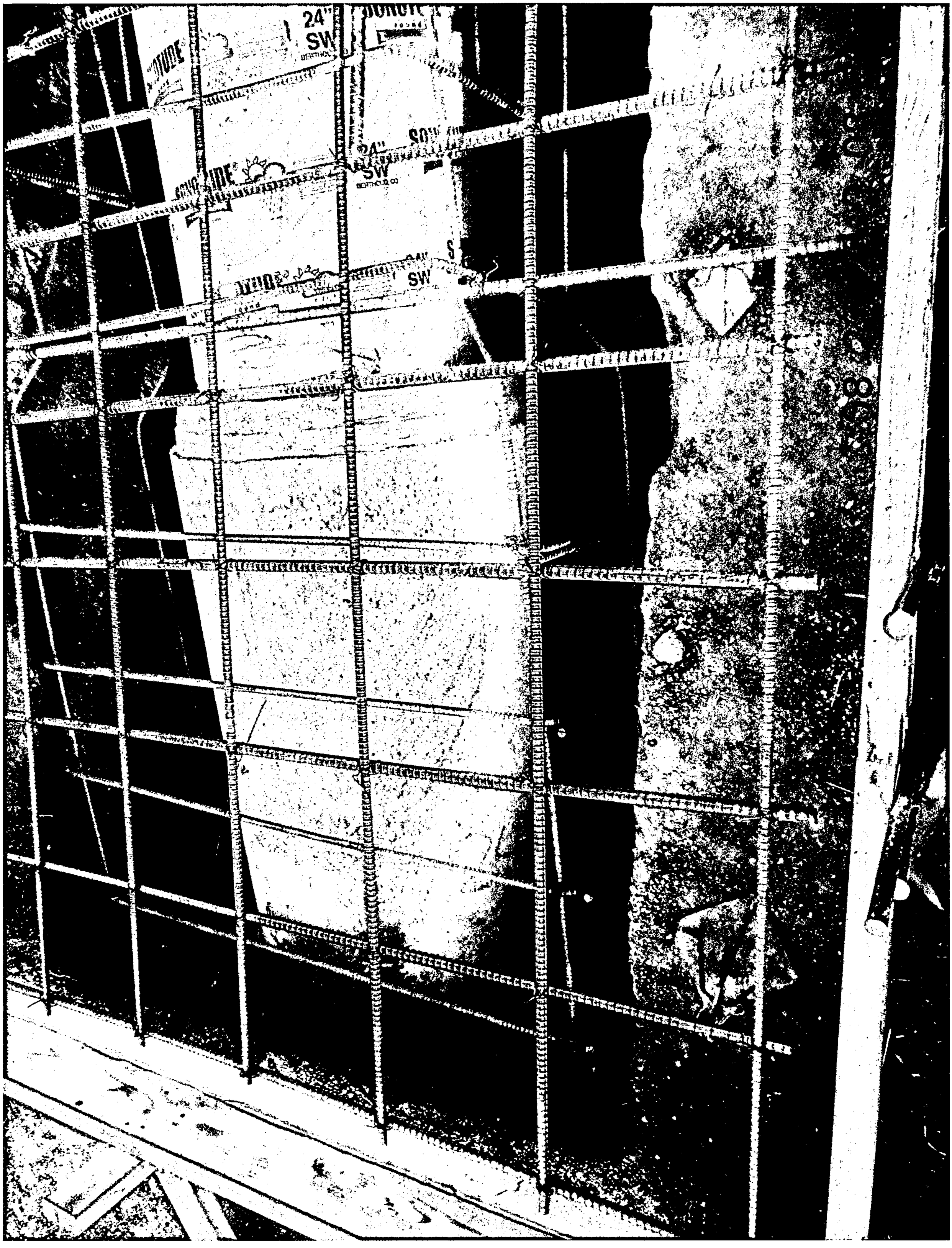
Cherne, Curtis

H21003 b

From: Rodriguez, Jason T.
Sent: Thursday, August 29, 2013 11:27 AM
To: Diaz, Claudia P. (Claudia.Diaz@wilsonco.com)
Cc: Cherne, Curtis; mardrez@aol.com
Subject: Matheson park at Embodo channel
Attachments: DSCN0777.JPG

FYI
I went to inspect the new outlet for the school at 9:00am before they pour it and they are doing fine job, they plan to pour at 10:00 am and I will go back when the retaining wall is being constructed. The only thing that was not to plan was the length of the sauna tube, its 14' from the 24" RCP instead of 10" but that is fine with me. The contractor will be off Friday may every one have a safe Holiday.

Jason C.O.A.


24"
SW

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services

Richard J. Berry, Mayor

July 11, 2013

Mr. Mario G. Juarez-Infante, P.E.
Attn: Ms. Claudia Diaz
Wilson & Company, Inc.
4900 Lang Avenue NE
Albuquerque, New Mexico 87109

RE: **Matheson Park Elementary School Site Improvements** **H21-D036**
10809 Lexington St. NE PE Stamp: 6/21/2013
Grade & Drain Plan for Grading, Paving and SO-19 Permits

Dear Mr. Juarez-Infante:

Based upon the information provided in your submittal received 06-24-2013, the above referenced is plan approved for Grading, Paving and SO-19 Permits, subject to the following **qualifications**:

1. Sheets C-403, C-404 & C-501 (Detail A-2): Per conversation with Nicole Trujillo, Wilson & Co., on 7/10/13, the Top of Wall elevation at the SW corner of the site has been corrected to 5563.00, to match adjacent ground elevations. Please correct this on the affected sheets issued for construction, and on the As-Built Certification plan requested below.

2. A Floodplain Development Permit is REQUIRED to be issued by the Planning-Hydrology Section for all construction within a Floodplain. The storm drain outfall work in the adjacent channel will be within a designated floodway. Attached for your use is a copy of the **Floodplain Development Permit**.

3. A separate Excavation/Barricading Permit is required for the "SO-19" construction within City Drainage Channel ROW. A copy of this approval letter must be on hand when applying for that permit. The "Private Storm Drain Facilities" work in the City Drainage ROW must be inspected and accepted by the City. Please contact Jason Rodriguez, 857-8074, to schedule that inspection, prior to any concrete placement.

4. Landscaped areas of the channel through Matheson Park are maintained by the City Parks & Recreation Dept. All construction in the park, including restoration of turf and irrigation systems, shall also be coordinated with your P&R contact, Mr. Eddie Martinez (505-291-6285), and be approved by him following completion.

5. It is understood that APS desires to complete this work during the summer, while students are away from school. However this coincides with our rainy season, and the

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likelihood of high water flows in the channel. Special design and construction considerations may be appropriate, such as extended work hours, rapid set concrete, and wire staples on any sod placed in the floodway, to prevent erosion.

6. The Albuquerque Development Process Manual (DPM) Chapter 22, Section 5-C requires that construction activities in major drainage facilities during July-September, provide for the safe passage of the 10-year storm flow.

Following completion of the work, please submit an As-Built Plan to this office, with certification that the work was completed in substantial compliance with this design.

If you have any questions, please email me at grolson@cabq.gov or phone 924-3994.

Sincerely,

7/11/13

Gregory R. Olson, P.E.
Senior Engineer

Attachment: Floodplain Development Permit Application form

Orig: Drainage file **H21_D036**
c.pdf Addressee via Email Mario.Juarez-Infante @WilsonCo.com
eCopy: Claudia Diaz, Wilson & Co., Claudia.Diaz@WilsonCo.com
Nicole Trujillo, Wilson & Co., Nicole.Trujillo@WilsonCo.com
Antoinette Baldonado, Excavation and Barricading, ABaldonado@cabq.gov
Jason Rodriguez, Street/Storm Drain Maintenance, JTRodriguez@cabq.gov
Eddie Martinez, P&R Turf Management, ECMartinez@cabq.gov

Floodplain Development Permit Form

Planning Dept., City of Albuquerque

Section 1: General Provisions (Applicant to read and sign)

1. No work of any kind may start until a permit is issued.
2. Applicant is hereby informed that other permits may be required to fulfill local, state, and federal regulatory requirements.
3. Applicant hereby gives consent to the Floodplain Administrator and his/her representative to make reasonable inspections required to verify compliance.
4. The applicant certifies that all statements herein and in attachments to this application are, to the best of my knowledge, true and accurate.

Applicant Signature_____ Date_____

Applicant Printed Name_____ Phone #:_____

Section 2: Proposed Development in Special Flood Hazard Area (to be completed by Applicant)

Brief Project Description "MATHESON ELEMENTARY SCHOOL" PRIVATE STORM DRAIN FACILITY (Outfall) Modifications PER APPROVED GRADING PLAN H21-D036

Applicant is (check one): Owner____ Builder____ Engineer/Architect____

Project address/Legal Desc/location: 10,809 LEXINGTON ST. NE.

[redacted]

Description of Work (in Special Flood Hazard Area):

A. Building Development

___New Building
___Addition
___Alteration
___Demolition

N/A

Building Type

___Residential (1-4 Family)
___Residential (More than 4 Family)
___Commercial
___Manufactured Home

Estimated Cost of Project $_____
Existing Structure Value$_____ %(new/existing):_____

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B. Other Development Activities

___Clearing ___Fill ___Drilling X Grading
___Excavation, except for Structural Development (checked above)
___Watercourse Alteration (Including Dredging and Channel Modifications)
X Drainage Improvements
___Road, Street or Bridge Construction
___Water or Sewer Line Installation
___Paving
___Walls
___Storage of Materials/Equipment for more than 1 Year: Volume (cu. ft.):_____
___Other (Please Specify)_____

Is there a Grading Plan associated with this work? X Yes ___No

Drainage file number: H21-D036

Section 3: Floodplain Determination (Completed by the Floodplain Administrator)

The proposed development is located in a SFHA Zone (circle one): (A) AE AH AO

And is located on FIRM Panel: 0357H

And is located in a Floodway: X Yes ___No

BFE if Applicable: N/A

Drainage File Number: H21-D036

Floodplain Permit Number: H21-F036

Building Permit / Work Order #: N/A

Site specific Instructions: Storm Drain Outfall modifications per approved Grading Plan

Signed:_____ Date_____ COA

Printed Name:_____

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If proposed development is a building, proceed to Section 4.
Section 4: Requirements for building in a SFHA:
(To be completed by the Floodplain Administrator or Representative)

BFE (unless not available):_____

Minimum Finished Floor Elevation: N/A

Minimum Lowest Adjacent Grade:_____

Change in water elevation (if in a Floodway):_____

Is flood-proofing required:___Yes ___No

If yes, method of flood-proofing:_____

An Elevation Certificate is required for structural development in a SFHA. A Certificate of Occupancy will not be granted until the Planning Dept receives the Elevation Certificate.

Section 5: Post Development Certification:

A. For Structural Development:
Elevation Certificate received on Date:_____

Finished Floor Elevation:_____

Lowest Adjacent Grade:_____

The Floodplain Administrator or Representative verifies the above information is ___acceptable or ___not acceptable per the City of Albuquerque's Floodplain Ordinance.

The site was visually inspected on Date:_____

Certificate of Occupancy approved on Date:_____

Signature:_____ Date:_____

Printed Name:_____

B: For Other Development Activities:
The site was visually inspected on Date:_____ and found to be ___in ___not in compliance with the approved Floodplain Permit.

Signature:_____ Date:_____
Printed Name:_____

Rev. November 2010

WILSON
&COMPANY

4900 Lang Ave NE
Albuquerque, NM 87109
505-348-4000 phone
505-348-4055 fax

Alaska
Arizona
California
Colorado
Florida
Kansas
Missouri
Nebraska
New Mexico
Oklahoma
Texas
Utah

June 20, 2013

Gregory Olson, P.E.
Hydrology Section
Planning Department
Development & Building Services Division
600 2nd St. NW, Suite 201
Albuquerque, NM 87102

RE: Matheson Park Elementary School Site Improvements, 4410 Irving Blvd. NW, Grading and Drainage Plan for Grading, Paving and SO-19 Permits, Engineer's Stamp Dated 04-22-2013 (H-21/D036)

Dear Mr. Olson,

Enclosed is a revised Grading and Drainage plan submitted for Grading, Paving, and SO-19 Permit approval. These revisions have been performed based on your comments regarding the first submittal of this Grading and Drainage plan.

The following is a written response to those comments:

1. C-102: Improved the readability of the Location Map, Soil Map, and Flood Map.
2. C-102: Provided a Bench Mark for the site, tied to a COA survey monument.
3. C-102: The Table of Orifice calculations was relocated to allow clear viewing of AP-1.
4. C-102: The Basin Boundary lines were moved to a new G&D sheet.
5. C-102: On the new map, the proposed and existing basin boundaries were clarified.
6. C-102: The contour elevations and spot elevations on the G&D were increased in text size to be more visible.
7. C-102: On the G&D, the surface treatments were labeled throughout the site and additional spot elevations were provided on permanent features.
8. C-102: The pipe line sizes and flow direction arrows on all existing and proposed storm drain piping were labeled.
9. C-102: The flows intercepted by the new storm drain inlets along the NW edge of the site and the existing line will get treated for silt removal before entering the public drainage right of way through a Water Quality Sump Inlet. See detail A1/C-501. ? No A1 on 501
10. C-102: A description of the proposed water quality structure is included on page C-403 and C-404. Section views will further explain how the Water Quality Inlet will be positioned and function.
11. C-102: The SO-19 notes include a signature line for the City Inspector.
12. C-102: The City of Albuquerque Standard Drawings are clearly identified and included in Detail Sheets.
13. C-103: Key Note 1 refers to Detail B1on C-502.
14. C-102: Key Note 5 refers to a Channel Penetration Detail on C-503.

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JUN 24 2013
LAND DEVELOPMENT SECTION

HIGHER Relationships
SHARED OWNERSHIP • COLLABORATION
INTENSITY • DISCIPLINE • SOLUTIONS

15. C-102: Flows from the existing line will be diverted into the new system. Please refer to the plan and profile. Invert elevations on the existing line at the crossing have been provided. The 24" RCP will be able to adequately discharge the runoff from the existing and proposed systems into the Embudito Arroyo.
16. C-102: The limits of the retaining wall, top of wall and bottom of wall grades have been provided. Also, the C-403 provides the limits of the concrete slab.
17. C-103: The contour lines have been included on the enlarged plans for clarity.
18. C-501: Detail A4 was changed to show the 18" ADS pipe. A spec for 12" riser pipe was included.
19. C-502: The General and Construction Notes are organized on the Detail Sheets.
20. C-502: Grammar has been corrected on the General and Construction Notes.
21. C-502: References to COA STND DWGS have been clarified.
22. C-502: Details A3 and D3 are now COA STND DWGS.
23. C-502: Detail A1 Retaining Wall has been corrected to show reinforcement in the correct location. Also, the relative position of the property line is along the centerline of the concrete wall as shown.
24. C-502: Detail A1 shows a concrete slab, per Detail C3/403, which will be submitted.
25. C-502: Detail B1, Sections A-A and B-B show where the design grade is for the pond bottom. Also, please refer to C-403.
26. C-502: The exposed 24" outlet pipe will be RCP because it crosses the property line onto channel R/W. Please see C-403. Pond water will be prevented from piping because the retaining wall and inlet structure will be poured monolithically.
27. C-502: The Inlet Details on Sheet C-504 will be submitted.

Sincerely,

Mario G. Juarez-Infante, P.E.
Associate Vice President
Wilson & Company

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 2/2013)

to greg
Login

Project Title: MATHESON PARK ELEMENTARY SCHOOL SITE IMPROVEMENTS City Drainage #: H21-D36

DRB#: _____ EPC#: _____ Work Order #: _____

Legal Description: E POR OF MATHESON PARK IN SNOW HEIGHTS ADDN CONT

City Address: 10809 LEXINGTON STREET NE

Engineering Firm: WILSON & COMPANY Contact: CLAUDIA DIAZ

Address: 4900 LANG AVENUE NE, ALBUQUERQUE NM 87109

Phone #: (505) 348-4193 Fax #: (505) 348-4072 Email: CLAUDIA.DIAZ@WILSONCO.COM

Owner: ALBUQUERQUE PUBLIC SCHOOLS Contact: TYLER MASON

Address: 915 OAK SE, ALBUQUERQUE, NM 87106

Phone #: (505) 848-8822 Fax #: (505) 246-9020 Email: MASON_T@APS.EDU

Architect: N/A Contact: _____

Address: _____

Phone #: _____ Fax #: _____ Fax #: _____

Surveyor: WILSON & COMPANY Contact: BENJAMIN ARAGON

Address: 4900 LANG AVENUE NE, ALBUQUERQUE NM 87109

Phone #: (505) 348- 4067 Fax #: (505) 348-4055 Email: BENJAMIN.ARAGON@WILSONCO.COM

Contractor: APS ON-CALL CONTRACTORS Contact: TYLER MASON

Address: _____

Phone #: (505) 848-8822 Fax #: (505) 246-9020 Email: MASON_T@APS.EDU

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
_X_ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
_X_ GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR\LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEERS CERT (TCL)
____ ENGINEERS CERT (DRB SITE PLAN)
____ ENGINEERS CERT (ESC)
_X_ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D. APPROVAL
____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ CERTIFICATION OF OCCUPANCY (PERM)
____ CERTIFICATION OF OCCUPANCY (TCL TEMP)
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
_X_ GRADING PERMIT APPROVAL
_X_ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION

_X_ SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

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JUN 24 2013
LAND DEVELOPMENT SECTION

WAS A PRE-DEISGN CONFERENCE ATTENDED: _X_ Yes ____ No _X_ Copy Provided

DATE SUMBITTED: 6-24-13 By: CLAUDIA DIAZ

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land distributing area, including project less than 1-acre than part of a larger common plan of development

Chris Baca 857-8103

Lewis, James 768-~~3525~~ 5325

CITY OF ALBUQUERQUE

PLANNING DEPARTMENT – Development Review Services

Richard J. Berry, Mayor

June 4, 2013

Mr. Mario G. Juarez-Infante, P.E.
Attn: Ms. Claudia Diaz
Wilson & Company, Inc.
4900 Lang Avenue NE
Albuquerque, New Mexico 87109

RE: **Matheson Park Elementary School Site Improvements** **H21-D036**
4410 Irving Blvd. NW PE Stamp: 4/22/2013
Grade & Drain Plan for Grading, Paving and SO-19 Permits

Dear Mr. Juarez-Infante:

Based upon the information provided in your submittal received 05-16-2013, the above referenced plan cannot be approved for Grading, Paving or an SO-19 Permit.

Please review and address the following issues prior to resubmittal:

1. C-102: Improve the readability of the Location Map (label major streets, Morris and Juan Tabo), Soil Map and Flood Map (too dark to read).
2. C-102: Provide a Bench Mark for this site, tied to a COA survey monument.
3. C-102: The Table of Orifice computations at the upper left corner of the sheet, obscures the labeling for AP-1. This table needs better labeling for itself, and should be located near the water quality inlet to which it apparently applies.
4. C-102: The inclusion of Basin Boundary Lines on the G& D Plan obstructs important information on the G&D. Separate the Basin map, or use a different basin line symbology to clarify all info. (e.g.- The wide line along the channel masks over the ridge line that keeps flows on the site.)
5. C-102: Clarify the Basin lines (existing vs. proposed) near the SW corner of the site.
6. C-102: Contour elevations and spot elevations on the G&D are too small to read.
7. C-102: As part of the Grading and Drainage Plan, label the various surface treatments throughout the site, which support the runoff calculations (e.g.- Building, Turf, Pavement, BB Court, etc.), and provide spot elevations on permanent features.
8. C-102: Label pipe line sizes and flow direction arrows on all existing and proposed storm drain piping.

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9. C-102: Show how the flows intercepted by the new storm drain inlets along the NW edge of the site get treated for silt removal before entering the public drainage R/W. It appears as though this line is connected to the interior of the Water Quality Inlet, thus bypassing any sediment trap.

10. C-102: Provide a better description of the proposed desiltation facilities at the SW corner of the site, and a clear description of the SO-19, Private Drainage Facilities in Public R/W. Existing and proposed grades in the pond area are not legible at this scale. Clarify how the Water Quality Inlet will be positioned and function within this setting, and detail how the outfall pipe and existing rundown will be built.

11. C-102: The SO-19 notes need to include a signature line for the City Inspector, and may need to be moved, if the SO-19 details are described in an enlargement on another sheet.

12. C-102: Many of the notes and Key Notes make reference to "STD DWGS ####." It is presumed that these references are to **City of Albuquerque Standard Drawings**. A general note should clarify that reference. Also, details on C-502 reproduce some of the COA Stnd. Dwgs., so this plan set needs to clearly identify which details apply.

13. C-103: Key Note 1 refers to Detail A1, which is not found on C-502.

14. C-102: Key Note 5 refers to a Channel Penetration detail not found on C-502.

15. C-102: Key Note 9 proposes a 6-ft. diameter storm drain manhole that appears to intercept the existing 18" storm line to the channel. It appears from our records that the existing line is shallower than the proposed line. Will flows in the existing line be diverted into the new system? Clarify this installation, and provide invert elevations on the existing line at the crossing/tie-in. [*Is this MH really needed, or could the new system simply cross under/over the existing, without interconnecting the flows ?*]

16. C-102: The plan near the SW corner apparently includes a retaining wall and conc. slab per Detail A2 on C-502. Show the limits of the retaining wall and provide top of wall and bottom of wall grades. Also, provide limits for the concrete slab, or include sheet 403, if that's more appropriate.

