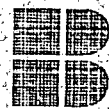


DRAINAGE PLAN
NORTHEAST MIDDLE
SCHOOL ADDITION
TO
WICHITA, SEDGWICK COUNTY, KANSAS

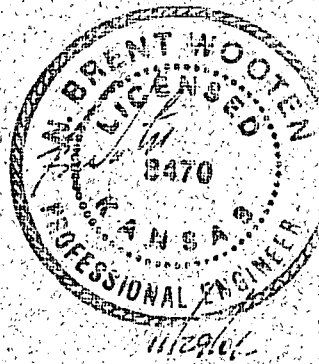
Prepared By



BAUGHMAN COMPANY, P.A.
ENGINEERING, SURVEYING & PLANNING

316/262-7271 FAX 316/262-0149 WICHITA, KANSAS 67211

November 29, 2001



DRAINAGE PLAN

**NORTHEAST MIDDLE
SCHOOL ADDITION**

WICHITA, SEDGWICK COUNTY, KANSAS

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INTRODUCTION

This report provides information and supporting documentation to support the "Drainage Plan" for the property located in Section 26, T-26-S, R-1-E in Wichita, Sedgwick County, Kansas.

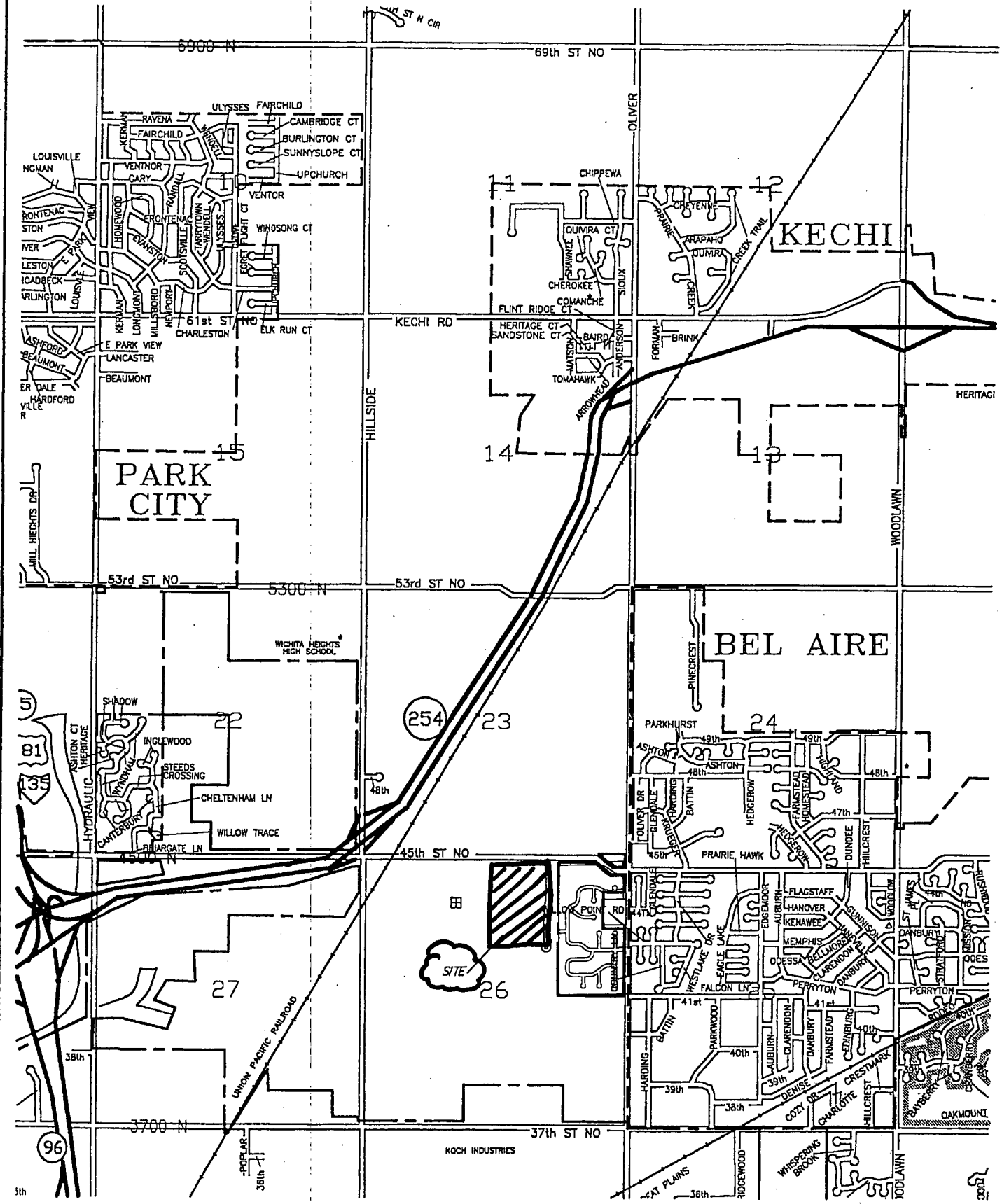
The "Drainage Plan" being submitted herein is intended to serve as a guide for the design of streets, stormwater sewers, and site grading to the proposed development. Modifications to structures, pipes, etc. may be made as necessary during the final design in order to obtain the most economical design and construction possible.

