CITY OF ALBUQUERQUE

September 27, 2011

Christopher A. Perea, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

Re: McCollum Elementary School & Renovations, 10900 San Jacinto Ave. NE,
Request for 90-Day Temporary C.O.—Approved
Engineer's Stamp dated: 10/31/08, (J-21/D017)
Certification dated: 08-25-11

Dear Mr. Perea,

Based upon the information provided in the Certification received 09/12/11, the above referenced Certification is approved for a release of a Permanent Certificate of Occupancy by Hydrology.

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

Sincerely,

Timothy E. Sims,
Plan Checker—Hydrology Section
Development and Building Services

C: CO Clerk—Katrina Sigala
File

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

CITY OF ALBUQUERQUE

August 26, 2011

Christopher A. Perea, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

Re: McCollum Elementary School & Renovations, 10900 San Jacinto Ave. NE,
Request for 90-Day Temporary C.O.—Approved
Engineer's Stamp dated: 10/31/08, (J-21/D017)
Certification dated: 08-25-11

Dear Mr. Perea,

Based upon the information provided in your submittal received 08-25-11, the above referenced certification is approved for release of a 90 Day Temporary Certificate of Occupancy by Hydrology.

Prior to Permanent Certificate of Occupancy the following items will need to be addressed:

1. All inlets required cleaning. It appears the crusher fines are silting the inlets.
2. Include the as-built for the pond and spillway.

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

Sincerely,

Timothy E. Sims
Plan Checker—Hydrology,
Development and Building Services

C: CO Clerk—Katrina Sigala
File

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: McCollum ES – Additions and Renovations ZONE MAP/DRG. FILE#: J-21/D017

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

LEGAL DESCRIPTION: _____

CITY ADDRESS: 10900 San Jacinto Ave. Ne 87112

ENGINEERING FIRM:	Wilson & Company	CONTACT:	Chris Perea, PE
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-400-0507
CITY, STATE:	Albuqueruqe, NM	ZIP CODE:	87109
OWNER:	APS	CONTACT:	Tyler Mason
ADDRESS:	915 Oak Street	PHONE:	505-848-8822
CITY, STATE:	Albuqueruque New Mexico	ZIP CODE:	87106
ARCHITECT:	Wilson & Company	CONTACT:	See Engineer Above
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-400-0507
CITY, STATE:	Albuquerque, NM	ZIP CODE:	
SURVEYING FIRM:	Wilson & Company	LICENSED SURVEYOR:	Ben Aragon
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4067
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
CONTRACTOR:	Famco , Inc.	CONTACT:	Rob Weinbrenner
ADDRESS:	P.O. Box 27160	PHONE:	505-242-4011
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87125

CHECK TYPE OF SUBMITTAL:

____ DRAINAGE REPORT - RESUBMITTAL
____ DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL GRADING & DRAINAGE PLAN
____ GRADING PLAN
____ EROSION CONTROL PLAN
_X_ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR\LOMR
____ TRAFFIC CIRCULTAION LAYOUT
_X_ ENGINEER/ARCHITECT CERT (TCL)
____ ENGINEER/ARCHITECT CERT (DRB S. P.)
____ ENGINEER/ARCHITECT CERT (AA)
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL SOUGHT:

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____ S. DEV. PLAN FOR SUB'D. APPROVAL
____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
_X_ CERTIFICATE OF OCCUPANCY (PERM.)
____ CERTIFICATE OF OCCUPANCY (TEMP)
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ OTHER (SPECIFY) SO #19

RECEIVED
AUG 25 2011
HYDROLOGY SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:

_____ YES
_____ NO
_____ COPY PROVIDED

Submitted By: Chris Perea DATE: 08/25/11

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 define 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
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services Section

August 26, 2011

Christopher A. Perea, P.E.
Wilson & Company.
4900 Lang Ave. NE
Albuquerque, NM 87109

Re: Certification Submittal for a Permanent Building Certificate of Occupancy (C.O.)
for McCollum ES Additions&Renovations, [J-21 / D017]
10900 San Jacinto Ave. NE
Engineer's Stamp Dated 08/25/11

Dear Mr. Perea:

Based upon the information provided in your submittal received 08-25-11, Transportation Development has no objection to the issuance of a Permanent Certificate of Occupancy. This letter serves as a "green tag" from Transportation Development for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

If you have any questions, please contact me at (505)924-3630.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

c: Engineer
Hydrology file
CO Clerk

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: McCollum ES – Additions and Renovations ZONE MAP/DRG. FILE#: J-21-Z D017

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

LEGAL DESCRIPTION: _____

CITY ADDRESS: 10900 San Jacinto Ave. Ne 87112

ENGINEERING FIRM: Wilson & Company CONTACT: Chris Perea, PE
ADDRESS: 4900 Lang Ave. NE PHONE: 505-400-0507
CITY, STATE: Albuqueruqe, NM ZIP CODE: 87109

OWNER: APS CONTACT: Tyler Mason
ADDRESS: 915 Oak Street PHONE: 505-848-8822
CITY, STATE: Albuqueruque New Mexico ZIP CODE: 87106

ARCHITECT: Wilson & Company CONTACT: See Engineer Above
ADDRESS: 4900 Lang Ave. NE PHONE: 505-400-0507
CITY, STATE: Albuquerque, NM ZIP CODE: _____

SURVEYING FIRM: Wilson & Company LICENSED SURVEYOR: Ben Aragon
ADDRESS: 4900 Lang Ave. NE PHONE: 505-348-4067
CITY, STATE: Albuquerque, NM ZIP CODE: 87109

CONTRACTOR: Famco , Inc. CONTACT: Rob Weinbrenner
ADDRESS: P.O. Box 27160 PHONE: 505-242-4011
CITY, STATE: Albuquerque, NM ZIP CODE: 87125

CHECK TYPE OF SUBMITTAL:

____ DRAINAGE REPORT - RESUBMITTAL
____ DRAINAGE PLAN 1st SUBMITTAL
____ DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL GRADING & DRAINAGE PLAN
____ GRADING PLAN
____ EROSION CONTROL PLAN
X ENGINEER'S CERT (HYDROLOGY)
____ CLOMR\LOMR
____ TRAFFIC CIRCULTAION LAYOUT
X ENGINEER/ARCHITECT CERT (TCL)
____ ENGINEER/ARCHITECT CERT (DRB S. P.)
____ ENGINEER/ARCHITECT CERT (AA)
____ OTHER (SPECIFY)

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____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
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____ FINAL PLAT APPROVAL
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
X CERTIFICATE OF OCCUPANCY (PERM.)
____ CERTIFICATE OF OCCUPANCY (TEMP)
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ OTHER (SPECIFY) SO #19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

_____ YES
_____ NO
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RECEIVED
AUG 25 2011
HYDROLOGY SECTION

Submitted By: Chris Perea DATE: 08/25/11

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 define 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
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE

November 5, 2008

Jason R. Woodruff, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

Re: McCollum Elementary School Renovations Grading and Drainage Plan Engineer's Stamp dated 10-31-08 (J21/D017)

Dear Mr. Woodruff,

Based upon the information provided in your submittal received 10-31-08, 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 924-3695.

Sincerely,

Curtis A. Cherne

Curtis A. Cherne, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

Copy: file

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SH

(REV. 12/05 - AP)

PROJECT TITLE: McCollum ES – Adds and Renvns ZONE MAP/DRG. FILE#: ~~J-21-Z~~ 57

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

LEGAL DESCRIPTION: SEE SHEET C-104, APPENDIX OF ATTACHED REPORT

CITY ADDRESS: 10900 San Jacinto Ave NE

ENGINEERING FIRM:	Wilson & Company	CONTACT:	Jason Woodruff, PE
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuqueruqe, NM	ZIP CODE:	87109
OWNER:	APS	CONTACT:	Tyler Mason
ADDRESS:	915 Oak Street	PHONE:	505-848-8822
CITY, STATE:	Albuqueruque New Mexico	ZIP CODE:	87106
ARCHITECT:	Wilson & Company	CONTACT:	Jeremy Ortiz
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4138
CITY, STATE:	Albuquerque, NM	ZIP CODE:	
SURVEYING FIRM:	Wilson & Company	LICENSED SURVEYOR:	Ben Aragon
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4067
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

CHECK TYPE OF SUBMITTAL:

X DRAINAGE REPORT - RESUBMITTAL
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X GRADING PLAN
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___ ENGINEER/ARCHITECT CERT (DRB S. P.)
___ ENGINEER/ARCHITECT CERT (AA)
___ OTHER (SPECIFY)

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___ FOUNDATION PERMIT APPROVAL
X BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY (PERM.)
___ CERTIFICATE OF OCCUPANCY (TEMP)
X GRADING PERMIT APPROVAL
X PAVING PERMIT APPROVAL
___ WORK ORDER APPROVAL
X OTHER (SPECIFY) SO #19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

___ YES
x NO
___ COPY PROVIDED

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OCT 31 2008
HYDROLOGY SECTION

Submitted By: Jason Woodruff J. Woodruff DATE: 10-31-08

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 define 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
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CITY OF ALBUQUERQUE

October 16, 2008

Jason R. Woodruff, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

Re: McCollum Elementary School Renovations Grading and Drainage Plan Engineer's Stamp dated 10-3-08 (J21/D017)

Dear Mr. Woodruff,

Based upon the information provided in your submittal received 10-6-08, 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 924-3695.

Sincerely,

Curtis A. Cherne

Curtis A. Cherne, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

Copy: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: McCollum ES – Adds and Renvns ZONE MAP/DRG. FILE#: ~~J21-Z~~ J-21/D017

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

LEGAL DESCRIPTION: SEE SHEET C-104, APPENDIX OF ATTACHED REPORT

CITY ADDRESS: 10900 San Jacinto Ave NE

ENGINEERING FIRM:	Wilson & Company	CONTACT:	Jason Woodruff, PE
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuqueruqe, NM	ZIP CODE:	87109
OWNER:	APS	CONTACT:	Tyler Mason
ADDRESS:	915 Oak Street	PHONE:	505-848-8822
CITY, STATE:	Albuqueruque New Mexico	ZIP CODE:	87106
ARCHITECT:	Wilson & Company	CONTACT:	Jeremy Ortiz
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4138
CITY, STATE:	Albuquerque, NM	ZIP CODE:	
SURVEYING FIRM:	Wilson & Company	LICENSED SURVEYOR:	Ben Aragon
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4067
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

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_X_ DRAINAGE PLAN RESUBMITTAL
___ CONCEPTUAL GRADING & DRAINAGE PLAN
_X_ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERT (HYDROLOGY)
___ CLOMR\LOMR
___ TRAFFIC CIRCULTAION LAYOUT
___ ENGINEER/ARCHITECT CERT (TCL)
___ ENGINEER/ARCHITECT CERT (DRB S. P.)
___ ENGINEER/ARCHITECT CERT (AA)
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___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
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_X_ GRADING PERMIT APPROVAL
_X_ PAVING PERMIT APPROVAL
___ WORK ORDER APPROVAL
___ OTHER (SPECIFY) SO #19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

_____ YES
_x_ NO
_____ COPY PROVIDED

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OCT 06 2008
HYDROLOGY SECTION

Submitted By: Jason Woodruff DATE: 10-06-08

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 define 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
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

WILSON
&COMPANY

4900 Lang Avenue NE
Albuquerque, New Mexico 87109
505-348-4000
505-348-4072 Fax

Albuquerque
Colorado Springs
Denver
Fort Worth
Houston
Kansas City
Lenexa
Omaha
Pasadena
Phoenix
Rio Rancho
Salina
San Bernardino
San Diego

Wilson & Company
Latin America, LLC

October 06, 2008

Mr. Curtis A. Cherne, P.E.
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: ***McCollum Elementary School Renovations Grading and Drainage Plan (J21/DO17)***

Dear Mr. Cherne:

The following are our responses to your letter dated 24 September 2008:

Item 1: Provide detail sheets.

Response 1: Detail sheets were added to the drainage report.

Item 2: Should the basin boundary for Basin 201 be shifted to include the area along Morris St. since the discharge point of the storm drain is the same?

Response 2: No. No routing through the proposed storm drain was accounted for in hydrologic analysis. Therefore the no impact to the peak discharge rates throughout the site will be realized should the basin be revised.

Item 3: There is a TC 83.30 leader pointing to the middle of the new sidewalk near Morris St. Is this a step?

Response 3: No, this is not a step. This is the bottom of the proposed ramp.

Item 4: Where does the storm drain daylight in Basin 201? What is the reason for the stationing in this area?

Response 4: The storm drain daylights in the concrete swale near the NW corner of the site. The stationing was in error and was removed.

Item 5: Provide grades north of the site wall east of the new building in Basin 201.

Response 5: Additional spot elevations were placed on plan as needed.

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HYDROLOGY SECTION

Item 6: Why is there a note 13 in the rip-rap mat west of the proposed building in Basin 201?

Response 6: Note was placed in error and has been removed.

Item 7: Provide grades on the new asphalt near San Jacinto and along the P/L at the north end of the rip-rap mat.

Response 7: Additional spot elevations were placed on plan as needed.

Item 8: Should you hard-line/rip-rap the flow line from the rip-rap mat to the existing channel in Basin 201?

Response 8: Rip-rap has been extended as needed.

Item 9: Note 23 specifies an invert of 87.82. This is too high.

Response 9: Spot elevation has been recalculated and changed.

Item 10: It is not clear how drainage from Basin 204 is getting into the pond.

Response 10: Runoff from Basin 204 will flow west into several inlets throughout the basin. The storm drain associated with the before mentioned inlets discharge into basin 206. Runoff then drains across the existing paved areas (Basin 206) and ultimately into the detention facility.

Item 11: How can improving the pond be an alternate?

Response 11: Alternate is for bidding purposes only. Improvements to the pond will be performed as part of the project.

Item 12: Provide TW for the spillway.

Response 12: TW spot elevation has been noted on sheet.

Item 13: Provide V_{req}, V_{prov}, and the WSE for the pond on the Grading Plan.

Response 13: All the above information has been added to the grading and drainage sheet.

Should you have any questions, please contact me at mobile number 235-7250 or office number 348-4000.

WILSON & COMPANY

J. Woodruff

Jason R. Woodruff, PE
Civil Engineer

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HYDROLOGY SECTION

cc: File

Drainage Report

for

McCollum Elementary

Albuquerque, New Mexico

October 2008

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OCT 6 2008
HYDROLOGY
SECTION

Prepared for:
APS Facilities Planning & Construction

Prepared by:
Wilson & Company Inc., Engineers & Architects
4900 Lang Avenue NE
Albuquerque, New Mexico 87109

WCI Project No. 075-500-074-00

WILSON
&COMPANY

Drainage Report

For

McCollum Elementary

Albuquerque, New Mexico

October 2008

Prepared for:
APS Facilities Planning & Construction

Prepared by:
Wilson & Company Inc., Engineers & Architects
4900 Lang Avenue NE
Albuquerque, New Mexico 87109

WCI Project No. 075-500-074-00

TABLE OF CONTENTS

Page

Location 1

Drainage Design Criteria 1

Existing Drainage Conditions 1

Developed Drainage Conditions 2

Conclusions 3

LIST OF APPENDICES

Appendix A

AHYMO-97 Input and Output Files
Emergency Spillway-Weir Calculation
Existing Hydraulic Analysis of Outfall

Appendix B

Existing Basin Sheet
Proposed Basin Sheet

Grading and Drainage Plan (C103-C106)

Detail Sheets (C501-C504)

I. LOCATION

McCollum Elementary School is located at 10900 San Jacinto Ave. NE in Albuquerque New Mexico and is bounded to the west by a residential neighborhood, Morris St. to the east, San Jacinto to the north and to the south the city water tank site. The site has an area of 9.98 acres. All applicable ordinances of the DPM and AHYMO were utilized to prepare this plan.

II. DRAINAGE DESIGN CRITERIA

The design criteria used in this report was in accordance with Section 22.2 of the City of Albuquerque Development Process Manual (DPM). AHYMO was used to model the 100-year, 6-hour storm event to determine the peak runoff using P (1 hr) = 2.23, P (6 hr) = 2.90 and P (24 hr) = 3.65 obtained from the Table A-2 page 22-8 of DPM. AHYMO was also use to model the 100-year, 24-hour storm event to determine the total volumetric storage required for the detention pond. The onsite Land Treatment values varied depending on the basin. The site is located in Zone 4 as designated in Table A-1. The LEED rating system requires a 25% decrease in the volume of stormwater runoff from the two-year 24-hour storm event, so AHYMO was also used to model this event with P (1 hr) = 0.97, P (6 hr) = 1.26 and P (24 hr) = 1.58 obtained by multiplying the 100-year storm by the adjustment factor of 0.434 found on table A-3. Copies of the original AHYMO output files are located in Appendix A at the end of this report.

III. EXISTING DRIANAGE CONDITION

The existing topography slopes NE to SW between 1% to 5%. The Soil Survey of Sandoval County Area, New Mexico designates the underlying soil as Embudo Tijeras Complex and Tijeras gravelly fine sandy loam. Embudo Tijeras Complex is described as well drained with a depth more than 60 inches, Tijeras is gravelly fine sandy loam from 0 to 6 inches. The site is located in Zone Atlas J-21-Z. The legal description is McCollum Elementary School: Being a portion of Tract A, lands of Oscar M. Love . McCollum is located in FIRM panel 0359F zone X (areas determined to be outside the 0.2% annual chance flood with average depths of less that 1% annual chance flood, map number 35001C0359F.)

Sheet 1 of 2 delineates the pre-development watershed boundaries. Establishment of the basin boundaries are based on a topographic map. (see existing basin exhibit sheet 1 of 2). The site has a total area of 9.98 acres. Pre-development peak discharge is computed as follows:

Table 1- Pre-Development Conditions for McCollum Elementary School

Basin ID	Area (acres)	Peak Discharge 100yr-6hr (ft^3/sec)	Runoff Volume 100yr-6hr (acre-ft)	Runoff Volume 100yr-24hr (acre-ft)
101	1.23	6.36	0.265	0.327
102	1.819	7.93	0.301	0.348
103	2.32	10.63	0.416	0.491
104	0.71	3.70	0.155	0.191
105	3.91	15.56	0.571	0.649

Based on the AHYMO run for 100-year, 24-hour storm, the existing detention pond does not have enough storage to hold the modeled runoff volme. The water surface would have been higher than the exsitng top of pond elevation of 5469.00.

IV. DEVELOPED DRAINAGE CONDITION

McCollum Elementary School will be adding two new buildings. These buildings will affect existing basins 101 and 103-105. For proposed conditions a total of 6 basins were delineated (see proposed basin exhibit sheet 2 of 2). Playground areas with engineered wood fiber mulch will have a concrete border allowing all water to infiltrate eliminating runoff in these areas.

Post-development flows are determined based on the post-development watershed boundary. Proposed grading does not alter the watershed boundary. Therefore the post-development watershed boundary remains at approximately 9.88 acres. The post-development peak discharge is less than the pre-development discharge because of the addition of areas that allow for infiltration along with areas in the playground which will retain runoff within the concrete borders. These methods reduce the peak flow rate and helped keep the post-development runoff volume unchanged.

Table 2- Post-Development Conditions for McCollum Elementary School

Basin ID	Area (acres)	Peak Discharge 100yr-6hr (ft^3/sec)	Runoff Volume 100yr-6hr (acre-ft)	Runoff Volume 100yr-24hr (acre-ft)
201	1.31	7.03	0.293	0.361
202	1.73	8.07	0.318	0.378
203	1.29	5.77	0.222	0.259
204	1.29	5.54	0.212	0.248
205	0.72	3.70	0.155	0.191
206	3.64	13.54	0.498	0.571

A detention pond will capture runoff, sediment, and provide a level of water quality. Sizing of the pond is determined by computing the volumetric runoff from the 100-year, 24-hour storm. A floodwall around the downstream side of the detention pond was added to raise the storage elevation. The emergency spillway is designed to release the peak discharge of 43.64 ft^3/sec with the crest elevation at 5470.00 and the top of wall elevation at 5471.00. (see Emergency Spillway-Weir Calculation). Pre-Development volumetric runoff has a total of 2.0 acre-ft and post development will have a total of 2.0 acre-ft. The maximum water surface elevation during the design storm will be 5470.

V. CONCLUSIONS

McCollum Elementary School is located in zone atlas map J-21-Z and has an area of 9.98 acres. The site will be adding 2 buildings to the school improving playground areas and adding a floodwall to the existing detention pond. The site naturally slopes to the west into a concrete swale. The proposed buildings will not have a major impact on the discharge from the site. The peak runoff will decrease from 44.18 ft^3/sec to 43.64 ft^3/sec having a total decrease of 1.22%, the volumetric runoff remains unchanged at 2.0 acre-ft. The runoff will be discharging into a pond at the south west corner of the school and release at a controlled maximum rate of 8.8 ft^3/sec .

0.88 cfs/ac

APPENDIX A

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02c RUN DATE (MON/DAY/YR) =08/29/2008
INPUT FILE = M:\FAE\07833E~1\AE_DATA\CALCS\ENG\AHYMO\1006.HMI USER NO.= AHYMO-C-9803c01UNMLIB-AH

