City of Albuquerque

P.O. BOX 1293   ALBUQUERQUE, NEW MEXICO 87103

September 14, 1982

Mr. Raymond Hensley
Star Hill Company, Inc.
P. O. Box 10158
Alameda, New Mexico 87184

Re: Classic Hotel's Comprehensive Drainage Plan Dated 8/12/82
     File No. H19-D3

Dear Mr. Hensley:

   Thank you for your recent submittal of the Comprehensive Drainage
Plan requested by me for the subject site. You may pick up your green
tag from this office at your convenience.

                              Sincerely

                              Fred J. Aguirre, PE
     b.)   Provisi Civil Engineer/Hydrology went the abutting sites from dra
           ing through this site.

FJA/el

cc: ✓ Drainage File
    Reading File

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E.,City Engineer   ENGINEERING DIVISION   Telephone (505) 766-7467

Star Hill Co., Inc.

CONTRACTORS
P.O. BOX 10158 ALAMEDA, NEW MEXICO 87184
NM LICENSE 18160
TELEPHONE (505) 344-3471

September 9, 1982

City of Albuquerque
City Engineers
P. O. Box 1293
Albuquerque, NM

Attn: Mr. Fred Aguirre

Dear Mr. Aguirre:

Enclosed are two copies of the as-built site development plans for
the Classic Hotel.

I believe this completes the owner's obligation to the city for
the release of the occupancy certificate. I appreciate your cooperation
and patience in this matter.

If there are any questions, please call.

Thank you,

STAR HILL COMPANY, INC.

Raymond Hensley
Project Coordinator

RH/tm
Enc.

SHELL STATION REMOVAL

AT

THE CLASSIC HOTEL

August 20, 1981

Star Hill Co., Contractors

Purpose:

The purpose of this study is to insure that the removal of the Shell Station and subsequent re-paving of the .548 acre parcel at the corner of Louisiana and Menaul will comply with the infent of the drainage report for the Classic Hotel.

Existing Site:

The existing 6.579 acre site contains the Classic Hotel, its surrounding parking areas and landscaped areas, and a Shell Station at the Southwest corner. Four ponding areas were originally specified in the site's drainage report. Ponds A,B, and C were built as specified, and the City of Albuquerque allowed pond D to be built smaller than specified under the stipulation that it be enlarged to the specified size when the Shell Station was removed.

Discription of work:

This project consists of removing the Shell Station and extending pond D. Our grading plan extends pond D towards the south and releases it through the existing grating. The total volume is 1780 Cu. Ft. The total required volume is 1220 Cu. Ft. An overflow will be provided at the top of the pond to release any excess runoff.

August 19, 1981

flatow
moore
bryan &
associates

william jette
leon ross
rusty shaffer
wayne andrews
thomas fackelman

ARCHITECTS
ENGINEERS
PLANNERS

5608 zuni s.e.
p.o. box 8266
iquerque, n.m. 87108
phone 505/268-6783

The land parcel under development is a portion of Block 1 and all of Block 2 of the Broad Acres Subdivision. It is bounded basically by Menaul Blvd., Louisiana Blvd., Phoenix Ave. and Chama St. The parcel contains 6.046 acres. It is presently essentially undeveloped land with a slope of 1.6% from northeast to southwest. For the 100 year storm, runoff generated would be as follows:

$$Q_1 = 6.046 \times 6.37 \times 0.4 = 15.41 \text{ cfs}$$

All of the area except Pond D will be considered as hard surfaced. This amounts to 96% or 253,000 sf. For this condition, runoff would be:

$$Q_2 = 5.808 \times 7.42 \times 0.9 = 38.79 \text{ cfs where } t_c \text{ is developed for}$$

the most severe slope conditions.

The total volume of retention required is:

$$V = (0.9 - 0.4) \times \frac{2.4}{12} \times 263,364 = 26,336 \text{ cf}$$

Because of the siting of the building, it was necessary to develop four retention ponds. The pond retention volumes and watershed areas are as shown below. The roof areas which contribute to flow are included in the appropriate areas.

Pond	Retention Volume	Watershed Area
A	10,920 cf	108,300 sf
B	8,560 cf	60,000 sf
C	7,280 cf	72,700 sf
D	1,320 cf	12,000 sf

Ponding areas B and D drain to the existing storm sewer system. Ponding
area D is a landscaped area and little flow is anticipated except during
the 100 year storm. Drainage from the pond inlets is controlled by
orifice plates, with 1 1/8" diameter drilled orifices placed on the
inlet structure. Design for the required perforations is as tabulated
below:

Pond	Capacity C.F.	Release Time Hrs.	Release Rate CFS	Flow Rate per Orifice CFS	Perforations
B	8,560	6	0.396	0.019	21
D	1,320	12	0.031	0.012	2

Pond B release time was reduced to keep icing problems to a minimum.
Ponds A and C are designed as total retention reservoirs. The media will
be washed cobbles with a void volume of 35%. Flow will enter thru a fully
grated inlet designed to permit dispersion in all directions. The reservoir
will be overexcavated by 2 ft. more than the depth of cobbles, the stone
placed and covered by a waterproof membrane and the soil replaced and com-
pacted for pavement.

The reservoirs are as dimensioned in the following table:

Pond	Retention Volume Required	W x L x D of Cobbles in feet	Volume X 35% voids
A	10,920 cf	100 x 78 x 4	10,920 cf
C	7,280 cf	40 x 100 x 5.2	7,280 cf

M. DENISH AND ASSOCIATES, INC.
Consultants to Developers

$H - 19 - D^3$

June 2, 1982

Mr. Richard Heller
City Engineer
City of Albuquerque
P.O. Box 1293
Albuquerque, NM   87103

Re: Z-72-231 Revised Development Plan

Dear Mr. Heller:

Pursuant to our conversation yesterday afternoon, I am writing to confirm that the Los Pueblos Partnership will provide an easement from the site of The Classic Hotel (Tract I-A of the Broad Acres Subdivision) across the property line dividing it from the former site of th. Shell gasoline station (Lots 2,3 and portions of Lots I and 4) as may be required for the surface conveyance storm-water.   Both properties are presently in the same ownership. Maintenance of this easement is hereby made a condition of sale or further development of either property.

Sincerely yours,

Herbert Denish

Herbert M. Denish

cc: L.W. Reynolds, Jr.

