DRAINAGE INFORMATION SHEET

12931 Indian School.

PROJECT TITLE: FAMILY FUN CENTER ZONE ATLAS/DRNG. FILE #: J22/D41A

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Tract J-2-B-2, Block 5, Panorama Heights

CITY ADDRESS: 12931 INDIAN SCHOOL RD NE

ENGINEERING FIRM: Bordenave Designs CONTACT: J. Bordenave

ADDRESS: P.O. Box 91194, 87199 PHONE: 823-1344

OWNER: Hinkle Investments CONTACT: Jean Hinkle B. Hinkle 299-3100

ADDRESS: 11200 Montgomery NE PHONE: 292-6094

ARCHITECT: de la Torre/Rainhart CONTACT: G. Rainhart

ADDRESS: 7801 Academy NE Bldg 2 Suite 200 87109 PHONE: 828-9611

SURVEYOR: Aldrich Land Surveying CONTACT: T. Aldrich

ADDRESS: _____ PHONE: 884-1990

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT

____ DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAINAGE PLAN

____ GRADING PLAN

____ EROSION CONTROL PLAN

_X_ ENGINEER'S CERTIFICATION

____ OTHER _____

PRE-DESIGN MEETING:

____ YES

____ NO

____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL

____ PRELIMINARY PLAT APPROVAL

____ S. DEV. PLAN FOR SUB'D. APPROVAL

____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL

____ SECTOR PLAN APPROVAL

____ FINAL PLAT APPROVAL

____ FOUNDATION PERMIT APPROVAL

____ BUILDING PERMIT APPROVAL

_X_ CERTIFICATE OF OCCUPANCY APPROVAL

____ GRADING PERMIT APPROVAL

____ PAVING PERMIT APPROVAL

____ S.A.D. DRAINAGE REPORT

____ DRAINAGE REQUIREMENTS

____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 05/04/94

BY: Jean F Bordenave

RECEIVED
MAY - 5 1994
HYDROLOGY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 19, 1994

Jake Bordenave
Bordenave Designs
P.O. Box 91194
Albuquerque, NM 87199

RE: ENGINEER CERTIFICATION FOR FAMILY FUN CENTER (J22-D41A)
CERTIFICATION STATEMENT DATE 4/25/94.

Dear Mr. Bordenave:

Based on the information provided on your May 5, 1994 submittal, Engineer Certification for the above referenced site is acceptable.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerly,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineering Associate

BJM/dl/WPHYD/8099

c: Andrew Garcia
File

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Family Fun Center ZONE ATLAS/DRNG. FILE #: J22/D41

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: Lot J2B2, Block 5, Panorama Heights

CITY ADDRESS: Indian School Road NE

ENGINEERING FIRM: Bordenave Designs CONTACT: J. Bordenave

ADDRESS: P.O. Box 91194, Alb., NM 87199 PHONE: 823-1344

OWNER: Hinkle Investments, Inc. CONTACT: B. Hinkle

ADDRESS: 11200 Montgomery NE, 87111 PHONE: 292-6094

ARCHITECT: de la Torre/Rainhart CONTACT: G. Rainhart

ADDRESS: 7801 Academy NE Bldg 2, Suite 200 87109 PHONE: 828-9611

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
__X__ DRAINAGE PLAN
____ CONCEPTUAL GRADING & DRAINAGE PLAN
__X__ GRADING PLAN
____ EROSION CONTROL PLAN
____ ENGINEER'S CERTIFICATION
____ OTHER _____

PRE-DESIGN MEETING:

____ YES
____ NO
____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D. APPROVAL
____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ FOUNDATION PERMIT APPROVAL
__X__ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ S.A.D. DRAINAGE REPORT
____ DRAINAGE REQUIREMENTS
____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 11/22/93

BY: A J Bordenave

RECEIVED
NOV 22 1993

NEW MEXICO STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
AN EQUAL OPPORTUNITY EMPLOYER

DISTRICT THREE OFFICE

BRUCE KING
GOVERNOR

COMMISSION

Dr. Donald Reif
Chairman, Clayton

J. V. "Rip" Curtis
Vice-Chairman, Clovis

Dr. Quentin Ford, P.E.
Secretary, Las Cruces

Roger S. Cox
Member, Albuquerque

Joe M. Anaya
Member, Stanley

Edward T. Begay
Member, Gallup

DEPARTMENT

Secretary
Louis J. Medrano

General Office
P.O. Box 1149
Santa Fe, N.M.
87504-1149
505-827-5100

District One Office
P.O. Box 231
Deming, N.M.
88031-0231
505-546-2603

District Two Office
P.O. Box 1457
Roswell, N.M.
88202-1457
505-624-3300

District Three Office
P.O. Box 91750
Albuquerque, N.M.
87199-1750
505-841-2700

District Four Office
P.O. Box 30
Las Vegas, N.M.
87701-0030
505-425-7527

District Five Office
P.O. Box 4127
Coronado Station
Santa Fe, N.M.
87502-4127
505-827-9500

District Six Office
P.O. Box 2159
Milan, N.M.
87021
505-285-6623

April 30, 1993

Mr. Jake Bordenave
Bordenave Designs
P. O. Box 91194
Albuquerque, NM 87199-1194

Re: Tramway Blvd. (NM 556) Grading
at Indian School Rd.

Dear Mr. Bordenave:

This is to clarify my correspondence of April 21, 1993 on the same subject.

The resultant roadway slopes after your grading project shall be 4:1 or flatter.

You will need to coordinate with the Parks and Recreation Department of the City of Albuquerque to work around the existing landscaping.

Sincerely,

Michael L. Barnes, Dist. Hwy. Engr.

for MICHAEL L. BARNES
District Three Engineer

MLB:FCT:em
xc: Anthony Lopez

New Mexico DRUG FREE
It's a State of Mind!

RECEIVED
NOV 22 1993
HYDROLOGY DIVISION

NEW MEXICO STATE HIGHWAY
AND TRANSPORTATION DEPARTMENT
AN EQUAL OPPORTUNITY EMPLOYER

DISTRICT THREE OFFICE

BRUCE KING
GOVERNOR

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87021
505-285-6623

April 21, 1993

Mr. Jake Bordenave
Bordenave Designs
P. O. Box 91194
Albuquerque, NM 87199-1194

Re: Tramway Blvd. (NM 556) Grading at Indian School Road

Dear Mr. Bordenave:

Your request to do some grading along the westerly right of way just north of Indian School Road is hereby approved.

It is my understanding that final roadway slopes will be no steeper than existing and that the fence to be built as part of this development will be entirely outside the State's right of way.

Sincerely,

for Fred C. Toney, Dist. Traf. Engr.
MICHAEL L. BARNES
District Three Engineer

MLB:FCT:em
xc: Anthony Lopez

New Mexico DRUG FREE
It's a State of Mind!

de la torre · nannarone
architects

DATE: December 6, 1993

TO: City of Albuquerque, Hydrology

ATTN: Mr. Bernie J. Montoya, CE
Engineer Associate

RE: Hinkle Family Fun Center
Record of Meeting with Mr. Richard Tye, Parks Managment Division, City of Albuquerque J22-D41A

This letter is to serve as a record that Parks Management Division has reviewed the impact of the proposed grading in the Tramway Right-of-Way and that the result of this grading ~~does not affect~~ on the Tramway landscaping. has been coordinated as follows

① Contractor to Remove 5 Dead Locust Trees
② Locate and protect main PVC line only.
③ Jog North Pond around one tree (Ash)
④ Call Parks Mgmt if the contractor hits the main line.
⑤ Save only Ash trees.

APPROVAL:

Richard Tye

Richard Tye
Parks Management Division
City of Albuquerque

RECEIVED
DEC - 6 1993

north towne office park 7801 academy rd. n.e. building 2 , suite 200
albuquerque, n.m. 87109, 505·828·9611 fax 828·9604

BORDENAVE DESIGNS
P.O. BOX 91194
ALBUQUERQUE, NEW MEXICO 87199-1194
(505) 823-1344

letter of transmittal

TO: CITY OF ALBUQUERQUE
PUBLIC WORKS DEPT.

ATTN: BERNIE MONTOYA

DATE: 12/05/93	PROJECT NO: J22/D41
PROJECT: FAMILY FUN CENTER	

TRANSMITTED:

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

FOR YOUR:

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

RECEIVED DEC – 6 1993
PLANNING DIVISION

THE FOLLOWING:

( ) prints
( ) originals
( ) shop drawings
(X) copy of letter
( ) specifications
( ) _____
( ) change order
( ) calculations

Copies	Dwg. No.	Description	Action Code

Action Code
A. REVIEWED
B. REVIEWED AS NOTED
C. REVISE & RESUBMIT
D. REJECTED
E. See REMARKS below

REMARKS: This is the requested letter from Parks Dept.

COPIES TO: _____

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

SENT: PPB

RECEIVED: _____

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 12, 1993

Jake Bordenave
Bordenave Designs
P.O. Box 91194
Albuquerque, NM 87199

RE: REVISED DRAINAGE PLAN FOR FAMILY FUN CENTER (J22-D41A)
REVISION DATED 10/23/93.

Dear Mr. Bordenave:

Based on the information provided on your October 26, 1993 resubmittal, listed are some concerns that will need to be addressed prior to Final Approval:

1. Please identify on Sheet C1 where the proposed 8" pvc pipes will be located.

2. More spot elevations on the sedimentation pond on Basin A. Indicate the pond bottom elevation on the pond outlet profile.

3. Attached copy of Highway approval was not within the submittal.

4. Once the proposed ponds on the Highway Right-of-Way are full, where will the water exit to? It cannot enter the private property area.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineer Associate

BJM/dl/WPHYD/8099

xc: File

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

Bordenave Designs

November 22, 1993

City of Albuquerque
Public Works Department, Hydrology
P.O. Box 1293
Albuquerque, NM 87103

Attn: Mr. Bernie Montoya
Re: J22/D41A

Dear Sir:

The following is in response to your comments dated 11/12/93. The responses are in the same numerical order as your comments.

1. The 8" pipes have been added to sheet C1.

2. The bottom of pond elevation has been shown on both sheets C1 and C2.

3. The letters have been added and are attached to this letter.

4. It is not anticipated that the ponds will fill as they are more than twice the size required to retain a 100 year, 6 hour storm.

Thank you for your review and comments.

Sincerely,

Jean J.(Jake) Bordenave

P.O. Box 91194
Albuquerque, NM 87199-1194
(505) 823-1344

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 30, 1993

Jake Bordenave
Bordenave Designs
P.O. Box 91194
Albuquerque, NM 87199

RE: REVISED DRAINAGE PLAN FOR FAMILY FUN CENTER (J22-D41A) REVISION ON SHEET C1 AND C2 DATED 11/20/93.

Dear Mr. Bordenave:

Based on the information provided on your November 22, 1993 resubmittal, the above referenced site is approved for Building Permit.

Please be advised that prior to Building Permit release, concurrence from City of Albuquerque Parks & Recreation will be required for the items listed on the State Highway Department letter dated April 30, 1993.

Also, prior to Certificate of Occupancy release, Engineer Certification per the D.P.M. checklist will be required.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineer Associate

BJM/dl/WPHYD/8099

xc: Alan Martinez
File

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Family Fun Center ZONE ATLAS/DRNG. FILE #: J22/D-41A

DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: J-2-B-2, Block 5, Panorama Heights

CITY ADDRESS: Indian School Rd NE

ENGINEERING FIRM: Bordenave Designs CONTACT: J. Bordenave

ADDRESS: P.O. Box 91194, 87199 PHONE: 823-1344

OWNER: Hinkle Investments, Inc. CONTACT: B. Hinkle

ADDRESS: 11200 Montgomery NE Suite 87111 PHONE: 292-6094

ARCHITECT: de la Torre/Rainhart CONTACT: G. Rainhart

ADDRESS: 7801 Academy NE Bldg 2, Suite 200 87109 PHONE: 828-9611

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
__X__ DRAINAGE PLAN
____ CONCEPTUAL GRADING & DRAINAGE PLAN
__X__ GRADING PLAN
____ EROSION CONTROL PLAN
____ ENGINEER'S CERTIFICATION
____ OTHER _____

PRE-DESIGN MEETING:

____ YES
____ NO
____ COPY PROVIDED

OCT 26

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D. APPROVAL
____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ FOUNDATION PERMIT APPROVAL
__X__ BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ S.A.D. DRAINAGE REPORT
____ DRAINAGE REQUIREMENTS
____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 10/26/93

BY: RPB

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 18, 1993

Jake Bordenave
Bordenave Designs
P.O. Box 91194
Albuquerque, NM 87199

RE: DRAINAGE PLAN FOR HIGH RIDGE SHOPPING CENTER FAMILY FUN CENTER PHASE II (J22-D41). ENGINEER'S STAMP DATED 2/20/93.

Dear Mr. Bordenave:

Based on the information provided on your March 11, 1993 submittal, the above referenced site is approved for Foundation Permit.

Please be advised that the following concerns will need to be addressed prior to Building Permit release:

1. Your plan drawing identifies that you are proposing to pond public water within public Right-of-Way. No retention ponds are allowed per ordinance. Right-of-Way belongs to the State Highway Department.

2. The proposed retention ponds must be coordinated through the New Mexico State Highway Department. Please be advised that the ponds must be designed so as not to allow any water onto the private property.

3. Please identify your basins on sheet C1. Unable to locate on the plan drawing.

4. Please identify flow line elevations on Indian School Rd. and Tramway Blvd.

5. The following are concerns on Sheet C-2:

   a. Unable to locate plan scale. Scale must be 1"=20'.

   b. Please identify all swales and storm drains required to drain the site.

c. Include typical section and details of all swales, berms, pipes, etc.

d. Discharge from the golf course onto the parking area must be sediment free.

e. Nuisance Waters- Adequate provisions for nuisance waters provided on-site.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineering Assistant

BJM/dl/WPHYD/7623

xc: George Rainhart
File

Bordenave Designs

October 25, 1993

City of Albuquerque
Public Works Department
Engineering Group/Hydrology
P.O. Box 1293
Albuquerque, NM 87103

Attn: Mr. Bernie Montoya
Re: Family Fun Center, J22/D41

Dear Sir:

The following is in response to your comments for the subject site dated March 18, 1993. Responses are in the same order and numbered the same as your comments.