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S AHYMO_97 MODEL FOR: McCollum										
*S PREPARED FOR: APS										
*S PREPARED BY: Wilson & Co										
*S REVISED: 08/28/08 EEV										
*S MODEL DESCRIPTION -										
*S 1. 100-YEAR 6-HOUR RAINFALL EVENT										
*S 2. THIS MODEL ASSUMES DEVELOPED CONDITIONS										
*S										
START										TIME= .00
LOCATION	ALBUQUERQUE									
*S***** AHYMO -McCollum. DAT										
*S***** March 3, 2008										
*S***** HYDROLOGY FOR McCollum UN-DEVELOPED ONSITE										
RAINFALL TYPE= 1										RAIN6= 2.900
*S***** BASIN I - ONSITE EXISTING(1.23 ACRES)										
COMPUTE NM HYD	108.00	-	8	.00190	6.36	.265	2.61741	1.499	5.229	PER IMP= 98.00
*S***** BASIN II - ONSITE EXISTING (1.819 ACRES)										
COMPUTE NM HYD	109.00	-	9	.00280	7.93	.301	2.01771	1.499	4.425	PER IMP= 51.00
*S***** BASIN III - ONSITE EXISTING (2.32 ACRES)										
COMPUTE NM HYD	110.00	-	10	.00360	10.63	.416	2.16557	1.499	4.616	PER IMP= 63.00
*S***** BASIN IV - ONSITE EXISTING (0.71 ACRES)										
COMPUTE NM HYD	111.00	-	11	.00110	3.70	.155	2.64117	1.499	5.254	PER IMP= 100.00
*S***** BASIN V - ONSITE EXISTING (3.99 ACRES)										
COMPUTE NM HYD	112.00	-	12	.00610	15.56	.571	1.75482	1.499	3.985	PER IMP= 39.00
*S***** BASIN I - ONSITE PROPOSED (1.31 ACRES)										
COMPUTE NM HYD	102.00	-	2	.00210	7.03	.293	2.61741	1.499	5.227	PER IMP= 98.00
*S***** BASIN II - ONSITE PROPOSED (1.73 ACRES)										
COMPUTE NM HYD	103.00	-	3	.00270	8.07	.318	2.20973	1.499	4.669	PER IMP= 67.30
*S***** BASIN III - ONSITE PROPOSED (1.29 ACRES)										
COMPUTE NM HYD	101.00	-	4	.00202	5.77	.222	2.05621	1.499	4.461	PER IMP= 56.20
*S***** BASIN IV - ONSITE PROPOSED (1.29 ACRES)										
COMPUTE NM HYD	105.00	-	5	.00202	5.54	.212	1.96432	1.499	4.283	PER IMP= 54.30
*S***** BASIN V - ONSITE PROPOSED (0.72 ACRES)										
COMPUTE NM HYD	106.00	-	6	.00110	3.70	.155	2.64117	1.499	5.254	PER IMP= 100.00
*S***** BASIN VI - ONSITE PROPOSED (3.64 ACRES)										
COMPUTE NM HYD	107.00	-	7	.00570	13.54	.498	1.63773	1.499	3.712	PER IMP= 39.00
*sEXISTING										
ADD HYD	120.00	8& 9	20	.00470	14.29	.567	2.26004	1.499	4.750	
ADD HYD	121.00	20&10	21	.00830	24.92	.982	2.21903	1.499	4.692	
ADD HYD	122.00	21&11	22	.00940	28.62	1.137	2.26841	1.499	4.757	
ADD HYD	123.00	22&12	23	.01550	44.18	1.708	2.06627	1.499	4.454	
*SPROPOSED										
ADD HYD	130.00	2& 3	30	.00480	15.09	.611	2.38799	1.499	4.913	
ADD HYD	131.00	30& 4	31	.00682	20.86	.833	2.28969	1.499	4.779	
ADD HYD	132.00	31& 5	32	.00884	26.40	1.044	2.21531	1.499	4.666	
ADD HYD	133.00	32& 6	33	.00994	30.10	1.199	2.26241	1.499	4.731	
ADD HYD	134.00	33& 7	34	.01564	43.64	1.697	2.03473	1.499	4.360	
*SEXISTING POND W/FLOODWALL										
ROUTE RESERVOIR	200.00	34	40	.01564	8.88	1.697	2.03473	2.031	.888	AC-FT= .843
FINISH										

```
*S    AHYMO_97 MODEL FOR: McCollum
*S    PREPARED FOR:  APS
*S    PREPARED BY:  Wilson & Co
*S    REVISED:  08/28/08 EEV
*S    MODEL DESCRIPTION -
*S 1. 100-YEAR 6-HOUR RAINFALL EVENT
*S 2. THIS MODEL ASSUMES DEVELOPED CONDITIONS
*S
START                TIME=0.0
LOCATION             ALBUQUERQUE
*S***** AHYMO -McCollum. DAT
*S***** March 3, 2008
*S***** HYDROLOGY FOR McCollum UN-DEVELOPED ONSITE

RAINFALL             TYPE=1 RAIN QUARTER=0.0 IN
                     RAIN ONE=2.23 IN RAIN SIX=2.90 IN
                     RAIN DAY=0.00 IN DT=0.0333 HR

*S***** BASIN I  - ONSITE EXISTING(1.23 ACRES)

COMPUTE NM HYD       ID=8 HYD NO=108 AREA=0.0019 SQ MI
                     PER A=0 PER B=0 PER C=2 PER D=98
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=8 CODE=24


*S***** BASIN II - ONSITE EXISTING (1.819 ACRES)

COMPUTE NM HYD       ID=9 HYD NO=109 AREA=0.0028 SQ MI
                     PER A=0 PER B=10 PER C=39 PER D=51
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=9 CODE=24


*S***** BASIN III - ONSITE EXISTING (2.32 ACRES)

COMPUTE NM HYD       ID=10 HYD NO=110 AREA=0.0036 SQ MI
                     PER A=0 PER B=8.7 PER C=28.3 PER D=63
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=10 CODE=24
*S***** BASIN IV - ONSITE EXISTING (0.71 ACRES)

COMPUTE NM HYD       ID=11 HYD NO=111 AREA=0.0011 SQ MI
                     PER A=0 PER B=0 PER C=0 PER D=100
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=11 CODE=24
*S***** BASIN V - ONSITE EXISTING (3.99 ACRES)

COMPUTE NM HYD       ID=12 HYD NO=112 AREA=0.0061 SQ MI
                     PER A=0 PER B=41 PER C=20 PER D=39
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=12 CODE=24

*S***** BASIN I - ONSITE PROPOSED (1.31 ACRES)

COMPUTE NM HYD       ID=2 HYD NO=102 AREA=0.0021 SQ MI
                     PER A=0 PER B=0 PER C=2 PER D=98
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=2 CODE=24

*S***** BASIN II - ONSITE PROPOSED (1.73 ACRES)

COMPUTE NM HYD       ID=3 HYD NO=103 AREA=0.0027 SQ MI
                     PER A=0 PER B=10.4 PER C=22.3 PER D=67.3
```

```
                    TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=3 CODE=24

*S***** BASIN III - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD      ID=4 HYD NO=101 AREA=0.00202 SQ MI
                    PER A=0 PER B=15.7 PER C=28.1 PER D=56.2
                    TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=4 CODE=24

*S***** BASIN IV - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD      ID=5 HYD NO=105 AREA=0.00202 SQ MI
                    PER A=0 PER B=34.3 PER C=11.4 PER D=54.3
                    TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=5 CODE=24

*S***** BASIN V - ONSITE PROPOSED (0.72 ACRES)

COMPUTE NM HYD      ID=6 HYD NO=106 AREA=0.0011 SQ MI
                    PER A=0 PER B=0 PER C=0 PER D=100
                    TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=6 CODE=24

*S***** BASIN VI - ONSITE PROPOSED (3.64 ACRES)

COMPUTE NM HYD      ID=7 HYD NO=107 AREA=0.0057 SQ MI
                    PER A=16 PER B=45 PER C=0 PER D=39
                    TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD           ID=7 CODE=24
*****************************************************
*sEXISTING
*****************************************************
ADD HYD             ID=20 HYD NO=120 ID I=8 ID II=9
PRINT HYD           ID 20 CODE=5
*****************************************************
ADD HYD             ID=21 HYD NO=121 ID I=20 ID II=10
PRINT HYD           ID 21 CODE=5
*****************************************************
ADD HYD             ID=22 HYD NO=122 ID I=21 ID II=11
PRINT HYD           ID 22 CODE=5
*****************************************************
ADD HYD             ID=23 HYD NO=123 ID I=22 ID II=12
PRINT HYD           ID 23 CODE=5
*****************************************************
*SPROPOSED
*****************************************************
ADD HYD             ID=30 HYD NO=130 ID I=2 ID II=3
PRINT HYD           ID 30 CODE=5
*****************************************************
ADD HYD             ID=31 HYD NO=131 ID I=30 ID II=4
PRINT HYD           ID 31 CODE=5
*****************************************************
ADD HYD             ID=32 HYD NO=132 ID I=31 ID II=5
PRINT HYD           ID 32 CODE=5
*****************************************************
ADD HYD             ID=33 HYD NO=133 ID I=32 ID II=6
PRINT HYD           ID 33 CODE=5
*****************************************************
ADD HYD             ID=34 HYD NO=134 ID I=33 ID II=7
PRINT HYD           ID 34 CODE=5
*****************************************************
*SEXISTING POND W/FLOODWALL
*****************************************************
```

```
ROUTE RESERVOIR      ID 40 HYD NO=200 IN ID=34 CODE=5
                     OUTLFOW     STORAGE     ELEVATION
                      0.00        0.00        5466.5
                      6.08        0.05        5467.0
                      7.20        0.11        5468.0
                      8.16        0.44        5469.0
                      8.60        0.68        5469.5
                      9.02        0.92        5470.0
PRINT HYD            ID=40 CODE=5
*****************************************************
*****************************************************
FINISH
```

```
AHYMO PROGRAM (AHYMO_97) -                                  - Version:  1997.02c
     RUN DATE (MON/DAY/YR) = 08/29/2008
     START TIME (HR:MIN:SEC) = 10:09:51     USER NO.= AHYMO-C-9803c01UNMLIB-AH
     INPUT FILE = M:\FAE\07833E~1\AE_DATA\CALCS\ENG\AHYMO\1006.HMI

*S    AHYMO_97 MODEL FOR: McCollum
*S    PREPARED FOR:  APS
*S    PREPARED BY:  Wilson & Co
*S    REVISED:  08/28/08 EEV
*S    MODEL DESCRIPTION -
*S 1. 100-YEAR 6-HOUR RAINFALL EVENT
*S 2. THIS MODEL ASSUMES DEVELOPED CONDITIONS
*S
START                TIME=0.0
LOCATION                 ALBUQUERQUE
     City of Albuquerque soil infiltration values (LAND FACTORS) used for computations.
     Land Treatment     Initial Abstr.(in)    Unif. Infilt.(in/hour)
          A             0.65                  1.67
          B             0.50                  1.25
          C             0.35                  0.83
          D             0.10                  0.04

*S***** AHYMO -McCollum. DAT
*S***** March 3, 2008
*S***** HYDROLOGY FOR McCollum UN-DEVELOPED ONSITE

RAINFALL             TYPE=1 RAIN QUARTER=0.0 IN
                     RAIN ONE=2.23 IN RAIN SIX=2.90 IN
                     RAIN DAY=0.00 IN DT=0.0333 HR

                COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                DT =    .033300 HOURS       END TIME =     5.994000 HOURS
                   .0000   .0055   .0110   .0167   .0225   .0284   .0344
                   .0406   .0469   .0534   .0600   .0667   .0737   .0808
                   .0881   .0957   .1034   .1114   .1196   .1281   .1369
                   .1459   .1553   .1651   .1752   .1858   .1968   .2083
                   .2204   .2331   .2465   .2529   .2594   .2665   .2810
                   .3143   .3657   .4396   .5406   .6734   .8430  1.0542
                  1.3121  1.5597  1.6613  1.7468  1.8227  1.8918  1.9553
                  2.0143  2.0694  2.1210  2.1697  2.2155  2.2588  2.2998
                  2.3386  2.3755  2.4104  2.4436  2.4751  2.4845  2.4923
                  2.4998  2.5070  2.5139  2.5206  2.5271  2.5334  2.5396
                  2.5456  2.5514  2.5571  2.5627  2.5681  2.5734  2.5786
                  2.5837  2.5887  2.5937  2.5985  2.6032  2.6079  2.6125
                  2.6170  2.6215  2.6258  2.6301  2.6344  2.6386  2.6427
                  2.6468  2.6508  2.6548  2.6588  2.6626  2.6665  2.6703
                  2.6740  2.6777  2.6814  2.6850  2.6886  2.6921  2.6957
                  2.6991  2.7026  2.7060  2.7094  2.7127  2.7160  2.7193
                  2.7226  2.7258  2.7290  2.7322  2.7354  2.7385  2.7416
                  2.7447  2.7477  2.7507  2.7537  2.7567  2.7597  2.7626
                  2.7655  2.7684  2.7713  2.7741  2.7770  2.7798  2.7826
                  2.7854  2.7881  2.7909  2.7936  2.7963  2.7990  2.8017
                  2.8043  2.8069  2.8096  2.8122  2.8148  2.8173  2.8199
                  2.8225  2.8250  2.8275  2.8300  2.8325  2.8350  2.8375
                  2.8399  2.8423  2.8448  2.8472  2.8496  2.8520  2.8544
                  2.8567  2.8591  2.8614  2.8637  2.8661  2.8684  2.8707
                  2.8730  2.8752  2.8775  2.8798  2.8820  2.8842  2.8865
                  2.8887  2.8909  2.8931  2.8953  2.8974  2.8996

*S***** BASIN I  - ONSITE EXISTING(1.23 ACRES)

COMPUTE NM HYD       ID=8 HYD NO=108 AREA=0.0019 SQ MI
                     PER A=0 PER B=0 PER C=2 PER D=98
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   7.3513    CFS   UNIT VOLUME =    .9978       B =   526.28      P60 = 2.2300
     AREA =      .001862 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


     K =   .109928HR    TP =   .133300HR    K/TP RATIO =   .824663     SHAPE CONSTANT, N =  4.329256
     UNIT PEAK =   .10735    CFS   UNIT VOLUME =    .8746       B =   376.56      P60 = 2.2300
     AREA =      .000038 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=8 CODE=24

                                   PARTIAL HYDROGRAPH   108.00
          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
           HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS
HRS       CFS
           .000       .0          1.998      1.6          3.996       .1          5.994       .1
           .666       .1          2.664       .2          4.662       .1          6.660       .0
          1.332      2.0          3.330       .1          5.328       .1

     RUNOFF VOLUME =     2.61741 INCHES     =        .2652 ACRE-FEET
     PEAK DISCHARGE RATE =       6.36 CFS  AT   1.499 HOURS   BASIN AREA =   .0019 SQ. MI.


*S***** BASIN II - ONSITE EXISTING (1.819 ACRES)

COMPUTE NM HYD       ID=9 HYD NO=109 AREA=0.0028 SQ MI
                     PER A=0 PER B=10 PER C=39 PER D=51
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   5.6378    CFS   UNIT VOLUME =    .9972       B =   526.28      P60 = 2.2300
     AREA =      .001428 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
```

```
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

K =   .114992HR    TP =   .133300HR    K/TP RATIO =   .862653     SHAPE CONSTANT, N =  4.121083
UNIT PEAK =   3.7379    CFS   UNIT VOLUME =    .9969       B =   363.16      P60 = 2.2300
AREA =      .001372 SQ MI    IA =    .38061 INCHES    INF =    .91571 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD          ID=9 CODE=24

                                   PARTIAL HYDROGRAPH   109.00

          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
          .000        .0         1.998       1.7         3.996        .1         5.994        .1
          .666        .1         2.664        .2         4.662        .1         6.660        .0
         1.332       2.2         3.330        .1         5.328        .1

       RUNOFF VOLUME =     2.01771 INCHES     =        .3013 ACRE-FEET
       PEAK DISCHARGE RATE =       7.93 CFS  AT   1.499 HOURS   BASIN AREA =   .0028 SQ. MI.


*S***** BASIN III - ONSITE EXISTING (2.32 ACRES)

COMPUTE NM HYD       ID=10 HYD NO=110 AREA=0.0036 SQ MI
                     PER A=0 PER B=8.7 PER C=28.3 PER D=63
                     TP=0.1333 HR MASS RAINFALL=-1

K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
UNIT PEAK =   8.9542    CFS   UNIT VOLUME =    .9980       B =   526.28      P60 = 2.2300
AREA =      .002268 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

K =   .115762HR    TP =   .133300HR    K/TP RATIO =   .868434     SHAPE CONSTANT, N =  4.091423
UNIT PEAK =   3.6095    CFS   UNIT VOLUME =    .9965       B =   361.22      P60 = 2.2300
AREA =      .001332 SQ MI    IA =    .38527 INCHES    INF =    .92876 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD          ID=10 CODE=24

                                   PARTIAL HYDROGRAPH   110.00

          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
          .000        .0         1.998       2.4         3.996        .1         5.994        .1
          .666        .2         2.664        .3         4.662        .1         6.660        .0
         1.332       3.0         3.330        .1         5.328        .1

       RUNOFF VOLUME =     2.16557 INCHES     =        .4158 ACRE-FEET
       PEAK DISCHARGE RATE =      10.63 CFS  AT   1.499 HOURS   BASIN AREA =   .0036 SQ. MI.


*S***** BASIN IV - ONSITE EXISTING (0.71 ACRES)

COMPUTE NM HYD       ID=11 HYD NO=111 AREA=0.0011 SQ MI
                     PER A=0 PER B=0 PER C=0 PER D=100
                     TP=0.1333 HR MASS RAINFALL=-1

K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
UNIT PEAK =   4.3429    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = 2.2300
AREA =      .001100 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD          ID=11 CODE=24

                                   PARTIAL HYDROGRAPH   111.00

          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
          .000        .0         1.998        .9         3.996        .0         5.994        .0
          .666        .1         2.664        .1         4.662        .0         6.660        .0
         1.332       1.2         3.330        .1         5.328        .0

       RUNOFF VOLUME =     2.64117 INCHES     =        .1549 ACRE-FEET
       PEAK DISCHARGE RATE =       3.70 CFS  AT   1.499 HOURS   BASIN AREA =   .0011 SQ. MI.


*S***** BASIN V - ONSITE EXISTING (3.99 ACRES)

COMPUTE NM HYD       ID=12 HYD NO=112 AREA=0.0061 SQ MI
                     PER A=0 PER B=41 PER C=20 PER D=39
                     TP=0.1333 HR MASS RAINFALL=-1

K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
UNIT PEAK =   9.3924    CFS   UNIT VOLUME =    .9982       B =   526.28      P60 = 2.2300
AREA =      .002379 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

K =   .126606HR    TP =   .133300HR    K/TP RATIO =   .949781     SHAPE CONSTANT, N =  3.721479
UNIT PEAK =   9.3835    CFS   UNIT VOLUME =    .9988       B =   336.15      P60 = 2.2300
AREA =      .003721 SQ MI    IA =    .45082 INCHES    INF =   1.11230 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300
```

```
PRINT HYD          ID=12 CODE=24

                                   PARTIAL HYDROGRAPH   112.00

          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
          .000        .0         1.998       2.9         3.996        .1         5.994        .1
          .666        .2         2.664        .4         4.662        .1         6.660        .0
         1.332       3.8         3.330        .1         5.328        .1

     RUNOFF VOLUME =     1.75482 INCHES     =        .5709 ACRE-FEET
     PEAK DISCHARGE RATE =      15.56 CFS  AT   1.499 HOURS   BASIN AREA =   .0061 SQ. MI.


*S***** BASIN I - ONSITE PROPOSED (1.31 ACRES)

COMPUTE NM HYD      ID=2 HYD NO=102 AREA=0.0021 SQ MI
                    PER A=0 PER B=0 PER C=2 PER D=98
                    TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   8.1251    CFS   UNIT VOLUME =    .9980       B =   526.28      P60 = 2.2300
     AREA =      .002058 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

     K =   .109928HR    TP =   .133300HR    K/TP RATIO =   .824663     SHAPE CONSTANT, N =  4.329256
     UNIT PEAK =   .11865    CFS   UNIT VOLUME =    .8867       B =   376.56      P60 = 2.2300
     AREA =      .000042 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD          ID=2 CODE=24

                                   PARTIAL HYDROGRAPH   102.00

          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
          .000        .0         1.998       1.7         3.996        .1         5.994        .1
          .666        .1         2.664        .2         4.662        .1         6.660        .0
         1.332       2.2         3.330        .1         5.328        .1

     RUNOFF VOLUME =     2.61741 INCHES     =        .2931 ACRE-FEET
     PEAK DISCHARGE RATE =       7.03 CFS  AT   1.499 HOURS   BASIN AREA =   .0021 SQ. MI.


*S***** BASIN II - ONSITE PROPOSED (1.73 ACRES)

COMPUTE NM HYD      ID=3 HYD NO=103 AREA=0.0027 SQ MI
                    PER A=0 PER B=10.4 PER C=22.3 PER D=67.3
                    TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   7.1740    CFS   UNIT VOLUME =    .9978       B =   526.28      P60 = 2.2300
     AREA =      .001817 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

     K =   .117819HR    TP =   .133300HR    K/TP RATIO =   .883867     SHAPE CONSTANT, N =  4.014603
     UNIT PEAK =   2.3589    CFS   UNIT VOLUME =    .9949       B =   356.14      P60 = 2.2300
     AREA =      .000883 SQ MI    IA =    .39771 INCHES    INF =    .96358 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD          ID=3 CODE=24

                                   PARTIAL HYDROGRAPH   103.00

          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
TIME      FLOW
           HRS       CFS           HRS       CFS           HRS       CFS           HRS       CFS
HRS       CFS
          .000        .0         1.998       1.8         3.996        .1         5.994        .1
          .666        .1         2.664        .2         4.662        .1         6.660        .0
         1.332       2.3         3.330        .1         5.328        .1

     RUNOFF VOLUME =     2.20973 INCHES     =        .3182 ACRE-FEET
     PEAK DISCHARGE RATE =       8.07 CFS  AT   1.499 HOURS   BASIN AREA =   .0027 SQ. MI.


*S***** BASIN III - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD      ID=4 HYD NO=101 AREA=0.00202 SQ MI
                    PER A=0 PER B=15.7 PER C=28.1 PER D=56.2
                    TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.4820    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = 2.2300
     AREA =      .001135 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

     K =   .118822HR    TP =   .133300HR    K/TP RATIO =   .891388     SHAPE CONSTANT, N =  3.978387
     UNIT PEAK =   2.3478    CFS   UNIT VOLUME =    .9947       B =   353.73      P60 = 2.2300
     AREA =      .000885 SQ MI    IA =    .40377 INCHES    INF =    .98055 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD          ID=4 CODE=24
```

PARTIAL HYDROGRAPH 101.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.998	1.2	3.996	.0	5.994	.0
.666	.1	2.664	.1	4.662	.0	6.660	.0
1.332	1.6	3.330	.1	5.328	.0		

RUNOFF VOLUME = 2.05621 INCHES = .2215 ACRE-FEET
PEAK DISCHARGE RATE = 5.77 CFS AT 1.499 HOURS BASIN AREA = .0020 SQ. MI.

*S***** BASIN IV - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD ID=5 HYD NO=105 AREA=0.00202 SQ MI
PER A=0 PER B=34.3 PER C=11.4 PER D=54.3
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 4.3305 CFS UNIT VOLUME = .9969 B = 526.28 P60 = 2.2300
AREA = .001097 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .128552HR TP = .133300HR K/TP RATIO = .964379 SHAPE CONSTANT, N = 3.663328
UNIT PEAK = 2.2996 CFS UNIT VOLUME = .9942 B = 332.06 P60 = 2.2300
AREA = .000923 SQ MI IA = .46258 INCHES INF = 1.14523 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=5 CODE=24

PARTIAL HYDROGRAPH 105.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.332	1.5	2.664	.1	3.996	.0
.666	.1	1.998	1.1	3.330	.1	4.662	.0

5.328 .0
5.994 .0

RUNOFF VOLUME = 1.96432 INCHES = .2116 ACRE-FEET
PEAK DISCHARGE RATE = 5.54 CFS AT 1.499 HOURS BASIN AREA = .0020 SQ. MI.

*S***** BASIN V - ONSITE PROPOSED (0.72 ACRES)

COMPUTE NM HYD ID=6 HYD NO=106 AREA=0.0011 SQ MI
PER A=0 PER B=0 PER C=0 PER D=100
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 4.3429 CFS UNIT VOLUME = .9969 B = 526.28 P60 = 2.2300
AREA = .001100 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=6 CODE=24

PARTIAL HYDROGRAPH 106.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.998	.9	3.996	.0	5.994	.0
.666	.1	2.664	.1	4.662	.0	6.660	.0
1.332	1.2	3.330	.1	5.328	.0		

RUNOFF VOLUME = 2.64117 INCHES = .1549 ACRE-FEET
PEAK DISCHARGE RATE = 3.70 CFS AT 1.499 HOURS BASIN AREA = .0011 SQ. MI.

*S***** BASIN VI - ONSITE PROPOSED (3.64 ACRES)

COMPUTE NM HYD ID=7 HYD NO=107 AREA=0.0057 SQ MI
PER A=16 PER B=45 PER C=0 PER D=39
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 8.7765 CFS UNIT VOLUME = .9980 B = 526.28 P60 = 2.2300
AREA = .002223 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .141250HR TP = .133300HR K/TP RATIO = 1.059642 SHAPE CONSTANT, N = 3.332368
UNIT PEAK = 8.0309 CFS UNIT VOLUME = .9983 B = 307.89 P60 = 2.2300
AREA = .003477 SQ MI IA = .53934 INCHES INF = 1.36016 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=7 CODE=24

PARTIAL HYDROGRAPH 107.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS

HRS	CFS							
	.000	.0	1.998	2.5	3.996	.1	5.994	.1
	.666	.1	2.664	.3	4.662	.1	6.660	.0
	1.332	3.0	3.330	.1	5.328	.1		

RUNOFF VOLUME = 1.63773 INCHES = .4979 ACRE-FEET
PEAK DISCHARGE RATE = 13.54 CFS AT 1.499 HOURS BASIN AREA = .0057 SQ. MI.

```
*****************************************************
*sEXISTING
*****************************************************
ADD HYD            ID=20 HYD NO=120 ID I=8 ID II=9
PRINT HYD          ID 20 CODE=5
```

PARTIAL HYDROGRAPH 120.00

TIME	TIME FLOW HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
HRS	CFS							
	.000	.0	1.498	14.3	2.997	.2	4.496	.1
5.994	.1							
	.167	.0	1.665	7.4	3.164	.2	4.662	.1
6.161	.1							
	.333	.0	1.831	4.6	3.330	.2	4.829	.1
6.327	.0							
	.500	.0	1.998	3.2	3.497	.2	4.995	.1
6.494	.0							
	.666	.2	2.164	1.5	3.663	.2	5.162	.1
6.660	.0							
	.833	.4	2.331	.8	3.830	.1	5.328	.1
	.999	.6	2.498	.5	3.996	.1	5.495	.1
	1.166	.5	2.664	.4	4.163	.1	5.661	.1
	1.332	4.2	2.831	.3	4.329	.1	5.828	.1

RUNOFF VOLUME = 2.26004 INCHES = .5665 ACRE-FEET
PEAK DISCHARGE RATE = 14.29 CFS AT 1.499 HOURS BASIN AREA = .0047 SQ. MI.

```
*****************************************************
ADD HYD            ID=21 HYD NO=121 ID I=20 ID II=10
PRINT HYD          ID 21 CODE=5
```

PARTIAL HYDROGRAPH 121.00

TIME	TIME FLOW HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
HRS	CFS							
	.000	.0	1.498	24.9	2.997	.4	4.496	.2
5.994	.2							
	.167	.0	1.665	12.9	3.164	.3	4.662	.2
6.161	.1							
	.333	.0	1.831	8.0	3.330	.3	4.829	.2
6.327	.0							
	.500	.0	1.998	5.6	3.497	.3	4.995	.2
6.494	.0							
	.666	.4	2.164	2.7	3.663	.3	5.162	.2
6.660	.0							
	.833	.7	2.331	1.3	3.830	.2	5.328	.2
	.999	1.0	2.498	.9	3.996	.2	5.495	.2
	1.166	.8	2.664	.6	4.163	.2	5.661	.2
	1.332	7.2	2.831	.5	4.329	.2	5.828	.2

RUNOFF VOLUME = 2.21903 INCHES = .9823 ACRE-FEET
PEAK DISCHARGE RATE = 24.92 CFS AT 1.499 HOURS BASIN AREA = .0083 SQ. MI.

```
*****************************************************
ADD HYD            ID=22 HYD NO=122 ID I=21 ID II=11
PRINT HYD          ID 22 CODE=5
```

PARTIAL HYDROGRAPH 122.00

TIME	TIME FLOW HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
HRS	CFS							
	.000	.0	1.498	28.6	2.997	.5	4.496	.3
5.994	.3							
	.167	.0	1.665	14.8	3.164	.4	4.662	.3
6.161	.1							
	.333	.0	1.831	9.2	3.330	.3	4.829	.3
6.327	.0							
	.500	.0	1.998	6.5	3.497	.3	4.995	.3
6.494	.0							
	.666	.4	2.164	3.1	3.663	.3	5.162	.3
6.660	.0							
	.833	.9	2.331	1.6	3.830	.3	5.328	.3
	.999	1.2	2.498	1.0	3.996	.3	5.495	.3
	1.166	1.0	2.664	.7	4.163	.3	5.661	.3
	1.332	8.3	2.831	.6	4.329	.3	5.828	.3

RUNOFF VOLUME = 2.26841 INCHES = 1.1372 ACRE-FEET
PEAK DISCHARGE RATE = 28.62 CFS AT 1.499 HOURS BASIN AREA = .0094 SQ. MI.

```
*****************************************************
ADD HYD            ID=23 HYD NO=123 ID I=22 ID II=12
PRINT HYD          ID 23 CODE=5
```

PARTIAL HYDROGRAPH 123.00

TIME HRS	TIME FLOW HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
	.000	.0	1.498	44.2	2.997	.7	4.496	.4
5.994	.4							
	.167	.0	1.665	23.2	3.164	.6	4.662	.4
6.161	.1							
	.333	.0	1.831	13.8	3.330	.5	4.829	.4
6.327	.0							
	.500	.0	1.998	9.4	3.497	.5	4.995	.4
6.494	.0							
	.666	.6	2.164	4.5	3.663	.4	5.162	.4
6.660	.0							
	.833	1.2	2.331	2.4	3.830	.4	5.328	.4
6.827	.0							
	.999	1.6	2.498	1.6	3.996	.4	5.495	.4
	1.166	1.4	2.664	1.1	4.163	.4	5.661	.4
	1.332	12.1	2.831	.8	4.329	.4	5.828	.4

RUNOFF VOLUME = 2.06627 INCHES = 1.7081 ACRE-FEET
PEAK DISCHARGE RATE = 44.18 CFS AT 1.499 HOURS BASIN AREA = .0155 SQ. MI.

```
*******************************************************
*SPROPOSED
*******************************************************
ADD HYD            ID=30 HYD NO=130 ID I=2 ID II=3
PRINT HYD          ID 30 CODE=5
```

PARTIAL HYDROGRAPH 130.00

TIME HRS	TIME FLOW HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
	.000	.0	1.498	15.1	2.997	.3	4.496	.2
5.994	.2							
	.167	.0	1.665	7.8	3.164	.2	4.662	.2
6.161	.1							
	.333	.0	1.831	4.9	3.330	.2	4.829	.2
6.327	.0							
	.500	.0	1.998	3.5	3.497	.2	4.995	.2
6.494	.0							
	.666	.3	2.164	1.7	3.663	.2	5.162	.2
6.660	.0							
	.833	.5	2.331	.8	3.830	.2	5.328	.2
	.999	.7	2.498	.6	3.996	.2	5.495	.2
	1.166	.6	2.664	.4	4.163	.2	5.661	.2
	1.332	4.5	2.831	.3	4.329	.2	5.828	.2

RUNOFF VOLUME = 2.38799 INCHES = .6113 ACRE-FEET
PEAK DISCHARGE RATE = 15.09 CFS AT 1.499 HOURS BASIN AREA = .0048 SQ. MI.

```
*******************************************************
ADD HYD            ID=31 HYD NO=131 ID I=30 ID II=4
PRINT HYD          ID 31 CODE=5
```

PARTIAL HYDROGRAPH 131.00

TIME HRS	TIME FLOW HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
	.000	.0	1.498	20.9	2.997	.3	4.496	.2
5.994	.2							
	.167	.0	1.665	10.8	3.164	.3	4.662	.2
6.161	.1							
	.333	.0	1.831	6.8	3.330	.3	4.829	.2
6.327	.0							
	.500	.0	1.998	4.8	3.497	.2	4.995	.2
6.494	.0							
	.666	.3	2.164	2.3	3.663	.2	5.162	.2
6.660	.0							
	.833	.7	2.331	1.1	3.830	.2	5.328	.2
	.999	.9	2.498	.8	3.996	.2	5.495	.2
	1.166	.7	2.664	.5	4.163	.2	5.661	.2
	1.332	6.1	2.831	.4	4.329	.2	5.828	.2

RUNOFF VOLUME = 2.28969 INCHES = .8328 ACRE-FEET
PEAK DISCHARGE RATE = 20.86 CFS AT 1.499 HOURS BASIN AREA = .0068 SQ. MI.

```
*******************************************************
ADD HYD            ID=32 HYD NO=132 ID I=31 ID II=5
PRINT HYD          ID 32 CODE=5
```

PARTIAL HYDROGRAPH 132.00

TIME HRS	TIME FLOW HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
	.000	.0	1.498	26.4	2.997	.4	4.496	.2
5.994	.3							
	.167	.0	1.665	13.7	3.164	.3	4.662	.2
6.161	.1							
	.333	.0	1.831	8.5	3.330	.3	4.829	.2
6.327	.0							
	.500	.0	1.998	5.9	3.497	.3	4.995	.2

6.494	.0							
	.666	.4	2.164	2.8	3.663	.3	5.162	.2
6.660	.0							
	.833	.8	2.331	1.4	3.830	.3	5.328	.2
	.999	1.1	2.498	1.0	3.996	.3	5.495	.2
	1.166	.9	2.664	.7	4.163	.3	5.661	.2
	1.332	7.5	2.831	.5	4.329	.3	5.828	.3

RUNOFF VOLUME = 2.21531 INCHES = 1.0444 ACRE-FEET
PEAK DISCHARGE RATE = 26.40 CFS AT 1.499 HOURS BASIN AREA = .0088 SQ. MI.

****
ADD HYD ID=33 HYD NO=133 ID I=32 ID II=6
PRINT HYD ID 33 CODE=5

PARTIAL HYDROGRAPH 133.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.498	30.1	2.997	.5	4.496	.3
5.994	.3						
.167	.0	1.665	15.6	3.164	.4	4.662	.3
6.161	.1						
.333	.0	1.831	9.7	3.330	.4	4.829	.3
6.327	.0						
.500	.0	1.998	6.8	3.497	.3	4.995	.3
6.494	.0						
.666	.5	2.164	3.3	3.663	.3	5.162	.3
6.660	.0						
.833	1.0	2.331	1.7	3.830	.3	5.328	.3
.999	1.3	2.498	1.1	3.996	.3	5.495	.3
1.166	1.1	2.664	.8	4.163	.3	5.661	.3
1.332	8.7	2.831	.6	4.329	.3	5.828	.3

RUNOFF VOLUME = 2.26241 INCHES = 1.1994 ACRE-FEET
PEAK DISCHARGE RATE = 30.10 CFS AT 1.499 HOURS BASIN AREA = .0099 SQ. MI.

