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

June 2, 1983

Billy J. Goolsby, PE
Espey, Huston & Associates, Inc.
4801 Indian School Road NE Suite 204
Albuquerque, NM 87110

REF: El Jardin Office Building (H22-D29)

Dear Mr. Goolsby:

Consider this an approval of the revised drainage plan referenced above.

Please advise your client that a drainage inspection and a signed-off copy of the "Private Storm Drain Facilities Within City Right-of Way" will be required for a green tag from this office.

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

Sincerely,

Fred J. Aguirre, PE
Civil Engineer/Hydrology

FJA:mrk

TRANSMITTAL LETTER

ESPEY, HUSTON & ASSOCIATES, INC.
Engineering & Environmental Consultants
4901 INDIAN SCHOOL ROAD N.E. SUITE 204
ALBUQUERQUE, NEW MEXICO 87110 Ph. (505) 255-1626

PROJECT: (name, address) El Jardin Office Building
Modified Drainage Plan.

PROJECT NO: 3234-03

DATE: 5/10/83

TO: Fred Aguirre, P.E.
Civil Engineer / Hydrology
P.O. Box 1293
ATTN: Albuquerque, N.M. 87103

If enclosures are not as noted, please inform us immediately.

If checked below, please:

( ) Acknowledge receipt of enclosures.
(X) Return enclosures to us.

WE TRANSMIT:

(X) herewith ( ) under separate cover via _____
(X) in accordance with your request Via Telephone

FOR YOUR:

(X) approval ( ) distribution to parties ( ) information
( ) review & comment (X) record
( ) use ( ) _____

THE FOLLOWING:

(X) Drawings ( ) Shop Drawing Prints ( ) Samples
( ) Specifications (X) ~~Shop~~ Drawing Reproducibles ( ) Product Literature
( ) Change Order (X) El Jardin Office Building Drainage Plan

COPIES	DATE	REV NO.	DESCRIPTION	ACTION CODE
1	5/10/83	1	El Jardin Office Building Modified Drainage Plan	E

ACTION CODE
A. Action indicated on item transmitted
B. No action required
C. For signature and return to this office
D. For signature and forwarding as noted below under REMARKS
E. See REMARKS below

REMARKS This reproducible is for your use & files. If you should have any questions or comments please contact me. I will be looking for your letter of approval.

COPIES TO: (with enclosures) ☐☐☐☐☐

Billy J. Goolsby, P.E.
BY: Staff Engineer

ONE PAGE

ESPEY, HUSTON & ASSOCIATES, INC.
Engineering & Environmental Consultants
4801 INDIAN SCHOOL ROAD, N.E., SUITE 204
ALBUQUERQUE, N.M. 87110
(505) 255-1625

CORPORATE OFFICE
P.O. BOX 519
AUSTIN, TEXAS 78767

April 22, 1983

Mr. Fred Aguirre, P.E.
Civil Engineer/Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

Subject: Drainage Correction for El Jardin Office Building

Dear Fred:

Submitted to you herewith is the Construction Drawing for the installation of the drain pipes for the El Jardin Office Building.

As per our telephone conversation the size of the pipes were changed from 6" PVC to 4" PVC as proposed in my letter to you dated 4/12/83. Due to this change in pipe sizes, the total discharge will now be 3.57 cfs instead of 3.84 previously stated in that letter.

The attached plan is being submitted for your review and approval. Should you have any comments or questions concerning this plan please let me know.

Sincerely,

Billy J. Goolsby

Billy J. Goolsby, P.E.
Staff Engineer

/cs

Enclosure

ESPEY, HUSTON & ASSOCIATES, INC.
Engineering & Environmental Consultants
4801 INDIAN SCHOOL ROAD, N.E., SUITE 204
ALBUQUERQUE, N.M. 87110
(505) 255-1625

CORPORATE OFFICE
P.O. BOX 519
AUSTIN, TEXAS 78767

April 12, 1983

Mr. Fred Aguire, P.E.
Civil Engineer/Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

SUBJECT: Drainage Correction for El Jardin Office Building

Dear Fred:

As per our telephone conversation on Friday, April 8, 1983, the corrected drainage plan for the El Jardin Office Building now consists of discharging a maximum of 3.88 cfs to Menaul Blvd. and eliminating the roof ponding.