17. C-103: Label some of the contour lines on the enlarged plans for clarity.

18. C-501: Detail A4 shows the main line to be 18" SDR-35 PVC, which differs from the ADS called out on C-102. Also, this detail does not provide a spec for the 12" riser pipe.

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New Mexico 87103

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19. C-502: Multiple sets of General and Construction Notes should be corralled within borders to clarify where they apply.

20. C-502: Check spelling in the General and Construction Notes in the center of the sheet.

21. C-502: Similar to comment 12, above, clarify if references are to COA STND DWGS.

22. C-502: Details A3 and D3 replicate COA STND DWGS. Since the notes refer to the STND DWGS, it seems these details will not apply. What is the intent?

23. C-502: Detail A2 Retaining Wall seems to have the "L-type" wall footing and reinforcement reversed for reinforced conc. design strength; please verify. Also, show the relative position of the property line in this section and dimension wall offset.

24. C-502: Detail A2 shows a concrete slab, per Detail C3/403, which was not submitted.

25. C-502: Detail C3, Sections A-A and B-B need to show where the design grade is for the pond bottom, so that the Water Quality inlet tubes are exposed to flow.

26. C-502: In Section B-B, if the pond invert elevation is below the inlet tubes, then the 24" outlet pipe will be exposed outside the structure, until it enters the slope of the channel. Will this exposed pipe be RCP, as it must be once it crosses the property line onto channel R/W? How will pond water be prevented from "piping" along the outfall pipe trench backfill?

27. C-502: This sheet refers to additional Inlet Details on Sheet C-504, which was not received with this submittal.

As discussed with Ms. Diaz, I would be glad to meet with you if there are questions or clarifications relative to this submittal.
Please email me at grolson@cabq.gov or phone 924-3994.

Sincerely,

6/4/13

Gregory R. Olson, P.E.
Senior Engineer

Orig: Drainage file **H21/D036**
c.pdf Addressee via Email Mario.Juarez-Infante @WilsonCo.com
Claudia Diaz via Email Claudia.Diaz@WilsonCo.com

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department
Development & Building Services Division
DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 2/2013)

Project Title: MATHESON PARK ELEMENTARY SCHOOL SITE IMPROVEMENTS City Drainage #: H21-D36

DRB#: _____ EPC#: _____ Work Order #: _____

Legal Description: E POR OF MATHESON PARK IN SNOW HEIGHTS ADDN CONT

City Address: 10809 LEXINGTON STREET NE

Engineering Firm: WILSON & COMPANY Contact: CLAUDIA DIAZ

Address: 4900 LANG AVENUE NE, ALBUQUERQUE NM 87109

Phone #: (505) 348-4193 Fax #: (505) 348-4072 Email: CLAUDIA.DIAZ@WILSONCO.COM

Owner: ALBUQUERQUE PUBLIC SCHOOLS Contact: SAL WAR

Address: 915 OAK SE, ALBUQUERQUE, NM 87106

Phone #: (505) 842-4521 Fax #: (505) 246-9020 Email: WAR@APS.EDU

Architect: N/A Contact: _____

Address: _____

Phone #: _____ Fax #: _____ Fax #: _____

Surveyor: WILSON & COMPANY Contact: BENJAMIN ARAGON

Address: 4900 LANG AVENUE NE, ALBUQUERQUE NM 87109

Phone #: (505) 348- 4067 Fax #: (505) 348-4055 Email: BENJAMIN.ARAGON@WILSONCO.COM

Contractor: APS ON-CALL CONTRACTORS Contact: SAL WAR

Address: _____

Phone #: (505) 842-4521 Fax #: (505) 246-9020 Email: WAR@APS.EDU

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
X DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
X GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR\LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEERS CERT (TCL)
____ ENGINEERS CERT (DRB SITE PLAN)
____ ENGINEERS CERT (ESC)
X SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D. APPROVAL
____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ CERTIFICATION OF OCCUPANCY (PERM)
____ CERTIFICATION OF OCCUPANCY (TCL TEMP)
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
X GRADING PERMIT APPROVAL
X PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION
X SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

RECEIVED
MAY 16 2013
LAND DEVELOPMENT SECTION

WAS A PRE-DEISGN CONFERENCE ATTENDED: X Yes ____ No X Copy Provided

DATE SUMBITTED: 5/16/13 By: CLAUDIA DIAZ

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land distributing area, including project less than 1-acre than part of a larger common plan of development

CITY OF ALBUQUERQUE

March 2, 2006

Larry Read, PE
LARRY READ & ASSOCIATES, INC.
4800 Juan Tabo Blvd. NE, Suite C
Albuquerque, NM 87111

Re: MATHESON PARK ELEMENTARY SCHOOL
10809 Lexington Avenue NE
Approval of Permanent Certificate of Occupancy (C.O.)
Engineer's Stamp dated 10/10/2004 (H-21/D36)
Certification dated 02/28/2006

Dear Larry,

Based upon the information provided in your submittal received 03/01/2006, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3982.

Sincerely,

Arlene V. Portillo

Arlene V. Portillo
Plan Checker, Planning Dept. - Hydrology
Development and Building Services

C: CO Clerk
File

P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Matheson Park Elementary School
DRB #: _____ EPC#: _____
ZONE MAP/DRG. FILE #: H21-D36
WORK ORDER#: _____

LEGAL DESCRIPTION: Matheson Park Elementary School, Block 75, Snow Heights Addition
CITY ADDRESS: 10809 Lexington Av NE

ENGINEERING FIRM: LARRY READ & ASSOCIATES, INC
ADDRESS: 4800 JUAN TABL BLVD. NE SUITE C
CITY, STATE: ALBUQUERQUE, NEW MEXICO
CONTACT: LARRY READ
PHONE: 237-8421
ZIP CODE: 87111

OWNER: ALBUQUERQUE PUBLIC SCHOOLS
ADDRESS: 525 Buena Vista Dr. SE
CITY, STATE: Albuquerque, NM
CONTACT: Roldan Passion
PHONE: 224-3000
ZIP CODE: 87106

ARCHITECT: RMKM
ADDRESS: 400 Gold Ave SE
CITY, STATE: Albuquerque, NM
CONTACT: Don May
PHONE: 243-5454
ZIP CODE: 87102

SURVEYOR: Jeff Mortenson and Associates, Inc.
ADDRESS: 6010-B Midway Park Blvd NE
CITY, STATE: Albuquerque, NM
CONTACT: Charles Cala
PHONE: 345-4250
ZIP CODE: 87109

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____
CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, ***REQUIRES TCL or equal***
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ 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
- ☒ CERTIFICATE OF OCCUPANCY (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☒ YES
- ☒ NO
- ☐ COPY PROVIDED

RECEIVED
MAR - 1 2006
HYDROLOGY SECTION

DATE SUBMITTED: March 1, 2006
BY: LARRY D. READ PE

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope ot the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE

November 23, 2004

Lawrence Read, P.E.
Larry Read & Associates Inc.
4800 Juan Tabo NE, Suite C
Albuquerque, NM 87111

Re: Matheson Park Elementary School Addition, 10809 Lexington Ave NE, Grading and Drainage Plan
Engineer's Stamp dated 10-10-04 (H21-D36)

Dear Mr. Read,

Based upon the information provided in your submittal received 10-21-04, the above referenced plan is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3981.

Sincerely,

Kristal D. Metro
Engineering Associate, Planning Dept.
Development and Building Services

C: File

P.O. Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

H-21 | D36
10809
Lexington Ave

ROHDE MAY KELLER McNAMARA
ARCHITECTURE

September 13, 2004

Ms. Arlene Portillo
505 924 3982

Ms. Portillo,

This is a response to a disapproval we received on the plan review from your office. The note requests that we submit a Traffic Circulation Layout for Matheson Park Elementary School 10 Classroom addition. The reason we have not submitted a TCL is that the 10 classroom addition replaces 10 portable classrooms and will reside in the same location as the portable buildings. The new building is roughly the same size as the 10 portables and will have no effect on traffic or parking. Please see the attached diagram illustrating this. We request your approval of the Transportation Development portion of the plan set without the need of a "TCL" for the reasons stated above.

Thank you in advance for this consideration and please do not hesitate to call me if you have any further questions.

Thank you

Daniel Chavez
Rohde May Keller McNamara
Architecture
Simms Tower – Studio 1100
400 Gold Avenue SW
Albuquerque, New Mexico 87102
Tele: (505) 243-5454
Fax: (505) 243-5858

TCL not Required for this project

RECEIVED
SEP 15 2004
HYDROLOGY SECTION

ROHDE MAY KELLER McNAMARA
ARCHITECTURE

PROFESSIONAL CORPORATION
400 Gold Avenue, SW Studio 1100 Simms Tower Albuquerque, New Mexico 87102 USA tel. 505 243 5454

RECEIVED
SEP 15 2004
HYDROLOGY SECTION

STAGING WILL AEEECT PARKING ONLY DURING CONSTRUCTION

PROPERTY LINE

PROPOSED CONSTRUCTION SITE AND STAGING AREA

NEW PORTABLE LOCATIONS

PROP

COORDINATION BETWEEN APS AND MATHESON PARK ELEM. REQUIRED

PROPERTY LINE

PORTABLES TO BE RELOCATED TO AN ON-SITE LOCATION

EXIST

PREFERANCE IS TO LOCATE PORTABLES TO A PERMANENT SITE

COORDINATION BETWEEN APS AND MATHESON PARK ELEM. REQUIRED

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
DEVELOPMENT SERVICE / HYDROLOGY SECTION

DATE: 3-29-13
CONFERENCE RECAP

ZONE ATLAS PAGE NO: _____
DRAINAGE FILE: ~~H21 C005~~ H21 D035
ZONING: NR
DRB:
SUBJECT: drainage improvements at Madison Park Elementary
STREET ADDRESS (IF KNOWN): _____
SUBDIVISION NAME: _____
APPROVAL REQUESTED: grading permit paving permit
ATTENDANCE: Curtis Cherne, Claudia Diaz, Nicole Trujillo, Adolfo ortiz
FINDINGS:

provide Sedimentation Basins to prevent sediment from entering the channel.

Free discharge is allowed.

Should request paving permit and grading permit.



THE UNDERSIGNED AGREES THAT THE ABOVE FINDINGS ARE SUMMARIZED ACCURATELY AND ARE SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THEY ARE NOT REASONABLE OR THAT THEY ARE BASED ON INACCURATE INFORMATION.

SIGNED: Curtis A Cherne
NAME (PRINT): Curtis A. Cherne

SIGNED: Claudia Diaz
NAME (PRINT): Claudia Diaz

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH YOUR DRAINAGE SUBMITTAL.

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
DEVELOPMENT SERVICE / HYDROLOGY SECTION

DATE: 3-29-13
CONFERENCE RECAP

ZONE ATLAS PAGE NO: D036
DRAINAGE FILE: ~~H21 C004~~ H21 ~~D035~~
ZONING: NR
DRB:
SUBJECT: drainage improvements at Matheson Park Elementary
STREET ADDRESS (IF KNOWN):
SUBDIVISION NAME:
APPROVAL REQUESTED: grading permit paving permit
ATTENDANCE: Curtis Cherne, Claudia Diaz, Nicole Trujillo, Adolfo Ortiz
FINDINGS:

provide Sedimentation Basins to prevent sediment from entering the channel.

Free discharge is allowed.

Should request paving permit and grading permit.

THE UNDERSIGNED AGREES THAT THE ABOVE FINDINGS ARE SUMMARIZED ACCURATELY AND ARE SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THEY ARE NOT REASONABLE OR THAT THEY ARE BASED ON INACCURATE INFORMATION.

SIGNED: Curtis A Cherne
NAME (PRINT): Curtis A. Cherne

SIGNED: Claudia Diaz
NAME (PRINT): Claudia Diaz

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH YOUR DRAINAGE SUBMITTAL.

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
DEVELOPMENT SERVICE / HYDROLOGY SECTION

DATE: 3-29-13
CONFERENCE RECAP

ZONE ATLAS PAGE NO: _____
DRAINAGE FILE: ~~H21 C004~~ H21 D035
ZONING: NR
DRB:
SUBJECT: drainage improvements at Matheson Park elementary
STREET ADDRESS (IF KNOWN): _____
SUBDIVISION NAME: _____

APPROVAL REQUESTED: grading permit paving permit

ATTENDANCE: Curtis Cherne, Claudia Diaz, Nicole Trujillo, Adolfo Ortiz

FINDINGS:

provide Sedimentation Basins to prevent sediment from entering the channel.

Free discharge is allowed.

Should request paving permit and grading permit.

THE UNDERSIGNED AGREES THAT THE ABOVE FINDINGS ARE SUMMARIZED ACCURATELY AND ARE SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THEY ARE NOT REASONABLE OR THAT THEY ARE BASED ON INACCURATE INFORMATION.

SIGNED: Curtis A Cherne
NAME (PRINT): Curtis A. Cherne

SIGNED: Claudia Diaz
NAME (PRINT): Claudia Diaz

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH YOUR DRAINAGE SUBMITTAL.

RECEIVED
MAY 16 2013
LAND DEVELOPMENT SECTION

CITY OF ALBUQUERQUE
PLANNING DEPARTMENT
DEVELOPMENT SERVICE / HYDROLOGY SECTION

DATE: _____
CONFERENCE RECAP

ZONE ATLAS PAGE NO: H21
DRAINAGE FILE: H21/D036
ZONING: _____
DRB:
SUBJECT: Matheson Park elementary future classrooms
STREET ADDRESS (IF KNOWN): _____
SUBDIVISION NAME: _____

APPROVAL REQUESTED:

ATTENDANCE: Nate Burns, Curtis Cherne

FINDINGS:

free discharge to Embedded channel with sediment removal - water quality MH?

THE UNDERSIGNED AGREES THAT THE ABOVE FINDINGS ARE SUMMARIZED ACCURATELY AND ARE SUBJECT TO CHANGE IF FURTHER INVESTIGATION REVEALS THAT THEY ARE NOT REASONABLE OR THAT THEY ARE BASED ON INACCURATE INFORMATION.

SIGNED: Curtis A. Cherne
NAME (PRINT): Curtis A. Cherne

SIGNED:
NAME (PRINT): Nate Burns

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH YOUR DRAINAGE SUBMITTAL.

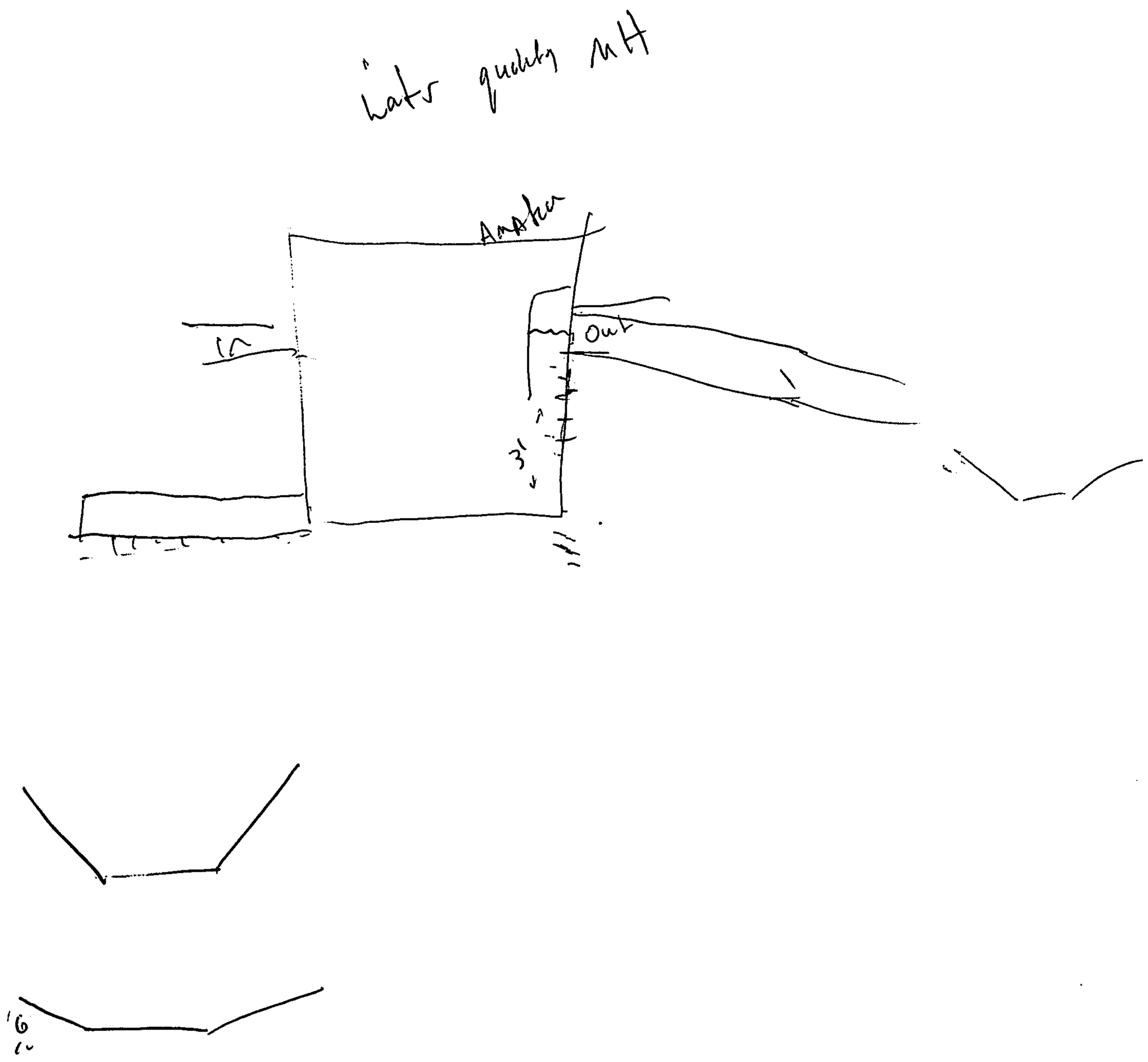

Out
1'
3'
16

FIGURE 6

CITY OF ALBUQUERQUE

NOTICE OF D.R.C. MEETING

8-3-98
(DATE)

DRB NO: ~~988~~ N/A
PROJECT NO: 549192
ZONE ATLAS: H-21

PROJECT NAME: MATHESON PARK
LOCATION: _____

TYPE OF PROJECT: AHBA ____ CIP X PWC ____ SAD ____ ALL PRIVATE ____

Contact Person: DOROTHY VINSON **Phone:** 857-8637
Firm: PAULS

_____ Scheduled with the D.R.C. on 8-11-98 at 2:00 Plaza Del Sol/2nd Fl.
_____ No DRC Meeting Scheduled. Please return any comments by _____

The Project Is Scheduled For:

/ / Design Report Review
/ / Pre-Design Meeting
~~X~~ Preliminary Plan Review
/ / Final Plan Review
/ / Signoff of Plans
/ / _____

The Project Relates To:

/ / Water / / San. Sewer / / Paving / / Storm Drainage X LANDSCAP.

The Attached Package Includes:

/D/ Drawings /S/ Spec's /E/ Estimate /R/ Report /M/ Memo Only

Indicated below are the Departments/Divisions that have received project documents and/or are invited to attend. It will be the Project Managers responsiblity to notify consulting engineering firms of date and time of scheduled meetings.

/D/ DRC Chairman	Project Review Section	All Drawings
/D/ Traffic Repres	Transportation Development	All Drawings
/D/ Utility Dev.(Bob Kane)	Utility Design	All AHBA Drawings
/ / Utility Dev.(Keith Reed)	Utility Design	All CIP Drawings
/D/ Hydro Repres. MURRAY	Hydrology	All Drawings
/D/ Const. Repres.	Construction	All Drawings
/ / Ray Chavez	Traffic Operations	All Drawings
/ / Sergio Miranda	Water (Shutoff Plan)	All Water Shutoff
/D/ CIP/Parks Repres.	Parks & Recreation	ALL Landscaping
/ / Andre Houle	Street Maintenance	All Paving
/D/ Kevin Broderick	Utility Coordinator	ALL PWC & CIP
/ / Jim Hamel	Transit Department	CIP/Memo
/D/ Joe Luehring	Construction Coordinator	CIP/Memo
/ / Jim Fink	Line Maintenance	CIP & SAS/Memo
/ / George Gee	City Architect	Arch. Drawings
/ / Lee Lunsford	SAD Engineer	SAD/Memo
/ / Tom Ellis	Park Mangement	Parks/Community Ctrs/APS
/ / Gene Bustamante	General Services Dept.	Arch. Drawings
/ / Greg Smith	PWD/Legal	Specs & Dwgs.
[redacted] Richard Sertich	Planning Department	CIP/Memos
/ / CIP Project Manager	CIP	CIP/Memos
/D/ Donald Bartlett	Risk Management	Arch. Drawings
/ / _____	_____	_____

DRCNOTIC. 10/19/95

FAX TRANSMISSION

FAXED 3:13

AMAFCA

2600 PROSPECT, NE
ALBUQUERQUE, NM 87107
(505) 884-2215
FAX: (505) 884-0214

FRED AGUIRRE

To: ~~CLAIRE KOOPMAN~~ **Date:** 9-17-96

Fax #: ~~Planning~~ COA HYD **Pages:** 2, including this cover sheet.