****
ADD HYD ID=34 HYD NO=134 ID I=33 ID II=7
PRINT HYD ID 34 CODE=5

PARTIAL HYDROGRAPH 134.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.498	43.6	2.997	.7	4.496	.4
5.994	.4						
.167	.0	1.665	22.9	3.164	.6	4.662	.4
6.161	.2						
.333	.0	1.831	13.6	3.330	.5	4.829	.4
6.327	.0						
.500	.0	1.998	9.3	3.497	.5	4.995	.4
6.494	.0						
.666	.6	2.164	4.5	3.663	.4	5.162	.4
6.660	.0						
.833	1.3	2.331	2.4	3.830	.4	5.328	.4
.999	1.7	2.498	1.6	3.996	.4	5.495	.4
1.166	1.4	2.664	1.1	4.163	.4	5.661	.4
1.332	11.8	2.831	.8	4.329	.4	5.828	.4

RUNOFF VOLUME = 2.03473 INCHES = 1.6972 ACRE-FEET
PEAK DISCHARGE RATE = 43.64 CFS AT 1.499 HOURS BASIN AREA = .0156 SQ. MI.

****
*SEXISTING POND W/FLOODWALL
****
ROUTE RESERVOIR ID 40 HYD NO=200 IN ID=34 CODE=5

OUTLFOW	STORAGE	ELEVATION
0.00	0.00	5466.5
6.08	0.05	5467.0
7.20	0.11	5468.0
8.16	0.44	5469.0
8.60	0.68	5469.5
9.02	0.92	5470.0

* * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5466.50	.000	.00
.17	.00	5466.50	.000	.00
.33	.00	5466.50	.000	.00
.50	.00	5466.50	.000	.00
.67	.63	5466.52	.002	.22
.83	1.26	5466.58	.008	.92
1.00	1.67	5466.62	.012	1.40
1.17	1.41	5466.63	.013	1.55
1.33	11.76	5466.93	.043	5.19
1.50	43.64	5468.69	.336	7.86
1.67	22.90	5469.52	.689	8.62
1.83	13.58	5469.77	.809	8.83
2.00	9.33	5469.84	.842	8.88
2.16	4.54	5469.79	.819	8.84
2.33	2.37	5469.63	.742	8.71
2.50	1.58	5469.44	.650	8.55

				1006.HMO
2.66	1.11	5469.23	.552	8.37
2.83	.85	5469.02	.451	8.18
3.00	.67	5468.73	.351	7.90
3.16	.57	5468.43	.253	7.62
3.33	.51	5468.14	.157	7.34
3.50	.47	5467.29	.067	6.41
3.66	.45	5466.66	.016	1.97
3.83	.42	5466.56	.006	.71
4.00	.41	5466.54	.004	.47
4.16	.40	5466.53	.003	.41
4.33	.39	5466.53	.003	.40
4.50	.38	5466.53	.003	.39
4.66	.38	5466.53	.003	.38
4.83	.38	5466.53	.003	.38
5.00	.38	5466.53	.003	.38
5.16	.38	5466.53	.003	.38
5.33	.38	5466.53	.003	.38
5.49	.38	5466.53	.003	.38
5.66	.38	5466.53	.003	.38
5.83	.39	5466.53	.003	.38
5.99	.39	5466.53	.003	.39
6.16	.15	5466.52	.002	.30
6.33	.04	5466.51	.001	.11
6.49	.02	5466.50	.000	.04
6.66	.01	5466.50	.000	.02
6.83	.00	5466.50	.000	.01
6.99	.00	5466.50	.000	.00

PEAK DISCHARGE = 8.884 CFS - PEAK OCCURS AT HOUR 2.03
MAXIMUM WATER SURFACE ELEVATION = 5469.838
MAXIMUM STORAGE = .8425 AC-FT INCREMENTAL TIME= .033300HRS

PRINT HYD ID=40 CODE=5

PARTIAL HYDROGRAPH 200.00

TIME HRS	TIME FLOW HRS CFS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
	.000	.0	1.498	7.9	2.997	7.9	4.496	.4
5.994	.4							
	.167	.0	1.665	8.6	3.164	7.6	4.662	.4
6.161	.3							
	.333	.0	1.831	8.8	3.330	7.3	4.829	.4
6.327	.1							
	.500	.0	1.998	8.9	3.497	6.4	4.995	.4
6.494	.0							
	.666	.2	2.164	8.8	3.663	2.0	5.162	.4
6.660	.0							
	.833	.9	2.331	8.7	3.830	.7	5.328	.4
6.827	.0							
	.999	1.4	2.498	8.5	3.996	.5	5.495	.4
6.993	.0							
	1.166	1.6	2.664	8.4	4.163	.4	5.661	.4
	1.332	5.2	2.831	8.2	4.329	.4	5.828	.4

RUNOFF VOLUME = 2.03473 INCHES = 1.6972 ACRE-FEET
PEAK DISCHARGE RATE = 8.88 CFS AT 2.031 HOURS BASIN AREA = .0156 SQ. MI.

****
****
FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 10:09:52

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02c RUN DATE (MON/DAY/YR) =08/29/2008
INPUT FILE = M:\FAE\07833E~1\AE_DATA\CALCS\ENG\AHYMO\10024.HMI USER NO.= AHYMO-C-9803c01UNMLIB-AH


```
                          FROM  TO                  PEAK        RUNOFF                TIME TO    CFS
                HYDROGRAPH  ID   ID        AREA    DISCHARGE    VOLUME      RUNOFF     PEAK     PER
COMMAND       IDENTIFICATION  NO.  NO.    (SQ MI)    (CFS)      (AC-FT)    (INCHES)  (HOURS)   ACRE     NOTATION

*S    AHYMO_97 MODEL FOR: McCollum
*S    PREPARED FOR:  APS
*S    PREPARED BY:  Wilson & Co
*S    REVISED:  08/28/08 EEV
*S    MODEL DESCRIPTION -
*S 1. 100-YEAR 24-HOUR RAINFALL EVENT
*S 2. THIS MODEL ASSUMES DEVELOPED CONDITIONS
*S
START                                                                                          TIME=       .00
LOCATION                        ALBUQUERQUE
*S***** AHYMO -McCollum. DAT
*S***** March 3, 2008
*S***** HYDROLOGY FOR McCollum UN-DEVELOPED ONSITE
RAINFALL  TYPE= 2                                                                              RAIN24=   3.650
*S***** BASIN I  - ONSITE EXISTING(1.23 ACRES)
COMPUTE NM HYD        108.00   -     8        .00190        6.36       .327     3.22274    1.499    5.229 PER IMP=  98.00
*S***** BASIN II - ONSITE EXISTING (1.819 ACRES)
COMPUTE NM HYD        109.00   -     9        .00280        7.93       .348     2.33274    1.499    4.425 PER IMP=  51.00
*S***** BASIN III - ONSITE EXISTING (2.32 ACRES)
COMPUTE NM HYD        110.00   -    10        .00360       10.63       .491     2.55470    1.499    4.616 PER IMP=  63.00
*S***** BASIN IV - ONSITE EXISTING (0.71 ACRES)
COMPUTE NM HYD        111.00   -    11        .00110        3.70       .191     3.25888    1.499    5.254 PER IMP= 100.00
*S***** BASIN V - ONSITE EXISTING (3.99 ACRES)
COMPUTE NM HYD        112.00   -    12        .00610       15.56       .649     1.99572    1.499    3.985 PER IMP=  39.00
*S***** BASIN I - ONSITE PROPOSED (1.31 ACRES)
COMPUTE NM HYD        102.00   -     2        .00210        7.03       .361     3.22273    1.499    5.227 PER IMP=  98.00
*S***** BASIN II - ONSITE PROPOSED (1.73 ACRES)
COMPUTE NM HYD        103.00   -     3        .00270        8.07       .378     2.62543    1.499    4.669 PER IMP=  67.30
*S***** BASIN III - ONSITE PROPOSED (1.29 ACRES)
COMPUTE NM HYD        101.00   -     4        .00202        5.77       .259     2.40337    1.499    4.461 PER IMP=  56.20
*S***** BASIN IV - ONSITE PROPOSED (1.29 ACRES)
COMPUTE NM HYD        105.00   -     5        .00202        5.54       .248     2.29974    1.499    4.283 PER IMP=  54.30
*S***** BASIN V - ONSITE PROPOSED (0.72 ACRES)
COMPUTE NM HYD        106.00   -     6        .00110        3.70       .191     3.25888    1.499    5.254 PER IMP= 100.00
*S***** BASIN VI - ONSITE PROPOSED (3.64 ACRES)
COMPUTE NM HYD        107.00   -     7        .00570       13.54       .571     1.87863    1.499    3.712 PER IMP=  39.00
*SEXISTING
ADD HYD               120.00  8& 9  20        .00470       14.29       .675     2.69253    1.499    4.750
ADD HYD               121.00 20&10  21        .00830       24.92      1.165     2.63275    1.499    4.692
ADD HYD               122.00 21&11  22        .00940       28.62      1.357     2.70602    1.499    4.757
ADD HYD               123.00 22&12  23        .01550       44.18      2.006     2.42648    1.499    4.454
*SPROPOSED
ADD HYD               130.00  2& 3  30        .00480       15.09       .739     2.88675    1.499    4.913
ADD HYD               131.00 30& 4  31        .00682       20.86       .998     2.74358    1.499    4.779
ADD HYD               132.00 31& 5  32        .00884       26.40      1.246     2.64216    1.499    4.666
ADD HYD               133.00 32& 6  33        .00994       30.10      1.437     2.71041    1.499    4.731
ADD HYD               134.00 33& 7  34        .01564       43.64      2.008     2.40726    1.499    4.360
*SEXISTING POND W/FLOODWALL
ROUTE RESERVOIR       200.00   34   40        .01564        8.88      2.006     2.40526    2.031     .888 AC-FT=     .843
FINISH
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*S    AHYMO_97 MODEL FOR: McCollum
*S    PREPARED FOR:  APS
*S    PREPARED BY:  Wilson & Co
*S    REVISED:  08/28/08 EEV
*S    MODEL DESCRIPTION -
*S 1. 100-YEAR 24-HOUR RAINFALL EVENT
*S 2. THIS MODEL ASSUMES DEVELOPED CONDITIONS
*S
START                TIME=0.0
LOCATION             ALBUQUERQUE
*S***** AHYMO -McCollum. DAT
*S***** March 3, 2008
*S***** HYDROLOGY FOR McCollum UN-DEVELOPED ONSITE

RAINFALL             TYPE=2 RAIN QUARTER=0.0 IN
                     RAIN ONE=2.23 IN RAIN SIX=2.90 IN
                     RAIN DAY=3.65 IN DT=0.0333 HR

*S***** BASIN I  - ONSITE EXISTING(1.23 ACRES)

COMPUTE NM HYD       ID=8 HYD NO=108 AREA=0.0019 SQ MI
                     PER A=0 PER B=0 PER C=2 PER D=98
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=8 CODE=24

*S***** BASIN II - ONSITE EXISTING (1.819 ACRES)

COMPUTE NM HYD       ID=9 HYD NO=109 AREA=0.0028 SQ MI
                     PER A=0 PER B=10 PER C=39 PER D=51
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=9 CODE=24

*S***** BASIN III - ONSITE EXISTING (2.32 ACRES)

COMPUTE NM HYD       ID=10 HYD NO=110 AREA=0.0036 SQ MI
                     PER A=0 PER B=8.7 PER C=28.3 PER D=63
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=10 CODE=24
*S***** BASIN IV - ONSITE EXISTING (0.71 ACRES)

COMPUTE NM HYD       ID=11 HYD NO=111 AREA=0.0011 SQ MI
                     PER A=0 PER B=0 PER C=0 PER D=100
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=11 CODE=24
*S***** BASIN V - ONSITE EXISTING (3.99 ACRES)

COMPUTE NM HYD       ID=12 HYD NO=112 AREA=0.0061 SQ MI
                     PER A=0 PER B=41 PER C=20 PER D=39
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=12 CODE=24

*S***** BASIN I - ONSITE PROPOSED (1.31 ACRES)

COMPUTE NM HYD       ID=2 HYD NO=102 AREA=0.0021 SQ MI
                     PER A=0 PER B=0 PER C=2 PER D=98
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=2 CODE=24

*S***** BASIN II - ONSITE PROPOSED (1.73 ACRES)

COMPUTE NM HYD       ID=3 HYD NO=103 AREA=0.0027 SQ MI
                     PER A=0 PER B=10.4 PER C=22.3 PER D=67.3
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=3 CODE=24

*S***** BASIN III - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD       ID=4 HYD NO=101 AREA=0.00202 SQ MI
                     PER A=0 PER B=15.7 PER C=28.1 PER D=56.2
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=4 CODE=24

*S***** BASIN IV - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD       ID=5 HYD NO=105 AREA=0.00202 SQ MI
                     PER A=0 PER B=34.3 PER C=11.4 PER D=54.3
                     TP=0.1333 HR MASS RAINFALL=-1
```

```
PRINT HYD            ID=5 CODE=24

*S***** BASIN V - ONSITE PROPOSED (0.72 ACRES)

COMPUTE NM HYD       ID=6 HYD NO=106 AREA=0.0011 SQ MI
                     PER A=0 PER B=0 PER C=0 PER D=100
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=6 CODE=24

*S***** BASIN VI - ONSITE PROPOSED (3.64 ACRES)

COMPUTE NM HYD       ID=7 HYD NO=107 AREA=0.0057 SQ MI
                     PER A=16 PER B=45 PER C=0 PER D=39
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=7 CODE=24
*******************************************************
*SEXISTING
*******************************************************
ADD HYD              ID=20 HYD NO=120 ID I=8 ID II=9
PRINT HYD            ID 20 CODE=5
*******************************************************
ADD HYD              ID=21 HYD NO=121 ID I=20 ID II=10
PRINT HYD            ID 21 CODE=5
*******************************************************
ADD HYD              ID=22 HYD NO=122 ID I=21 ID II=11
PRINT HYD            ID 22 CODE=5
*******************************************************
ADD HYD              ID=23 HYD NO=123 ID I=22 ID II=12
PRINT HYD            ID 23 CODE=5
*******************************************************
*SPROPOSED
*******************************************************
ADD HYD              ID=30 HYD NO=130 ID I=2 ID II=3
PRINT HYD            ID 30 CODE=5
*******************************************************
ADD HYD              ID=31 HYD NO=131 ID I=30 ID II=4
PRINT HYD            ID 31 CODE=5
*******************************************************
ADD HYD              ID=32 HYD NO=132 ID I=31 ID II=5
PRINT HYD            ID 32 CODE=5
*******************************************************
ADD HYD              ID=33 HYD NO=133 ID I=32 ID II=6
PRINT HYD            ID 33 CODE=5
*******************************************************
ADD HYD              ID=34 HYD NO=134 ID I=33 ID II=7
PRINT HYD            ID 34 CODE=5
*******************************************************
*SEXISTING POND W/FLOODWALL
*******************************************************
ROUTE RESERVOIR      ID 40 HYD NO=200 IN ID=34 CODE=5
                     OUTLFOW    STORAGE    ELEVATION
                      0.00       0.00       5466.5
                      6.08       0.05       5467.0
                      7.20       0.11       5468.0
                      8.16       0.44       5469.0
                      8.60       0.68       5469.5
                      9.02       0.92       5470.0
PRINT HYD            ID=40 CODE=5
*******************************************************
*******************************************************
FINISH
```

```
AHYMO PROGRAM (AHYMO_97) -                          - Version:  1997.02c
     RUN DATE (MON/DAY/YR) = 08/29/2008
     START TIME (HR:MIN:SEC) = 10:12:26     USER NO.= AHYMO-C-9803c01UNMLIB-AH
     INPUT FILE = M:\FAE\07833E~1\AE_DATA\CALCS\ENG\AHYMO\10024.HMI

*S    AHYMO_97 MODEL FOR: McCollum
*S    PREPARED FOR:  APS
*S    PREPARED BY:  Wilson & Co
*S    REVISED:  08/28/08 EEV
*S    MODEL DESCRIPTION -
*S 1. 100-YEAR 24-HOUR RAINFALL EVENT
*S 2. THIS MODEL ASSUMES DEVELOPED CONDITIONS
*S
START                TIME=0.0
LOCATION                 ALBUQUERQUE
     City of Albuquerque soil infiltration values (LAND FACTORS) used for computations.
     Land Treatment      Initial Abstr.(in)    Unif. Infilt.(in/hour)
          A              0.65                  1.67
          B              0.50                  1.25
          C              0.35                  0.83
          D              0.10                  0.04

*S***** AHYMO -McCollum. DAT
*S***** March 3, 2008
*S***** HYDROLOGY FOR McCollum UN-DEVELOPED ONSITE

RAINFALL             TYPE=2 RAIN QUARTER=0.0 IN
                     RAIN ONE=2.23 IN RAIN SIX=2.90 IN
                     RAIN DAY=3.65 IN DT=0.0333 HR


                COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
                DT =     .033300 HOURS        END TIME =     19.946700 HOURS
                   .0000   .0055   .0110   .0167   .0225   .0284   .0344
                   .0406   .0469   .0534   .0600   .0667   .0737   .0808
                   .0881   .0957   .1034   .1114   .1196   .1281   .1369
                   .1459   .1553   .1651   .1752   .1858   .1968   .2083
                   .2204   .2331   .2465   .2529   .2594   .2665   .2810
                   .3143   .3657   .4396   .5406   .6734   .8430  1.0542
                  1.3121  1.5597  1.6613  1.7468  1.8227  1.8918  1.9553
                  2.0143  2.0694  2.1210  2.1697  2.2155  2.2588  2.2998
                  2.3386  2.3755  2.4104  2.4436  2.4751  2.4845  2.4923
                  2.4998  2.5070  2.5139  2.5206  2.5271  2.5334  2.5396
                  2.5456  2.5514  2.5571  2.5627  2.5681  2.5734  2.5786
                  2.5837  2.5887  2.5937  2.5985  2.6032  2.6079  2.6125
                  2.6170  2.6215  2.6258  2.6301  2.6344  2.6386  2.6427
                  2.6468  2.6508  2.6548  2.6588  2.6626  2.6665  2.6703
                  2.6740  2.6777  2.6814  2.6850  2.6886  2.6921  2.6957
                  2.6991  2.7026  2.7060  2.7094  2.7127  2.7160  2.7193
                  2.7226  2.7258  2.7290  2.7322  2.7354  2.7385  2.7416
                  2.7447  2.7477  2.7507  2.7537  2.7567  2.7597  2.7626
                  2.7655  2.7684  2.7713  2.7741  2.7770  2.7798  2.7826
                  2.7854  2.7881  2.7909  2.7936  2.7963  2.7990  2.8017
                  2.8043  2.8069  2.8096  2.8122  2.8148  2.8173  2.8199
                  2.8225  2.8250  2.8275  2.8300  2.8325  2.8350  2.8375
                  2.8399  2.8423  2.8448  2.8472  2.8496  2.8520  2.8544
                  2.8567  2.8591  2.8614  2.8637  2.8661  2.8684  2.8707
                  2.8730  2.8752  2.8775  2.8798  2.8820  2.8842  2.8865
                  2.8887  2.8909  2.8931  2.8953  2.8974  2.8996  2.9017
                  2.9038  2.9059  2.9080  2.9101  2.9122  2.9142  2.9163
                  2.9184  2.9204  2.9225  2.9245  2.9266  2.9286  2.9306
                  2.9327  2.9347  2.9367  2.9387  2.9408  2.9428  2.9448
                  2.9468  2.9488  2.9508  2.9527  2.9547  2.9567  2.9587
                  2.9607  2.9626  2.9646  2.9665  2.9685  2.9704  2.9724
                  2.9743  2.9763  2.9782  2.9801  2.9821  2.9840  2.9859
                  2.9878  2.9897  2.9916  2.9935  2.9954  2.9973  2.9992
                  3.0011  3.0030  3.0048  3.0067  3.0086  3.0105  3.0123
                  3.0142  3.0160  3.0179  3.0197  3.0216  3.0234  3.0253
                  3.0271  3.0289  3.0308  3.0326  3.0344  3.0362  3.0380
                  3.0398  3.0416  3.0434  3.0452  3.0470  3.0488  3.0506
                  3.0524  3.0542  3.0560  3.0577  3.0595  3.0613  3.0630
                  3.0648  3.0666  3.0683  3.0701  3.0718  3.0736  3.0753
                  3.0770  3.0788  3.0805  3.0822  3.0840  3.0857  3.0874
                  3.0891  3.0908  3.0925  3.0943  3.0960  3.0977  3.0994
                  3.1011  3.1027  3.1044  3.1061  3.1078  3.1095  3.1112
                  3.1128  3.1145  3.1162  3.1178  3.1195  3.1212  3.1228
                  3.1245  3.1261  3.1278  3.1294  3.1311  3.1327  3.1343
                  3.1360  3.1376  3.1392  3.1409  3.1425  3.1441  3.1457
                  3.1473  3.1489  3.1506  3.1522  3.1538  3.1554  3.1570
                  3.1586  3.1601  3.1617  3.1633  3.1649  3.1665  3.1681
                  3.1697  3.1712  3.1728  3.1744  3.1759  3.1775  3.1791
                  3.1806  3.1822  3.1837  3.1853  3.1868  3.1884  3.1899
                  3.1915  3.1930  3.1946  3.1961  3.1976  3.1991  3.2007
                  3.2022  3.2037  3.2052  3.2068  3.2083  3.2098  3.2113
                  3.2128  3.2143  3.2158  3.2173  3.2188  3.2203  3.2218
                  3.2233  3.2248  3.2263  3.2278  3.2293  3.2307  3.2322
                  3.2337  3.2352  3.2366  3.2381  3.2396  3.2410  3.2425
                  3.2440  3.2454  3.2469  3.2483  3.2498  3.2512  3.2527
                  3.2541  3.2556  3.2570  3.2585  3.2599  3.2613  3.2628
                  3.2642  3.2656  3.2670  3.2685  3.2699  3.2713  3.2727
```

3.2742	3.2756	3.2770	3.2784	3.2798	3.2812	3.2826
3.2840	3.2854	3.2868	3.2882	3.2896	3.2910	3.2924
3.2938	3.2952	3.2965	3.2979	3.2993	3.3007	3.3021
3.3034	3.3048	3.3062	3.3076	3.3089	3.3103	3.3117
3.3130	3.3144	3.3157	3.3171	3.3184	3.3198	3.3211
3.3225	3.3238	3.3252	3.3265	3.3279	3.3292	3.3306
3.3319	3.3332	3.3346	3.3359	3.3372	3.3385	3.3399
3.3412	3.3425	3.3438	3.3452	3.3465	3.3478	3.3491
3.3504	3.3517	3.3530	3.3543	3.3556	3.3569	3.3582
3.3595	3.3608	3.3621	3.3634	3.3647	3.3660	3.3673
3.3686	3.3699	3.3712	3.3725	3.3737	3.3750	3.3763
3.3776	3.3788	3.3801	3.3814	3.3827	3.3839	3.3852
3.3865	3.3877	3.3890	3.3902	3.3915	3.3928	3.3940
3.3953	3.3965	3.3978	3.3990	3.4003	3.4015	3.4028
3.4040	3.4053	3.4065	3.4077	3.4090	3.4102	3.4114
3.4127	3.4139	3.4151	3.4164	3.4176	3.4188	3.4200
3.4213	3.4225	3.4237	3.4249	3.4261	3.4273	3.4286
3.4298	3.4310	3.4322	3.4334	3.4346	3.4358	3.4370
3.4382	3.4394	3.4406	3.4418	3.4430	3.4442	3.4454
3.4466	3.4478	3.4490	3.4502	3.4513	3.4525	3.4537
3.4549	3.4561	3.4573	3.4584	3.4596	3.4608	3.4620
3.4631	3.4643	3.4655	3.4666	3.4678	3.4690	3.4701
3.4713	3.4725	3.4736	3.4748	3.4760	3.4771	3.4783
3.4794	3.4806	3.4817	3.4829	3.4840	3.4852	3.4863
3.4875	3.4886	3.4898	3.4909	3.4920	3.4932	3.4943
3.4954	3.4966	3.4977	3.4988	3.5000	3.5011	3.5022
3.5034	3.5045	3.5056	3.5067	3.5079	3.5090	3.5101
3.5112	3.5123	3.5135	3.5146	3.5157	3.5168	3.5179
3.5190	3.5201	3.5212	3.5224	3.5235		

```
*S***** BASIN I  - ONSITE EXISTING(1.23 ACRES)

COMPUTE NM HYD       ID=8 HYD NO=108 AREA=0.0019 SQ MI
                     PER A=0 PER B=0 PER C=2 PER D=98
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   7.3513    CFS   UNIT VOLUME =    .9978       B =   526.28      P60 = 2.2300
     AREA =      .001862 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


     K =   .109928HR    TP =   .133300HR    K/TP RATIO =   .824663     SHAPE CONSTANT, N =  4.329256
     UNIT PEAK =   .10735    CFS   UNIT VOLUME =    .8746       B =   376.56      P60 = 2.2300
     AREA =      .000038 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=8 CODE=24
```

PARTIAL HYDROGRAPH 108.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.0
.666	.1	4.662	.1	8.658	.1	12.654	.1	16.650	.0
1.332	2.0	5.328	.1	9.324	.1	13.320	.1	17.316	.0
1.998	1.6	5.994	.1	9.990	.1	13.986	.1	17.982	.0
2.664	.2	6.660	.1	10.656	.1	14.652	.0	18.648	.0
3.330	.1	7.326	.1	11.322	.1	15.318	.0	19.314	.0

```
     RUNOFF VOLUME =     3.22274 INCHES     =        .3266 ACRE-FEET
     PEAK DISCHARGE RATE =       6.36 CFS  AT   1.499 HOURS   BASIN AREA =   .0019 SQ. MI.


*S***** BASIN II - ONSITE EXISTING (1.819 ACRES)

COMPUTE NM HYD       ID=9 HYD NO=109 AREA=0.0028 SQ MI
                     PER A=0 PER B=10 PER C=39 PER D=51
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   5.6378    CFS   UNIT VOLUME =    .9972       B =   526.28      P60 = 2.2300
     AREA =      .001428 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


     K =   .114992HR    TP =   .133300HR    K/TP RATIO =   .862653     SHAPE CONSTANT, N =  4.121083
     UNIT PEAK =   3.7379    CFS   UNIT VOLUME =    .9969       B =   363.16      P60 = 2.2300
     AREA =      .001372 SQ MI    IA =    .38061 INCHES    INF =    .91571 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=9 CODE=24
```

PARTIAL HYDROGRAPH 109.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.0	15.984	.0

.666	.1	4.662	.1	8.658	.0	12.654	.0	16.650	.0
1.332	2.2	5.328	.1	9.324	.0	13.320	.0	17.316	.0
1.998	1.7	5.994	.1	9.990	.0	13.986	.0	17.982	.0
2.664	.2	6.660	.1	10.656	.0	14.652	.0	18.648	.0
3.330	.1	7.326	.1	11.322	.0	15.318	.0	19.314	.0

RUNOFF VOLUME = 2.33274 INCHES = .3484 ACRE-FEET
PEAK DISCHARGE RATE = 7.93 CFS AT 1.499 HOURS BASIN AREA = .0028 SQ. MI.