1. The retention ponds are shown in the Tramway Blvd. ROW.

2. The Highway Department has been contacted and their letter of approval is attached.

3. The basins have been labeled on the current plan.

4. Flow line elevations have been added to the plan.

5. a) The scale is shown in the insert title block and is 1" = 20'.

   b) Subsidiary basins have been labled and 100 year peak flows have been computed. The required storm drains have been sized and shown on the sheet.

   c) Required details have been added to the plan.

   d) No more sediment will be discharged from the golf course than could be expected from any other landscaped area.

   e) The standard provisions for nuisance waters will be made in the landscape installation.

Thank you for your comments.

Sincerely,

Jean J. (Jake) Bordenave

OCT 26

P.O. Box 91194
Albuquerque, NM 87199-1194
(505) 823-1344

DRAINAGE INFORMATION SHEET

PROJECT TITLE: High Ridge Shopping Center ZONE ATLAS/DRAINAGE FILE # J22/D41

LEGAL DESCRIPTION: Tract J22B2, Block 5, Panorama Heights

CITY ADDRESS: Indian School Road

ENGINEERING FIRM: Bordenave Designs CONTACT: J. Bordenave

ADDRESS: P.O. Box 91194, Alb, NM 87199 PHONE: 823-1344

OWNER: High Ridge/Hinkle Joint Venture CONTACT: G. Hinkle

ADDRESS: P.O. Box 14934, Alb. NM, 87191 PHONE: 292-6094

ARCHITECT: de la Torre/Rainhart CONTACT: G. Rainhart

ADDRESS: 7801 Academy, Suite 200, 87109 PHONE: 842-9500

SURVEYOR: - CONTACT:

ADDRESS: PHONE:

CONTRACTOR: - CONTACT:

ADDRESS: PHONE:

PRE-DESIGN MEETING:

____ YES DRB NO. _____

____ NO EPC NO. Z-1290-3

____ COPY OF CONFERENCE RECAP SHEET PROVIDED PROJECT NO. _____

RECEIVED
MAR 11 1993
HYDROLOGY DIVISION

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT

X DRAINAGE PLAN

____ CONCEPTUAL GRADE & DRAIN PLAN

X GRADING PLAN

____ EROSION CONTROL PLAN

____ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

____ SECTOR PLAN APPROVAL

____ SKETCH PLAT APPROVAL

____ PRELIMINARY PLAT APPROVAL

____ SITE DEVELOPMENT PLAN APP.

____ FINAL PLAT APPROVAL

____ BUILDING PERMIT APPROVAL

X FOUDATION PERMIT APPROVAL

____ CERT. OF OCCUPANCY APPROVAL

____ ROUGH GRADE PERMIT APPROVAL

____ GRADING/PAVING PERMIT APP.

____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 03/10/93

BY: J P Bordenave

REV10/85

J22/D41A

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
PLANNING DIVISION

AGENDA NUMBER: 05
ENVIRONMENTAL PLANNING COMMISSION
OCTOBER 17, 1991
Z-1290-3

Z-1290-3 De La Torre/Rainhart agent for High Ridge, Hinkle Joint Venture requests a site development amendment including an outdoor activity (Go-Cart Track/Bumper Boats) for Tracts J-2-A, J-2-B-1, J-2-B-2, J-2-B-3 Block 5, Panorama Hills Subdivision; zoned C-2, located on the northwest corner of Tramway Boulevard NE and Indian School Road NE, containing approximately 9.42 acres. (J-22)

COMMENTS FROM OTHER DEPARTMENTS:

ENVIRONMENTAL HEALTH DEPARTMENT

Air Pollution Control Division

"Review of the on-site noise analysis and modeling conducted by Gannett Fleming indicates that estimated noise levels and noise attenuation from the Gokart operation will be in compliance with the Albuquerque Noise Ordinance as long as the Gokarts are operated at speeds indicated in the proposal and that no modifications are made to the muffling equipment. Loud-speakers, music, etc. for both all project activities must also comply with the Albuquerque Noise Ordiance.

No adverse comments regarding air quality at this time. A Top Soil Disturbance Permit is required prior to any earthwork. The bicycle rack provisions and bicycle related improvements suit this location and proposed activities while addressing some air quality and energy conservation issues. More bike racks may be need to be considered in the future. Transit access will also benefit the site and air quality.

Intrusion of commercial lighting into residential areas is often a concern. In order to minimize light trespass or "light pollution" from the site, we encourage the applicant to shield area lighting so that light is directed to the site and does not trespass beyond a 90 degree boundary. Another option is to consider low pressure sodium (LPS) fixtures which emit light in a narrow wavelength. LPS lights alone give off a yellowish color. A mixture of high pressure/low pressure sodium lights would help produce true color. LPS lights are long -lived, energy efficient and reduce impacts to surrounding development."

FIRE DEPARTMENT/Planning

No comment received.

LAND RESOURCES & REGULATION DEPARTMENT

Real Property

No comment received.

Zoning Enforcement	"Parking spaces are of insufficient depth (requires 20 feet). Lacks adequate parking spaces (requires 102 spaces). Lacks sufficient handicapped parking (requires 8 spaces). Comments were provided to applicant in response to a request for preliminary review."
NEIGHBORHOOD SERVICES	"Embudo Canyon Neighborhood Association (a recognized neighborhood association) has been notified. Monte Largo Hills, Blue Cross Shadows, Quail Ridge Homeowners and Chelwood Gable Neighborhood have also been notified."
PLANNING DEPARTMENT	
Capital Improvement	No comment received.
PARKS AND RECREATION DEPARTMENT/Administration	"Does not adversely affect any City Parks and Recreation facilities."
OFFICE OF OPEN SPACE	"No adverse comments."
POLICE DEPARTMENT/Planning	"No adverse comments."
SOLID WASTE MANAGEMENT DEPARTMENT/Refuse Division	No comment received.
PUBLIC WORKS DEPARTMENT	
Hydrology	"An approved Conceptual Grading and Drainage Plan is required for Site Development Plan sign-off."
Transportation Planning	"No adverse comments."
Transportation Development	"The proposed median opening on Indian School Road will not be allowed at the easternmost driveway. This is due to sight-distance problems, and the proximity of the service road intersection, on the south side of Indian School Road. Conditions of approval should include: • Placement of conduit and signal bases for signalization of Constitution / Indian School intersection. Signal warrant evaluation will be required, and a financial guarantee for installation of the signal for a minimum of 3 years. • Internal circulation of the overall site is deficient and should be redefined to improve access from the existing main entrance opposite the Constitution / Indian School intersection. This must be coordinated with and approved by the Traffic Engineer. • Provision of adequate parking for all the proposed uses."

Utility Development	"(High ridge) There is an 8-inch public water line on this property. The line is within an easement established by plat. The site plan shows the approximate location of the easement, at least at the north end of the tract. Alignment was based on previously approved uses, and development plans. The proposed development includes unacceptable encroachments on the existing easements. An acceptable plan would require major changes to the north end of the miniature golf course. In lieu of such changes, sign off by the DRB would be contingent on financial guarantees for relocation of the line within a new easement, and a vacation of the existing easement."
TRANSIT DEPARTMENT	"The Transit & Parking Department is please with the transit amenities that were included in the proposed plan. It is assumed that the bus bay and shelter will be constructed at the developer's expense. The proposed location for the bus bay and shelter is acceptable. This location is serviced by Route 6: Indian School Road, which also provides Saturday services. The design of the bus bay will need to meet the design standards as set forth in the City's Design Standards Manual. Any modification to the standard will need to be approved by the Transit & Parking Department's staff. The maintenance of the bus shelter will be the responsibility of the property owner. The City has an approved bus shelter design that is used for City funded bus shelters. The Transit & parking Department will be glad to provide a copy of the specifications upon request."

COMMENTS FROM OTHER AGENCIES:

ALBUQUERQUE FLOOD CONTROL AUTHORITY	"We anticipate that the City of Albuquerque, Public Works Department, Hydrology Division will take the lead in reviewing drainage at this site. See Public Works, Hydrology comments."
ALBUQUERQUE PUBLIC SCHOOLS	"No adverse comments."
MIDDLE RIO GRANDE COUNCIL OF GOVERNMENTS	"No adverse comment. For information, the Long Range Major Street Plan designates Tramway Boulevard as a limited access principal arterial and Indian School Road as a collector."

PLANNING DIVISION COMMENTS TO THE ENVIRONMENTAL PLANNING COMMISSION, OCTOBER 17, 1991

Request Summary:

This is a request for a site development plan amendment on a shopping center site. The proposal contains a minature golf course, a video arcade, and an area for go-carts and bumper boats. The applicant is seeking a conditional use for the go-cart/bumper boat operation (ZA-91-207). The request was heard Sept. 25, 1991 and a decision has not yet been made.

Applicable Plans and Policies:

The project is located in the Established Urban Area of the Comprehensive Plan. The plan contains general policies that address land use, design, preservation of existing neighborhoods, and noise.

Policy B.5.d.: The location, intensity, and design of new development shall respect existing neighborhood values, natural environmental conditions and carrying capacities, scenic resources,and resources of other social, cultural, or recreational concern.

Policy B.5.i.: Employment and services uses shall be located to complement residential ares and shall be sited to minimize the adverse effects of noise, lighting, pollution, and traffic on residential environments.

Policy B.5.l.: Quality and innovation in design shall be encouraged in all new development; design shall be encouraged which is appropriate to the plan area.

Policy B.5.m.: Urban design which maintains and enhances unique vistas and improves the visual quality of the visual environment shall be encouraged.

Policy C.4.: The Goal is to protect the public health and welfare and enhance the quality of life by reducing noise and by preventing new land use/noise conflicts.

The request is also located on the boundary line of the Sandia Area Foothills Area Plan. While this site is not located in the plan area the design should fit into it's context. This plan was designed to preserve a special quality of life near the mountains. It called for restrictions in the intensity of commercial use in the area and it also contains some designed standards.

Policy F. R-1 height restrictions shall apply to all development in the Foothills Master Plan area.

Policy G. Future commercial zoning east of Tramway Boulevard and north of I-40 shall be no more intensive than C-1 in order to maintain sign controls and other satisfactory relationships with the neighboring residential development....

Area Characteristics and Zoning History:

The request is surrounded by developed properties both commercial and residential.

The site is part of a larger 260 acre area that was rezoned for the present uses in 1963 (Z-1290). The subject site is the undeveloped part of what once was a much larger 22 acre site zoned C-2. The site included all of the land between Eastridge and Tramway. Development on site began in 1985 based on a site development plan that was approved for a shopping center and apartment units (Z-1290-1). The apartment complex (256 units) was approved in 1984 under a conditional use (ZA-84-373). These apartments are located to the north and west of the current proposal. In 1989 the plan was amended to provide a site for a movie theater and retail development (Z-1290-2).

The site is across the street from the Pablo Heights Subdivision (R-1), Skyview Shopping Center (C-2), Armored Storage (C-2), Circle K (C-2), and the Blue Cross/Blue Shield Building (O-1).

Analysis:

9/26/91: The applicant is seeking approval of a site development plan that includes a go-cart/bumper boat use that has not been approved. A go-cart/bumper boat operation can be approved as conditional use in the C-2 zone. There was a considerable amount of neighborhood opposition to the request at the hearing.

General: The proposal is part of a larger site that contains a 16,600 square foot office building and a 27,833 square foot movie theater. This proposal contains three basic areas of use; the golf course and 6000 sq. ft. recreation building; a go-cart/bumper boat area; a batting range and basketball shooting area located on Indian School. The design of the proposed use combination should be consistent with adopted city plans and policies as well as other development in the area.

Plan Arrangement: The applicant has placed the minature golf course at the north end of the development in order to transition between the go-cart track and the residential properties. If the track is not approved and the developer would still like to construct the golf course Staff recommends that the entire plan be reconsidered. Leaving a hole in the land use plan may create difficulties in developing an alternative use. Perhaps the golf course would relocate there away from the residential uses. The corner location would be more consistent with the Comprehensive Plans policies dealing with development and noise.

The location of the golf course may be acceptable if restrictions are placed on it's operation. These restrictions may include it's hours of operation, outdoor music, and visual impacts. The use will have a definite impact on adjacent residential uses. This project will be viewed and heard from second story windows and lots that are located above it.

Staff recommended approval of minature golf course next to a residential area recently. The course did not generate the same level of impact as this operation, it's "scenes" consisted of landscaping and water areas, the hours of operation were restricted, there was no public address system nor outdoor music, no video arcade/recreation building, and it was not visible from adjacent residential development.

The applicant indicates that the vacant tract of land located along Indian School will be used for retail uses or the expansion of the family fun center. The proposed use would be a batting range or a basketball shoot. There is not sufficient detail on the plan to evaluate this portion of the request. No parking calculations have been provided nor a proposed plan for access.

Grading: A major aspect of this plan is the grading on site. The site slopes from east to west approximately 18 feet. The earth will slope somewhat after development, however, most of the change will be accomodated through a series of retaining walls. These walls are designed so that most of the activity will take place within 5 feet of the top of the site. The development will be very visible from the roadway and surrounding development. The floor of the 39-foot high recreation building will be 7 feet below the grade at the corner of the property, the floor of the 37-foot high go-cart viewing stand will be 4 feet below. The miniature scenes will be approximately grade height with the average roadway elevation. These "scenes" will range in height from 16 feet to 29 feet.

Architecture, Massing, and Building Elevations: The only building associated with the project is the recreation building. The proposed style is generally consistent with the existing theater. It's finished floor is approximately 6 feet above the parking area adjacent to it. Stairs and ramps must be used to access it. The building is approximately 32 feet high with a tower that extends to 39 feet. If the finished floor elevation of this building were lowered to approximately the parking level it would provide easier access and reduce the visual impact of the structure.

Incidental Structures: The proposed development has not been designed to preserve the scenic views along Tramway. The grading plan elevates the activity areas, "scenes", and viewing stand to very visible levels. The "scenes" do not fit in with the existing development nor are they residential in character. They call attention to the activity on site and act as defacto signs. Other minature golf courses submitted to the Commission utilized landscaping and water features to achieve special effects and interest. The go-cart viewing stand is 39 feet tall, it does not enclose space, and contains a sign area on four sides. It functions as a freestanding sign. The scenes and viewing tower should be eliminated.

The applicant proposes to locate a vinyl clad chain link fence adjacent to Tramway and Indian School. Chain link fences have a tendency to collect trash and deteriorate over time. The Skyview Center has a landscaped brick wall. The Comprehensive Plan calls for quality in design; an upgraded fence with landscaping should be provided. Staff recommends a landscaped open rail fence be used at a minimum. This will upgrade the image of the development and would avoid the problem of graffiti.

