemented and put cut/fill stakes for the grades.

COPIES TO

FIELD REPORT

SIGNED

BOHANNAN–HUSTON, INC.
COURTYARD I
7500 JEFFERSON, NE
ALBUQUERQUE, NM 87109
823-1000

TO

DATE MARCH 30, 1998	JOB NO. 89181.01
PROJECT SOIL CEMENT FOR OLIVE GARDEN RESTAURANT	
LOCATION	
CONTRACTOR SPARLING	OWNER
WEATHER GOOD	TEMP. °at AM °at AM
PRESENT SITE EQUIPMENT FRONT END LOADER	
WATER TRUCK	
BLADE	WALK BEHIND STEEL WHEEL VIBRATORY ROLLER

THE FOLLOWING WAS NOTED:

The subgrade was prepared according to the grade stakes and compacted with the front end loader. The technician from Western Tech took density test for the area. The soil cement was hauled onto the site with dump trucks and placed on the slope with the loader. The blade and loader shaped the slopes and it was then rolled with the walk behind steel-wheel vibratory roller. The technician from Western Tech took density tests and also took samples of the soil cement for compressive strength tests. Black plastic was placed over the slope and should be left on for seven (7) days to allow the cement to cure. A dike was built around the base of the slope to prevent runoff from damaging the soil cement. Bill Vocke & Dan Grochowski came by the site for a while to watch the construction.

COPIES TO

FIELD REPORT

SIGNED [illegible]

BOHANNAN–HUSTON, INC.
COURTYARD I
7500 JEFFERSON, NE
ALBUQUERQUE, NM 87109
823-1000

DATE APRIL 5, 1988	JOB NO. 89191.01
PROJECT SOIL CEMENT FOR CLINE UNION RESTAURANT	
LOCATION	
CONTRACTOR SPARLING	OWNER
WEATHER GOOD	TEMP. °at AM °at AM
PRESENT SITE EQUIPMENT FRONT END LOADER	

TO

THE FOLLOWING WAS NOTED:

The plastic was removed from the lower portion of the slope and backfill was placed against it and compacted with the front end loader. The floor of the arroyo was shaped to more or less resemble existing ground prior to construction.

COPIES TO

FIELD REPORT

SIGNED

CITY OF ALBUQUERQUE
BARRICADE PERMIT

RECEIVED
APR 18 1988
HYDROLOGY SECTION

ZONE ATLAS

PERMIT ISSUE DATE 3/29/88

BARRICADE PERMIT NUMBER 882505
BLUE STAKE 002729
WORK ORDER

SITE
INTRSC. ACADEMY BD NE
SAN MATEO BD NE

CONTRACTOR SPARLING CONST.
DETOUR PLAN N
DETOUR PLAN COMMENTS
BARRICADED BY WL1

	VALID FROM	VALID TO	EXTENSION
DATE	3/29/88	4/9/88	//

TIME FROM 9 AM TO 4 PM

PERMIT COMMENTS

INSTALLING DRAIN INLET SPECIAL ORDER #19 OK BY RODGER GREEN

PERMIT HOLDER MUST CONFORM TO ALL APPLICABLE CITY REGULATIONS/ORDINANCES. PLEASE CALL 768-2780 OR 768-2552 FOR ORDINANCE INFORMATION IF DESIRED. ALL EXCAVATIONS MUST BE PATCHED OR PLATED PRIOR TO OPENING TO TRAFFIC. PERMIT IS GRANTED IN CONSIDERATION OF THE PERMITTEE ASSUMING ALL LIABILITY, DEFENDING, AND HOLDING THE CITY HARMLESS FOR CLAIMS FOR DAMAGES OR INJURY TO PERSONS OR PROPERTY RESULTING FROM PERMITTEE'S BARRICADE WORK.

PWC001 REV. 10/86

ISSUED BY

PERMIT FOR EXCAVATION AND CONSTRUCTION, CITY OF ALBUQUERQUE

EXCAVATION PERMIT NUMBER 43481
PERMIT ISSUE DATE 3/29/88
PAVING BY CON

BARRICADE PERMIT 882505
BLUE STAKE 002729
PROJECT NUMBER

INTRSC. ACADEMY BD NE
SAN MATEO BD NE

CONTRACTOR SPARLING CONST.
LICENSE GA-03
ADDRESS P.O. BOX 430
ALBUQUERQUE, NEW MEXICO 07103
PHONE #345-5379

START DATE	COMPLETION DATE	EXPIRATION DATES	PERMIT	INSURANCE	BOND
3/29/88	4/29/88		4/9/88	9/8/88	10/15/88

PERMIT COMMENTS

INSTALLING DRAIN INLET SPECIAL ORDER #19 OK BY RODGER GREEN

Paul Parker
APPLICANT

ISSUED BY

CR 443008-5865000
CR 443008-5865000
CR 461601-8233000

CONSTRUCTION FEE	0.00
EXCAVATION FEE	26.00
RESTORATION FEE	0.00
TOTAL FEE	26.00

Permit is granted in consideration of the permittee assuming all liability, defending, and holding the City harmless for claims for damages or injury to persons or property resulting from permittee's excavation work. Permit is approved for work described above in accordance with articles 8-5 and 8-7 R.O.A. 1974. Please call 768-2552 if additional information necessary.

880329 0198 4430085865000 000043481

VOID UNTIL VALIDATED BY CITY TREASURER

CAUTION: PROTECT UNDERGROUND UTILITIES
CALL 765-1234, 48 HOURS IN ADVANCE FOR LINE STAKING

88C0823

88 0464

357

REAL PROPERTY ENCROACHMENT AGREEMENT
AND COVENANTS UPON REAL ESTATE

This Agreement, between the City of Albuquerque, New Mexico ("City") and CROW-SAN MATEO, LTD., a New Mexico limited partnership by Crow General, a Texas limited partnership, its General Partner ("User") is made in Albuquerque, New Mexico and is entered into as of the date of filing this Agreement with the City Clerk.

1. Recital. The User is the owner of certain real property (User's Property") located at Bear Arroyo & I-25, in Albuquerque, New Mexico, and more particularly described as:
Legal Description:
Tract A-1-A of the
Subdivision Plat Map for Tracts A-1-A and A-1-B
Triangle Realty, Inc.

Recorded in Book C32, at pages 76, of the records of the County of Bernalillo, State of New Mexico.

The City is the owner of certain real property, easement or public right-of-way ("City's Property") adjoining, abutting or within User's Property. The User wishes to encroach upon, or already has encroached upon, the City's Property by constructing the following "Improvement":

SOIL CEMENT EMBANKMENT SLOPE PROTECTION

A sketch of the proposed or existing Improvement is attached and made a part of this Agreement.

The City agrees to permit the encroachment of the Improvement on the City's Property, provided the User complies with the terms of this Agreement.

2. City Use of City's Property and City Liability. The City has the right to enter upon the City's Property at any time and perform whatever inspection, installation, maintenance, repair, modification or removal ("Work") it deems appropriate without liability to the User. If the Work affects the Improvement, the City will not be financially or otherwise responsible for rebuilding or repairing the Improvement. The User promptly will repair the Improvement to the City's satisfaction. The cost of repairing the Improvement will be paid by User.

STATE OF NEW MEXICO
COUNTY OF BERNALILLO
FILED FOR RECORD

98 APR -6 AM 10: 29
BK M516016 PG 357-361
GLADYS M. DAVIS
CO. CLERK & RECORDER
DEPUTY

0136P

5-8-87

3. User's Responsibility for Improvement. The User will be solely responsible for constructing, maintaining, repairing and, if required, removing the Improvement, all in accordance with standards required by the City. The User will be solely responsible for paying all related costs. The User will not permit the Improvement to constitute a hazard to the health or safety of the general public or to interfere with the City's use of the City's Property. The User will conform with all applicable laws, ordinances and regulations.

4. Demand for Repair, Modification or Removal. The City may send written notice ("Notice") to the User requiring the User to repair, modify or remove the Improvement within 30 days ("Deadline") and the User will comply promptly with the requirements of the Notice. If removal is demanded, the City also may require the User to return the City's Property to its original condition by the Deadline. The User will perform all required work by the Deadline, at User's sole expense.

5. Failure to Perform by User, Emergency and Lien by City If the User fails to comply with the terms of the Notice by the Deadline stated, or, if the City determines that an emergency condition exists, the City may perform the work itself. The City then may assess the User for the cost of the work and for any other expenses or damages which result from User's failure to perform. The User agrees promptly to pay the City the amount assessed. If the User fails to pay the City within thirty (30) days after the City gives the User written notice of the amount due, the City may impose a lien against User's Property for the total resulting amount, if permitted to do so by law.

6. Condemnation. If any part of the User's property is ever condemned by the City, the User will forego all claims to compensation for any portion of User's structure which encroaches on City Property and for severance damage to the remaining portion of User's structure.

7. Notice. For purposes of giving formal written notice to the User, User's address is:

Trammell Crow Company
P.O. Box 25346
Albuquerque, NM 87125

Notice may be given to the User either in person or by mailing the notice by regular U.S. mail, postage paid. Notice will be considered to have been received by the User within six (6) days after the notice is mailed if there is no actual evidence of receipt. The User may change User's address by giving written notice of the change by certified mail, return receipt requested, to the City Engineer at P.o. Box 1293, Albuquerque, New Mexico 87103.

8. Indemnification. The User agrees to defend, indemnify and hold harmless the City, its officials, agents and employees from and against any and all claims, actions, suits or proceedings of any kind brought against said parties as a result of User's use of the City's Property.

9. Term. This Agreement shall continue until terminated in writing by the User and the City, or until all conditions of this Agreement have been met.

10. Binding on User's Property. The obligations of the User set forth herein shall be binding upon the User, his heirs, assigns and successors and on User's Property, and constitute covenants running with User's Property until released by the City.

11. Entire Agreement. This Agreement contains the entire agreement of the parties and supersedes any and all other agreements or understandings, oral or written, whether previous to the execution hereof or contemporaneous herewith.

12. Changes to Agreement. Changes to this Agreement are not binding unless made in writing, signed by both parties.

13. Construction and Severability. If any part of this Agreement is held to be invalid or unenforceable, the remainder of the Agreement will remain valid and enforceable if the remainder is reasonably capable of completion.

14. Captions. The captions to the sections or paragraphs of this Agreement are not part of this Agreement and will not affect the meaning or construction of any of its provisions.

CITY OF ALBUQUERQUE

Approved By:

Chief Administrative Officer
Dated: 3-20-88

USER: CROW-SAN MATEO LTD., a New Mexico limited partnership by Crow General, a Texas limited partenrship, its general partner

Its Managing General Partner

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 21 day of MARCH, 19 88, by Paul L. Silverman, It's Managing General Partner
Name of acknowledging Partner/Partners
on behalf of CROW-SAN MATEO, LTD., a New Mexico, a partnership.
limited partnership by Crow General, a
Texas limited partnership, Its General Partner

Notary Public

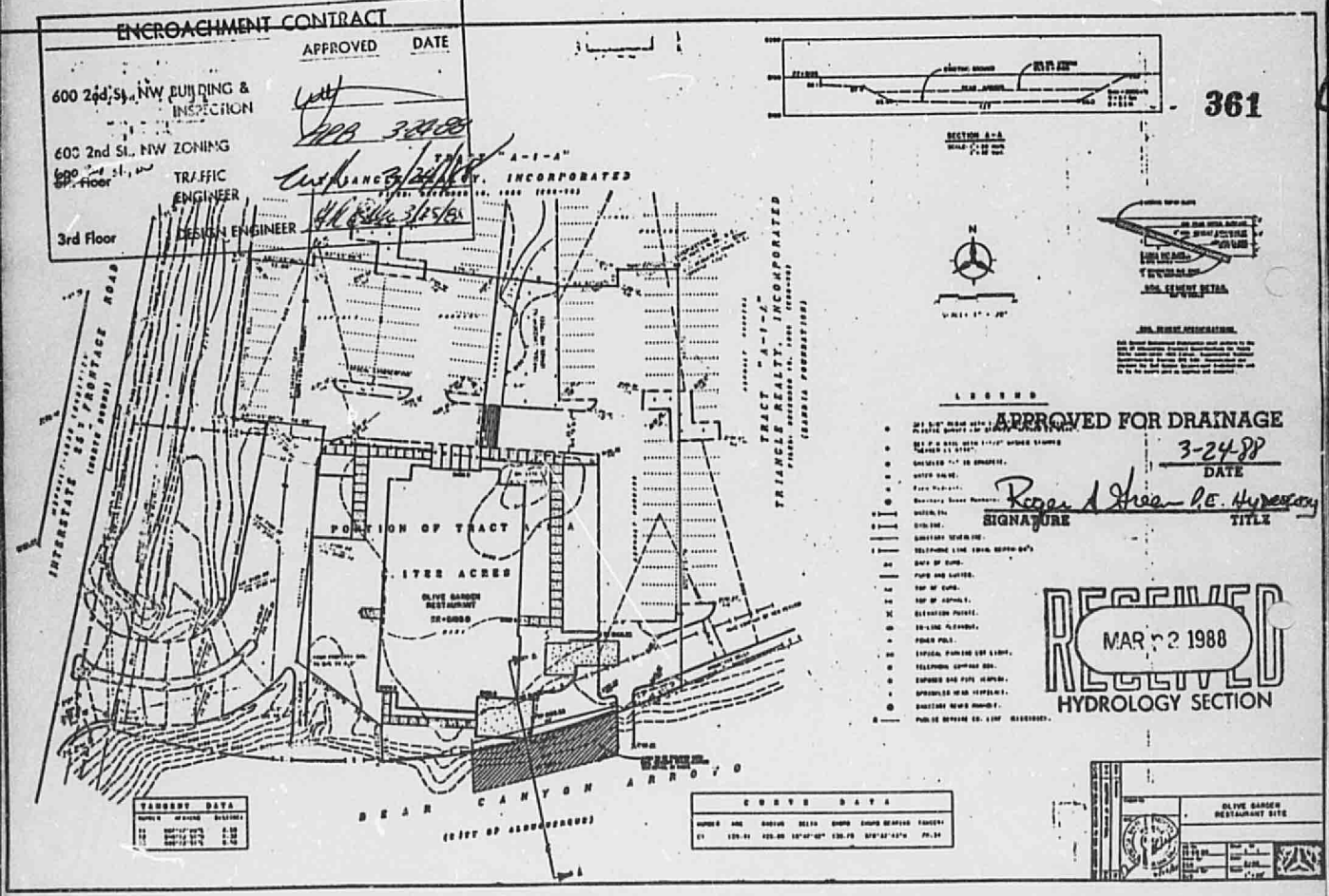
My commission expires:

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 30th day of March, 1988, by Gene Romo, Chief Administrative Officer of the City of Albuquerque, a municipal corporation, on behalf of said corporation.