*S***** BASIN III - ONSITE EXISTING (2.32 ACRES)

COMPUTE NM HYD ID=10 HYD NO=110 AREA=0.0036 SQ MI
PER A=0 PER B=8.7 PER C=28.3 PER D=63
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 8.9542 CFS UNIT VOLUME = .9980 B = 526.28 P60 = 2.2300
AREA = .002268 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .115762HR TP = .133300HR K/TP RATIO = .868434 SHAPE CONSTANT, N = 4.091423
UNIT PEAK = 3.6095 CFS UNIT VOLUME = .9965 B = 361.22 P60 = 2.2300
AREA = .001332 SQ MI IA = .38527 INCHES INF = .92876 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=10 CODE=24

PARTIAL HYDROGRAPH 110.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.1
.666	.2	4.662	.1	8.658	.1	12.654	.1	16.650	.1
1.332	3.0	5.328	.1	9.324	.1	13.320	.1	17.316	.1
1.998	2.4	5.994	.1	9.990	.1	13.986	.1	17.982	.1
2.664	.3	6.660	.1	10.656	.1	14.652	.1	18.648	.1
3.330	.1	7.326	.1	11.322	.1	15.318	.1	19.314	.0

RUNOFF VOLUME = 2.55470 INCHES = .4905 ACRE-FEET
PEAK DISCHARGE RATE = 10.63 CFS AT 1.499 HOURS BASIN AREA = .0036 SQ. MI.

*S***** BASIN IV - ONSITE EXISTING (0.71 ACRES)

COMPUTE NM HYD ID=11 HYD NO=111 AREA=0.0011 SQ MI
PER A=0 PER B=0 PER C=0 PER D=100
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 4.3429 CFS UNIT VOLUME = .9969 B = 526.28 P60 = 2.2300
AREA = .001100 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=11 CODE=24

PARTIAL HYDROGRAPH 111.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.0	11.988	.0	15.984	.0
.666	.1	4.662	.0	8.658	.0	12.654	.0	16.650	.0
1.332	1.2	5.328	.0	9.324	.0	13.320	.0	17.316	.0
1.998	.9	5.994	.0	9.990	.0	13.986	.0	17.982	.0
2.664	.1	6.660	.0	10.656	.0	14.652	.0	18.648	.0
3.330	.1	7.326	.0	11.322	.0	15.318	.0	19.314	.0

RUNOFF VOLUME = 3.25888 INCHES = .1912 ACRE-FEET
PEAK DISCHARGE RATE = 3.70 CFS AT 1.499 HOURS BASIN AREA = .0011 SQ. MI.

*S***** BASIN V - ONSITE EXISTING (3.99 ACRES)

COMPUTE NM HYD ID=12 HYD NO=112 AREA=0.0061 SQ MI
PER A=0 PER B=41 PER C=20 PER D=39
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 9.3924 CFS UNIT VOLUME = .9982 B = 526.28 P60 = 2.2300
AREA = .002379 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .126606HR TP = .133300HR K/TP RATIO = .949781 SHAPE CONSTANT, N = 3.721479
UNIT PEAK = 9.3835 CFS UNIT VOLUME = .9988 B = 336.15 P60 = 2.2300

AREA = .003721 SQ MI IA = .45082 INCHES INF = 1.11230 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=12 CODE=24

PARTIAL HYDROGRAPH 112.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.1
.666	.2	4.662	.1	8.658	.1	12.654	.1	16.650	.1
1.332	3.8	5.328	.1	9.324	.1	13.320	.1	17.316	.1
1.998	2.9	5.994	.1	9.990	.1	13.986	.1	17.982	.1
2.664	.4	6.660	.1	10.656	.1	14.652	.1	18.648	.1
3.330	.1	7.326	.1	11.322	.1	15.318	.1	19.314	.1

RUNOFF VOLUME = 1.99572 INCHES = .6493 ACRE-FEET
PEAK DISCHARGE RATE = 15.56 CFS AT 1.499 HOURS BASIN AREA = .0061 SQ. MI.

*S***** BASIN I - ONSITE PROPOSED (1.31 ACRES)

COMPUTE NM HYD ID=2 HYD NO=102 AREA=0.0021 SQ MI
PER A=0 PER B=0 PER C=2 PER D=98
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 8.1251 CFS UNIT VOLUME = .9980 B = 526.28 P60 = 2.2300
AREA = .002058 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .109928HR TP = .133300HR K/TP RATIO = .824663 SHAPE CONSTANT, N = 4.329256
UNIT PEAK = .11865 CFS UNIT VOLUME = .8867 B = 376.56 P60 = 2.2300
AREA = .000042 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=2 CODE=24

PARTIAL HYDROGRAPH 102.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.1
.666	.1	4.662	.1	8.658	.1	12.654	.1	16.650	.0
1.332	2.2	5.328	.1	9.324	.1	13.320	.1	17.316	.0
1.998	1.7	5.994	.1	9.990	.1	13.986	.1	17.982	.0
2.664	.2	6.660	.1	10.656	.1	14.652	.1	18.648	.0
3.330	.1	7.326	.1	11.322	.1	15.318	.1	19.314	.0

RUNOFF VOLUME = 3.22273 INCHES = .3609 ACRE-FEET
PEAK DISCHARGE RATE = 7.03 CFS AT 1.499 HOURS BASIN AREA = .0021 SQ. MI.

*S***** BASIN II - ONSITE PROPOSED (1.73 ACRES)

COMPUTE NM HYD ID=3 HYD NO=103 AREA=0.0027 SQ MI
PER A=0 PER B=10.4 PER C=22.3 PER D=67.3
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 7.1740 CFS UNIT VOLUME = .9978 B = 526.28 P60 = 2.2300
AREA = .001817 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .117819HR TP = .133300HR K/TP RATIO = .883867 SHAPE CONSTANT, N = 4.014603
UNIT PEAK = 2.3589 CFS UNIT VOLUME = .9949 B = 356.14 P60 = 2.2300
AREA = .000883 SQ MI IA = .39771 INCHES INF = .96358 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=3 CODE=24

PARTIAL HYDROGRAPH 103.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.0
.666	.1	4.662	.1	8.658	.1	12.654	.1	16.650	.0
1.332	2.3	5.328	.1	9.324	.1	13.320	.1	17.316	.0
1.998	1.8	5.994	.1	9.990	.1	13.986	.0	17.982	.0
2.664	.2	6.660	.1	10.656	.1	14.652	.0	18.648	.0
3.330	.1	7.326	.1	11.322	.1	15.318	.0	19.314	.0

RUNOFF VOLUME = 2.62543 INCHES = .3781 ACRE-FEET
PEAK DISCHARGE RATE = 8.07 CFS AT 1.499 HOURS BASIN AREA = .0027 SQ. MI.

```
*S***** BASIN III - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD       ID=4 HYD NO=101 AREA=0.00202 SQ MI
                     PER A=0 PER B=15.7 PER C=28.1 PER D=56.2
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.4820    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = 2.2300
     AREA =      .001135 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

     K =   .118822HR    TP =   .133300HR    K/TP RATIO =   .891388     SHAPE CONSTANT, N =  3.978387
     UNIT PEAK =   2.3478    CFS   UNIT VOLUME =    .9947       B =   353.73      P60 = 2.2300
     AREA =      .000885 SQ MI    IA =    .40377 INCHES    INF =    .98055 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=4 CODE=24

                                   PARTIAL HYDROGRAPH   101.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS
      .000       .0          3.996       .0          7.992       .0         11.988       .0         15.984       .0
      .666       .1          4.662       .0          8.658       .0         12.654       .0         16.650       .0
     1.332      1.6          5.328       .0          9.324       .0         13.320       .0         17.316       .0
     1.998      1.2          5.994       .0          9.990       .0         13.986       .0         17.982       .0
     2.664       .1          6.660       .0         10.656       .0         14.652       .0         18.648       .0
     3.330       .1          7.326       .0         11.322       .0         15.318       .0         19.314       .0

    RUNOFF VOLUME =     2.40337 INCHES     =        .2589 ACRE-FEET
    PEAK DISCHARGE RATE =       5.77 CFS  AT   1.499 HOURS   BASIN AREA =   .0020 SQ. MI.


*S***** BASIN IV - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD       ID=5 HYD NO=105 AREA=0.00202 SQ MI
                     PER A=0 PER B=34.3 PER C=11.4 PER D=54.3
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.3305    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = 2.2300
     AREA =      .001097 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

     K =   .128552HR    TP =   .133300HR    K/TP RATIO =   .964379     SHAPE CONSTANT, N =  3.663328
     UNIT PEAK =   2.2996    CFS   UNIT VOLUME =    .9942       B =   332.06      P60 = 2.2300
     AREA =      .000923 SQ MI    IA =    .46258 INCHES    INF =   1.14523 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=5 CODE=24

                                   PARTIAL HYDROGRAPH   105.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS
      .000       .0          3.996       .0          7.992       .0         11.988       .0         15.984       .0
      .666       .1          4.662       .0          8.658       .0         12.654       .0         16.650       .0
     1.332      1.5          5.328       .0          9.324       .0         13.320       .0         17.316       .0
     1.998      1.1          5.994       .0          9.990       .0         13.986       .0         17.982       .0
     2.664       .1          6.660       .0         10.656       .0         14.652       .0         18.648       .0
     3.330       .1          7.326       .0         11.322       .0         15.318       .0         19.314       .0

    RUNOFF VOLUME =     2.29974 INCHES     =        .2478 ACRE-FEET
    PEAK DISCHARGE RATE =       5.54 CFS  AT   1.499 HOURS   BASIN AREA =   .0020 SQ. MI.


*S***** BASIN V - ONSITE PROPOSED (0.72 ACRES)

COMPUTE NM HYD       ID=6 HYD NO=106 AREA=0.0011 SQ MI
                     PER A=0 PER B=0 PER C=0 PER D=100
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.3429    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = 2.2300
     AREA =      .001100 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=6 CODE=24

                                   PARTIAL HYDROGRAPH   106.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
```

HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	3.996	.0	7.992	.0	11.988	.0	15.984	.0
.666	.1	4.662	.0	8.658	.0	12.654	.0	16.650	.0
1.332	1.2	5.328	.0	9.324	.0	13.320	.0	17.316	.0
1.998	.9	5.994	.0	9.990	.0	13.986	.0	17.982	.0
2.664	.1	6.660	.0	10.656	.0	14.652	.0	18.648	.0
3.330	.1	7.326	.0	11.322	.0	15.318	.0	19.314	.0

RUNOFF VOLUME = 3.25888 INCHES = .1912 ACRE-FEET
PEAK DISCHARGE RATE = 3.70 CFS AT 1.499 HOURS BASIN AREA = .0011 SQ. MI.

*S***** BASIN VI - ONSITE PROPOSED (3.64 ACRES)

COMPUTE NM HYD ID=7 HYD NO=107 AREA=0.0057 SQ MI
PER A=16 PER B=45 PER C=0 PER D=39
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 8.7765 CFS UNIT VOLUME = .9980 B = 526.28 P60 = 2.2300
AREA = .002223 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .141250HR TP = .133300HR K/TP RATIO = 1.059642 SHAPE CONSTANT, N = 3.332368
UNIT PEAK = 8.0309 CFS UNIT VOLUME = .9983 B = 307.89 P60 = 2.2300
AREA = .003477 SQ MI IA = .53934 INCHES INF = 1.36016 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=7 CODE=24

PARTIAL HYDROGRAPH 107.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.1
.666	.1	4.662	.1	8.658	.1	12.654	.1	16.650	.1
1.332	3.0	5.328	.1	9.324	.1	13.320	.1	17.316	.1
1.998	2.5	5.994	.1	9.990	.1	13.986	.1	17.982	.1
2.664	.3	6.660	.1	10.656	.1	14.652	.1	18.648	.1
3.330	.1	7.326	.1	11.322	.1	15.318	.1	19.314	.0

RUNOFF VOLUME = 1.87863 INCHES = .5711 ACRE-FEET
PEAK DISCHARGE RATE = 13.54 CFS AT 1.499 HOURS BASIN AREA = .0057 SQ. MI.

****
*sEXISTING
****
ADD HYD ID=20 HYD NO=120 ID I=8 ID II=9
PRINT HYD ID 20 CODE=5

PARTIAL HYDROGRAPH 120.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.1
.167	.0	4.163	.1	8.159	.1	12.155	.1	16.151	.1
.333	.0	4.329	.1	8.325	.1	12.321	.1	16.317	.1
.500	.0	4.496	.1	8.492	.1	12.488	.1	16.484	.1
.666	.2	4.662	.1	8.658	.1	12.654	.1	16.650	.1
.833	.4	4.829	.1	8.825	.1	12.821	.1	16.817	.1
.999	.6	4.995	.1	8.991	.1	12.987	.1	16.983	.1
1.166	.5	5.162	.1	9.158	.1	13.154	.1	17.150	.1
1.332	4.2	5.328	.1	9.324	.1	13.320	.1	17.316	.1
1.498	14.3	5.495	.1	9.491	.1	13.487	.1	17.483	.1
1.665	7.4	5.661	.1	9.657	.1	13.653	.1	17.649	.1
1.831	4.6	5.828	.1	9.824	.1	13.820	.1	17.816	.1
1.998	3.2	5.994	.1	9.990	.1	13.986	.1	17.982	.1
2.164	1.5	6.161	.1	10.157	.1	14.153	.1	18.149	.1
2.331	.8	6.327	.1	10.323	.1	14.319	.1	18.315	.1
2.498	.5	6.494	.1	10.490	.1	14.486	.1	18.482	.1
2.664	.4	6.660	.1	10.656	.1	14.652	.1	18.648	.1
2.831	.3	6.827	.1	10.823	.1	14.819	.1	18.815	.1
2.997	.2	6.993	.1	10.989	.1	14.985	.1	18.981	.1
3.164	.2	7.160	.1	11.156	.1	15.152	.1	19.148	.1
3.330	.2	7.326	.1	11.322	.1	15.318	.1	19.314	.1
3.497	.2	7.493	.1	11.489	.1	15.485	.1	19.481	.1
3.663	.2	7.659	.1	11.655	.1	15.651	.1	19.647	.1
3.830	.1	7.826	.1	11.822	.1	15.818	.1	19.814	.1

RUNOFF VOLUME = 2.69253 INCHES = .6749 ACRE-FEET
PEAK DISCHARGE RATE = 14.29 CFS AT 1.499 HOURS BASIN AREA = .0047 SQ. MI.

****
ADD HYD ID=21 HYD NO=121 ID I=20 ID II=10

PRINT HYD ID 21 CODE=5

PARTIAL HYDROGRAPH 121.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.2	7.992	.2	11.988	.2	15.984	.1
.167	.0	4.163	.2	8.159	.2	12.155	.2	16.151	.1
.333	.0	4.329	.2	8.325	.2	12.321	.2	16.317	.1
.500	.0	4.496	.2	8.492	.2	12.488	.2	16.484	.1
.666	.4	4.662	.2	8.658	.2	12.654	.2	16.650	.1
.833	.7	4.829	.2	8.825	.2	12.821	.2	16.817	.1
.999	1.0	4.995	.2	8.991	.2	12.987	.2	16.983	.1
1.166	.8	5.162	.2	9.158	.2	13.154	.2	17.150	.1
1.332	7.2	5.328	.2	9.324	.2	13.320	.2	17.316	.1
1.498	24.9	5.495	.2	9.491	.2	13.487	.2	17.483	.1
1.665	12.9	5.661	.2	9.657	.2	13.653	.2	17.649	.1
1.831	8.0	5.828	.2	9.824	.2	13.820	.2	17.816	.1
1.998	5.6	5.994	.2	9.990	.2	13.986	.1	17.982	.1
2.164	2.7	6.161	.2	10.157	.2	14.153	.1	18.149	.1
2.331	1.3	6.327	.2	10.323	.2	14.319	.1	18.315	.1
2.498	.9	6.494	.2	10.490	.2	14.486	.1	18.482	.1
2.664	.6	6.660	.2	10.656	.2	14.652	.1	18.648	.1
2.831	.5	6.827	.2	10.823	.2	14.819	.1	18.815	.1
2.997	.4	6.993	.2	10.989	.2	14.985	.1	18.981	.1
3.164	.3	7.160	.2	11.156	.2	15.152	.1	19.148	.1
3.330	.3	7.326	.2	11.322	.2	15.318	.1	19.314	.1
3.497	.3	7.493	.2	11.489	.2	15.485	.1	19.481	.1
3.663	.3	7.659	.2	11.655	.2	15.651	.1	19.647	.1
3.830	.2	7.826	.2	11.822	.2	15.818	.1	19.814	.1

RUNOFF VOLUME = 2.63275 INCHES = 1.1654 ACRE-FEET
PEAK DISCHARGE RATE = 24.92 CFS AT 1.499 HOURS BASIN AREA = .0083 SQ. MI.

****

ADD HYD ID=22 HYD NO=122 ID I=21 ID II=11
PRINT HYD ID 22 CODE=5

PARTIAL HYDROGRAPH 122.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.3	7.992	.2	11.988	.2	15.984	.2
.167	.0	4.163	.3	8.159	.2	12.155	.2	16.151	.2
.333	.0	4.329	.3	8.325	.2	12.321	.2	16.317	.2
.500	.0	4.496	.3	8.492	.2	12.488	.2	16.484	.2
.666	.4	4.662	.3	8.658	.2	12.654	.2	16.650	.2
.833	.9	4.829	.3	8.825	.2	12.821	.2	16.817	.2
.999	1.2	4.995	.3	8.991	.2	12.987	.2	16.983	.2
1.166	1.0	5.162	.3	9.158	.2	13.154	.2	17.150	.2
1.332	8.3	5.328	.3	9.324	.2	13.320	.2	17.316	.2
1.498	28.6	5.495	.3	9.491	.2	13.487	.2	17.483	.2
1.665	14.8	5.661	.3	9.657	.2	13.653	.2	17.649	.2
1.831	9.2	5.828	.3	9.824	.2	13.820	.2	17.816	.2
1.998	6.5	5.994	.3	9.990	.2	13.986	.2	17.982	.2
2.164	3.1	6.161	.3	10.157	.2	14.153	.2	18.149	.2
2.331	1.6	6.327	.3	10.323	.2	14.319	.2	18.315	.2
2.498	1.0	6.494	.3	10.490	.2	14.486	.2	18.482	.2
2.664	.7	6.660	.3	10.656	.2	14.652	.2	18.648	.2
2.831	.6	6.827	.3	10.823	.2	14.819	.2	18.815	.1
2.997	.5	6.993	.3	10.989	.2	14.985	.2	18.981	.1
3.164	.4	7.160	.3	11.156	.2	15.152	.2	19.148	.1
3.330	.3	7.326	.3	11.322	.2	15.318	.2	19.314	.1
3.497	.3	7.493	.2	11.489	.2	15.485	.2	19.481	.1
3.663	.3	7.659	.2	11.655	.2	15.651	.2	19.647	.1
3.830	.3	7.826	.2	11.822	.2	15.818	.2	19.814	.1

RUNOFF VOLUME = 2.70602 INCHES = 1.3566 ACRE-FEET
PEAK DISCHARGE RATE = 28.62 CFS AT 1.499 HOURS BASIN AREA = .0094 SQ. MI.

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ADD HYD ID=23 HYD NO=123 ID I=22 ID II=12
PRINT HYD ID 23 CODE=5

PARTIAL HYDROGRAPH 123.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.4	7.992	.3	11.988	.3	15.984	.2
.167	.0	4.163	.4	8.159	.3	12.155	.3	16.151	.2
.333	.0	4.329	.4	8.325	.3	12.321	.3	16.317	.2
.500	.0	4.496	.4	8.492	.3	12.488	.3	16.484	.2
.666	.6	4.662	.4	8.658	.3	12.654	.3	16.650	.2
.833	1.2	4.829	.4	8.825	.3	12.821	.3	16.817	.2
.999	1.6	4.995	.4	8.991	.3	12.987	.3	16.983	.2
1.166	1.4	5.162	.4	9.158	.3	13.154	.3	17.150	.2
1.332	12.1	5.328	.4	9.324	.3	13.320	.2	17.316	.2

1.498	44.2	5.495	.4	9.491	.3	13.487	.2	17.483	.2
1.665	23.2	5.661	.4	9.657	.3	13.653	.2	17.649	.2
1.831	13.8	5.828	.4	9.824	.3	13.820	.2	17.816	.2
1.998	9.4	5.994	.4	9.990	.3	13.986	.2	17.982	.2
2.164	4.5	6.161	.4	10.157	.3	14.153	.2	18.149	.2
2.331	2.4	6.327	.4	10.323	.3	14.319	.2	18.315	.2
2.498	1.6	6.494	.4	10.490	.3	14.486	.2	18.482	.2
2.664	1.1	6.660	.4	10.656	.3	14.652	.2	18.648	.2
2.831	.8	6.827	.4	10.823	.3	14.819	.2	18.815	.2
2.997	.7	6.993	.3	10.989	.3	14.985	.2	18.981	.2
3.164	.6	7.160	.3	11.156	.3	15.152	.2	19.148	.2
3.330	.5	7.326	.3	11.322	.3	15.318	.2	19.314	.2
3.497	.5	7.493	.3	11.489	.3	15.485	.2	19.481	.2
3.663	.4	7.659	.3	11.655	.3	15.651	.2	19.647	.2
3.830	.4	7.826	.3	11.822	.3	15.818	.2	19.814	.2

RUNOFF VOLUME = 2.42648 INCHES = 2.0059 ACRE-FEET
PEAK DISCHARGE RATE = 44.18 CFS AT 1.499 HOURS BASIN AREA = .0155 SQ. MI.

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*SPROPOSED
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ADD HYD          ID=30 HYD NO=130 ID I=2 ID II=3
PRINT HYD        ID 30 CODE=5
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PARTIAL HYDROGRAPH 130.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.2	7.992	.1	11.988	.1	15.984	.1
.167	.0	4.163	.2	8.159	.1	12.155	.1	16.151	.1
.333	.0	4.329	.2	8.325	.1	12.321	.1	16.317	.1
.500	.0	4.496	.2	8.492	.1	12.488	.1	16.484	.1
.666	.3	4.662	.2	8.658	.1	12.654	.1	16.650	.1
.833	.5	4.829	.2	8.825	.1	12.821	.1	16.817	.1
.999	.7	4.995	.2	8.991	.1	12.987	.1	16.983	.1
1.166	.6	5.162	.2	9.158	.1	13.154	.1	17.150	.1
1.332	4.5	5.328	.2	9.324	.1	13.320	.1	17.316	.1
1.498	15.1	5.495	.2	9.491	.1	13.487	.1	17.483	.1
1.665	7.8	5.661	.2	9.657	.1	13.653	.1	17.649	.1
1.831	4.9	5.828	.2	9.824	.1	13.820	.1	17.816	.1
1.998	3.5	5.994	.2	9.990	.1	13.986	.1	17.982	.1
2.164	1.7	6.161	.2	10.157	.1	14.153	.1	18.149	.1
2.331	.8	6.327	.2	10.323	.1	14.319	.1	18.315	.1
2.498	.6	6.494	.2	10.490	.1	14.486	.1	18.482	.1
2.664	.4	6.660	.2	10.656	.1	14.652	.1	18.648	.1
2.831	.3	6.827	.2	10.823	.1	14.819	.1	18.815	.1
2.997	.3	6.993	.1	10.989	.1	14.985	.1	18.981	.1
3.164	.2	7.160	.1	11.156	.1	15.152	.1	19.148	.1
3.330	.2	7.326	.1	11.322	.1	15.318	.1	19.314	.1
3.497	.2	7.493	.1	11.489	.1	15.485	.1	19.481	.1
3.663	.2	7.659	.1	11.655	.1	15.651	.1	19.647	.1
3.830	.2	7.826	.1	11.822	.1	15.818	.1	19.814	.1

RUNOFF VOLUME = 2.88675 INCHES = .7390 ACRE-FEET
PEAK DISCHARGE RATE = 15.09 CFS AT 1.499 HOURS BASIN AREA = .0048 SQ. MI.

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*******************************************************
ADD HYD          ID=31 HYD NO=131 ID I=30 ID II=4
PRINT HYD        ID 31 CODE=5
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PARTIAL HYDROGRAPH 131.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.2	7.992	.2	11.988	.1	15.984	.1
.167	.0	4.163	.2	8.159	.2	12.155	.1	16.151	.1
.333	.0	4.329	.2	8.325	.2	12.321	.1	16.317	.1
.500	.0	4.496	.2	8.492	.2	12.488	.1	16.484	.1
.666	.3	4.662	.2	8.658	.2	12.654	.1	16.650	.1
.833	.7	4.829	.2	8.825	.2	12.821	.1	16.817	.1
.999	.9	4.995	.2	8.991	.2	12.987	.1	16.983	.1
1.166	.7	5.162	.2	9.158	.2	13.154	.1	17.150	.1
1.332	6.1	5.328	.2	9.324	.2	13.320	.1	17.316	.1
1.498	20.9	5.495	.2	9.491	.2	13.487	.1	17.483	.1
1.665	10.8	5.661	.2	9.657	.2	13.653	.1	17.649	.1
1.831	6.8	5.828	.2	9.824	.2	13.820	.1	17.816	.1
1.998	4.8	5.994	.2	9.990	.2	13.986	.1	17.982	.1
2.164	2.3	6.161	.2	10.157	.2	14.153	.1	18.149	.1
2.331	1.1	6.327	.2	10.323	.2	14.319	.1	18.315	.1
2.498	.8	6.494	.2	10.490	.2	14.486	.1	18.482	.1
2.664	.5	6.660	.2	10.656	.2	14.652	.1	18.648	.1
2.831	.4	6.827	.2	10.823	.2	14.819	.1	18.815	.1
2.997	.3	6.993	.2	10.989	.2	14.985	.1	18.981	.1
3.164	.3	7.160	.2	11.156	.2	15.152	.1	19.148	.1
3.330	.3	7.326	.2	11.322	.2	15.318	.1	19.314	.1
3.497	.2	7.493	.2	11.489	.2	15.485	.1	19.481	.1

3.663	.2	7.659	.2	11.655	.1	15.651	.1	19.647	.1
3.830	.2	7.826	.2	11.822	.1	15.818	.1	19.814	.1

RUNOFF VOLUME = 2.74358 INCHES = .9979 ACRE-FEET
PEAK DISCHARGE RATE = 20.86 CFS AT 1.499 HOURS BASIN AREA = .0068 SQ. MI.

****
ADD HYD ID=32 HYD NO=132 ID I=31 ID II=5
PRINT HYD ID 32 CODE=5

PARTIAL HYDROGRAPH 132.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.3	7.992	.2	11.988	.2	15.984	.2
.167	.0	4.163	.3	8.159	.2	12.155	.2	16.151	.2
.333	.0	4.329	.3	8.325	.2	12.321	.2	16.317	.1
.500	.0	4.496	.2	8.492	.2	12.488	.2	16.484	.1
.666	.4	4.662	.2	8.658	.2	12.654	.2	16.650	.1
.833	.8	4.829	.2	8.825	.2	12.821	.2	16.817	.1
.999	1.1	4.995	.2	8.991	.2	12.987	.2	16.983	.1
1.166	.9	5.162	.2	9.158	.2	13.154	.2	17.150	.1
1.332	7.5	5.328	.2	9.324	.2	13.320	.2	17.316	.1
1.498	26.4	5.495	.2	9.491	.2	13.487	.2	17.483	.1
1.665	13.7	5.661	.2	9.657	.2	13.653	.2	17.649	.1
1.831	8.5	5.828	.3	9.824	.2	13.820	.2	17.816	.1
1.998	5.9	5.994	.3	9.990	.2	13.986	.2	17.982	.1
2.164	2.8	6.161	.3	10.157	.2	14.153	.2	18.149	.1
2.331	1.4	6.327	.2	10.323	.2	14.319	.2	18.315	.1
2.498	1.0	6.494	.2	10.490	.2	14.486	.2	18.482	.1
2.664	.7	6.660	.2	10.656	.2	14.652	.2	18.648	.1
2.831	.5	6.827	.2	10.823	.2	14.819	.2	18.815	.1
2.997	.4	6.993	.2	10.989	.2	14.985	.2	18.981	.1
3.164	.3	7.160	.2	11.156	.2	15.152	.2	19.148	.1
3.330	.3	7.326	.2	11.322	.2	15.318	.2	19.314	.1
3.497	.3	7.493	.2	11.489	.2	15.485	.2	19.481	.1
3.663	.3	7.659	.2	11.655	.2	15.651	.2	19.647	.1
3.830	.3	7.826	.2	11.822	.2	15.818	.2	19.814	.1

RUNOFF VOLUME = 2.64216 INCHES = 1.2457 ACRE-FEET
PEAK DISCHARGE RATE = 26.40 CFS AT 1.499 HOURS BASIN AREA = .0088 SQ. MI.