From: KURT BROWNING

Subject: DRB Comments for 9-24-96

COMMENTS:

NOTICE OF PUBLIC HEARING--DEVELOPMENT REVIEW BOARD
CITY OF ALBUQUERQUE

Notice is hereby given that the Development Review Board, City of Albuquerque, will hold a public hearing in the City Council Committee Room, Ninth Floor, Albuquerque/Bernalillo County Government Center, One Civic Plaza NW, on Tuesday, September 24, 1996, beginning at 9:00 a.m., for the purpose of considering the following:

V-96-97
DRB-96-421

(*) Andrews, Asbury & Robert Inc., agents for the City of Albuquerque, request Vacation (voiding) of a Public Drainage Easement for Tracts A and B, Tower West Joint Venture, zoned SU-1/C-1 and R-2 (City) and located on 98th St SW between Tower Ave SW and Eucariz Ave SW containing approximately 27.1997 acres. (L-9)

V-96-98
DRB-96-422

This area is excluded from AMAFCA's Drainage Policy (Resolution No 1980-15) See PWD Hyd. Div comments.

Jeff Mortensen & Associates, Inc., agents for Salvation Army, request Vacation (closing) of a portion of John Street, a portion of the Barelas Ditch and a portion of the north/south Alley (Public Rights-of-Way) and Sketch Plat Review and Comment for Lots 8-13, Block C, Union depot Frontage Addition, and Lots 7-12, Block 5, Huning Highland Addition, zoned M-1 (City) and located on Broadway Blvd SE between Lead Ave SE and Coal ave SE containing approximately 2 acres. (K-14)

V-96-100
DRB-95-313

Same

Jeff Mortensen & Associates, Inc., agents for Boyhahn L.L.C., request Vacation (voiding) of various Public and Private Easements and Vacation (voiding) of Easement Rights as listed on the recorded subdivision EL Manzanito filed 10-13-1994, Book 94C, Page 344 and Preliminary Plat approval (includes grading plan approval) for approximately 23 lots on Lots 1-8,, El Manzanito Subdivision zoned R-1 (City) and located on Phoenix Ave NW west of 12th St NW containing approximately 5.14 acres. (G-13/H-13)

CRM-96-3
DRB-96-283

No adverse comment

Bernalillo County Public Works requests Vacation (closing) of a portion of Powersway Road (Public Right-of-Way) and located south of Coors SW. (S-10)

Details of the application(s) may be examined at the Planning Division of the Planning Department, Fourth Floor, Albuquerque/Bernalillo County Government Center, One Civic Plaza NW, between 10:00 a.m. and 12:00 p.m. or 2:00 p.m. and 4:00 p.m. Monday through Friday except holidays - INDIVIDUALS WITH DISABILITIES who need special assistance to participate at this hearing should contact Claire Koopman, Planning Department, at 768-3946 (VOICE) or teletypewriter (TTY) 768-2478 - TTY users may also access the Voice number via the New Mexico Relay Network by calling toll-free: 1-800-659-8331.

Kyn E. Dicome

Kyn E. Dicome, Chair
Development Review Board

TO BE PUBLISHED IN THE ALBUQUERQUE JOURNAL ON MONDAY, SEPTEMBER 9, 1996.

(*) This tract contains floodplain as shown on NFIP-FEMA panel 350002-0033. A Letter of Map Revision is being prepared for the Snow Vista Channel for AMAFCA by Smith Engineering, however, this revision's east boundary is 98th St. It is still unclear where floodplain will continue east of 98th St. This floodplain situation east of 98th St should be analyzed. —

CITY OF
Albuquerque

March 10, 1998

Steve Randal
Red Mountain Engineers
1216 Parkway Drive
Santa Fe, NM 87505

RE: MATHESON PARK ELEMENTARY SCHOOL (H21-D36). ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY APPROVAL. ENGINEER'S CERTIFICATION DATED FEBRUARY 27, 1998.

Dear Mr. Randal:

Based on the information provided on your March 4, 1998 submittal, the above referenced project is approved for Certificate of Occupancy. The Engineer's Certification is also acceptable to the Hydrology Division for Release of Financial Guarantees.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

Lisa Ann Manwill, P.E.
Hydrology

c: Andrew Garcia
File

CITY OF
Albuquerque
Public Works Department

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

February 6, 1997

Steve Randall
Red Mountain Engineers
4600-C Montgomery Blvd. NE
Suite 101
Albuquerque, NM 87109

RE: MATHESON PARK ELEMENTARY (H21-D36). UPDATED DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED JANUARY 31, 1997.

Dear Mr. Randall:

Based on the updated information provided on your February 4, 1997 submittal, the above referenced project is approved for Building Permit.

Prior to Certificate of Occupancy, an Engineer's Certification will be required.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File

January 31, 1997

Lisa Manwell
Hydrology Department
600 2nd NW
Albuquerque, NM 87102

RE: MATHESON PARK ELEMENTARY

Dear Ms. Manwell:

Per our conversations, we are submitting the attached revised grading plan showing a different out fall at the arroyo.

The drainage report dated April 2, 1996 remains unchanged. The outfall is being moved to route around some temporary classrooms which appeared after our initial design approval.

Sincerely,

Steve Randall

SR/am

\\File-server\admin\1-WORKNG\Structural\Misc Letters\Matheson.wpd

CITY OF
Albuquerque

May 29, 1998

Dan S. Aguirre, P.E.
Wilson & Company
4775 Indian School Road, NE - Suite 200
Albuquerque, NM 87110

RE: MATHESON PARK ELEMENTARY SCHOOL PARKING LOT ADDITION (H21-D36). GRADING & DRAINAGE PLAN FOR PAVING PERMIT APPROVAL. ENGINEER'S STAMP DATED MAY 5, 1998.

Dear Mr. Aguirre:

Based on the information provided on your May 5, 1998 submittal, City Hydrology has the following comment:

Are the drainage basins mislabelled ? The areas listed in the tables are incongruous with the plan.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: Andrew Garcia
File

CITY OF
Albuquerque

February 20, 1998

Steve Randall
Red Mountain Engineers
1216 Parkway Drive
Santa Fe, NM 87505

RE: MATHESON PARK ELEMENTARY SCHOOL (H21-D35). ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY. ENGINEER'S CERTIFICATION DATED JANUARY 28, 1998.

Dear Mr. Randall:

Based on the information provided on your January 30, 1998 submittal, City Hydrology has the following comments:

1. According to our files, the plan that was approved for Building Permit had an Engineer's stamp date of January 31, 1997. The plan you have submitted for Certificate of Occupancy is not the same plan that was approved.

2. The certification statement is too vague. What does "general conformance". mean? Use the standard certification statement. If you need help with the wording, please call.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

Lisa Ann Manwill, P.E.
Hydrology

c: Andrew Garcia
File

CITY OF
Albuquerque

June 5, 1998

Dan S. Aguirre, P.E.
Wilson & Company
4775 Indian School Road, NE - Suite 200
Albuquerque, NM 87110

RE: MATHESON PARK ELEMENTARY SCHOOL PARKING LOT ADDITION (H21-D36). GRADING & DRAINAGE PLAN FOR PAVING PERMIT APPROVAL. ENGINEER'S STAMP DATED JUNE 5, 1998.

Dear Mr. Aguirre:

Based on the information provided on your June5, 1998 submittal, the above mentioned project is approved for Paving Permit.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: Andrew Garcia
File

RECEIVED
FEB 12 1988
1380
PUBLIC WORKS DEPT
REF. NO._____

CITY OF ALBUQUERQUE

ALBUQUERQUE, NEW MEXICO

INTER-OFFICE CORRESPONDENCE

February 11, 1988

TO: George Selvia, Director, Public Works Department

FROM: Richard J. Chapman, Councillor, District 8

SUBJECT: Drainage Problem - Matheson Park School

It has been brought to my attention that public waters flow from the streets adjacent to Matheson Park School across the school property and then into the arroyo. According to City records, an easement for this purpose does not exist on the school land. I am informed that during heavy rainfalls the ditch creates a potential danger to the school children. I would request that the Public Works Department work jointly with APS to find a solution to this drainage problem. Such a project would be of benefit to both the City and APS.

Please let me know if I can be of some help in this matter.

RJC:bg/eoa
7532-3

cc: Cindy Johns, 2613 Sandler, N.E. 87112
Fred Aguirre, Hydrology, Public Works Dept.

February 22, 1988

APS

RE: MATHESON SCHOOL SITE

Dear Sir:

It has been brought to my attention by a Ms. Cindy Johns thru the City Council office that a safety problem exists from an open channel that crosses the subject school site. A review of our records indicate that this channel has existed for quite some time and that no drainage easement has ever been granted for the channel in its present configuration (i.e. concrete lined) or in the configuration that existed in its natural state (pre 1972). Additionally, the City has no records of ever lining the channel or providing maintenance to the channel.

Given the safety concerns raised on the channel and the history behind it, I would recommend that we get together to discuss the situation.

To: Fred J. Aguirre 768-2650
From: Dwayne C. Sheppard
Subject: Matheson Sch. Date: 04/20/89

I THINK ALSO NEED TO LET CINDY JOHNS KNOW-SHE'S THE ONE WHO CALLED ABOUT IT.
PHONE;296-2927-HOME
296-1259-DAYS UNTIL 3:00

---------- Original Memo ----------

To: Dwayne C. Sheppard From: Fred J. Aguirre
Subject: Matheson Sch. Date Sent: 04/20/89

Dwane, according to Jim Corcoran, APS is not interested in converting the open channel into a closed conduit. He also said that they would provide more bridges and improve their maintenance on the channel. I plan to send a letter to Jim recapping our conversation today. Fred

FILE COPY

H21/D36

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR
KEN SCHULTZ

CHIEF ADMINISTRATIVE OFFICER
GENE ROMO

DEPUTY CAO DEVELOPMENT & ENTERPRISE SERVICES
LARRY LARRANAGA

DEPUTY CAO PUBLIC SERVICES
DAN WEAKS

June 17, 1988

Jeff Mortensen, P.E.
Jeff Mortensen & Associates, Inc.
811 Dallas, NE
Albuquerque, New Mexico 87110

RE: MATHESON SCHOOL SITE

Dear Mr. Mortensen:

With respect to the City's participation in the construction of the underground storm drain system across the Matheson School site, the City is agreeable to the proposed cost sharing outlined in your letter dated May 11, 1988.

Regarding your development scenario referenced in your letter, I would defer to Mr. Houle for his concurrence. I recommend that you contact Mr. Houle at your earliest convenience to discuss your proposed scheduling.

If you should have any questions regarding our understanding, please feel free to call me at 768-2650.

Cordially,

Fred J. Aguirre
City Hydrologist

xc: Dwayne Sheppard
Andre Houle

FJA/bsj

Tom Mann & Associates, Inc.
Engineers
811 DALLAS, N.E. • ALBUQUERQUE • NEW MEXICO • 87110 • 505-265-5611

Read 5/12/88

871818
May 11, 1988

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

RECEIVED
MAY 12 1988
HYDROLOGY SECTION

Re: Matheson Park Elementary School

Dear Fred:

We are in receipt of your letter dated April 15, 1988, concerning the subject project. Since that time, we have discussed the possibility of the City providing the materials for the construction and the Albuquerque Public Schools providing the labor to accomplish the work. On your suggestion, I presented this option to Mr. Andre Houle, DRC Chairman. Mr. Houle indicated that a Joint Powers Agreement could be executed between the City and APS to allow the work to proceed in this manner. Mr. Houle also recommended that the pipe to be installed be reinforced concrete pipe because it would be easier for the City to maintain. He also indicated that the City has the equipment needed to maintain this facility, whereas APS does not. Consequently, it appears most practical for this to be a public system.

We are prepared to proceed with the preparation of construction drawings for the installation of an underground public storm drain. Once complete, these drawings would be presented to the DRC for review and approval. When approval has been obtained, we will submit a grant of easement form to create the public storm drain system to Mr. Houle for review and processing. Once this is complete, Mr. Houle and I can coordinate the drafting of a Joint Powers Agreement between the City and APS. We anticipate that construction could commence by mid to late summer. This unfortunately coincides with the "rainy" season, which may not be desirable from a storm drain maintenance standpoint. Because of this, it may be advantageous to delay the construction until late September or October. Nonetheless, APS has instructed me to contact you regarding this and indicate their willingness to proceed as outlined above.

Lastly, you have questioned the material cost portion of the project. We have spoken with a manufacturer and a contractor to obtain material costs. A summary of the material costs is attached. Review of the summary of these costs indicates that the materials can be provided for $10,000.00 or less.

If you should have any questions or comments concerning this information, please do not hesitate to call. We will need a decision from you, or another City representative, so that we can advise our client that this is an acceptable proposal and so that they may authorize me to begin work without a lengthy delay.

Sincerely,

TOM MANN & ASSOCIATES, INC.

Jeffrey G. Mortensen, P.E.
President

JGM:dj

xc: Pat Sedillo
Jim Corcoran
Chuck Atwood
Andre Houle

PRELIMINARY ENGINEER'S ESTIMATE
MATHESON PARK ELEMENTARY SCHOOL
MATERIAL COSTS
JOB NO. 871818

UNDERGROUND STORM DRAIN

ITEM DESCRIPTION & UNIT	QUANTITY	UNIT PRICE	COST
* 1. 24" RCP, (CLASS III), PER LF	400 LF	12.75	5,100.00
**2. 4' DIA. MANHOLE, 6'-10' DEPTH, PER EA	1 EA	800.00	800.00
**3. REINFORCED CONCRETE CHANNEL LINING, 8" THICK, INCLUDING REMOVAL, CONCRETE & STEEL	100 SF	7.50	750.00
**4. TYPE 'C' STORM INLET, DOUBLE GRATE, COMPLETE IN PLACE, PER EA	1 EA	1,600.00	1,600.00
**5. RESIDENTIAL PAVING, INCLUDING 2" EXTRA THICKNESS, PER SF	135 SF	4.15	560.25
**6. 4" THICK PORTLAND CEMENT CONCRETE SIDEWALK, PER CY	1.3 CY	60.00	78.00
**7. PORTLAND CEMENT CONCRETE STANDARD CURB & GUTTER, PER CY	1 CY	60.00	60.00
TOTAL:			8,948.25

* UNIT PRICE OBTAINED FROM HYDRO CONDUIT CORP.
** UNIT PRICE OBTAINED FROM SUNDANCE MECHANICAL.

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR KEN SCHULTZ

CHIEF ADMINISTRATIVE OFFICER GENE ROMO

DEPUTY CAO PUBLIC SERVICES FRANK MARTINEZ

DEPUTY CAO PLANNING/DEVELOPMENT BILL MUELLER

April 15, 1988

Jeff Mortensen, P.E.
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New Mexico 87110

RE: MATHESON SCHOOL PARK

Dear Mr. Mortensen:

As I indicated to you on March 25, 1988, the City is willing to participate to the extents of $10,000 for the construction of the underground storm drain system identified in your letter dated March 14, 1988. This participation is with the understanding that APS will be responsible for the following:

- Preparation of the construction drawings in accordance with City Standards.
- Obtaining the required work order permit from DRC.
- Granting the City a drainage easement for the proposed storm drain system.

Please advise us as to your clients decision on our proposal above. I would mention that these funds are available now but cannot be committed indefinitely; consequently, a timely response on your clients part will guarantee the availability of these funds for this project.

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

Cordially,

Fred J. Aguirre, P.E.
City Hydrologist

FJA/bsj

xc: Walter H. Nickerson
Jim Hicks
C. Dwayne Sheppard

XC Agenda for Action Matheson Park

ALBUQUERQUE PUBLIC SCHOOL

725 UNIVERSITY BOULEVARD, S.E.
P. O. BOX 25704
ALBUQUERQUE, NEW MEXICO 87125

LILLIAN C. BARNA
SUPERINTENDENT

BUSINESS AND OPERATIONS

RECEIVED
APR 20 1988
HYDROLOGY SECTION

XC Speaker Barstow

April 8, 1988

Mr. Walt Nickerson
Assistant Director/Engineering
Public Works Department
P.O. Box 1293
Albuquerque, New Mexico 87103

RE: LA CUEVA HIGH SCHOOL AND MATHESON PARK ELEMENTARY SCHOOL

Dear Mr. Nickerson:

In response to your correspondence of March 1, 1988, please be advised that the school district's Capital Improvement Committee has met and is recommending school district participation in the amount of $12,500 to pave Barstow, N.E.

However, prior to submitting this recommendation to the full Albuquerque Board of Education for review and approval, I have been directed to inquire concerning the status of a school district request to the City for a drainage correction at Matheson Park Elementary School. See letter dated March 14, 1988.

It is the desire of the school district to share the costs for mitigation of this drainage problem. The School district will provide labor and equipment to construct this project if the City will agree to provide the material. A copy of the construction estimate is attached.

I have been advised that the City has offered financial participation. Unfortunately, as our maintenance budget is depleted, cost sharing in this manner cannot be accomplished.

The assistance of the City in this matter will be appreciated.

Sincerely,

Charles O. Atwood
Property Manager

aa

cc: Benjamin A. Soria
Patrick Sedillo
Capital Improvement Committee

PWD/ENGINEERING GROUP
RECEIVED
01139
APR 19 1988

Tom Mann & Associates, Inc.
Engineers
811 DALLAS, N.E. • ALBUQUERQUE • NEW MEXICO • 87110 • 505-265-5611

871818
March 14, 1988

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

RECEIVED
MAR 15 1988
HYDROLOGY SECTION

Re: Matheson Park Elementary School

Dear Fred:

On March 2, 1988, you and I met with Mr. Jim Corcoran with the Albuquerque Public Schools regarding the subject project. The outcome of that meeting was that I would provide the following information:

1. Summary of existing drainage problem.

2. Delineation of the offsite basin and quantification of the offsite flow.

3. Identification of the alternatives for accepting and conveying the offsite flows safely through the subject school site.

4. Preparation of cost estimates for the alternatives for handling the offsite runoff.

As you are aware, there is an offsite basin which contributes runoff to the Matheson Park Elementary School site. The runoff which collects at the intersection of Jane Street N.E. and Los Arboles Avenue N.E. enters the school site through an opening in the west curb line of Jane Street N.E. This public runoff then crosses the school site in a crudely constructed concrete channel and discharges to Matheson Park beneath an existing chainlink fence. The park property lies on the other side of the fence and does not appear to be well maintained as there are weeds which tend to block some of the flows carried by the aforementioned concrete channel. Not only is the conveyance of runoff through the school site a nuisance and a potential hazard to the school children, but the channel itself is also a pedestrian hazard for students, faculty and other community members. Lastly, this

situation is a maintenance problem to the Albuquerque Public Schools because of the clogging that occurs at the interface between the school site and the park site. It is based on these concerns that the Albuquerque Public Schools hereby requests participation by the City in correcting this problem. Perhaps some form of cost sharing can be agreed upon between the Albuquerque Public Schools and the City of Albuquerque. To assist you and/or others at the City evaluating this request, we present the additional information which follows below.

As shown by the attached calculations, the offsite contributing area is almost 11 acres. The estimated offsite flow is approximately 30 cfs. The alternatives for accepting and handling this runoff are to 1) construct an underground storm drain system from the west edge of Jane Street to the Matheson Park channel or 2) to construct an open channel from the west edge of Jane Street to the Matheson Park channel. Review of the cost estimates indicate that the underground storm drain would be least costly of the two alternatives. In addition, an open channel would not satisfactorily address the pedestrian hazard which an open channel presents to the students, faculty and community members. It is based upon this that we feel that a 24" RCP storm drain is the alternative which should be pursued to correct the situation which exists.

I believe that the Albuquerque Public Schools are prepared to have Tom Mann & Associates prepare the design of the underground storm drain system, if an agreement can be reached regarding a cost sharing of the construction cost of the system. If this arrangement would be acceptable to the City, please let me know so that we can arrange another meeting to include the Albuquerque Public Schools and to proceed toward the finalization of such an agreement. Your prompt attention to this matter will be greatly appreciated.

If you should have any questions or comments concerning this information, or if I can be of further service to you, please do not hesitate to call.

Sincerely,

TOM MANN & ASSOCIATES, INC.