A music/public address system is part of the plan according to comments made at the pre-hearing discussion. Area residents have expressed opposition to noise generating activities; residential lots, apartment windows and balconies face the development. The Comprehensive Plan states the noise and land use conflicts should be minimized. Staff, therefore, recommends that no music/public address system be permitted.

The applicant states that the hours of operation will end at 12:00 midnight. This will coincide with the hours of operation of the movie theater. The impact of these hours on adjacent uses has been a point of discussion with neighborhood residents. If the noise and lighting generated by this use are not sufficiently controlled the proposed hours would have a negative affect on adjacent residential uses. Perhaps the evening hours should be restricted to 9:00 PM or dusk depending on the season. This would permit longer hours in the summer time without affecting sleeping.

Access: The proposed plan has been described as a family fun center which includes all the uses listed in the plan as well as a 27,800 square foot movie theater. Families using this center will walk from one area to another. This is a significant change from the previous retail plan. The proposed plan should provide protected and separate pedestrian access. This is not reflected in the current proposal with the exception of the link between the office and the movie theater. A tree lined landscaped sidewalk area free of vehicle overhangs should be provided between the theater, around the front of the recreation building, down to the batting range, and back to the bus stop. It should be designed so that vehicle paths and entries into parking areas are crossed as few times as possible. This will provide both comfort and some safety for customers. Transportation Development indicated concerns over vehicle circulation at the pre-hearing discussion, specific comments have not yet been received.

Utility Development indicates that a portion of the golf course on the north property line has been placed over a utility easement. The course should be redesigned to avoid this conflict.

In summary the proposal represents an attempt to place uses with significant impacts in a sensitive area. These uses may be a benefit to the community if properly designed and operated. One of these uses, go-carts/bumper boats, has not been approved at this point in time. If it is not approved then the entire concept should be reconsidered so that developmental difficulties are not created for an alternative use on the southeast corner of the site. The design of the incidential buildings, "scenes" and go-cart viewing stand, do not respect the scenic low key visual quality of Tramway Boulevard. The grading plan places most activities within a few feet of the roadway grade, a significant attempt must be made to transition and partially conceal these activities from view. Staff, therefore recommends indefinite deferral of this case.

9/30/91: The applicant has requested that staff review a revised plan for the October hearing. The applicant states that they do not wish to change the location of the golf course use and that they will distribute modified plans to city agencies and neighborhood organizations. The Planning Department has agreed to accomodate the developer.

10/1/91: Staff received a revised site development plan with an attached cover letter.

The revised plan consists of four sheets; a general plan sheet, a site specific plan sheet, a landscaping sheet, and a revised grading and drainage plan. The general plan sheet indicates changes in the overall development of the go-cart area. These changes are not reflected in the site specific plan or the landscaping plan, an X has simply been drawn over the go-cart track. Staff reiterates the comments regarding the general development. Staff does not recommend approval of this plan for a "family fun center" on a piecemeal basis.

Transportation Development states " internal circulation of the overall site is deficient and should be redefined to improve access from the existing main entrance opposite the Constitution / Indian School intersection. This may require a significant change in the plan.

Staff reiterates it's previous recommendation.

Findings:

1. The proposed plan represents a piecemeal development of the site. The development of a family fun center calls for a integrated plan.

2. The location of activities that will generate music, noise, and unnecessary visual impacts near residential areas has not been justified.

3. The character of the proposed development is not consistent with preservation of the visual quality of Tramway Boulevard.

4. The design of the development is not consistent with the Comprehensive Plans policies regarding, preservation of neighborhoods, enhancement of unique vistas, improvement of the visual environment, quality developments with innovative designs, and noise.

5. The conditional use request for go-carts and bumper boats has not been approved.

RECOMMENDATION:

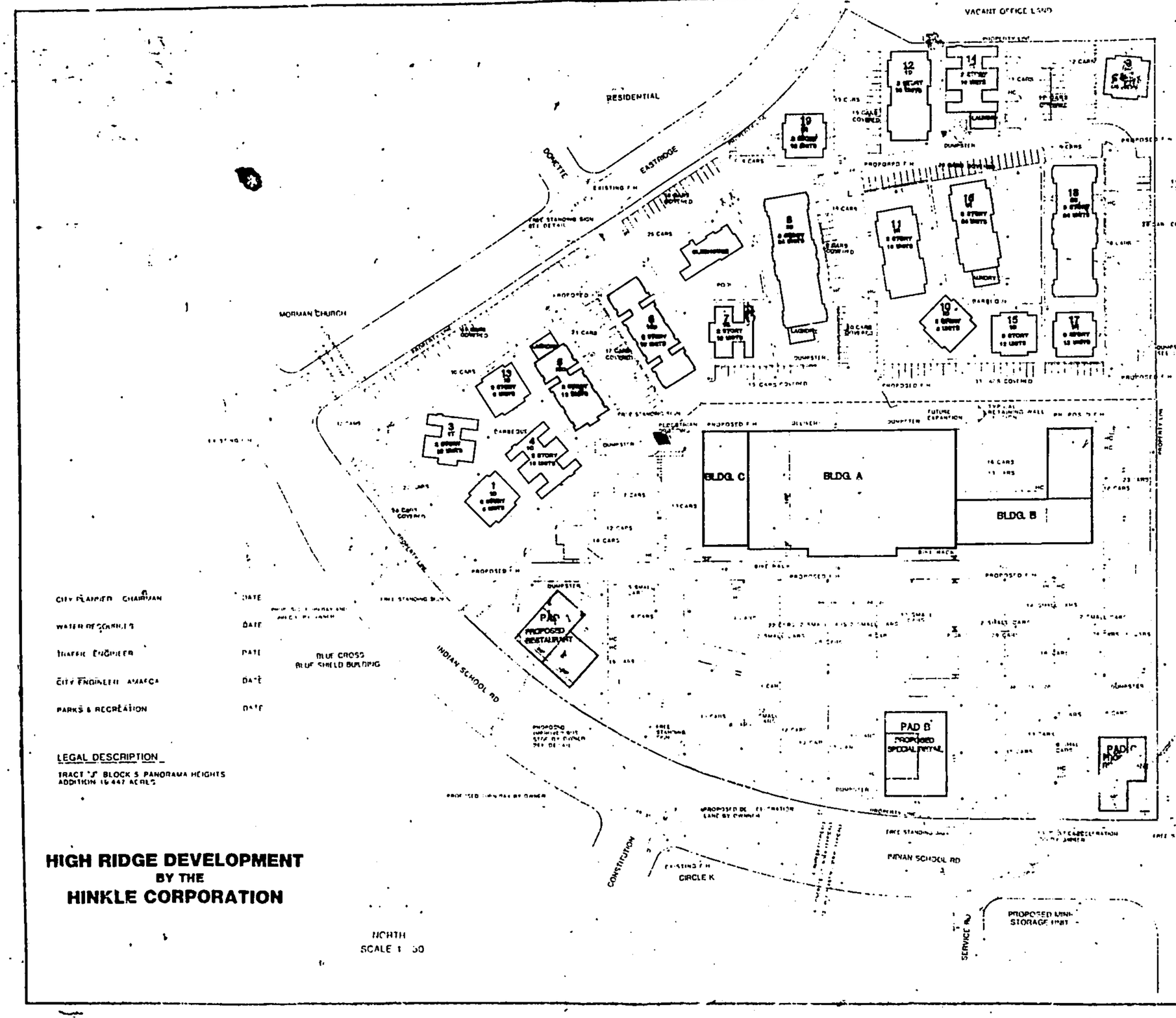
INDEFINITE DEFERRAL OF Z-1290-3 is recommended based on the above Findings.

Dave Carlson
Planner

DC/lj

12718
cc: Highridge/Hinkle Joint Venture, P.O. Box 14934
De La Torre/Rainhart P.A., Two Woodward Centre, Suite 200, 700 Lomas Blvd., NE, Albuq., NM; 87102
Embudo Canyon Neigh., Asso., Frank Ramsey, 1421 Chichuahua NE, Albuq., NM
Embudo Canyon Neigh., Asso., Lila Johnson, 1432 Chichuahua NE, Albuq., NM
Al Gronlund, 12800 El Vado Court NE, Albuq., NM; 87112

IT IS REQUESTED THAT THE APPLICANT/AGENT BE PRESENT AT THE HEARING.


VACANT OFFICE LAND
RESIDENTIAL
DORETTE
EASTRIDGE
MORMAN CHURCH
BLDG. C
BLDG. A
BLDG. B
PAD 1
PROPOSED RESTAURANT
PAD B
PROPOSED SPECIAL RETAIL
PAD C
PROPOSED
BLUE CROSS
BLUE SHIELD BUILDING
INDIAN SCHOOL RD
CONSTITUTION
CIRCLE K
PROPOSED MINI-STORAGE UNIT
SERVICE RD
TRAMWAY BLVD
PHASE II
CITY PLANNER CHAIRMAN
DATE
WATER RESOURCES
DATE
TRAFFIC ENGINEER
DATE
CITY ENGINEER AMAFCA
DATE
PARKS & RECREATION
DATE
LEGAL DESCRIPTION
TRACT "J" BLOCK 5 PANORAMA HEIGHTS ADDITION (6.447 ACRES)
HIGH RIDGE DEVELOPMENT
BY THE
HINKLE CORPORATION
NORTH
SCALE 1" = 50'
HIGH RIDGE DEVELOPMENT
BY
HINKLE CORPORATION
SITE PLAN
Z-1290-1

APPLICATION FOR ZONE MAP AMENDMENT AND/OR DEVELOPMENT PLAN

INSTRUCTIONS: PRINT OR TYPE IN BLACK INK ONLY. Use additional sheets, if necessary. Thirty (30) copies (Annexation, forty copies) of all attachments must be submitted with the application and, after folding, shall not exceed 8 1/2 by 14 inches.

Applicant's Name: HIGHRIDGE/HINKLE JOINT VENTURE requests
GENE HINKLE OWNER

☐ Zone Map Amendment ☒ Development Plan Review ☐ Annexation
___ Type of Plan

For Lot(s): ____ Block(s): ____ in Subdivision/Addition TRACT J2B2 HIGHRIDGE HINKLE

Presently Zoned C-2 and proposed to be zoned as SAME located at:

Street Address (No. if any): NORTHWEST CORNER

~~Between~~ OF TRAMWAY Street and INDIAN SCHOOL Street

Total Land Area Covered by Application: Acres 3.1256 Square Feet 136,155

Number of DU's Proposed ____ DU's Per Gross Acre ____ DU's Per Net Acre ____

Uniform Property Code Number: 1022 058 497 334 10535
(18 diget property tax Number issued by County Assessor)

NOTE: Neighborhood Notification form must accompany application.

APPLICANT INFORMATION:

Applicant's Mailing Address: PO BOX 14934 Phone: 292 6094
ALBQ NM Zip Code 87191

Applicant's Proprietary Interest in Property ____

Agent if any: DELATORRE RAINHART PA Phone: 842 9500

Mailing Address: TWO WOODWARD CENTRE S 200 Zip Code: 87102
700 TRAMAS BLVD NE ALBQ NM

APPLICANT SIGNATURE: [signature] Date: 8-29-91
(Owner or Trustee of Property)
GENE HINKLE

List Reason For Request on reverse side or attach separate sheet.

FOR PLANNING STAFF USE ONLY

Application Received By: Allen L. Jaramillo Date: Aug. 30, 1991

Fee: $180.00 Paid: $ ____ Method of Payment: ____

Cross-Ref.: AX-____ Z-____ S-____ Other: ____

No. of Signs Issued: 1 ZHE or EPC? ____

1 copy each to:
Research Analyst

Hearing Date: Oct. 17, 1991

Applicant

Graphics

Z- 1290-3

Map Number: J-22

NEIGHBORHOOD NOTIFICATION

ADDENDUM TO APPLICATION

This certifies that I, PETER HOLLOWAY have notified via certified mail, return receipt request, two representatives of the following Recognized Office of Neighborhood Associations, as furnished of Neighborhood Coordination Office* regarding our application for

_____ ZONE MAP AMENDMENT
__✓__ SITE DEVELOPMENT PLAN APPROVAL OR AMENDMENT
_____ ANNEXATION
_____ MAJOR SUBDIVISION
_____ VACATION OF PUBLIC RIGHT-OF-WAY
_____ PRIVATE SECTOR DEVELOPMENT PLAN

for property located at TRAMWAY & INDIAN SCHOOL - NORTHWEST CORNER
(legal description)

EMBUDO CANYON (Neighborhood Association)	FRAN RAMSEY (Representative) 1421 CHIHUAHUA NE (Address) (Phone)
EMBUDO CANYON (Neighborhood Association)	LILA JOHNSTON (Representative) 1432 CHIHUAHUA N.E. (Address) (Phone)
(Neighborhood Association)	(Representative) (Address) (Phone)
(Neighborhood Association)	(Representative) (Address) (Phone)

Certified by Peter K. Holloway (Owner/Agent) For GENE HINKLE (Owner)

Printed name of person signing PETER K. HOLLOWAY Phone# 842.9500 Date 8.30.91

*The Neighborhood Coordination Office is located in the [redacted] 5th FLOOR of the Old City Hall Building, 768-3790

REV. 11/8/90

CASE#_____

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

ZONING ENFORCEMENT
Plaza National Bank - Garden Level
600 - 2nd St., N.W., Albuquerque, New Mexico 87102
Telephone No. (505) 764-1664 - Telecopier No. (505) 764-1692

August 23, 1991

George R. Rainhart, A.I.A.
Two Woodward Center
700 Lomas NE
Suite 200
Albuquerque, New Mexico 87102

Dear Mr. Rainhart:

In reference to your letter of this date, the following uses are permitted as part of a recreation center in the C-2 zone: minature golf, video game room, concession and ticketing building, baseball batting range and basketball shooting area.

Areas for go carts and bumper boats are allowed as a conditional use in the C-2 zone as regulated under Section 22.B.13 of the Zoning Code. The next filing deadline for a conditional use request is September 3, 1991, for a September 25, 1991 hearing.

You may submit your site development plan amendment to the planning division while the conditional use application is pending, but approval will not be final until the conditional use itself is approved and any conditions imposed are implemented.

If you have any further questions regarding this issue, please do not hesitate to contact me.

Sincerely,

Robert E. Romero
Zoning Enforcement Manager

cc: Richard Dineen, Chief Current Planning

0324/

FORMULA K RACEWAY, INC.

August 25, 1991

Hinkle Investments
P.O. Box 14934
Albuquerque, New Mexico 87191

ATTN: Gene Hinkle

SUBJECT: Noise Assessment Study Go-Kart Activity at proposed Recreation Centers.