28

29

30

31

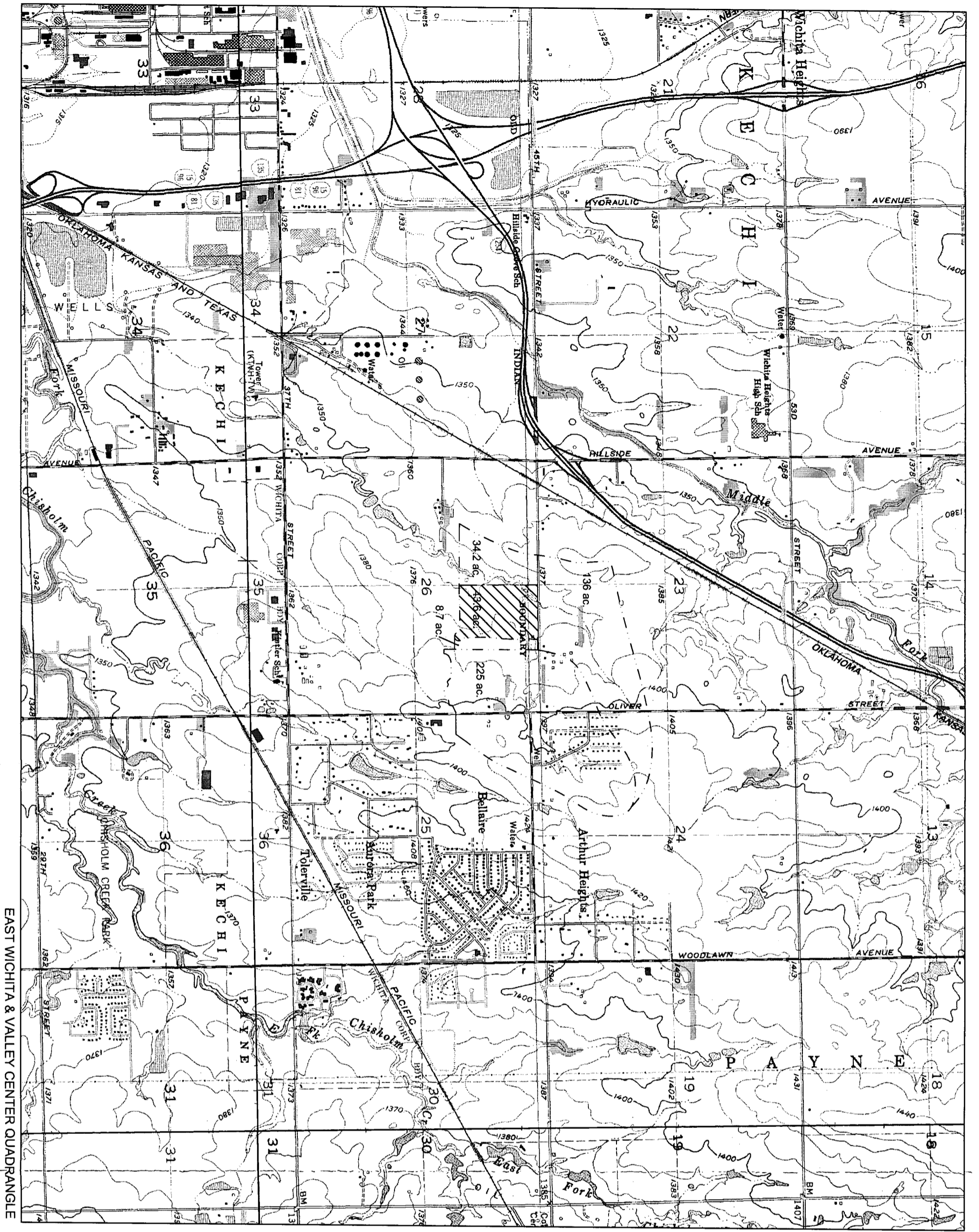


(See Page 23)