At the time the project was designed, the City policy for drainage was to allow no more than the existing condition runoff. The approved Drainage Plan Sheet 4 of 25 (P-41) Record No. 79-3-26A indicates the existing condition 100-year frequency discharge to be 3.88 cfs. Therefore, the discharge now will be 3.88 cfs or less.

The new discharge rate is to be accomplished by adding 1 - 6 inch outlet pipe from the northwest corner of Pond B to Menaul with a maximum discharge of 1.16 cfs; adding 1 - 4 inch outlet pipe from the northwest corner of Pond C to Menaul with a maximum discharge of 0.5 cfs; plugging the outlet between Ponds C and D and adding 1 - 6 inch outlet pipe to the existing 2 - 4 inch pipe from Pond D for a total maximum discharge of 2.18 cfs.

The total maximum discharge from the three proposed outlets will be 3.84 cfs which is at the allowable limit.

Enclosed herewith, are the associated computations, hydrographs and plan sheet for your use and approval.

Should you have any questions concerning the amended drainage plan or need additional information, do not hesitate to contact me.

Sincerely,

Billy Goolsby

Billy J. Goolsby, P.E.
Staff Engineer

/cs

enclosures

BURK and BURK ARCHITECTS, A.I.A. **BB**

August 31, 1981

#1662

City of Albuquerque
Municipal Development Department
Engineering Division - Hydrology
City Hall 403
Albuquerque, NM 87102

H22-D29

Attention: Fred Aguirre, PE

RE: 11930 Menaul Blvd., NE

Dear Sir:

This is to certify that, to the best of our knowledge, the above project is in substantial conformance with the drainage design approved May 21, 1980.

The floor elevations are very close to those indicated on the drawings.

William E. Burk III
William E. Burk, III, AIA

John W. Bettis
John W. Bettis, PE
Enchantment Engineering

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR NO. 3441 NEW MEXICO JOHN W. BETTIS

Wm. E. Burk, Jr. Wm. E. Burk, III
11930 Menaul Blvd. NE, No. 7
P.O. Box 11606
Albuquerque, New Mexico 87192
Telephone (505) 292-6566


SATURN
PL
AVE.
TOWNER
TR 2
FIGUEROA
SANDLER
CLEOPATRA.
PL.
AVE.
LD-73-62
LD-73-21
N.E.
PARK
BLVD.
N.E.
CHELWOOD
PHOENIX
PARK
PROSPECT
CHURCH & INCIDENTAL FACILITIES
VAC. ORD. 2673
TR. A
SP-77-582
TR. B
GEORGENE
DR.
APACHE
WOODLAND
MENAU

TRANSMITTAL LETTER

ESPEY, HUSTON & ASSOCIATES, INC.
Engineering & Environmental Consultants
4801 INDIAN SCHOOL ROAD N.E. SUITE 204
ALBUQUERQUE, NEW MEXICO 87110 Ph. (505) 255-1626

PROJECT: (name, address) El Jardin Office Building

PROJECT NO: 3284-03

DATE: 5/27/83

TO: Fred Aguirre
Civil Engineer/Hydrology
City of Albuquerque
ATTN: P.O. Box 1293
Albuquerque, NM 87103

If enclosures are not as noted, please inform us immediately.

If checked below, please:
( ) Acknowledge receipt of enclosures.
( ) Return enclosures to us.

WE TRANSMIT:
(X) herewith ( ) under separate cover via _____
( ) in accordance with your request _____

FOR YOUR:
(X) approval ( ) distribution to parties ( ) information
( ) review & comment (X) record
( ) use ( ) _____

THE FOLLOWING:
(X) Drawings ( ) Shop Drawing Prints ( ) Samples
( ) Specifications (X) ~~Shop~~ Drawing Reproducibles ( ) Product Literature
( ) Change Order ( ) _____

COPIES	DATE	REV. NO.	DESCRIPTION	ACTION CODE
1	5/27/83		Reproducible Modified Drainage Plan	B
1	5/13/83		Copy of Approved Drainage Str. Details	B