HMD/gg

RSH _____ ADM _____
HRO _____ SUR _____
CDS _____ DCUN _____
CES _____ SEC _____
INSP _____ FILE _____
HYDRO _____ RETURN _____

Attention
Fred —
This to be recorded in some manner against the land per 6/8

Star Hill Co.

CONTRACTORS

P.O. BOX 10158   ALAMEDA, NEW MEXICO 87114

February 23, 1981

Drainage and Flood Control
City of Albuquerque
123 Central AVE NW
Albuquerque, NM 87103

RE: The Classic Hotel
     6815 Menaul NE
     Albuquerque, NM 87110

Attn: Fred Aguirre

Gentlemen:

This is to confirm our conversation of February 19, 1981. As we
discussed, your staff finds the building and site of the Classic Hotel
acceptable for a final certificate of occupancy.

There is, however, a condition that exists at the boundary of the
hotel property and that of the shell station to the southwest. It is
understood that drainage design at that point is unacceptable on a
permanent basis.

In view of the current acquisition proceedings of the station by
the hotel, it was mutually agreed that permanent remedies would be
postponed to a later date. Specifically, that in approximately sixty
(60) days a redesign of the drainage system will be submitted to the
city building department in conjunction with various other items for
review and approval.

I appreciate your help on this project. If you have any questions
please call.

Sincerely,

Raymond Hensley
Project Coordinator

RH/md
cc: C. O.
     Jack Holloway
     Bud Reynolds
     Leon Ross
     George Hensley

mk

M. DENISH AND ASSOCIATES, INC.
Consultants to Developers

H19-03

February 6, 1981

Mr. Richard Heller
City Engineer
City of Albuquerque
P. O. Box 1293
Albuquerque, New Mexico   87103

Re: The Classic Hotel Drainage

Dear Dick:

Enclosed you will find the original and two copies of the letter requested
by your department regarding the drainage structures at the Classic Hotel.

I hope this will meet your needs; if I can be of further help, be sure to
give me a call.

Sincerely yours,

Herbert M. Denish

HMD/mk

Enclosures

cc: Mr. C. D. Sheppard
     Mr. Bruno Conegliano
     Mr. Fred Aguirre

RSH	ADM
HRD	SUR
CDS	COUN
DES	SEC
INSP	FILE
HYDRO B.C.	RETURN

RECEIVED

FEB 06 1981

CITY ENGINEER

Does this clean everything up?

flatow
moore
bryan &
associates

william jette
leon ross
rusty shaffer
wayne andrews
jon moore

ARCHITECTS
ENGINEERS
PLANNERS

5608 zuni s.e.
p.o. box 8266
albuquerque, n.m. 87198
telephone 505/268-6783

February 5, 1981

City of Albuquerque
City Hall
Albuquerque, New Mexico

Re: The Classic Hotel
     Menaul and Louisiana, N.E.
     Albuquerque, New Mexico

Gentlemen:

Based on our periodic inspections of the above referenced
project, this letter will confirm that the drainage
structures for the retention of water were constructed
in accordance with our plans and specifications.

Very truly yours,

GARLAN D. BRYAN

GDB:mls

flatow
moore
bryan &
associates

william jetie
leon ross
rusty shaffer
wayne andrews
jon moore

ARCHITECTS
ENGINEERS
PLANNERS

5608 zuni s.e.
p.o. box 8266
albuquerque, n.m. 87198
telephone 505/268-6783

February 5, 1981

City of Albuquerque
City Hall
Albuquerque, New Mexico

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GDB:mls

**flatow
moore
bryan &
associates**

william jette
leon ross
rusty shaffer
wayne andrews
jon moore

ARCHITECTS
ENGINEERS
PLANNERS

5608 zuni s.e.
p.o. box 8266
albuquerque, n.m. 87198
telephone 505/268-6783

February 5, 1981

City of Albuquerque
City Hall
Albuquerque, New Mexico

Re: The Classic Hotel
     Menaul and Louisiana, N.E.
     Albuquerque, New Mexico

Gentlemen:

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project, this letter will confirm that the drainage
structures for the retention of water were constructed
in accordance with our plans and specifications.

Very truly yours,

GARLAN D. BRYAN

GDB:mls

Star Hill Co.

CONTRACTORS

P.O. BOX 10158   ALAMEDA, NEW MEXICO 87114

February 2, 1981

Building Inspection Department
City of Albuquerque
123 Central Avenue NW
Albuquerque, NM 87103

RE: The Classic Hotel
6815 Menaul NE
Albuquerque, NM 87110

Gentlemen:

I am respectfully requesting an extension of the temporary occupancy
certificate be allowed for a period of sixty (60) days effective immediately,
for the property and buildings located at 6815 Mena NE. This property
will be operated as a commercial facility known as " Classic Hotel".

Thank you for your consideration in this matter.

Sincerely,

Raymond E. Hensley
Project Coordinator

REH/md

CC: C.O. File

flatow
moore
bryan &
associates

william jette
leon ross
rusty shaffer
wayne andrews
jon moore

ARCHITECTS
ENGINEERS
PLANNERS

5608 zuni s.e.
p.o. box 8268
querque, n.m. 87198
one 505/268-6783

October 6, 1980   H19 - D3

City of Albuquerque
City Hall
Albuquerque, New Mexico

Re: The Classic Hotel
     Menaul and Louisiana
     Albuquerque, New Mexico

Gentlemen:

Based on our periodic inspections of the above project,
this letter will confirm, to the best of our knowledge
and belief, that the drainage structures for retention
of water were constructed in accordance with our plans
and specifications.

Very truly yours,

GARLAN D. BRYAN

GDB:mls

M. DENISH AND ASSOCIATES, INC.
Consultants to Developers

Herbert M. Denish

September 24, 1980

Mr. L. W. "Bud" Reynolds
Controller
The Maloof Companies
c/o First National Bank in Albuquerque
P. O. Box 1305
Albuquerque, New Mexico 87103

RE: Classic Hotel Storm Drainage System

Dear Mr. Reynolds:

We have received a verbal request from Richard Heller, Chief City Engineer, to establish a schedule for the inspection of the storm water drainage system at the hotel prior to final inspection and issuance of the Certificate of Occupancy.

The system design, with its underground retention ponds and discharge outlets, is unusual and Mr. Heller would like the opportunity to inspect the discharge pipes and rock masses prior to back-filling and paving of the parking lots. In addition, Mr. Heller would like to inspect the final grading of the parking lot to assure that surface retention areas and discharge pipes will function properly.

These inspections should be coordinated directly between the architect or contractor and the City Engineering office. Mr. Heller can be reached at 766-7441.

