TVI - PHASE 13 SITE

K 15 - D 19

2 PLANS

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

D19

January 24, 1983

Mr. Victor Chavez
Chavez-Grieves & Associates
6121 Indian School Rd. N.E.
Albuquerque, N.M. 87110

RE: DRAINAGE PLAN FOR TVI-PHASE 13 SITE

Dear Vic:

This letter will serve as official notification that a temporary building permit was issued for the referenced site on January 21, 1983. A condition was attached to the release which read: "An approved drainage plan will be obtained by February 8, 1983."

A formal review by this office will be made by January 28, 1983 in order that the February 8, 1983 deadline can be met.

If you or your client have any questions, please call.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/tsl

cc: Fred Aguirre, Hydrology Section
Bernia Montoya, Hydrology Section
Bruce Nesbit, Wescon Construction

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

K15 - D19

January 27, 1983

Mr. Victor Chavez
Chavez-Grieves & Associates
6121 Indian School Rd. N.E.
Albuquerque, N.M. 87110

RE: DRAINAGE PLAN FOR TVI-PHASE 13 SITE

Dear Vic:

I have made an initial review of the referenced plan and forward the following comments:

1. Please provide ru off calculations for the site, pond, and outlet works.

2. A recent field visit revealed that the existing outlet pipes are plugged by sediment generated from the building site. Also, the recent snows have caused water to stand in the facility. I think it would be appropriate to ask the contractor to clear the pipes and take provisions to prevent them from plugging in the future. What type of landscaping provisions are suggested for the pond? Something must be done to insure that the pond does not become a public nuisance.

3. Please provide the roof drain locations on the plans.

4. Can the manhole elevations at the intersection of Hazeldine and Pine be used as the temporary bench mark instead of the one indicated at University and Hazeldine?

5. Approved copies of Special Order No. 19 for the outlet structure on Hazeldine must be submitted prior to the release of the building permit.

Please call if you have any questions concerning these matters.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/tsl

cc: Bruce Nesbit, Wescon Construction

CHAVEZ GRIEVES / CONSULTING ENGINEERS, INC.

6121 INDIAN SCHOOL RD., N.E. SUITE 220
ALBUQUERQUE, N.M. 87110
PH. (505) 881-7376

January 31, 1983

RECEIVED
JAN 31 1983
ENGINEERING

Brian Burnett
City of Albuquerque
Hydrology Department
P.O. Box 1293
Albuquerque, New Mexico 87103

RE: Drainage Plan for T.V.I. Phase XIII site.

Dear Mr. Burnett,

In response to your letter dated January 23, 1983, regarding the above referenced project, I offer the following:

1. The required calculations are attached.
2. The phase of construction which is presently beginning includes, grating to prevent plugging of the outlet pipes, fine grading in the ponding area to minimize nuisance ponding, additional rip-rap in those areas sensative to flows from the site and will provide landscaping which as yet is not available.
3. Roof drain areas are shown on the attached sketch. It should be noted that the 1.35 acres, originally shown to be draining directly from the site, has been reduced to 0.85 acres. The extra volume available in the pond will result in a total runoff from the site lower than that shown in the drainage plan.
4. The temporary bench mark has been designated as the manhole at the intersection of University and Hazeldine. Additional information has been provided for manholes at the intersections of Pine and Hazeldine, and Ash and Hazeldine. Any of these references may be used as a temporary bench mark.
5. Attached are copies of Special Order No. 19 sketches requested.

Your timely assistance in resolving this matter is appreciated.

Sincerely,

Victor J. Chavez

Victor J. Chavez, P.E.

Encl.