ACTION CODE
A. Action indicated on item transmitted
B. No action required
C. For signature and return to this office
D. For signature and forwarding as noted below under REMARKS
E. See REMARKS below

REMARKS _____

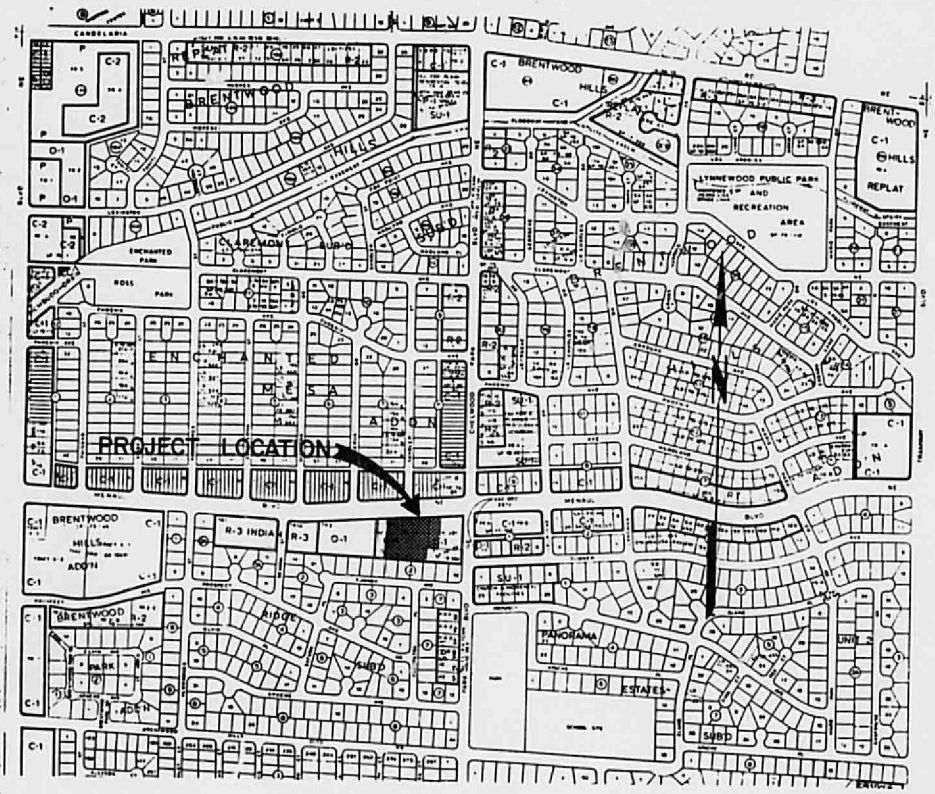
COPIES TO: (with enclosures)

BY: Billy Goolsby P.E.
Staff Engineer

ONE PAGE

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



VICINITY MAP
SCALE : 1" = 800'