Sincerely yours,

Lawrence S. Kline

LSK/mk

cc: Mr. Richard Heller

Find A.

FSH R8A   ADM _____
HRO _____   SUR _____
COS _____   COUN _____
DES _____   SEC _____
INSP _____   FILE _____
HYDRO _____   RETURN _____

Post Office Box 2001 / Albuquerque, New Mexico 87103 / Telephone (505) 842-6461

City of Albuquerque

P.O. BOX 1293   ALBUQUERQUE, NEW MEXICO 87103

ALBUQUERQUE
NEW MEXICO

MAYOR
David Rusk

May 30, 1979

Mr. Wayne Andrews
Flatow, Moore, Bryan & Assoc., Inc.
5608 Zuni S.E.
Albuquerque, New Mexico 87108

Re: Los Pueblos Hotel

Dear Mr. Andrews:

Enclosed is a copy of a letter directed to your attention almost two months ago regarding the Los Pueblos Hotel. Presently, grading and excavation is proceeding on the referenced site and I under: from Mr. Fred Aguirre that a building permit has not yet been issued.

As of today, the City has not received the plans requested for in the second paragraph of the enclosed letter, nor any coordination has been established as requested. The proximity of the ponds to two major arterials without outflow provisions can seriously damage the existing pavement. It is, therefore, requested that construction plans indicated above be expeditiously submitted to this office in orde: to prevent an immediate "stop order".

Very truly yours,

Richard Heller
City Engineer

BC/RSH/fs
Enclosure

cc - Bruno Conegliano, Assist. City Engineer-Hydrology
     Fred Aguirre, Assist. Hydrology Engineer
     Dwayne Sheppard, Assist. City Engineer-Field
     George Ball
     Drainage File

City of Albuquerque

MAYOR
David Rusk

April 3, 1979

Mr. Wayne Andrews
Flatow, Moore, Bryan & Assoc., Inc.
5608 Zuni S.E.
Albuquerque, N.M. 87103

Re: Los Pueblos Hotel

Dear Mr. Andrews:

I have reviewed the drainage report for the captioned project and I am in general agreement with the scheme proposed. Nevertheless I note that it is impossible to verify the figures of the individual watershed areas since no indication is given on how the roof of the building will drain. Please supply this information to demonstrate that no single ponding area will be overlooked. I am also requesting that one single discharge outlet be provided for the two ponds on the west side of the property. The storm sewer in Louisiana is deep enough to allow connection of the inlet in pond D to the inlet in pond C and from there to the manhole indicated. I am also requesting that a definite physical barrier be constructed around the landscaped ponding areas for safety reasons. Minor corrections in the grading plan will have to be performed and I suggest that your designer contact my assist-ant, Mr. Fred Aguirrez.

The actual implementation of the drainage plan within the streets R/W will require that the developer enter in an agreement with the City with a standard AF A contract. Detailed plans of the planned connections to the City sewers will have to be submitted for review by the appropriate City departments and for supervision and inspection by the office of the Assistant City Egnineer-Construction.

Since substantial disruption to the traffic will result because of the construction, I'd like to suggest a meeting between yourself, the contractor for the developer, Mr. Dwayne Sheppard-Assistant City Engineer-Field, and Bob Fosnaugh-Traffic Engineer, in order to discuss the modality of execution. If you feel you need to discuss this matter further, please feel free to contact my office.

Very truly yours,

Bruno Conegliano
Assistant City Engineer-Hydrology

BC/fs
cc - Bob Fosnaugh,Traffic Engineer
     Dwayne Sheppard, Asst. City Engineer-Field

flat:
moore
bryan &
associates

william jette
leon ross
rusty shaffer
wayne andrews
thomas fackelman

ARCHITECTS
ENGINEERS
PLANNERS

5608 zuni s.e.
p.o. box 8266
albuquerque, n.m. 87108
telephone 505/268-6783

April 10, 1979

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

Attn: Bruno Conegliano
        Assistant City Engineer - Hydrology

Re: Los Pueblos Hotel
        Menaul and Louisana N.E.

Gentlemen:

We are transmitting to your office three (3) prints which are red-marked to show where the water from the roof run-off will be directed.

They also indicate Panels "C" and "D" linked together with one discharge point on Louisiana.

Thank you.

Sincerely,

FLATOW, MOORE, BRYAN & ASSOCIATES

Wayne G. Andrews

WGA/mm

cc: Dick Heller - City Engineer

fmb

flatow
moore
bryan &
associates

william jette
leon ross
rusty shaffer
wayne andrews
thomas fackelman

ARCHITECTS
ENGINEERS
PLANNERS

5608 zuni s.e.
p.o. box 8266
albuquerque, n.m. 87108
telephone 505/268-6783

March 27, 1979

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

Attn: Mr. Heller

Re: Los Pueblos Hotel
        Louisiana and Menaul
        Final SU-1 Review

Gentlemen:

We are transmitting to your office a signed copy of the
Drainage Report for the above-mentioned project.

Your prompt attention to this matter will be greatly
appreciated.

Thank you.

Sincerely,

FLATOW, MOORE, BRYAN & ASSOCIATES

Wayne G. Andrews

WGA/mm

Encl.

Wayne G. Andrews, AIA
Associate

Flatow · Moore · Bryan & Associates, Inc.

DRAINAGE REPORT - LOS PUEBLOS HOTEL

flatow
moore
bryan &
associates

william jette
leon ross
rusty shaffer
wayne andrews

ARCHITECTS
ENGINEERS
PLANNERS

5608 zuni s.e.
p.o. box 8266
albuquerque, n.m. 87108
telephone 505/268-6783

The land parcel under development is a portion of Block 1 and all of Block 2 of the Broad Acres Subdivision. It is bounded basically by Menaul Blvd., Louisiana Blvd., Phoenix Ave. and Chama St. The parcel contains 6.046 acres. It is presently essentially undeveloped land with a slope of 1.6% from northeast to southwest. For the 100 year storm, runoff generated would be as follows:

$$Q_1 = 6.046 \times 6.37 \times 0.4 = 15.41 \text{ cfs}$$

All of the area except Ponds A, C and D will be considered as hard-surfaced. This amounts to 90% or 237,028 sf. For this condition, runoff would be:

$$Q_2 = 5.441 \times 7.42 \times 0.9 = 36.33 \text{ where } t_c \text{ is developed for}$$

the most severe slope conditions.