VJC/dlk

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

K15 - D19

February 2, 1983

Mr. Vic Chavez
Chavez-Grieves & Associates
6121 Indian School Rd. N.E.
Albuquerque, N.M. 87110

RE: DRAINAGE PLAN FOR TVI-PHASE 13 SITE

Dear Vic:

Based on your submittal of January 31, 1983, the referenced plan is approved. The approved copies of Special Order No. 19 should be forwarded to the contractor.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/tsl

cc: Bruce Nesbit, Wescon Construction

Albuquerque Technical-Vocational Institute

Main Campus: 525 Buena Vista S.E. • Albuquerque, New Mexico 87106 • (505) 848-1400
Joseph M. Montoya Campus: 4700 Morris N.E. • Albuquerque, New Mexico 87111 • (505) 298-5461

K15-D19

February 7, 1984

City of Albuquerque
Building & Inspections
123 Central, SW
Albuquerque, NM 87102

Attention Mr. B. Montoya

Dear Mr. Montoya:

SUBJECT: Ponding, Phase XIII, Coal & Hazeldine, SE

Per our telephone conversation January 31, 1984, we are in the process of bidding the landscaping of the subject site. Because we are a local public body and subject to the Public Purchasing Act, we must allow adequate time for this process.

The time schedule is tentative, however our estimation is for bids to be opened and awarded by approximately March 1, 1984, with work to be completed by March 15, 1984. The ponding area is included and requires a plastic sheet base with cobblestone on the bottom and 3/4" river washed gravel on the sides.

If there are problems with this specification, please contact me.

Sincerely yours,

David Grife y Vigil

David Grife y Vigil
Supervisor of Supply Services

DGyV/slm

cc: M. F. Burianek
File

Job T.V.I. Parking Lot — Sheet No. 1 of ____
Subject Drainage Report — Job No. ____
Client W.C. Kruger & Assoc. — By VJC Date 5/82

CHAVEZ-GRIEVES / CONSULTING ENGINEERS, Inc. Albuquerque, NM

Total Area of Site = 7.0 Ac.

Landscaped Area = 64,800 ft² = 1.49 Ac

Det. Coefficient

1.49 (.45) = .67
5.51 (.9) = 4.96
5.63

C = 5.63/7.0 = 0.81

t_c (undev.) = 15 min. (See attached sht.)

i = 189/40 = 4.72 in/hr.

Q_u = 7(4.73)(.40) = 13.2 cfs.

V_u = 7(2.2/12)(.45)(43560) = 25,156 ft³

t_c(dev) < 10 min ∴ use t_c = 10

i = 189/35 = 5.4

Q_p = .81(5.4)(7.0) = 30.6

V_o = .81(2.4/12)(7)(43560) = 45,280 ft

RECEIVED
JAN 31 1983
ENGINEERING

Job I.V.I. Parking Lot — Sheet No. 2 of ____
Subject Drainage Report — Job No. ____
Client W.C. Krueger & Assoc. — By VJC Date 5/87

CHAVEZ-GRIEVES / CONSULTING ENGINEERS, Inc. Albuquerque, NM

Assume App. 1.35 Ac. will drain directly to the street.

Q (Direct to Hazeldine) = 1.35 (5.4)(.81) = 5.9 cfs.

Max. Q from Pond = 13.2 - 5.9 = 7.3 cfs. = 2196 ft³/5min.

Q_5 = .4(7)(2.8) = 7.84 cfs. = 2352 ft³/5min.

Route flows through pond Vol = i (5.65)(43560)(.81)(1/12) = 16,612 i

t (min.)	i (in.)	Vol in (ft³)	Vol out (ft³)	Δ Vol stored	Σ Vol. Stored
5	.30	4984	528	4456	4456
10	.54	8970	1176	7794	12260
15	.23	3821	1764	2057	14317 ← Max.
20	.14	2325	2352	<27>	14290
25	.14	2325	2352	<27>	
30	.14	2325	2352	<27>	
35	.07	1163	2352		

Ck Vol. Avail.

Elev.	Area.*	Vol.	Σ Vol.	
15'	9538 ft²	6222 ft³	6222	
16'	7906 ft²	9233.50	15455	Vol. @ 17.2' = 17760 ok
17'	10561 ft²	11526.0	26981	
18'	12491 ft²			

* Planimetered Area

Job I.V.I. Parking Lot — Sheet No. 3 of ___

Subject Drainage Report — Job No. ___

Client W.C. Kruger & Assoc. — By VTC Date 5/82

CHAVEZ-GRIEVES / CONSULTING ENGINEERS, Inc. Albuquerque, NM

Max. Avail slope w/ a full pipe = 0.15

$Q = \frac{.463}{.015}(.66)^{2.66}(0.15)^{.5} = 3.9$ cfs.