NOTICE TO CONTRACTOR

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

C-56

APPROVALS	NAME	DATE
A.C.E./DESIGN	J.Kelick	13May88
INSPECTOR		
A.C.E./FIELD		

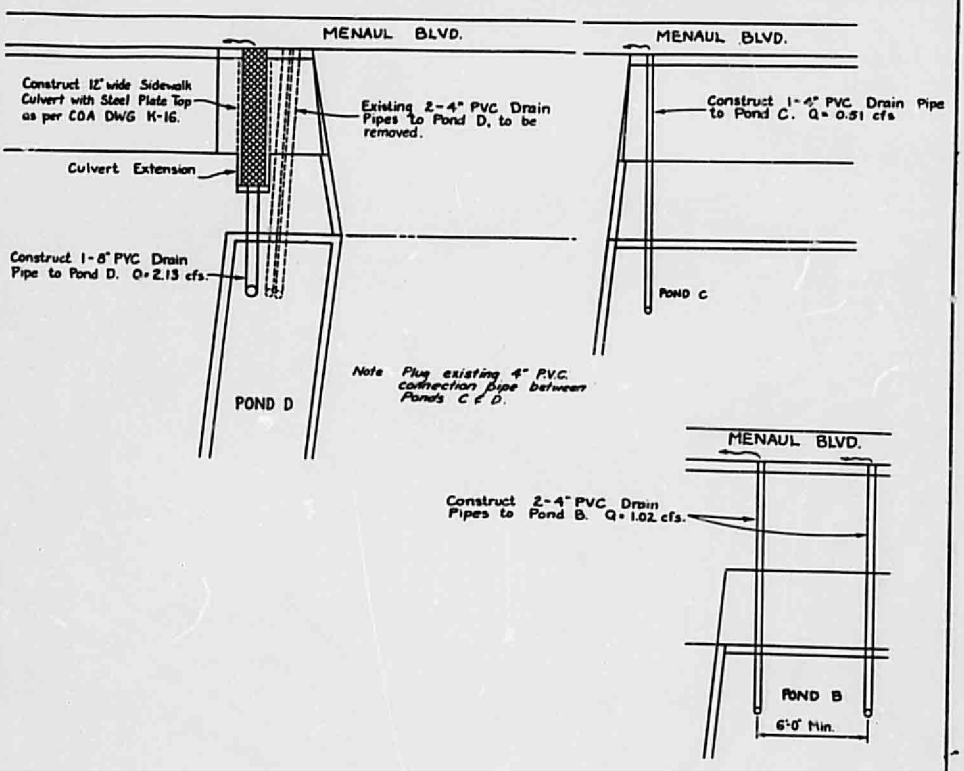
TITLE: EL JARDIN OFFICE BLDG. POND DRAINAGE
11930 MENAUL BLVD. N.E.

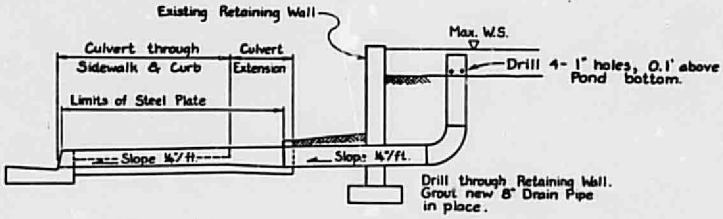
PERMIT NO.
SHEET 1 OF 2

MAP NO. H-22

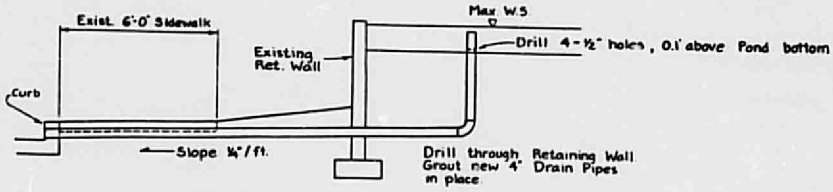
CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY





CULVERT DRAINAGE - SECTION



PIPE DRAINAGE - SECTION

C-56

APPROVALS	NAME	DATE	TITLE: EL JARDIN OFFICE BLDG. POND DRAINAGE 11930 MENAUL BLVD. N.E.	
A.C.E./DESIGN	[signature]	13 May 83		
INSPECTOR			PERMIT NO. SHEET 2 OF 2	MAP NO. H-22
A.C.E./FIELD				

ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT Drainage

El Jardin

SHEET 1 OF ____ . BY ____
DATE 4/11/83 CK BY ____

Pond "A" receives 13.33 % of the developed runoff
or 1904 ft.^{3}

Pond "B" receives 16.01 % of the developed runoff
or 2285 ft.^{3} + 0.4 of the roof vol.
or 1102 ft.^{3}

Pond "C" receives discharge from 1 roof drain
only plus routing from Pond "B"
or 275.5 ft.^{3} from drain

Pond "D" receives 22.69 % of the developed runoff
or 3240 ft.^{3} + 0.5 of the roof vol.
or 1378 ft.^{3}

Pond "A"

Runoff – $A = 10,432$ ft.^{2} or 0.24 ac.
$C = 1.0$
$I = 5.4$ in/hr.

$Q = 1.30$ cfs

Pond "B"

Runoff – $A = 13,512$ ft.^{2} or 0.31 ac.
$C = 1.0$
$I = 5.4$ in./hr.