The total volume of retention required is:

$$V = (0.9 - 0.4) \times \frac{2.4}{12} \times 263,364 = 26,336 \text{ cf}$$

Because of the siting of the building, it was necessary to develop four retention ponds. The pond retention volumes and watershed areas are as shown below. The roof areas which contribute to flow are included in the appropriate areas.

Pond	Retention Volume	Watershed Area
A	13,000 cf	99,800 sf
B	8,560 cf	60,000 sf
C	6,600 cf	65,300 sf
D	1,320 cf	12,000 sf

Page 5 - Drainage Report - Los Pueblos Hotel - March 21, 1979

All of the ponding areas except Pond B are landscaped and little flow
is anticipated from the pond drains except for the 100 year storm.
Drainage from the pond inlet is controlled by orifice plates, with 1 1/8"
diameter drilled orifices, placed on the inlet structure. Design for
the required perforations is as tabulated below:

Pond	Capacity C.F.	Release Time Hrs.	Releast Rate CFS	Flow Rate per Orifice CFS	Perforations
A	13,000	12	0.301	0.019	16
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D	1,320	12	0.031	0.019	2

Pond B release time was reduced to keep icing problems to a minimum.

Page 5 - Drainage Report - Los Pueblos Hotel - March 21, 1979

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**flatow
moore
bryan &
associates**

william jette
leon ross
rusty shaffer
wayne andrews

ARCHITECTS
ENGINEERS
PLANNERS

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albuquerque, n.m. 87108
telephone 505/268-6783

DRAINAGE REPORT - LOS PUEBLOS HOTEL

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Chama St. The parcel contains 6.046 acres. It is presently
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to southwest. For the 100 year storm, runoff generated would
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All of the area except Ponds A, C and D will be considered as
hard-surfaced. This amounts to 90% or 237,028 sf. For this
condition, runoff would be:

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Pond B release time was reduced to keep icing problems to a minimum.

IMPORTANT MESSAGE

Dick

DATE 8/14   TIME 9:35 A.M.

WHILE YOU WERE AWAY

M _Lewis Ross_

OF _____

PHONE NO. _26 R 6783_

TELEPHONED		RET'D YOUR CALL	
PLEASE CALL		URGENT	
WILL CALL AGAIN		WANTS TO SEE YOU	

MESSAGE _Classic Hotel_
What is Holding up
signing of Building
Permits?
Mgr Dennis A - 842-6161
    Flashmore Moore

SIGNED _Merrill + Lo_

IMPORTANT MESSAGE

FOR _Fred_

DATE _____ TIME ____ A.M. P.M.

WHILE YOU WERE AWAY

M _Bob Shephard_

OF _____

PHONE NO. _268-6783_

TELEPHONED	X	RET'D YOUR CALL	
PLEASE CALL	X	URGENT	
WILL CALL AGAIN		WANTS TO SEE YOU	

MESSAGE _____

SIGNED _Melody_

FRIDAY

OCTOBER		DECEMBER

14

NOV. 1980

8:00
8:30
9:00
9:30
10:00
10:30
11:00
11:30   _Ray Hensley_
12:00
1:00
1:30
2:00   _8:00 9 AM_
2:30
3:00
3:30
4:00
4:30
5:00
5:30

Hotel @ Louisrama of
Merod
Florton.
Hotel for Los Pueblo

DRAINAGE REPORT - LOS PUEBLOS HOTEL

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B	8,560 cf	*9477* ft^3	60,000 sf
C	6,600 cf	*1005 9* ft^3	65,300 sf
D	1,320 cf	*1573* ft^3	12,000 sf

THE VOLUMES *IN RED* ARE THE *APPROXIMATE* VOLUMES DRAINING TO ITS RESPECTIVE PONDS. THESE VOLUMES DO NOT INCLUDE THE RUN OFF FROM THE ROOF.

All of the ponding areas except Pond B are landscaped and little flow is anticipated from the pond drains except for the 100 year storm. Drainage from the pond inlet is controlled by orifice plates, with 1 1/8" diameter drilled orifices, placed on the inlet structure. Design for the required perforations is as tabulated below:

Pond	Capacity C.F.	Release Time Hrs.	Releast Rate CFS	Flow Rate per Orifice CFS	Perforations
A	13,000	12	0.301	0.019	16
B	8,560	6	0.396	0.019	21
C	6,600	12	0.153	0.019	8
D	1,320	12	0.031	0.019	2

Pond B release time was reduced to keep icing problems to a minimum.

**flatow
moore
bryan &
associates**

william jette
leon ross
rusty shaffer
wayne andrews

ARCHITECTS
ENGINEERS
PLANNERS

5608 zuni s.e.
p.o. box 8266
albuquerque, n.m. 87108
telephone 505/268-6783

The land parcel under development is a portion of Block 1 and all of Block 2 of the Broad Acres Subdivision. It is bounded basically by Menaul Blvd., Louisiana Blvd., Phoenix Ave. and Chama St. The parcel contains 6.046 acres. It is presently essentially undeveloped land with a slope of 1.6% from northeast to southwest. For the 100 year storm, runoff generated would be as follows:

$$Q_1 = 6.046 \times 6.37 \times 0.4 = 15.41 \text{ cfs}$$

All of the area except Ponds A, C and D will be considered as hard-surfaced. This amounts to 90% or 237,028 sf. For this condition, runoff would be:

$$Q_2 = 5.441 \times 7.42 \times 0.9 = 36.33 \text{ where } t_c \text{ is developed for}$$

the most severe slope conditions.

The total volume of retention required is:

$$V = (0.9 - 0.4) \times \frac{2.4}{12} \times 263,364 = 26,336 \text{ cf}$$

Because of the siting of the building, it was necessary to develop four retention ponds. The pond retention volumes and watershed areas are as shown below. The roof areas which contribute to flow are included in the appropriate areas.