Christine M. Lovato
Notary Public

My commission expires:
March 26, 1990


ENCROACHMENT CONTRACT
APPROVED
DATE
600 2nd St., NW BUILDING & INSPECTION
600 2nd St., NW ZONING
600 2nd St., NW 6th Floor
TRAFFIC ENGINEER
3rd Floor
DESIGN ENGINEER
361
TRACT "A-1-A"
TRIANGLE REALTY, INCORPORATED
INTERSTATE 25 FRONTAGE ROAD
PORTION OF TRACT "A"
.1722 ACRES
OLIVE GARDEN RESTAURANT
BEAR CANYON ARROYO
SECTION A-A
N
LEGEND
APPROVED FOR DRAINAGE
3-24-88
DATE
SIGNATURE
TITLE
RECEIVED
MAR 22 1988
HYDROLOGY SECTION
TANGENT DATA
CURVE DATA
OLIVE GARDEN RESTAURANT SITE

FILE COPY

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

March 28, 1988

ENGINEERING GROUP

INTER-OFFICE CORRESPONDENCE

TO: Tom Aragon, Inspection Division

FROM: Roger A. Green, Hydrology Section/PWD Roger Green

SUBJECT: OLIVE GARDEN RESTAURANT (E-17/D14) S.O. #19
17

Attached is the construction drawing for Private Drainage Improvements within a public right-of-way. An excavation permit will be required, but this office is requiring that the owner's engineer inspect the construction and certify that all plans and specifications have been met. Therefore, inspection by City personnel will not be required unless conditions of the Excavation Permit require it.

RAG/bsj

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR	CHIEF ADMINISTRATIVE OFFICER	DEPUTY CAO PUBLIC SERVICES	DEPUTY CAO PLANNING/DEVELOPMENT
KEN SCHULTZ	GENE ROMO	FRANK MARTINEZ	BILL MUELLER

March 25, 1988

Daniel J. Grochowski, P.E. & L.S.
Bohannan-Huston, Inc.
7500 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: ARROYO TREATMENT PLAN OF OLIVE GARDEN RESTAURANT, RECEIVED MARCH 22, 1988 FOR BUILDING PERMIT APPROVAL (E-17/D25)

Dear Mr. Grochowski:

The above referenced submittal dated February 24, 1988 and the Site Plan dated February 24, 1988 are approved for Building Permit sign-off by Hydrology of the restaurant.

The contractor may also proceed with construction of the soil cement arroyo bank treatment after obtaining an Excavation Permit from the City. Construction under the Excavation Permit shall be inspected by the owner's Engineer and need <u>not</u> be inspected by City personnel. An Engineer's Certification will be required to substantiate this inspection.

Prior to the restaurant's Certificate of Occupancy approval by Hydrology, the following items are required:

1. The restaurant and site improvements must pass Hydrology's final inspection.

✓2. An Engineer's Certification of the soil cement bank treatment construction; that all the plan and specification requirements have been met; except that the mix design need not be submitted to the Engineer 28 days in advance of construction.

✓3. Sub base compaction test results be provided to this office.

✓4. Soil cement compaction test results be provided to this office.

5. Soil Cement Cylinder Break test results for 7 and 28 days be provided to this office.

6. Copy of the excavation permit be provided to this office.

If you have any questions, please call me at 768-2650.

Cordially,

Roger A. Green, P.E.

Roger A. Green, P.E.
C.E./Hydrology Section

xc: Becky Sandoval, I.O.A. Permits
Paul Silverman, Trammel Crow
Gary Wright, General Mills

RAG/bsj

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Olive Garden Restaurant ZONE ATLAS/DRNG. FILE #: E-17/D24 17

LEGAL DESCRIPTION: Tracts A-1-A, A-1-B, Lands of Triangle Realty

CITY ADDRESS:

ENGINEERING FIRM: Bohannan-Huston, Inc. CONTACT: Dan Grochowski

ADDRESS: 7500 Jefferson, N.E., Courtyard I Albuquerque, NM 87109 PHONE: 823-1000

OWNER: Trammell Crow Company CONTACT: Paul Silverman

ADDRESS: P.O. Box 25346 Albuquerque, NM 87125 PHONE: 843-7525

ARCHITECT: Interplan Practice, Inc. CONTACT:

ADDRESS: 933 Lee Road, Suite 412 Orlando, FL 32810 PHONE: 305-645-5008

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

RECEIVED MAR 22 1988 HYDROLOGY SECTION

PRE-DESIGN MEETING:

___ YES

X NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. ___

EPC NO. ___

PROJ. NO. ___

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

___ GRADING PLAN

X EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

X BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER ___ (SPECIFY)

DATE SUBMITTED: 3/21/88

BY: Bohannan-Huston, Inc.

ENGINEERS ARCHITECTS PHOTOGRAMMETRISTS

BOHANNAN-HUSTON INC.

COURTYARD I, 7500 JEFFERSON STREET, N.E. ALBUQUERQUE, NEW MEXICO 87109 (505) 823-1000
UNIVERSITY PLAZA, SUITE 104, 330 GARFIELD SANTA FE, NEW MEXICO 87501 (505) 988-7671
6713 VISCOUNT BLVD EL PASO, TEXAS 79925 (915) 778-4491

March 21, 1988

RECEIVED
MAR 22 1988
HYDROLOGY SECTION

Mr. Roger A. Green, P.E.
C.E./Hydrology Section
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Olive Garden Restaurant/Bear Arroyo Bank Stabilization (E-17/D18)

Dear Roger:

We have revised the referenced plan to reflect a soil cement treatment instead of the previously submitted chip seal. We now reference the specification Section STS 605 previously approved by the City. The proposed cross-section is for 6 inches of soil cement on a 12-inch subgrade compacted to 95%.

This treatment is to be considered a temporary measure until the box culvert extension from San Mateo to I-25 is in place. We are assuming the box culvert will be constructed in the late fall of 1988.

Attached are two prints of the plan and the original of the executed encroachment agreement. Please let me know if this is an acceptable solution for the bank stabilization so that Olive Garden can obtain a building permit.

Sincerely,

Dan Grochowski

Daniel J. Grochowski, P.E. & L.S.
Project Manager

cc: Paul Silverman

DJG/da
Job No. 86160.09

PRINCIPALS
LARRY W. HUSTON
MICHIAL M. EMERY, P.E.
DANA C. WOOD, P.E.
ANDRES ARAGON-VIAMONTE
DARRELL L. WADE, P.E.
JAMES V. DOMENICK, P.E.
BRIAN G. BURNETT, P.E.

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR KEN SCHULTZ | CHIEF ADMINISTRATIVE OFFICER GENE ROMO | DEPUTY CAO PUBLIC SERVICES FRANK MARTINEZ | DEPUTY CAO PLANNING/DEVELOPMENT BILL MUELLER

March 16, 1988

Daniel J. Grochowski, P.E. & L.S.
Bohannan-Huston, Inc.
7500 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: OLIVE GARDEN RESTAURANT/BEAR CANYON ARROYO BANK STABILIZATION SUBMITTAL RECEIVED MARCH 10, 1988 FOR BUILDING PERMIT APPROVAL (E-17/D~~M~~)
17

Dear Mr. Grochowski:

I have the following comments to be addressed in regards to the Encroachment Agreement and arroyo treatment on the above referenced submittal:

A. Encroachment Agreement

1. Under the "Real Property" description, fill in just the single tract description that includes the restaurant site. Be very specific, such as Tract A-1-A, plat name, and recording dates etc.

2. The Grading Plan attachment must be reduced to 8½" x 11" and made a part of the agreement.

3. The agreement must have the notarized signature of the property owner (User) prior to City processing.

B. Arroyo Treatment

1. A seal coat and chips, as specified in City Standard Specifications, Section 334, is not acceptable for bank protection. Items such as Soil Sterilant application, Prime-Penetrator coats, and a special mix design should be specified. The Asphalt Institute has Manual Series No. 12 (MS-12), "Asphalt in Hydraulics" that gives design guidelines for use of asphalt in this application.

2. The treatment should be designed as an impermeable asphalt mix.

3. A justification statement should be provided with the transmittal letter stating why an asphalt treatment can be used in lieu of soil cement or riprap treatments which have been previously approved and used successfully in Albuquerque. Also, provide a statement of the degree of protection you feel is provided by an asphalt treatment. Will it protect the bank for a single 100 year runoff event, is it considered a temporary treatment requiring maintenance, and what time constraints are required for the permanent box culverts to be in place?

I feel that asphalt can be used as temporary bank protection if properly designed in accordance with some acceptable guidelines and technical manuals.

If you have any questions, call me at 768-2650.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

xc: Paul Silverman

RAG/bsj

ENGINEERS ARCHITECTS PHOTOGRAMMETRIST

BOHANNAN-HUSTON INC.

COURTYARD I, 7500 JEFFERSON STREET, N.E. ALBUQUERQUE, NEW MEXICO 87109 (505) 823-1000
UNIVERSITY PLAZA, SUITE 104, 330 GARFIELD SANTA FE, NEW MEXICO 87501 (505) 988-7971
6713 VISCOUNT BLVD. EL PASO, TEXAS 79925 (915) 778-4491

March 10, 1988

Mr. Roger A. Green, P.E.
C.E./Hydrology Section
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RECEIVED
MAR 10 1988
HYDROLOGY SECTION

Re: Olive Garden Restaurant/Bear Arroyo Bank Stabilization (E-17/D18)

Dear Roger:

In response to your letter of March 1, 1988, we have revised the arroyo detail. It now includes a chip seal pavement section to provide temporary bank stabilization from the west edge of the easternmost parking lot rundown to a point just west of the concrete drivepad that extends south of the building.

Attached are two copies of the revised plan and the "Real Property Encroachment Agreement and Covenants Upon Real Estate". If you should have any questions or require any additional information, please do not hesitate to call.

Sincerely,

Daniel J. Grochowski, P.E. & L.S.
Project Manager

Attachments

cc: Mr. Paul Silverman

DJG/da
Job No. 86160.09

PRINCIPALS
LARRY W. HUSTON
MICHAL M. EMERY, P.E.
DANA C. WOOD, P.E.
ANDRES ARAGON VIAMONTE
DARRELL L. WADE, P.E.
JAMES V. DOMENICK, P.E.
BRIAN G. BURNETT, P.E.

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Olive Garden Restaurant ZONE ATLAS/DRNG. FILE #: E17/D18 17

LEGAL DESCRIPTION: Tracts A-1-A, A-1-B, Lands of Triangle Realty

CITY ADDRESS:

ENGINEERING FIRM: Bohannan-Huston, Inc. CONTACT: Dan Grochowski

ADDRESS: 7500 Jefferson, N.E., Courtyard I Albuquerque, NM 87109 PHONE: 823-1000

OWNER: Trammell Crow Company CONTACT: Paul Silverman

ADDRESS: P.O. Box 25346 Albuquerque, NM 87125 PHONE: 843-7525

ARCHITECT: Interplan Practice, Inc. CONTACT:

ADDRESS: 933 Lee Road, Suite 412 Orlando, FL 32810 PHONE: 305-645-5008

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

RECEIVED MAR 10 1988 HYDROLOGY SECTION

PRE-DESIGN MEETING:

___ YES

X NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. ___

EPC NO. ___

PROJ. NO. ___

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

___ GRADING PLAN

X EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

X BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER ___ (SPECIFY)

DATE SUBMITTED: 3/10/88

BY: Bohannan-Huston, Inc.

Don't release Building
Permit for Building next
to Arroyo until Box Culvert
is Build or Bonded.
Roger. 4/13/87

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR	CHIEF ADMINISTRATIVE OFFICER	DEPUTY CAO PUBLIC SERVICES	DEPUTY CAO PLANNING/DEVELOPMENT
KEN SCHULTZ	GENE ROMO	FRANK MARTINEZ	BILL MUELLER

March 1, 1988

Dan Grochowski, P.E.
Bohannan-Huston, Inc.
7500 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: OLIVE GARDEN RESTAURANT/BEAR CANYON ARROYO BANK STABILIZATION
(E-17/D17)

Dear Mr. Grochowski:

In response to your Olive Garden Restaurant site arroyo detail dated February 24, 1988, and Brian Burnett's memo dated February 10, 1988, I have the following comments. The Building Permit for the restaurant will not be approved without additional arroyo bank protection or in lieu of bank protection, financial guarantees for construction of the box culvert (City Project #3044) be provided.