Gentlemen,

Measurements have been obtained at the Formula 'K' Raceways to assess the level of noise produced by the Go-Kart and Grand Prix activity. In addition, analysis provides an assessment of the noise levels expected at various distances from the activity with various numbers of Karts in operation. These levels are compared to recognized standards in order to assess the potential impact of the noise on adjacent land uses.

NOISE MEASUREMENTS:

A-weighted and one-third octave band levels were measured for typical Go-Kart operation at the Formula 'K' Raceways. An explanation of the a-weighted measure of noise is provided in Appendix I. It is the nationally recognized measure of noise for land use planning and noise ordinance enforcement. A Sound Level Meter and Graphic Recorder was positioned at distances of 10, 20, and 50 feet from the edge of the track surface. The Karts and Grand Prix Cars were operated in a manner similar to that of the normal recreational activity. The noise level was measured using from 1 to 8 Karts in operation. The level obtained are summarized as follows:

NON 'GO-KART' NOISE

Paging system, at 100'	65 to 73 dB(A)
Bell Timer Unit, at 50'	74 to 75 dB(A)
Participant Yelling, at 50'	62 to 69 dB(A)

GO-KART NOISE LEVELS

NUMBER OF GO-KARTS	Sound level measured at: 10 FEET	20 FEET	50 FEET
1	62dB(A)	57dB(A)	54dB(A)
2	64 "	58 "	55 "
4	66 "	62 "	58 "
10	72 "	65 "	59 "

FORMULA K RACEWAY, INC.
[illegible] North Main Street
P.O. Box [illegible]
[illegible] Michigan [illegible]
[illegible]

GRAND PRIX CARS	10 FEET	20 FEET	50 FEET
1	81dB(A)	78dB(A)	72dB(A)
2	82dB(A)	79dB(A)	73dB(A)
4	84dB(A)	79dB(A)	73dB(A)
6	84dB(A)	80dB(A)	74dB(A)

In addition to the above, the one-third octave band sound level was measured at a distance of 10 feet from a Kart operating at full power with the drive wheel off the ground. The data is provided in data sheet A. The ambient sound level was taken at a remote location equal distance from Interstate 94 as the location of the track. The background noise level, without the Karts or Grand Prix Cars in operation was found to have an average value of about 71.5dB(A), for a two hour period from 2:15 to 4:15 A.M. on a weekday. The data is provided on data sheet B.

ANALYSIS OF DATA:

Analysis of the data obtained indicated the variation of the Kart noise levels with numbers of Karts and a distance from the track as is shown in figure 1. It is noted that for distances of at least 20 feet or more from the effective center of the track, the noise level is assumed to decrease with the inverse square of the distance.*

ASSESSMENT OF IMPACT:

The GOKart noise levels when compared to those of generally recognized standards throughout the United States is not considered excessive. The Grand Prix Cars, if operated within a distance of 50 feet or less from an occupied dwelling, would be 2-3dB(A) above normally accepted limits. Most standards consider an entrusive noise level in the range of from 60 to 68dB(A) to be acceptable for daytime (7:00 A.M. to 10:00 P.M.) activity. A level at night (10:00 P.M. to 7:00 A.M.) of about 52dB(A) is normally the maximum permitted. Table I provides the standards set for steady noise by the League of Michigan Cities.

*Effective distance assumes the noise of the track operation is concentrated at a central point on the track. From data obtained this point is found to be seven feet from the center line of the paved portion of the track, assuming the Go-Kart activity of 10 Karts occured during the hours from 7:00 A.M. to 10:00 P.M., the distance at which the Standards, Table I, would be exceeded is about 80 feet. For nightime activity the distance is slightly greater than 200 feet.

When applying the standards and the information of Figure 1, it should be recognized that it is assumed that the background noise level is lower than that produced by traffic on the nearby arterials. Since this type of amusement center is normally to be constructed near a major arterial, the background noise level would be quite high. Hence, the background noise level at a particular distance from the track would be the determining factor and not the noise from the Karts when considering the acceptability of a given site configuration. Figure 2 provides a generalized estimate of the noise levels for various highways measured at a distance of 50 feet from the arterial. The level at distances greater than 50 feet may be found from Figure 3. Corrections for elevation and depressed highways are also included in Figure 3.

CONCLUSION AND ANALYSIS PROCEDURE:

In general, it will be found that most sites which are near a major arterial will comply with local and state standards. A specific site may be considered by application of the

following procedure:

1. Determine the local noise level standard for steady noise at the site nearest to the track. (i.e. Daytime, 64dB(A); Nighttime, 52dB(A))
2. Determine the distance to the location of concern from the track effective center (nearest the track location plus 7 feet).
3. Assuming the center is to have a maximum of 10 Karts at once, find the sound level of the Kart activity from Figure 1. (for example: if the distance to the nearest boundry is 400 feet, the noise from 10 Karts would be 48dB(A)).
4. If the sound level from the Karts is less than the standard, then the site configuration is considered acceptable. If it is greater than the standard, it may be acceptable, if the background noise level from traffic or other sources, is higher than that produced by the Karts at the location of concern.
5. Estimate the traffic noise level from Figure 2 and 3 as follows:
   A. Determine the Average Daily Traffic (ADT) for the arterial (near or adjacent to the track) and the distance from the near lane center of traffic to the location of concern.
   B. Find the noise level at 50 feet from the near lane center of traffic from Figure 2 for the ADT of concern.
   C. Find the reduction in level for the near distance to the location of concern relative to 50 feet by use of Figure 3. Subtract this value from the traffic noise level found from Figure 2.
   D. If the sound level value found in step 5c is greater than the Kart noise level found in step 3 the site, as configured, is considered acceptable, if not, the site should be reconfigured or a noise barrier (pine trees, fence, wall, etc.) should be considered, between the track and the adjacent property of concern.

In general a six foot concrete block wall between the track and adjacent property will provide about 3 to 4db(A) of noise reduction. A row of 12 foot tall by 3 foot diameter pine trees will provide a 2 to 3dB(A) noise reduction. If a greater reduction is needed noise barrier calculations are required and should be accomplished by a qualified acoustical engineer.

Very Truly Yours,

FORMULA 'K' RACEWAYS, INC.

RICHARD W. SEXTON, PRESIDENT
Consulting Engineer in Track Design

RWS:kss

Enclosures

APPENDIX I

A-WEIGHTED SOUND LEVEL, A-LEVEL

The scale of measurement which is most useful in community noise measurement is the A-weighted sound presure level, commonly called A-level or db(A). To establish the A-weighted level, the acoustic signal is detected by microphone and then filtered, heavily weighing those portions of the noise which are most annoying to individuals. The root-mean-square (RMS) value of this weighted signal is then read, utilizing a conventional sound level meter. It is interesting to note that the A-weighted filter characteristic actually amplifies the signal at frequencies between 1000 and 5000 hz. At frequencies substantially above and below this range, it severly rejects the acoustic signal. This weighting of sound energy corresponds approximately to the relative annoyance produced by noise at various frequencies. The A-weighted sound presure levels of a few typical sources of noise are listed below and on the next page.

The A-weighted sound level of traffic and other long term noise producing activities within and around a community varies considerably with time. Measurement of this varying noise levels are accomplished by recording values of the A-weighted level during representative periods within a specified portion of the day. The values recorded are:

L 90 - The near mimimum Sound Level, which occurs during the measurement period. 90% of the time the A-weighted sound level is greater than this value.

L 50 - The central tendency of sound level. This value is exceeded 50% of the time during the measurement interval.

L 10 - The near maximum A-weighted sound level. This value is exceeded 10% of the time during the measurement interval.

Depending on the degree of the noise variation, A-weighted sound level is recorded for periods of from 12 to 60 minutes to provide representative samples of the noise during the time period being examined (i.e. morning, afternoon and evening). The statistical values, if these samples (L90, L50, L10 and etc.), are then considered representative of the sound levels during the particular time period.

APPENDIX II

NOISE MEASUREMENT EQUIPMENT

The following items of equipment were used during the course of the noise measurement program:

1. A-weighted Noise Level-Analysis
   Community noise level analyzer, B & K Type 4426

2. Percision Sound Level Measurement per ANSI SI .4-1971
   Sound Level Meter, B & K Type 2203

3. Acoustic Calibration
   Acoustic Calibrator, B & K Type 4230, (94db at 1000 hz.)

4. Graphic Level Recording
   Graphic Level Recorder

NOISE SOURCES AND NOISE LEVELS

	130	Threshold of Pain
Small Aircraft Overhead	120	
	110	Riviting Machine at 40ft.
	100	
Train Passing at 50ft.	90	
	85	Automobile Horn at 59ft.
	80	
Noisy Stenographic Room	70	
	65	Normal Conversation at 3ft.
Noisy Office	60	
	55	Noisy Residence
	40	
Voice Soft Whisper at 3ft.	30	
	20	
	10	Outdoors in the Woods
Threshold of Audibility	0	

A-WEIGHTED SOUND LEVEL, db(A)

TABLE I

ACCEPTABLE NOISE LEVELS*

ZONE	TIME	QUIET	SLIGHTLY NOISY
Residential	10p.m. - 7a.m.	52 db(A)	56 db(A)
	7a.m. - 10p.m.	64 db(A)	68 db(A)
Commercial	10p.m. - 7a.m.	65 db(A)	68 db(A)
	7a.m. - 10p.m.	68 db(A)	75 db(A)
Industrial	Anytime	80 db(A)	84 db(A)

*The intrusive noise measured on the adjacent property shall not exceed the sound levels indicated above during the periods specified.

Source: League of Michigan Cities Quiet City Report #231

NOISE SURVEY:

PROJECT: GO-KART AND GRAND PRIX TRACK
MEASUREMENT LOCATION: 29ft. North of Fence (Boundary)
DATE: August 11, 1978
TIME: 3:15 p.m. to 4:15 p.m.

SOURCE OF NOISE: Ambient
DISTANCE TO SOURCE: 39ft.
HEIGHT: SLM 5ft.
NUMBER OF SOURCES: 1 to 8

LEVEL RECORDER:
Paper Speed (mm/s): 1.0
Writing Speed (mm/s): 40
Recording Mode: AC LOG

RMS DETECTOR
Fast--Max Level
Sample Period (s): 0.1
Range (db): 26 to 90
Wind Direction: LV
Wind Velocity: NIL
Temperature: 68F
Relative Humidity: 71%
Barometric Pressure: 30.11

PLANT: _____

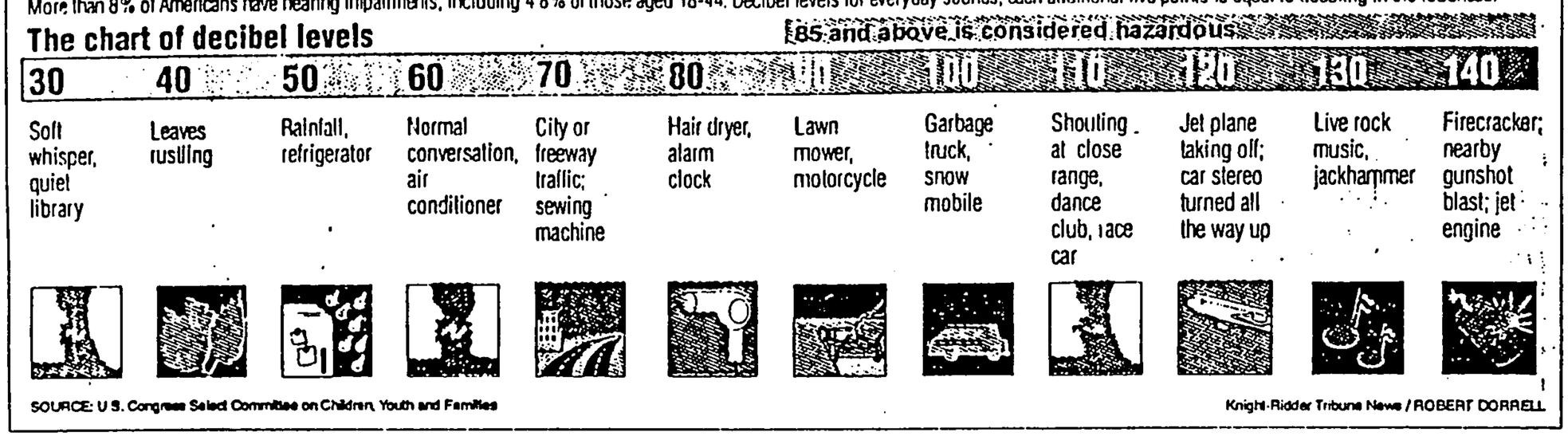
DATE: _____ TIME: _____

LOCATION _____

SLM TYPE _____ ANALYZER TYPE _____

RECORDER BY: _____

1/3 Octave Center Frequency hz.	1/3 Octave Sound Level
50	58
63	65
80	56
100	60
125	64
160	58
200	54
250	48
315	48
400	53
500	50
630	54
800	50
1000	49
1250	50
1600	47
2000	45
2500	46
3150	46
4000	42
5000	40
6300	38
8000	35
10000	32



Say What?

Because of Walkmans, chain saws, firecrackers, lawn mowers and target-shooting, young people increasingly are suffering needless hearing loss. Now experts say Congress must act to make sure parents and youngsters are warned -- and manufacturers put sound abatement or control features on their goods.

By David Hess

KNIGHT-RIDDER NEWSPAPERS

WASHINGTON — When your teen-age child or friend is ignoring you, it may not be a sullen pout. He or she may not hear you.

Thanks to lawn mowers, chain saws, firecrackers, target-shooting and high-decibel stereos, young people increasingly are destroying their inner-ear cells that process sound and are slowly but surely going deaf.

"A shocking fact is that noise-induced hearing loss can begin between 10 and 20 years of age, much earlier than originally thought," Dr. James B. Snow Jr., director of the National Institute on Deafness, told Congress Monday.

Such hearing loss — which can even affect toddlers — is irreversible, he said. But it is almost always preventable.

Nearly 20 years ago, Congress empowered the Environmental Protection Agency to set ambient noise standards and enforce them. The EPA never got around to doing it and in 1982 simply shut down its noise-abatement bureau as part of the government deregulation frenzy then in vogue.

In the last 10 years, hearing experts told the House Select Committee on Children, Youth and Families, the threat of hearing loss has spread to growing numbers of young people.

Of the 28 million Americans who suffer from hearing loss, said committee chairwoman Patricia Schroeder, D-Colo., 10 million are victims of exposure to loud sounds.