Jeffrey G. Mortensen, P.E.
President

JGM:dj
xc: Jim Corcoran
Pat Sedillo
Chuck Atwood

PRELIMINARY ENGINEER'S ESTIMATE
MATHESON ELEMENTARY SCHOOL
JOB. NO. 871818

UNDERGROUND STORM DRAIN

ITEM DESCRIPTION & UNIT	QUANTITY	UNIT PRICE	ESTIMATED COST
1. REMOVAL AND DISPOSAL OF EXISTING P.C.C. CURB & GUTTER, PER LF	24 LF	5.00	120.00
2. CUTTING, REMOVAL AND DISPOSAL OF EXISTING SIDEWALKS, PER SY	11 SY	4.50	49.50
3. SAWCUT, REMOVE AND DISPOSE OF EXISTING REINFORCED CONCRETE CHANNEL LINING, PER CY	4 CY	60.00	240.00
4. REMOVE AND REPLACE EXISTING CHAINLINK FENCE, PER SF	240 SF	2.70	1,080.00
5. 24" RCP, COMPLETE IN PLACE, PER LF	400 LF	30.00	12,000.00
6. TRENCHING, (18"-36") < 8' DEPTH, INCLUDING BACKFILL & COMPACTION, PER LF	400 LF	15.00	6,000.00
7. 4' DIA. MANHOLE, 6'-10' DEPTH, PER EA	1 EA	1,450.00	1,450.00
8. REINFORCED CONCRETE CHANNEL LINING, 8" THICK, COMPLETE IN PLACE, PER SF	100 SF	5.50	550.00
9. TYPE 'C' STORM INLET, DOUBLE GRATE, COMPLETE IN PLACE, PER EA	1 EA	2,900.00	2,900.00

RECEIVED
MAR 15 1988
HYDROLOGY SECTION

ITEM DESCRIPTION & UNIT	QUANTITY	UNIT PRICE	ESTIMATED COST
10. REMOVAL AND DISPOSAL OF EXISTING CONCRETE CHANNEL, CONCRETE CHANNEL, PER LS	LUMP SUM	3,000.00	3,000.00
11. GRADING, PER SY	400 SY	1.50	600.00
12. RESIDENTIAL PAVING, REMOVAL, DISPOSAL AND REPLACEMENT, INCLUDING 2" EXTRA THICKNESS, W/O MACHINE LAYDOWN, PER SY	15 SY	38.90	583.50
SUBTOTAL:			28,622.50
CONTINGENCIES @ 10%			2,862.25
TOTAL:			31,487.75

PRELIMINARY ENGINEER'S ESTIMATE
MATHESON ELEMENTARY SCHOOL
JOB. NO. 871818

OPEN CHANNEL

ITEM	DESCRIPTION & UNIT	QUANTITY	UNIT PRICE	ESTIMATED COST
1.	REMOVAL AND DISPOSAL OF EXISTING P.C.C. CURB & GUTTER, PER LF	30 LF	5.00	150.00
2.	CUTTING, REMOVAL AND DISPOSAL OF EXISTING SIDEWALKS, PER SY	14 SY	4.50	63.00
3.	RESIDENTIAL PAVING, REMOVAL, DISPOSAL AND REPLACEMENT, INCLUDING 2" EXTRA THICKNESS, W/O MACHINE LAYDOWN, PER SY	4 SY	38.90	155.60
4.	REMOVE AND REPLACE EXISTING CHAINLINK FENCE, PER SF	240 SF	2.20	1,080.00
5.	REMOVAL AND DISPOSAL OF EXISTING CONCRETE CHANNEL, PER LS	LUMP SUM	3,000.00	3,000.00
6.	EXCAVATION, BACKFILL AND COMPACTION INCLUDING RELOCATION OF MATERIAL WHEN USED IN CONSTRUCTION OF CHANNEL, PER CY	420 CY	6.50	2,730.00
7.	REINFORCED CONCRETE CHANNEL LINING, 6" THICK, COMPLETE IN PLACE, PER SF	7,050 SF	4.50	31,725.00
8.	CRUSHED GRAVEL BASE COURSE, 6" THICK, COMPLETE IN PLACE, PER SY	90 SY	4.50	405.00
9.	PEDESTRIAN CROSSING, PER EA	2 EA	1,000.00	2,000.00

ITEM DESCRIPTION & UNIT	QUANTITY	UNIT PRICE	ESTIMATED COST
10. MULTIPLE SIDEWALK CULVERTS, PER LS	LUMP SUM	5,000.00	5,000.00
11. GRADING, PER SY	400 SY	1.50	600.00
SUBTOTAL:			46,908.60
CONTINGENCIES @ 10%			4,690.86
TOTAL:			51,599.46

RECEIVED
MAR 15 1988
HYDROLOGY SECTION

CITY OF
Albuquerque

June 21, 1996

Martin J. Chávez, Mayor

Steve Randall
Red Mountain Engineers
4600-C Montgomery Blvd. NE
Suite 101
Albuquerque, NM 87109

RE: MATHESON PARK ELEMENTARY (H21-D36) DRAINAGE REPORT FOR BUILDING AND WORK ORDER PERMIT APPROVALS. ENGINEER'S STAMP DATED 4-2-96.

Dear Mr. Randall:

Based on the information provided on your June 6, 1996 submittal, the above referenced project is approved for Building and Work Order Permits.

Prior to Certificate of Occupancy, an Engineer's Certification will be required.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File

PHASE I DRAINAGE REPORT

June, 1996

MATHESON PARK ELEMENTARY SCHOOL

Project Description

This project is a proposed multi-phase construction at an existing 6.9 acre Albuquerque Public School facility. Phase I incorporates replacement of an open culvert conveying stormwater across the property from off-site. The replacement for the open culvert is a 36" reinforced concrete pipe described in detail in the accompanying Master Plan Hydrology Report (see attached Reference A). Reference A includes a copy of the letter of approval from City Hydrology for site development.

Additionally, Phase I of this project proposes construction of;

(1) A mini-gym building and kindergarten building
(2) A plaza linking the existing permanent buildings on the site
(3) A paved parking lot on the north end of the site
(4) A bus bay on Jane Street

Proposed drainage improvements include the addition of two 'D' drop inlets to the proposed 36" RCP at the north parking lot, construction of a settling/detention pond with concrete rundown, and construction of an 18" reinforced concrete pipe draining the Phase I plaza area and Phase I building roofs.

Because no detention structures presently exist, the settling/detention pond is sized larger than the volume required to maintain peak runoff at the pre-Phase I level (present level). Phase I improvements replace existing temporary classrooms, and the impervious surface area increase on the site is limited to approximately one acre.

Drawings

An attached copy of the Master Plan previously submitted and approved shows the zoning atlas location of the project.

Separate Phase 1A and Phase 1B Grading and Drainage drawings show the proposed replacement

of existing temporary classrooms with a new mini-gym and kindergarten, and the proposed plaza, bus bay, and parking lot. (SEE BUILDING PERMIT SET)

The Phase I Detail Sheet shows the proposed outlet structures at Embudito Arroyo. (SEE BUILDING PERMIT SET)

The Boundary and Topography Survey drawing shows existing temporary and permanent classrooms, and present site drainage. (SEE BUILDING PERMIT SET)

Computer Runs

AHYMO printouts on the following pages calculate:

(Appendix 2) Runoff from the totally undeveloped site.
(Appendix 3) Runoff from the pre-Phase I (present) site.
(Appendix 4) Runoff from the post-Phase I site.
(Appendix 5) Runoff into the Phase I proposed 18" RCP.
(Appendix 6) Runoff into the Phase I proposed 'D' inlets.
(Appendix 7) Runoff into the Phase I proposed settling/detention pond.

Calculations

Calculations on the following pages illustrate:

(Appendix 8) Detention pond size required.
(Appendix 9) Detention pond overflow weir size and drainage pipe size.

Nomographs

(Appendix 10) Capacity of the proposed 18" reinforced concrete pipe.
Capacity of the proposed 36" reinforced concrete pipe, inlet limited at the 'D' inlets.

Data Sheets

(Appendix 11) 'D' drop inlet capacity.
(Appendix 12) Neenah area drain grate capacity.

Summary

A new 36" reinforced concrete pipe conveying off-site runoff across the site to Embudito Arroyo is to be constructed with a capacity of 94 CFS and an anticipated peak flow of 53.1 CFS (reviewed by City Hydrology 1/2/96, with approval for site development - see Appendix A).

Two 'D' inlets are to be constructed in the school's north parking lot to drain into the 36" RCP, with a grate capacity of 2 CFS each (at 5% slope and 0.3 feet of ponding), and an anticipated peak flow of 1.15 CFS each. Total flow in the 36" RCP with these additional inlets is anticipated to be 55.4 CFS, with a capacity of 57 CFS - inlet limited at the 'D' inlets (Appendix 12). Maximum pipe flow from Manning's formula is 94.5 CFS in this 36" RCP (from Appendix A).

A new 18" reinforced concrete pipe draining on-site runoff to Embudito Arroyo is to be constructed with an anticipated peak flow of 4.32 CFS, and an inlet limited capacity of 11 CFS (at available HW/D = 1.66). This 18" RCP connects to four paved plaza area drains, each having a grate capacity of 5.6 CFS at 3" ponding depth. The roof drains of the proposed new permanent buildings connect to this 18" RCP through 4" ductile iron pipe. A transition section of 12" reinforced concrete pipe directs flow from the roof drains (and one plaza area drain) to the 18" RCP.

A settling/detention pond with a concrete rundown to Embudito Arroyo is to be constructed with a required capacity of 4710 cubic feet and an actual capacity of 10,000 cubic feet. The concrete rundown is 7.5 feet wide and 1 foot deep to channel 24.8 CFS of peak overflow. A 4" ductile iron drain pipe under the rundown will empty the pond in less than 24 hours.

APPENDIX 1

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 2, 1996

Steve Randall
Red Mountain Engineers
4600-C Montgomery Blvd. NE
Suite 101
Albuquerque, NM 87109

RE: MATHESON PARK ELEMENTARY (H21-D36) CONCEPTUAL DRAINAGE REPORT FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED 12-21-95.

Dear Mr. Randall:

Based on the information provided on your December 22, 1995 submittal, the above referenced project is approved for Site Development Plan for Building Permit.

With your next submittal, please include relevant details for all drainage faciilities. Also, please provide pipe calculations.

If I can be of further assistance, please feel free to contact me at 768-3622.

Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File

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

Red Mountain
Engineers,
Inc.

ENGINEERS • SURVEYORS • PLANNERS

DRAINAGE REPORT

MATHESON PARK ELEMENTARY SCHOOL

Project Description

This project is an existing Albuquerque Public School facility sited on 6.901 acres. The development involves replacement of existing temporary buildings with permanent structures in four phases. Phase I will include construction of a kindergarten and multipurpose building, replacement of an open culvert (draining flow from offsite) with a buried reinforced concrete pipe, paving of a dirt parking lot, and construction of a bus drop off area on Jane Street.

All four phases are shown on the accompanying Master Plan. A detention pond is incorporated in Phase I grading to provide sediment and erosion control, prior to discharging on-site runoff to Embudito Arroyo. On-site development is not expected to increase peak flow, however the detention pond for erosion control is sized to accomodate the peak runoff change between the undeveloped site and the fully developed site plan.

Off-site flow from 11.2 acres crosses the site in an existing open concrete channel. The open channel is being replaced by a buried 36" reinforced concrete pipe.

Maps

Maps on the following pages illustrate:

(Page 1) Zoning atlas location of the project.
(Page 2) Topography of the area draining through the existing concrete channel on the project
(Page 3) Photogrammetry of the area draining through the existing concrete channel on the site.

Computer Runs

AHYMO printouts on the following pages illustrate:

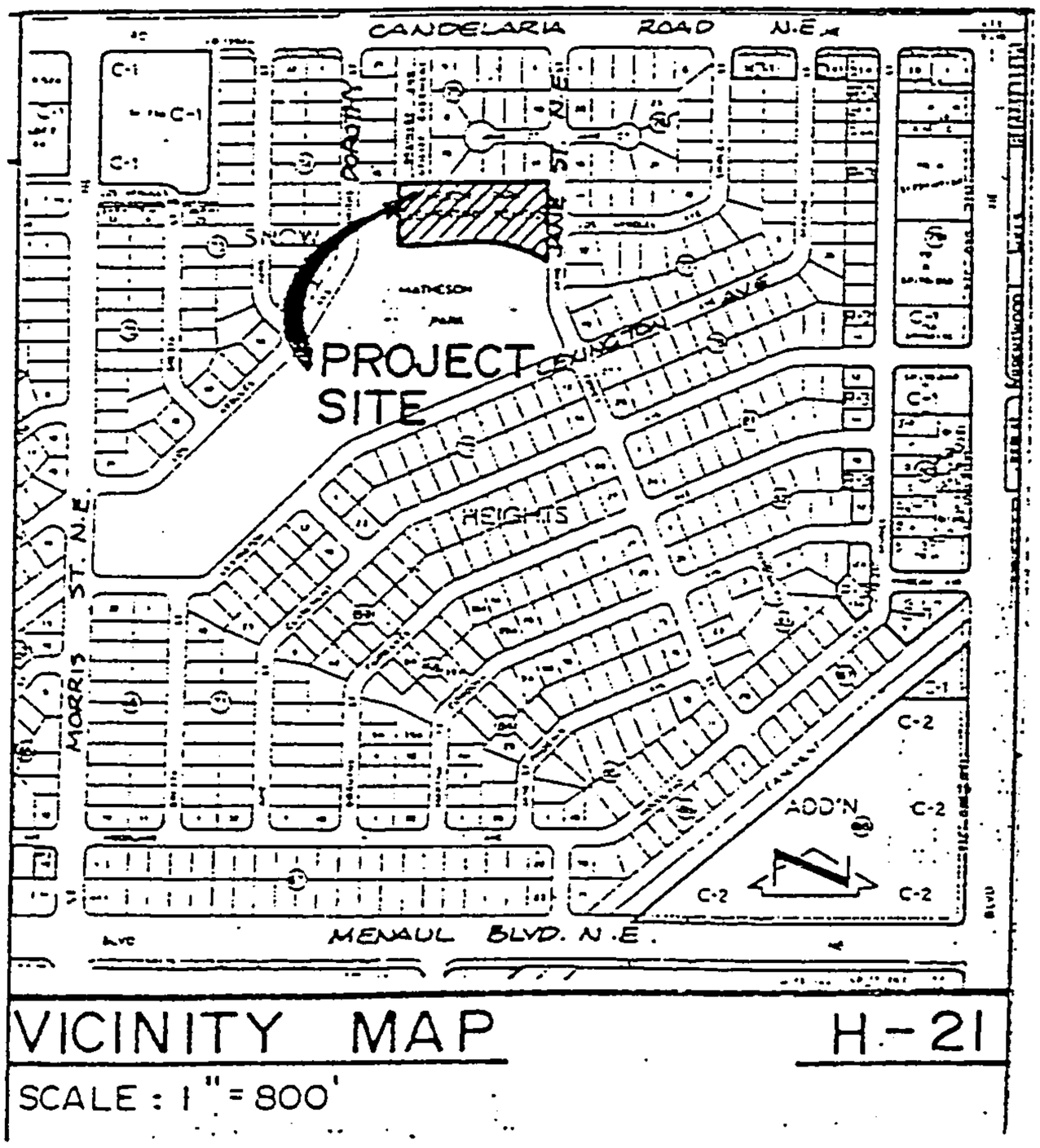
(Page 4) Runoff from the undeveloped site.
(Page 5) Runoff from the fully developed site.
(Page 6) Runoff from off-site that drains through the existing concrete channel crossing the site. This channel is being replaced by a buried reinforced concrete pipe.

4600-C MONTGOMERY BLVD., NE, SUITE 101, ALBUQUERQUE, NM 87109 PHONE: (505) 889-3004 FAX: (505) 889-2797

Calculations

Calculations on the following pages illustrate:

(Page 7) Spreadsheet to size the one-half hour detention pond.
(Page 8) Input to AHYMO for the offsite flow crossing the site in the open concrete channel.
(Page 9, 10, 11) Hydraulic calculations sizing the buried reinforced concrete pipe, which is to replace the existing open concrete channel.



VICINITY MAP H-21

SCALE : 1" = 800'

MATHESON PARK ELEMENTARY
DRAINAGE TO PROPOSED 36" RCP

N

1" = 200'

E 419 000

E 420 000

5580

5570

5560

5590

ST.

JANE CT.

JANE CT.

AREA
11.2 ACRES

SHIRLEY

DOROTHY

EMBUDITO

ARROYO

PROPOSED 36"
RCP

LOS ARBOLES AVE.

JANE

MAXINE

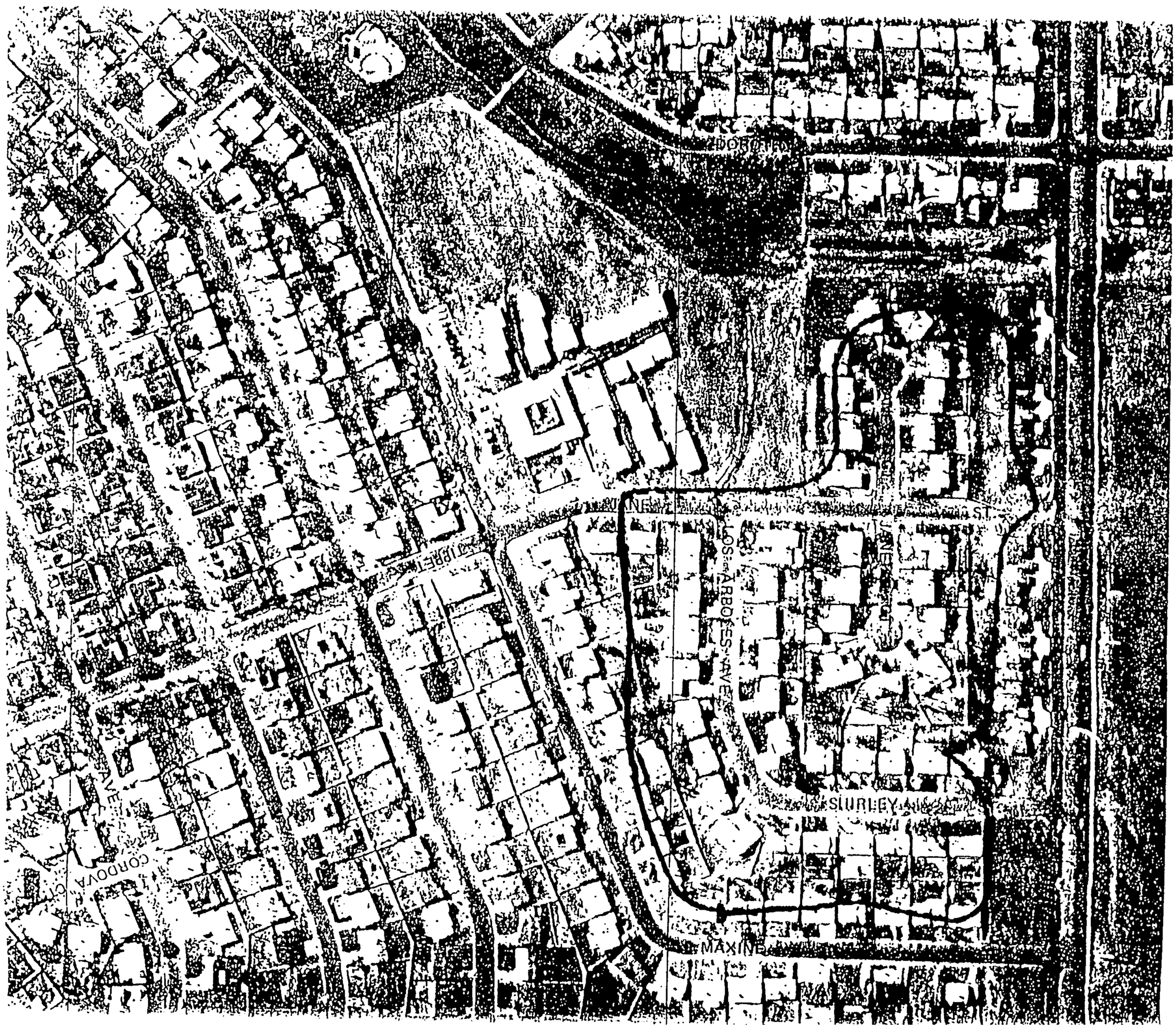
AVE.

TIPPET

CLAREMONT

FAIRBANKS

CORDOVA CT.