$Q = 1.67$ cfs + 1.03 for roof drains = 2.70cfs

Pond "D"

Runoff – $A = 20,690$ ft.^{2} or 0.47 ac
$C = 1.0$
$I = 5.4$ in./hr.

$Q = 2.54$ cfs + 1.29 cfs for roof drains = 3.83cfs

HYDROGRAPH COMPUTATION WORKSHEET

DATE 4/11/83
COMPUTED BY [illegible]
CHECK BY _____

PROJECT El Jardin Office

LOCATION Area A

ANALYSIS POINT # _____

(DR. AREA) A = 0.24 ACRES

T_c 10 MIN

POINT RAINFALL 2.5 IN. FROM PLATE 22.2 D-1

CN = _____ FROM PLATES 22.2 C-2, 22.2 C-3

RUNOFF VOLUME R = ___ IN. FROM PLATE 22.2 C-4

COMPUTED T_p = _____ MIN. ($T_p = T_c$)
(Rounded to even minute)

$q_p = \frac{45.4A}{T_p}$ = _____ CFS./INCH OF RUNOFF

$(R \times q_p) = Q_{peak}$ = 1.30 CFS

t(COLUMN)=(t/T_p) $t=T_p(t/T_p)$

$y = \frac{Q}{Q_{peak}}$ $Q = y(Q_{peak})$

	(t/T_p)	t (min.)	y	Q (cfs)
1	0	0	0	0
2	.1	1	.03	.04
3	.2	2	.10	.13
4	.3	3	.190	.25
5	.4	4	.310	.40
6	.5	5	.470	.61
7	.6	6	.660	.86
8	.7	7	.820	1.07
9	.8	8	.930	1.21
10	.9	9	.990	1.29
11	1.0	10	1.00	1.30
12	1.1	11	.990	1.29
13	1.2	12	.930	1.21
14	1.3	13	.860	1.12
15	1.4	14	.780	1.01
16	1.5	15	.680	.88
17	1.6	16	.560	.73
18	1.7	17	.460	.60
19	1.8	18	.390	.51
20	1.9	19	.330	.43
21	2.0	20	.280	.36
22	2.2	22	.207	.29
23	2.4	24	.147	.19
24	2.6	26	.107	.14
25	2.8	28	.077	.10
26	3.0	30	.055	.07
27	3.2	32	.040	.05
28	3.4	34	.029	.04
29	3.6	36	.021	.03
30	3.8	38	.015	.02
31	4.0	40	.011	.01
32	4.5	45	.005	.007
33	5.0	50	.000	0

PLATE 22.2 F-1

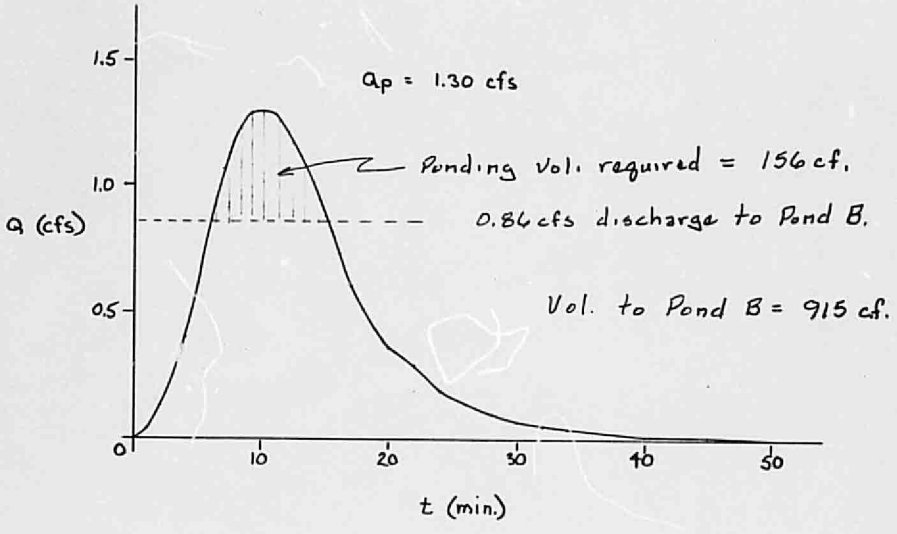
ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT HYDROGRAPH