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EAST WICHITA & VALLEY CENTER QUADRANGLE

LOCATION:
**NORTHEAST MIDDLE
 SCHOOL ADDITION**
 WICHITA, SEDGWICK COUNTY, KANSAS





(Joint sheet 26)

374 9 do.



NE Middle School Addition - Storm Routing Existing Conditions

 * FLOOD HYDROGRAPH PACKAGE (HEC-1) *
 * MAY 1991 *
 * VERSION 4.0.1E *
 * Lahey F77L-BM/32 version 5.01 *
 * Dodson & Associates, Inc. *
 * RUN DATE 11/29/01 TIME 07:06:11 *

 * U.S. ARMY CORPS OF ENGINEERS *
 * HYDROLOGIC ENGINEERING CENTER *
 * 609 SECOND STREET *
 * DAVIS, CALIFORNIA 95616 *
 * (916) 551-1748 *

```

X X XXXXXXXX XXXXX X
X X X X X XX
X X X X X X
XXXXXXX XXXX X XXXXX X
X X X X X X
X X X X X X
X X XXXXXXXX XXXXX XXX
    
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1OB, AND HEC1KW.
 THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTICR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
 THE DEFINITION OF -AMSK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
 DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1 ID Northeast Middle School Addition
2 ID Pre-Developed Conditions
3 ID SCS Method - 2,5,10,25,50, & 100 YR Storm Event
4 IT 5 20NOV01 0000 300 2000
5 IO 3 0
6 IR PREC 1.0000 1.3143 1.5143 1.7714 2.0000 2.2286
*Diagram
*
7 KK Center
8 KM Eagles Landing (Center Basin)
9 BA .039
10 PB 3.5
11 IN .60
12 PC 0 0.011 0.022 0.035 0.048 0.063 0.080 0.098 0.120 0.147
13 PC 0.181 0.235 0.463 0.772 0.820 0.854 0.880 0.902 0.921 0.937
14 PC 0.952 0.965 0.978 0.989 1.000
15 LD .20
16 LS 0 79
*
17 KK Pond
18 KM Eagles Landing (Center Pond)
19 RS 1 ELEV
20 SA 1.4 1.8 2.0 2.2
21 SE 197 200 201 202
22 SQ 0 7 10 13 16 20 22 32 36 42
23 SE 197.0 198.25 198.5 198.75 199.0 199.25 199.5 200.0 200.75 201.5
*
24 KK East
25 KM Eagles Landing (East Off-site Drainage)
26 BA .21675
27 LD .79
28 LS 0 82
*
29 KK OneSit
30 KM Eagles Landing (North Basin)
31 BA .046875
32 LD .2
33 LS 0 80
*
34 KK North
35 KM Eagles Landing (North Off-site Drainage)
36 BA .046875
37 LD .39
38 LS 0 74
    
```

```

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
5
    
```

NE Middle School Addition - Storm Routing Existing Conditions

39	KK	Combo1																		
40	HC	3																		
	*																			
41	KK	Combo2																		
42	HC	2																		
	*																			
43	KK	NPond																		
44	KM	Eagles Landing (North Drainage Pond)																		
45	RS	1	ELEV	192.0																
46	SA	2.2	2.8	3																
47	SE	192	195	196																
48	SO	0	1.5	4.2	83	230	430	740	1170	1770										
49	SE	192.0	192.5	193.0	193.5	194.0	194.5	195.0	195.5	196.0										
	*																			
50	KK	ESite																		
51	KM	Proposed Residential (East of NE Middle School)																		
52	BA	.00331																		
53	LD	.15																		
54	LS	0	75																	
	*																			
55	KK	Combo3																		
56	HC	2																		
	*																			
57	KK	Nsite																		
58	KM	NE Middle School (Off-site North of 45th Street North)																		
59	BA	0.2125																		
60	LD	.51																		
61	LS	0	80																	
	*																			
62	KK	Combo4																		
63	HC	2																		
	*																			
64	KK	ESite2																		
65	KM	Proposed Residential (East of NE Middle School)																		
66	BA	.00828																		
67	LD	.15																		
68	LS	0	75																	
	*																			
69	KK	Site																		
70	KM	NE Middle School Basin																		
71	BA	.06913																		
72	LD	.27																		
73	LS	0	80																	
	*																			