E 419 000
E 420 000
LOS ARBOLES AVE
SURREY
MAXINE
CORDOVA CT

```
   AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
      RUN DATE (MON/DAY/YR) = 12/13/1995
      START TIME (HR:MIN:SEC) = 14:00:13     USER NO.= RED_MTNM.194
      INPUT FILE = predev.dat

*        MATHESON PARK ELEMENTARY ON-SITE FLOW (ONSITE.DAT)
*             PRE-DEVELOPMENT CONDITIONS
*       USING MODIFIED METHODS FOR D.P.M. CHAPTER 22
*      AND THE INITIAL ABSTRACTION - INFILTRATION METHOD
*
START           RAINFALL BEGINS AT 0.0  HRS
RAINFALL          TYPE=1 RAIN QUARTER=0
                ONE=2.10 SIX=2.60
                RAIN DAY=3.10 DT=0.083333 HR

                COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40
HR.
                DT =   .083333 HOURS     END TIME =    5.999977 HOURS
                  .0000  .0083  .0171  .0263  .0361  .0466  .0578
                  .0698  .0829  .0971  .1128  .1304  .1503  .1656
                  .2152  .3794  .7188 1.3053 1.5662 1.7326 1.8691
                 1.9851 2.0856 2.1733 2.2503 2.2684 2.2845 2.2992
                 2.3127 2.3252 2.3370 2.3481 2.3586 2.3685 2.3781
                 2.3872 2.3959 2.4044 2.4125 2.4203 2.4279 2.4353
                 2.4425 2.4494 2.4562 2.4628 2.4692 2.4755 2.4817
                 2.4877 2.4935 2.4993 2.5049 2.5105 2.5159 2.5212
                 2.5264 2.5316 2.5366 2.5416 2.5465 2.5513 2.5561
                 2.5607 2.5653 2.5699 2.5744 2.5788 2.5831 2.5874
                 2.5917 2.5959 2.6000

  COMPUTE NM HYD      ID=1  HYD NO=101.0
                DA=0.01078 SQ MI
                PER A=100.0 PER B=0.00
                PER C=0.00 PER D=0.00
                TP=0.111 HR MASSRAIN=-1

    K =  .131473HR   TP =  .111000HR   K/TP RATIO =  1.184438   SHAPE CONSTANT, N =  2.997004
    UNIT PEAK =  27.346   CFS  UNIT VOLUME =   .9862     B =  281.58     P60 = 2.1000
      AREA =     .010780 SQ MI   IA =   .65000 INCHES   INF =  1.67000 INCHES PER HOUR
      RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.083333

    PRINT HYD         ID=1  CODE=1

                        PARTIAL HYDROGRAPH  101.00


    RUNOFF VOLUME =     .63689 INCHES    =       .3662 ACRE-FEET
    PEAK DISCHARGE RATE =     13.90 CFS  AT   1.500 HOURS  BASIN AREA =   .0108 SQ. MI.
```

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   AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
      RUN DATE (MON/DAY/YR) = 12/13/1995
      START TIME (HR:MIN:SEC) = 13:59:26    USER NO.= RED_MTNM.194
      INPUT FILE = onsite.dat

*       MATHESON PARK ELEMENTARY ON-SITE FLOW (ONSITE.DAT)
*            POST-DEVELOPMENT CONDITIONS
*       USING MODIFIED METHODS FOR D.P.M. CHAPTER 22
*      AND THE INITIAL ABSTRACTION - INFILTRATION METHOD
*
START          RAINFALL BEGINS AT 0.0  HRS
RAINFALL         TYPE=1 RAIN QUARTER=0
              ONE=2.10 SIX=2.60
              RAIN DAY=3.10 DT=0.083333 HR
              COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40
HR.
              DT =   .083333 HOURS     END TIME =    5.999977 HOURS
               .0000  .0083  .0171  .0263  .0361  .0466  .0578
               .0698  .0829  .0971  .1128  .1304  .1503  .1656
               .2152  .3794  .7188 1.3053 1.5662 1.7326 1.8691
              1.9851 2.0856 2.1733 2.2503 2.2684 2.2845 2.2992
              2.3127 2.3252 2.3370 2.3481 2.3586 2.3685 2.3781
              2.3872 2.3959 2.4044 2.4125 2.4203 2.4279 2.4353
              2.4425 2.4494 2.4562 2.4628 2.4692 2.4755 2.4817
              2.4877 2.4935 2.4993 2.5049 2.5105 2.5159 2.5212
              2.5264 2.5316 2.5366 2.5416 2.5465 2.5513 2.5561
              2.5607 2.5653 2.5699 2.5744 2.5788 2.5831 2.5874
              2.5917 2.5959 2.6000

  COMPUTE NM HYD     ID=1  HYD NO=101.0
                DA=0.01078 SQ MI
                PER A=5.1 PER B=0.00
                PER C=46.2 PER D=48.7
                TP=0.111 HR MASSRAIN=-1

    K =  .060495HR   TP =  .111000HR   K/TP RATIO =  .545000    SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =  24.891   CFS  UNIT VOLUME =   1.030     B =  526.28     P60 = 2.1000
    AREA =     .005250 SQ MI   IA =   .10000 INCHES   INF =   .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.083333

    K =  .094408HR   TP =  .111000HR   K/TP RATIO =  .850523    SHAPE CONSTANT, N =  4.185000
    UNIT PEAK =  18.300   CFS  UNIT VOLUME =   1.009     B =  367.32     P60 = 2.1000
    AREA =     .005530 SQ MI   IA =   .37982 INCHES   INF =   .91351 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.083333

  PRINT HYD        ID=1  CODE=1

                     PARTIAL HYDROGRAPH  101.00

    RUNOFF VOLUME =    1.75369 INCHES    =      1.0083 ACRE-FEET
    PEAK DISCHARGE RATE =     28.19 CFS  AT   1.417 HOURS   BASIN AREA =   .0108 SQ. MI.
```

```
 AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
    RUN DATE (MON/DAY/YR) = 10/27/1995
    START TIME (HR:MIN:SEC) = 14:08:52    USER NO.= RED_MTNM.194
    INPUT FILE = MATHESON.DAT

*       MATHESON PARK ELEMENTARY CULVERT FLOW (MATHESON.DAT)
*      USING MODIFIED METHODS FOR D.P.M. CHAPTER 22
*     AND THE INITIAL ABSTRACTION - INFILTRATION METHOD
*
START          RAINFALL BEGINS AT 0.0  HRS
RAINFALL         TYPE=1 RAIN QUARTER=0
              ONE=2.10 SIX=2.60
              RAIN DAY=3.10 DT=0.033333 HR

          COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
          DT =   .033333 HOURS     END TIME =    5.999940 HOURS
            .0000  .0033  .0066  .0100  .0135  .0171  .0207
            .0244  .0282  .0321  .0361  .0402  .0445  .0488
            .0532  .0578  .0625  .0673  .0724  .0775  .0829
            .0884  .0942  .1001  .1064  .1128  .1196  .1267
            .1342  .1420  .1503  .1561  .1623  .1690  .1833
            .2152  .2643  .3348  .4310  .5575  .7188  .9195
           1.1646 1.3912 1.4861 1.5662 1.6374 1.7022 1.7619
           1.8173 1.8691 1.9176 1.9633 2.0064 2.0471 2.0856
           2.1221 2.1567 2.1895 2.2207 2.2503 2.2578 2.2649
           2.2717 2.2782 2.2845 2.2905 2.2963 2.3020 2.3074
           2.3127 2.3178 2.3228 2.3277 2.3324 2.3370 2.3415
           2.3459 2.3502 2.3544 2.3586 2.3626 2.3666 2.3705
           2.3743 2.3781 2.3818 2.3854 2.3890 2.3925 2.3959
           2.3993 2.4027 2.4060 2.4093 2.4125 2.4157 2.4188
           2.4219 2.4249 2.4279 2.4309 2.4339 2.4368 2.4396
           2.4425 2.4453 2.4480 2.4508 2.4535 2.4562 2.4589
           2.4615 2.4641 2.4667 2.4692 2.4718 2.4743 2.4767
           2.4792 2.4817 2.4841 2.4865 2.4888 2.4912 2.4935
           2.4958 2.4981 2.5004 2.5027 2.5049 2.5072 2.5094
           2.5116 2.5137 2.5159 2.5180 2.5202 2.5223 2.5244
           2.5264 2.5285 2.5306 2.5326 2.5346 2.5366 2.5386
           2.5406 2.5426 2.5446 2.5465 2.5484 2.5504 2.5523
           2.5542 2.5561 2.5579 2.5598 2.5617 2.5635 2.5653
           2.5672 2.5690 2.5708 2.5726 2.5744 2.5761 2.5779
           2.5796 2.5814 2.5831 2.5849 2.5866 2.5883 2.5900
           2.5917 2.5934 2.5950 2.5967 2.5983 2.6000

COMPUTE NM HYD     ID=1  HYD NO=101.0
              DA=0.0175 SQ MI
              PER A=15.0 PER B=25.7
              PER C=15.0 PER D=44.3
              TP=0.0687 HR MASSRAIN=-1

  K = .037442HR   TP = .068700HR   K/TP RATIO = .545000   SHAPE CONSTANT, N = 7.106420
  UNIT PEAK = 59.388  CFS  UNIT VOLUME = .9970     B = 526.28     P60 = 2.1000
  AREA =    .007753 SQ MI   IA =   .10000 INCHES   INF =   .04000 INCHES PER HOUR
  RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  .033333


  K = .068635HR   TP = .068700HR   K/TP RATIO = .999050   SHAPE CONSTANT, N = 3.533699
  UNIT PEAK = 45.798  CFS  UNIT VOLUME =  1.001     B = 322.78     P60 = 2.1000
  AREA =    .009748 SQ MI   IA =   .50000 INCHES   INF =  1.25000 INCHES PER HOUR
  RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =  .033333

PRINT HYD          ID=1  CODE=1

                   PARTIAL HYDROGRAPH  101.00


  RUNOFF VOLUME =    1.54523 INCHES    =     1.4422 ACRE-FEET
  PEAK DISCHARGE RATE =     53.08 CFS  AT   1.433 HOURS  BASIN AREA =  .0175 SQ. MI.
```

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JOB _____

SHEET NO. _____ OF _____

CALCULATED BY _____ DATE _____

CHECKED BY _____ DATE _____

SCALE _____

Stormwater Runoff Calculations

MATHESON PARK ELEMENTARY

RAINFALL ZON 4

PRE-DEVELOPMENT CONDITIONS

	AREA-SQ FT	ACRES	C	CA
TOTAL LOT AREA	300600	6.901	0.55	3.795

	AREA-SQ FT	ACRES	C	CA
UNDEVELOPED AREA	300600	6.901	0.55	3.795
TOTAL	300600	6.901		3.795

Undeveloped Discharge =	3.795	6.03	22.88

POST DEVELOPMENT CONDITIONS

	AREA-SQ FT	ACRES	C	CA
IMPERVIOUS SURFACES	146400	3.361	0.95	3.193
GRAVEL PLAYGROUND	139000	3.191	0.70	2.234
LANDSCAPING	0	0.000	0.40	0.000
UNDEVELOPED AREA	15300	0.351	0.55	0.193
TOTAL	300700	6.903		5.620

	CA	RAINFALL in/hr	Q (CFS)
Post Developed Discharge =	5.620	6.03	33.89

POND VOLUME REQUIRED

Undeveloped Flow	=	22.88	CFS
Post Developed Flow	=	33.89	CFS
Flow Rate Difference	=	11.00	CFS
Pond Vol Required	=	9903	CUBIC FEET

POND VOLUME PROVIDED

Pond Volume	=	10000	CUBIC FEET
Bottom of Pond	=	5558	FEET
Overflow Elev.	=	5559	FEET
Top of E/8	=	5560	FEET

% IMPERVIOUS FROM TABLE A-5, DEVELOPMENT PROCESS MANUAL 1993

$$N = \text{UNITS/ACRE} = \frac{48 \text{ UNITS}}{11.2 \text{ ACRES}} = 4.3 \text{ UNITS/ACRE}$$

$$\%_o \text{ IMPERVIOUS} = 7\sqrt{N^2+5N} = 7\sqrt{(4.3)^2+5(4.3)} = 44.3\%_o$$

T_c FROM KIRPICH FORMULA, $T_c = \left(\frac{11.9L^3}{H}\right)^{0.385}$

$H = 5605 - 5577 = 28$ FT

$L = 980$ FT $= \left(980/5280 = 0.186 \text{ MILES}\right)$

$$T_c = \left[\frac{11.9(0.186)^3}{28}\right]^{0.385} = 0.103 \text{ HOURS}$$

$$T_p = 2/3\, T_c = (0.667)(0.103 \text{ HOURS}) = 0.0687 \text{ HOURS}$$

$P_{60} = 2.1$ IN

$P_{360} = 2.6$ IN

$P_{DAY} = 3.1$ IN FROM FIGURES C-1, C-2, C-3, DEVELOPMENT PROCESS MANUAL 1993

$\%_o$ LAND TREATMENT "A" = 15.0%

$\%_o$ LAND TREATMENT "B" = 25.7% BY ESTIMATE AFTER SITE VISIT (NO DETAILED MAPPING)

$\%_o$ LAND TREATMENT "C" = 15.0%

SUMMARY $Q_{MAX} = 53.1$ CFS

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JOB _____

SHEET NO. _____ OF _____

CALCULATED BY _____ DATE _____

CHECKED BY _____ DATE _____

SCALE _____

HYDRAULIC CALCULATIONS
PROPOSED MATHESON PARK ELEMENTARY CULVERT

ASSUMED CONDITIONS: $Q = 53.1$ CFS (FROM AHYMO)

$L = 370$ FT

$D = 3.0$ FT $= 36"$

GRATE ELEVATION $= 77.0$

INLET INVERT $= 72.6$

OUTLET INVERT $= 66.2$

$$\text{HEADLOSS IN PIPE} = f\frac{L}{D}\frac{V^2}{2g} = (0.020)\left(\frac{370'}{3.0'}\right)\left(\frac{(53.1\text{CFS}/(\pi(3.0)^2/4))^2}{2(32.2\text{FT/SEC}^2)}\right)$$

$= 2.16$ FT (AVAILABLE HEAD $= 10.8$ FT)

$$\text{CHECKING} \quad Q = \frac{1.49}{n}AR^{2/3}S^{1/2} = \frac{1.49}{0.012}\left(\frac{\pi(3.0')^2}{4}\right)\left(\frac{\pi(3.0)^2/4}{\pi(3.0)}\right)^{2/3}(.017)^{1/2}$$

$= 94.5$ CFS (DESIGN $Q = 53.1$ CFS)

INLET CONTROL: $Q = C_d A\sqrt{2gh}$ VALID WHEN $\frac{Hw}{D} > 2$

HERE $\frac{Hw}{D} = \frac{77.0 - 72.6}{3.0} = 1.46$

FROM ATTACHED NOMOGRAPH FOR 36" PIPE AND 53CFS

$\frac{Hw}{D} = 1.45$

OUTLET CONTROL: FROM ASCE "DESIGN & CONSTRUCTION OF URBAN STORMWATER MANAGEMENT SYSTEMS" 1992

EQ 8-8a $$H = \frac{K_e + 1 + 29n^2L}{R^{1.33}}\frac{V^2}{2g}$$

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CALCULATED BY _____ DATE _____

CHECKED BY _____ DATE _____

SCALE _____

$$77.0 - 66.2 = \left(\frac{0.4 + 1 + 29(.012)^2(370\,FT)}{(0.750)^{1.33}}\right)\left(\frac{V^2}{2(32.2\,FT/SEC^2}\right)$$

SOLVING FOR $V = 12.7$ FT/SEC

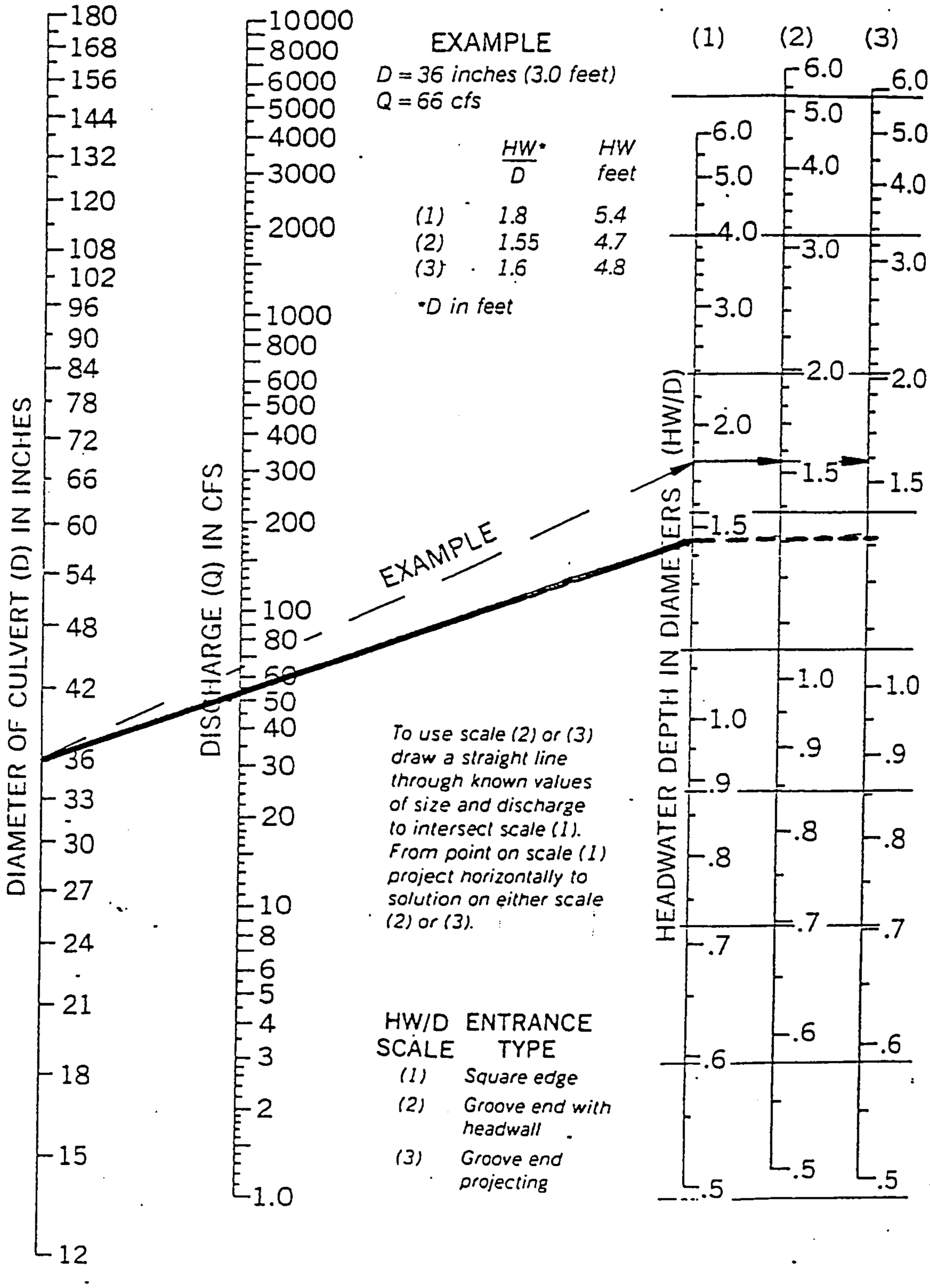
$$Q = VA = (12.7\,FT/SEC)\left(\frac{\pi(3.0FT)^2}{4}\right) = 89.8\ CFS$$

SUMMARY: INLET CONTROL GOVERNS

USE 36" REINFORCED CONCRETE PIPE

FIGURE 33

HEADWATER DEPTH FOR CIRCULAR CONCRETE PIPE CULVERTS WITH INLET CONTROL



BUREAU OF PUBLIC ROADS JAN. 1963

HEADWATER SCALES 2&3
REVISED MAY 1964

```
  AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
     RUN DATE (MON/DAY/YR) = 12/13/1995
     START TIME (HR:MIN:SEC) = 14:00:13     USER NO.= RED_MTNM.194
     INPUT FILE = predev.dat

*       MATHESON PARK ELEMENTARY ON-SITE FLOW (ONSITE.DAT)
*            PRE-DEVELOPMENT CONDITIONS
*       USING MODIFIED METHODS FOR D.P.M. CHAPTER 22
*      AND THE INITIAL ABSTRACTION - INFILTRATION METHOD
*
START           RAINFALL BEGINS AT 0.0  HRS
RAINFALL        TYPE=1 RAIN QUARTER=0
              ONE=2.10 SIX=2.60
              RAIN DAY=3.10 DT=0.083333 HR

          COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40
HR.
          DT =   .083333 HOURS     END TIME =    5.999977 HOURS
            .0000  .0083  .0171  .0263  .0361  .0466  .0578
            .0698  .0829  .0971  .1128  .1304  .1503  .1656
            .2152  .3794  .7188 1.3053 1.5662 1.7326 1.8691
           1.9851 2.0856 2.1733 2.2503 2.2684 2.2845 2.2992
           2.3127 2.3252 2.3370 2.3481 2.3586 2.3685 2.3781
           2.3872 2.3959 2.4044 2.4125 2.4203 2.4279 2.4353
           2.4425 2.4494 2.4562 2.4628 2.4692 2.4755 2.4817
           2.4877 2.4935 2.4993 2.5049 2.5105 2.5159 2.5212
           2.5264 2.5316 2.5366 2.5416 2.5465 2.5513 2.5561
           2.5607 2.5653 2.5699 2.5744 2.5788 2.5831 2.5874
           2.5917 2.5959 2.6000

  COMPUTE NM HYD      ID=1  HYD NO=101.0
              DA=0.01078 SQ MI
              PER A=100.0 PER B=0.00
              PER C=0.00 PER D=0.00
              TP=0.111 HR MASSRAIN=-1

    K=  .131473HR   TP =  .111000HR   K/TP RATIO =  1.184438   SHAPE CONSTANT, N =  2.997004
    UNIT PEAK =  27.346   CFS  UNIT VOLUME =  .9862     B =  281.58     P60 = 2.1000
    AREA =     .010780 SQ MI   IA =   .65000 INCHES   INF =  1.67000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.083333

  PRINT HYD         ID=1  CODE=1

                    PARTIAL HYDROGRAPH  101.00


    RUNOFF VOLUME =     .63689 INCHES    =      .3662 ACRE-FEET
    PEAK DISCHARGE RATE =     13.90 CFS  AT   1.500 HOURS  BASIN AREA =   .0108 SQ. MI.
```

```
   AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
      RUN DATE (MON/DAY/YR) = 06/03/1996
      START TIME (HR:MIN:SEC) = 13:35:24    USER NO.= RED_MTNM.194
      INPUT FILE = PRE-PH1.DAT