EL JARDIN OFFICE

SHEET 1 OF ____ BY TOWERS
DATE 4/11/83 CK BY ____

AREA A



HYDROGRAPH COMPUTATION WORKSHEET

DATE _____
COMPUTED BY _____
CHECK BY _____

PROJECT El Jardin Office

LOCATION Area B

ANALYSIS POINT # _____

(DR. AREA) A = 0.31 ACRES

T_c 10 MIN

POINT RAINFALL 2.5 IN. FROM PLATE 22.2 D-1

CN = _____ FROM PLATES 22.2 C-2, 22.2 C-3

RUNOFF VOLUME R = ____ IN. FROM PLATE 22.2 C-4

COMPUTED T_p = _____ MIN. $T_p = T_c$
(Rounded to even minute)

$q_p = \frac{45.4A}{T_p}$ = _____ CFS./INCH OF RUNOFF

$(R \times q_p) = Q_{peak}$ = 2.70 CFS

$t(COLUMN) = (t/T_p)$ $t = T_p(t/T_p)$

$y = \frac{Q}{Q_{peak}}$ $Q = y(Q_{peak})$

	(t/T_p)	t (min.)	y	Q (cfs)
1	0	0	0	0
2	.1	1	.03	.08
3	.2	2	.10	.27
4	.3	3	.190	.51
5	.4	4	.310	.84
6	.5	5	.470	1.27
7	.6	6	.660	1.78
8	.7	7	.820	2.21
9	.8	8	.930	2.51
10	.9	9	.990	2.67
11	1.0	10	1.00	2.70
12	1.1	11	.990	2.67
13	1.2	12	.930	2.51
14	1.3	13	.860	2.32
15	1.4	14	.780	2.11
16	1.5	15	.680	1.84
17	1.6	16	.560	1.51
18	1.7	17	.460	1.24
19	1.8	18	.390	1.05
20	1.9	19	.330	.89
21	2.0	20	.280	.76
22	2.2	22	.207	.56
23	2.4	24	.147	.40
24	2.6	26	.107	.29
25	2.8	28	.077	.21
26	3.0	30	.055	.15
27	3.2	32	.040	.11
28	3.4	34	.029	.08
29	3.6	36	.021	.06
30	3.8	38	.015	.04
31	4.0	40	.011	.03
32	4.5	45	.005	.01
33	5.0	50	.000	0

PLATE 22.2 F-1

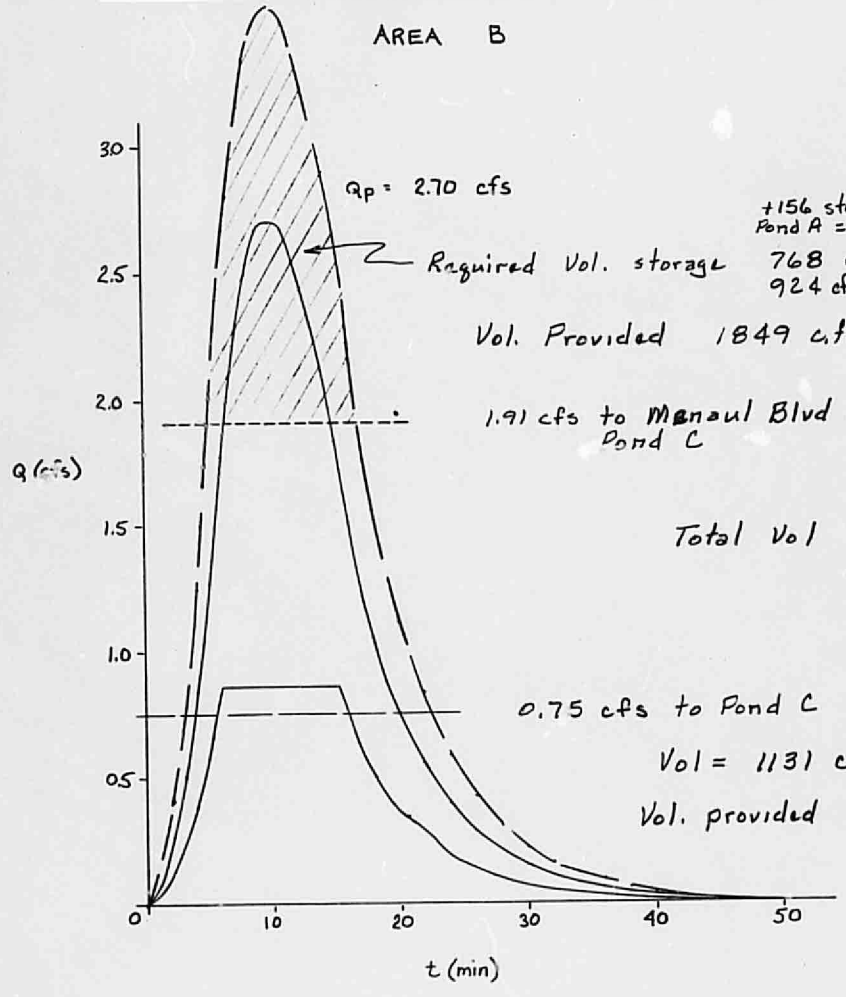
ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT HYDROGRAPH