Pond	Retention Volume	Watershed Area
A	13,000 cf	99,800 sf
B	8,560 cf	60,000 sf
C	6,600 cf	65,300 sf
D	1,320 cf	12,000 sf

Page 2 - Drainage Report - Los Pueblos Hotel - March 21, 1979

All of the ponding areas except Pond B are landscaped and little flow
is anticipated from the pond drains except for the 100 year storm.
Drainage from the pond inlet is controlled by orifice plates, with 1 1/8"
diameter drilled orifices, placed on the inlet structure. Design for
the required perforations is as tabulated below:

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DRAINAGE REPORT - THE CLASSIC HOTEL

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$$Q_1 = 6.046 \times 6.37 \times 0.4 = 15.41 \text{ cfs}$$

All of the area except Pond D will be considered as hard-surfaced. This amounts to 96% or 253,000 sf. For this condition, runoff would be:

$$Q_2 = 5.808 \times 7.42 \times 0.9 = 38.79 \text{ cfs where } t_c \text{ is developed for}$$

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A	10,920 cf	108,300 sf
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C	7,280 cf	72,700 sf
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Ponding areas B and D drain to the existing storm sewer system. Ponding area D is a landscaped area and little flow is anticipated except during the 100 year storm. Drainage from the pond inlets is controlled by orifice plates, with 1 1/8" diameter drilled orifices placed on the inlet structure. Design for the required perforations is as tabulated below:

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B	8,560	6	0.396	0.019	21
D	1,320	12	0.031	0.012	2

Pond B release time was reduced to keep icing problems to a minimum. Ponds A and C are designed as total retention reservoirs. The media will be washed cobbles with a void volume of 35%. Flow will enter thru a fully grated inlet designed to permit dispersion in all directions. The reservoir will be overexcavated by 2 ft. more than the depth of cobbles, the stone placed and covered by a waterproof membrane and the soil replaced and compacted for pavement.

The reservoirs are as dimensioned in the following table:

Pond	Retention Volume Required	W x L x D ofCobbles in feet	Volume X 35% voids
A	10,920 cf	100 x 78 x 4	10,920 cf
C	7,280 cf	40 x 100 x 5.2	7,280 cf

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DRAINAGE REPORT - THE CLASSIC HOTEL

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below:

Pond	Capacity C.F.	Release Time Hrs.	Release Rate CFS	Flow Rate per Orifice CFS	Perforations
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D	1,320	12	0.031	0.012	2

Pond B release time was reduced to keep icing problems to a minimum.
Ponds A and C are designed as total retention reservoirs. The media will
be washed cobbles with a void volume of 35%. Flo will enter thru a fully
grated inlet designed to permit dispersion in all directions. The reservoir
will be overexcavated by 2 ft. more than the depth of cobbles, the stone
placed and covered by a waterproof membrane and the soil replaced and com-
pacted for pavement.

The reservoirs are as dimensioned in the following table:

Pond	Retention Volume Required	W x L x D of Cobbles in feet	Volume X 35% voids
A	10,920 cf	100 x 78 x 4	10,920 cf
C	7,280 cf	40 x 100 x 5.2	7,280 cf

DRAINAGE ·REPORT - THE CLASSIC HOTEL

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Pond	Retention Volume	Watershed Area	
A	10,920 cf	108,300 sf	C = 0.5
B	8,560 cf	60,000 sf	C = 0.9
C	7,280 cf	72,700 sf	C = 0.50
D	1,320 cf	12,000 sf	C = 0.55

$$28,080 \text{ ft}^3 > 26,336 \text{ ft}^3$$

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Ponding areas B and D drain to the existing storm sewer system. Ponding
area D is a landscaped area and little flow is anticipated except during
the 100 year storm. Drainage from the pond inlets is controlled by
orifice plates, with 1 1/8" diameter drilled orifices placed on the
inlet structure. Design for the required perforations is as tabulated
below:

Pond	Capacity C.F.	Release Time Hrs.	Release Rate CFS	Flow Rate per Orifice CFS	Perforations
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D	1,320	12	0.031	0.012	2

Pond B release time was reduced to keep icing problems to a minimum.
Ponds A and C are designed as total retention reservoirs. The media will
will city want
24 hr release ;
be washed cobbles with a void volume of 35%. Flow will enter thru a fully
grated inlet designed to permit dispersion in all directions. The reservoir
will be overexcavated by 2 ft. more than the depth of cobbles, the stone
placed and covered by a waterproof membrane and the soil replaced and com-
pacted for pavement.

The reservoirs are as dimensioned in the following table:

Pond	Retention Volume Required	W x L x D ofCobbles in feet	Volume X 35% voids
A	10,920 cf	100 x 78 x 4	10,920 cf
C	7,280 cf	40 x 100 x 5.2	7,280 cf

From inlets, Need some outlet pipes in to
Cobbles ?

City of Albuquerque

P.O. BOX 1293   ALBUQUERQUE, NEW MEXICO 87103

MAYOR
David Rusk

May 30, 1979

Mr. Wayne Andrews
Flatow, Moore, Bryan & Assoc., Inc.
5608 Zuni S.E.
Albuquerque, New Mexico 87108

Re: Los Pueblos Hotel

Dear Mr. Andrews:

Enclosed is a copy of a letter directed to your attention almost
two months ago regarding the Los Pueblos Hotel. Presently, grading and
excavation is proceeding on the referenced site and I understand from
Mr. Fred Aguirre that a building permit has not yet been issued.

As of today, the City has not received the plans requested for in
the second paragraph of the enclosed letter, nor any coordination has
been established as requested. The proximity of the ponds to two major
arterials without outflow provisions can seriously damage the existing
pavement. It is, therefore, requested that construction plans indicated
above be expeditiously submitted to this office in order to prevent an
immediate "stop order",

Very truly yours,

Richard Heller
City Engineer

BC/RSH/fs
Enclosure

cc - Bruno Conegliano, Assist. City Engineer-Hydrology
     Fred Aguirre, Assist. Hydrology Engineer
     Dwayne Sheppard, Assist. City Engineer-Field
     George Ball
     Drainage File

AN EQUAL OPPORTUNITY, EMPLOYER

DRAINAGE REPORT - THE CLASSIC HOTEL

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associates**

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the most severe slope conditions.

The total volume of retention required is:

$$V = (0.9 - 0.4) \times \frac{2.4}{12} \times 263,364 = 26,336 \text{ cf}$$

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C	7,280 cf	40 x 100 x 5.2	7,280 cf

SHELL STATION REMOVAL.

AT

THE CLASSIC HOTEL

August 20, 1981

Star Hill Co., Contractors

Purpose:

The purpose of this study is to insure that the removal of the Shell Station and subsequent re-paving of the .548 acre parcel at the corner of Louisiana and Menaul will comply with the infent of the drainage report for the Classic Hotel.

Existing Site:

The existing 6.579 acre site contains the Classic Hotel, its surrounding parking areas and landscaped areas, and a Shell Station at the Southwest corner. Four ponding areas were originally specified in the site's drainage report. Ponds A,B, and C were built as specified, and the City of Albuquerque allowed pond D to be built smaller than specified under the stipulation that it be enlarged to the specified size when the Shell Station was removed.