*          MATHESON PARK ELEMENTARY PRE-PHASE 1
*        USING MODIFIED METHODS FOR D.P.M. CHAPTER 22
*       AND THE INITIAL ABSTRACTION - INFILTRATION METHOD
*
START           RAINFALL BEGINS AT 0.0  HRS
RAINFALL          TYPE=1 RAIN QUARTER=0
                ONE=2.10 SIX=2.60
                RAIN DAY=3.10 DT=0.133333 HR

          COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40
HR.
          DT =  .133333 HOURS     END TIME =   5.999986 HOURS
           .0000  .0135  .0282  .0445  .0625  .0829  .1064
           .1342  .1623  .2643  .7188 1.4861 1.7619 1.9633
          2.1221 2.2503 2.2782 2.3020 2.3228 2.3415 2.3586
          2.3743 2.3890 2.4027 2.4157 2.4279 2.4396 2.4508
          2.4615 2.4718 2.4817 2.4912 2.5004 2.5094 2.5180
          2.5264 2.5346 2.5426 2.5504 2.5579 2.5653 2.5726
          2.5796 2.5866 2.5934 2.6000

   COMPUTE NM HYD     ID=1  HYD NO=101.0
              DA=0.01078 SQ MI
              PER A=5.1 PER B=0.0
              PER C=61.4 PER D=33.5
              TP=0.067 HR MASSRAIN=-1

     K =  .036515HR   TP =  .067000HR   K/TP RATIO =  .545000    SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =  28.366   CFS  UNIT VOLUME =  .4575     B =  526.28     P60 = 2.1000
     AREA =     .003611 SQ MI   IA =  .10000 INCHES   INF =  .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.133333


     K =  .056421HR   TP =  .067000HR   K/TP RATIO =  .842097    SHAPE CONSTANT, N =  4.230778
     UNIT PEAK =  39.618   CFS  UNIT VOLUME =  .6183     B =  370.27     P60 = 2.1000
     AREA =     .007169 SQ MI   IA =  .37301 INCHES   INF =  .89442 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.133333

   PRINT HYD        ID=1  CODE=1

                     PARTIAL HYDROGRAPH   101.00


     RUNOFF VOLUME =    1.58031 INCHES    =      .9086 ACRE-FEET
     PEAK DISCHARGE RATE =     30.26 CFS  AT   1.467 HOURS   BASIN AREA =   .0108 SQ. MI.
FINISH

     NORMAL PROGRAM FINISH       END TIME (HR:MIN:SEC) = 13:35:31
```

```
 AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
    RUN DATE (MON/DAY/YR) = 06/03/1996
    START TIME (HR:MIN:SEC) = 13:37:06    USER NO.= RED_MTNM.194
    INPUT FILE = POST-PH1.DAT

*         MATHESON PARK ELEMENTARY POST-PHASE 1
*       USING MODIFIED METHODS FOR D.P.M. CHAPTER 22
*      AND THE INITIAL ABSTRACTION - INFILTRATION METHOD
*
START          RAINFALL BEGINS AT 0.0  HRS
RAINFALL         TYPE=1 RAIN QUARTER=0
              ONE=2.10 SIX=2.60
              RAIN DAY=3.10 DT=0.133333 HR

          COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40
HR.
          DT =   .133333 HOURS     END TIME =    5.999986 HOURS
            .0000  .0135  .0282  .0445  .0625  .0829  .1064
            .1342  .1623  .2643  .7188 1.4861 1.7619 1.9633
           2.1221 2.2503 2.2782 2.3020 2.3228 2.3415 2.3586
           2.3743 2.3890 2.4027 2.4157 2.4279 2.4396 2.4508
           2.4615 2.4718 2.4817 2.4912 2.5004 2.5094 2.5180
           2.5264 2.5346 2.5426 2.5504 2.5579 2.5653 2.5726
           2.5796 2.5866 2.5934 2.6000

  COMPUTE NM HYD     ID=1  HYD NO=101.0
              DA=0.01078 SQ MI
              PER A=5.1 PER B=0.0
              PER C=46.2 PER D=48.7
              TP=0.067 HR MASSRAIN=-1

    K =  .036515HR   TP =  .067000HR   K/TP RATIO =  .545000    SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =  41.237   CFS  UNIT VOLUME =  .4577     B =  526.28     P60 = 2.1000
    AREA =    .005250 SQ MI   IA =   .10000 INCHES   INF =   .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.133333


    K =  .056985HR   TP =  .067000HR   K/TP RATIO =  .850523    SHAPE CONSTANT, N =  4.185000
    UNIT PEAK =  30.318   CFS  UNIT VOLUME =  .6208     B =  367.32     P60 = 2.1000
    AREA =    .005530 SQ MI   IA =   .37982 INCHES   INF =   .91351 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.133333

  PRINT HYD        ID=1  CODE=1

                    PARTIAL HYDROGRAPH  101.00


    RUNOFF VOLUME =    1.74720 INCHES    =      1.0045 ACRE-FEET
    PEAK DISCHARGE RATE =    31.40 CFS  AT   1.467 HOURS   BASIN AREA =   .0108 SQ. MI.

FINISH

    NORMAL PROGRAM FINISH       END TIME (HR:MIN:SEC) = 13:37:13
```

```
   AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
      RUN DATE (MON/DAY/YR) = 06/04/1996
      START TIME (HR:MIN:SEC) = 10:38:51     USER NO.= RED_MTNM.194
      INPUT FILE = MATH2.DAT

*          MATHESON PHASE 1 18" DRAIN INPUT
*        USING MODIFIED METHODS FOR D.P.M. CHAPTER 22
*       AND THE INITIAL ABSTRACTION - INFILTRATION METHOD
*
START            RAINFALL BEGINS AT 0.0  HRS
RAINFALL          TYPE=1 RAIN QUARTER=0
                ONE=2.10 SIX=2.60
                RAIN DAY=3.10 DT=0.133333 HR

          COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40
HR.
        DT =   .133333 HOURS     END TIME =    5.999986 HOURS
         .0000  .0135  .0282  .0445  .0625  .0829  .1064
         .1342  .1623  .2643  .7188 1.4861 1.7619 1.9633
        2.1221 2.2503 2.2782 2.3020 2.3228 2.3415 2.3586
        2.3743 2.3890 2.4027 2.4157 2.4279 2.4396 2.4508
        2.4615 2.4718 2.4817 2.4912 2.5004 2.5094 2.5180
        2.5264 2.5346 2.5426 2.5504 2.5579 2.5653 2.5726
        2.5796 2.5866 2.5934 2.6000

   COMPUTE NM HYD     ID=1  HYD NO=101.0
               DA=0.00135 SQ MI
               PER A=8.4 PER B=0.0
               PER C=0.0 PER D=91.6
               TP=0.067 HR MASSRAIN=-1

    K =  .036515HR   TP =  .067000HR   K/TP RATIO =  .545000    SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =  9.7133   CFS  UNIT VOLUME =  .4571     B =  526.28     P60 = 2.1000
    AREA =     .001237 SQ MI   IA =  .10000 INCHES   INF =  .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.133333


    K =  .079357HR   TP =  .067000HR   K/TP RATIO = 1.184438    SHAPE CONSTANT, N =  2.997004
    UNIT PEAK =  .47658   CFS  UNIT VOLUME =  .6678     B =  281.58     P60 = 2.1000
    AREA =     .000113 SQ MI   IA =  .65000 INCHES   INF =  1.67000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.133333

   PRINT HYD        ID=1  CODE=1

                    PARTIAL HYDROGRAPH   101.00


    RUNOFF VOLUME =    2.20993 INCHES    =      .1591 ACRE-FEET
    PEAK DISCHARGE RATE =     4.32 CFS  AT   1.467 HOURS   BASIN AREA =   .0014 SQ. MI.
  FINISH

    NORMAL PROGRAM FINISH       END TIME (HR:MIN:SEC) = 10:38:57
```

```
 AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
   RUN DATE (MON/DAY/YR) = 05/30/1996
   START TIME (HR:MIN:SEC) = 09:03:08    USER NO.= RED_MTNM.194
   INPUT FILE = MATH3.DAT

*         MATHESON PHASE 1 PARKING LOT 'D' INLETS
*       USING MODIFIED METHODS FOR D.P.M. CHAPTER 22
*      AND THE INITIAL ABSTRACTION - INFILTRATION METHOD
*
START          RAINFALL BEGINS AT 0.0  HRS
RAINFALL        TYPE=1 RAIN QUARTER=0
             ONE=2.10 SIX=2.60
             RAIN DAY=3.10 DT=0.133333 HR

          COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40
HR.
            DT =   .133333 HOURS     END TIME =    5.999986 HOURS
              .0000  .0135  .0282  .0445  .0625  .0829  .1064
              .1342  .1623  .2643  .7188 1.4861 1.7619 1.9633
             2.1221 2.2503 2.2782 2.3020 2.3228 2.3415 2.3586
             2.3743 2.3890 2.4027 2.4157 2.4279 2.4396 2.4508
             2.4615 2.4718 2.4817 2.4912 2.5004 2.5094 2.5180
             2.5264 2.5346 2.5426 2.5504 2.5579 2.5653 2.5726
             2.5796 2.5866 2.5934 2.6000

  COMPUTE NM HYD     ID=1  HYD NO=101.0
             DA=0.000692 SQ MI
             PER A=0.0 PER B=0.0
             PER C=0.0 PER D=100.0
             TP=0.067 HR MASSRAIN=-1

    K =  .036515HR   TP =  .067000HR   K/TP RATIO =  .545000    SHAPE CONSTANT, N =  7.106420
    UNIT PEAK =  5.4356   CFS  UNIT VOLUME =   .4571     B =  526.28     P60 = 2.1000
    AREA =     .000692 SQ MI   IA =   .10000 INCHES   INF =   .04000 INCHES PER HOUR
    RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =
.133333

  PRINT HYD        ID=1  CODE=1

                PARTIAL HYDROGRAPH  101.00

  RUNOFF VOLUME =    2.35455 INCHES    =      .0869 ACRE-FEET
  PEAK DISCHARGE RATE =      2.29 CFS  AT   1.467 HOURS  BASIN AREA =   .0007 SQ. MI.

FINISH

  NORMAL PROGRAM FINISH       END TIME (HR:MIN:SEC) = 09:03:15
```

```
   AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
      RUN DATE (MON/DAY/YR) = 06/04/1996
      START TIME (HR:MIN:SEC) = 10:37:43     USER NO.= RED_MTNM.194
      INPUT FILE = MATH4.DAT

*              MATHESON POND INFLUX
*        USING MODIFIED METHODS FOR D.P.M. CHAPTER 22
*       AND THE INITIAL ABSTRACTION - INFILTRATION METHOD
*
START           RAINFALL BEGINS AT 0.0  HRS
RAINFALL          TYPE=1 RAIN QUARTER=0
                ONE=2.10 SIX=2.60
                RAIN DAY=3.10 DT=0.133333 HR

          COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40
HR.
          DT =   .133333 HOURS     END TIME =    5.999986 HOURS
            .0000  .0135  .0282  .0445  .0625  .0829  .1064
            .1342  .1623  .2643  .7188 1.4861 1.7619 1.9633
           2.1221 2.2503 2.2782 2.3020 2.3228 2.3415 2.3586
           2.3743 2.3890 2.4027 2.4157 2.4279 2.4396 2.4508
           2.4615 2.4718 2.4817 2.4912 2.5004 2.5094 2.5180
           2.5264 2.5346 2.5426 2.5504 2.5579 2.5653 2.5726
           2.5796 2.5866 2.5934 2.6000

   COMPUTE NM HYD     ID=1  HYD NO=101.0
                DA=0.00874 SQ MI
                PER A=5.0 PER B=0.0
                PER C=57.0 PER D=38.0
                TP=0.067 HR MASSRAIN=-1

     K=  .036515HR   TP=  .067000HR   K/TP RATIO=  .545000    SHAPE CONSTANT, N=  7.106420
     UNIT PEAK=  26.088   CFS  UNIT VOLUME=   .4575     B=  526.28     P60=2.1000
     AREA=     .003321 SQ MI   IA=   .10000 INCHES   INF=   .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT=
.133333


     K=  .056519HR   TP=  .067000HR   K/TP RATIO=  .843563    SHAPE CONSTANT, N=  4.222728
     UNIT PEAK=  29.905   CFS  UNIT VOLUME=   .6186     B=  369.76     P60=2.1000
     AREA=     .005419 SQ MI   IA=   .37419 INCHES   INF=   .89774 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT=
.133333

   PRINT HYD        ID=1  CODE=1

                     PARTIAL HYDROGRAPH  101.00


     RUNOFF VOLUME=    1.63058 INCHES    =      .7601 ACRE-FEET
     PEAK DISCHARGE RATE=     24.82 CFS  AT   1.467 HOURS   BASIN AREA=   .0087 SQ. MI.
   FINISH