****
ADD HYD ID=33 HYD NO=133 ID I=32 ID II=6
PRINT HYD ID 33 CODE=5

PARTIAL HYDROGRAPH 133.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.3	7.992	.3	11.988	.2	15.984	.2
.167	.0	4.163	.3	8.159	.3	12.155	.2	16.151	.2
.333	.0	4.329	.3	8.325	.3	12.321	.2	16.317	.2
.500	.0	4.496	.3	8.492	.3	12.488	.2	16.484	.2
.666	.5	4.662	.3	8.658	.3	12.654	.2	16.650	.2
.833	1.0	4.829	.3	8.825	.2	12.821	.2	16.817	.2
.999	1.3	4.995	.3	8.991	.2	12.987	.2	16.983	.2
1.166	1.1	5.162	.3	9.158	.2	13.154	.2	17.150	.2
1.332	8.7	5.328	.3	9.324	.2	13.320	.2	17.316	.2
1.498	30.1	5.495	.3	9.491	.2	13.487	.2	17.483	.2
1.665	15.6	5.661	.3	9.657	.2	13.653	.2	17.649	.2
1.831	9.7	5.828	.3	9.824	.2	13.820	.2	17.816	.2
1.998	6.8	5.994	.3	9.990	.2	13.986	.2	17.982	.2
2.164	3.3	6.161	.3	10.157	.2	14.153	.2	18.149	.2
2.331	1.7	6.327	.3	10.323	.2	14.319	.2	18.315	.2
2.498	1.1	6.494	.3	10.490	.2	14.486	.2	18.482	.2
2.664	.8	6.660	.3	10.656	.2	14.652	.2	18.648	.2
2.831	.6	6.827	.3	10.823	.2	14.819	.2	18.815	.2
2.997	.5	6.993	.3	10.989	.2	14.985	.2	18.981	.2
3.164	.4	7.160	.3	11.156	.2	15.152	.2	19.148	.2
3.330	.4	7.326	.3	11.322	.2	15.318	.2	19.314	.2
3.497	.3	7.493	.3	11.489	.2	15.485	.2	19.481	.2
3.663	.3	7.659	.3	11.655	.2	15.651	.2	19.647	.2
3.830	.3	7.826	.3	11.822	.2	15.818	.2	19.814	.2

RUNOFF VOLUME = 2.71041 INCHES = 1.4369 ACRE-FEET
PEAK DISCHARGE RATE = 30.10 CFS AT 1.499 HOURS BASIN AREA = .0099 SQ. MI.

****
ADD HYD ID=34 HYD NO=134 ID I=33 ID II=7
PRINT HYD ID 34 CODE=5

PARTIAL HYDROGRAPH 134.00

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW

HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	3.996	.4	7.992	.3	11.988	.3	15.984	.2
.167	.0	4.163	.4	8.159	.3	12.155	.3	16.151	.2
.333	.0	4.329	.4	8.325	.3	12.321	.3	16.317	.2
.500	.0	4.496	.4	8.492	.3	12.488	.3	16.484	.2
.666	.6	4.662	.4	8.658	.3	12.654	.3	16.650	.2
.833	1.3	4.829	.4	8.825	.3	12.821	.3	16.817	.2
.999	1.7	4.995	.4	8.991	.3	12.987	.3	16.983	.2
1.166	1.4	5.162	.4	9.158	.3	13.154	.3	17.150	.2
1.332	11.8	5.328	.4	9.324	.3	13.320	.3	17.316	.2
1.498	43.6	5.495	.4	9.491	.3	13.487	.3	17.483	.2
1.665	22.9	5.661	.4	9.657	.3	13.653	.3	17.649	.2
1.831	13.6	5.828	.4	9.824	.3	13.820	.3	17.816	.2
1.998	9.3	5.994	.4	9.990	.3	13.986	.3	17.982	.2
2.164	4.5	6.161	.4	10.157	.3	14.153	.3	18.149	.2
2.331	2.4	6.327	.4	10.323	.3	14.319	.2	18.315	.2
2.498	1.6	6.494	.4	10.490	.3	14.486	.2	18.482	.2
2.664	1.1	6.660	.4	10.656	.3	14.652	.2	18.648	.2
2.831	.8	6.827	.4	10.823	.3	14.819	.2	18.815	.2
2.997	.7	6.993	.4	10.989	.3	14.985	.2	18.981	.2
3.164	.6	7.160	.4	11.156	.3	15.152	.2	19.148	.2
3.330	.5	7.326	.4	11.322	.3	15.318	.2	19.314	.2
3.497	.5	7.493	.4	11.489	.3	15.485	.2	19.481	.2
3.663	.4	7.659	.3	11.655	.3	15.651	.2	19.647	.2
3.830	.4	7.826	.3	11.822	.3	15.818	.2	19.814	.2

RUNOFF VOLUME = 2.40726 INCHES = 2.0080 ACRE-FEET
PEAK DISCHARGE RATE = 43.64 CFS AT 1.499 HOURS BASIN AREA = .0156 SQ. MI.

```
*******************************************************
*SEXISTING POND W/FLOODWALL
*******************************************************
ROUTE RESERVOIR      ID 40 HYD NO=200 IN ID=34 CODE=5
                     OUTLFOW    STORAGE    ELEVATION
                      0.00       0.00       5466.5
                      6.08       0.05       5467.0
                      7.20       0.11       5468.0
                      8.16       0.44       5469.0
                      8.60       0.68       5469.5
                      9.02       0.92       5470.0
```

* * * * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5466.50	.000	.00
.17	.00	5466.50	.000	.00
.33	.00	5466.50	.000	.00
.50	.00	5466.50	.000	.00
.67	.63	5466.52	.002	.22
.83	1.26	5466.58	.008	.92
1.00	1.67	5466.62	.012	1.40
1.17	1.41	5466.63	.013	1.55
1.33	11.76	5466.93	.043	5.19
1.50	43.64	5468.69	.336	7.86
1.67	22.90	5469.52	.689	8.62
1.83	13.58	5469.77	.809	8.83
2.00	9.33	5469.84	.842	8.88
2.16	4.54	5469.79	.819	8.84
2.33	2.37	5469.63	.742	8.71
2.50	1.58	5469.44	.650	8.55
2.66	1.11	5469.23	.552	8.37
2.83	.85	5469.02	.451	8.18
3.00	.67	5468.73	.351	7.90
3.16	.57	5468.43	.253	7.62
3.33	.51	5468.14	.157	7.34
3.50	.47	5467.29	.067	6.41
3.66	.45	5466.66	.016	1.97
3.83	.42	5466.56	.006	.71
4.00	.41	5466.54	.004	.47
4.16	.40	5466.53	.003	.41
4.33	.39	5466.53	.003	.40
4.50	.38	5466.53	.003	.39
4.66	.38	5466.53	.003	.38
4.83	.38	5466.53	.003	.38
5.00	.38	5466.53	.003	.38
5.16	.38	5466.53	.003	.38
5.33	.38	5466.53	.003	.38
5.49	.38	5466.53	.003	.38
5.66	.38	5466.53	.003	.38
5.83	.39	5466.53	.003	.38
5.99	.39	5466.53	.003	.39
6.16	.39	5466.53	.003	.39
6.33	.38	5466.53	.003	.38
6.49	.38	5466.53	.003	.38
6.66	.37	5466.53	.003	.37
6.83	.37	5466.53	.003	.37
6.99	.36	5466.53	.003	.37

7.16	.36	5466.53	.003	.36
7.33	.36	5466.53	.003	.36
7.49	.35	5466.53	.003	.36
7.66	.35	5466.53	.003	.35
7.83	.34	5466.53	.003	.35
7.99	.34	5466.53	.003	.34
8.16	.34	5466.53	.003	.34
8.33	.34	5466.53	.003	.34
8.49	.33	5466.53	.003	.33
8.66	.33	5466.53	.003	.33
8.82	.33	5466.53	.003	.33
8.99	.32	5466.53	.003	.32
9.16	.32	5466.53	.003	.32

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
9.32	.32	5466.53	.003	.32
9.49	.31	5466.53	.003	.32
9.66	.31	5466.53	.003	.31
9.82	.31	5466.53	.003	.31
9.99	.31	5466.53	.003	.31
10.16	.30	5466.52	.003	.30
10.32	.30	5466.52	.002	.30
10.49	.30	5466.52	.002	.30
10.66	.30	5466.52	.002	.30
10.82	.29	5466.52	.002	.29
10.99	.29	5466.52	.002	.29
11.16	.29	5466.52	.002	.29
11.32	.28	5466.52	.002	.29
11.49	.28	5466.52	.002	.28
11.66	.28	5466.52	.002	.28
11.82	.28	5466.52	.002	.28
11.99	.28	5466.52	.002	.28
12.15	.27	5466.52	.002	.28
12.32	.27	5466.52	.002	.27
12.49	.27	5466.52	.002	.27
12.65	.27	5466.52	.002	.27
12.82	.27	5466.52	.002	.27
12.99	.27	5466.52	.002	.27
13.15	.26	5466.52	.002	.26
13.32	.26	5466.52	.002	.26
13.49	.26	5466.52	.002	.26
13.65	.26	5466.52	.002	.26
13.82	.26	5466.52	.002	.26
13.99	.25	5466.52	.002	.25
14.15	.25	5466.52	.002	.25
14.32	.25	5466.52	.002	.25
14.49	.25	5466.52	.002	.25
14.65	.25	5466.52	.002	.25
14.82	.24	5466.52	.002	.25
14.99	.24	5466.52	.002	.24
15.15	.24	5466.52	.002	.24
15.32	.24	5466.52	.002	.24
15.48	.24	5466.52	.002	.24
15.65	.24	5466.52	.002	.24
15.82	.23	5466.52	.002	.24
15.98	.23	5466.52	.002	.23
16.15	.23	5466.52	.002	.23
16.32	.23	5466.52	.002	.23
16.48	.23	5466.52	.002	.23
16.65	.23	5466.52	.002	.23
16.82	.23	5466.52	.002	.23
16.98	.23	5466.52	.002	.23
17.15	.22	5466.52	.002	.22
17.32	.22	5466.52	.002	.22
17.48	.22	5466.52	.002	.22
17.65	.22	5466.52	.002	.22
17.82	.22	5466.52	.002	.22
17.98	.22	5466.52	.002	.22
18.15	.22	5466.52	.002	.22
18.32	.21	5466.52	.002	.22
18.48	.21	5466.52	.002	.21

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
18.65	.21	5466.52	.002	.21
18.81	.21	5466.52	.002	.21
18.98	.21	5466.52	.002	.21
19.15	.21	5466.52	.002	.21
19.31	.21	5466.52	.002	.21
19.48	.21	5466.52	.002	.21
19.65	.20	5466.52	.002	.21
19.81	.20	5466.52	.002	.20

PEAK DISCHARGE = 8.884 CFS - PEAK OCCURS AT HOUR 2.03
MAXIMUM WATER SURFACE ELEVATION = 5469.838
MAXIMUM STORAGE = .8425 AC-FT INCREMENTAL TIME= .033300HRS

PRINT HYD ID=40 CODE=5

10024.HMO

PARTIAL HYDROGRAPH 200.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.5	7.992	.3	11.988	.3	15.984	.2
.167	.0	4.163	.4	8.159	.3	12.155	.3	16.151	.2
.333	.0	4.329	.4	8.325	.3	12.321	.3	16.317	.2
.500	.0	4.496	.4	8.492	.3	12.488	.3	16.484	.2
.666	.2	4.662	.4	8.658	.3	12.654	.3	16.650	.2
.833	.9	4.829	.4	8.825	.3	12.821	.3	16.817	.2
.999	1.4	4.995	.4	8.991	.3	12.987	.3	16.983	.2
1.166	1.6	5.162	.4	9.158	.3	13.154	.3	17.150	.2
1.332	5.2	5.328	.4	9.324	.3	13.320	.3	17.316	.2
1.498	7.9	5.495	.4	9.491	.3	13.487	.3	17.483	.2
1.665	8.6	5.661	.4	9.657	.3	13.653	.3	17.649	.2
1.831	8.8	5.828	.4	9.824	.3	13.820	.3	17.816	.2
1.998	8.9	5.994	.4	9.990	.3	13.986	.3	17.982	.2
2.164	8.8	6.161	.4	10.157	.3	14.153	.3	18.149	.2
2.331	8.7	6.327	.4	10.323	.3	14.319	.3	18.315	.2
2.498	8.5	6.494	.4	10.490	.3	14.486	.2	18.482	.2
2.664	8.4	6.660	.4	10.656	.3	14.652	.2	18.648	.2
2.831	8.2	6.827	.4	10.823	.3	14.819	.2	18.815	.2
2.997	7.9	6.993	.4	10.989	.3	14.985	.2	18.981	.2
3.164	7.6	7.160	.4	11.156	.3	15.152	.2	19.148	.2
3.330	7.3	7.326	.4	11.322	.3	15.318	.2	19.314	.2
3.497	6.4	7.493	.4	11.489	.3	15.485	.2	19.481	.2
3.663	2.0	7.659	.4	11.655	.3	15.651	.2	19.647	.2
3.830	.7	7.826	.3	11.822	.3	15.818	.2	19.814	.2

RUNOFF VOLUME = 2.40526 INCHES = 2.0063 ACRE-FEET
PEAK DISCHARGE RATE = 8.88 CFS AT 2.031 HOURS BASIN AREA = .0156 SQ. MI.

****
****
FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 10:12:26

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02c RUN DATE (MON/DAY/YR) =08/29/2008
INPUT FILE = M:\FAE\07833E~1\AE_DATA\CALCS\ENG\AHYMO\224.HMI USER NO.= AHYMO-C-9803c01UNMLIB-AH

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S AHYMO_97 MODEL FOR: McCollum										
*S PREPARED FOR: APS										
*S PREPARED BY: Wilson & Co										
*S REVISED: 08/28/08 EEV										
*S MODEL DESCRIPTION -										
*S 1. 2-YEAR 24-HOUR RAINFALL EVENT										
*S 2. THIS MODEL ASSUMES DEVELOPED CONDITIONS										
*S										
START										TIME= .00
LOCATION	ALBUQUERQUE									
*S***** AHYMO -McCollum. DAT										
*S***** March 3, 2008										
*S***** HYDROLOGY FOR McCollum UN-DEVELOPED ONSITE										
RAINFALL TYPE= 2										RAIN24= 1.580
*S***** BASIN I - ONSITE EXISTING(1.23 ACRES)										
COMPUTE NM HYD	108.00	-	8	.00190	2.72	.128	1.26234	1.499	2.235	PER IMP= 98.00
*S***** BASIN II - ONSITE EXISTING (1.819 ACRES)										
COMPUTE NM HYD	109.00	-	9	.00280	2.82	.115	.76841	1.499	1.575	PER IMP= 51.00
*S***** BASIN III - ONSITE EXISTING (2.32 ACRES)										
COMPUTE NM HYD	110.00	-	10	.00360	3.99	.171	.89223	1.499	1.733	PER IMP= 63.00
*S***** BASIN IV - ONSITE EXISTING (0.71 ACRES)										
COMPUTE NM HYD	111.00	-	11	.00110	1.59	.075	1.28256	1.499	2.259	PER IMP= 100.00
*S***** BASIN V - ONSITE EXISTING (3.99 ACRES)										
COMPUTE NM HYD	112.00	-	12	.00610	4.75	.194	.59602	1.499	1.217	PER IMP= 39.00
*S***** BASIN I - ONSITE PROPOSED (1.31 ACRES)										
COMPUTE NM HYD	102.00	-	2	.00210	3.00	.141	1.26234	1.499	2.234	PER IMP= 98.00
*S***** BASIN II - ONSITE PROPOSED (1.73 ACRES)										
COMPUTE NM HYD	103.00	-	3	.00270	3.07	.134	.93275	1.499	1.775	PER IMP= 67.30
*S***** BASIN III - ONSITE PROPOSED (1.29 ACRES)										
COMPUTE NM HYD	101.00	-	4	.00202	2.07	.087	.81091	1.499	1.600	PER IMP= 56.20
*S***** BASIN IV - ONSITE PROPOSED (1.29 ACRES)										
COMPUTE NM HYD	105.00	-	5	.00202	1.89	.082	.76334	1.499	1.460	PER IMP= 54.30
*S***** BASIN V - ONSITE PROPOSED (0.72 ACRES)										
COMPUTE NM HYD	106.00	-	6	.00110	1.59	.075	1.28256	1.499	2.259	PER IMP= 100.00
*S***** BASIN VI - ONSITE PROPOSED (3.64 ACRES)										
COMPUTE NM HYD	107.00	-	7	.00570	3.78	.167	.54934	1.499	1.035	PER IMP= 39.00
*SEXISTING										
ADD HYD	120.00	8& 9	20	.00470	5.54	.243	.96808	1.499	1.842	
ADD HYD	121.00	20&10	21	.00830	9.53	.414	.93518	1.499	1.794	
ADD HYD	122.00	21&11	22	.00940	11.12	.489	.97583	1.499	1.849	
ADD HYD	123.00	22&12	23	.01550	15.87	.683	.82636	1.499	1.600	
*SPROPOSED										
ADD HYD	130.00	2& 3	30	.00480	6.07	.276	1.07695	1.499	1.976	
ADD HYD	131.00	30& 4	31	.00682	8.14	.363	.99815	1.499	1.864	
ADD HYD	132.00	31& 5	32	.00884	10.03	.445	.94450	1.499	1.772	
ADD HYD	133.00	32& 6	33	.00994	11.62	.521	.98191	1.499	1.826	
ADD HYD	134.00	33& 7	34	.01564	15.39	.688	.82426	1.499	1.538	
*SEXISTING POND W/FLOODWALL										
ROUTE RESERVOIR	200.00	34	40	.01564	7.31	.687	.82341	1.665	.730	AC-FT= .148
FINISH										

```
*S    AHYMO_97 MODEL FOR: McCollum
*S    PREPARED FOR:  APS
*S    PREPARED BY:  Wilson & Co
*S    REVISED:  08/28/08 EEV
*S    MODEL DESCRIPTION -
*S 1. 2-YEAR 24-HOUR RAINFALL EVENT
*S 2. THIS MODEL ASSUMES DEVELOPED CONDITIONS
*S
START                TIME=0.0
LOCATION             ALBUQUERQUE
*S***** AHYMO -McCollum. DAT
*S***** March 3, 2008
*S***** HYDROLOGY FOR McCollum UN-DEVELOPED ONSITE

RAINFALL             TYPE=2 RAIN QUARTER=0.0 IN
                     RAIN ONE=0.97 IN RAIN SIX=1.26 IN
                     RAIN DAY=1.58 IN DT=0.0333 HR

*S***** BASIN I  - ONSITE EXISTING(1.23 ACRES)

COMPUTE NM HYD       ID=8 HYD NO=108 AREA=0.0019 SQ MI
                     PER A=0 PER B=0 PER C=2 PER D=98
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=8 CODE=24

*S***** BASIN II - ONSITE EXISTING (1.819 ACRES)

COMPUTE NM HYD       ID=9 HYD NO=109 AREA=0.0028 SQ MI
                     PER A=0 PER B=10 PER C=39 PER D=51
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=9 CODE=24

*S***** BASIN III - ONSITE EXISTING (2.32 ACRES)

COMPUTE NM HYD       ID=10 HYD NO=110 AREA=0.0036 SQ MI
                     PER A=0 PER B=8.7 PER C=28.3 PER D=63
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=10 CODE=24
*S***** BASIN IV - ONSITE EXISTING (0.71 ACRES)

COMPUTE NM HYD       ID=11 HYD NO=111 AREA=0.0011 SQ MI
                     PER A=0 PER B=0 PER C=0 PER D=100
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=11 CODE=24
*S***** BASIN V - ONSITE EXISTING (3.99 ACRES)

COMPUTE NM HYD       ID=12 HYD NO=112 AREA=0.0061 SQ MI
                     PER A=0 PER B=41 PER C=20 PER D=39
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=12 CODE=24

*S***** BASIN I - ONSITE PROPOSED (1.31 ACRES)

COMPUTE NM HYD       ID=2 HYD NO=102 AREA=0.0021 SQ MI
                     PER A=0 PER B=0 PER C=2 PER D=98
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=2 CODE=24

*S***** BASIN II - ONSITE PROPOSED (1.73 ACRES)

COMPUTE NM HYD       ID=3 HYD NO=103 AREA=0.0027 SQ MI
                     PER A=0 PER B=10.4 PER C=22.3 PER D=67.3
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=3 CODE=24

*S***** BASIN III - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD       ID=4 HYD NO=101 AREA=0.00202 SQ MI
                     PER A=0 PER B=15.7 PER C=28.1 PER D=56.2
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=4 CODE=24

*S***** BASIN IV - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD       ID=5 HYD NO=105 AREA=0.00202 SQ MI
                     PER A=0 PER B=34.3 PER C=11.4 PER D=54.3
                     TP=0.1333 HR MASS RAINFALL=-1
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```
PRINT HYD            ID=5 CODE=24

*S***** BASIN V - ONSITE PROPOSED (0.72 ACRES)

COMPUTE NM HYD       ID=6 HYD NO=106 AREA=0.0011 SQ MI
                     PER A=0 PER B=0 PER C=0 PER D=100
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=6 CODE=24

*S***** BASIN VI - ONSITE PROPOSED (3.64 ACRES)

COMPUTE NM HYD       ID=7 HYD NO=107 AREA=0.0057 SQ MI
                     PER A=16 PER B=45 PER C=0 PER D=39
                     TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD            ID=7 CODE=24
*******************************************************
*SEXISTING
*******************************************************
ADD HYD              ID=20 HYD NO=120 ID I=8 ID II=9
PRINT HYD            ID 20 CODE=5
*******************************************************
ADD HYD              ID=21 HYD NO=121 ID I=20 ID II=10
PRINT HYD            ID 21 CODE=5
*******************************************************
ADD HYD              ID=22 HYD NO=122 ID I=21 ID II=11
PRINT HYD            ID 22 CODE=5
*******************************************************
ADD HYD              ID=23 HYD NO=123 ID I=22 ID II=12
PRINT HYD            ID 23 CODE=5
*******************************************************
*SPROPOSED
*******************************************************
ADD HYD              ID=30 HYD NO=130 ID I=2 ID II=3
PRINT HYD            ID 30 CODE=5
*******************************************************
ADD HYD              ID=31 HYD NO=131 ID I=30 ID II=4
PRINT HYD            ID 31 CODE=5
*******************************************************
ADD HYD              ID=32 HYD NO=132 ID I=31 ID II=5
PRINT HYD            ID 32 CODE=5
*******************************************************
ADD HYD              ID=33 HYD NO=133 ID I=32 ID II=6
PRINT HYD            ID 33 CODE=5
*******************************************************
ADD HYD              ID=34 HYD NO=134 ID I=33 ID II=7
PRINT HYD            ID 34 CODE=5
*******************************************************
*SEXISTING POND W/FLOODWALL
*******************************************************
ROUTE RESERVOIR      ID 40 HYD NO=200 IN ID=34 CODE=5
                     OUTLFOW    STORAGE    ELEVATION
                      0.00       0.00       5466.5
                      6.08       0.05       5467.0
                      7.20       0.11       5468.0
                      8.16       0.44       5469.0
                      8.60       0.68       5469.5
                      9.02       0.92       5470.0
PRINT HYD            ID=40 CODE=5
*******************************************************
*******************************************************
FINISH
```

```
AHYMO PROGRAM (AHYMO_97) -                          - Version:  1997.02c
     RUN DATE (MON/DAY/YR) = 08/29/2008
     START TIME (HR:MIN:SEC) = 10:24:24     USER NO.= AHYMO-C-9803c01UNMLIB-AH
     INPUT FILE = M:\FAE\07833E-1\AE_DATA\CALCS\ENG\AHYMO\224.HMI

*S    AHYMO_97 MODEL FOR: McCollum
*S    PREPARED FOR:  APS
*S    PREPARED BY:  Wilson & Co
*S    REVISED:  08/28/08 EEV
*S    MODEL DESCRIPTION -
*S 1. 2-YEAR 24-HOUR RAINFALL EVENT
*S 2. THIS MODEL ASSUMES DEVELOPED CONDITIONS
*S
START                TIME=0.0
LOCATION                 ALBUQUERQUE
     City of Albuquerque soil infiltration values (LAND FACTORS) used for computations.
     Land Treatment     Initial Abstr.(in)    Unif. Infilt.(in/hour)
          A             0.65                  1.67
          B             0.50                  1.25
          C             0.35                  0.83
          D             0.10                  0.04

*S***** AHYMO -McCollum. DAT
*S***** March 3, 2008
*S***** HYDROLOGY FOR McCollum UN-DEVELOPED ONSITE

RAINFALL             TYPE=2 RAIN QUARTER=0.0 IN
                     RAIN ONE=0.97 IN RAIN SIX=1.26 IN
                     RAIN DAY=1.58 IN DT=0.0333 HR

               COMPUTED 24-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.
               DT =    .033300 HOURS       END TIME =    19.946700 HOURS
                  .0000   .0023   .0047   .0072   .0097   .0122   .0148
                  .0175   .0202   .0230   .0258   .0288   .0318   .0348
                  .0380   .0412   .0446   .0480   .0515   .0552   .0590
                  .0629   .0669   .0711   .0755   .0801   .0848   .0898
                  .0950   .1005   .1062   .1090   .1119   .1149   .1212
                  .1357   .1581   .1902   .2342   .2919   .3657   .4576
                  .5698   .6775   .7217   .7588   .7919   .8219   .8495
                  .8752   .8992   .9216   .9428   .9627   .9815   .9994
                 1.0163  1.0323  1.0475  1.0619  1.0756  1.0797  1.0831
                 1.0864  1.0895  1.0925  1.0954  1.0983  1.1010  1.1037
                 1.1063  1.1088  1.1113  1.1137  1.1161  1.1184  1.1206
                 1.1229  1.1250  1.1272  1.1293  1.1313  1.1333  1.1353
                 1.1373  1.1392  1.1411  1.1430  1.1449  1.1467  1.1485
                 1.1502  1.1520  1.1537  1.1554  1.1571  1.1588  1.1604
                 1.1620  1.1636  1.1652  1.1668  1.1684  1.1699  1.1714
                 1.1729  1.1744  1.1759  1.1774  1.1788  1.1803  1.1817
                 1.1831  1.1845  1.1859  1.1873  1.1887  1.1900  1.1913
                 1.1927  1.1940  1.1953  1.1966  1.1979  1.1992  1.2005
                 1.2017  1.2030  1.2042  1.2055  1.2067  1.2079  1.2091
                 1.2103  1.2115  1.2127  1.2139  1.2151  1.2162  1.2174
                 1.2185  1.2197  1.2208  1.2220  1.2231  1.2242  1.2253
                 1.2264  1.2275  1.2286  1.2297  1.2308  1.2318  1.2329
                 1.2340  1.2350  1.2361  1.2371  1.2382  1.2392  1.2402
                 1.2413  1.2423  1.2433  1.2443  1.2453  1.2463  1.2473
                 1.2483  1.2493  1.2503  1.2512  1.2522  1.2532  1.2541
                 1.2551  1.2561  1.2570  1.2579  1.2589  1.2598  1.2607
                 1.2616  1.2625  1.2634  1.2643  1.2652  1.2661  1.2670
                 1.2678  1.2687  1.2696  1.2705  1.2714  1.2722  1.2731
                 1.2740  1.2748  1.2757  1.2766  1.2774  1.2783  1.2791
                 1.2800  1.2808  1.2817  1.2825  1.2834  1.2842  1.2851
                 1.2859  1.2867  1.2876  1.2884  1.2893  1.2901  1.2909
                 1.2917  1.2926  1.2934  1.2942  1.2950  1.2959  1.2967
                 1.2975  1.2983  1.2991  1.2999  1.3008  1.3016  1.3024
                 1.3032  1.3040  1.3048  1.3056  1.3064  1.3072  1.3080
                 1.3088  1.3096  1.3104  1.3111  1.3119  1.3127  1.3135
                 1.3143  1.3151  1.3158  1.3166  1.3174  1.3182  1.3189
                 1.3197  1.3205  1.3213  1.3220  1.3228  1.3236  1.3243
                 1.3251  1.3258  1.3266  1.3274  1.3281  1.3289  1.3296
                 1.3304  1.3311  1.3319  1.3326  1.3334  1.3341  1.3349
                 1.3356  1.3363  1.3371  1.3378  1.3386  1.3393  1.3400
                 1.3408  1.3415  1.3422  1.3430  1.3437  1.3444  1.3451
                 1.3459  1.3466  1.3473  1.3480  1.3487  1.3495  1.3502
                 1.3509  1.3516  1.3523  1.3530  1.3537  1.3544  1.3552
                 1.3559  1.3566  1.3573  1.3580  1.3587  1.3594  1.3601
                 1.3608  1.3615  1.3622  1.3629  1.3635  1.3642  1.3649
                 1.3656  1.3663  1.3670  1.3677  1.3684  1.3690  1.3697
                 1.3704  1.3711  1.3718  1.3724  1.3731  1.3738  1.3745
                 1.3751  1.3758  1.3765  1.3772  1.3778  1.3785  1.3792
                 1.3798  1.3805  1.3812  1.3818  1.3825  1.3831  1.3838
                 1.3845  1.3851  1.3858  1.3864  1.3871  1.3877  1.3884
                 1.3890  1.3897  1.3903  1.3910  1.3916  1.3923  1.3929
                 1.3936  1.3942  1.3948  1.3955  1.3961  1.3968  1.3974
                 1.3980  1.3987  1.3993  1.3999  1.4006  1.4012  1.4018
                 1.4025  1.4031  1.4037  1.4044  1.4050  1.4056  1.4062
                 1.4069  1.4075  1.4081  1.4087  1.4093  1.4100  1.4106
                 1.4112  1.4118  1.4124  1.4130  1.4137  1.4143  1.4149
                 1.4155  1.4161  1.4167  1.4173  1.4179  1.4185  1.4191
```