As proposed, the restaurant improvements extend to the property line which is also the top of the existing sideslope. The actual building foundation is within 23 feet of the arroyo side slope. Channel stability and maintenance must be considered since protection of property is required by Ordinance. No stability analysis has been provided that establishes a "prudent line" of minimum setback for protection of improvements. Previous arroyo bank protection requirements had been waived with this overall site development because of the assumption that the box culvert would be constructed within a very short time frame. It was also previously agreed that the restaurant building permit would not be released until the box culvert was built or else financially guaranteed.

The subject Building Permit will not be approved by Hydrology until the above conditions are met.

If you have any questions, call me at 768-2650.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

xc: Paul Silverman, Trammell Crow Co.
Gary Wright, General Mills

RAG/bej

BOHANNAN-HUSTON INC.

Courtyard I 7500 Jefferson Street, N.E. Albuquerque, NM 87109
(505) 823-1000

Transmittal

To: City Hydrology

☐ Parcel post ☒ Messenger
☐ First Class ☐ UPS
☐ Express Mail ☐ Air Freight
☐ Bus ☐ _____

Attention: Roger Green

Date: 2/24/88

Our job number: 86160.09

Your job number:

Job: Olive Garden Restaurant

We are enclosing:	For:
1 Print (see below)	Your Approval

Comments: We have overlaid the site plan on the certificate of survey and added a cross section at the point where the building is closest to the arroyo. Please review and let me know if you need any other information

cc: Paul Silverman

By: Don Grochowski

thank you

Rec'd by: _____ Date: _____

☐ Please Return Signed Yellow Copy

3/86

BOHANNAN-HUSTON INC.

Courtyard I 7500 Jefferson Street, N.E. Albuquerque, NM 87109
(505) 823-1000

Transmittal

To: City Hydrology

☐ Parcel post ☒ Messenger
☐ First Class ☐ UPS
☐ Express Mail ☐ Air Freight
☐ Bus ☐ _____

Attention: Roger Green

Date: 2/16/88

Our job number: _____

Your job number: _____

Job: Bear Arroyo / Olive Garden Restaurant

We are enclosing:	For:
1 Site Plan - Olive Gar. San Mateo	Your Use
1 Grad/Plan - Tower/Rest. (2 sheets)	
1 Arroyo Erod. Plan	

Comments: Informed Dan that I need a detailed Grading Plan showing "As-Built" arroyo slopes and proposed Restaurant site Plan. Roof drains outletting to the arroyo are not acceptable, but must be directed to drain to existing asphalt rundowns into the arroyo.

Roger Green
2/16/88

By: Dan Gonzales thank you

Rec'd by: _____ Date: _____

☐ Please Return Signed Yellow Copy

3/86

ENGINEERS ARCHITECTS PHOTOGRAMMETRI

BOHANNAN-HUSTON INC.

COURTYARD I, 7500 JEFFERSON STREET, N.E. ALBUQUERQUE, NEW MEXICO 87109 (505) 823-1000
UNIVERSITY PLAZA, SUITE 104, 330 GARFIELD SANTA FE, NEW MEXICO 87501 (505) 988-7671
6713 VISCOUNT BLVD. EL PASO, TEXAS 79925 (915) 773-4491

February 10, 1988

RECEIVED
FEB 10 1988
HYDROLOGY SECTION

Mr. Roger Green
Hydrology, City Engineering
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Bank Stabilization Analysis for Pad Site North of Bear Canyon Arroyo, East of Interstate-25

Dear Roger:

As a follow-up to your recent discussions with Dan Grochowski regarding bank stabilization for a pad site north of the Bear Canyon Arroyo, we are submitting this information to support a proposal that bank stabilization not be provided prior to the box culvert extension construction this Fall. In essence, the proposal recommends that no bank stabilization be provided during the 1988 rainy season.

We are basing our recommendation on three fundamental areas:

a) velocity of the runoff during the 100-year storm,
b) probability of the 100-year event and
c) the proposed setback of the building from top of bank.

Each area will be discussed in more detail below:

Velocity of Runoff - Based on the grading of the bank and the existing conditions in the arroyo, the width of the arroyo bottom adjacent to the site is approximately 100' wide. The slope through this lower reach is estimated to be an average of 0.003. Based on a Manning's 'n' of 0.030 and an assumed trapezoidal shape, the 100-year flow depth at 2,000 cfs is approximately 3.3 feet. The velocity of the runoff during this event is about 5.7 fps. The fill in the embankment was placed in a controlled situation under the supervision of a soils engineer, including density tests. Controlled, compacted fill is generally more stable than natural loose material. Based on this relatively low flow velocity and stable material, we view the possibility of damage being greatly reduced.

Probability of 100-Year Event - One of the basic assumptions is that the bank will be unprotected for a single rainy season. With the probability of a large event being quite low, we believe that an additional factor of safety is achieved due to the timing of installing the permanent facilities.

PRINCIPALS
LARRY W. HUSTON
MICHAL M. EMERY, P.E.
DANA C. WOOD, P.E.
ANDRES ARAGON VIAMONTE
DARRELL L. WADE, P.E.
JAMES V. DOMENICK, P.E.
BRIAN G. BURNETT, P.E.

Setback of Proposed Building - The attached sketch indicates that the building will be constructed at an elevation of 5190.0 and the closest corner located approximately 25 feet from the top of the embankment. Again, we believe this setback distance helps reduce potential impact in the event a large flow occurred.

In conclusion, we believe that the combination of the above conditions contribute to a condition that is acceptable for this rainy season.

We look forward to your input. Please call if you have any questions.

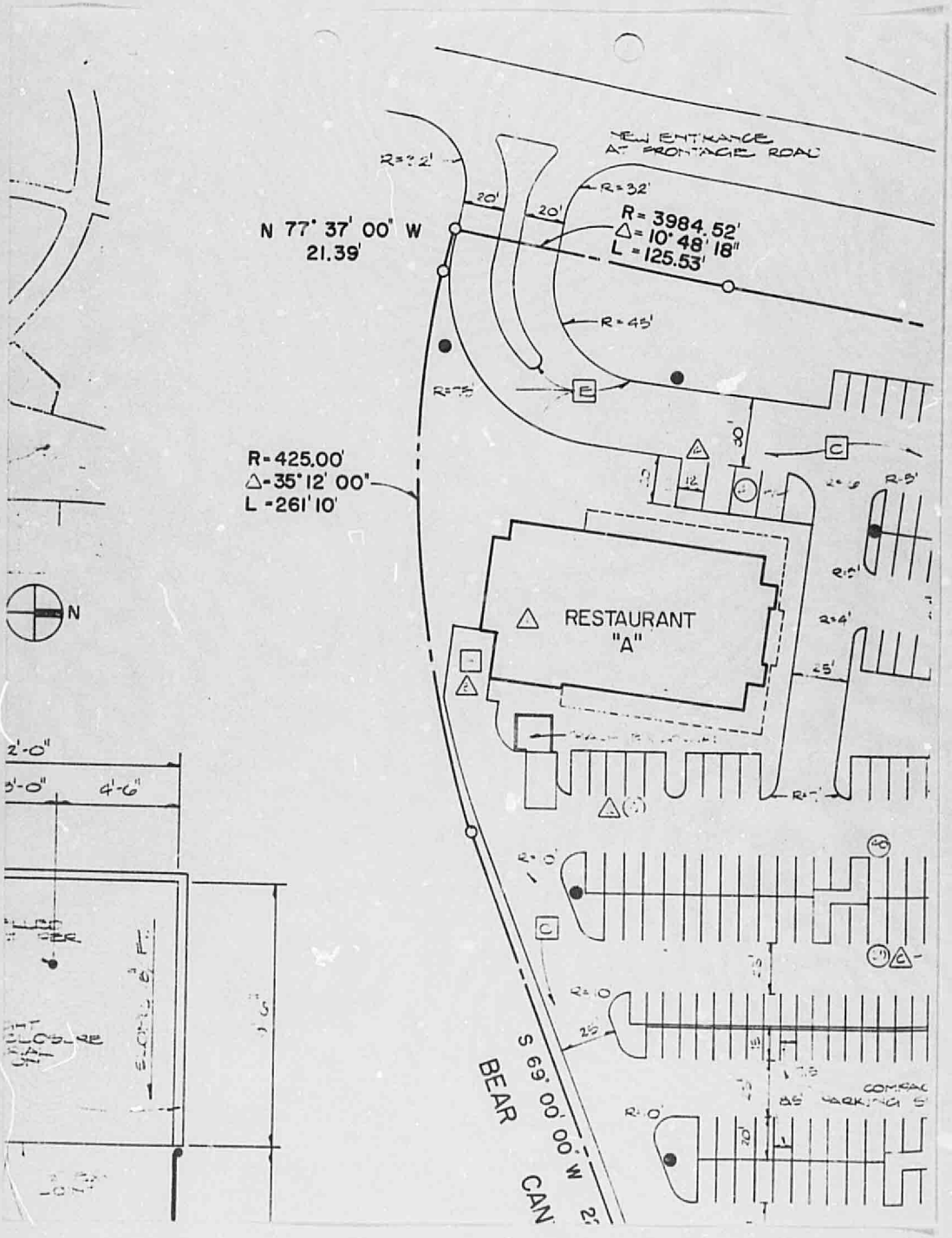
Sincerely,

Brian G. Burnett, P.E.
Vice-President

Attachment

cc: Paul Silverman
Mark Mullane

BGB/da
Job No. 86160.09


NEW ENTRANCE
AT FRONTAGE ROAD
R=32'
20'
20'
N 77° 37' 00" W
21.39'
R = 3984.52'
Δ = 10° 48' 18"
L = 125.53'
R=45'
R=75
E
R=425.00'
Δ=35° 12' 00"
L =261' 10'
C
R=5'
RESTAURANT
"A"
R=4'
25'
N
2'-0"
4'-6"
S 69° 00' 00" W
BEAR
CAN

MEMORANDUM: February 8, 1988

ENGINEERING GROUP

TO: C. Dwayne Sheppard, Jim Fink, Dan Hogan

FROM: Bob Hogrefe, Development Division/Design Review Section Bob

SUBJECT: BEAR CANYON ARROYO - MEETING MINUTES OF FEBRUARY 3, 1988

The following minutes will summarize certain items pertaining to this project. Other discussions held outside of DRC meetings will require summarizing by those involved.

Present at the meeting were:

Dan Hogan, Design Hydrology Section
Bob Hogrefe, Design Review Section
→ Roger Green, Hydrology Section
Dan Grachowski, Bohannan-Huston, Inc.
Paul Silverman, Trammell Crow Co.
Mark Mullane, Trammell Crow Co.
Mark Culwell, Johnson Development

RECEIVED
HYDROLOGY SECTION

Items discussed at the meeting included:

1. Went over remaining questions from last meeting held December 14, 1987. Items and questions pending after the previous meeting were as follows:

   a. Steve Johnson will check with City Property Management about the adjoining land to the present drainage R.O.W. insofar as vacating requirements. Land purchase offers have been made to the adjoining land owners on the south boundary of the drainage R.O.W. (i.e., Corner Pocket and Christorian House.)

   b. Former vacation action by Steve Johnson/San Mateo Joint Venture and Sandia Foundation needs re-initiating to establish drainage easements and conditions for replat (e.g., financial guarantee for box culverts, if not to be built first). Previous vacation request in December, 1986 expired in December, 1987 per Subdivision Ordinance: Section 7-16-8, pg. 7-16-48 (subsection C); vacation action DRB-86-774, V-86-148.

   The above mentioned drainage easements are still prerequisite requirements for the Bear Arroyo Box Culvert, City Project #3044.

   c. Bohannan-Huston, Inc. will be authorized by Steve Johnson to design the box culvert from the end of project #3044 to the I-25 connection to existing culverts, approximately 300 lf. of box culverts. To be determined is whether or not the 300 lf. of culverts will be built by Johnson or by the City.

   The plans for Phase I (first 600 lf.) of box culverts (City Project #3044) will need amending and updating, and the plunge pool should be changed to an additive alternate to facilitate its deletion, appropiate.

d. Trammell Crow Co. still needs to be included in the developer agreement with the City to contribute to the box culverts completion. Work Order No. 2949 (San Mateo Theatre Complex) cannot be closed out until either approved interim runoff protection or permanent measures are built.

Items discussed on February 3, 1988

1. Land offers by Steve Johnson/Johnson Development, are awaiting closing. Arrangement for vacating the existing drainage R.O.W. are still unknown. Reinitiation of previous vacation and replat of San Mateo /Sandia Foundation land is still pending. No drainage easement exists for the eastern most portion of the proposed box culverts in City Work Order No. 3044. (Work order cannot be released until at least paper easements exist.)

2. Timing was discussed for the proposed Phase 2 of the box culverts (i.e. last 300 lf). It was felt that construction could not start before October 1, 1988 for the as yet to be designed Phase 2 portion. The Engineering design contract is presently being finalized authorizing the design of the Phase 2 project (between Bohannan-Huston and Johnson Development). The City desires that Bohannan-Huston also assume standard construction phase services e.g. bidding services, observation and as-builts preparation, but the City would assume the full time construction inspection work.

3. Johnson Development does not desire to build the Phase 2 portion of the box culverts, but will contribute per an Agreement for developer contribution based on deferred work items as were originally proposed (and to be updated from a year ago). Therefore, the option for City CIP construction of the Phase 2 box culverts is preferred.

4. Engineering calculations and justification will be required to allow interim measures of runoff protection which in turn would allow pending site developments to proceed e.g. Olive Garden Restaurant adjacent to the arroyo. An encroachment agreement with maintenance covenants will be needed as a guarantee of arroyo stability by the developer pending culvert construction.

5. A pending determination is to either build Phase 1 (by developer) and Phase 2 (by City) during the same time period or to build Phase 1 first with temporary outfall protection.