     NORMAL PROGRAM FINISH       END TIME (HR:MIN:SEC) = 10:37:50
```

HYDROGRAPH FOR POND SIZE BASED ON PHASE I CHANGES

AREA CHANGES

ROOF	–	(MINUS) 460 FT^2
SIDEWALK	–	(ADD) 21 250 FT^2
PAVING	–	(ADD) 24 860 FT^2
GRAVEL	–	(MINUS) 45 650 FT^2

CHANGE IN Q_{PEAK}

$$Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D \qquad \text{EQ a-10 OF DPM}$$

$$= 0 + 0 + (3.73\,IN/HR)(-1.05\,Ac) + (5.25\,IN/HR)(1.05\,Ac)$$

$$= 1.52\ CFS$$

CHANGE IN E

$$E = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D} \qquad \text{EQ a-5 OF DPM}$$

$$= 0 + 0 + \frac{(-1.46\,IN)(1.05\,Ac)}{1.05\,Ac} + \frac{(2.64\,IN)(1.05\,Ac)}{1.05\,Ac}$$

$$= 1.18\ INCHES$$

$$T_B = (2.107 * E * A_T / Q_P) - 0.25 * A_D / A_T \qquad \text{EQ a-13 OF DPM}$$

$$= [(2.107)(1.18)(1.05\,Ac)/1.52\,CFS] - [0.25 * (1.05\,Ac)/1.05\,Ac)]$$

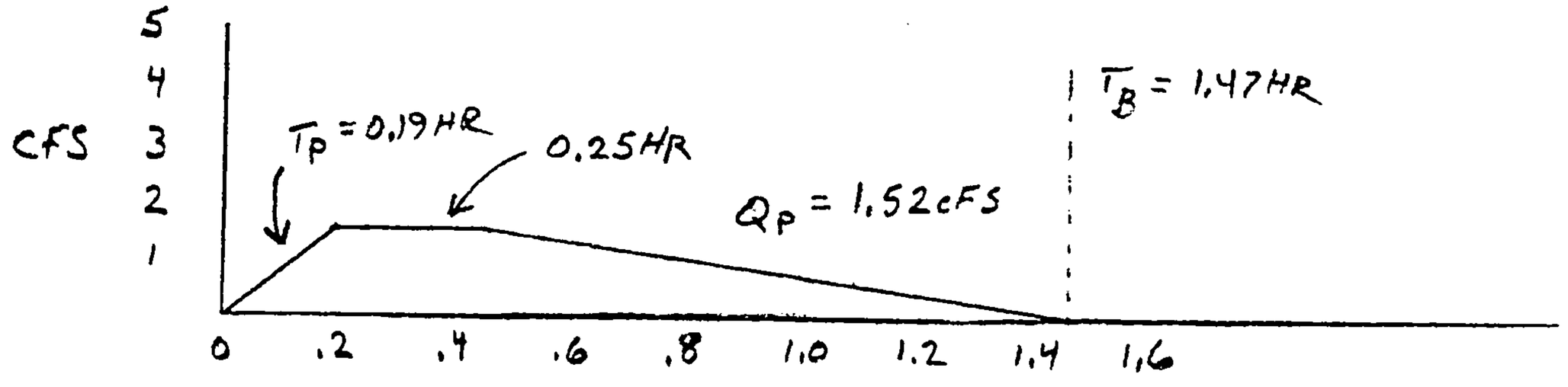
$$= 1.47\,HR$$

$$T_P = 0.7 * T_C + ([1.6 - (A_D/A_T)]/12)$$

$$= (0.7)(0.2\,HR) + ([1.6 - (1.05\,Ac/1.05\,Ac)]/12)$$

$$= 0.19\ HR$$

$$0.25\left(A_D/A_T\right) = 0.25\left(1.05AC/1.05AC\right) = 0.25$$



VOLUME UNDER CURVE = 4710 FT^3

HYDROGRAPH FOR POND SIZE, POST-PHASE I SITE

GIVEN: TOTAL AREA = 6.900 ACRES ZONE 4

TREATMENT 'A' = 0.352 ACRES
TREATMENT 'B' = 0.000 ACRES
TREATMENT 'C' = 3.190 ACRES
TREATMENT 'D' = 3.360 ACRES

$$Q_{PEAK} = Q_P = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D \qquad \text{EQ a-10 OF DPM}$$

$$= (2.20\,IN/HR)(0.352Ac) + 0 + (3.73\,IN/HR)(3.19Ac) + (5.25\,IN/HR)(3.36Ac)$$

$$= 30.3\ CFS$$

$$E = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D} = \frac{(0.80IN)(0.352Ac) + 0 + (1.46IN)(3.19Ac) + (2.64IN)(3.36Ac}{0.352Ac + 0 + 3.19Ac + 3.36Ac}$$

$E = 2.00$ INCHES EQ a-5 DPM

$$T_B = (2.107 * E * A_T / Q_P) - 0.25 * A_D / A_T \qquad \text{EQ a-13 DPM}$$

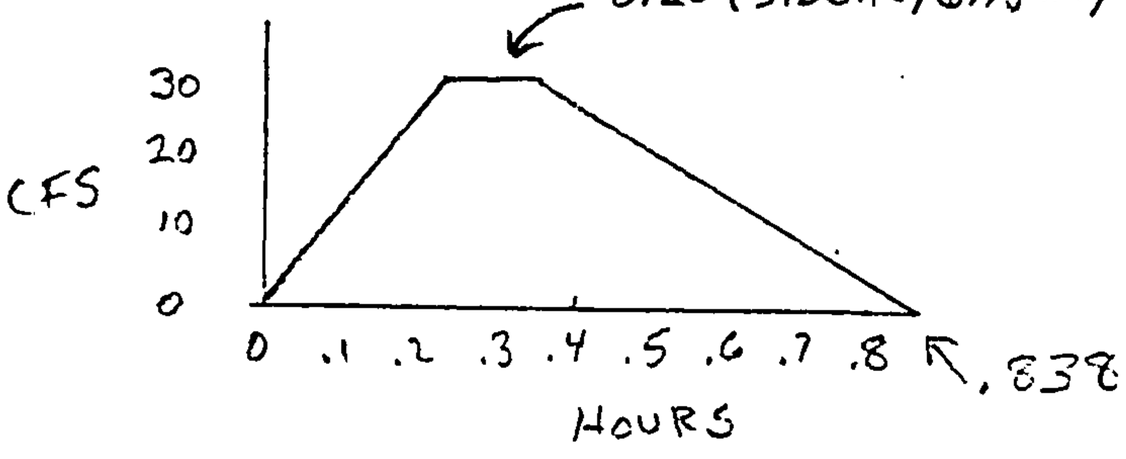
$$= [(2.107)(2.00IN)(6.90Ac)/30.3\,CFS] - 0.25\,(3.36Ac/6.90Ac) = 0.838\,HOURS$$

$$T_P = (0.7 * T_C) + ((1.6 - (A_D/A_T))/12 \qquad \text{EQ a-14 DPM}$$

$$= [(0.7)(0.2HR)] + [(1.6 - [(3.36AC)/(6.9Ac)]/12)]$$

$$= 0.233\ HOURS$$

0.25(3.36Ac/6.90 Ac) = 0.122 HOURS



AREA UNDER HYDROGRAPH
$= (3600\,SEC/HR)[0.5(30.3CFS)(0.233HR) +$
$+ (0.122\,HR)(30.3CFS) + 0.5(0.483HR)(30.3CFS)]$
$= 52,360\,FT^3$

HYDROGRAPH FOR POND SIZE, UNDEVELOPED SITE

GIVEN: TOTAL AREA = 6.900 ACRES ZONE 4

TREATMENT 'A' = 6.90 ACRES
TREATMENT 'B' = 0 ACRES
TREATMENT 'C' = 0 ACRES
TREATMENT 'D' = 0 ACRES

$Q_{PEAK} = Q_{PA}A_A + Q_{PB}A_B + Q_{PC}A_C + Q_{PD}A_D$ EQ a-10 OF DPM

$= (2.20\,IN/HR)(6.90\,Ac) + 0 + 0 + 0$

$= 15.2\,CFS$

$E = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D} = \frac{(0.81N)(6.9Ac) + 0 + 0 + 0}{6.9Ac + 0 + 0 + 0}$ EQ a-5 OF DPM

$= 0.8\,IN$

$T_B = (2.107 * E * A_T / Q_P) - 0.25 * A_D / A_T$ EQ a-13 OF DPM

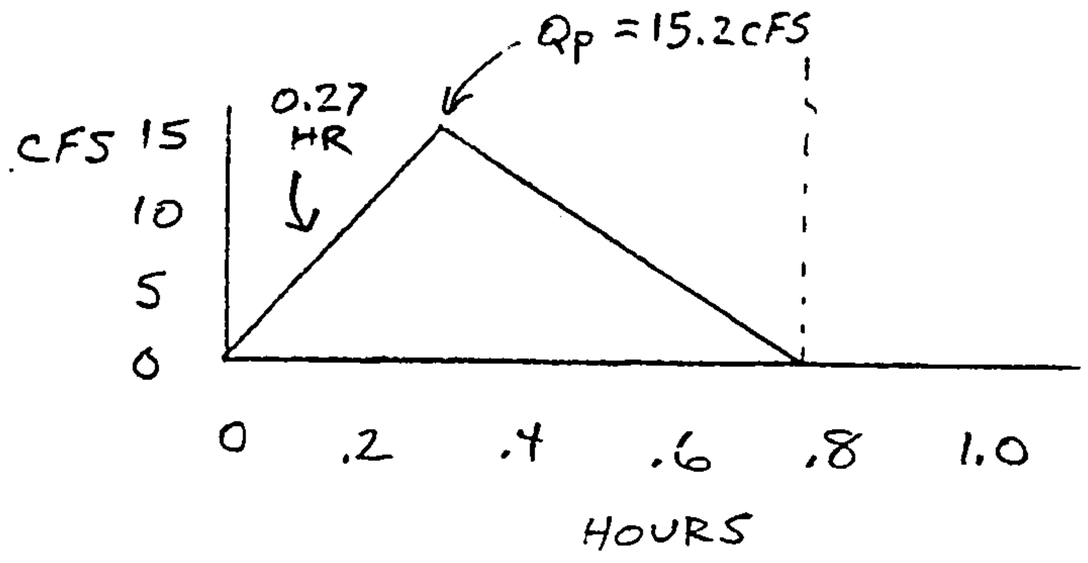
$= [(2.107)(0.81N)(6.90\,Ac)/15.2\,CFS] - 0.25(0Ac/6.9Ac)$

$= 0.765\,HR$

$T_p = 0.7 * T_c + ([1.6 - (A_D/A_T)]/12)$

$= [(0.7)(0.2\,HR)] + (1.6 - [(0Ac)/(6.9Ac)])/12$

$= 0.27\,HR$



$0.25(A_D/A_T) = 0.25[(0Ac)/(6.9Ac)] = 0$

VOLUME UNDER CURVE =

$(3600\,SEC/HR)(0.765\,HR)(15.2\,CFS)(0.5$

$= 20{,}930\,FT^3$

SUMMARY: AREA UNDER HYDROGRAPH FOR CHANGE IN RUNOFF BETWEEN PRE-PHASE I DEVELOPMENT (PRESENT CONDITION OF SITE) AND POST-PHASE I DEVELOPMENT = 4710 FT^3

DETENTION POND PROVIDED = 10,000 FT^3

AREA UNDER HYDROGRAPH FOR ENTIRE SITE RUNOFF UNDER POST-PHASE I DEVELOPMENT = 52,360 FT^3

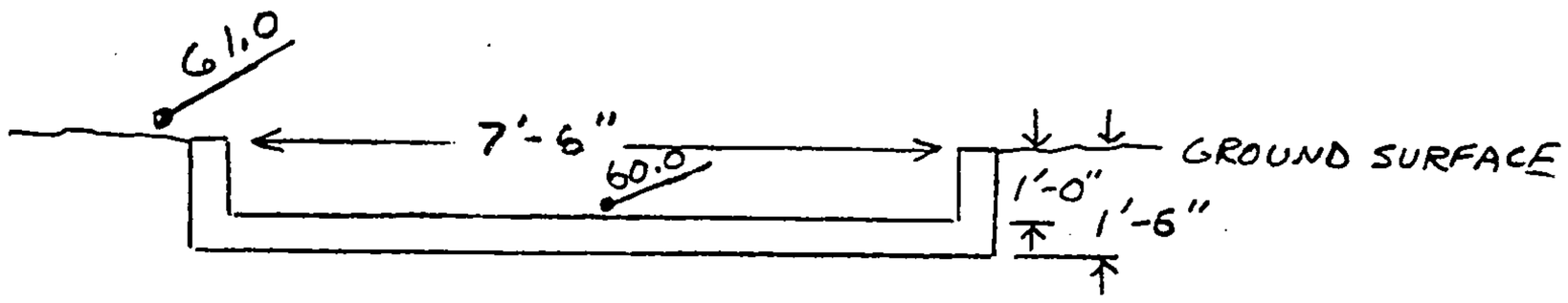
AREA UNDER HYDROGRAPH FOR ENTIRE SITE RUNOFF WITH NO DEVELOPMENT = 20,930 FT^3

OVERFLOW WEIR

GIVEN: $Q = 24.8$ CFS (FROM APPENDIX 7)
$H = 1.0$ FT

$$Q = CLH^{3/2} = 24.8\,CFS = (3.29)\,L\,(1\,FT)^{3/2}$$ DPM Pg 134

$$L = 7.53\,FT \quad USE\ 7.50\,FT$$



CROSS-SECTION OF WEIR

VELOCITY OF FLOW: $V = Q/A = (24.8\,CFS)/(7.50\,FT)(1\,FT) = 3.29\,CFS$

DRAIN PIPE

GIVEN: VOLUME OF POND $10{,}000\,FT^3$ TIME TO DRAIN = 24 HOURS
INLET INVERT = 59.0 OUTLET INVERT = 55.0
LENGTH = 45FT

$Q = C_d A \sqrt{2gH}$ $Q = (10{,}000\,FT^3)/(24\,HRS)(3600\,SEC/HR) = 0.116$ CFS

$0.116\,CFS = 0.6\,A\sqrt{2(32.2\,FT/SEC^2)(0.2\,FT)}$ AT HEADWATER DEPTH = 0.2FT

A REQUIRED $= 0.0538\,FT^2$

$A = \pi D^2/4 = 0.0538\,FT^2$ DIAMETER = 0.262 FT = 3.14"

USE 4" TO REDUCE CLOGGING POTENTIAL

$Q = 0.6\,(\pi(.333)^2/4)\sqrt{2(32.2\,FT/SEC^2)(1\,FT)}$ AT HEADWATER DEPTH = 1'

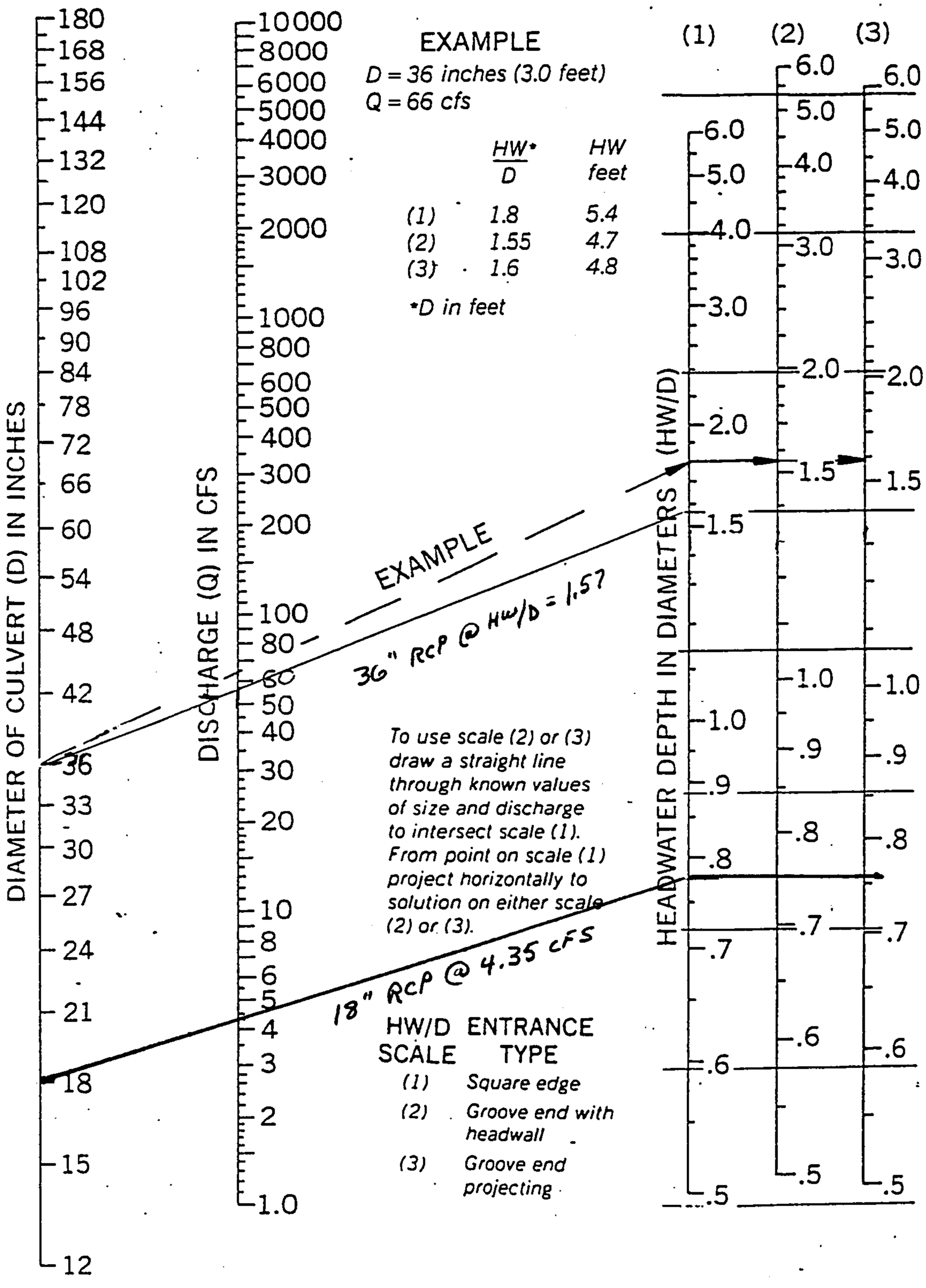
$Q = 0.419$ CFS MAXIMUM

SUMMARY: USE WEIR 7.5FT WIDE AND 1FT DEEP
USE 4" DRAIN PIPE UNDER WEIR

APPENDIX 10

FIGURE 33

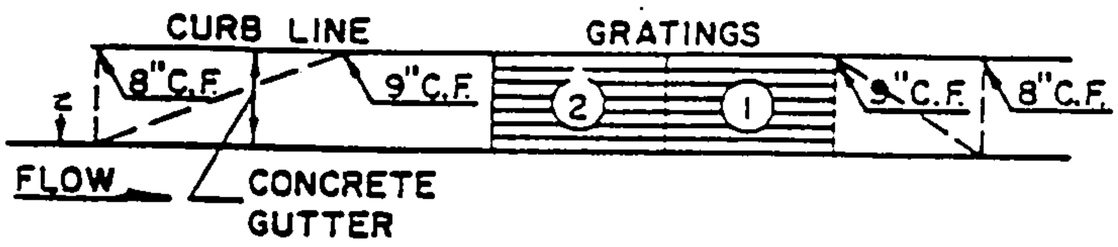
HEADWATER DEPTH FOR CIRCULAR CONCRETE PIPE CULVERTS WITH INLET CONTROL



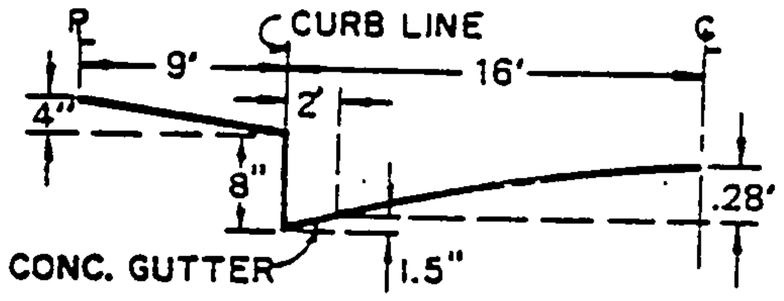
BUREAU OF PUBLIC ROADS JAN. 1963

HEADWATER SCALES 2&3
REVISED MAY 1964

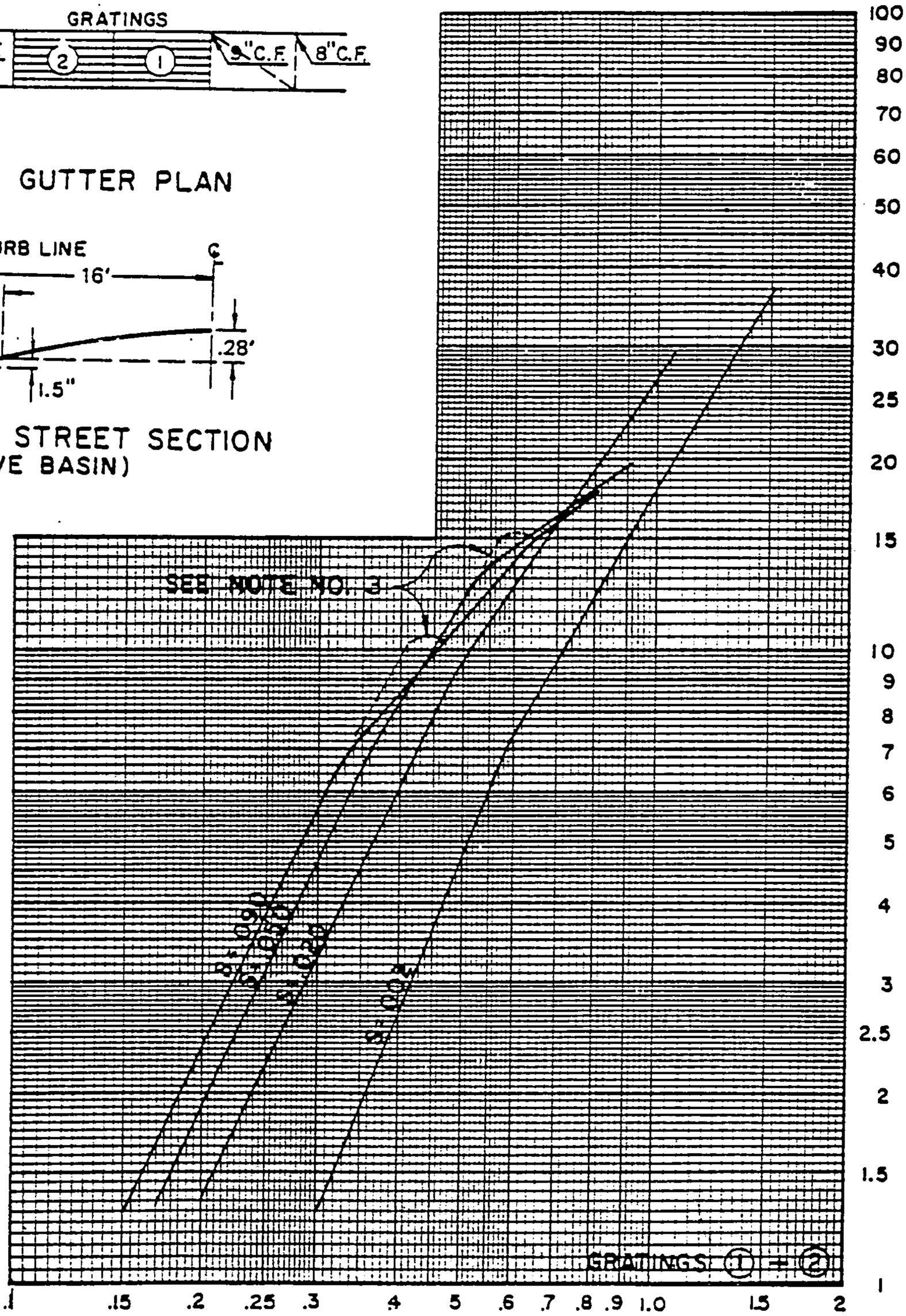
GRATING CAPACITIES FOR TYPE DOUBLE "C," AND "D"



GRATING & GUTTER PLAN



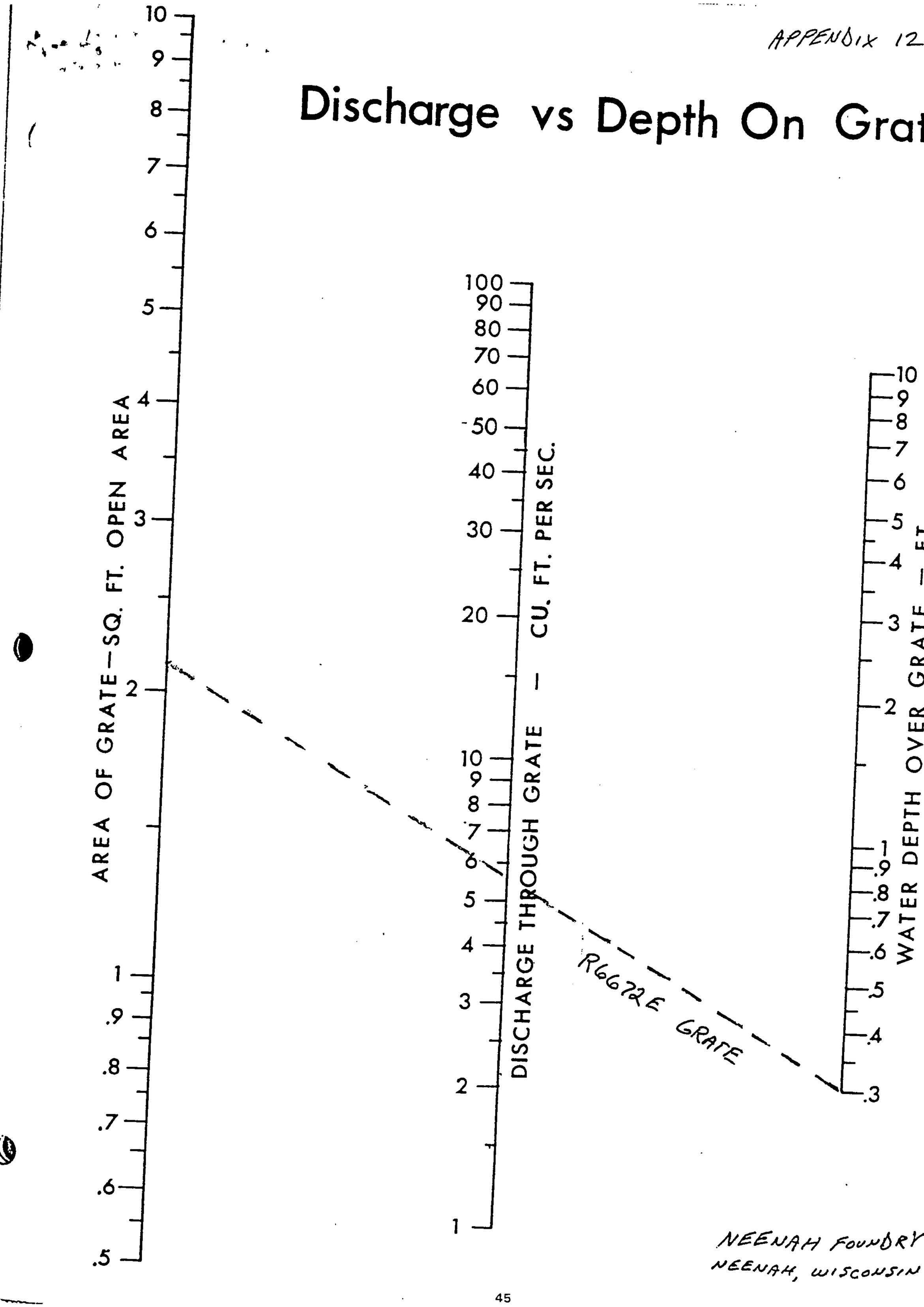
TYPICAL HALF STREET SECTION
(ABOVE BASIN)



D = DEPTH OF FLOW (FT.) ABOVE NORMAL GUTTER GRADE

APPENDIX 12

Discharge vs Depth On Grate



NEENAH FOUNDRY CO
NEENAH, WISCONSIN 1982

DRAINAGE INFORMATION SHEET

PROJECT TITLE: MATHESON PARK ELEMENTARY PHASE 1 ZONE ATLAS/DRNG. FILE #: H-21/A36

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

LEGAL DESCRIPTION: METES AND BOUNDS ON MASTERPLAN

CITY ADDRESS: 10809 LEXINGTON AVE, NE

ENGINEERING FIRM: RED MOUNTAIN ENGINEERS CONTACT: STEVE RANDALL

ADDRESS: 4600.C MONTGOMERY BLVD N.E., ABQ PHONE: 889-3004

OWNER: ALBUQUERQUE PUBLIC SCHOOLS CONTACT: MYRON JOHNSON

ADDRESS: 915 OAK S.E., ABQ PHONE: 242-5865

ARCHITECT: SMPC CONTACT: GREG GERWIN