2-8" ø outlets = 7.8 cfs ≈ 7.3 cfs.

Actual Elev. @ 14317 ft³ ≈ 16.85'

S = 0.115

$Q = 3.9\left(\frac{.115}{.15}\right)^{.5} = 3.4$ cfs.

Total $Q_{dev.}$ = 2(3.4) + 5.9 = 12.7 < 13.2 ∴ Ok.

FIG. A. – ONE-HOUR RAINFALL, IN INCHES, TO BE EXPECTED ONCE IN 2 YEARS.

FIG. B. – ONE-HOUR RAINFALL, IN INCHES, TO BE EXPECTED ONCE IN 10 YEARS.

FIG. C. – ONE-HOUR RAINFALL, IN INCHES, TO BE EXPECTED ONCE IN 50 YEARS.

FIG. D. – ONE-HOUR RAINFALL, IN INCHES, TO BE EXPECTED ONCE IN 5 YEARS.

FIG. E. – ONE-HOUR RAINFALL, IN INCHES, TO BE EXPECTED ONCE IN 25 YEARS.

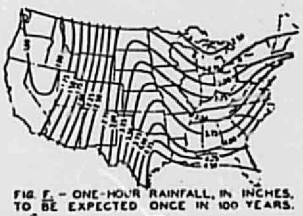

FIG. F. – ONE-HOUR RAINFALL, IN INCHES, TO BE EXPECTED ONCE IN 100 YEARS.

COMPUTATION OF i IN RATIONAL FORMULA.

EXAMPLE: Assume expectancy period = 5 years, See Fig. D, assume locality, find 1 hour intensity = 1.75 in. per hour.

FIG. G-INTENSITY EXPECTATION FOR ONE-HOUR RAINFALL.*

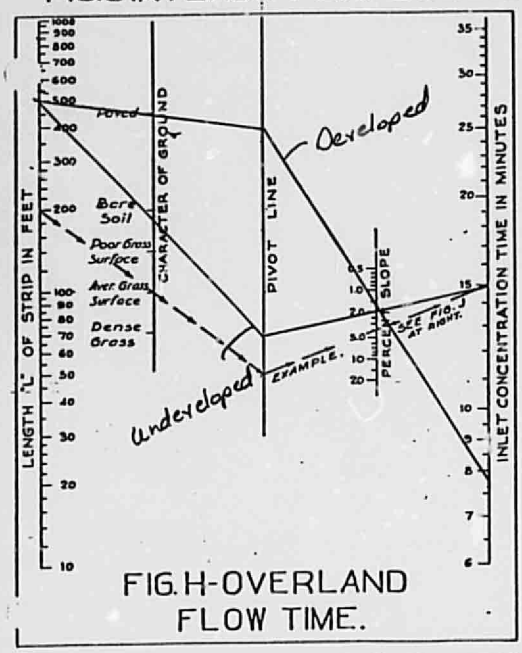

FIG. H-OVERLAND FLOW TIME.

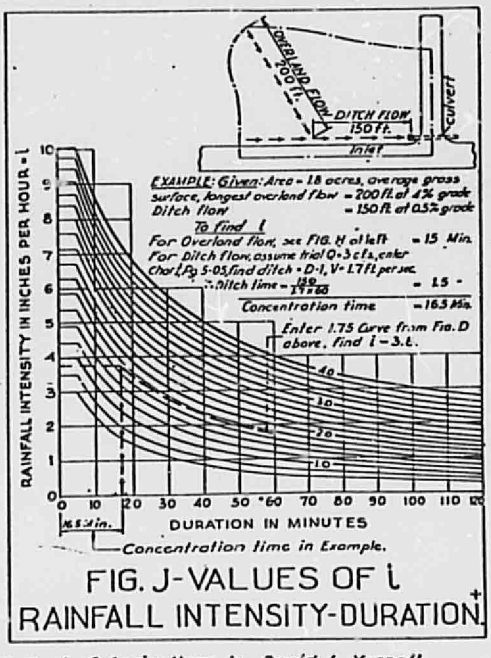

FIG. J-VALUES OF i RAINFALL INTENSITY-DURATION.+

*Reproduced from Miscellaneous Publication No. 204, U.S. Dept. of Agriculture, by David L. Yarnell.
+Adopted from Engineering Manual of the War Department, Part XIII, Chap. I, Dec. 45.