Discription of work:

This project consists of removing the Shell Station and extending pond D. Our grading plan extends pond D towards the south and releases it through the existing grating. The total volume is 1780 Cu. Ft. The total required volume is 1320 Cu. Ft. An overflow will be provided at the top of the pond to release any excess runoff.

August 19, 1981

**flatow
moore
bryan &
associates**

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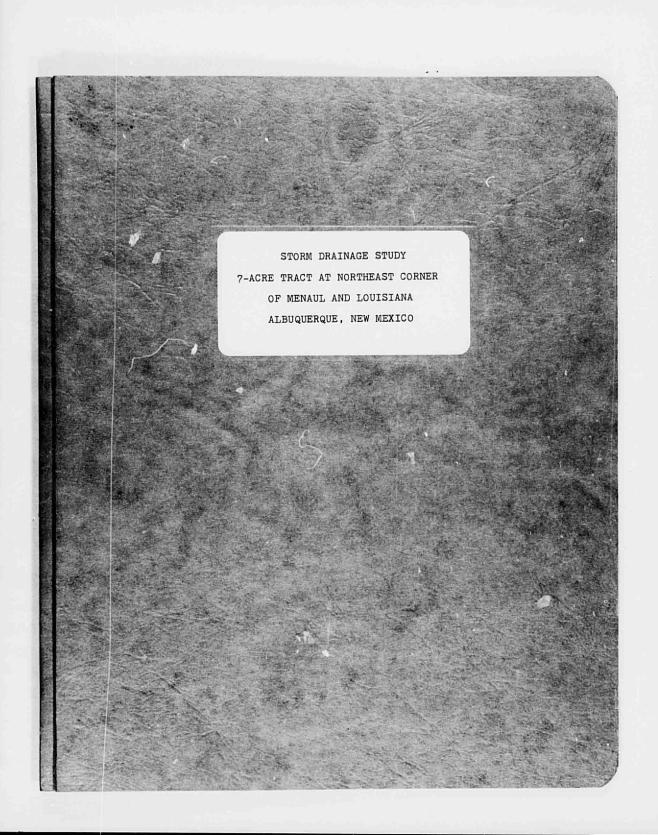
Pond	Capacity C.F.	Release Time Hrs.	Release Rate CFS	Flow Rate per Orifice CFS	Perforations .
B	8,560	6	0.396	0.019	21
D	1,320	12	0.031	0.012	2

Pond B release time was reduced to keep icing problems to a minimum. Ponds A and C are designed as total retention reservoirs. The media will be washed cobbles with a void volume of 35%. Flow will enter thru a fully grated inlet designed to permit dispersion in all directions. The reservoir will be overexcavated by 2 ft. more than the depth of cobbles, the stone placed and covered by a waterproof membrane and the soil replaced and compacted for pavement.

The reservoirs are as dimensioned in the following table:

Pond	Retention Volume Required	W x L x D ofCobbles in feet	Volume X 35% voids
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STORM DRAINAGE STUDY

7-ACRE TRACT AT NORTHEAST CORNER

OF MENAUL AND LOUISIANA

ALBUQUERQUE, NEW MEXICO

Jacob A. Vigil
Consulting Engineers

December 4, 1975

Dyer/McClernon Architects
6320 D Linn Avenue, N.E.
Albuquerque, New Mexico   87108

Dear Sirs:

Transmitted herewith is the "Storm Drainage Study of 7-Acre
Tract at Northeast Corner of Menaul and Louisiana." This
study is an analysis in accordance with the requirements of
the City of Albuquerque and the Albuquerque Metropolitan
Arroyo Flood Control Authority.

Thank you for the opportunity of serving you.

Respectfully submitted,

Jacob A. Vigil, P.E.
New Mexico Registration No. 4570

JAV/bvm

STORM DRAINAGE STUDY

7-ACRE TRACT AT NORTHEAST CORNER

OF MENAUL AND LOUISIANA

ALBUQUERQUE, NEW MEXICO

December 4, 1975

JACOB A. VIGIL

Consulting Engineers

Albuquerque, New Mexico

TABLE OF CONTENTS

LETTER OF TRANSMITTAL

STORM DRAINAGE STUDY

APPENDIX

STORM DRAINAGE STUDY

7-ACRE TRACT AT NORTHEAST CORNER

OF MENAUL AND LOUISIANA

I.   Purpose: The purpose of this report is to present
means of controlling storm drainage from the above-mentioned
tract.

II. Scope: This report is limited to consideration of
runoff from the 7-acre tract under consideration.

General engineering methods are presented for calcula-
tion of the storm drainage. No detailed construction draw-
ings are included.

III. Location: The tract under consideration is at the north-
east corner of Menaul Boulevard and Louisiana Boulevard and
measures approximately 600 feet by 600 feet.

IV. Existing Drainage: The report area presently drains
into Menaul Boulevard and into Louisiana Boulevard.

V.   Proposed Development: It is proposed to re-grade the
tract and to construct buildings and paved parking areas
there-on.

-1-

VI. Proposed Drainage Plan:

   A. General: It is proposed to restrict flow from
        the tract during a 100-year storm to a maximum
        flow equal to the peak flow from the tract be-
        fore development. Chart 1 of the Master Plan
        of Drainage, City of Albuquerque was used to
        define the Project Storm.

   B. Calculations: Sufficient ponding volume must
        be provided within each of the two tract areas
        to contain the flows in excess of the design
        maximum flow.

In addition it will be necessary to construct outlets
to the four pond areas of a size which will restrict flow
to the maximum cited above.

   Calculations are appended as Exhibit A.

VII. Conclusions and Recommendations: The flow from the
tract into city streets will not exceed the 100-year flow
peak from the same tract in its undeveloped state if the
following conditions are met:

   a. Area A, North pond. Curb at 08 or higher,
        24" J.A.V.
        contours as shown in Exhibit B, 4" x 36"
        outlet as shown.

   b. Area A, South pond. Curb at 06 or higher,
        24" J.A.V.
        contours as shown, 4" x 36" outlet as shown.

-2

c. Area B, West pond. Curb at 06 or higher, con-
tours as shown, 4" x 40" [30" J.A.V.] gutter outlet as shown.

d. Area B, East pond. Curb at 07 or higher, con-
tours as shown, 4" x 40" [30" J.A.V.] gutter outlet as shown.

e. The building shall have controlled Roof top
drains as added control for Runoff.