EL JARDIN OFFICE

SHEET 2 OF ___ BY TOWERS
DATE 4/11/83 CK BY ___

AREA B



Q_p = 2.70 cfs

Required Vol. storage 768 cf.

+156 stored in Pond A = 924 cf.

Vol. Provided 1849 c.f.

1.91 cfs to Manaul Blvd & Pond C

Total Vol 3051 cf.

0.75 cfs to Pond C

Vol = 1131 cf.

Vol. provided 1468 cf.

HYDROGRAPH COMPUTATION WORKSHEET

DATE 4/11/83
COMPUTED BY _____
CHECK BY _____

PROJECT El Jardin Office

LOCATION Area C

ANALYSIS POINT # _____

(DR. AREA) A = 0.47 ACRES

T_c 10 MIN

POINT RAINFALL 2.5 IN. FROM PLATE 22.2 D-1

CN = _____ FROM PLATES 22.2 C-2, 22.2 C-3

RUNOFF VOLUME R = ____ IN. FROM PLATE 22.2 C-4

COMPUTED T_p = _____ MIN. ($T_p = T_c$)
(Rounded to even minute)

$q_p = \frac{45.4A}{T_p}$ = _____ CFS./INCH OF RUNOFF

$(R \times q_p) = Q_{peak}$ = 3.83 CFS

t(COLUMN)=(t/T_p) $t=T_p(t/T_p)$

$y = \frac{Q}{Q_{peak}}$ $Q = y(Q_{peak})$

	(t/T_p)	t (min.)	y	Q (cfs)
1	0	0	0	0
2	.1	1	.03	.1
3	.2	2	.10	.38
4	.3	3	.190	.73
5	.4	4	.310	1.19
6	.5	5	.470	1.80
7	.6	6	.660	2.53
8	.7	7	.820	3.14
9	.8	8	.930	3.56
10	.9	9	.990	3.79
11	1.0	10	1.00	3.83
12	1.1	11	.990	3.79
13	1.2	12	.930	3.56
14	1.3	13	.860	3.29
15	1.4	14	.780	2.99
16	1.5	15	.680	2.60
17	1.6	16	.560	2.14
18	1.7	17	.460	1.76
19	1.8	18	.390	1.49
20	1.9	19	.330	1.26
21	2.0	20	.280	1.07
22	2.2	22	.207	.79
23	2.4	24	.147	.56
24	2.6	26	.107	.41
25	2.8	28	.077	.29
26	3.0	30	.055	.21
27	3.2	32	.040	.15
28	3.4	34	.029	.1
29	3.6	36	.021	.08
30	3.8	38	.015	.06
31	4.0	40	.011	.04
32	4.5	45	.005	.02
33	5.0	50	.000	0

PLATE 22.2 F-1

ESPEY, HUSTON & ASSOCIATES INC.
Engineering & Environmental Consultants

SUBJECT HYDROGRAPH

EL JARDIN OFFICE

SHEET 3 OF ____ . BY TOWERS
DATE 4/11/83 CK BY ____

AREA C