RH/trs
(5657E)

xc: Roger Green, Hydrology Section
John Murray
Project File

DOCUMENT.

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Ken Schultz
Mayor

UTILITY DEVELOPMENT DIVISION
HYDROLOGY SECTION
(505) 768-2650

February 20, 1987

David Thompson, P.E.
Bohannan-Huston, Inc.
750 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: REVISED GRADING PLAN SUBMITTAL OF SAN MATEO THEATRE/RESTAURANT COMPLEX RECEIVED FEBRUARY 2, 1987 FOR BUILDING PERMIT APPROVAL (E-17/D13) (PROJECT 2949)

Dear Dave:

The above referenced submittal, revised January 28, 1987, is approved for Building Permit sign-off by Hydrology. Include these approved plans with any construction sets routed for sign-off. If any Building Permits have previously been issued, it is your responsibility to see that the contractor has these approved plans for construction purposes.

The riprap blanket detail on Sheet 5 is not approved for construction. Project 2949 includes the riprap blanket detail approved for construction.

It is also your responsibility to process any required change orders to project 2949.

If you have any questions, call me at 768-2650.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

cc: Andre Houle, DRC

RAG/bs

ENGINEERS ARCHITECTS PHOTOGRAMMETRISTS

BOHANNAN-HUSTON INC.

COURTYARD I, 7500 JEFFERSON STREET, N.E. ALBUQUERQUE, NEW MEXICO 87109 (505) 823-1000
UNIVERSITY PLAZA, SUITE 104, 330 GARFIELD SANTA FE, NEW MEXICO 87501 (505) 988-7671
6713 VISCOUNT BLVD. EL PASO, TEXAS 79925 (915) 778-4491

January 29, 1987

RECEIVED
FEB 02 1987
HYDROLOGY SECTION

Roger Green
City Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Resubmittal of San Mateo Theatre/Restaurant Complex (E17/D18)

Dear Roger:

Enclosed please find an amended grading plan for the referenced project. As you are aware, the City of Albuquerque Project 3044 directly impacts our site drainage concepts. As discussed, this modification involves the removal of the riprap blanket and the concrete rundown east of the building adjacent to the arroyo is deleted and replaced by a temporary asphalt rundown.

As agreed upon, if the presently planned box culvert is extended to the culverts under I-25 East Frontage Road, then an amended grading plan deleting the rest of the riprap will be submitted for your review and approval.

If you have any questions, please call me.

Sincerely,

David B. Thompson

David B. Thompson, P.E.
Project Manager

Enclosure

cc: Paul Silverman

DT/da
Job No. 61609

PRINCIPALS
LARRY W. HUSTON
MICHIAL M. EMERY, P.E.
DANA C. WOOD, P.E.
ANDRES ARAGON-VIAMONTE
DARRELL L. WADE, P.E.
JAMES V. DOMENICK, P.E.
BRIAN G. BURNETT, P.E.

DRAINAGE INFORMATION SHEET

PROJECT TITLE: SAN MATEO THEATRE/REST COMPLEX ZONE ATLAS/DRNG. FILE #: E-17/D18

LEGAL DESCRIPTION: TRACTS A-1 and A-2 OF PLAT A,B,C A-1 and A-2 OF TRIANGLE REALTY

CITY ADDRESS:

ENGINEERING FIRM: BOHANNAN-HUSTON CONTACT: DAVE THOMPSON

ADDRESS: 7500 JEFFERSON ALBUQ, NM 87109 PHONE: 823-1000

OWNER: TRAMMELL CROW CO. CONTACT: PAUL SILVERMAN

ADDRESS: P.O. BOX 25346 ALBUQ., NM 87125 PHONE: 843-7525

ARCHITECT: BOHANNAN-HUSTON CONTACT: DAVID PACHECO

ADDRESS: 7500 JEFFERSON PHONE: 823-1000

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

RECEIVED FEB 02 1987 HYDROLOGY SECTION

PRE-DESIGN MEETING:

___ YES

X NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. 6-228

EPC NO.

PROJ. NO.

TYPE OF SUBMITTAL:

X DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

___ GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

X BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 1-29-87

BY: Dave Thompson

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

September 3, 1986

Dave Thompson, P.E.
Bohannan-Huston, Inc.
7500 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: SAN MATEO THEATRE/RESTAURANT COMPLEX
DRAINAGE REPORT RECEIVED JUNE 23, 1986 FOR BUILDING PERMIT
APPROVAL (E-17/D17)

Dear Dave:

In follow up to my previous letter, dated August 22, 1986, the above referenced submittal, revised June 23, 1986, is approved for Building Permits. The proposed arroyo riprap treatment with concrete rundowns is acceptable to the DRC, with final approval pending minor detail changes.

Before Certificate of Occupancy approvals for any Building Permits issued, the arroyo treatment must be in place and accepted through the Work Order process, unless an interim Drainage Plan is submitted and approved to control onsite developed runoff.

If you have any questions, call me at 766-7644.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

cc: Paul Silverman, Trammell-Crow
Andre Houle, DRC
Dan Sabo, AMAFCA

RAG/bsj

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

August 22, 1986

Dave Thompson, P.E.
Bohannan-Huston, Inc.
7500 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: CONSTRUCTION DETAIL SUBMITTAL OF BEAR CANYON EMBANKMENT IMPROVEMENTS FOR SAN MATEO THEATRE/RESTAURANT COMPLEX - RECEIVED AUGUST 20, 1986 FOR INFORMATION AND REVIEW (E-17/D~~8~~17)

Dear Dave:

I have reviewed the above referenced submittal, Sheet 3 of 3, and concur with your design and construction details. My previous comments made at DRC have all be adequately addressed. The drawing submitted did not have a revision date shown, which needs to be added before final approval of construction set.

Building Permit will be released as soon as construction set is approved at DRC, hopefully on August 27, 1986.

If you have any questions, call me at 766-7644.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

cc: Andre Houle, DRC
Dan Sabo, AMAFCA

RAG/bsj

BOHANNAN-HUSTON INC.

Courtyard I 7500 Jefferson Street, N.E. Albuquerque, NM 87109
(505) 823-1000

Transmittal

~~E17/D18~~
E17/D17

To: City of Albuquerque
Hydrology

- ☐ Parcel post
- ☑ Messenger
- ☐ First Class
- ☐ UPS
- ☐ Express Mail
- ☐ Air Freight
- ☐ Bus
- ☐ _____

Attention: Mr Roger Green

Date: 8/20/ Our job number: 62608

Your job number:

Job: Bear Canyon Arroyo Improvements
San Mateo Th/Ba Complex

We are enclosing:	For:
1 Submittal Letter	Your Use & review
2 Calcs	
1 Sheet 3 of	
Public Plans	

Comments:

RECEIVED
AUG 20 1986
HYDROLOGY SECTION

F-4144-1
P.M.

By: Dave Thompson thank you

Rec'd by: Barbara Jaramillo Date: 8/20/86

☐ Please Return Signed Yellow Copy

3/86

BOHANNAN-HUSTON INC.
ENGINEERS ARCHITECTS PHOTOGRAMMETRISTS
COURTYARD I, 7500 JEFFERSON STREET N.E. ALBUQUERQUE, NEW MEXICO 87109 (505) 823-1000
UNIVERSITY PLAZA, SUITE 104, 330 GARFIELD SANTA FE, NEW MEXICO 87501 (505) 988-7671
6713 VISCOUNT BLVD EL PASO, TEXAS 79925 (915) 778-4491

August 18, 1986

RECEIVED
AUG 20 1986
HYDROLOGY SECTION

Mr. Andre Houle
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Submittal of the San Mateo Theatre/Restaurant Complex Public Plans for Final Review (Project No. 2949)

Dear Andre:

Submitted herewith for final review are four (4) sets of corrected drawings for City of Albuquerque Project No. 2949. Also enclosed is the final Engineer's Estimate, blueprints of the preliminary submittal with City review comments and the original plans for the project. We request that this project be placed on the DRC Agenda for August 27, 1986 for final sign-off. The following responses address City comments discussed at the preliminary DRC hearing.

Design Review Section

1. **Sheet 2.** All existing utilities have been added to the San Mateo Boulevard entrance.

2. **Sheet 2.** All existing PNM power poles have been located near the arroyo.

3. **Sheet 2.** The proposed 8" sanitary sewer has been relocated so that it is a minimum of 10' from the property line, therefore, a construction slope easement is not needed.

4. **Sheet 3.** The concrete rundown west of the building is 10' wide to allow access to the arroyo as required by AMAFCA.

5. **Sheet 3.** A riprap cut-off wall at an angle of 45° has been added to the riprap slope protection at the east property line.

6. **Sheet 3.** The concrete rundowns are buried to an elevation of 79.0 to prevent scouring.

Hydrology Department

7. **Sheet 3.** Riprap details have been changed as follows:

   a. 3' depth below arroyo floor instead of 1.5'
   b. 18" blanket thickness below arroyo floor instead of 12"
   c. a riprap gradation where D_{50} is 9" instead of 6"

PRINCIPALS
LARRY W. HUSTON
MICHAL M. EMERY PE
DANA C. WOOD PE
ANDRES ARAGON VIANDUTI
DARRELL E. WALL PE
JAMES V. DOMENICK PE
BRIAN G. BURNETT PE

8. **Sheet 3.** For the proposed improvements, which includes installing a riprap bedding along the north embankment, the 100-year storm depth is 3.0 ft (see attached calculations). With the future planned arroyo improvements, investigated by Leedshill-Herkenhoff (Concept Design Report Bear Canyon Arroyo Channel Improvements, May 1986) the 100-year storm depth is 4.4 ft. at a slope of the arroyo floor at .0003 ft/ft. At this equilibrium slope, the total elevation difference of the arroyo floor from the box culverts to the east property line is .15 ft. Therefore, a maximum elevation of 5188.15 for the top of the riprap blanket would include a minimum freeboard of one foot for either the proposed or future conditions.

Water Utilities Division

9. **Sheet 2.** The possible conflict between the existing 10" CI waterline and proposed sewer line has been resolved by cutting, capping and relaying the waterline before it dips down to cross under the arroyo.

The other departments had no adverse comments. If you have any questions, please call me.

Sincerely,

David B. Thompson

David B. Thompson, P.E.
Project Manager

Enclosures

cc: Mr. Paul Silverman
Mr. Roger Green

DBT/mls
Job No. 6 160 8

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

August 7, 1986

Dave Thompson, P.E.
Bohannan-Huston, Inc.
7500 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: SAN MATEO THEATRE/RESTAURANT COMPLEX
LETTER DATED JULY 28, 1986, CONCERNING BUILDING PERMIT
APPROVAL (E-17/D17)

Dear Dave:

In response to the above referenced letter requesting Building Permit approval, I can only approve a Foundation Permit. The arroyo riprap treatment and concrete rundowns are an integral part of the overall grading and drainage plan for the site, and therefore Building Permits will not be approved until the arroyo treatment construction plans are also approved. You are correct in your letter that Building Permits will be approved prior to installation of arroyo improvements and Certificate of Occupancy approval is dependent upon these improvements being in place.

I have checked with Andre Houle, and find that the construction drawings have not been resubmitted to DRC for final sign-off. I recommend that these construction drawings, with the previously requested revisions made, be submitted as soon as possible for final approval so that Building Permits for the site may be approved.

If you have any questions, call me at 766-7644.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

cc: Andre Houle, DRC
Paul Silverman, Trammel Crow Co.

RAG/bsj

ENGINEERS ARCHITECTS PHOTOGRAMMETI

BOHANNAN-HUSTON INC.

COURTYARD I, 7500 JEFFERSON STREET, N.E. ALBUQUERQUE, NEW MEXICO 87109 (505) 823-1000
UNIVERSITY PLAZA, SUITE 104, 330 GARFIELD SANTA FE, NEW MEXICO 87501 (505) 988-7671
6713 VISCOUNT BLVD. EL PASO, TEXAS 79925 (915) 778-4491

RECEIVED
JUL 29 1986
HYDROLOGY SECTION

July 28, 1986

Mr. Roger Green
City of Albuquerque
Hydrology Section
P.O. Box 1293
Albuquerque, NM 87103

Re: Response to Letter Dated June 26, 1986 Concerning Building Permit Approval for San Mateo Theatre/Restaurant Complex (E-17/D12)

Dear Roger:

In your letter dated June 26, 1986 you state that building permits are contingent upon the approval of public construction drawings for the Bear Canyon Arroyo treatment. In a meeting on May 23, 1986 between Fred Aguirre and yourself from City Hydrology and Brian Burnett and myself of this office, we discussed how to insure that the installation of improvements would be completed. At that time it was agreed upon to tie the construction of the arroyo improvements to the Certificate of Occupancy of the building adjacent to the arroyo. In other words, the C.O. will not be released until the improvements are in place. Therefore, we believe that the site should be approved for building permit.

If you have any questions, please contact Brian Burnett or me.

Sincerely,

David B. Thompson, P.E.
Project Manager

cc: Mr. Paul Silverman

DBT/mls
Job No. 6 160 0

PRINCIPALS
LARRY W. HUSTON
MICHIAL M. EMERY, P.E.
DANA C. WOOD, P.E.
ANDRES ARAGON-VIAMONTE
DARRELL L. WADE, P.E.
JAMES V. DOMENICK, P.E.
BRIAN G. BURNETT, P.E.

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

June 26, 1986

Dave Thompson, P.E.
Bohannan-Huston, Inc.
7500 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: DRAINAGE REPORT SUBMITTAL OF SAN MATEO THEATRE/RESTAURANT COMPLEX, RECEIVED JUNE 23, 1986 FOR BUILDING PERMIT APPROVAL (E-17/D17)

Dear Dave:

I have reviewed the above referenced submittal, revised June 23, 1986, and have the following comments to be addressed before Building Permit approval.