MORE: See AMERICA'S on PAGE A2

America's Youngsters Getting a Destructive Earful

CONTINUED FROM PAGE A1

Schroeder said about 21 million personal stereos, ranging from Sony's Walkman to boom boxes and big-sound car systems, were sold in the United States last year — mostly to young people.

"Most kids don't realize that even listening at half the full volume may hurt their ears," she said, citing studies showing that live and amplified music was the prime cause of hearing loss in one of eight adolescents and young adults.

Hollywood rock musician and producer Jeffrey Baxter urged Schroeder's committee to step up efforts in schools to educate youngsters about the peril of loud sound.

"We teach our kids to keep their hands off hot stoves and to look both ways before crossing the street," he said. "Let's do the same with their hearing."

Expert witnesses said anything louder than an alarm clock or hair dryer — which generally register about 85 decibels — can damage hearing. Measured sound at rock concerts and on personal-stereo ear sets often reaches 125 decibels. Each five-point rise in decibels represents a doubling of the loudness.

Snow said, however, that loud music is not the only cause, or even the principal source, of premature deafness.

"The teen-ager who is working on his or her car, using a lawn mower or leaf blower, working with a sander or an electric saw in shop class" is subject to hearing damage, he said. "Gunfire is an important cause of hearing loss in adolescents."

Young males are far more likely than females to suffer from impaired hearing, witnesses said, because they are much more apt to engage in activities — such as riding motorcycles or shooting guns — that harm the hearing cells.

A "particularly alarming finding," said Dr. Patrick Brookhauser, an ear specialist at Creighton University in Omaha, Neb., is that "children as young as 14 months are sustaining irreversible noise damage" from ambient sound.

He estimated that more than 20 million Americans, including children and adolescents, "are exposed on a regular basis to hazardous sound levels which could result in hearing loss."

Paul R. Kileny, a hearing specialist at the University of Michigan Medical Center in Ann Arbor, Mich., said virtually all of the noise-induced hearing losses could be prevented if:

■ EPA required noise warning labels on products that emit loud sound.

■ Makers of personal stereos put noise-limiting devices or graphic warning lights on their products.

■ Congress insisted that noise information programs, warning of the dangers of loud sounds, be provided in every elementary and intermediate school.

Others said broader public information programs, educating parents as well as children about noise pollution, should be instituted.

Albuquerque/Bernalillo County Planning Division
Sixth Floor, City Hall
766-7422

SITE DEVELOPMENT AND LANDSCAPING PLAN APPLICATION CHECKLIST

This checklist is to be utilized by the Planning Division to verify the completeness of an application for Site Development Plan and/or Landscaping Plan review. The applicant is advised that the Planning Division will require two (2) working days to review the application for completeness.

A "yes" on the checklist indicates the information is complete; a "no", that the information is incomplete in that area; and a "N/A", that the information required is not applicable to the request. This checklist is a guide and not a substitute for the Zoning Code. It contains the basic elements in assessing plans for completeness. Not all elements are applicable to all proposals, but each should be considered. The quality and accuracy of the information will not be determined at this time; only the completeness of the application.

Site ☑ Landscaping ☑

Legal Description of Request: HIGHRIDGE TRACT J2 B2 Date Submitted: 83091

Applicant/(Agent): DELATORRE RAINHART TWO WOODWARD CENTER 5,200 Phone Number: 842-9500

Mailing Address: 700 LOMAS NE ALB4 NM 87102 If Separate from Zone Change Original Case Number: _____

_____ Zip Code ____ Case Number: _____

Construction is intended to start within 5 months.

A. GENERAL INFORMATION

✓ 1. Scale
Property less than 1.0 acre 1:10
1.0-5.0 acres 1:20
5 acres and over 1:50

✓ 2. Graphic scale

✓ 3. North arrow

✓ 4. Vicinity map 1"=400'

✓ 5. Existing topography and structural improvements within a minimum of 25' beyond property boundaries (more may be required).

✓ 6. Existing structures on site and adjacent to the proposal

✓ 7. Property lines

✓ 8. Existing easements

B. PROPOSAL

1. Structural

✓ a. Location and orientation of existing and proposed structures on the property and on the adjacent properties including privacy and retaining walls

b. Square footage of each structure

c. Proposed use of each structure

d. Temporary structures, sign, and other improvements

e. Wall(s) location and height, (elevations and dimensions)

f. Sign(s) location, height, and sign face area (elevations and dimensions)

g. Screening or buffering

h. Elevations
Perspective drawing(s) or elevation(s) showing the size and general appearance of proposed structures within the context of existing adjacent development

✓ i. Dimensions

N/A j. Loading facilities

2. Non-Structural and Parking

a. Parking design with spaces numbered

✓ (1) Location

✓ (2) Arrangement

✓ (3) Dimensions

✓ (4) Turning spaces

✓ (5) Drives

✓ (6) Aisles

✓ (7) Ingress

✓ (8) Egress

✓ (9) Number of spaces required 100
provided 100

✓ (10) Handicapped parking
spaces required 4
spaces provided 4

✓ b. Bicycle racks 20

✓ c. Refuse container location(s)

✓ 3. Proposed topography with identification of land treatment (concrete, asphalt, gravel or paving stones, southwestern landscaping, grassed areas, natural ground)

4. Drainage submittals, ponding areas, erosion and sediment control facilities (see separate checklist(s) Chapter 22)

✓ a. Conceptual Grading and Drainage Plan

✓ b. Drainage Plan

✓ c. Drainage Report

5. Grading and landscaping plan

✓ a. Landscaped area required 19223 sq. ft.

✓ b. Landscaped area provided 33380 sq. ft.

C. STREETS AND CIRCULATION

✓ 1. Identification and location of public or private streets and alleys with proper name, existing and proposed width dimensions

✓ 2. Curve radii

✓ 3. R.O.W. width shown: 106 INDIANOLA 156 TRAMWAY

✓ 4. Pavement width FL - FL: _____

✓ 5. Sidewalk location and size, existing and proposed

NA 6. Rail spurs

✓ 7. Traffic signs and signals related to the functioning of the proposal, existing and proposed

✓ 8. Bikeways

✓ 9. Bus facilities

✓ 10. Curb cut size and type

D. UTILITIES

___ 1. Fire hydrant locations, existing and proposed

✓ 2. Distribution lines

✓ 3. R.O.W. and easements existing and proposed on the property and adjacent to the boundaries with identification of types and dimensions

✓ 4. Existing water, sewer, storm drainage facilities (private and/or public)

✓ 5. Proposed water, water, storm drainage facilities (private and/or public)

E. ENERGY CONSERVATION FEATURES

___ 1. Landscaping

✓ 2. Building heights

✓ 3. Siting for solar access

4. Provision(s) for non-auto transportation
✓ a. Transit related improvements
✓ b. Bicycle related improvements

✓ 5. Energy conservational building construction

F. PHASING

✓ Proposed phasing of improvements and provision for interim facilities

G. LANDSCAPING

✓ General

1. Identify nature of ground cover

✓ a. Impervious areas (pavements, sidewalks, slope pavings, curb and gutters)

✓ b. Semipervious areas (southwestern landscaping, ground left natural)

✓ c. Pervious areas (planting beds, grass areas, ground cover vegetation)

✓ d. Ponding areas either for drainage or landscaping-recreational use

2. Identify nature, location and size of shrubbery and trees (common and/or botanical names)

✓ a. Existing to be preserved or to be removed

✓ b. Proposed to be established for general landscaping

✓ c. Proposed to be established for screening and/or buffering

✓ 3. Watering system - including supply

✓ 4. Planting beds

✓ 5. Grass areas

✓ 6. Responsibility for maintenance (OWNER)

✓ 7. Required landscaped area 19223 sq. ft.

✓ 8. Proposed landscaped area 33330 sq. ft.

H. OFF-STREET PARKING LANDSCAPING PLAN (FOR 10 OR MORE SPACES) PROVIDE SQUARE FOOTAGE OF:

1. Total landscaped area - on site

✓ required 19223 sq. ft.

✓ provided 33330 sq. ft.

✓ 2. Each landscaped area - on total site

✓ 3. Landscaped area related to parking area (ratio 36 ⅔)

OTHER ITEMS

1. Is this application in conjunction with a related zone change?

___ Yes ✗ No

2. If no

a. Is one required? ___Yes ✓No

b. What was the original case number? Z1290-4

c. Have previous development plans been approved?
✓Yes ___No

d. Did they cover the same site? ✓Yes ___No

e. Have the conditions imposed by the EPC been met? ✓Yes ___No

If no, elaborate: _____

_____

TO BE COMPLETED BY PLANNER CONDUCTING REVIEW

Certification:

I have reviewed the application for Site Development Plan and/or Landscaping Plan review and find it ____ complete ____ incomplete as indicated above

_____ _____
Signature of Planner Conducting Review Date

_____

Copy Distribution:

EPC Secretary-Original
Applicant contacted by Planner on _____ _____
(date) (initial)

Case File - If complete
Applicant with letter
Letter sent to applicant/agent on _____ _____
(date) (initial)

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT

Z-1290-3

DAVE

HEARING: 10-17-91	MAP: J-22
FILE: Z-1290-3	

Alan W. Gronlund
12800 El Vado Ct NE
Albuquerque NM 87112
Phone: 294-2369

October 2, 1991

Chairperson, EPC
Planning Dept.
PO Box 1293
Albuquerque NM 87103

Ms Barbara Seward,

I respectfully request a postponement of the October 17, 1991 EPC hearing of the Hinkle Joint Venture site development plan for the northwest corner of Indian School Rd and Tramway Blvd, File Z-1290-3.

My home is the closest house to the proposed development. It is approximately 200 unobstructed feet away and directly across Tramway Blvd. I feel this development will have the greatest and most devastating impact to me and my family both financially and in its affect on our quality of life.

I request a postponement of the October 17, 1991 EPC hearing of File Z-1290-3 based on the following reasons:

1. The site development plan has recently been modified. The deadline for the plan submittal was August 30, 1991. The modified plan is essentially a new plan and time is required to evaluate its impact. This is exactly the reason deadlines are established. Allowing last minute modifications defeats that purpose.

2. The current site development plan is incomplete. It is obviously an underhanded tactic to develop the site in stages without having to evaluate the impact to the community of the complete development. It is the developer's attempt to build momentum without regard for the community. Because of the controversial nature of this development, it should be judged as a whole instead of sneaking bits and pieces by the community.

3. It was not until the September 25, 1991 EPC discussion that we learned of the developers intent to have music on the miniature golf course. More information is required and more time is needed to evaluate the noise impact. The information I need is the number and type of speakers to be used, their power output, and their location and orientation.

4. A neighborhood resident mentioned that Mr Hinkle said Environmental Planning Committee members were behind him and would do everything possible to get the project through the system. At first, I dismissed this as Mr Hinkle's attempt to intimidate his opposition. However, after hearing the EPC allowed this last minute modification, I don't know what to think. I know this is just a rumor and you are hearing it third hand, but this is what the public is being lead to believe. Postponing the hearing would send a message that you are as concerned with the rights of hardworking neighborhood residents as you

are with those of the developer.

5. It will be extremely difficult and costly for me to attend the September 17, 1991. I will be on a business trip that week to Los Angeles CA. I have permission from my supervisor to fly back to Albuquerque for that day at my own expense. I will do this if necessary. I know it is unusual to postpone a hearing because of one resident. However, because of the controversial nature of this plan, the unique location of my home, the questionable recent actions of the developer, and the other reasons stated above, it may be warranted this time.

If you are unwilling or unable to postpone the hearing, please inform me as soon as possible so I may make arrangements. You can reach me at work, 846-6767, or at home, 294-2369. Thank you for your time and consideration.

Sincerely,

ALAN W. GRONLUND
and family

Ms. Barbara Seward, Chairperson
Environmental Planning Commission
City of Albuquerque
P. O. Box 1293
Albuquerque, NM 87103

October 4, 1991

Re: Z-1290-3 Highridge/Hinkle Joint Venture
Indian School Road and Tramway Boulevard

Dear Ms. Seward,

On October 1, 1991, I was handed yet another Site Development Plan for the referenced project. In the interest of all people concerned, the Embudo Canyon Neighborhood Association requests that you seriously consider deferring the EPC hearing until after the ZHE has rendered his decision on the go-karts and bumper boats and any appeals have been filed. We understand that any appeal of the ZHE's decision will be heard by the EPC. It is appropriate that an appeal of the Zoning and the hearing for the Site Development Plan be heard concurrently.

In the first place, the time allowed between these new plans and the EPC study session is not adequate to plan meetings, inform and discuss this new approach with our membership. We have already had one general meeting to consider Mr. Hinkle's proposal of August 30, 1991 and were preparing our response. We have presented our case against the go-karts and bumper boats to the ZHE.

We do understand Mr. Hinkle's desire to start construction as soon as possible; but, with each presentation, he changes the concept. He has talked about a basketball goal, batting cage and even a second go-kart track. We believe that, as residents of the area, we should have the opportunity to study his proposal in its entirety rather than have it presented in small, separate, pieces. Until we know exactly what the complete and final plans are, we can't adequately prepare a logical, organized case. Mr. Albertorio, ZHE, took into account more than just go-karts and bumper boats, and we feel we should also have a chance to review the project as a whole. This fragmented approach not only complicates the procedure but involves unnecessary time, effort and expense for all concerned.

The fact that our Association has endorsed two previous retail-type proposals for this site, should show our willingness to work with the Hinkle group. Our Association would very much like to have the property developed, but the piece meal method does not demonstrate good faith on Mr. Hinkle's part or benefit the community.

Please, we urge you consider a postponement of this case now scheduled on the agenda for the October 17, 1991 EPC Hearing

Very truly yours,

Lila K. Johnston, President
Embudo Canyon Neighborhood Association

cc: Dave Carlson, City Planning Department
Mary Lou Haywood-Spells, Neighborhood Coordination

Z-1240-3

PLANNING DEPARTMENT

SEP 24 1 20 PM '91

GARCIA/KRAEMER & ASSOCIATES

United New Mexico Building
200 Lomas N.W. #1020-C
Albuquerque, NM 87102
(505) 242-5566

September 24, 1991

Mr. Roberto Albertorio
Zoning Hearing Examiner
City of Albuquerque
Planning Department
P.O. Box 1293
Albuquerque, NM 87103

Re: ZA-91-207

Dear Mr. Albertorio:

Transmitted herein are the following documents for your consideration and that we would like to be made a part of the record.