224.HMO

1.4197	1.4203	1.4209	1.4215	1.4221	1.4227	1.4233
1.4239	1.4245	1.4251	1.4257	1.4263	1.4269	1.4275
1.4281	1.4287	1.4293	1.4299	1.4305	1.4311	1.4316
1.4322	1.4328	1.4334	1.4340	1.4346	1.4352	1.4357
1.4363	1.4369	1.4375	1.4381	1.4386	1.4392	1.4398
1.4404	1.4409	1.4415	1.4421	1.4427	1.4432	1.4438
1.4444	1.4449	1.4455	1.4461	1.4466	1.4472	1.4478
1.4483	1.4489	1.4495	1.4500	1.4506	1.4511	1.4517
1.4523	1.4528	1.4534	1.4539	1.4545	1.4551	1.4556
1.4562	1.4567	1.4573	1.4578	1.4584	1.4589	1.4595
1.4600	1.4606	1.4611	1.4617	1.4622	1.4628	1.4633
1.4639	1.4644	1.4649	1.4655	1.4660	1.4666	1.4671
1.4676	1.4682	1.4687	1.4693	1.4698	1.4703	1.4709
1.4714	1.4719	1.4725	1.4730	1.4735	1.4741	1.4746
1.4751	1.4757	1.4762	1.4767	1.4772	1.4778	1.4783
1.4788	1.4793	1.4799	1.4804	1.4809	1.4814	1.4820
1.4825	1.4830	1.4835	1.4840	1.4846	1.4851	1.4856
1.4861	1.4866	1.4871	1.4877	1.4882	1.4887	1.4892
1.4897	1.4902	1.4907	1.4913	1.4918	1.4923	1.4928
1.4933	1.4938	1.4943	1.4948	1.4953	1.4958	1.4963
1.4968	1.4973	1.4978	1.4983	1.4988	1.4993	1.4998
1.5003	1.5008	1.5013	1.5018	1.5023	1.5028	1.5033
1.5038	1.5043	1.5048	1.5053	1.5058	1.5063	1.5068
1.5073	1.5078	1.5083	1.5088	1.5093	1.5097	1.5102
1.5107	1.5112	1.5117	1.5122	1.5127	1.5132	1.5136
1.5141	1.5146	1.5151	1.5156	1.5161	1.5165	1.5170
1.5175	1.5180	1.5185	1.5189	1.5194	1.5199	1.5204
1.5208	1.5213	1.5218	1.5223	1.5228	1.5232	1.5237
1.5242	1.5246	1.5251	1.5256	1.5261		

```
*S***** BASIN I  - ONSITE EXISTING(1.23 ACRES)

COMPUTE NM HYD       ID=8 HYD NO=108 AREA=0.0019 SQ MI
                     PER A=0 PER B=0 PER C=2 PER D=98
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   7.3513    CFS   UNIT VOLUME =    .9978       B =   526.28      P60 = .97000
     AREA =      .001862 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


     K =   .110810HR    TP =   .133300HR    K/TP RATIO =   .831286     SHAPE CONSTANT, N =  4.291226
     UNIT PEAK =   .10666    CFS   UNIT VOLUME =    .8734       B =   374.14      P60 = .97000
     AREA =      .000038 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=8 CODE=24
```

PARTIAL HYDROGRAPH 108.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.0	11.988	.0	15.984	.0
.666	.0	4.662	.0	8.658	.0	12.654	.0	16.650	.0
1.332	.8	5.328	.0	9.324	.0	13.320	.0	17.316	.0
1.998	.7	5.994	.0	9.990	.0	13.986	.0	17.982	.0
2.664	.0	6.660	.0	10.656	.0	14.652	.0	18.648	.0
3.330	.0	7.326	.0	11.322	.0	15.318	.0	19.314	.0

```
     RUNOFF VOLUME =     1.26234 INCHES     =        .1279 ACRE-FEET
     PEAK DISCHARGE RATE =       2.72 CFS  AT   1.499 HOURS   BASIN AREA =   .0019 SQ. MI.


*S***** BASIN II - ONSITE EXISTING (1.819 ACRES)

COMPUTE NM HYD       ID=9 HYD NO=109 AREA=0.0028 SQ MI
                     PER A=0 PER B=10 PER C=39 PER D=51
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   5.6378    CFS   UNIT VOLUME =    .9972       B =   526.28      P60 = .97000
     AREA =      .001428 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


     K =   .118161HR    TP =   .133300HR    K/TP RATIO =   .886429     SHAPE CONSTANT, N =  4.002175
     UNIT PEAK =   3.6571    CFS   UNIT VOLUME =    .9970       B =   355.31      P60 = .97000
     AREA =      .001372 SQ MI    IA =    .38061 INCHES    INF =    .91571 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=9 CODE=24
```

PARTIAL HYDROGRAPH 109.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.0	11.988	.0	15.984	.0

.666	.0	4.662	.0	8.658	.0	12.654	.0	16.650	.0
1.332	.6	5.328	.0	9.324	.0	13.320	.0	17.316	.0
1.998	.5	5.994	.0	9.990	.0	13.986	.0	17.982	.0
2.664	.0	6.660	.0	10.656	.0	14.652	.0	18.648	.0
3.330	.0	7.326	.0	11.322	.0	15.318	.0	19.314	.0

RUNOFF VOLUME = .76841 INCHES = .1147 ACRE-FEET
PEAK DISCHARGE RATE = 2.82 CFS AT 1.499 HOURS BASIN AREA = .0028 SQ. MI.

*S***** BASIN III - ONSITE EXISTING (2.32 ACRES)

COMPUTE NM HYD ID=10 HYD NO=110 AREA=0.0036 SQ MI
PER A=0 PER B=8.7 PER C=28.3 PER D=63
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 8.9542 CFS UNIT VOLUME = .9980 B = 526.28 P60 = .97000
AREA = .002268 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .119279HR TP = .133300HR K/TP RATIO = .894820 SHAPE CONSTANT, N = 3.962119
UNIT PEAK = 3.5237 CFS UNIT VOLUME = .9968 B = 352.64 P60 = .97000
AREA = .001332 SQ MI IA = .38527 INCHES INF = .92876 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=10 CODE=24

PARTIAL HYDROGRAPH 110.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.0	11.988	.0	15.984	.0
.666	.0	4.662	.0	8.658	.0	12.654	.0	16.650	.0
1.332	1.0	5.328	.0	9.324	.0	13.320	.0	17.316	.0
1.998	.8	5.994	.0	9.990	.0	13.986	.0	17.982	.0
2.664	.1	6.660	.0	10.656	.0	14.652	.0	18.648	.0
3.330	.0	7.326	.0	11.322	.0	15.318	.0	19.314	.0

RUNOFF VOLUME = .89223 INCHES = .1713 ACRE-FEET
PEAK DISCHARGE RATE = 3.99 CFS AT 1.499 HOURS BASIN AREA = .0036 SQ. MI.

*S***** BASIN IV - ONSITE EXISTING (0.71 ACRES)

COMPUTE NM HYD ID=11 HYD NO=111 AREA=0.0011 SQ MI
PER A=0 PER B=0 PER C=0 PER D=100
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 4.3429 CFS UNIT VOLUME = .9969 B = 526.28 P60 = .97000
AREA = .001100 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=11 CODE=24

PARTIAL HYDROGRAPH 111.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.0	11.988	.0	15.984	.0
.666	.0	4.662	.0	8.658	.0	12.654	.0	16.650	.0
1.332	.5	5.328	.0	9.324	.0	13.320	.0	17.316	.0
1.998	.4	5.994	.0	9.990	.0	13.986	.0	17.982	.0
2.664	.0	6.660	.0	10.656	.0	14.652	.0	18.648	.0
3.330	.0	7.326	.0	11.322	.0	15.318	.0	19.314	.0

RUNOFF VOLUME = 1.28256 INCHES = .0752 ACRE-FEET
PEAK DISCHARGE RATE = 1.59 CFS AT 1.499 HOURS BASIN AREA = .0011 SQ. MI.

*S***** BASIN V - ONSITE EXISTING (3.99 ACRES)

COMPUTE NM HYD ID=12 HYD NO=112 AREA=0.0061 SQ MI
PER A=0 PER B=41 PER C=20 PER D=39
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 9.3924 CFS UNIT VOLUME = .9982 B = 526.28 P60 = .97000
AREA = .002379 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .135019HR TP = .133300HR K/TP RATIO = 1.012895 SHAPE CONSTANT, N = 3.485028
UNIT PEAK = 8.9113 CFS UNIT VOLUME = .9987 B = 319.24 P60 = .97000

```
AREA =       .003721 SQ MI    IA =    .45082 INCHES    INF =   1.11230 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD          ID=12 CODE=24

                          PARTIAL HYDROGRAPH   112.00

     TIME      FLOW        TIME      FLOW        TIME      FLOW        TIME      FLOW        TIME      FLOW
      HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS
      .000       .0        3.996       .0        7.992       .0       11.988       .0       15.984       .0
      .666       .0        4.662       .0        8.658       .0       12.654       .0       16.650       .0
     1.332      1.1        5.328       .0        9.324       .0       13.320       .0       17.316       .0
     1.998       .9        5.994       .0        9.990       .0       13.986       .0       17.982       .0
     2.664       .1        6.660       .0       10.656       .0       14.652       .0       18.648       .0
     3.330       .0        7.326       .0       11.322       .0       15.318       .0       19.314       .0

    RUNOFF VOLUME =      .59602 INCHES      =        .1939 ACRE-FEET
    PEAK DISCHARGE RATE =       4.75 CFS  AT   1.499 HOURS   BASIN AREA =   .0061 SQ. MI.


*S***** BASIN I - ONSITE PROPOSED (1.31 ACRES)

COMPUTE NM HYD       ID=2 HYD NO=102 AREA=0.0021 SQ MI
                     PER A=0 PER B=0 PER C=2 PER D=98
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   8.1251    CFS   UNIT VOLUME =    .9980       B =   526.28      P60 = .97000
     AREA =       .002058 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


     K =   .110810HR    TP =   .133300HR    K/TP RATIO =   .831286     SHAPE CONSTANT, N =  4.291226
     UNIT PEAK =   .11788    CFS   UNIT VOLUME =    .8855       B =   374.14      P60 = .97000
     AREA =       .000042 SQ MI    IA =    .35000 INCHES    INF =    .83000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=2 CODE=24

                          PARTIAL HYDROGRAPH   102.00

     TIME      FLOW        TIME      FLOW        TIME      FLOW        TIME      FLOW        TIME      FLOW
      HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS
      .000       .0        3.996       .0        7.992       .0       11.988       .0       15.984       .0
      .666       .0        4.662       .0        8.658       .0       12.654       .0       16.650       .0
     1.332       .9        5.328       .0        9.324       .0       13.320       .0       17.316       .0
     1.998       .7        5.994       .0        9.990       .0       13.986       .0       17.982       .0
     2.664       .1        6.660       .0       10.656       .0       14.652       .0       18.648       .0
     3.330       .0        7.326       .0       11.322       .0       15.318       .0       19.314       .0

    RUNOFF VOLUME =     1.26234 INCHES      =        .1414 ACRE-FEET
    PEAK DISCHARGE RATE =       3.00 CFS  AT   1.499 HOURS   BASIN AREA =   .0021 SQ. MI.


*S***** BASIN II - ONSITE PROPOSED (1.73 ACRES)

COMPUTE NM HYD       ID=3 HYD NO=103 AREA=0.0027 SQ MI
                     PER A=0 PER B=10.4 PER C=22.3 PER D=67.3
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   7.1740    CFS   UNIT VOLUME =    .9978       B =   526.28      P60 = .97000
     AREA =       .001817 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


     K =   .122266HR    TP =   .133300HR    K/TP RATIO =   .917221     SHAPE CONSTANT, N =  3.859640
     UNIT PEAK =   2.2897    CFS   UNIT VOLUME =    .9945       B =   345.70      P60 = .97000
     AREA =       .000883 SQ MI    IA =    .39771 INCHES    INF =    .96358 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300
PRINT HYD            ID=3 CODE=24

                          PARTIAL HYDROGRAPH   103.00

     TIME      FLOW        TIME      FLOW        TIME      FLOW        TIME      FLOW        TIME      FLOW
      HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS          HRS      CFS
      .000       .0        3.996       .0        7.992       .0       11.988       .0       15.984       .0
      .666       .0        4.662       .0        8.658       .0       12.654       .0       16.650       .0
     1.332       .8        5.328       .0        9.324       .0       13.320       .0       17.316       .0
     1.998       .7        5.994       .0        9.990       .0       13.986       .0       17.982       .0
     2.664       .1        6.660       .0       10.656       .0       14.652       .0       18.648       .0
     3.330       .0        7.326       .0       11.322       .0       15.318       .0       19.314       .0

    RUNOFF VOLUME =      .93275 INCHES      =        .1343 ACRE-FEET
    PEAK DISCHARGE RATE =       3.07 CFS  AT   1.499 HOURS   BASIN AREA =   .0027 SQ. MI.
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*S***** BASIN III - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD       ID=4 HYD NO=101 AREA=0.00202 SQ MI
                     PER A=0 PER B=15.7 PER C=28.1 PER D=56.2
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.4820    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = .97000
     AREA =      .001135 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


     K =   .123721HR    TP =   .133300HR    K/TP RATIO =   .928138     SHAPE CONSTANT, N =  3.811953
     UNIT PEAK =   2.2728    CFS   UNIT VOLUME =    .9941       B =   342.43      P60 = .97000
     AREA =      .000885 SQ MI    IA =    .40377 INCHES    INF =    .98055 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=4 CODE=24

                                   PARTIAL HYDROGRAPH   101.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS
      .000      .0           3.996      .0           7.992      .0          11.988      .0          15.984      .0
      .666      .0           4.662      .0           8.658      .0          12.654      .0          16.650      .0
     1.332      .5           5.328      .0           9.324      .0          13.320      .0          17.316      .0
     1.998      .4           5.994      .0           9.990      .0          13.986      .0          17.982      .0
     2.664      .0           6.660      .0          10.656      .0          14.652      .0          18.648      .0
     3.330      .0           7.326      .0          11.322      .0          15.318      .0          19.314      .0

    RUNOFF VOLUME =      .81091 INCHES     =        .0874 ACRE-FEET
    PEAK DISCHARGE RATE =       2.07 CFS  AT   1.499 HOURS   BASIN AREA =   .0020 SQ. MI.


*S***** BASIN IV - ONSITE PROPOSED (1.29 ACRES)

COMPUTE NM HYD       ID=5 HYD NO=105 AREA=0.00202 SQ MI
                     PER A=0 PER B=34.3 PER C=11.4 PER D=54.3
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.3305    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = .97000
     AREA =      .001097 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300


     K =   .137843HR    TP =   .133300HR    K/TP RATIO =  1.034083     SHAPE CONSTANT, N =  3.413694
     UNIT PEAK =   2.1744    CFS   UNIT VOLUME =    .9938       B =   313.98      P60 = .97000
     AREA =      .000923 SQ MI    IA =    .46258 INCHES    INF =   1.14523 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=5 CODE=24

                                   PARTIAL HYDROGRAPH   105.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
      HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS            HRS      CFS
      .000      .0           3.996      .0           7.992      .0          11.988      .0          15.984      .0
      .666      .0           4.662      .0           8.658      .0          12.654      .0          16.650      .0
     1.332      .5           5.328      .0           9.324      .0          13.320      .0          17.316      .0
     1.998      .4           5.994      .0           9.990      .0          13.986      .0          17.982      .0
     2.664      .0           6.660      .0          10.656      .0          14.652      .0          18.648      .0
     3.330      .0           7.326      .0          11.322      .0          15.318      .0          19.314      .0

    RUNOFF VOLUME =      .76334 INCHES     =        .0822 ACRE-FEET
    PEAK DISCHARGE RATE =       1.89 CFS  AT   1.499 HOURS   BASIN AREA =   .0020 SQ. MI.


*S***** BASIN V - ONSITE PROPOSED (0.72 ACRES)

COMPUTE NM HYD       ID=6 HYD NO=106 AREA=0.0011 SQ MI
                     PER A=0 PER B=0 PER C=0 PER D=100
                     TP=0.1333 HR MASS RAINFALL=-1

     K =   .072649HR    TP =   .133300HR    K/TP RATIO =   .545000     SHAPE CONSTANT, N =  7.106420
     UNIT PEAK =   4.3429    CFS   UNIT VOLUME =    .9969       B =   526.28      P60 = .97000
     AREA =      .001100 SQ MI    IA =    .10000 INCHES    INF =    .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =   .033300

PRINT HYD            ID=6 CODE=24

                                   PARTIAL HYDROGRAPH   106.00

     TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW          TIME      FLOW
```

HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	3.996	.0	7.992	.0	11.988	.0	15.984	.0
.666	.0	4.662	.0	8.658	.0	12.654	.0	16.650	.0
1.332	.5	5.328	.0	9.324	.0	13.320	.0	17.316	.0
1.998	.4	5.994	.0	9.990	.0	13.986	.0	17.982	.0
2.664	.0	6.660	.0	10.656	.0	14.652	.0	18.648	.0
3.330	.0	7.326	.0	11.322	.0	15.318	.0	19.314	.0

RUNOFF VOLUME = 1.28256 INCHES = .0752 ACRE-FEET
PEAK DISCHARGE RATE = 1.59 CFS AT 1.499 HOURS BASIN AREA = .0011 SQ. MI.

*S***** BASIN VI - ONSITE PROPOSED (3.64 ACRES)

COMPUTE NM HYD ID=7 HYD NO=107 AREA=0.0057 SQ MI
PER A=16 PER B=45 PER C=0 PER D=39
TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 8.7765 CFS UNIT VOLUME = .9980 B = 526.28 P60 = .97000
AREA = .002223 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

K = .155517HR TP = .133300HR K/TP RATIO = 1.166669 SHAPE CONSTANT, N = 3.039330
UNIT PEAK = 7.4343 CFS UNIT VOLUME = .9978 B = 285.01 P60 = .97000
AREA = .003477 SQ MI IA = .53934 INCHES INF = 1.36016 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033300

PRINT HYD ID=7 CODE=24

PARTIAL HYDROGRAPH 107.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.0	11.988	.0	15.984	.0
.666	.0	4.662	.0	8.658	.0	12.654	.0	16.650	.0
1.332	1.0	5.328	.0	9.324	.0	13.320	.0	17.316	.0
1.998	.8	5.994	.0	9.990	.0	13.986	.0	17.982	.0
2.664	.1	6.660	.0	10.656	.0	14.652	.0	18.648	.0
3.330	.0	7.326	.0	11.322	.0	15.318	.0	19.314	.0

RUNOFF VOLUME = .54934 INCHES = .1670 ACRE-FEET
PEAK DISCHARGE RATE = 3.78 CFS AT 1.499 HOURS BASIN AREA = .0057 SQ. MI.

****
*sEXISTING
****
ADD HYD ID=20 HYD NO=120 ID I=8 ID II=9
PRINT HYD ID 20 CODE=5

PARTIAL HYDROGRAPH 120.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.1	11.988	.0	15.984	.0
.167	.0	4.163	.0	8.159	.0	12.155	.0	16.151	.0
.333	.0	4.329	.0	8.325	.0	12.321	.0	16.317	.0
.500	.0	4.496	.0	8.492	.0	12.488	.0	16.484	.0
.666	.0	4.662	.0	8.658	.0	12.654	.0	16.650	.0
.833	.0	4.829	.0	8.825	.0	12.821	.0	16.817	.0
.999	.0	4.995	.0	8.991	.0	12.987	.0	16.983	.0
1.166	.1	5.162	.0	9.158	.0	13.154	.0	17.150	.0
1.332	1.5	5.328	.0	9.324	.0	13.320	.0	17.316	.0
1.498	5.5	5.495	.0	9.491	.0	13.487	.0	17.483	.0
1.665	2.7	5.661	.0	9.657	.0	13.653	.0	17.649	.0
1.831	1.7	5.828	.1	9.824	.0	13.820	.0	17.816	.0
1.998	1.2	5.994	.1	9.990	.0	13.986	.0	17.982	.0
2.164	.6	6.161	.1	10.157	.0	14.153	.0	18.149	.0
2.331	.3	6.327	.1	10.323	.0	14.319	.0	18.315	.0
2.498	.2	6.494	.1	10.490	.0	14.486	.0	18.482	.0
2.664	.1	6.660	.1	10.656	.0	14.652	.0	18.648	.0
2.831	.1	6.827	.1	10.823	.0	14.819	.0	18.815	.0
2.997	.0	6.993	.1	10.989	.0	14.985	.0	18.981	.0
3.164	.0	7.160	.1	11.156	.0	15.152	.0	19.148	.0
3.330	.0	7.326	.1	11.322	.0	15.318	.0	19.314	.0
3.497	.0	7.493	.1	11.489	.0	15.485	.0	19.481	.0
3.663	.0	7.659	.1	11.655	.0	15.651	.0	19.647	.0
3.830	.0	7.826	.1	11.822	.0	15.818	.0	19.814	.0

RUNOFF VOLUME = .96808 INCHES = .2427 ACRE-FEET
PEAK DISCHARGE RATE = 5.54 CFS AT 1.499 HOURS BASIN AREA = .0047 SQ. MI.

****
ADD HYD ID=21 HYD NO=121 ID I=20 ID II=10

PRINT HYD ID 21 CODE=5

PARTIAL HYDROGRAPH 121.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.1	11.988	.1	15.984	.1
.167	.0	4.163	.0	8.159	.1	12.155	.1	16.151	.1
.333	.0	4.329	.0	8.325	.1	12.321	.1	16.317	.1
.500	.0	4.496	.1	8.492	.1	12.488	.1	16.484	.1
.666	.0	4.662	.1	8.658	.1	12.654	.1	16.650	.1
.833	.0	4.829	.1	8.825	.1	12.821	.1	16.817	.1
.999	.0	4.995	.1	8.991	.1	12.987	.1	16.983	.1
1.166	.2	5.162	.1	9.158	.1	13.154	.1	17.150	.1
1.332	2.5	5.328	.1	9.324	.1	13.320	.1	17.316	.1
1.498	9.5	5.495	.1	9.491	.1	13.487	.1	17.483	.1
1.665	4.7	5.661	.1	9.657	.1	13.653	.1	17.649	.1
1.831	2.8	5.828	.1	9.824	.1	13.820	.1	17.816	.1
1.998	2.0	5.994	.1	9.990	.1	13.986	.1	17.982	.1
2.164	.9	6.161	.1	10.157	.1	14.153	.1	18.149	.1
2.331	.4	6.327	.1	10.323	.1	14.319	.1	18.315	.1
2.498	.3	6.494	.1	10.490	.1	14.486	.1	18.482	.1
2.664	.2	6.660	.1	10.656	.1	14.652	.1	18.648	.1
2.831	.1	6.827	.1	10.823	.1	14.819	.1	18.815	.1
2.997	.1	6.993	.1	10.989	.1	14.985	.1	18.981	.1
3.164	.1	7.160	.1	11.156	.1	15.152	.1	19.148	.1
3.330	.0	7.326	.1	11.322	.1	15.318	.1	19.314	.1
3.497	.0	7.493	.1	11.489	.1	15.485	.1	19.481	.1
3.663	.0	7.659	.1	11.655	.1	15.651	.1	19.647	.1
3.830	.0	7.826	.1	11.822	.1	15.818	.1	19.814	.1

RUNOFF VOLUME = .93518 INCHES = .4140 ACRE-FEET
PEAK DISCHARGE RATE = 9.53 CFS AT 1.499 HOURS BASIN AREA = .0083 SQ. MI.

****
ADD HYD ID=22 HYD NO=122 ID I=21 ID II=11
PRINT HYD ID 22 CODE=5

PARTIAL HYDROGRAPH 122.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.1
.167	.0	4.163	.1	8.159	.1	12.155	.1	16.151	.1
.333	.0	4.329	.1	8.325	.1	12.321	.1	16.317	.1
.500	.0	4.496	.1	8.492	.1	12.488	.1	16.484	.1
.666	.0	4.662	.1	8.658	.1	12.654	.1	16.650	.1
.833	.0	4.829	.1	8.825	.1	12.821	.1	16.817	.1
.999	.0	4.995	.1	8.991	.1	12.987	.1	16.983	.1
1.166	.2	5.162	.1	9.158	.1	13.154	.1	17.150	.1
1.332	2.9	5.328	.1	9.324	.1	13.320	.1	17.316	.1
1.498	11.1	5.495	.1	9.491	.1	13.487	.1	17.483	.1
1.665	5.5	5.661	.1	9.657	.1	13.653	.1	17.649	.1
1.831	3.4	5.828	.1	9.824	.1	13.820	.1	17.816	.1
1.998	2.4	5.994	.1	9.990	.1	13.986	.1	17.982	.1
2.164	1.1	6.161	.1	10.157	.1	14.153	.1	18.149	.1
2.331	.5	6.327	.1	10.323	.1	14.319	.1	18.315	.1
2.498	.3	6.494	.1	10.490	.1	14.486	.1	18.482	.1
2.664	.2	6.660	.1	10.656	.1	14.652	.1	18.648	.1
2.831	.1	6.827	.1	10.823	.1	14.819	.1	18.815	.1
2.997	.1	6.993	.1	10.989	.1	14.985	.1	18.981	.1
3.164	.1	7.160	.1	11.156	.1	15.152	.1	19.148	.1
3.330	.1	7.326	.1	11.322	.1	15.318	.1	19.314	.1
3.497	.1	7.493	.1	11.489	.1	15.485	.1	19.481	.1
3.663	.1	7.659	.1	11.655	.1	15.651	.1	19.647	.1
3.830	.1	7.826	.1	11.822	.1	15.818	.1	19.814	.1

RUNOFF VOLUME = .97583 INCHES = .4892 ACRE-FEET
PEAK DISCHARGE RATE = 11.12 CFS AT 1.499 HOURS BASIN AREA = .0094 SQ. MI.