1

HEC-1 INPUT

PAGE 3

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

74 KK Combo5
75 HC 2
*

76 KK Nsite
77 KM NE Middle School (West Off-site Basin)
78 BA .05344
79 LD .29
80 LS 0 80
*

81 KK Combo6
82 HC 3
*

83 ZZ

1

SCHEMATIC DIAGRAM OF STREAM NETWORK

INPUT LINE (V) ROUTING (---->) DIVERSION OR PUMP FLOW
NO. (.) CONNECTOR (<---) RETURN OF DIVERTED OR PUMPED FLOW

7 Center
V
17 CPond
.
24 . East
.
29 . OneSit

NE Middle School Addition - Storm Routing Existing Conditions

```

34      .      .      .      North
      .      .      .      .
39      .      .      .      Carbo1
      .      .      .      .
41      .      .      .      Carbo2
      .      .      .      V
      .      .      .      V
43      .      .      .      NPond
      .      .      .      .
50      .      .      .      ESite
      .      .      .      .
55      .      .      .      Carbo3
      .      .      .      .
57      .      .      .      Nsite
      .      .      .      .
62      .      .      .      Carbo4
      .      .      .      .
64      .      .      .      ESite2
      .      .      .      .
69      .      .      .      Site
      .      .      .      .
74      .      .      .      Carbo5
      .      .      .      .
76      .      .      .      Wsite
      .      .      .      .
81      .      .      .      Carbo6
  
```

```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
*****
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
* MAY 1991 *
* VERSION 4.0.1E *
* Lehey F77L-EM/32 version 5.01 *
* Dodson & Associates, Inc. *
* RUN DATE 11/29/01 TIME 07:06:11 *
*****
  
```

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*****
* U.S. ARMY CORPS OF ENGINEERS *
* HYDROLOGIC ENGINEERING CENTER *
* 609 SECOND STREET *
* DAVIS, CALIFORNIA 95616 *
* (916) 551-1748 *
*****
  
```

Northeast Middle School Addition
Pre-Developed Conditions
SCS Method - 2,5,10,25,50, & 100 YR Storm Event

```

5 10  OUTPUT CONTROL VARIABLES
      IPRINT 3 PRINT CONTROL
      IPLOT 0 PLOT CONTROL
      QSCAL 0 HYDROGRAPH PLOT SCALE

IT  HYDROGRAPH TIME DATA
      NMIN 5 MINUTES IN COMPUTATION INTERVAL
      IDATE 20NOV 1 STARTING DATE
      ITIME 0000 STARTING TIME
      NQ 300 NUMBER OF HYDROGRAPH ORDINATES
      NDDATE 21NOV 1 ENDING DATE
      NDTIME 0055 ENDING TIME
      ICENT 20 CENTURY MARK

      COMPUTATION INTERVAL 0.08 HOURS
      TOTAL TIME BASE 24.92 HOURS

ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE- FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