ADDRESS: 115 AMHERST DRIVE SE PHONE: 255-8668

SURVEYOR: WILSON & CO CONTACT: UNKNOWN

ADDRESS: 4775 INDIAN SCHOOL RD, N.E. PHONE: 254-4000

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

✓ DRAINAGE REPORT
✓ DRAINAGE PLAN
___ CONCEPTUAL GRADING & DRAINAGE PLAN
✓ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERTIFICATION
___ OTHER _____

PRE-DESIGN MEETING:

✓ YES
___ NO
___ COPY PROVIDED

RECEIVED
JUN 6 1996
HYDROLOGY

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
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ GRADING PERMIT APPROVAL
___ PAVING PERMIT APPROVAL
___ S.A.D. DRAINAGE REPORT
___ DRAINAGE REQUIREMENTS
___ SUBDIVISION CERTIFICATION
✓ OTHER CITY WORK ORDER (SPECIFY)
FOR (1) ARROYO DISCHARGE STRUCTURES
(2) BUS BAY

DATE SUBMITTED: 06/05/96

BY: STEVE RANDALL 889-3004
RED MOUNTAIN ENGINEERS

CITY OF ALBUQUERQUE
DRAINAGE COMPLAINT REPORT

Location .. Matheson School ..... Sheet ..... of .....

.....

Reported by: Bea Gutierrez ..... Phone .....

Address: Council Office ..... Ext. .....

Complainant .. Cindy Hoins ..... Phone .. 296-7929 .....

Address ..... Ext. .....

Taken by: F.H.A ..... Date ~~2-2-88~~ 2-2-88

COMPLAINT ..... See Attached Note From Richard Chapman to Bea .....

.....

.....

Referred to: Rick Duran .....

INVESTIGATION — CAUSE .. See pictures and location of channel constructed by the School. No drainage easement exist for the channel. The basin (E.P. Subdivision) that drains to the channel pre-dates the City's Drainage Ordinance and AMAFCA 72-2 Resolution.

Recommendation: .....

Recommended to Bea that we contact the School to initiate corrective measures. Bea will discuss with Councilor Chapman. 2/6/88

Investigated by: ..... Date .....

Action taken: .....

.....

.....

Taken by: ..... Date .....

Follow Up: .....

.....

.....

Taken by: ..... Date .....

Zone Atlas ..... Drainage Map ..... Complaint Report No. 421-C4 ..... Date .....

Plan No. ..... Date .....

Project No. .....

Approved .....

CITY OF ALBUQUERQUE
DRAINAGE COMPLAINT REPORT

Location ..Matheson School..... Sheet ..... of .....

.....

Reported by: Bea Gutierrez ..... Phone .....

Address: Council Office ..... Ext. .....

Complainant Cindy Woods ..... Phone 296-7929 .....

Address ..... Ext. .....

Taken by: F.L.A. ..... Date ~~2-2-88~~ 2-2-88

COMPLAINT See Attached Note from Richard Shapman to Bea

.....

Referred to: Rick Duran .....

INVESTIGATION — CAUSE See pictures and location of channel constructed by the School. No drainage easement exist for the channel. The basin (2.8. subdivision) that drains to the channel pre-dates the City's Drainage Ordinance and AMAFCA 72-2 Resolution.

Recommendation: Recommended to Bea that we contact the School to initiate corrective measures. Bea will discuss with Councilor Chapman. 2/6/88

Investigated by: ..... Date .....

Action taken: .....

.....

.....

Taken by: ..... Date .....

Follow Up: .....

.....

.....

Taken by: ..... Date .....

Zone Atlas ..... Drainage Map .....

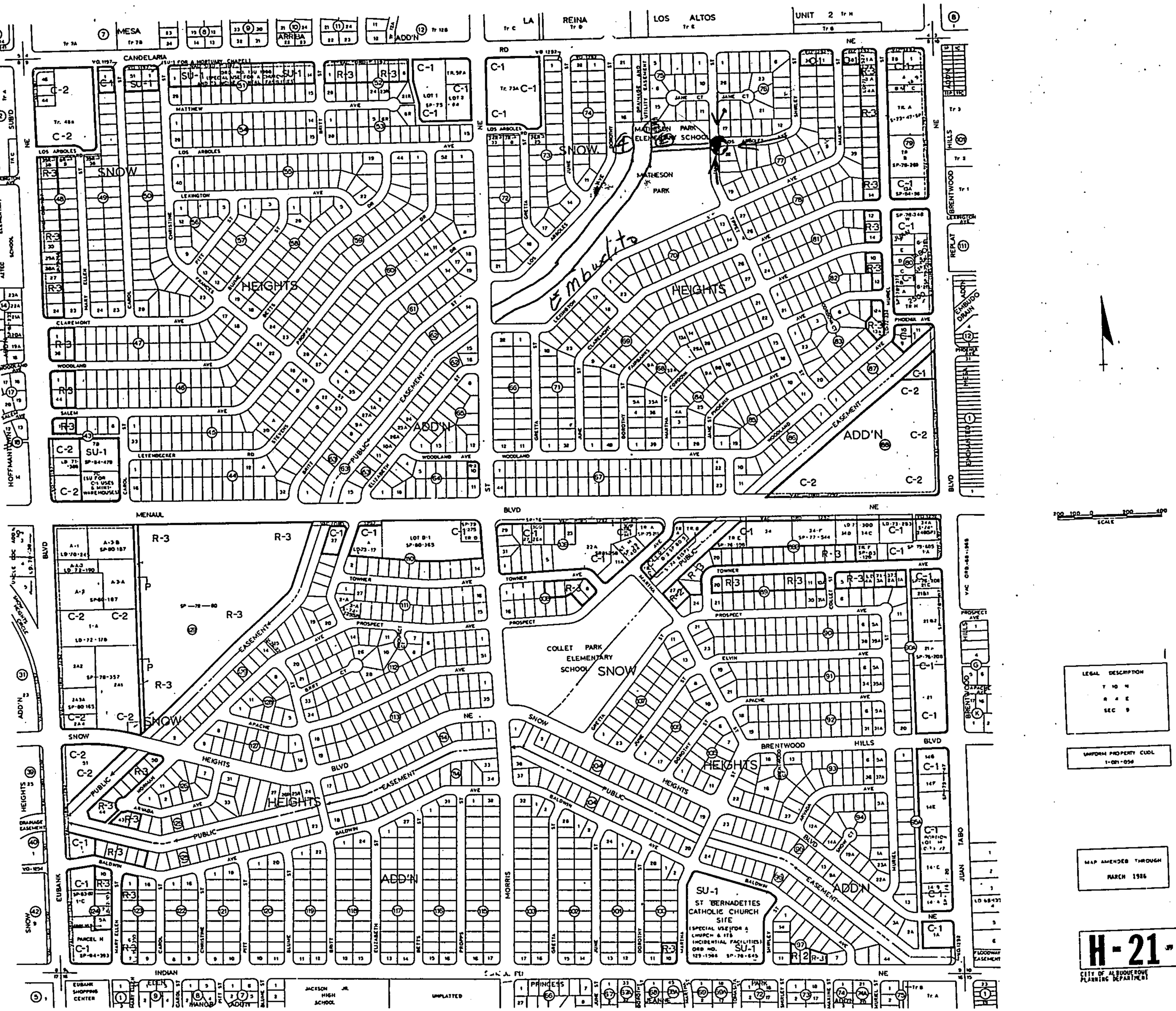
Date ..... Complaint Report No. H21-C4

Plan No. .....

Date .....

Project No. .....

Approved .....


SNOW
HEIGHTS
ADD'N
MATHESON PARK ELEMENTARY SCHOOL
MATHESON PARK
COLLET PARK ELEMENTARY SCHOOL
BRENTWOOD HILLS
EMBUDITO DRAIN
EASEMENT
PUBLIC
SU-1 ST BERNADETTES CATHOLIC CHURCH SITE (SPECIAL USE FOR A CHURCH & ITS INCIDENTAL FACILITIES) ORD NO. 129-1966 SP-78-645
LEGAL DESCRIPTION T 10 N R 4 E SEC 9
UNIFORM PROPERTY CODE 1-001-056
MAP AMENDED THROUGH MARCH 1986
H-21-Z
CITY OF ALBUQUERQUE PLANNING DEPARTMENT
SCALE

D1-105

BLKS 88-95

SNOWSHITS,

Read 2/2/88

City Council

RICHARD CHAPMAN
Councillor of District 8

1-26-88

Bea —

Cindy Johns called regarding a concern she has at Matheson Park School. There is a drainage detail that runs across school property that she feels is unsafe for the children. Please talk with her to ascertain if this is a problem the City should address.

Thanks,

Richard

296-2921 (John's Residence)

2/2/88 RC

P.O. Box 1293 • Albuquerque, NM 87103 • 505/768-3100

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 2, 1996

Steve Randall
Red Mountain Engineers
4600-C Montgomery Blvd. NE
Suite 101
Albuquerque, NM 87109

RE: MATHESON PARK ELEMENTARY (H21-D36) CONCEPTUAL DRAINAGE REPORT FOR SITE DEVELOPMENT PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED 12-21-95.

Dear Mr. Randall:

Based on the information provided on your December 22, 1995 submittal, the above referenced project is approved for Site Development Plan for Building Permit.

With your next submittal, please include relevant details for all drainage faciilities. Also, please provide pipe calculations.

If I can be of further assistance, please feel free to contact me at 768-3622.

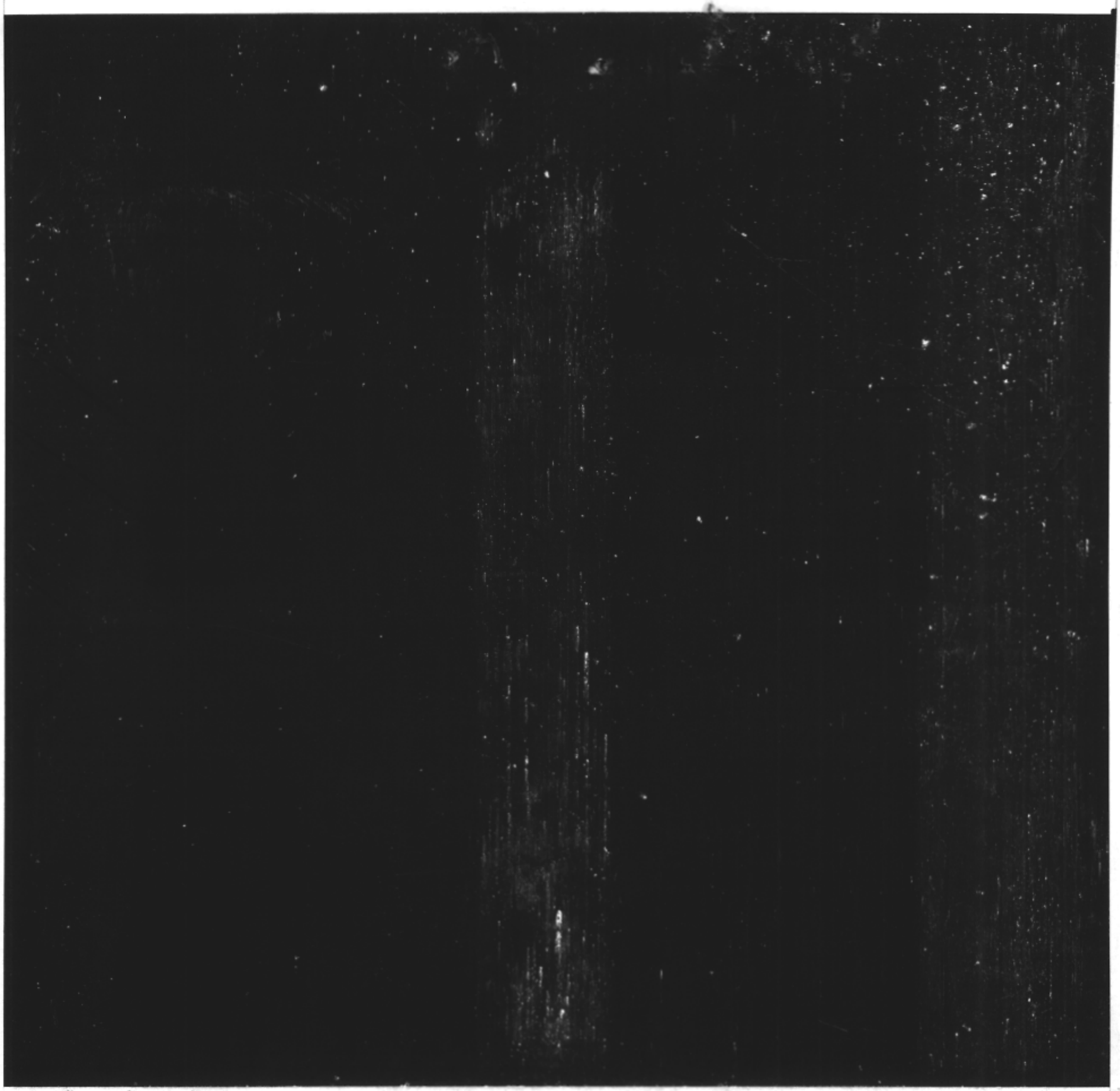
Sincerely,

Lisa Ann Manwill
Engineering Assoc./Hyd.

c: Andrew Garcia
File

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





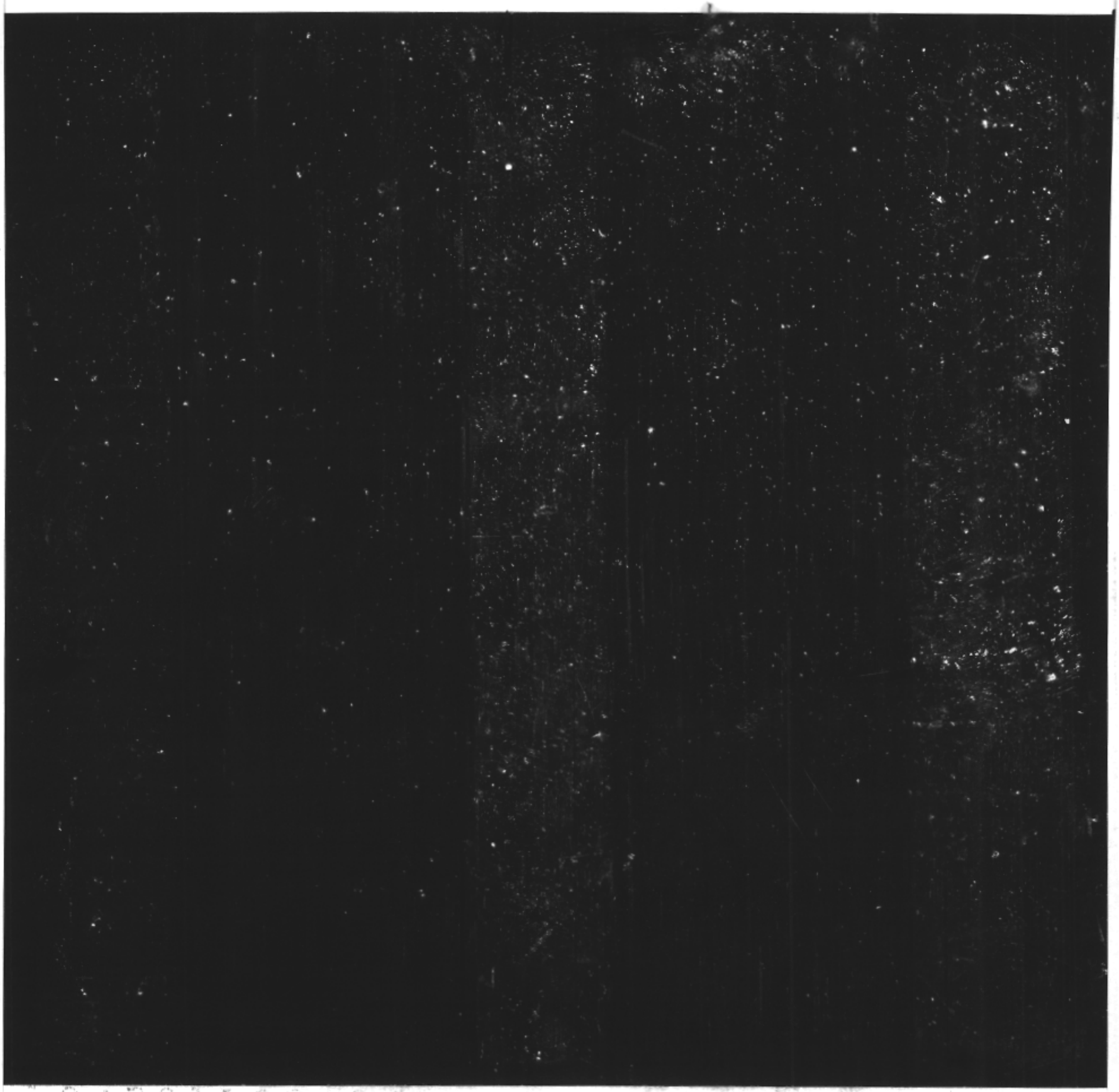
0470110020 4

POLAROID 9

2-3-88

(2)



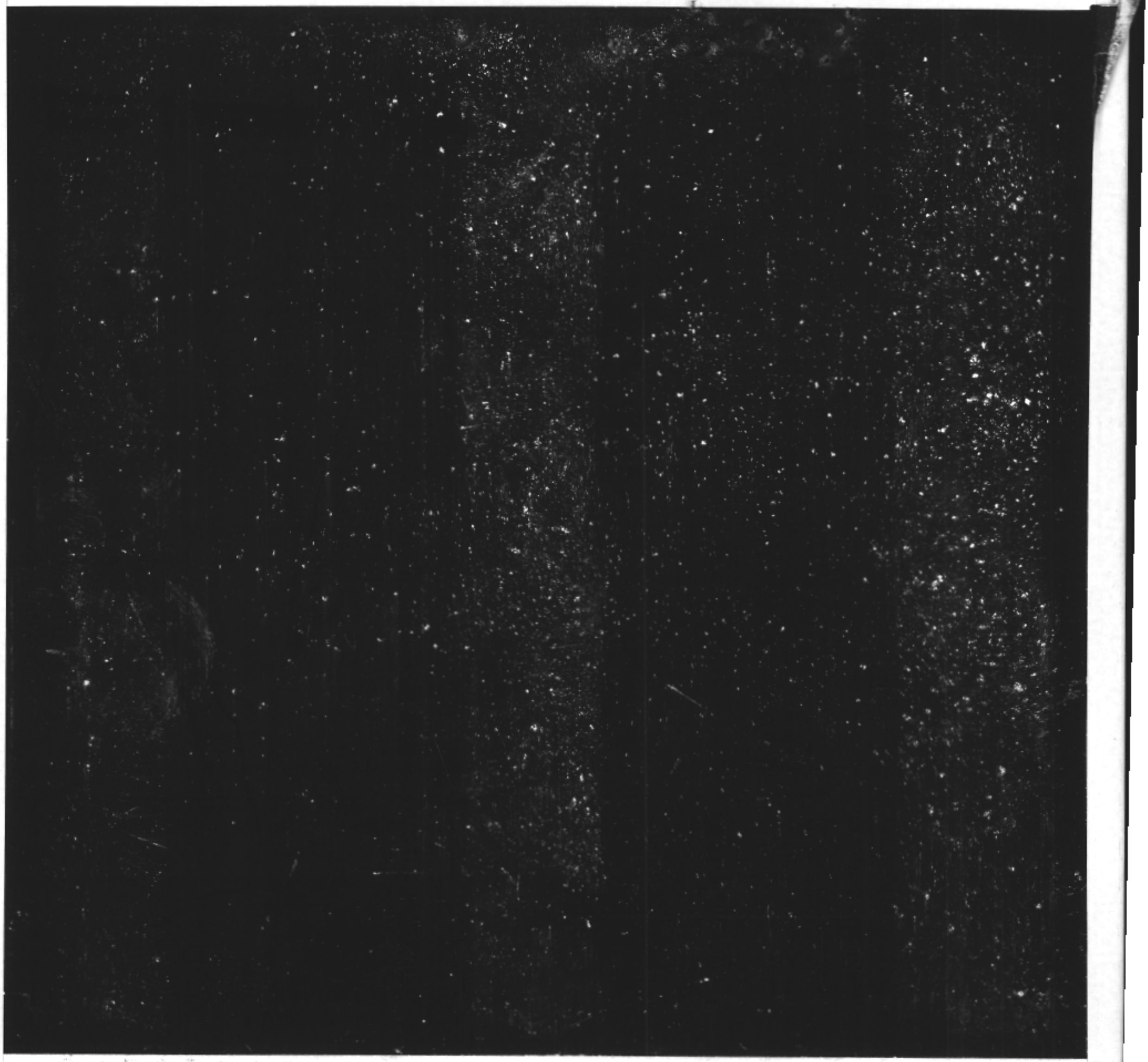


0470110B204 POLAROID 9

2-3-88

(4)





0470110204

POLAROID 9

2388

(3)





0970923065 9 POLAROID® 9

2-3-88

(1)

E 419 000

E 420 000

R. Green 8/17/88.

AREA TO S.D.

AREA TO RUN DOWN

JANE CT.

JANE CT.

SHIRLEY

ST.

N.E.

ARBOLES BD.

LOS ARBOLES AVE.

MAXINE

JUNE

DOROTHY

GRETTA

ARBOLES

ARROYO

LOS

AVE.

MARRET

LEXINGTON

CLAREMONT

FAIRBANKS

CORDOVA

MARTHA

PHOENIX

WOODLAND

CORDOVA CT.

MURIEL

PHOE

BLVD.

TOWNER

USA

5550

5560

5570

5580

5590

3/24/88 Provided CDS with
copy of plat for Show