Enclosure 1 - (2 volumes) Noise Study prepared by Gannett Fleming West Inc. Engineers and Planners

Enclosure 2 - Trip Generation Summary prepared by Robert A. Fosnaugh P.E. Consulting Engineer

Enclosure 3 - Petition signatures from residents of the High Ridge Apartments

Enclosure 1 is a detailed analysis of potential noise impacts to residents in the vicinity of the proposed Family Entertainment Center. As you will note the conclusions are that the:

- Go-Kart operations would be in compliance with the Albuquerque Noise Control Ordinance because:

  (1) Noise levels from go-kart operations would not approach or exceed 50 dBA at any residential property line adjacent to the proposed project;

  (2) Noise levels from go-kart operations would not result in a substantial increase of 10 dBA over existing conditions;

- The noise environment will continue to be dominated by vehicular traffic noise on Tramway Boulevard. Substantial background influences will also continue to occur for aircraft overflights, and to a lesser degree, traffic on I-40.

- Peak level excursions above the ambient background will continue to occur due to aircraft overflights.

- Even with a significant margin of safety 6 dBA, peak level excursions from go-kart operations will not exceed the background (L99) ambient environment by more than 1 per cent of the time.

The City's Environmental Health Department has reviewed the Noise Study and a letter to that effect will be made available to you prior to or at the hearing on this matter.

Enclosure 2 is an analysis and comparison of the trips that would be generated by the proposed Family Entertainment Center and the development as proposed in the existing approved site development plan for a Shopping Center. The Entertainment Center would generate only about 70% of the trips generated by the current approved plan.

Enclosure 3 are petitions from the residents of the High Ridge Apartment complex which is immediately adjacent to the subject property. Of a total of 208 respondents, 175 (70%) are in support; 15 (7%) are undecided and 15 (6%) were opposed.

We hope that the information herein will assist you in making an informed decision on this matter since it relates directly to the requirements and criteria of Section 42.c of the Comprehensive City Zoning Ordinance.

If you have any questions please do not hesitate to contact us at any time.

Sincerely,

Phil Garcia
GARCIA/KRAEMER & ASSOCIATES

cc: Richard Dineen (ltr only)
Gene Hinkle

September 22,1991
Susanne Bragg
1504 Jewett NE
Albuquerque, NM 87112

Barbara Seward
Enviornmental Planning Commission
P.O. Box 1293
Albuquerque, NM 87103

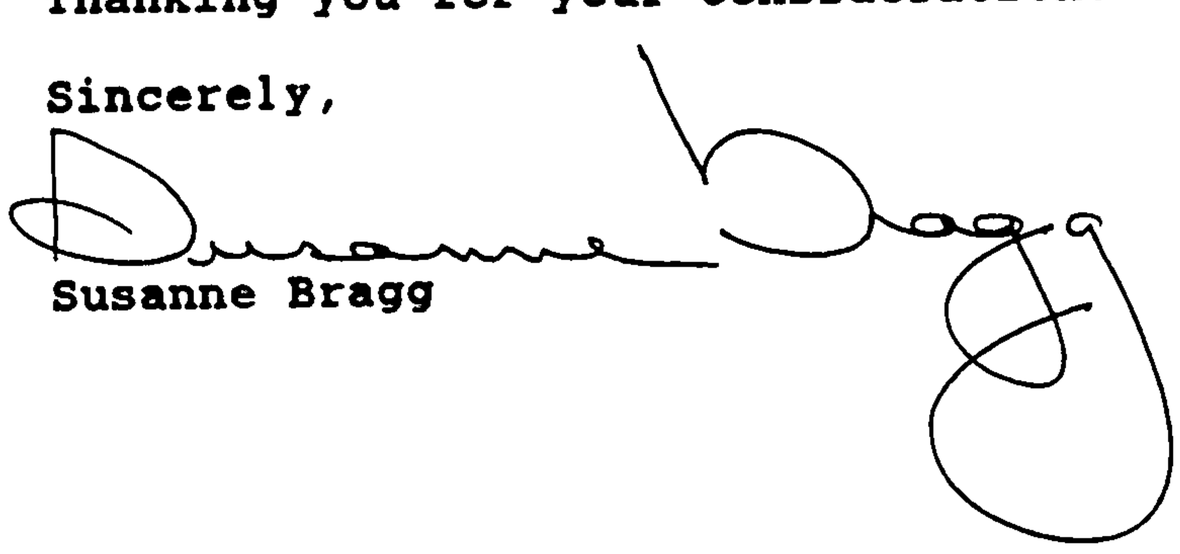
Dear Ms. Seward,

I am writing this letter to you to express my concern over the Hinkle Proposal which will allow for an Amusement Park at the corner of Tramway and Indian School. Obviously a residential area is no place for an amusement park. I am certain that if you were a member of our neighborhood you would be as upset as we all are.

Please do not allow this park into our neighborhood. There are many other areas in Albuquerque which could accommodate such a proposal without disrupting a safe and quiet community. My suggestion is to put this park somewhere other than a residential area.

Thanking you for your consideration.

Sincerely,



Susanne Bragg

GARCIA/KRAEMER & ASSOCIATES

United New Mexico Building
200 Lomas N.W. #1020-C
Albuquerque, NM 87102
(505) 242-5566

September 30, 1991

Ms. Barbara Seward, Chairman
Environmental Planning Commission
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Z-12-90-3, Site Development Plan Amendment, Tract J2B2, High Ridge/Hinkle

Dear Chairman Seward:

Our firm represents the applicant in connection with the above referenced site plan approval. This matter is scheduled for the EPC hearing on October 17, 1991. The site plan includes uses that are permissive in the C-2 zone, ie., miniature golf, recreation center, and office and uses that require the approval of a conditional use, ie. go-carts and bumper boats.

A ZHE hearing on the conditional use request was held on September 25. There was substantial neighborhood opposition to the requested conditional use. The ZHE left the record open to gather additional information. He may or may not make his decision before the scheduled EPC hearing. Even if he does issue a decision, there will probably be an appeal filed by either the applicant or the neighborhood. In any event, it is highly unlikely that the case will be ready for EPC consideration on the go-cart and bumper boat portion of the site plan.

The applicant is not willing to give up on the proposed conditional uses, but does want to proceed with the development of the permissive use portions of the Family Entertainment Center. It is important to proceed with the approval process so that the Family Entertainment Center can be in operation in the Spring of 1992. Therefore, we are requesting that the EPC consider those portions of the site plan as a Phase I development. The area which requires approval of a conditional use will be shown as Phase II. If the requested conditional uses are approved, that area will include go-carts and bumper boats, if not, Phase II will be resubmitted for plan approval with uses that are allowed in the C-2 zone.

Enclosed is a revision to the site plan which addresses site plan issues showing Phase II as future development. We have discussed this procedure with the Current Planning staff, who instructed us on how to proceed. We have provided copies of the revised site plan to all commenting agencies who initially responded to the original request. We have also sent copies to the involved neighborhood associations.

We appreciate your consideration of this amendment at the October 17 hearing. If you have any questions or need further information, please contact us at 242-5566.

Sincerely,

Phil Garcia
GARCIA/KRAEMER & ASSOCIATES

enclosures

cc: EPC members
neighborhood associations
commenting agencies
Richard Dineen
Dave Carlson
Gene Hinkle
George Rainhart

Alan W Gronlund
12800 El Vado CT NE
Albuquerque NM 87112
Phone: 294-2369

September 20, 1991

Neighborhood Services
PO Box 1293
Albuquerque, NM 87103

Ms. Mary Lou Haywood-Spells,

I am deeply concerned about the plan to build an amusement park with a go kart track and bumper boat facility on Lot J2B2, Block 5, Panorama Heights Addition. This plan should not be approved. My family and I live directly across Tramway Blvd from the proposed site and our home is the closest single family dwelling.

Is a quiet residential area the appropriate location for this type of noisy activity? I'm sure you will agree the incessant whine of motorized go karts or bumper boats, the voices of hundreds of children, and all of the other noises that accompany an activity of this scale will dramatically change the peaceful nature of any neighborhood. My family and I often like to sit in our back yard, barbecue and enjoy the view. One of the reasons we bought our house was because of the outstanding sunsets we could view from our back porch. New Mexico is truly the Land of Enchantment. Let us keep it that way for the people living in this neighborhood.

I understand this property is zoned C-2, Community Commercial. I do not believe this park is within the spirit and intent of this zoning. For instance, although C-2 zoning does allow for a carnival, it restricts the length of a carnival to seven days out of a year. This amusement park would be very similar to a carnival. Yet, the amusement park would be operating seven days a week, fifty-two weeks a year. In addition, my home is approximately 300 feet from the boundary of the planned site. This is less than the 500 feet limit allowed under C-2 zoning for less obnoxious activities. Finally, because this would be the only park of its kind in Albuquerque, it would not be a business oriented to the community, but rather an activity serving the entire city. C-2 zoning on Tramway has historically been used for businesses serving the community such as day care centers, libraries, schools, offices, clinics, supermarkets and retail stores. Our community does not want, does not need, or is not zoned for this amusement park.

I am also very worried about the impact on home values in this area. I know of one potential buyer of a home for sale in our neighborhood backing out solely because of the plan to build this facility. Mr Ronald Wilcox, another neighborhood resident, visited an amusement park in Las Vegas NV that this park is modeled after. He interviewed many neighboring business since there are no residential neighbors. These businesses complained about the noise and the increased vandalism associated with the park. Owning your own home is the American Dream. Like many other members of the middle class, my home is my primary investment. A drastic decline in its value could financially devastate me and my family.

I beg you not to allow the business interests of a few to take precedence over the welfare of an entire community. Zoning restrictions exist for this reason. Home should be a place you can go to after a hard day's work, relax, and enjoy friends and family in peaceful surroundings. There are many more appropriate locations in Albuquerque for an amusement park with a go kart track and bumper boat facility than a residential area. Thank you for your time and consideration.

Sincerely,

ALAN W. GRONLUND
and family

ALBUQUERQUE POLICE DEPARTMENT

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

CPTED PROJECT ANALYSIS

The project analysis and recommendations herein represent a study of a proposed project within the city of Albuquerque in regard to preventing foreseeable crime problems associated with the project.

These recommendations are subject to modification and change depending on project development. This is Project Recommendation Set 01.

****

Project Title: HIGH RIDGE FAMILY RECREATION CENTER

Applicant: HIGHRIDGE/HINKLE JOINT VENTURE (Gene Hinkle, Owner)

Agent: DELATORRE RAINHART PA

Location: NORTHWEST CORNER--TRAMWAY/INDIAN SCHOOL

ID Number: Z-1290-3

PROJECT DESCRIPTION: De La Torre/Rainhart agent for High Ridge, Hinkle Joint Venture request site development amendment for Tract J2B2, Highridge Hinkle zoned C-2 located on the northwest corner of Tramway and Indian School Road containing approximately 3.1256 acres. (J-22)

CPTED RECOMMENDATIONS:

1. For safety of customers, lighting should be emphasized in parking area and entrance to project. Lighting should be coordinated with existing movie theatre lighting so no dark areas exist, particularly in relation to landscaping.

2. Persons wearing identification indicating security should be on view and available during operating hours throughout the facility to discourage gathering of street gang members and others within recreation areas. Emphasis should be placed on gameroom and in parking areas. NOTE: Security personnel should receive special training regarding manifestations of street gang activity, including display of "colors" and related matters.

3. There is particular concern regarding children and youth from nearby neighborhoods, particularly in view of large apartment complexes south of Indian School, down Constitution to Chelwood, and the location of Chelwood Elementary. Other attractions in the immediate area include a convenience store, a park just east of the Blue Cross/Blue Shield Building, and other open areas in front of the movie threatres and even across Tramway on the northeast corner of Tramway/Indian School. These may cause pedestrian/traffic problems at Indian School/Constitution/Tramway, and could create neighborhood problems with groups gathering in these areas.

4. The project should have adequate fencing surrounding it for crowd control. Signs prohibiting loitering should be posted and enforced by management where they can legally do so.

ANALYST: Richard Leonard, CS-CPTED
APD Neighborhood Crime Prevention
764-1090

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 10, 1991

George Rainhart
De La Torre/Rainhart, Architects
700 Lomas NE, Suite 200
Albuquerque, NM 87102

RE: PRELIMINARY AIR QUALITY IMPACT ASSESSMENT -- HIGH RIDGE DEVELOPMENT AMENDED SHOPPING CENTER PLANS

Dear Mr. Rainhart:

The Environmental Health Department, Air Pollution Control Division has reviewed the information provided by you concerning the amended plans for the High Ridge Shopping Center. The amendments, as we understand them, are to discontinue plans for a shopping center and substitute a miniature golf course, go-cart track and game arcade. It appears at this time that the new proposed use will not increase traffic, particularly peak hour traffic, as the original zoning would imply. Your information has been reviewed, pursuant to City Zoning Code requirements, to determine if an air quality study will be required.

Based on the information submitted and discussion with the Public Works Department regarding traffic impacts, additional air quality analysis by you will not be required. Future site plan amendment review may, however, result in requests from this Department for further information and/or improvements to minimize air quality impacts.

The go-cart noise information you provided me is currently in review.

Please contact me at 768-2600 if you have questions or require additional information.

Sincerely,

Alana Rae Eager
Supervisor, Air Quality Planning
Air Pollution Control Division

ARE
cc: Richard Dineen, Section Chief, Planning Division
File

3/2947

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT

Z-1290-3

Z-1290-3

De La Torre/Rainhart agent for High Ridge, Hinkle Joint Venture requests a site development amendment including an outdoor activity (Go-Cart Track/Bumper Boats) for Tracts J-2-A, J-2-B-1, J-2-B-2, J-2-B-3 Block 5, Panorama Hills Subdivision; zoned C-2, located on the northwest corner of Tramway Boulevard NE and Indian School Road NE, containing approximately 9.42 acres. (J-22)

Action is pending on a request for approval of the conditional use required for the outdoor activity (ZA-91-207) please note that a supplement to indicate development of a portion of the site for uses permissive in the C-2 zone will be revised by the commission..