JP  MULTI-PLAN OPTION
      NPLAN 1 NUMBER OF PLANS

JR  MULTI-RATIO OPTION
      RATIOS OF PRECIPITATION
      1.00 1.31 1.51 1.77 2.00 2.23
  
```


NE Middle School Addition - Storm Routing Existing Conditions

TOTAL RAINFALL = 3.50, TOTAL LOSS = 1.93, TOTAL EXCESS = 1.57						
PEAK FLOW	TIME		6-HR	MAXIMUM AVERAGE FLOW		24.92-HR
(CFS)	(HR)	(CFS)		24-HR	72-HR	
+	21.	12.00	5.	2.	2.	2.
		(INCHES)	1.270	1.566	1.566	1.566
		(AC-FT)	3.	3.	3.	3.
CUMULATIVE AREA = 0.04 SQ MI						

HYDROGRAPH AT STATION Center						
FOR PLAN 1, RATIO = 1.31						
TOTAL RAINFALL = 4.60, TOTAL LOSS = 2.14, TOTAL EXCESS = 2.46						
PEAK FLOW	TIME		6-HR	MAXIMUM AVERAGE FLOW		24.92-HR
+	33.	12.00	8.	3.	2.	2.
		(INCHES)	1.988	2.461	2.461	2.461
		(AC-FT)	4.	5.	5.	5.
CUMULATIVE AREA = 0.04 SQ MI						

HYDROGRAPH AT STATION Center						
FOR PLAN 1, RATIO = 1.51						
TOTAL RAINFALL = 5.30, TOTAL LOSS = 2.24, TOTAL EXCESS = 3.06						
PEAK FLOW	TIME		6-HR	MAXIMUM AVERAGE FLOW		24.92-HR
+	41.	12.00	10.	3.	3.	3.
		(INCHES)	2.464	3.062	3.062	3.062
		(AC-FT)	5.	6.	6.	6.
CUMULATIVE AREA = 0.04 SQ MI						

HYDROGRAPH AT STATION Center						
FOR PLAN 1, RATIO = 1.77						
TOTAL RAINFALL = 6.20, TOTAL LOSS = 2.34, TOTAL EXCESS = 3.86						
PEAK FLOW	TIME		6-HR	MAXIMUM AVERAGE FLOW		24.92-HR
+	51.	12.00	13.	4.	4.	4.
		(INCHES)	3.090	3.859	3.859	3.859
		(AC-FT)	6.	8.	8.	8.
CUMULATIVE AREA = 0.04 SQ MI						

HYDROGRAPH AT STATION Center						
FOR PLAN 1, RATIO = 2.00						
TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.42, TOTAL EXCESS = 4.58						
PEAK FLOW	TIME		6-HR	MAXIMUM AVERAGE FLOW		24.92-HR
+	60.	12.00	15.	5.	5.	5.
		(INCHES)	3.659	4.584	4.584	4.584
		(AC-FT)	8.	10.	10.	10.
CUMULATIVE AREA = 0.04 SQ MI						

HYDROGRAPH AT STATION Center						
FOR PLAN 1, RATIO = 2.23						
TOTAL RAINFALL = 7.80, TOTAL LOSS = 2.48, TOTAL EXCESS = 5.32						

NE Middle School Addition - Storm Routing Existing Conditions

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
69.	12.00	18.	6.	5.	5.
		(INCHES) 4.235	5.322	5.322	5.322
		(AC-FT) 9.	11.	11.	11.

CUMULATIVE AREA = 0.04 SQ MI

*** **

 * *
 17 KK * Cpond *
 * *

 Eagles Landing (Center Pond)

HYDROGRAPH ROUTING DATA

19 RS	STORAGE ROUTING	1	NUMBER OF SUBREACHES
	INSTPS	1	
	ITYP	ELEV	TYPE OF INITIAL CONDITION
	RSVRIC	0.00	INITIAL CONDITION
	X	0.00	WORKING R AND D COEFFICIENT

20 SA	AREA	1.4	1.8	2.0	2.2
21 SE	ELEVATION	197.00	200.00	201.00	202.00

22 SQ	DISCHARGE	0.	7.	10.	13.	16.	20.	22.	32.	36.	42.
23 SE	ELEVATION	197.00	198.25	198.50	198.75	199.00	199.25	199.50	200.00	200.75	201.50

COMPUTED STORAGE-ELEVATION DATA

STORAGE	0.00	4.79	6.69	8.79
ELEVATION	197.00	200.00	201.00	202.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	0.00	1.85	2.24	2.65	3.06	3.48	3.91	4.79	6.19	6.69
OUTFLOW	0.00	7.00	10.00	13.00	16.00	20.00	22.00	32.00	36.00	38.00
ELEVATION	197.00	198.25	198.50	198.75	199.00	199.25	199.50	200.00	200.75	201.00

STORAGE	7.71	8.79
OUTFLOW	42.00	46.00
ELEVATION	201.50	202.00

*** **

HYDROGRAPH AT STATION Cpond
 FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
5.	13.17	4.	2.	1.	1.
		(INCHES) 0.968	1.454	1.454	1.454
		(AC-FT) 2.	3.	3.	3.

PEAK STORAGE (AC-FT)	TIME (HR)	6-HR	24-HR	72-HR	24.92-HR
1.	13.17	1.	0.	0.	0.

PEAK STAGE (FEET)	TIME (HR)	6-HR	24-HR	72-HR	24.92-HR
197.94	13.17	197.72	197.27	197.26	197.26

CUMULATIVE AREA = 0.04 SQ MI

*** **

HYDROGRAPH AT STATION Cpond
 FOR PLAN 1, RATIO = 1.31

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW
-----------	------	----------------------