1. Since development of the site is contingent upon treatment of the unlined arroyo adjacent to the site, Building Permits adjacent to the arroyo cannot be released until the construction drawings for arroyo treatment are approved at DRC.

2. As discussed at the DRC review meeting on June 25, 1986, the following items need revision:

   a) Plat must provide a maintenance access easement from Frontage Road and down the 10' wide concrete rundown.

   b) Design & Construction details for terminating the upstream riprap treatment must be provided consistant with the design guidelines used.

[redacted]

c) The elevations provided by Jim Fink for the top and bottom of riprap treatment were intended for a temporary treatment, but since this is the permanent treatment, the design elevations must be consistant with the requirements of the design guidelines used. This includes providing 1' of freeboard to top of riprap, bottom of riprap thicker at the toe and extending 3' below final arroyo bottom grade.

3. Since the proposed buildings not adjacent to the arroyo require the concrete rundowns as the outfall for runoff, these building permits also cannot be released until the construction drawing for riprap treatment and rundowns are approved at DRC.

If you have any questions, call me at 766-7644.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

cc: Andre Houle, DRC
Paul Silverman, Trammel Crow Company

RAG/bsj

DRAINAGE INFORMATION SHEET

PROJECT TITLE: SAN MATEO THEATRE/REST COMPLEX ZONE ATLAS/DRNG. FILE #: E-17/D17

LEGAL DESCRIPTION: TRACTS A-1 and A-2 OF PLAT A, B, C A-1 and A-2 OF TRIANGLE REALTY

CITY ADDRESS:

ENGINEERING FIRM: BOHANNAN-HUSTON CONTACT: DAVE THOMPSON

ADDRESS: 7500 JEFFERSON ALBUQ, NM 87109 PHONE: 823-1000

OWNER: TRAMMELL CROW CO. CONTACT: PAUL SILVERMAN

ADDRESS: P.O. BOX 25346 ALBUQ., NM 87125 PHONE: 843-7525

ARCHITECT: BOHANNAN-HUSTON CONTACT: DAVID PACHECO

ADDRESS: 7500 JEFFERSON PHONE: 823-1000

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

RECEIVED JUN 23 1986 HYDROLOGY SECTION

PRE-DESIGN MEETING:

___ YES

X NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. 6-228

EPC NO.

PROJ. NO. 2949

TYPE OF SUBMITTAL:

X DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

___ GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

X BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 6-23-86

BY: David B. Thompson

ENGINEERS ARCHITECTS PHOTOGRAMMETRI

BOHANNAN-HUSTON INC.

COURTYARD I, 7500 JEFFERSON STREET, N.E. ALBUQUERQUE, NEW MEXICO 87109 (505) 823-1000
UNIVERSITY PLAZA, SUITE 104, 330 GARFIELD SANTA FE, NEW MEXICO 87501 (505) 988-7671
6713 VISCOUNT BLVD. EL PASO, TEXAS 79925 (915) 778-4491

June 23, 1986

RECEIVED
JUN 23 1986
HYDROLOGY SECTION

Mr. Roger Green
Hydrology Section
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Drainage and Grading Plan Submittal of San Mateo Theatre/Restaurant Complex for Building Permit Approval (E-17/D18)

Dear Roger:

Enclosed are prints and calculations for the above referenced project. The following replies address the comments made in your letter dated May 14, 1986.

1. The westernmost concrete rundown has been modified to be 10 feet wide with a slope of 4:1 per Larry Blair's instructions.

2. The riprap blanket detail has been revised showing a maximum slope and a minimum depth of 1.5 feet as called out in Jim Fink's letter dated April 18, 1986.

3. Since the City will be maintaining the arroyo protection an Encroachment Agreement is not required.

4. Enclosed are the design calculations for sizing the riprap.

If you have any questions, call me.

Sincerely,

David B. Thompson

David B. Thompson, P.E.
Project Engineer

Enclosure

cc: Mr. Paul Silverman
Mr. Dave Pacheco

DBT/mls
Job No. 6 160 0

PRINCIPALS
LARRY W. HUSTON
MICHAEL M. EMERY, P.E.
DANA C. WOOD, P.E.
ANDRES ARAGON-VIAMONTE
DARRELL L. WADE, P.E.
JAMES V. DOMENICK, P.E.
BRIAN G. BURNETT, P.E.

BOHANNAN-HUSTON INC.

Courtyard I 7500 Jefferson Street, N.E. Albuquerque, NM 87109
(505) 823-1000

Transmittal

To: CITY HYDROLOGY

☐ Parcel post	☒ Messenger
☐ First Class	☐ UPS
☐ Express Mail	☐ Air Freight
☐ Bus	☐

Attention: MR. ROGER GREEN

Date: 6-23-86 Our job number: 61600

Your job number:

Job:

We are enclosing:	For:
1 TRANSMITTAL LETTER	YOUR REVIEW
WITH ENCLOSURES	

Comments:

RECEIVED
JUN 23 1986
HYDROLOGY SECTION

By: Dave Thompson thank you

Rec'd by: Carlos A Montoya Date:

☒ Please Return Signed Yellow Copy

3/86

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

May 14, 1986

Dave Thompson, P.E.
Bohannan-Huston, Inc.
7500 Jefferson Street, NE
Albuquerque, New Mexico 87109

RE: DRAINAGE & GRADING PLAN SUBMITTALS OF SAN MATEO THEATRE/RESTAURANT COMPLEX RECEIVED MAY 7, 1986 FOR SITE DEVELOPMENT PLAN, PLATTING, AND ROUGH GRADING PERMIT APPROVAL (E-17/D18) 17

Dear Dave:

The above referenced submittal, drawings dated April 21, 1986, is approved for Site Development Plan and Platting purposes. If no infrastructures other than arroyo improvements are required, then financial guarantees can be deferred until Building Permit.

Rough Grading Permit can be approved with addition of the following items to the Grading Plan:

1. A Temporary Bench Mark near the project site.

2. Note requiring contractor to obtain a Top Soil Disturbance permit and retaining wall construction permit.

Bring in mylars for approval signature with the above items added.

Before approval of Building Permit, the following items must be addressed at time of submittal for Building Permit:

1. One of the concrete rundowns to arroyo bottom must be of adequate width and slope to serve as maintenance vehicle access as previously requested by AMAFCA.

2. Rip Rap Blanket detail must show a maximum slope for riprap and a minimum depth of riprap toe below arroyo bottom. A riprap toe elevation of 5181.00 may not be adequate unless arroyo bottom is filled to higher elevations from existing.

3. An Encroachment Agreement will be required for the temporary arroyo improvements. See DPM Chapter 8, page 8-15 for format required.

4. Design calculations for sizing riprap must be provided.

If you have any questions, call me at 766-7644.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./Hydrology Section

cc: Dan Sabo, AMAFCA
Paul Silverman, Trammell Crow Co.

RAG/bsj

BOHANNAN-HUSTON INC.
COURTYARD I, 7500 JEFFERSON STREET, N.E. ALBUQUERQUE, NEW MEXICO 87109 (505) 822-1000
UNIVERSITY PLAZA, SUITE 104, 330 GARFIELD SANTA FE, NEW MEXICO 87501 (505) 988-7671
6713 VISCOUNT BLVD EL PASO, TEXAS 79925 (915) 778-4491

ENGINEERS ARCHITECTS PHOTOGRAMMETRIS

May 6, 1986

RECEIVED
MAY 07 1986
HYDROLOGY SECTION

Mr. Fred Aguirre
City of Albuquerque
Hydrology Section
P.O. Box 1293
Albuquerque, NM 87103

Re: Revised Drainage Plan for San Mateo Theatre/Restaurant Complex
(E-17/U-18)

Dear Fred:

Enclosed are prints of the Final Grading Plan for the above referenced project. This grading plan follows the conceptual grading plan submitted January 2, 1986 which is enclosed. The basin boundaries are the same as well as the rundown locations to the Bear Canyon Arroyo.

Also enclosed is the conceptual grading plan review letter from Billy Goolsby of your office. Billy's main concern was the stability of the arroyo embankment. We have worked with Rich Leonard of AMAFCA, Jim Fink of City Hydrology Planning Department and Clint Dodge of Leedshill-Herkenhoff, Inc. to arrive at a solution for arroyo protection. Attached is a letter from Jim Fink outlining the required slope protection and guidelines for rundown design. It states that we should provide a riprap blanket from elevation 5181 to 5188 and concrete rundowns. Mr. Fink's recommendations are based on information from Leedshill-Herkenhoff on possible permanent improvements to this reach.

The riprap height of 7 vertical feet was determined by Mr. Fink's letter. The riprap section was designed using "Design of Stable Channels with Flexible Lining" DOT October 1975. A Q_{100} of 1800 cfs, received from Leedshill-Herkenhoff, Inc., was used as the flow through the arroyo.

The concrete rundowns were sized using the Weir Equation at the inlet and Manning's Equation after the inlet transition. A 10' transition section from the inlet width to the rundown width is used. The rundown calculations are enclosed.

It should be pointed out that at this time that there is consideration of the owner constructing a box culvert from San Mateo box outlet to I-25 East Frontage Road. This, of course, would change the design of site drainage outlet configuration. A decision on this option shall be forthcoming.

PRINCIPALS
LARRY W. HUSTON
MICHAEL M. EMERY, P.E.
DANA C. WOOD, P.E.
ANDRES ARAGON VIAMONTE
DARRELL L. WADE, P.E.
JAMES V. DOMENICK, P.E.
BRIAN G. BURNETT, P.E.

We believe that your comments and concerns have been addressed adequately. If you have any further comments, please call me at 823-1000.

Truly yours,

David Thompson

David Thompson, P.E.
Project Manager

Enclosures

cc: Mr. Paul Silverman
Mr. David Pacheco

DT/mls
Job No. 6 160 0

DRAINAGE INFORMATION SHEET

PROJECT TITLE: San Mateo Theatre-Restaurant Complex ZONE ATLAS/DRNG. FILE #: E-17

LEGAL DESCRIPTION: Tracts A-1 and A-2 of Plat A,B,C, A-1 and A-2 of Triangle Realty Co.

CITY ADDRESS:

ENGINEERING FIRM: Bohannan-Huston, Inc. CONTACT: Dave Thompson

ADDRESS: 7500 Jefferson NE Albuquerque, NM 87109 PHONE: 823-1000

OWNER: Trammell Crow Co. CONTACT: Paul Silverman

ADDRESS: Box 25346 Albuquerque, NM 87125 PHONE: 843-7525

ARCHITECT: Bohannan-Huston, Inc. CONTACT: 823-1000

ADDRESS: 7500 Jefferson N.E. Albuquerque, NM 87109 PHONE: 823-1000

SURVEYOR: Bohannan-Huston, Inc. CONTACT: Dwain Weaver

ADDRESS: 7500 Jefferson N.E. Albuquerque, NM 87109 PHONE: 823-1000

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

RECEIVED MAY 07 1986 HYDROLOGY SECTION

PRE-DESIGN MEETING:

___ YES

x NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. 6-228

EPC NO.

PROJ. NO.

TYPE OF SUBMITTAL:

x DRAINAGE REPORT

___ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

___ GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

x PRELIMINARY PLAT APPROVAL

x SITE DEVELOPMENT PLAN APPROVAL

x FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

x ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 5-7-86

BY: David Thompson

E17/D18

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

RECEIVED
APR 08 1986
DH 750
HYDROLOGY SECTION

April 8, 1986

Brain G. Burnett, P.E., Vice President
Bohannan-Huston, Inc.
4125 Carlisle, NE
Albuquerque, NM 87107

RE: BEAR CANYON ARROYO TEMPORARY SLOPE PROTECTION ADJACENT TO SAN MATEO THEATRE AND RESTAURANTE SITE

Dear Brain:

The temporary slope protection that is proposed for the referenced sight will be acceptable providing that the toe of the Rip Rap blanket be at elevation 5181 and the top be at 5188 throughout the length of the project. The asphalt rundowns should be changed to concrete and extend down to an elevation of 5179.

If you have any questions concerning the changes, please call.

Sincerely,

Jim Fink

Jim Fink, Principal Engineer/Hydrology
Public Works Department-Planning Group

JF/tar

cc: Richard Leonard, Executive Engineer/AMAFCA
Billy Goolsby, Civil Engineer/Design Hydrology
Clint Dodge, Leedshill-Herkenhoff, Inc.

E17/D18
17

March 28, 1986

Mr. Richard Leonard
AMAFCA
P.O. Box 25851
Albuquerque, NM 87125

Re: Bear Canyon Arroyo Temporary Slope Protection Adjacent to San Mateo Theatre and Restaurant Site

Dear Rich:

Enclosed for your review is a plan sheet showing the existing and proposed contours for a portion of the referenced site and Bear Canyon Arroyo. In an earlier conversation with Mr. Jim Fink, he indicated that permanent arroyo improvements in this reach will be constructed along with the AMAFCA portion of the project west of I-25. Since it appears that these facilities will be constructed this winter, we are requesting that temporary erosion protection be installed along the toe of the arroyo until the permanent improvements are designed and constructed. Jim mentioned that his current plans are not to assess adjacent property owners for any permanent improvements; therefore, temporary protection would be constructed at the owner's expense.

Three cross-sections have been drawn to help illustrate the proposed temporary slope protection for the arroyo. We propose that a riprap blanket be constructed at the toe of the embankment at the arroyo bed. The blanket will be embedded above and below the arroyo flowline. Filter material will be included under the riprap. The extent of the protection will be determined in final design. Following is a description of each cross-section.