****
ADD HYD ID=23 HYD NO=123 ID I=22 ID II=12
PRINT HYD ID 23 CODE=5

PARTIAL HYDROGRAPH 123.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.1
.167	.0	4.163	.1	8.159	.1	12.155	.1	16.151	.1
.333	.0	4.329	.1	8.325	.1	12.321	.1	16.317	.1
.500	.0	4.496	.1	8.492	.1	12.488	.1	16.484	.1
.666	.0	4.662	.1	8.658	.1	12.654	.1	16.650	.1
.833	.0	4.829	.1	8.825	.1	12.821	.1	16.817	.1
.999	.0	4.995	.1	8.991	.1	12.987	.1	16.983	.1
1.166	.3	5.162	.1	9.158	.1	13.154	.1	17.150	.1
1.332	4.0	5.328	.1	9.324	.1	13.320	.1	17.316	.1

1.498	15.9	5.495	.1	9.491	.1	13.487	.1	17.483	.1
1.665	7.8	5.661	.1	9.657	.1	13.653	.1	17.649	.1
1.831	4.7	5.828	.1	9.824	.1	13.820	.1	17.816	.1
1.998	3.4	5.994	.2	9.990	.1	13.986	.1	17.982	.1
2.164	1.6	6.161	.2	10.157	.1	14.153	.1	18.149	.1
2.331	.7	6.327	.2	10.323	.1	14.319	.1	18.315	.1
2.498	.4	6.494	.2	10.490	.1	14.486	.1	18.482	.1
2.664	.3	6.660	.2	10.656	.1	14.652	.1	18.648	.1
2.831	.2	6.827	.1	10.823	.1	14.819	.1	18.815	.1
2.997	.1	6.993	.1	10.989	.1	14.985	.1	18.981	.1
3.164	.1	7.160	.1	11.156	.1	15.152	.1	19.148	.1
3.330	.1	7.326	.1	11.322	.1	15.318	.1	19.314	.1
3.497	.1	7.493	.1	11.489	.1	15.485	.1	19.481	.1
3.663	.1	7.659	.1	11.655	.1	15.651	.1	19.647	.1
3.830	.1	7.826	.1	11.822	.1	15.818	.1	19.814	.1

RUNOFF VOLUME = .82636 INCHES = .6831 ACRE-FEET
PEAK DISCHARGE RATE = 15.87 CFS AT 1.499 HOURS BASIN AREA = .0155 SQ. MI.