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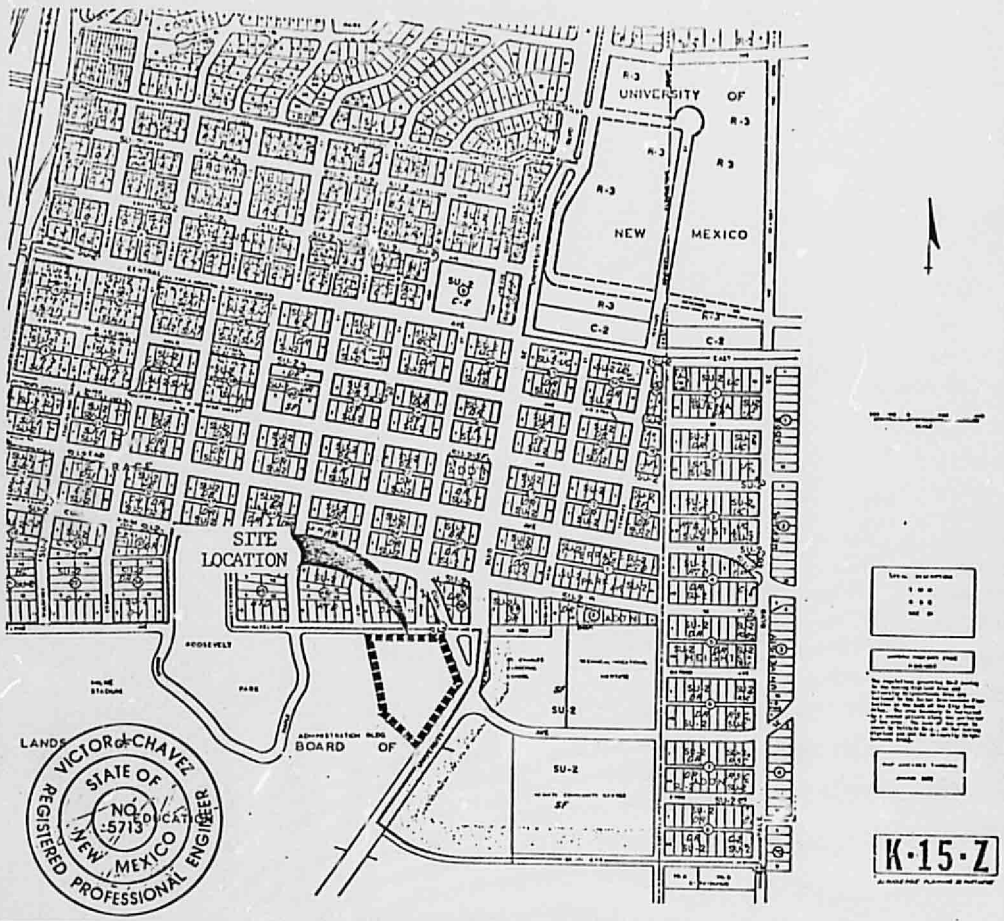
CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



VICTOR J. CHAVEZ
STATE OF NEW MEXICO
NO. 5713
REGISTERED PROFESSIONAL ENGINEER

NOTICE TO CONTRACTOR

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

2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with "Contract Documents for City-Wide Utilities and Cash Paving No. 31 "

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

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

5. Backfill compaction shall be according to Residential street use.

Wescon P-06361 C-13

APPROVALS	NAME	DATE
A.C.E./DESIGN	[illegible]	10-26-83
INSPECTOR	[illegible]	10/24/83
	[illegible]	10-26-83