1. Cross-section A-A shows the profile from the entrance road to the site to the culvert box inlets. At this point there is an 11 foot high embankment from the arroyo floor to the entrance road.

2. Cross-section B-B includes the pad elevation. The pad elevation of 5190.00 was arrived at by assuming that the water surface elevation during a 100-year storm is approximately 5 feet above the inlet elevation of the box culverts and allowing for 2.5 feet of additional freeboard. The embankment is 8 feet high above the arroyo bed at this location.

3. Cross-section C-C shows a typical profile through the parking lot east of the restaurant. The embankment height ranges from 5 to 8' high above the arroyo bed.

RECEIVED
MAR 28 1986
HYDROLOGY SECTION

BOHANNAN-HUSTON INC.
4125 CARLISLE BLVD., N. E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000
UNIVERSITY PLAZA, 330 GARFIELD SUITE 104 SANTA FE, N. M. 87509 505 988-7671
6713 VISCOUNT BLVD. EL PASO, TEXAS 79925 915 778-4491

PRINCIPALS
LARRY W. HUSTON
MICHAL M. EMEFY, P. E.

We would appreciate your review of the proposed temporary bank stabilization method. If we can work out acceptable concepts with you and the City we will immediately proceed with final design of the improvements. If at all possible, we hope to obtain necessary grading permits for the property by mid-April.

We have carbon copied this letter and drawing to the City and Leedshill-Herkenhoff. We would be happy to meet with you to discuss your comments, if necessary. If you have any questions, please call Dave Thompson or me at 881-2000.

Truly yours,

Brian G. Burnett

Brian G. Burnett, P.E.
Vice President

Enclosure

cc: Mr. Paul Silverman
Mr. Jim Fink
Mr. Fred Aguirre
Mr. Billy Goolsby
Mr. Clint Dodge

DT/mls
Job No. 6 160 0

RECEIVED
MAR 28 1986
HYDROLOGY SECTION

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

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

February 6, 1986

Brian Burnett, P.E.
Bohannan-Huston, Inc.
4125 Carlisle Blvd., NE
Albuquerque, New Mexico 87107

RE: REVISED CONCEPTUAL DRAINAGE PLAN FOR SAN MATEO THEATRE AND RESTAURANT DEVELOPMENT RECEIVED JANUARY 2, 1986 (E-17/D17)

Dear Brian:

I have reviewed the referenced submittal and agree with the proposed concept of discharging to the Bear Canyon Arroyo. However, as previously stated in earlier reviews and for Site Development Plan (EPC) reviews, the main concern has been the stability of the arroyo and/or the requirements needed for improvements to same.

The plan does not clearly show. But it appears that encroachment may be taking place in the right-of-way due to the adjacent on-site grading. How will this affect the hydraulics and capacity of the arroyo.

The existing floodplain needs to be shown on the plan.

Also, as preveiously stated, a detailed drainage report will be required for Site Development Plan approval.

Should you have any questions or comments, please call.

Cordially,

Billy J. Goolsby

Billy J. Goolsby, P.E.
C.E./Design Hydrology

BJG/bsj

BOHANNAN-HUSTON INC.
4125 CARLISLE BLVD. N.E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000
UNIVERSITY PLAZA, 330 GARFIELD SUITE 104 SANTA FE, N. M. 87509 505 988-7671
6713 VISCOUNT BLVD. EL PASO, TEXAS 79925 915 778-4491

January 2, 1986

RECEIVED
JAN 02 1986
HYDROLOGY SECTION

Mr. Fred Aguirre
Design Hydrologist
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Conceptual Drainage Plan Submittal for San Mateo Theatre/Restaurant Complex

Dear Fred:

Enclosed for your review and approval is a copy of the referenced plan. This case will be considered at the February EPC hearing. It would be most helpful to our client's planning effort if we could work with your office to obtain approval of the plan by the hearing date. Thank you.

Truly yours,

Brian G. Burnett, P.E.
Vice President

Enclosure

cc: Mr. Paul Silverman

BGB/mls
Job No. 5 318 0

PRINCIPALS
LARRY W. HUSTON
MICHIAL M. EMERY, P. E.

DRAINAGE INFORMATION SHEET

PROJECT TITLE: San Mateo Theatre/Restaurant Complex ZONE ATLAS/DRNG. FILE #: E-17 / D18 17

LEGAL DESCRIPTION: Tracts A-1 and A-2 of Plat A, B, C, A-1 and A-2 of Triangle Realty Co.

CITY ADDRESS: n/a

ENGINEERING FIRM: Bohannan-Huston, Inc. CONTACT: Brian Burnett

ADDRESS: 4125 Carlisle N.E. Albuquerque, NM 87107 PHONE: 881-2000

OWNER: Trammell-Crow Company CONTACT: Paul Silverman

ADDRESS: Box 25346 PHONE: 843-7525

ARCHITECT: Bohannan-Huston, Inc. CONTACT: David Pacheco

ADDRESS: 4125 Carlisle NE Albuquerque, NM 87107 PHONE: 881-2000

SURVEYOR: Bohannan-Huston, Inc. CONTACT: Dwain Weaver

ADDRESS: 4125 Carlisle N.E. PHONE: 881-2000

CONTRACTOR: CONTACT:

ADDRESS: PHONE:

RECEIVED JAN 02 1986 HYDROLOGY SECTION

PRE-DESIGN MEETING:

___ YES

_x_ NO

___ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. ___

EPC NO. Z 85 36 5/10/85

PROJ. NO. ___

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

___ DRAINAGE PLAN

_x_ CONCEPTUAL GRADING & DRAINAGE PLAN

___ GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

_x_ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 1/2/86

BY: Brian D. Burnett

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

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

May 23, 1985

Mr. Victor Chavez
Chavez-Grieves Consulting Eng.
4520 Montgomery Blvd. NE
Albuquerque, N.M. 87109

RE: CONCEPTUAL DRAINAGE PLAN FOR HOTEL & RESTAURANT COMPLEX
(E17/D18) RECEIVED APRIL 9, 1985

Dear Victor,

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

1. Please address where the flood plain is located for the Bear Canyon Arroyo.

2. Please address if the banks of the arroyo are stable. Flows from the arroyo may damage structures or parking area.

If you shouls have any questions, please contact me at 766-7644.

Sincerely,

Carlos A. Montoya
City/County Flood Plain Admin.

CAM/cl

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Hotel & Restaurant Complex ZONE ATLAS/DRNG.FILE #: E-17/D18

LEGAL DESCRIPTION: Tract A-1 and A-2; Plat: A, B, C, A-1, & A-2 of Triangle Realty Co. T. 11 N, R. 3E, Sec. 26

CITY ADDRESS:

ENGINEERING FIRM: Chavez - Grieves Consulting Engrs. CONTACT: Victor J. Chavez

ADDRESS: 4520 Montgomery PHONE: (505) 881-7376

OWNER: CONTACT:

ADDRESS: PHONE:

ARCHITECT: De la Torre / Barnhart CONTACT: George Barnhart

ADDRESS: 6121 Indian School Rd. NE Suite 141 PHONE: (505) 881-0550

SURVEYOR: CONTACT:

ADDRESS: PHONE:

CONTRACTOR: N/A CONTACT:

ADDRESS: PHONE:

RECEIVED
APR 09 1985
HYDROLOGY SECTION

PRE-DESIGN MEETING:

X YES

___ NO

X COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. X

EPC NO. Z-85-36 4/18/85

PROJ. NO.

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

___ DRAINAGE PLAN

X CONCEPTUAL GRADING & DRAINAGE PLAN

___ GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

X SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 4-9-85

BY: Victor J. Chavez

CHAVEZ GRIEVES / CONSULTING ENGINEERS, INC.
4520 MONTGOMERY BLVD., SUITE 3
ALBUQUERQUE, N.M. 87109
(505) 881-7376

LETTER OF TRANSMITTAL

TO: Design Hydrology Section

DATE: 04-09-85
JOB NO. D01-154
RE: Conceptual Drainage Plan - Hotel & Restaurant Complex

GENTLEMEN:

We are sending you X ATTACHED ___ UNDER SEPARATE COVER the following items:

__ SHOP DRAWINGS __ CHANGE ORDER __ SPECIFICATIONS
__ COPY OF LETTER __ PLANS __ _____
__ PRINTS __ SAMPLES

COPIES	DATE	NO.	DESCRIPTION
1			Information Sheet
1			Conceptual Drainage Plan
1			Conference Recap

RECEIVED APR 09 1985 HYDROLOGY SECTION

THESE ARE TRANSMITTED as checked below:

X FOR APPROVAL
__ FOR YOUR USE
__ AS REQUESTED
__ FOR REVIEW AND COMMENT
__ APPROVED AS SUBMITTED
__ APPROVED AS NOTED
__ _____

__ RETURNED FOR CORRECTIONS
__ RESUBMIT ___ COPIES FOR APPROVAL
__ SUBMIT ___ COPIES FOR DISTRIBUTION
__ RETURN ___ CORRECTED PRINTS
__ PRINTS RETURNED AFTER LOAN TO US
__ FOR BIDS DUE _____ 19__

REMARKS:

COPY TO: file

SIGNED: DSM

If enclosures are not as noted, kindly notify us at once.

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

PRE-DESIGN CONFERENCE RECAP

HYDROLOGY SECTION PROJECT NO.: E-17 DATE: 2/20/85

PLANNING DIVISION NOS. EPC: _____ DRB: _____

SUBJECT: Hotel - Restaurant & Retail site

LEGAL DESCRIP.: Tracts A-1 & A-2 Triangle Realty Inc

APPROVAL REQUESTED

_____ PRELIMINARY PLAT
_____ SITE DEVELOPMENT PLAN
X FINAL PLAT
X BUILDING PERMIT
_____ ROUGH GRADING

	WHO:	REPRESENTING:
ATTENDANCE:	Jackie McDowell	Chavez-Grieves
	Billy Goolsby	City

_____ Approved ~~Preliminary~~ Drainage Plan/Report required for Preliminary Plat and/or Site Development Plan sign-off.

X Approved Drainage ~~Plan~~/Report required for Final Plat and/or Building Permit sign-off.

_____ Subdivision Improvements Agreement or Financial Security required.

FINDINGS: ① Discharge to be determined by analysis of downstream capacity ② Discharge Bear Arroyo appropriate if channel bank is stable and capacity is available ③ Encroachment in floodplain must address hydraulics of the arroyo & the channel stability at the banks on both sides and possible flooding in parking area.

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 J. Goolsby SIGNED: Jackie S. McDowell
TITLE: CE/~~Design Hydrology~~ TITLE: CE INTERN / CHAVEZ GRIEVES
DATE: 2/20/85 DATE: 2-20-85

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH THE DRAINAGE SUBMITTAL

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

B DR

October 1, 1982

E17-D18
D17

Mr. Zane King
Galles Oldsmobile-Isuzu
P.O. Box 14518
Albuquerque, N.M. 87191

RE: GALLES PROPERTY PONDING FACILITY

Dear Mr. King:

On several occasions the City Engineer's Office has been contacted by the Environmental Health Department concerning the ponding facility located on the west side of the Galles property. Since the pond represents a maintenance problem for the car dealership and potential health and environmental problems for residents in the area, we are very interested in formulating a plan which improves the current condition including the possibility of eliminating the pond.

Please contact Brian Burnett at 766-7467 so that a meeting can be arranged to discuss the situation and establish a plan-of-action for eliminating the ponding problem.

Very truly yours,

Charles M. Easterling
Princ. Asst. City Eng./Hydrology

CME/BGB/tsl

cc: Mr. Steve Smiley, Env. Health
Mr. Bernie Montoya, Hydrology

PLAN/PLATS

ON

FILE

DRAINAGE REPORT

FOR

GALLES DEVELOPMENT

OF TRACT "A", SAN MATEO BLVD NE

April, 1977

Prepared By

T.T. Burnett Engineering, Inc.
120 Morningside Dr. NE
Albuquerque, New Mexico 87108

Prepared For

Jaynes Corporation
2906 Broadway NE
Albuquerque, New Mexico 87107

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
NO. 5110
NEW MEXICO
JEAN J. BORDENAVE

Jean J. Bordenave, N.M.P.E. & L.S. #5110

TABLE OF CONTENTS

PURPOSE	1
LOCATION AND TERRAIN	1
PROPOSED DEVELOPMENT	2
UPLAND DRAINAGE	2
INTERNAL DRAINAGE	3
CONCLUSIONS	3
METHODS AND EQUATIONS	4
COMPUTATIONS	
CHANNEL FLOWS	1-3
STORAGE REQUIREMENTS	4

DRAINAGE REPORT

FOR

GALLES DEVELOPMENT

OF TRACT "A", SAN MATEO BLVD. NE

PURPOSE

The purpose of this report is to present to governing agencies a reasonable method of controlling runoff, resulting from the 100 year storm, within the proposed development of subject property, thereby providing protection to the proposed development as well as downstream areas. Also presented is a narrative of existing conditions, both on site and the surrounding area.

LOCATION AND TERRAIN

The proposed development is bounded on the north by an undeveloped tract, on the east by San Mateo Blvd. NE, on the south by property developed by Albuquerque National Bank and the Bear Canyon Arroyo, and on the west by the Interstate Highway East Frontage Road (See Plate I for exact location).

The property slopes in a westerly direction at a rate of less than 2.5 percent and quite broken on the southern portion due borrowing and wasting of earth. The soil is sandy with some gravel and is sparsely grassed. The tract area is approximately 11 acres of which approximately 3.5 acres are to be developed.

PROPOSED DEVELOPMENT

The development is commercial in purpose and will be composed of an asphalt paved display area, a small office and a graveled storage area. Through the use of swales all runoff will be diverted to the west of the property and thence southward to a retention pond.