EXHIBIT "A"   DRAINAGE REPORT ON
TRACT CORNER OF MENAUL & LOUISIANA
(DYER/McCLENDON)

Jacob A. Vigil
Dec. 3, 1975
SHT. 1 OF 8

1. DETERMINE SLOPE OF DRAINAGE AREAS AND T_c :

AREA A (PAVED)   L = 570' ΔEL. = 6'   SLOPE = 0.011 $^{FT}/_{FT}$,
AREA B (PAVED)   L = 650' ΔEL. = 8'   SLOPE = 0.012 $^{FT}/_{FT}$,

AREA A (NATURAL)   L = 600' ΔEL. = 10.5'   SLOPE = 0.0175 $^{FT}/_{FT}$.
AREA B (NATURAL)   L = 680' ΔEL. = 13'   SLOPE = 0.019 $^{FT}/_{FT}$.

AREA A (PAVED)   VELOCITY = 2.1 fps   ⎤
AREA B (PAVED)   VELOCITY = 2.2 fps   ⎥   DETERMINED FROM FIGURE 2-3.
                                       ⎥   VELOCITIES FOR UPLAND
                                       ⎥   METHOD OF ESTIMATING T_c.
AREA A (PAVED)   VELOCITY = 1.3 fps   ⎥   CHAPTER 2 ENGINEERING
AREA B (PAVED)   VELOCITY = 1.4 fps   ⎦   FIELD MANUAL, U.S.D.A.
                                           SOIL CONSERVATION SERVICE

$T_c = \dfrac{L}{V(60)}$

AREA A (PAVED) : $T_c = \dfrac{L}{V(60)} = \dfrac{570}{2.1(60)} = 4.52$ MIN.

AREA B (PAVED) : $T_c = \dfrac{650}{2.2(60)} = 4.92$ MIN.

AREA A (NATURAL) : $T_c = \dfrac{600}{1.3(60)} = 7.69$ MIN.

AREA B (NATURAL) : $T_c = \dfrac{680}{1.4(60)} = 8.10$ MIN.

∴ USE $T_c = 5$ MIN (MINIMUM) IN ALL CASES BECAUSE RAINFALL IS RECORDED IN
   TIPPING-BUCKET GAGES AND INTENSITY CURVES COMPUTED
   IN 5 MIN INCREMENT OF TIME.

EXHIBIT "A"   DRAINAGE REPORT (MENVAL & LOUISIANA)
CONT'D

2. DETERMINE INTENSITY :

(HR) $I = \dfrac{189}{t+25}$ (FROM CHART 1, MASTER PLAN OF DRAINAGE – GORDON HERKENHOFF)

AREA A (PAVED) : $I_{100} = \dfrac{189}{5+25} = 6.30 \, ^{IN}/_{HR}$

AREA B (PAVED) : $I_{100} = \dfrac{189}{5+25} = 6.30 \, ^{IN}/_{HR}$

AREA A (NATURAL) : $I_{100} = \dfrac{189}{8+25} = 5.73 \, ^{IN}/_{HR}$

AREA B (NATURAL) : $I_{100} = \dfrac{189}{8+25} = 5.73 \, ^{IN}/_{HR}$

3. DETERMINE PEAK RUNOFF :

AREA A (PAVED) : $Q = CIA$ $Q = 0.90 (6.30)(3.45 \text{ ACRES})$
$Q = 19.56 \text{ CFS}$

AREA B (PAVED) : $Q = 0.90 (6.30)(3.71 \text{ ACRES})$
$= 21.04 \text{ CFS}$

AREA A (NATURAL) : $Q = 0.45 (5.73)(3.45 \text{ ACRES})$
$= 8.90 \text{ CFS}$

AREA B (NATURAL) : $Q = 0.45 (5.73)(3.71 \text{ ACRES})$
$= 9.57 \text{ CFS}$

MAXIMUM DISCHARGE OF PONDING AREA FOR DRAINAGE
AREA "A" = 8.9 CFS

MAXIMUM DISCHARGE OF PONDING AREA FOR DRAINAGE
AREA "B" = 9.6 CFS

4. DETERMINE VOLUME OF RUNOFF:
   SINCE 75% OF 24 Hr PRECIPITATION OCCURS IN ONE HOUR
   DURATION OF STORM OF 1 Hr IS USED?
   FROM USDA 100YR 24-Hour PRECIPITATION MAP 4-R-34422
        PRECIPITATION = 3.0 INCHES
   FROM USDA DAILY RAINFALL DISTRIBUTION MAP 4-R-34432
        ALBUQUERQUE IS IN SD-1 ('75) MAJOR AND SUB
        LAND RESOURCE AREAS.

   FROM STUDIES SOIL CONSERVATION SERVICE HAS
   DETERMINED LAG TIME (L) = 0.6 T_c (TIME OF CONCENTRATION
   REFERENCE HYDROLOGY HANDBOOK CHAPTER 4, S.C.S.

   AREA A (PAVED): $V = \dfrac{3.0(.75)(0.90)(3.45)}{12}$

                     $V_A = 0.58$ Ac-FT.

   AREA B (PAVED): $V = \dfrac{3.0}{.12}(0.75)(0.90)(3.71)$

                     $V_B = 0.63$ Ac-FT.

   AREA A (NATURAL): $V = \dfrac{3.0}{12}(0.75)(0.45)(3.45)$

                     $V_A = 0.26$ Ac-FT.

   AREA B (NATURAL): $V = \dfrac{3.0}{12}(0.75)(0.45)(3.45)$

                     $V_B = 0.31$ Ac-FT.