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*******************************************************
*SPROPOSED
*******************************************************
ADD HYD            ID=30 HYD NO=130 ID I=2 ID II=3
PRINT HYD          ID 30 CODE=5
```

PARTIAL HYDROGRAPH 130.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.1	11.988	.0	15.984	.0
.167	.0	4.163	.0	8.159	.1	12.155	.0	16.151	.0
.333	.0	4.329	.0	8.325	.1	12.321	.0	16.317	.0
.500	.0	4.496	.0	8.492	.1	12.488	.0	16.484	.0
.666	.0	4.662	.0	8.658	.1	12.654	.0	16.650	.0
.833	.0	4.829	.0	8.825	.1	12.821	.0	16.817	.0
.999	.0	4.995	.0	8.991	.1	12.987	.0	16.983	.0
1.166	.1	5.162	.0	9.158	.1	13.154	.0	17.150	.0
1.332	1.7	5.328	.1	9.324	.1	13.320	.0	17.316	.0
1.498	6.1	5.495	.1	9.491	.1	13.487	.0	17.483	.0
1.665	3.0	5.661	.1	9.657	.1	13.653	.0	17.649	.0
1.831	1.9	5.828	.1	9.824	.1	13.820	.0	17.816	.0
1.998	1.4	5.994	.1	9.990	.1	13.986	.0	17.982	.0
2.164	.6	6.161	.1	10.157	.1	14.153	.0	18.149	.0
2.331	.3	6.327	.1	10.323	.1	14.319	.0	18.315	.0
2.498	.2	6.494	.1	10.490	.1	14.486	.0	18.482	.0
2.664	.1	6.660	.1	10.656	.1	14.652	.0	18.648	.0
2.831	.1	6.827	.1	10.823	.1	14.819	.0	18.815	.0
2.997	.1	6.993	.1	10.989	.1	14.985	.0	18.981	.0
3.164	.0	7.160	.1	11.156	.1	15.152	.0	19.148	.0
3.330	.0	7.326	.1	11.322	.1	15.318	.0	19.314	.0
3.497	.0	7.493	.1	11.489	.0	15.485	.0	19.481	.0
3.663	.0	7.659	.1	11.655	.0	15.651	.0	19.647	.0
3.830	.0	7.826	.1	11.822	.0	15.818	.0	19.814	.0

RUNOFF VOLUME = 1.07695 INCHES = .2757 ACRE-FEET
PEAK DISCHARGE RATE = 6.07 CFS AT 1.499 HOURS BASIN AREA = .0048 SQ. MI.

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*******************************************************
ADD HYD            ID=31 HYD NO=131 ID I=30 ID II=4
PRINT HYD          ID 31 CODE=5
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PARTIAL HYDROGRAPH 131.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.1	11.988	.1	15.984	.1
.167	.0	4.163	.0	8.159	.1	12.155	.1	16.151	.1
.333	.0	4.329	.0	8.325	.1	12.321	.1	16.317	.1
.500	.0	4.496	.0	8.492	.1	12.488	.1	16.484	.1
.666	.0	4.662	.1	8.658	.1	12.654	.1	16.650	.1
.833	.0	4.829	.1	8.825	.1	12.821	.1	16.817	.1
.999	.0	4.995	.1	8.991	.1	12.987	.1	16.983	.1
1.166	.2	5.162	.1	9.158	.1	13.154	.1	17.150	.1
1.332	2.2	5.328	.1	9.324	.1	13.320	.1	17.316	.0
1.498	8.1	5.495	.1	9.491	.1	13.487	.1	17.483	.1
1.665	4.0	5.661	.1	9.657	.1	13.653	.1	17.649	.1
1.831	2.5	5.828	.1	9.824	.1	13.820	.1	17.816	.0
1.998	1.8	5.994	.1	9.990	.1	13.986	.1	17.982	.0
2.164	.8	6.161	.1	10.157	.1	14.153	.1	18.149	.0
2.331	.4	6.327	.1	10.323	.1	14.319	.1	18.315	.0
2.498	.2	6.494	.1	10.490	.1	14.486	.1	18.482	.0
2.664	.1	6.660	.1	10.656	.1	14.652	.1	18.648	.0
2.831	.1	6.827	.1	10.823	.1	14.819	.1	18.815	.0
2.997	.1	6.993	.1	10.989	.1	14.985	.1	18.981	.0
3.164	.0	7.160	.1	11.156	.1	15.152	.1	19.148	.0
3.330	.0	7.326	.1	11.322	.1	15.318	.1	19.314	.0
3.497	.0	7.493	.1	11.489	.1	15.485	.1	19.481	.0

3.663	.0	7.659	.1	11.655	.1	15.651	.1	19.647	.0
3.830	.0	7.826	.1	11.822	.1	15.818	.1	19.814	.0

RUNOFF VOLUME = .99815 INCHES = .3631 ACRE-FEET
PEAK DISCHARGE RATE = 8.14 CFS AT 1.499 HOURS BASIN AREA = .0068 SQ. MI.

****
ADD HYD ID=32 HYD NO=132 ID I=31 ID II=5
PRINT HYD ID 32 CODE=5

PARTIAL HYDROGRAPH 132.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.0	7.992	.1	11.988	.1	15.984	.1
.167	.0	4.163	.1	8.159	.1	12.155	.1	16.151	.1
.333	.0	4.329	.1	8.325	.1	12.321	.1	16.317	.1
.500	.0	4.496	.1	8.492	.1	12.488	.1	16.484	.1
.666	.0	4.662	.1	8.658	.1	12.654	.1	16.650	.1
.833	.0	4.829	.1	8.825	.1	12.821	.1	16.817	.1
.999	.0	4.995	.1	8.991	.1	12.987	.1	16.983	.1
1.166	.2	5.162	.1	9.158	.1	13.154	.1	17.150	.1
1.332	2.7	5.328	.1	9.324	.1	13.320	.1	17.316	.1
1.498	10.0	5.495	.1	9.491	.1	13.487	.1	17.483	.1
1.665	5.0	5.661	.1	9.657	.1	13.653	.1	17.649	.1
1.831	3.1	5.828	.1	9.824	.1	13.820	.1	17.816	.1
1.998	2.2	5.994	.1	9.990	.1	13.986	.1	17.982	.1
2.164	1.0	6.161	.1	10.157	.1	14.153	.1	18.149	.1
2.331	.5	6.327	.1	10.323	.1	14.319	.1	18.315	.1
2.498	.3	6.494	.1	10.490	.1	14.486	.1	18.482	.1
2.664	.2	6.660	.1	10.656	.1	14.652	.1	18.648	.1
2.831	.1	6.827	.1	10.823	.1	14.819	.1	18.815	.1
2.997	.1	6.993	.1	10.989	.1	14.985	.1	18.981	.1
3.164	.1	7.160	.1	11.156	.1	15.152	.1	19.148	.1
3.330	.1	7.326	.1	11.322	.1	15.318	.1	19.314	.1
3.497	.0	7.493	.1	11.489	.1	15.485	.1	19.481	.1
3.663	.0	7.659	.1	11.655	.1	15.651	.1	19.647	.1
3.830	.0	7.826	.1	11.822	.1	15.818	.1	19.814	.1

RUNOFF VOLUME = .94450 INCHES = .4453 ACRE-FEET
PEAK DISCHARGE RATE = 10.03 CFS AT 1.499 HOURS BASIN AREA = .0088 SQ. MI.

****
ADD HYD ID=33 HYD NO=133 ID I=32 ID II=6
PRINT HYD ID 33 CODE=5

PARTIAL HYDROGRAPH 133.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.1
.167	.0	4.163	.1	8.159	.1	12.155	.1	16.151	.1
.333	.0	4.329	.1	8.325	.1	12.321	.1	16.317	.1
.500	.0	4.496	.1	8.492	.1	12.488	.1	16.484	.1
.666	.0	4.662	.1	8.658	.1	12.654	.1	16.650	.1
.833	.0	4.829	.1	8.825	.1	12.821	.1	16.817	.1
.999	.0	4.995	.1	8.991	.1	12.987	.1	16.983	.1
1.166	.2	5.162	.1	9.158	.1	13.154	.1	17.150	.1
1.332	3.2	5.328	.1	9.324	.1	13.320	.1	17.316	.1
1.498	11.6	5.495	.1	9.491	.1	13.487	.1	17.483	.1
1.665	5.8	5.661	.1	9.657	.1	13.653	.1	17.649	.1
1.831	3.6	5.828	.1	9.824	.1	13.820	.1	17.816	.1
1.998	2.6	5.994	.1	9.990	.1	13.986	.1	17.982	.1
2.164	1.2	6.161	.1	10.157	.1	14.153	.1	18.149	.1
2.331	.5	6.327	.1	10.323	.1	14.319	.1	18.315	.1
2.498	.3	6.494	.1	10.490	.1	14.486	.1	18.482	.1
2.664	.2	6.660	.1	10.656	.1	14.652	.1	18.648	.1
2.831	.1	6.827	.1	10.823	.1	14.819	.1	18.815	.1
2.997	.1	6.993	.1	10.989	.1	14.985	.1	18.981	.1
3.164	.1	7.160	.1	11.156	.1	15.152	.1	19.148	.1
3.330	.1	7.326	.1	11.322	.1	15.318	.1	19.314	.1
3.497	.1	7.493	.1	11.489	.1	15.485	.1	19.481	.1
3.663	.1	7.659	.1	11.655	.1	15.651	.1	19.647	.1
3.830	.1	7.826	.1	11.822	.1	15.818	.1	19.814	.1

RUNOFF VOLUME = .98191 INCHES = .5205 ACRE-FEET
PEAK DISCHARGE RATE = 11.62 CFS AT 1.499 HOURS BASIN AREA = .0099 SQ. MI.

****
ADD HYD ID=34 HYD NO=134 ID I=33 ID II=7
PRINT HYD ID 34 CODE=5

PARTIAL HYDROGRAPH 134.00

TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW

HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.1
.167	.0	4.163	.1	8.159	.1	12.155	.1	16.151	.1
.333	.0	4.329	.1	8.325	.1	12.321	.1	16.317	.1
.500	.0	4.496	.1	8.492	.1	12.488	.1	16.484	.1
.666	.0	4.662	.1	8.658	.1	12.654	.1	16.650	.1
.833	.0	4.829	.1	8.825	.1	12.821	.1	16.817	.1
.999	.0	4.995	.1	8.991	.1	12.987	.1	16.983	.1
1.166	.3	5.162	.1	9.158	.1	13.154	.1	17.150	.1
1.332	4.2	5.328	.1	9.324	.1	13.320	.1	17.316	.1
1.498	15.4	5.495	.1	9.491	.1	13.487	.1	17.483	.1
1.665	7.7	5.661	.1	9.657	.1	13.653	.1	17.649	.1
1.831	4.8	5.828	.2	9.824	.1	13.820	.1	17.816	.1
1.998	3.4	5.994	.2	9.990	.1	13.986	.1	17.982	.1
2.164	1.6	6.161	.2	10.157	.1	14.153	.1	18.149	.1
2.331	.7	6.327	.2	10.323	.1	14.319	.1	18.315	.1
2.498	.4	6.494	.2	10.490	.1	14.486	.1	18.482	.1
2.664	.3	6.660	.2	10.656	.1	14.652	.1	18.648	.1
2.831	.2	6.827	.2	10.823	.1	14.819	.1	18.815	.1
2.997	.1	6.993	.2	10.989	.1	14.985	.1	18.981	.1
3.164	.1	7.160	.2	11.156	.1	15.152	.1	19.148	.1
3.330	.1	7.326	.2	11.322	.1	15.318	.1	19.314	.1
3.497	.1	7.493	.2	11.489	.1	15.485	.1	19.481	.1
3.663	.1	7.659	.2	11.655	.1	15.651	.1	19.647	.1
3.830	.1	7.826	.1	11.822	.1	15.818	.1	19.814	.1

RUNOFF VOLUME = .82426 INCHES = .6875 ACRE-FEET
PEAK DISCHARGE RATE = 15.39 CFS AT 1.499 HOURS BASIN AREA = .0156 SQ. MI.

****
*SEXISTING POND W/FLOODWALL
****

ROUTE RESERVOIR ID 40 HYD NO=200 IN ID=34 CODE=5

OUTLFOW	STORAGE	ELEVATION
0.00	0.00	5466.5
6.08	0.05	5467.0
7.20	0.11	5468.0
8.16	0.44	5469.0
8.60	0.68	5469.5
9.02	0.92	5470.0

* * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
.00	.00	5466.50	.000	.00
.17	.00	5466.50	.000	.00
.33	.00	5466.50	.000	.00
.50	.00	5466.50	.000	.00
.67	.00	5466.50	.000	.00
.83	.00	5466.50	.000	.00
1.00	.01	5466.50	.000	.00
1.17	.32	5466.51	.001	.18
1.33	4.17	5466.65	.015	1.81
1.50	15.39	5467.59	.085	6.74
1.67	7.69	5468.12	.148	7.31
1.83	4.76	5468.06	.130	7.26
2.00	3.43	5467.63	.088	6.78
2.16	1.58	5466.89	.039	4.72
2.33	.73	5466.64	.014	1.64
2.50	.44	5466.56	.006	.74
2.66	.28	5466.53	.003	.41
2.83	.19	5466.52	.002	.25
3.00	.13	5466.51	.001	.17
3.16	.10	5466.51	.001	.12
3.33	.08	5466.51	.001	.09
3.50	.08	5466.51	.001	.08
3.66	.08	5466.51	.001	.08
3.83	.08	5466.51	.001	.08
4.00	.08	5466.51	.001	.08
4.16	.08	5466.51	.001	.08
4.33	.08	5466.51	.001	.08
4.50	.09	5466.51	.001	.09
4.66	.10	5466.51	.001	.09
4.83	.10	5466.51	.001	.10
5.00	.11	5466.51	.001	.11
5.16	.12	5466.51	.001	.11
5.33	.13	5466.51	.001	.12
5.49	.13	5466.51	.001	.13
5.66	.14	5466.51	.001	.14
5.83	.15	5466.51	.001	.15
5.99	.16	5466.51	.001	.16
6.16	.16	5466.51	.001	.16
6.33	.16	5466.51	.001	.16
6.49	.16	5466.51	.001	.16
6.66	.16	5466.51	.001	.16
6.83	.16	5466.51	.001	.16
6.99	.16	5466.51	.001	.16

7.16	.15	5466.51	.001	.15
7.33	.15	5466.51	.001	.15
7.49	.15	5466.51	.001	.15
7.66	.15	5466.51	.001	.15
7.83	.15	5466.51	.001	.15
7.99	.15	5466.51	.001	.15
8.16	.14	5466.51	.001	.14
8.33	.14	5466.51	.001	.14
8.49	.14	5466.51	.001	.14
8.66	.14	5466.51	.001	.14
8.82	.14	5466.51	.001	.14
8.99	.14	5466.51	.001	.14
9.16	.14	5466.51	.001	.14

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
9.32	.14	5466.51	.001	.14
9.49	.13	5466.51	.001	.13
9.66	.13	5466.51	.001	.13
9.82	.13	5466.51	.001	.13
9.99	.13	5466.51	.001	.13
10.16	.13	5466.51	.001	.13
10.32	.13	5466.51	.001	.13
10.49	.12	5466.51	.001	.13
10.66	.13	5466.51	.001	.13
10.82	.13	5466.51	.001	.13
10.99	.12	5466.51	.001	.12
11.16	.12	5466.51	.001	.12
11.32	.12	5466.51	.001	.12
11.49	.12	5466.51	.001	.12
11.66	.12	5466.51	.001	.12
11.82	.12	5466.51	.001	.12
11.99	.12	5466.51	.001	.12
12.15	.12	5466.51	.001	.12
12.32	.12	5466.51	.001	.12
12.49	.12	5466.51	.001	.12
12.65	.11	5466.51	.001	.11
12.82	.11	5466.51	.001	.11
12.99	.11	5466.51	.001	.11
13.15	.11	5466.51	.001	.11
13.32	.11	5466.51	.001	.11
13.49	.11	5466.51	.001	.11
13.65	.11	5466.51	.001	.11
13.82	.11	5466.51	.001	.11
13.99	.11	5466.51	.001	.11
14.15	.11	5466.51	.001	.11
14.32	.11	5466.51	.001	.11
14.49	.11	5466.51	.001	.11
14.65	.11	5466.51	.001	.11
14.82	.10	5466.51	.001	.10
14.99	.10	5466.51	.001	.10
15.15	.10	5466.51	.001	.10
15.32	.10	5466.51	.001	.10
15.48	.10	5466.51	.001	.10
15.65	.10	5466.51	.001	.10
15.82	.10	5466.51	.001	.10
15.98	.10	5466.51	.001	.10
16.15	.10	5466.51	.001	.10
16.32	.10	5466.51	.001	.10
16.48	.10	5466.51	.001	.10
16.65	.10	5466.51	.001	.10
16.82	.10	5466.51	.001	.10
16.98	.10	5466.51	.001	.10
17.15	.09	5466.51	.001	.10
17.32	.09	5466.51	.001	.10
17.48	.09	5466.51	.001	.09
17.65	.09	5466.51	.001	.09
17.82	.09	5466.51	.001	.09
17.98	.09	5466.51	.001	.09
18.15	.09	5466.51	.001	.09
18.32	.09	5466.51	.001	.09
18.48	.09	5466.51	.001	.09

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
18.65	.09	5466.51	.001	.09
18.81	.09	5466.51	.001	.09
18.98	.09	5466.51	.001	.09
19.15	.09	5466.51	.001	.09
19.31	.09	5466.51	.001	.09
19.48	.09	5466.51	.001	.09
19.65	.09	5466.51	.001	.09
19.81	.09	5466.51	.001	.09

PEAK DISCHARGE = 7.312 CFS - PEAK OCCURS AT HOUR 1.67
MAXIMUM WATER SURFACE ELEVATION = 5468.116
MAXIMUM STORAGE = .1483 AC-FT INCREMENTAL TIME= .033300HRS

PRINT HYD ID=40 CODE=5

224.HMO

PARTIAL HYDROGRAPH 200.00

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	3.996	.1	7.992	.1	11.988	.1	15.984	.1
.167	.0	4.163	.1	8.159	.1	12.155	.1	16.151	.1
.333	.0	4.329	.1	8.325	.1	12.321	.1	16.317	.1
.500	.0	4.496	.1	8.492	.1	12.488	.1	16.484	.1
.666	.0	4.662	.1	8.658	.1	12.654	.1	16.650	.1
.833	.0	4.829	.1	8.825	.1	12.821	.1	16.817	.1
.999	.0	4.995	.1	8.991	.1	12.987	.1	16.983	.1
1.166	.2	5.162	.1	9.158	.1	13.154	.1	17.150	.1
1.332	1.8	5.328	.1	9.324	.1	13.320	.1	17.316	.1
1.498	6.7	5.495	.1	9.491	.1	13.487	.1	17.483	.1
1.665	7.3	5.661	.1	9.657	.1	13.653	.1	17.649	.1
1.831	7.3	5.828	.1	9.824	.1	13.820	.1	17.816	.1
1.998	6.8	5.994	.2	9.990	.1	13.986	.1	17.982	.1
2.164	4.7	6.161	.2	10.157	.1	14.153	.1	18.149	.1
2.331	1.6	6.327	.2	10.323	.1	14.319	.1	18.315	.1
2.498	.7	6.494	.2	10.490	.1	14.486	.1	18.482	.1
2.664	.4	6.660	.2	10.656	.1	14.652	.1	18.648	.1
2.831	.3	6.827	.2	10.823	.1	14.819	.1	18.815	.1
2.997	.2	6.993	.2	10.989	.1	14.985	.1	18.981	.1
3.164	.1	7.160	.2	11.156	.1	15.152	.1	19.148	.1
3.330	.1	7.326	.2	11.322	.1	15.318	.1	19.314	.1
3.497	.1	7.493	.2	11.489	.1	15.485	.1	19.481	.1
3.663	.1	7.659	.1	11.655	.1	15.651	.1	19.647	.1
3.830	.1	7.826	.1	11.822	.1	15.818	.1	19.814	.1

RUNOFF VOLUME = .82341 INCHES = .6868 ACRE-FEET
PEAK DISCHARGE RATE = 7.31 CFS AT 1.665 HOURS BASIN AREA = .0156 SQ. MI.

****
****
FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 10:24:24

Existing Type D Inlet at Outfall

Project Description

Solve For	Spread		

Input Data

Discharge		32.00	ft³/s ← INLET CAPACITY
Gutter Width		5.00	ft
Gutter Cross Slope		0.02	ft/ft
Road Cross Slope		0.02	ft/ft
Grate Width		2.08	ft
Grate Length		3.33	ft
Local Depression		2.00	in
Local Depression Width		5.00	ft
Grate Type	P-50 mm (P-1-7/8")		
Clogging		50.00	%

Results

Spread	176.32	ft
Depth	3.53	ft
Gutter Depression	0.00	ft
Total Depression	0.17	ft
Open Grate Area	3.12	ft²
Active Grate Weir Length	5.41	ft

Existing Storm Drain - Entronce Control

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	70.00	ft
Centroid Elevation	62.55	ft
Tailwater Elevation	63.00	ft
Discharge Coefficient	0.61	
Diameter	1.00	ft

Results

Discharge	10.17	ft^3/s ← PIPE INLET AT TYPE "D" CONTROLS CAPACITY.
Headwater Height Above Centroid	7.45	ft
Tailwater Height Above Centroid	0.45	ft
Flow Area	0.79	ft^2
Velocity	12.95	ft/s

APPENDIX B

CITY OF ALBUQUERQUE

November 5, 2008

Jason Woodruff, P.E.
Wilson & Company
4900 Lang Ave. NE
Albuquerque, NM 87109

Re: McCollum Elementary School, Additions and Renovations, 10900 San Jacinto Ave NE
Traffic Circulation Layout
Engineer's Stamp dated 10-31-08 (J21-D017)

Dear Mr. Woodruff,

The TCL submittal received 10-31-08 is approved for Building Permit. The plan is stamped and signed as approved. A copy of this plan will be needed for each of the building permit plans. Please keep the original to be used for certification of the site for final C.O. for Transportation. **Public infrastructure or work done within City Right-of-Way shown on these plans is for information only and is not part of approval. A separate DRC and/or other appropriate permits are required to construct these items.**

If a temporary CO is needed, a copy of the original TCL that was stamped as approved by the City will be needed. This plan must include a statement that identifies the outstanding items that need to be constructed or the items that have not been built in "substantial compliance," as well as the signed and dated stamp of a NM registered architect or engineer. Submit this TCL with a completed Drainage and Transportation Information Sheet to Hydrology at the Development Services Center of Plaza Del Sol Building.

When the site is completed and a final C.O. is requested, use the original City stamped approved TCL for certification. A NM registered architect or engineer must stamp, sign, and date the certification TCL along with indicating that the development was built in "substantial compliance" with the TCL. Submit this certification TCL with a completed Drainage and Transportation Information Sheet to Hydrology at the Development Services Center of Plaza Del Sol Building.

Once verification of certification is completed and approved, notification will be made to Building Safety to issue Final C.O. To confirm that a final C.O. has been issued, call Building Safety at 924-3306.

Sincerely,

Kristal D. Metro, P.E.
Traffic Engineer, Planning Dept.
Development and Building Services

C: File

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 12/05 - AP)

PROJECT TITLE: McCollum ES – Adds and Renvns ZONE MAP/DRG. FILE#: ~~J-21-Z~~ J-21/D017

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

LEGAL DESCRIPTION: SEE SHEET C-104, APPENDIX OF ATTACHED REPORT

CITY ADDRESS: 10900 San Jacinto Ave NE

ENGINEERING FIRM:	Wilson & Company	CONTACT:	Jason Woodruff, PE
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-235-7250
CITY, STATE:	Albuqueruqe, NM	ZIP CODE:	87109
OWNER:	APS	CONTACT:	Tyler Mason
ADDRESS:	915 Oak Street	PHONE:	505-848-8822
CITY, STATE:	Albuqueruque New Mexico	ZIP CODE:	87106
ARCHITECT:	Wilson & Company	CONTACT:	Jeremy Ortiz
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4138
CITY, STATE:	Albuquerque, NM	ZIP CODE:	
SURVEYING FIRM:	Wilson & Company	LICENSED SURVEYOR:	Ben Aragon
ADDRESS:	4900 Lang Ave. NE	PHONE:	505-348-4067
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87109
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

CHECK TYPE OF SUBMITTAL:

___ DRAINAGE REPORT - RESUBMITTAL
___ DRAINAGE PLAN 1st SUBMITTAL
___ DRAINAGE PLAN RESUBMITTAL
___ CONCEPTUAL GRADING & DRAINAGE PLAN
___ GRADING PLAN
___ EROSION CONTROL PLAN
___ ENGINEER'S CERT (HYDROLOGY)
___ CLOMR\LOMR
X TRAFFIC CIRCULTAION LAYOUT
___ ENGINEER/ARCHITECT CERT (TCL)
___ ENGINEER/ARCHITECT CERT (DRB S. P.)
___ ENGINEER/ARCHITECT CERT (AA)
___ OTHER (SPECIFY)

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
X BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY (PERM.)
___ CERTIFICATE OF OCCUPANCY (TEMP)
X GRADING PERMIT APPROVAL
X PAVING PERMIT APPROVAL
___ WORK ORDER APPROVAL
___ OTHER (SPECIFY) SO #19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

___ YES
x NO
___ COPY PROVIDED

RECEIVED
OCT 31 2008
HYDROLOGY SECTION

Submitted By: Jason Woodruff DATE: 10-31-08

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 define 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
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

CITY OF ALBUQUERQUE

September 24, 2008

Jason R. Woodruff, P.E.
Wilson & Company, Inc.
4900 Lang Ave. NW
Albuquerque, NM 87109

Re: McCollum Elementary School Renovations Grading and Drainage Plan Engineer's Stamp dated 8-6-08 (J21/D017)

Dear Mr. Woodruff,

Based upon the information provided in your submittal received 9-8-08, the above referenced plan cannot be approved for Grading Permit, Paving Permit or Building Permit until the following comments are addressed:

- Provide detail sheets.
- Should the basin boundary for Basin 201 be shifted to include the area along Morris St. since the discharge point of the storm drain is the same?
- There is a TC 83.80 leader pointing to the middle of the new sidewalk near Morris St. Is this a step?
- Where does the storm drain daylight in Basin 201? What is the reason for the stationing in this area?
- Provide grades north of the site wall east of the new building in Basin 201.
- Why is there a note 13 in the rip-rap mat west of the proposed building in Basin 201?
- Provide grades on the new asphalt near San Jacinto and along the P/L at the north end of the rip-rap mat.
- Should you hard-line/rip-rap the flow line from the rip-rap mat to the existing channel in Basin 201?
- Note 23 specifies an invert of 87.82. This is too high.
- It is not clear how drainage from Basin 204 is getting into the pond.
- How can improving the pond be an alternate?
- Provide TW for the spillway.
- Provide V_{req}, V_{prov}, and the WSE for the pond on the Grading Plan.
- Provide calculations for the inlet in the pond.

If you have any questions, you can contact me at 924-3695.

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

CITY OF ALBUQUERQUE

Sincerely,

Curtis A. Cherne, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

Copy: file

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

N

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

April 22, 2002

Mike Walla, P.E.
Walla Engineering Ltd
6100 Indian School Rd NE Suite 210
Albuquerque, New Mexico 87110

RE: MCCOLLUM ELEMENTARY SCHOOL- 2001 ADDN' & RENOV. (J-21/D17)
(10900 San Jacinto Ave NE)
ENGINEERS CERTIFICATION FOR CERTIFICATE OF OCCUPANCY
ENGINEERS STAMP DATED 5/11/2001
ENGINEERS CERTIFICATION DATED 4/15/2002

Dear Mr.Walla:

Based upon the information provided in your Engineers Certification submittal dated 4/16/2002, the above referenced site is approved for a Permanent Certificate of Occupancy.

If I can be of further assistance, please contact me at 924-3981.

Sincerely,

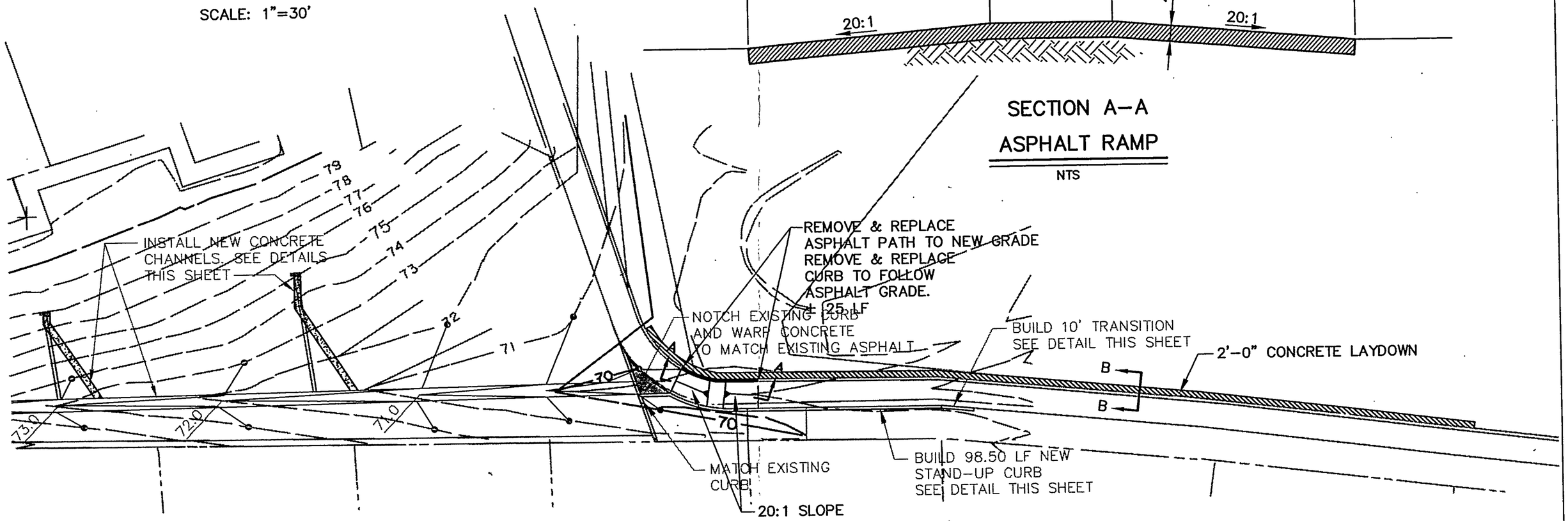
Teresa A. Martin
Hydrology Plan Checker
Public Works Department
BUB

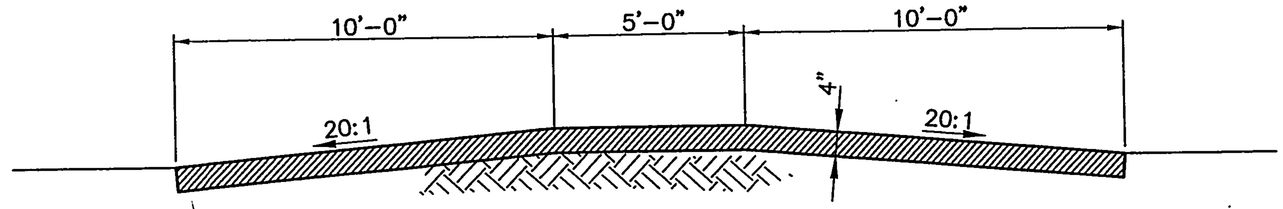
C: Vickie Chavez, COA
drainage file
approval file

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

RECEIVED
APR 16 2002
HYDROLOGY SECTION

SCALE: 1"=30'

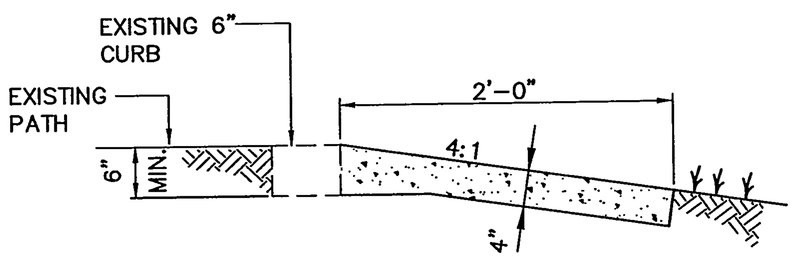




SECTION A–A

ASPHALT RAMP

NTS



SECTION B–B

2'-0" CONCRETE LAYDOWN

NTS

DANIEL S. AGUIRRE
STATE OF NEW MEXICO
1955
6/8/01
REGISTERED PROFESSIONAL ENGINEER

WILSON & COMPANY
2600 THE AMERICAN ROAD S.E.
SUITE 100
RIO RANCHO, NEW MEXICO
87124
(505) 896-8021

McCOLLUM ELEMENTARY SCHOOL

MISCELLANEOUS DETAILS

REVISIONS NO.	DATE	REMARKS	BY

DESIGN	DSA	WCEA NO. –	DATE JUNE 2001
DRAWN	JMB	PROJECT NO. N/A	SHEET NO. 1 OF 1
CHECK	DSA		

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Public Works Department
Transportation Development Services Section

April 12, 2002

Arthur R. Tatum, Registered Architect
6100 Indian School Rd. NE
Albuquerque, NM 87110

Re: Certification Submittal for Final Building Certificate of Occupancy for McCollum Elementary School Renovation, [J21 / J21]
10900 San Jacinto Ave. NE
Architect's Stamp Dated 1-12-01

Dear Mr. Tatum:

The TCL / Letter of Certification submitted on 4-11-02 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to Building and Safety and final C.O. has been logged in by Vicki Chavez in the Building Safety Section downstairs.

Sincerely,

Leslie Romero
Engineering Associate
Development and Building Services
Public Works Department

c: Hydrology file
File (1)

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

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/11/2002)

J-21/D17

PROJECT TITLE: 2001 Addition & Renovation McCollum Elementary School ZONE MAP/DRG. FILE #: J21Z
DRB #: NA EPC#: NA WORK ORDER#:

LEGAL DESCRIPTION:
CITY ADDRESS: 10900 San Jacinto Ave NE, Abq NM 87112

ENGINEERING FIRM: Walla Engineering Ltd CONTACT: Mike Walla
ADDRESS: 6100 Indian School Rd NE Suite 210 PHONE: 881-3008
CITY, STATE: Abq NM ~~87110~~ ZIP CODE: 87110

OWNER: A.P.S. CONTACT:
ADDRESS: PHONE:
CITY, STATE: ZIP CODE:

ARCHITECT: Fanning Bard Tatum Arch's. CONTACT: Joe Jenkins
ADDRESS: 6100 Indian School Rd. NE, Suite 210 PHONE: 883 5200
CITY, STATE: Abq. NM ZIP CODE: 87110

SURVEYOR: JMA Engineers & Surveyors CONTACT: Jeff Mortensen
ADDRESS 6010-B Midway Park Blvd NE. PHONE: 345 4250
CITY, STATE: Abq. NM ~~87109~~ ZIP CODE: 87109

CONTRACTOR: LCI 2 CONTACT: Richard Clifton
ADDRESS: 514 Pope Ave NE PHONE: 875-0540
CITY, STATE: Abq NM ZIP CODE: 87107

CHECK TYPE OF SUBMITTAL:
- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ 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)

RECEIVED APR 1 1 2002 HYDROLOGY SECTION

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- ____ YES
- ____ NO
- ____ COPY PROVIDED

DATE SUBMITTED: 4/10/02 BY: Arthur R. Tatum, AIA

Please Contact Jody Baker 8835200 ext 110

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
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

4/11/02 called Art to obtain a site plan w/current stamp date or resubmit letter w/a registered stamp. (He will fax)
- called Vicki - Approved

April 10, 2002

Mr. Mike Zamora
City of Albuquerque – Plans Review Department
Traffic Engineering
600 2nd St. NW
Albuquerque, NM 87102

Reference: 2001 Addition & Renovations
McCollum Elementary School

Dear Mike:

I have reviewed the site conditions on the above referenced project for compliance with contract documents. The existing site conditions appear to have been constructed per the attached Site Plan C-1.1.

Please feel free to give me a call if you have any questions.

Sincerely,
Fanning Bard Tatum Architects AIA Ltd. By

Arthur R. Tatum, AIA
Vice President

STATE OF NEW MEXICO
ARTHUR R. TATUM
NO. 2324
4.10.02
REGISTERED ARCHITECT

Copy: Andre Larroque – APS (hand delivered)

FBT File

FANNING BARD TATUM LTD
ARCHITECTS | AIA
6100 Indian School Rd. NE | SUITE 210
Albuquerque NM | 87111
505-883-5200 | PHONE
505-884-5390 | FACSIMILE

FAX COVER SHEET

Project: McCollum Elementary

To: Lesley Romero
City Plan Check

Date: 4/12/02
FAX NO: 924-3864

From: Art Tatum

No. of Pages (Including Cover Page: 2

Comments: Stamped & Signed Architects Site Inspection Letter.

IF INCOMPLETE OR UNREADABLE, PLASE CONTACT US AT (505) 883-5200

FANNING BARD TATUM
ARCHITECTS | AIA
6100 Indian School Rd. NE
Albuquerque NM
505-883-5200
505-884-5390
SUITE 200
STATE
PHONE
FACSIMILE

****
*** RX REPORT ***
****

RECEPTION OK

TX/RX NO	8016
CONNECTION TEL	505 884 5390
SUBADDRESS	
CONNECTION ID	F.B.T. AIA
ST. TIME	04/12 09:07
USAGE T	00'41
PGS.	2
RESULT	OK

April 10, 2002

Mr. Mike Zamora
City of Albuquerque – Plans Review Department
Traffic Engineering
600 2nd St. NW
Albuquerque, NM 87102

Reference: 2001 Addition & Renovations
McCollum Elementary School

Dear Mike:

I have reviewed the site conditions on the above referenced project for compliance with contract documents. The existing site conditions appear to have been constructed per the attached Site Plan C-1.1.

Please feel free to give me a call if you have any questions.

Sincerely,
Fanning Bard Tatum Architects AIA Ltd. By

Arthur R. Tatum, AIA
Vice President

Copy: Andre Larroque – APS (hand delivered)

FBT File

RECEIVED
APR 11 2002
HYDROLOGY SECTION

FANNING BARD TATUM LTD
ARCHITECTS | AIA
6100 Indian School Rd. NE | SUITE 210
Albuquerque NM | 87110
505-883-5200 | PHONE
505-884-5390 | FACSIMILE

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

June 14, 2001

Mike Walla
Walla Engineering, Ltd.
6100 Indian School Road NE
Suite 210
Albuquerque, New Mexico 87110

RE: Grading and Drainage Plan for McCollum Elementary (J21-D17) Dated May 11, 2001 and Attachment By Wilson & Company Dated June 8, 2001

Dear Mr. Walla:

The above referenced plans received June 12, 2001 is approved for building permit. Please attached the approved drainage plan and the Wilson & Company attachment to the building permit plans. Upon completion of the project the design engineer will need to certify the project.

If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City/County Floodplain Administrator

C: Dan Hogan

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

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

March 19, 2001

Mike Walla
Walla Engineering, Ltd.
6100 Indian School Road NE
Suite 210
Albuquerque, New Mexico 87110

RE: Grading and Drainage Plan for McCollum Elementary (J21-D17) Dated January 9, 2001

Dear Mr. Walla:

I have reviewed the referenced drainage plan received January 12 2001 and forward the following comments.

1. We have received complaints from residences to the west of the existing detention pond at McCollum Elementary School. The home owners state that runoff is conveyed down the concrete rundown from the north parking lot to the grassed detention pond. The problem arises when the runoff enters the detention pond and goes over the walking track. The walking track diverts some of the runoff to the west and to the private properties. The City has asked APS to correct this problem but the problem still exists. Please address this problem in this submittal.
2. The third keyed note indicates an enclosure at the north parking lot location. I assume that this is a trash enclosure. San Jacinto Avenue has been reported runs curb to curb. Runoff enters the north parking lot from San Jacinto Avenue. The runoff from the north parking lot and San Jacinto will travel through the trash enclosure area. This does not seem appropriate.
3. Please address if there is a one foot water block on the two entrances on the north parking lot from San Jacinto Avenue. A one foot water block should be constructed in the two entrances because of the runoff in San Jacinto Avenue.

If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City/County Floodplain Administrator

C; Dan Hogan
File

Copy

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 30, 2001

Mike Walla
Walla Engineering, Ltd.
6100 Indian School Road NE
Suite 210
Albuquerque, New Mexico 87110

RE: Grading and Drainage Plan for McCollum Elementary (J21-D17) Dated April 19, 2001

Dear Mr. Walla:

I have reviewed the referenced drainage plan received April 23, 2001 and forward the following comments.

1. We have received complaints from residences to the west of the existing detention pond at McCollum Elementary School. The home owners state that runoff is conveyed down the concrete rundown from the north parking lot to the grassed detention pond. The problem arises when the runoff enters the detention pond and goes over the walking track. The walking track diverts some of the runoff to the west and to the private properties. The City has asked APS to correct this problem but the problem still exists. Please address this problem in this submittal.
2. It seems that your flow line elevation on San Jacinto for the drive pad is incorrect.
3. The channel section that you designed is much smaller than the existing concrete channel. Please show calculations for the channel cross-section.

If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City/County Floodplain Administrator

C: Dan Hogan

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

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

April 30, 2001

Mike Walla
Walla Engineering, Ltd.
6100 Indian School Road NE
Suite 210
Albuquerque, New Mexico 87110

RE: Grading and Drainage Plan for McCollum Elementary (J21-D17) Dated April 19, 2001

Dear Mr. Walla:

I have reviewed the referenced drainage plan received April 23, 2001 and forward the following comments.

1. We have received complaints from residences to the west of the existing detention pond at McCollum Elementary School. The home owners state that runoff is conveyed down the concrete rundown from the north parking lot to the grassed detention pond. The problem arises when the runoff enters the detention pond and goes over the walking track. The walking track diverts some of the runoff to the west and to the private properties. The City has asked APS to correct this problem but the problem still exists. Please address this problem in this submittal.
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3. The channel section that you designed is much smaller than the existing concrete channel. Please show calculations for the channel cross-section.

If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City/County Floodplain Administrator

C: Dan Hogan

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

5/17/01 McCollum Elem Sch

J21-D17

5/17/01 McCollum Elem Sch

J21-D17

5/17/01 McCollum Elem Sch

J21-D17

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

May 17, 2001

Mike Walla
Walla Engineering, Ltd.
6100 Indian School Road NE
Suite 210
Albuquerque, New Mexico 87110

RE: Grading and Drainage Plan for McCollum Elementary (J21-D17) Dated May 11, 2001

Dear Mr. Walla:

I have reviewed the referenced drainage plan received May 11, 2001 and forward the following comments.

I visited the site today to see if the improvements had been made to the walking track. I did not see any changes in the area. The problem is that the runoff, which comes from the concrete channel, is splitting at the walking track and going either to the pond or to the west. The flows that go to the west are trapped next to the private block walls. The owners are complaining that this runoff is going though the seams in the wall. CIP Hydrology had to build block walls on two lots so that this runoff would not travel through their lot. If the walking track were raised just west of the concrete channel then runoff would be forced into the pond.
If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City/County Floodplain Administrator

C: Dan Hogan

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

Worksheet
Worksheet for Trapezoidal Channel

Project Description	
Worksheet	Trapezoidal Channel - 1
Flow Element	Trapezoidal Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coefficient	0.013	
Slope	0.010000	ft/ft
Depth	1.33	ft
Left Side Slope	1.50	H : V
Right Side Slope	1.50	H : V
Bottom Width	2.00	ft

Results		
Discharge	51.55	cfs
Flow Area	5.3	ft²
Wetted Perimeter	6.80	ft
Top Width	5.99	ft
Critical Depth	1.80	ft
Critical Slope	0.002827	ft/ft
Velocity	9.70	ft/s
Velocity Head	1.46	ft
Specific Energy	2.79	ft
Froude Number	1.82	
Flow Type	Supercritical	

RECEIVED
MAY 1 1 2001
PWD/DESIGN REVIEW

ALBUQUERQUE PUBLIC SCHOOLS
DEPARTMENT OF FACILITIES PLANNING AND CONSTRUCTION
915 Oak Street, SE
P.O. Box 25704
Albuquerque, New Mexico 87125-0704
Phone: (505) 242-5865 Fax: (505) 246-9020

BRADFORD ALLISON, Ph.D.
SUPERINTENDENT

BILL KOELM
EXECUTIVE DIRECTOR
FACILITIES AND SUPPORT OPERATIONS
PAT McMURRAY
DIRECTOR

May 2, 2001

Carlos A. Montoya
City/County Floodplain Administrator
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

RECEIVED
MAY 1 1 2001
PWD/DESIGN REVIEW

Mike Zamora
Transportation Division
City of Albuquerque
PO Box 1293
Albuquerque, NM 87103

Re: OT/PT Addition, Re-Roofing and Sitework at McCollum ES
Project No. 9932
Hydrology & Transportation Comments

Gentlemen:

Susan A. Johnson of Fanning Bard Tatum Architects has forwarded to us your concerns regarding aspects of this proposed project which might delay receipt of the building permit. She has assured us that all plan check comments will be taken care of to the satisfaction of the City. However, there are two items which require clarification from us as Owner. We request relief on the following issues which are described and explained as follows:

Re: On Mr. Montoya's March 19, 2001 letter, Comment No.1 regarding drainage runoff:

Upon receiving this comment, Mr. Dennis C. Wilkinson, landscape consultant on previous site projects at this school, was requested by us to inspect the conditions at the site and report back regarding this problem. Mr. Wilkinson, being aware of past complaints from the neighboring residents on the west side of the property, reported his observation that remedial work to eliminate the problem had already been performed. It is his opinion that the record of complaints may predate the remedial work and that runoff to adjacent property should no longer be an issue.

Re: Mr. Zamora's request that all sidewalks along Morris and San Jacinto be widened to 6 ft. wide:

In order to comply with this request, the existing cast-in-place concrete curb along the inside edge of the sidewalk would have to be eliminated. This raised curb was installed a few years ago by APS to prevent storm water from overflowing from the street onto the school site. We would prefer to retain this existing curb and sidewalk until such time that the City improves the neighborhood storm drainage system. Once the potential for school site flooding from the street is eliminated, APS will be happy to demolish the curb and incorporate the sidewalk widening into a future project.

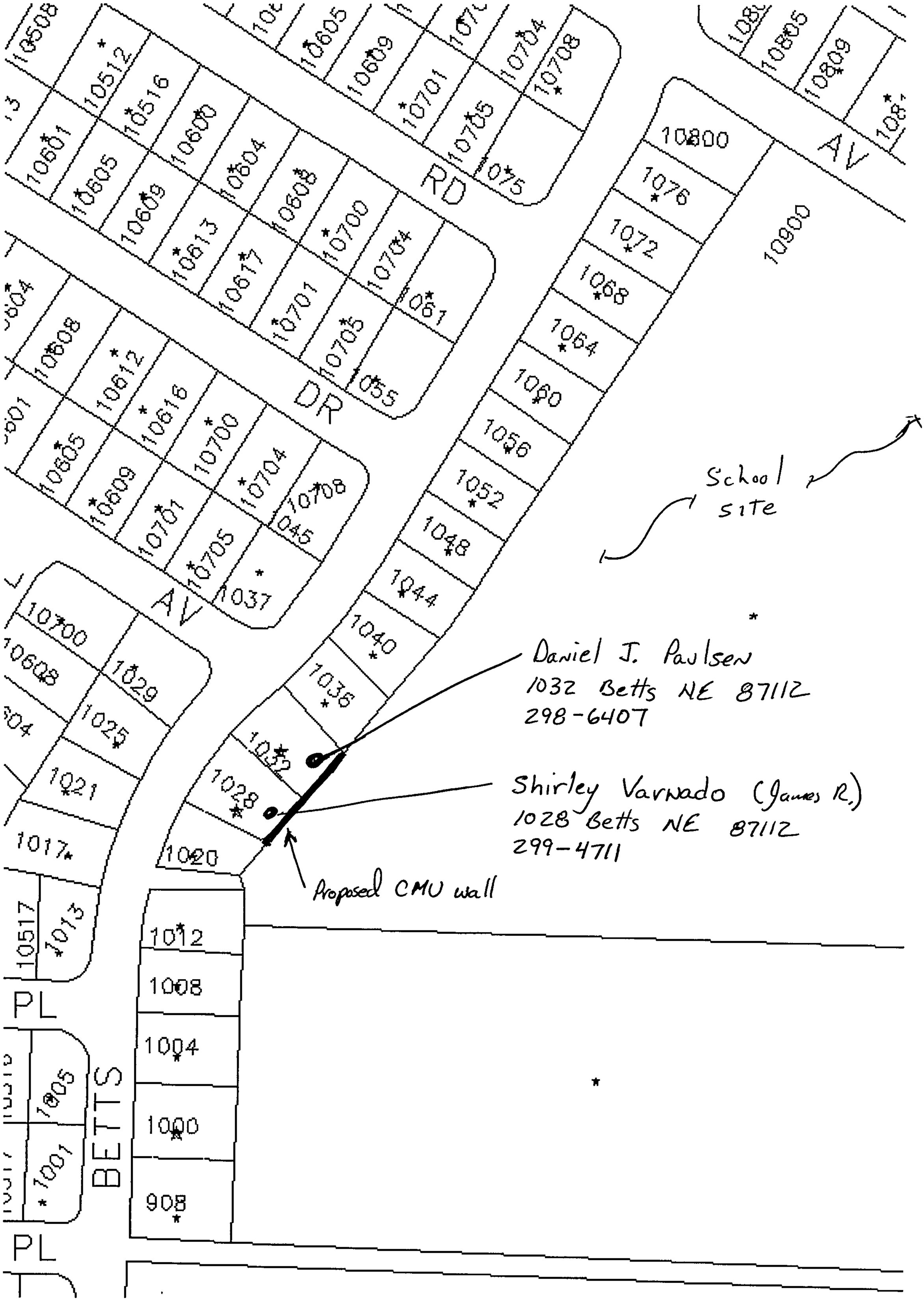
Please do not hesitate to contact me at 242-5865 if you have any questions.

Sincerely,

Pat McMurray, AIA
Director, Facilities Planning & Construction

Xc: Andre Larroque
Susan A. Johnson / Fanning Bard Tatum Architects
Dennis C. Wilkinson / Morrow, Reardon & Wilkinson

RECEIVED
MAY 11 2001
PWD/DESIGN REVIEW


School site
Daniel J. Paulsen
1032 Betts NE 87112
298-6407
Shirley Varnado (James R.)
1028 Betts NE 87112
299-4711
Proposed CMU wall
RD
DR
AV
AV
PL
PL
BETTS

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

March 16, 1995

Jeff Mortensen
Jeff Mortensen & Associates
6010-B Midway Park Blvd. NE
Albuquerque, NM 87199

RE: MCCOLLUM ELEMENTARY SCHOOL (J21-D17) ENGINEER'S STAMP DATED MARCH 2, 1995.

Dear Mr. Mortensen:

I have reviewed the referenced plan dated March 2, 1995 and forward the following comments:

1. The site drains to a floodplain at Lomas & Eubank. We talked to Drainage Maintenance personnel who informed us that manhole lids pop at this intersection. Also, they informed us that sediment in the street is a problem downstream of the school.

2. Downstream capacity needs to be addressed. The pond needs to contain the 100-year storm volume minus the outfall release.

3. The pond needs to address emergency spillway. sediment, fence, entrance to outfall pipe and bank design.

4. The outfall pipe must be connected to the public storm drain.

5. The capacity of the easement must be addressed if you are going to spill to this easement.

6. Please give more details on the rundowns from the two foot concrete valley gutter.

7. Upsize the four inch storm drain in the parking lot to twelve inches, then use an orifice plate. A four inch line will clog.

8. Can we direct the runoff from the sand box area to the rundown off the two foot concrete valley gutter?

9. Certain parts of the project need to be certified according to our past records.

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

If you have any questions, please call me at 768-2654.

Sincerely,

Carlos Montoya, P.E.
PWD/Hydrology

CM/dl

c: Andrew Garcia
File

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

April 17, 1995

Jeff Mortensen
Jeff Mortensen & Associates
6010-B Midway Park Blvd. NE
Albuquerque, NM 87199

RE: MCCOLLUM ELEMENTARY SCHOOL (J21-D17)
RECEIVED MARCH 23, 1995.

Dear Mr. Mortensen:

The above referenced plan dated March 22, 1995 is approved for Work Order. Prior to approval of the Letter of Acceptance, the consultant engineer will need to certify the project. the Albuquerque Public Schools is responsible to maintain the collection system, detention pond, and the inlet which discharges the ponds run-off. The system will need to be kept clean and maintained.

If you have any questions, feel free to contact me at 768-2654.

Sincerely,

Carlos Montoya, P.E.
PWD/Hydrology

CAM/dl

c: Andrew Garcia
File

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

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

February 5, 1996

Jeff Mortensen
Jeff Mortensen & Associates
6010-B Midway Park Blvd. NE
Albuquerque, NM 87199

RE: ENGINEER'S CERTIFICATION FOR MCCOLLUM ELEMENTARY
RECEIVED DECEMBER 29, 1995 (J21-D17).

Dear Mr. Mortensen:

The above referenced plan dated December 28, 1995 is acceptable for Engineer's Certification. The pond is in APS property and serves APS property. Therefore, APS is responsible for the maintenance of the pond and outfall.

If you have any questions, please call me at 768-2654.

Sincerely,

Carlos A. Montoya
PWD/Hydrology

CAM/dl

c: Andrew Garcia
File

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

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

October 1, 1993

Jeff Mortensen
Jeff Mortensen & Associates Inc.
6010-B Midway Park Blvd. NE
Albuquerque, NM 87109

RE: REVISED GRADING/PAVING PLAN FOR MCCOLLUM ELEMENTARY SCHOOL (J21-D17) ENGINEER'S STAMP DATED 9/29/93.

Dear Mr. Mortensen:

Based on the information provided on your September 29, 1993 resubmittal, the above referenced site is approved for Grading/Paving.

Please be advised that Engineer Certification per the D.P.M. checklist will be required after construction.

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

Sincerely,

Bernie J. Montoya

Bernie J. Montoya, CE
Engineer Associate

BJM/dl/WPHYD/8021

xc: Alan Martinez
File

PUBLIC WORKS DEPARTMENT

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

ENGINEERING GROUP

Telephone (505) 768-2500