UPLAND DRAINAGE

The undeveloped tract to the north of the property is lower in elevation than the proposed development and therefore contributes no runoff to the property.

San Mateo Blvd. NE is now in the design stages of SAD 191, which will provide curb and gutter along the east boundary of the property. The construction of San Mateo Blvd. is scheduled for July, 1977. It is City of Albuquerque Policy that 100 year flows must be retained within the drainage system and therefore runoff from San Mateo Blvd. cannot enter the proposed development.

Both the development of Albuquerque National Bank and the Bear Canyon Arroyo are lower than the proposed development.

Runoff from the Interstate 25 complex is and will be carried in ditches paralleling the roadway.

It can be seen from the above that there are no flows contributed to the property from an external source. (See Plates II & III for contours)

INTERNAL DRAINAGE

The internal drainage has been analyzed for the 100 year storm in both the developed and undeveloped conditions (see Comp. Sht. 4 of 4). It is proposed that through constructed swales and channels that all runoff from the property be retained on site. Computed quantities, velocities and depths of flows are shown on computation sheets 1 of 4 thru 3 of 4.

CONCLUSIONS

Planned development of the property is such that all ordinances and resolutions relating to runoff have been complied with. Also, adequate protection of onsite construction has been given. Swale and channel velocities are not erosive, adequate freeboard has been computed and runoff from the site has been elimanated.

METHODS AND EQUATIONS

Rainfall Intensity

from "Master Plan of Drainage - Albuquerque, New Mexico and Environs, 1963"

$$i = 189/(t + 25) \text{, inches/hour}$$

where, t - time of concentration, min.

Runoff Rate

Rational Formula

$$Q = CiA \text{, cubic feet/second}$$

where, C - runoff coefficient dependent on physical characteristics of the drainage area.
i - rainfall intensity, in./hr.
A - drainage area, acres

Channel Velocities and Depths

Manning's Equation

$$Q = \frac{1.486}{n} AR\,S \text{, cubic feet/second}$$

where, A - cross sectional area of flow, sq. ft.
R - hydraulic radius, feet
S - hydraulic gradient, feet/foot
n - Manning's roughness coefficient, dependent on channel surface

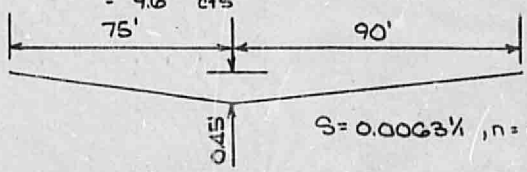
$$V = Q/A \text{, feet/second}$$

where, Q - as defined above
A - as defined above

BY J.J.B. DATE 4/18/77 SUBJECT DRAINAGE REPORT SHEET NO. 1 OF 4
CHKD. BY ____ DATE ____ JOB NO. 7707
CHANNEL FLOWS

SWALE @ CONTOUR 5204+ (exit from paved display area)

AREA - 345' (frontage) x 230' (depth) = 1.822 Acres
SURFACE - Asphalt, use C = 0.95
RUNOFF - $Q_{100} = CiA$ use t_c = 9 min.
$= (0.95)(189/(9+25))(1.822)$
$= 9.6$ cfs

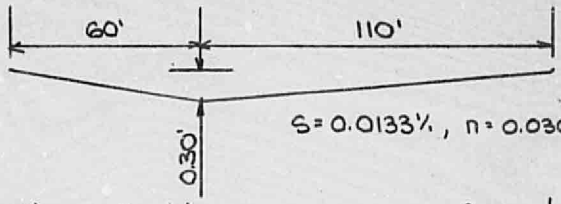


S = 0.0063%, n = 0.021

Storm Conditions	Capacity
Q_{100} = 9.6 cfs	Q = 77 cfs
V_{100} = 1.23 fps	V = 2.08 fps
d_{100} = 0.21 ft	d = 0.45 ft.

SWALE @ CONTOUR 5203.5 (entrance to gravel auto storage area)

Use runoff from above comps



S = 0.0133%, n = 0.030

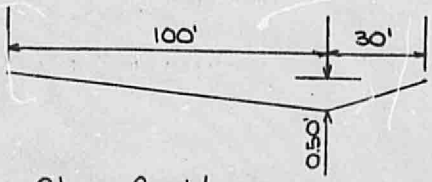
Storm Conditions	Capacity
Q_{100} = 9.6 cfs	Q = 41 cfs
V_{100} = 1.12 fps	V = 1.61 fps
d_{100} = 0.17 ft	d = 0.30 ft

BY JJB DATE 1/18/77 SUBJECT DRAINAGE REPORT SHEET NO. 2 OF 4
CHKD. BY ____ DATE ____ JOB NO. 7707

CHANNEL FLOWS

SWALE @ CONTOUR 5197.0 (within gravel auto storage area)

Area - 1.822Ac. and 130' (frontage) × 270' (deep) = 0.806 Acres
Surface - 0.95 and Gravel, use C=0.50
RUNOFF - $Q_{100} = C_1A + C_1A$, use t_c = 11 min.
$= [(0.95)(1.822) + (0.50)(0.806)](189/(11+25))$
$= 11.2$ cfs



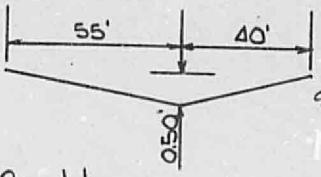
S = 0.025%, n = 0.030

Storm Conditions
Q_{100} = 11.2 cfs
V_{100} = 1.79 fps
d_{100} = 0.22 ft

Capacity
Q = 101 cfs
V = 3.11 fps
d = 0.50 ft

SWALE @ CONTOUR 5191.0 (exit gravel auto storage area)

AREA - 1.822Ac. and 130' (frontage) × 525' (deep) = 1.506 Acres
SURFACE - 0.95 and Gravel, use C = 0.50
RUNOFF - $Q_{100} = C_1A + C_1A$ use t_c = 13 min.
$= [(0.95)(1.822) + (0.50)(1.506)](189/(13+25))$
$= 12.5$ cfs



S = 0.0211%, n = 0.030

Storm Conditions
Q_{100} = 12.5 cfs
V_{100} = 1.87 fps
d_{100} = 0.27 ft

Capacity
Q = 67.8 cfs
V = 2.86 fps
d = 0.50 ft

BY JWW DATE 4/29/81 SUBJECT DRAINAGE REPORT SHEET NO. 3 OF 4
CHKD. BY ____ DATE ____ JOB NO. 7707

CHANNEL FLOWS

CHANNEL @ CONTOUR 5185 (earth channel to storage)

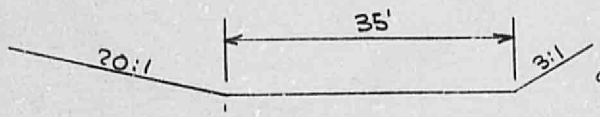
AREA - 1.822 Ac, 1.566 Ac and 350'(front.) x 460'(deep) = 3.7 Acres

SURFACE - 0.95, 0.50 and existing broken terrain - Use C = 0.30

RUNOFF - $Q_{100} = C_1A + C_2A + C_3A$, use t_c = 16 min.

$= [(0.95)(1.822) + (0.50)(1.566) + (0.30)(3.7)]\,(189/(16+25))$

$= 16.7$ cfs



S = 0.0067%, n = 0.40

Storm Conditions

Q_{100} = 16.7 cfs

V_{100} = 1.34 fps

d_{100} = 0.32 ft

Capacity @ 1' depth

Q = 122.0 cfs

V = 2.62 fps

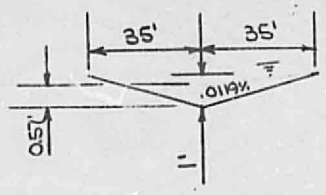
d = 1.00 ft

CHECK CAPACITY FLOW IN CURVED CHANNEL @ CONTOUR 5202

Use Q = 12 cfs, Assume V = 4.8 fps

Radius ℄ channel = 120', $\tan\theta = V^2/gR$

= .0059%



Supercritical ∴ use 2 times comp. rate.

S = 0.050%

$Q_{comp} = (1.486/0.030)(13.794)(.2812)^{2/3}(0.050)^{1/2}$

= 66 cfs > 11.2 cfs @ contour 97 (sht. 2)

$V = Q_{comp}/A$

= 4.75 fps < 4.8 fps from above

BY ---- DATE 4/19/11 SUBJECT ---- DRAINAGE REPORT SHEET NO. 4 OF 4
CHKD. BY ---- DATE ---- JOB NO. 7707

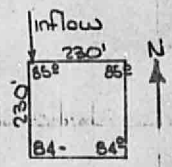
STORAGE REQUIRED

CONTRIBUTING AREA

11.4 Acres Total Tract Area			@	C = 0.30	=	3.42 Ac.
Developed	1.822	Acres	@	C = 0.95	=	1.73
	1.566	Acres	@	C = 0.50	=	0.78
Raw	8.0	Acres	@	C = 0.30	=	2.40
	11.4	Acres				4.91 Ac

STORAGE

ASSUME TOTAL RETENTION



230' × 230' pond w/ 2:1 side slopes
Use percolation rate of 1/2"/hour
surface area @ 1' depth = 52,900 ft²
volume - storage @ 1' depth = 26,450 + ft³
@ >1 depth = 26,450 + 52,900 (d-1)

for an equivalent area of 4.91 Acres with C = 1.00
use tc = 1 hr for perc. comp's ∴ 2205 ft³/hr after 1st hr.

time hr	total rainfall inches	Runoff Volume ft³	Perc. ft³	Storage Volume ft³	depth ft
4	2.52	44915	6615	38,300	1.22
5	2.68	47776	8820	38,946	1.24
6	2.80	49905	11025	38,880	1.23

Require 39,000 ft³ Storage
Max. Depth = 1.25'±
Provide 1' Freeboard
Build up existing dike to Elevation 5186

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

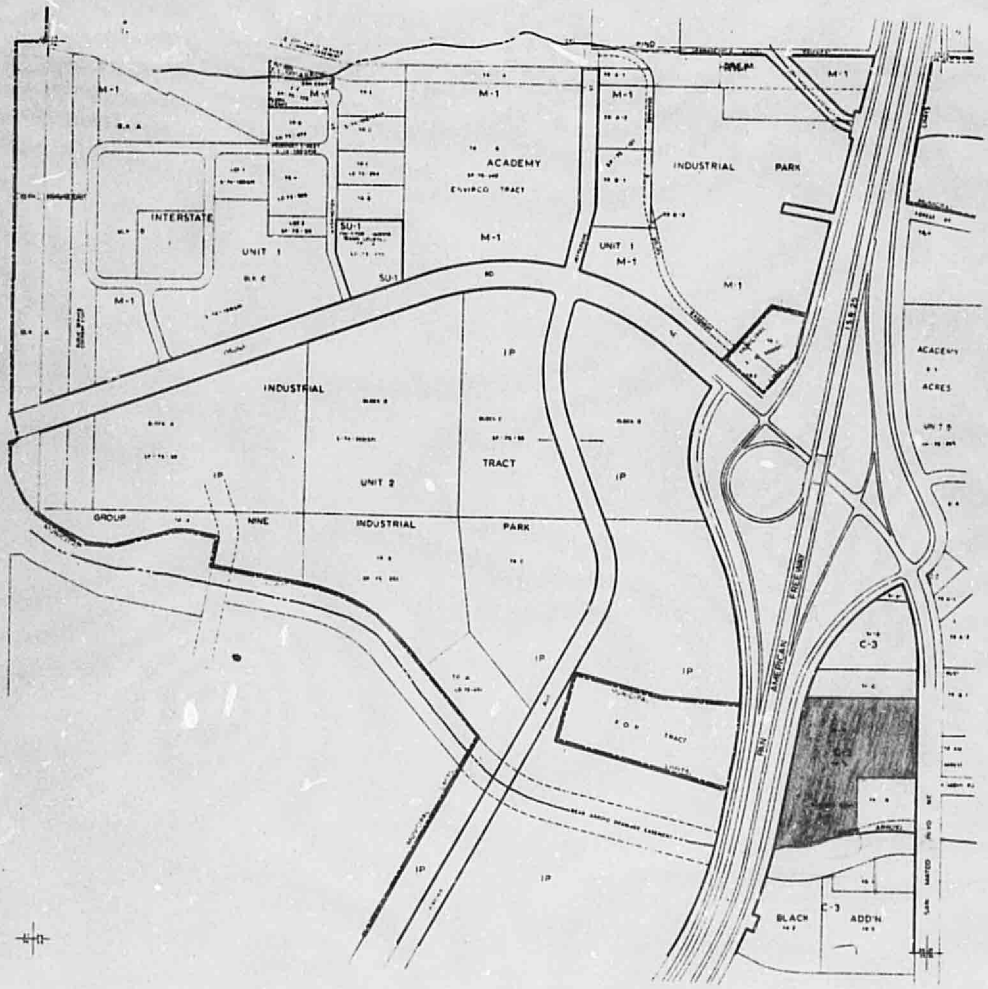


Plate I

E-17-Z

PLAN/PLATS

ON

FILE

FIND DEPTH OF FLOW IN ARROYO INCLUDING IMPROVEMENTS REQUIRED BY DEVELOPMENT OF TRIANGLE REALTY PROPERTY, BUT NOT INCLUDING AMAFCA'S PLANNED IMPROVEMENTS ANALYZED BY LEEDSHILL-HERKENHOFF

1) FIND DEPTH OF 100 YEAR-STORM FLOW IN ARROYO WITH DEVELOPMENT IMPROVEMENTS

Q_{100} = 1800 CFS (FROM LEEDSHILL-HERKENHOFF REPORT)

N = .035 FOR RIPRAP

MIN BOTTOM WIDTH = 90'

SIDE SLOPE = 3:1 (2:1 ON NORTH + 4:1 ON SOUTH)

CHANNEL SLOPE = .5%

DEPTH OF FLOW = 3.0 ft

2) DEPTH OF 100 YEAR STORM FLOW AFTER AMAFCA'S IMPROVEMENTS ARE INSTALLED

DEPTH OF FLOW = 4.4 ft (FROM LEEDSHILL-HERKENHOFF REPORT

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HYDROLOGY SECTION

BOHANNAN-HUSTON INC.