DAVE

HEARING:	10-17-91	MAP:	J-22
FILE:	Z-1290-3		

Job High Ridge Shopping Center
Subject Hydrology
Client de la Torre / Rainhart

Sheet No. 1 of
Job. No.
By JSM Date 1/6/87
Rev. 4-1-87

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

RECEIVED
APR 02 1987
HYDROLOGY SECTION

Developed Off-Site Runoff @ AP-1 (Chelwood & Indian School)

A = 50 acres
L = 2850 ft
S = 0.047
$T_c = 0.0078(2850)^{0.77}/(0.047)^{0.385} = 11.6$ min
I = 2.0 Plate 22.2 D-2
i = 2.0(2.5) = 5.0 in/hr
V = 2850/11.6(60) = 4.1 ✓ OK.
'C' factor = 0.52 - developed condition
see attached hydrograph

Existing On-Site Runoff @ AP-1

A = 20 acres
~~L = 3500 ft~~
~~S = 0.036~~
~~$T_c = 0.0078(3500)^{0.77}/(0.036)^{0.385} = 15$ min.~~ + 15.50
~~I = 1.75~~
~~i = (1.75)(2.5) = 4.38 in/hr~~
~~V = 3500/15(60) = 3.89~~ ✓ Ok
'C' factor = 0.40 (undeveloped)
~~see attached hydrograph~~

$T_c = 505$
$= 20.55$

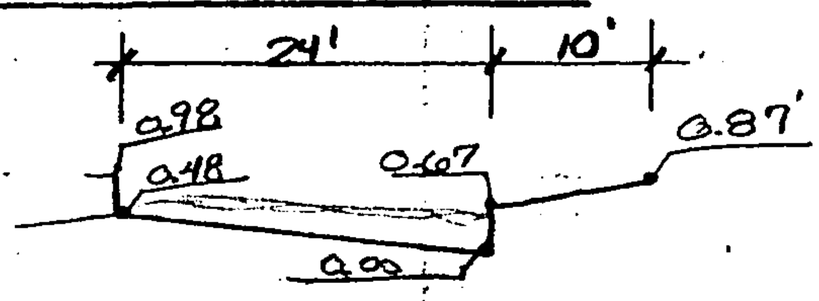
Proposed On-Site Runoff @ AP-1

~~C = 4.38~~ =
'C' factor = 0.88 (developed)
see attached hydrograph.

Job High Ridge Shopping Center — Sheet No. 2 of ____
Subject Hydrology — Job. No. ____
Client de la Torre / Rainhart — By DSM Date 1/6/87
Rev. 4/1/87

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

Capacity of Indian School Road: 68' R/W, 48' street width



$Q = 1.486\, A^{5/3}\, S^{1/2} / n P^{2/3}$

$S = 0.025$ (min.)
$n = 0.017$

@ Depth = 0.87'

$\frac{1}{2}A = \frac{1}{2}(0.48)(24) + (0.19)(24) + (0.20)(24) + \frac{1}{2}(0.20)(10) = 16.12$ sf

$A = 32.24$

$\frac{1}{2}P = 35.17$
$P = 70.34$ (approx.)

$Q_{cap} = 264$ c.f.s.

@ Depth = 0.67'

$\frac{1}{2}A = \frac{1}{2}(0.48)(24) + (0.19)(24) = 10.32$
$A = 20.64$
$\frac{1}{2}P = 24.9$
$P = 49.8$ (approx)
$Q_{cap} = 158$ c.f.s.

@ Q = 198 cfs. (Developed - 100 year runoff)

$\frac{1}{2}A = 10.32 + 24d + \frac{1}{2}(10d)$
$A = 20.64 + 48d + 10d = 20.64 + 58d$
$\frac{1}{2}P = 34.9$ $= 65.88$
$P = 69.8$ (approx.)

$Q = AV$
$V = 198/65.88 = 3.01$ ft/sec

$\therefore d = 0.11$ ft $\rightarrow$ depth @ curb $= 0.67 + 0.11 = 0.78$ ft

< 0.87 ... ok

Job High Ridge Shopping Center — Sheet No. 3 of ____
Subject Hydrology — Job. No. ____
Client de la Torre / Rainbart — By JSM Date 1/6/87

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

Velocity = Q/A

$A = 20.64 + 58(0.11) = 27$ sf.

$V_{100} = 198/27 = 7.3$ ft/sec

$Q_{10} = 198(0.657) = 130$ cfs.

@ Q_{10} (proposed) = 130 cfs

$\frac{1}{2}A = \frac{1}{2}(0.48)(24) + 24d = 5.76 + 24d$

$A = 11.52 + 48d$

$\frac{1}{2}P = 24.9$

$P = 49.8$ (approx)

$\therefore d = 0.14$ ft $\Rightarrow D = 0.14 + 0.48 = \underline{0.62}' > 0.50'$ by ordinance

$A = 18.24$

$V = 130/18.24 = 7.13$ ft/sec

$D \times V = 0.62 \times 7.13 = 4.4 < 6.5$ ✓ O.K.

@ Q_{10} (existing) $= 159(0.657) = 104$ cfs.

$A = 11.52 + 48d$

$\frac{1}{2}P = 24.9$

$P = 49.8$ (approx)

$\therefore d = 0.095$ → 0.48 (crown ht) + 0.095 = .575 = d flowing @ Q_{10} (exist.)

$A = 16.08$

$V = 104/16.08 = 6.47$ ft/sec

$d \times V = 0.575 \times 6.47 = 3.72$

$\therefore$ There is an increase in 10-year depth of flow of $0.62 - 0.575 = 0.045' = 0.54$ inches

Job High Ridge Shopping Center
Subject Hydrology
Client de la Torre / Rainhart

Sheet No. 4 of
Job. No.
By JSM Date 1/6/87

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

The increase in 100-year depth due to High Ridge Development:

Q_{100} (existing) = 159

$\frac{1}{2}A = 10.32 + 24d + 5d$

$A = 20.64 + 58d$

$\frac{1}{2}P = 34.9$

$P = 69.8$ (approx)

$\therefore d = 0.055$ ft.

$\Longrightarrow$ Depth = $0.67 + 0.055 = 0.725'$

vs. D_{100} (proposed) = 0.78 ft. (see sheet No. 2)

$\therefore$ Increase in 100-year depth = $0.78 - 0.73 = 0.05'$
$= 0.60$ in.

Job Hoh Ridge
Subject Hydrology
Client de la Torre / Rainhart

Sheet No. 5 of
Job. No.
By DSM Date 1/6/87

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

Downstream Capacity @ AP-1 (Chelwood & Indian School):

There are 3 catch basins on each side of Indian School just east of Chelwood. Below are calculations for the north side catch basins to determine if there is a sufficient number to intercept all of developed runoff if the depth of the runoff does not cross over to the south side of Indian School.

The depth at which the runoff will cross over to the south side of Indian School is 0.48 ft.

∴ @ Depth of 0.48'

$$Q = 1.486 A^{5/3} S^{1/2} / n P^{2/3}$$

S @ catch basins = 0.040

n = 0.017

A = ½ (0.48)(24) = 5.76

P = 24.5

Q = 38.4 c.f.s.

No. of catch basins req'd @ S = 0.040 & depth = 0.48'

Qcap of Type 'A' & Type 'C" = 10 c.f.s.

∴ 38.4/10 = 3.8 catch basins ⇒ Use 4.

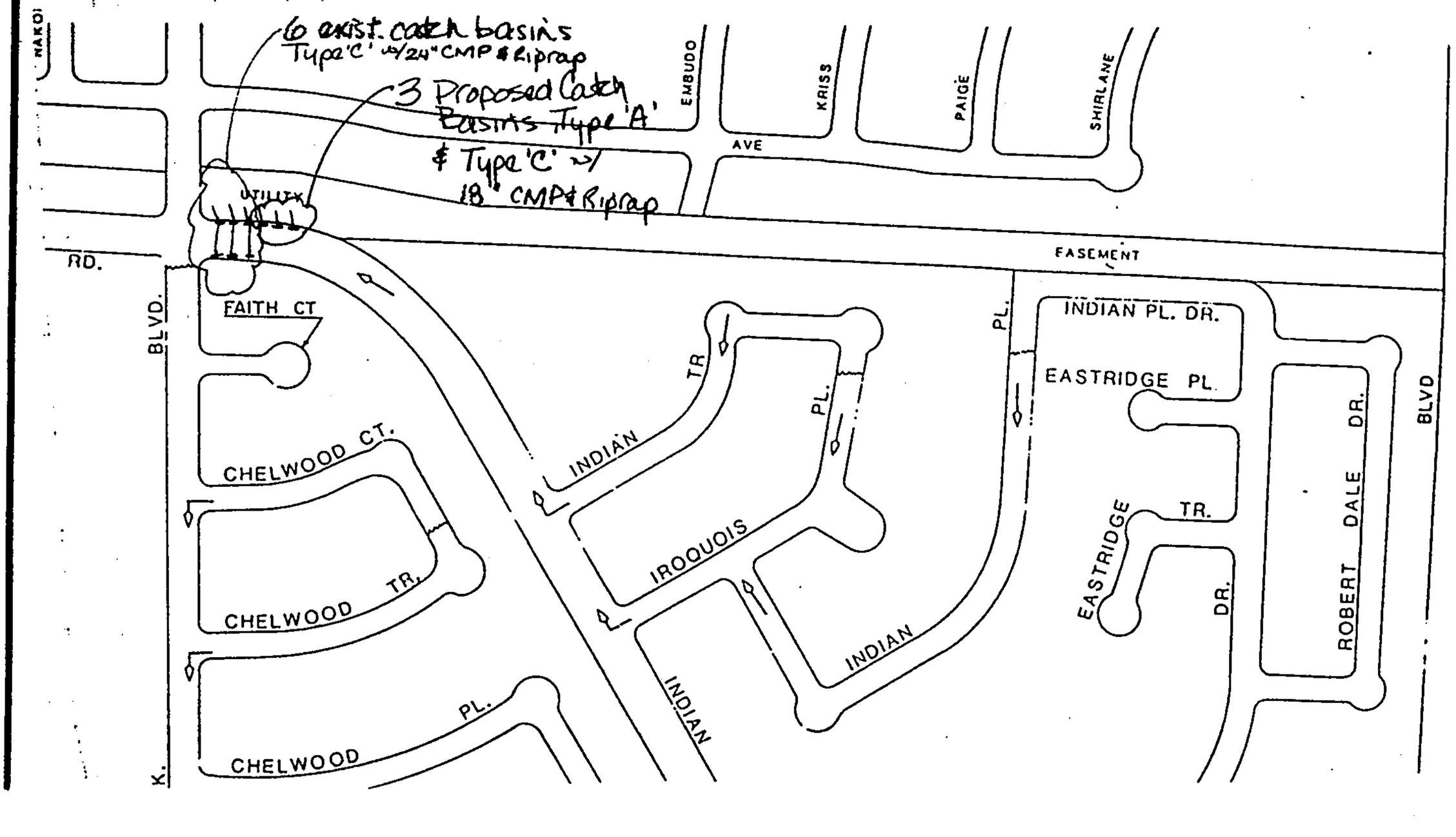
⇒ Add 1 catch basin to north side of Indian School

Job Hahn Ridge
Subject Hydrology
Client de la Torre / Rainhart

Sheet No. 6 of
Job. No.
By DSM Date 1/6/87

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

Another item to take into consideration is the runoff that has been added to AP-1 (Chelwood & Indian School). The amount that has been added is 38.4 cfs. At a depth of 0.78 ft. the number of catch basins required for this additional runoff is 38.4/15 = 2.56 ⇒ 3 catch basins. These catch basins should be installed on the north side of Indian School so as to not affect the runoff rate in Indian School Road downstream of this intersection.



Job High Ridge Shopping Center
Subject Hydrology - Construction Estimate Return.
Client de la Torre / Rainbart

Sheet No. 7 of
Job. No.
By JSM Date 1/6/87

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

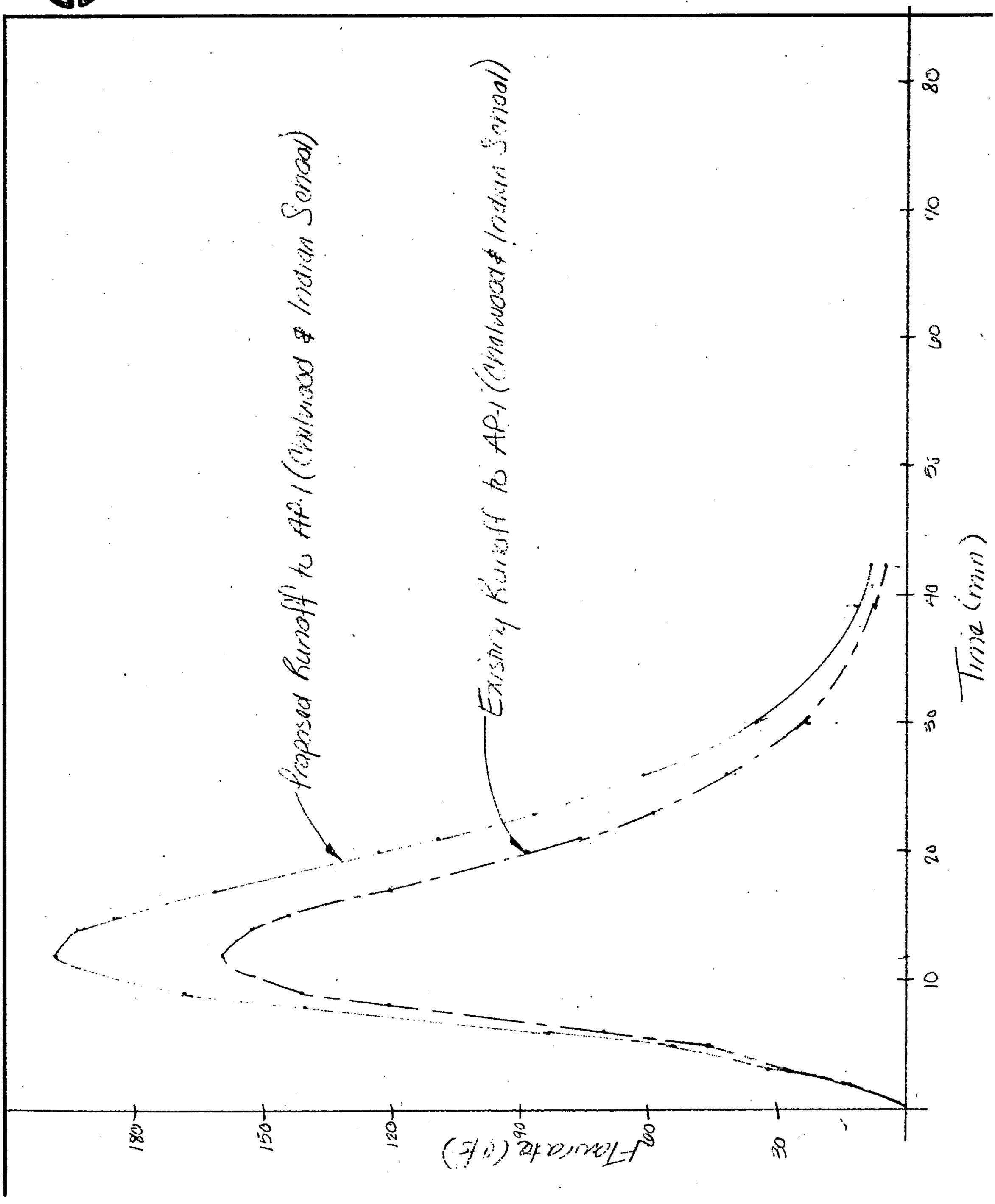
Item ID	Short Description	Unit	Estimated Price/Unit	Estimate Quantity	Estimate Amount
K-29	CB-A-S	EA	2075.00	1	2075.00
K-31	CB-C-S	EA	2075.00	2	4150.00
K-41	18" CMP	LF	16.50	100	1650.00
P-14	Sdwk Ram	SY	3.57	12	42.84
P-42	4" PCC Sdwk	SF	1.43	54	77.22
P-46	PCC Std C&G	LF	7.48	9	67.32
				Subtotal	8062.38
				15% Contingency =	1209.36
				Total	$ 9271.74

Job Hahn Ridge Shopping Center — Sheet No. 8 of

Subject Hydrology – Hydrograph — Job No.