TITLE:
TECNICAL-VOCATIONAL INSTITUTE
717 UNIVERSITY BLVD, S.E.
ALBUQUERQUE, NEW MEXICO

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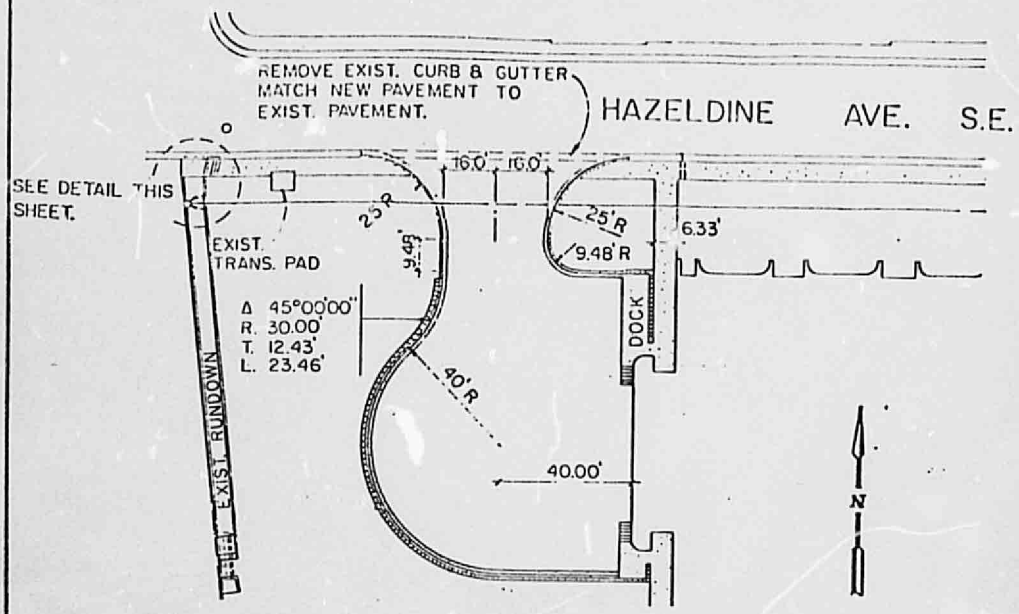
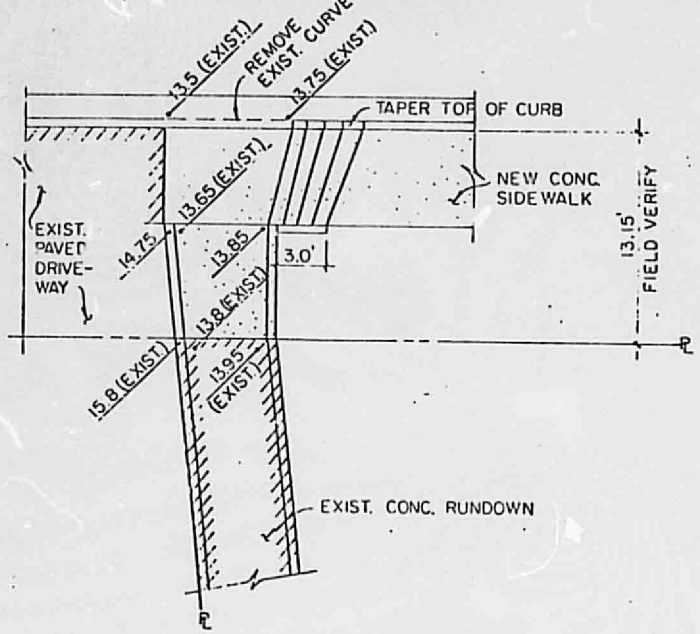
CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY





RUNDOWN AT SIDEWALK

1/8" = 1'-0"

Wescan P-06364 C-13

APPROVALS	NAME	DATE
A.C.E./DESIGN		10-26-83
INSPECTOR	Jerry Y	10/18/83
	BRH	10-26-83

TITLE:
TECNICAL-VOCATIONAL INSTITUTE
717 UNIVERSITY BLVD., S.E.
ALBUQUERQUE, NEW MEXICO

DWG NO. | MAP

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