5. DETERMINE HYDROGRAPHS!

DETERMINE T_b (TIME BASE):

AREA A (PAVED): $V = 0.58$ Ac-FT OR $25,265$ FT^3
Qpeak = 19.56 CFS OR 1174 CUBIC FEET PER MIN.

$$T_b = \frac{25,265 (2)(1.67)}{1174}$$ ← CONVERT FROM TRIANGULAR HYDROGRAPH TO PARABOLIC!

$$T_b = 72 \text{ MIN.}$$

$$T_P = \frac{T_b}{2.67}$$

$$T_P = \frac{72}{2.67} = 27 \text{ MIN}$$

AREA B (PAVED): $V = 0.63$ Ac-FT OR $27,443$ FT^3
Qpeak = 21.04 CFS OR 1264 FT^3/MIN

$$T_b = \frac{27,443 (2)(1.67)}{1174} = 78 \text{ MIN.}$$

$$T_P = \frac{78}{2.67}$$

$$T_P = 29.24 \text{ MIN.}$$

EXIBIT "A"

DRAINAGE REPORT
(MENAUL: LOUISIANA)

JACOB A. VIGIL
DEC 3, 1975
SHT. 5 OF 6

6. DETERMINE VOLUME OF STORAGE REQUIRED.

THE FOLLOWING ASSUMPTION ARE MADE:

1. THAT THE HYDROGRAPH IS TRIANGULAR WHEN IN ACTUALITY IT IS PARABOLIC

2. THAT THE COEFFICIENT OF RUNOFF "C" IS CONSTANT

3. THAT THE DRAINAGE AREAS INVOLVED ARE TOO SMALL TO JUSTIFY ANY RESERVOIR ROUTING TECHNIQUES.

4. DISCHARGE THROUGH PIPE IS CONSTANT ALTHOUGH IN ACTUALITY DISCHARGE IS VARIABLE WITH INCREMENTS OF HEAD.

DRAINAGE AREA "A":

STORAGE REQUIREMENT: $\dfrac{19.56}{72} = \dfrac{10.66}{X}$

$X = 39.24$ MIN.

$S_A = \dfrac{10.66 \times 60 \times 39.24}{2}$

$S_A = 12549$ FT^3 OR 0.29 AC-FT.

CONVERT FROM TRIANGULAR $S_A \cdot \dfrac{0.29}{1.67} = 0.17$ AC-FT

DRAINAGE AREA "B": STORAGE REQUIREMENT: $\dfrac{21.04}{78} = \dfrac{11.47}{X}$

$X = 42.52$ MIN

$S_B = \dfrac{11.47 \times 60 \times 42.52}{2}$

$= 14631$ FT^3 OR 0.34 AC-FT.

CONVERT FROM TRIANGULAR $S_B = \dfrac{0.34}{1.67} = 0.20$ AC-FT.

ACTUAL STORAGE PROVIDED:

AREA "A" = 0.29 AC-FT (SEE SHT 6). > 0.17 AC-FT.

AREA "B" = 0.36 AC-FT (SEE SHT 6). > 0.20 AC-FT.

EXHIBIT "A"

2 Dec 75
La-Menaul.
Coen
~~p 2 of 5~~
SHT. 6 OF 8

DRAINAGE REPORT
(MENUAL & LOUISIANA)

Actual Storage Volume
Area A

	North Pond		South Pond	
Elev.	area, ft.²	vol., ft.³	area. ft.²	vol. ft.³
08 (Curb)	14200			
		8270		
07	2340			
		878		
06			(Curb) 3097	
				2848
05			-1800	
				675

$$\overline{9148} = 0.210 \text{ ac.-ft.}$$

$$\overline{3523} = 0.081 \text{ ac.}$$
$$+ 9148$$
$$\overline{12671} = 0.291 \text{ ac-f}$$

Total Area A
vs. 0.237 ac-ft. required Safe.

Area B

	West Pond		East Pond	
Elev	area, ft.²	vol, ft.³	area. ft.²	vol. ft.³
07			(Curb) 10368	
				6957
06 (Curb)	9900		3546	
		6561		1188
05	3222			
		1208		

$$\overline{7769} = 0.178 \text{ ac-ft.}$$

vs. 0.251 acre-ft. required

$$\overline{8145} = 0.187 \text{ ac-ft}$$
$$7769$$
$$\overline{15914} \text{ ft.}^3 = 0.365 \text{ sk}$$

Safe

1. DESIGN OF DISCHARGE STRUCTURES:

DRAINAGE AREA "A":   NORTH POND - INVERT EL. = 6.25
                                   TOP OF POND = 8.00
                                   Δh = 1.75 FT.

                      SOUTH POND - INVERT EL. = 4.25
                                   TOP OF POND = 6.00
                                   Δh = 1.75 FT.

AVERAGE HEAD = $\frac{1.75}{2}$ = 0.90 FT

$Q = Ca\sqrt{2gh}$ C = .605 FROM KING'S HANDBOOK
                          USING SMITH'S COEFFICIENT.
                          A = 4" × 24" = 96 in^2 OR 0.67 FT^2
$Q = 0.605\,(0.67)\sqrt{2(32.2)(.9)}$

Q = 2.09 CFS PER INLET
    2 INLETS = 6.18 CFS < 8.90 CFS N.G.

TRY: 4" × 30" OPENING   A = 0.83 FT^2

$Q = 0.605\,(0.83)\sqrt{2(32.2)(.9)}$

Q = 3.82 CFS
    2 INLETS = 7.65 CFS < 8.90 CFS N.G.

TRY: 4" × 36" OPENING   A = 1.00 FT^2

$Q = 0.605\,(1.0)\sqrt{2(32.2)(.9)}$
Q = 4.61 CFS
    2 INLETS = 9.21 CFS > 8.90 CFS O.K.

7. DESIGN OF DISCHARGE STRUCTURES CONT'D :

     DRAINAGE AREA "B" :

WEST POND- INVERT EL.: 4.25

TOP OF POND : 6.00

$\Delta h = 1.75$ FT

EAST POND- INVERT EL. = 05.33

TOP OF POND = 07.00

$\overline{ 1.67}$ FT

WEST :   AVERAGE HEAD = $\frac{1.75}{2}$ = 0.90 FT.

$Q = C_a \sqrt{2gh}$ $C = 0.605$

TRY : 4" x 40" OPENING $A = 1.11$ FT^2

$Q = 0.605 (1.11) \sqrt{2(32.2)(0.90)}$

$Q = 5.11$ CFS WEST POND !

EAST :   AVERAGE HEAD = $\frac{1.67}{2}$ = 0.83

$Q = 0.605 (1.11) \sqrt{2(32.2)(0.83)}$

$Q = 4.91$ CFS

TOTAL DISCHARGE = 5.11 + 4.91 = 10.02 CFS > 9.56 O.K.

8. SUMMARY : THE INLETS FOR THE PONDING AREAS ALONG LOUISIANA BLVD. SHALL BE 4" X 36" IN CROSS SECTIONAL AREA.

THE INLETS FOR THE PONDING AREAS ALONG MENUAL BLVD. SHALL BE 4" X 40" IN CROSS SECTIONAL AREA.

THE BUILDINGS SHALL HAVE CONTROLLED ROOF TOP DRAINS AS ADDED CONTROL FOR RUNOFF.