PROJECT NAME SAN MATEO SHEET ___ OF ___
PROJECT NO. 6160E BY ___ DATE ___
SUBJECT BEAR ARROYO CALCS CH'D ___ DATE ___

USING "DESIGN GUIDELINES AND CRITERIA CHANNELS AND HYDRAULIC STRUCTURES ON SANDY SOIL" SIMONS, LI AND ASSOC. JUNE 1981

SECTION 5.4.1.3 SIZE OF RIPRAP FOR CHANNEL EMBANKMENT LINING USE SECTION 5.9.2 OF "DRAINAGE CRITERIA MANUAL" VOL. 2.

$$\frac{VS^{0.17}}{d_{50}^{0.5}(S_s-1)^{.66}} =$$

CHANNEL CHARACTERISTICS

$S = .0003$ ft/ft (FROM LEEDSHILL-HERKENHOFF)
$Q = 1800$ CFS (FROM LEEDSHILL-HERKENHOFF)
$N = .035$
$W = 165$ ft.
$D = 5.0$ ft (FROM LEEDSHILL-HERKENHOFF
$S_s = 2.5$
$V = 2.05$ ft/s
TRY $d_{50} = .5'$

$$\frac{2.05(.0003)^{0.17}}{.5^{.5}(2.5-1)^{.66}} = .56$$

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FROM TABLE 5-5
TYPE VL RIPRAP IS REQUIRED

TABLE 5-1 OF "DRAINAGE CRITERIA MANUAL" GIVES CLASSIFICATION AND GRADATION OF RIPRAP

FILTER BLANKET SIZING

USE U.S. BUREAU OF RECLAMATION 1947 CRITERIA GIVEN IN ATTACHED TABLE 1 TO SIZE FILTER BLANKET MATERIAL

BEST SUITED FILTER BLANKET MATERIAL IS STATE HIGHWAY DEPT. CLASS III + SB BASE COURSE SEE ATTACHED SHEET.

PROJECT NAME SAN MATEO THEATRE/REST SHEET ____ OF ____
PROJECT NO. 611600 BY ____ DATE ____
SUBJECT RIPRAP DESIGN CALCS CH'D ____ DATE ____

be estimated for ordinary riprap using:

$$n = .0395\ d_{50}^{1/6}$$

in which d_{50} = the mean stone size in feet.

This equation does not apply to grouted riprap (n = .023 to .030), or to very shallow flow (hydraulic radius is less than or equal to 2 times the maximum rock size) where the roughness coefficient will be greater than indicated by the formula.

5.4.2 Rock Size and Lining Dimensions

Table 5-5 summarizes riprap requirements for a stable channel lining based on the following relationship which resulted from Smith and Murray's model studies (24):

$$\frac{VS^{0.17}}{d_{50}^{0.5}\ (S_s-1)^{.66}} = 4.5 \qquad \text{(Equation 5-4)}$$

in which, V = mean channel velocity in feet per second
S = longitudinal channel slope in feet per foot
S_s = Specific gravity of rock (minimum S_s = 2.50)
d_{50} = rock size in feet for which 50 percent of the riprap by weight is smaller.

The rock sizing requirements in Table 5-5 are based on the rock having a specific gravity of 2.5 or more. Rock having specific gravity less than 2.5 is considered unacceptable.

Table 5-5 represents a significant departure from past practices by recognizing that rock size does not need to be increased for steeper channel side slopes, provided the side slopes are no steeper than 2h:1v (24). Rock lined side slopes steeper than 2h:1v are considered unacceptable because of stability, safety, and maintenance considerations. Proper bedding is required both along the side slopes and the channel bottom for a stable lining. The riprap blanket thickness should be at least 1.75 times d_{50} (at least 2.0 times d_{50} in sandy soils) and should extend up the side slopes at least one foot above the design water surface. At the upstream and downstream termination of a riprap lining, the thickness should be increased 50 percent for at least 3 feet to prevent under cutting.

OK

OK

not necessary

Table 5-5
RIPRAP REQUIREMENTS FOR CHANNEL LININGS **

$VS^{0.17}/(S_s-1)^{0.66}$* (ft$^{\frac{1}{2}}$/sec)	Rock Type ***
1.4 to 3.2	VL
3.3 to 3.9	L
4.0 to 4.5	M
4.6 to 5.5	H
5.6 to 6.4	VH

* Use S_s = 2.5 unless the source of rock and its densities are known at the time of design.

** Table valid only for Froude number of 0.8 or less and side slopes no steeper than 2h:1v.

*** Type VL and L riprap shall be buried after placement to reduce vandalism.
SM9 slope mattress with toe protection may be substituted for Type VL or L riprap.
G12 gabion with toe protection may be substituted for Type M and Type H riprap.

5.4.3 Toe Protection

Where only the channel sides are to be lined, additional riprap is needed to provide for long term stability of the lining. In this case, the riprap blanket should extend at least 3 feet below the existing channel bed and the thickness of the blanket below the existing channel bed increased to at least 3 times d_{50} to accommodate possible channel scour during floods (see Figure 5-4a). For sandy soils, consult specific criteria for channels on sandy soils. If wire enclosed rock lining is used, the toe must be protected by placing riprap at the toe. This is needed to protect against frequently occurring abrasion, (see Figure 5-4b and 5-4c).

not done on 6/23/86 drawings

Table 5-1

CLASSIFICATION AND GRADATION OF ORDINARY RIPRAP

Riprap Designation	% Smaller Than Given Size By Weight	Intermediate Rock Dimension (Inches)	d_{50}* (Inches)
Type VL	70-100	12	
	50-70	9	
	35-50	6	6**
	2-10	2	
Type L	70-100	15	
	50-70	12	
	35-50	9	9**
	2-10	3	
Type M	70-100	21	
	50-70	18	
	35-50	12	12
	2-10	4	
Type H	100	30	
	50-70	24	
	35-50	18	18
	2-10	6	
Type VH	100	42	
	50-70	33	
	35-50	24	24
	2-10	9	

*d_{50} = Mean particle size

** Bury types VL and L with native top soil and revegetate to protect from vandalism.

5.2 Wire Enclosed Rock

Wire enclosed rock refers to rocks that are bound together in a wire basket so that they act as a single unit. One of the major advantages of wire enclosed rock is that it provides an alternative in situations where available rock sizes are too small for ordinary riprap. Another advantage is the versatility that results from the regular geometric shapes of wire enclosed rock. The rectangular blocks and mats can be fashioned into almost any shape that can be

Table 1

SUMMARY OF FILTER DESIGN CRITERIA

Investigators	Base Material	Filter Material	Criteria Developed
Terzaghi 1922	Uncertain whether criteria based on experiments or conservative reasoning		$\frac{D_{15}^F}{D_{85}^B} < 4 < \frac{D_{15}^F}{D_{15}^B}$
Bertram 1939	Uniform quartz and Ottawa sands	Uniform quartz and Ottawa sands	$\frac{D_{15}^F}{D_{85}^B} < 6$, $\frac{D_{15}^F}{D_{15}^B} < 9$
Newton and Hurley 1940	Well-graded gravelly sand	Natural bank gravels. Finer sizes successively screened out. Fairly uniform filters	$\frac{D_{15}^F}{D_{15}^B} < 32$, $\frac{D_{15}^F}{D_{50}^B} < 15$
Waterways Experiment Station 1941 1948	Random material types. Fine to coarse sands	Random types including natural pit-run gravels	$\frac{D_{15}^F}{D_{15}^B} > 4, < 20$
			$\frac{D_{50}^F}{D_{50}^B} < 25$, $\frac{D_{15}^F}{D_{85}^B} < 5$
			Gradation of filters should be more or less parallel to base. Filter should be well graded
Office, Chief of Engineers	All types	Concrete sand and coarse aggregate generally recommended	$\frac{D_{15}^F}{D_{85}^B} < 5.0$, $\frac{D_{15}^F}{D_{15}^B} > 5$
U. S. Bureau of Reclamation 1947	Artificially blended materials of various ranges including uniform material	Artificially blended uniform filters	$\frac{D_{50}^F}{D_{50}^B} > 5, < 10$
		Artificially blended well-graded filters	$\frac{D_{50}^F}{D_{50}^B} > 12, < 58$
			$\frac{D_{15}^F}{D_{15}^B} > 12, < 40$
Providence District, CE 1942	All types	Certain general types recommended	Filter design curve C_u of base vs $\frac{D_{15}^F}{D_{15}^B}$

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ed t mplete the project has been

new mix-design shall be established
ory results or other conditions make
new job-mix formula, when approved
of the Materials Lab Bureau.

all be placed on prepared subgrade,
te aggregate and bituminous materials
conforming with the requirements of

on which plant mix bituminous treated
ose and deleterious materials, and the
of Section 207—Subgrade Preparation,

se will be placed on the roadway in
401—Plant Mix Bituminous Pavement

will be measured by the ton of mixed

ed by the ton.

he ton.

bituminous treated base will be paid for
e pay items listed below when completed

	Pay Unit
.....	Ton
x Bituminous Treated Base	Ton
.....	Ton

OURSE AND SUBBASE

hing and placing base course or subbase
he contract documents.

304.2 MATERIALS.

304.21 Base course and subbase aggregate shall be composed of materials consisting of crushed stone, crushed or screened gravel, caliche, sand, or a combination of such materials. Base course and subbase aggregate shall be free from vegetable matter and all other deleterious materials, including silt and clay balls.

When the stationary plant method is used, base course and subbase aggregate will be accepted based on periodic samples taken from the roadway. When a road mix method is used, base course and subbase aggregate will be tested for acceptance on samples taken from the watered and completely processed windrow.

The aggregate will be tested in accordance with applicable AASHTO methods.

The aggregate materials shall be combined in such proportions that the resulting composite blend meets the requirements of one of the classes in table 304, unless otherwise shown on the plans:

TABLE 304. BASE COURSE AND SUBBASE GRADATION

SIEVE SIZE	CLASS					
	I-B	II-B	[illegible]	IV-SB	V-SB	VI-SB
2"						
1½"						
1"	100	100	100	100	100	100
[illegible] ¾"			70–100	60–95	—	—
No. 4	80–100	85–100	—	—	—	—
No. 10	30–60	40–70	30–55	25–40	25–70	20–35
No. 200	20–45	30–55	20–40	15–30	20–55	—
	3–10	4–12	0–12	0–12	0–12	0–10
Two Fractured Faces (Plus 4 Material)	50% or more	50% or more	—	—	—	—

When aggregate is produced all oversize material up to and including rocks and boulders 10 inches in greatest dimension shall be crushed and mixed with other material.

304.3 CONSTRUCTION REQUIREMENTS.

304.31 The Contractor shall produce material conforming with all the requirements of this section.

304.32 Preparation of Foundation. The subgrade, subbase, or base course upon which the subbase or base course is to be placed shall be cleaned of all loose and deleterious materials, shall be free from frozen material, and the top 6 inches shall have a moisture content not exceeding optimum as determined by AASHTO T 99 for subgrade and AASHTO T 180 for subbase or base course, Method C or D and shall

CONCRETE RUNDOWN CALCULATIONS

USE WEIR EQUATION AT INLET

$Q = CLH^{3/2}$

$Q = 23.2$ CFS

$C = 3.0$

$H = 1'$

$L = 7.73'$ USE 8' WIDTH

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USE MANNINGS EQUATION AFTER THE INLET

$Q = 23.2$ CFS

$H = .5'$

$N = .013$

$S = .20$ '/FT

PROJECT NAME SAN MATEO THEATER SHEET 1 OF 1
PROJECT NO. 61600 BY DATE
SUBJECT CONCRETE RUNDOWN CALCS CH'D DATE

CONC RUNDOWN

MANNINGS N=.0130 SLOPE =.2000

POINT	DIST	ELEV	POINT	DIST	ELEV	POINT	DIST	ELEV
1	0.00	0.50	3	2.00	0.00	5	4.00	0.50
2	0.00	0.08	4	4.00	0.08			

WSEL FT.	DEPTH INC	FLOW AREA SQ.FT.	FLOW RATE (CFS)	WETTED PER (FT)	FLOW VEL (FPS)	TOPWID PLUS OBSTRUCTIONS
0.04	0.04	0.04	0.16	2.01	3.87	2.01
0.08	0.08	0.17	1.03	4.00	6.16	4.00
0.13	0.13	0.33	3.22	4.09	9.63	4.00
0.17	0.17	0.50	6.24	4.17	12.45	4.00
0.21	0.21	0.67	9.94	4.25	14.88	4.00
0.25	0.25	0.83	14.22	4.34	17.04	4.00
0.29	0.29	1.00	19.03	4.42	19.00	4.00
0.33	0.33	1.17	24.29	4.50	20.79	4.00
0.38	0.38	1.34	29.97	4.59	22.45	4.00
0.42	0.42	1.50	36.04	4.67	23.99	4.00
0.46	0.46	1.67	42.45	4.75	25.44	4.00
0.50	0.50	1.83	49.11	4.84	26.78	4.00

Q_{100} DEPTH = .32 feet

PLAN/PLATS

ON

FILE

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