Client de la Torre / Barbara — By JSM Date 1/6/87

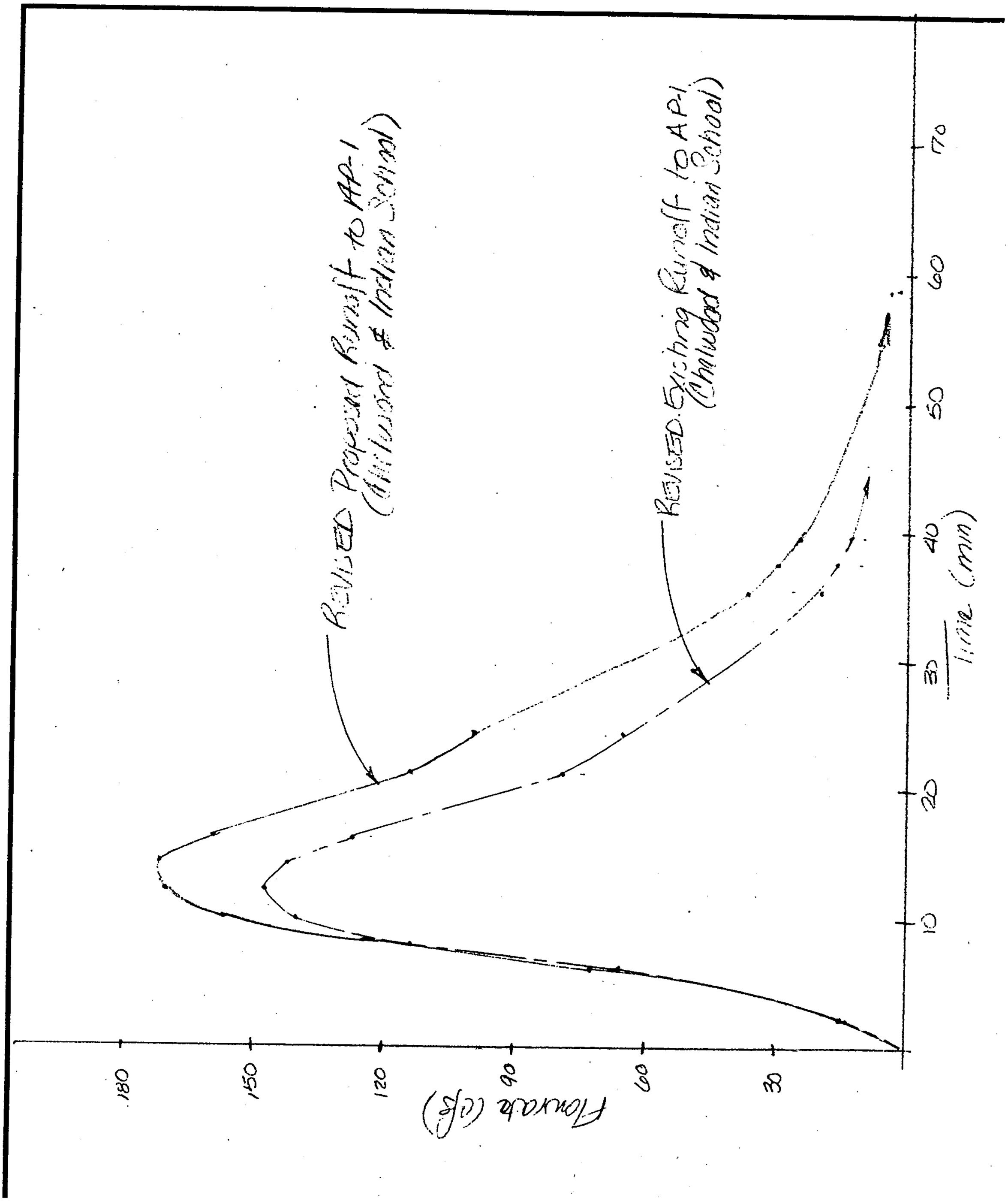
CHAVEZ-GRIEVES / CONSULTING ENGINEERS, Inc. Albuquerque, NM



Job Alameda Shopping Center
Subject Revised Hydrographs
Client de la Torre/Reinhart

Sheet No. 8A of
Job. No.
By CSM Date 4/1/87

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



Developed Off-Site Runoff @ AP-1 (Chelwood & Indian School)

**** RATIONAL METHOD *****

AREA IN ACRES = 50

6-HR RAINFALL IN INCHES = 2.5

TIME TO CONCENTRATION IN MINUTES = 11.6

INTENSITY IN INCHES/HOUR = 4.899171

***** USING C VALUE INPUT METHOD *****

C VALUE TO BE USED = .52

THE PEAK DISCHARGE IN CFS = 127.3784

TIME	Q VALUES IN cfs
0	0.00
1	3.82
2	12.73
3	24.20
5	39.48
6	59.86
7	84.06
8	104.45
9	118.46
10	126.10
12	127.37
13	126.10
14	118.46
15	109.54
16	99.35
17	86.61
19	71.33
20	58.59
21	49.67
22	42.03
23	35.66
26	26.36
28	18.72
30	13.62
32	9.80
35	7.00
37	5.09
39	3.69
42	2.67
44	1.91
46	1.40
52	0.63
58	0.50
64	0.12
70	0.12

AMDS 103 cfs

THE FOLLOWING IS USED TO CALCULATE THE RATIONAL RUNOFF HYDROGRAPH

***** DETERMINING VOLUME BY THE RATIONAL METHOD *****

RATIONAL RUNOFF COEFFICIENT = .52

AREA OF BASIN IN ACRES = 50

RAINFALL FOR BASIN IN INCHES = 2.5

RUNOFF VOLUME IN CUBIC FEET = 235950

TOTAL DURATION OF RUNOFF (min.) = 61.74515

Existing On-Site Runoff @ AP-1

**** RATIONAL METHOD *****

AREA IN ACRES	=	20
6-HR RAINFALL IN INCHES	=	2.5
TIME TO CONCENTRATION IN MINUTES	=	15
INTENSITY IN INCHES/HOUR	=	4.29724

***** USING C VALUE INPUT METHOD *****

C VALUE TO BE USED = .4

THE PEAK DISCHARGE IN CFS = 34.37792

TIME	Q VALUES IN cfs	Exist. + Off-site
0	0.00	0
2	1.03	13.76
3	3.43	27.63
5	6.53	46.01
6	10.65	70.51
8	16.15	120.60
9	22.68	141.14
11	28.18	
12	31.97	159.34
14	34.03	152.49
15	34.37	143.91
17	34.03	120.64
18	31.97	
20	29.56	88.15
21	26.81	76.48
23	23.37	59.03
24	19.25	
26	15.81	42.17
27	13.40	
29	11.34	
30	9.62	23.24
33	7.11	
36	5.05	
39	3.67 --	7.36
42	2.64	5.31
45	1.89	
48	1.37	
51	0.99	
54	0.72	
57	0.51	
60	0.37	
68	0.17	
75	0.13	
83	0.03	
90	0.03	

THE FOLLOWING IS USED TO CALCULATE THE RATIONAL RUNOFF HYDROGRAPH

***** DETERMINING VOLUME BY THE RATIONAL METHOD *****

RATIONAL RUNOFF COEFFICIENT	=	.4
AREA OF BASIN IN ACRES	=	20
RAINFALL FOR BASIN IN INCHES	=	2.5
RUNOFF VOLUME IN CUBIC FEET	=	72600

TOTAL DURATION OF RUNOFF (min.) = 70.39404

Proposed On-Site Runoff @ AP-1

**** RATIONAL METHOD *****

AREA IN ACRES = 20

6-HR RAINFALL IN INCHES = 2.5

TIME TO CONCENTRATION IN MINUTES = 15

INTENSITY IN INCHES/HOUR = 4.29724

***** USING C VALUE INPUT METHOD *****

C VALUE TO BE USED = .88

THE PEAK DISCHARGE IN CFS = 75.63141

TIME	Q VALUES IN cfs	Prop + Off-Site
0	0.00	0
2	2.26	14.99
3	7.56	31.76
5	14.36	53.84
6	23.44	83.30
8	35.54	139.99
9	49.91	168.37
11	62.01	
12	70.33	197.70
14	74.87	193.33
15	75.63	185.17
17	74.87	161.48
18	70.33	
20	65.04	123.63
21	58.99	108.66
23	51.42	87.08
24	42.35	
26	34.79	61.15
27	29.49	
29	24.95	
30	21.17	34.79
33	15.65	
36	11.11	
39	8.09	11.78
42	5.82	8.49
45	4.15	
48	3.02	
51	2.19	
54	1.58	
57	1.13	
60	0.83	
68	0.37	
75	0.30	
83	0.07	
90	0.07	

THE FOLLOWING IS USED TO CALCULATE THE RATIONAL RUNOFF HYDROGRAPH

***** DETERMINING VOLUME BY THE RATIONAL METHOD *****

RATIONAL RUNOFF COEFFICIENT = .88

AREA OF BASIN IN ACRES = 20

RAINFALL FOR BASIN IN INCHES = 2.5

RUNOFF VOLUME IN CUBIC FEET = 159720

TOTAL DURATION OF RUNOFF (min.) = 70.39404

REVISED Existing On-Site Runoff @AP-1

12. REV.

**** RATIONAL METHOD *****

AREA IN ACRES = 20

6-HR RAINFALL IN INCHES = 2.5

TIME TO CONCENTRATION IN MINUTES = 20.55

INTENSITY IN INCHES/HOUR = 3.65984

***** USING C VALUE INPUT METHOD *****

C VALUE TO BE USED = .4

THE PEAK DISCHARGE IN CFS = 29.27872

TIME	Q VALUES IN cfs	Exist. + Off-Site
0	0.00	0
2	0.87	13.60
4	2.92	
6	5.56	65.42
8	9.07	113.52
10	13.76	139.84
12	19.32	146.69
14	24.00	142.46
16	27.22	126.57
18	28.98	
21	29.27	78.94
23	28.98	64.64
25	27.22	
27	25.17	
29	22.83	
31	19.90	
33	16.39	
35	13.46	20.46
37	11.41	16.50
39	9.66	13.35
41	8.19	
45	6.06	
49	4.30	
53	3.13	
58	2.25	2.75
62	1.61	
66	1.17	
70	0.84	0.96
74	0.61	
78	0.43	
82	0.32	
92	0.14	
103	0.11	
113	0.02	
123	0.02	

THE FOLLOWING IS USED TO CALCULATE THE RATIONAL RUNOFF HYDROGRAPH

***** DETERMINING VOLUME BY THE RATIONAL METHOD *****

RATIONAL RUNOFF COEFFICIENT = .4

AREA OF BASIN IN ACRES = 20

RAINFALL FOR BASIN IN INCHES = 2.5

RUNOFF VOLUME IN CUBIC FEET = 72600

TOTAL DURATION OF RUNOFF (min.) = 82.65389

REVISED Proposed On-Site RunoffeAP-1

**** RATIONAL METHOD *****

AREA IN ACRES = 20

6-HR RAINFALL IN INCHES = 2.5

TIME TO CONCENTRATION IN MINUTES = 20.55

INTENSITY IN INCHES/HOUR = 3.65984

***** USING C VALUE INPUT METHOD *****

C VALUE TO BE USED = .88

THE PEAK DISCHARGE IN CFS = 64.41319

TIME	Q VALUES IN cfs	Prop 1 Off-Site
0	0.00	0
2	1.93	14.06
4	6.44	
6	12.23	72.09
8	19.96	124.41
10	30.27	156.37
12	42.51	169.88
14	52.81	171.27
16	59.90	159.25
18	63.76	
21	64.41	114.08
23	63.76	99.42
25	59.90	
27	55.39	
29	50.24	
31	43.80	
33	36.07	
35	29.63	36.63
37	25.12	30,21
39	21.25	24.94
41	18.03	
45	13.33	
49	9.46	
53	6.89	
58	4.95	5,45
62	3.54	
66	2.57	
70	1.86	1.98
74	1.35	
78	0.96	
82	0.70	
92	0.32	
103	0.25	
113	0.06	
123	0.06	

THE FOLLOWING IS USED TO CALCULATE THE RATIONAL RUNOFF HYDROGRAPH

***** DETERMINING VOLUME BY THE RATIONAL METHOD *****

RATIONAL RUNOFF COEFFICIENT = .88

AREA OF BASIN IN ACRES = 20

RAINFALL FOR BASIN IN INCHES = 2.5

RUNOFF VOLUME IN CUBIC FEET = 159720

TOTAL DURATION OF RUNOFF (min.) = 82.65389

AP-1

Watershed Area
A_T = 70 acres

Tc from site to AP-1 : Q = AV
Q = 198, A = 65.88
V = 198/65.88 = 3.01 ft/sec
$T_c = \frac{1}{[3.01\ ft/sec \times \frac{1}{2800\ ft} \times \frac{60\ sec}{min}]}$
= 15.50 min.

Tc to this analysis point:
$T_c = 0.0078 (1000)^{0.77} / (0.05)^{0.385}$
= 5.05 min.

Site A = 20 acres

CONSTITUTION AVENUE

CHELWOOD PARK BLVD

North
1" = 500'