NE Middle School Addition - Storm Routing Existing Conditions

		HYDROGRAPH AT STATION Cpond FOR PLAN 1, RATIO = 1.51			
		6-HR	24-HR	72-HR	24.92-HR
PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 9.	13.08	7. 1.558 3.	2. 2.299 5.	2. 2.299 5.	2. 2.299 5.
(INCHES)	(AC-FT)				
PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
+ (AC-FT)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 2.	13.00	2.	1.	1.	1.
PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
+ (FEET)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 198.46	13.08	198.11	197.42	197.40	197.40
CUMULATIVE AREA = 0.04 SQ MI					

HYDROGRAPH AT STATION Cpond FOR PLAN 1, RATIO = 1.51					
		6-HR	24-HR	72-HR	24.92-HR
PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 13.	12.58	8. 1.983 4.	3. 2.870 6.	3. 2.870 6.	3. 2.870 6.
(INCHES)	(AC-FT)				
PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
+ (AC-FT)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 3.	12.58	2.	1.	1.	1.
PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
+ (FEET)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 198.76	12.58	198.30	197.49	197.47	197.47
CUMULATIVE AREA = 0.04 SQ MI					

HYDROGRAPH AT STATION Cpond FOR PLAN 1, RATIO = 1.77					
		6-HR	24-HR	72-HR	24.92-HR
PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 18.	12.50	11. 2.561 5.	4. 3.631 8.	4. 3.631 8.	4. 3.631 8.
(INCHES)	(AC-FT)				
PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
+ (AC-FT)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 3.	12.50	2.	1.	1.	1.
PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			
+ (FEET)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 199.15	12.50	198.53	197.58	197.56	197.56
CUMULATIVE AREA = 0.04 SQ MI					

HYDROGRAPH AT STATION Cpond FOR PLAN 1, RATIO = 2.00					
		6-HR	24-HR	72-HR	24.92-HR
PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
+ (CFS)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 22.	12.42	13. 3.097 6.	5. 4.326 9.	4. 4.326 9.	4. 4.326 9.
(INCHES)	(AC-FT)				
PEAK STORAGE	TIME	MAXIMUM AVERAGE STORAGE			
+ (AC-FT)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+ 4.	12.42	3.	1.	1.	1.
PEAK STAGE	TIME	MAXIMUM AVERAGE STAGE			

NE Middle School Addition - Storm Routing Existing Conditions
 TLAG 0.79 LAG

		UNIT HYDROGRAPH				49 END-OF-PERIOD ORDINATES			
		24.	40.	60.	84.	104.	118.	126.	127.
		109.	99.	86.	71.	58.	49.	42.	35.
		22.	19.	16.	13.	12.	10.	8.	7.
		4.	4.	3.	3.	2.	2.	2.	1.
		1.	1.	1.	0.	0.	0.	0.	0.
TOTAL RAINFALL =		3.50, TOTAL	LOSS =	1.72, TOTAL EXCESS =	1.78				
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS)	(HR)	(CFS)		24-HR	72-HR				
+ 91.	12.50	34.	10.	10.	10.				
		(INCHES)	1.427	1.774	1.774				
		(AC-FT)	17.	21.	21.				
		CUMULATIVE AREA = 0.22 SQ MI							

HYDROGRAPH AT STATION East									
FOR PLAN 1, RATIO = 1.00									
TOTAL RAINFALL =		3.50, TOTAL	LOSS =	1.72, TOTAL EXCESS =	1.78				
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS)	(HR)	(CFS)		24-HR	72-HR				
+ 91.	12.50	34.	10.	10.	10.				
		(INCHES)	1.427	1.774	1.774				
		(AC-FT)	17.	21.	21.				
		CUMULATIVE AREA = 0.22 SQ MI							

HYDROGRAPH AT STATION East									
FOR PLAN 1, RATIO = 1.31									
TOTAL RAINFALL =		4.60, TOTAL	LOSS =	1.88, TOTAL EXCESS =	2.72				
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS)	(HR)	(CFS)		24-HR	72-HR				
+ 141.	12.50	51.	16.	15.	15.				
		(INCHES)	2.176	2.712	2.712				
		(AC-FT)	25.	32.	32.				
		CUMULATIVE AREA = 0.22 SQ MI							

HYDROGRAPH AT STATION East									
FOR PLAN 1, RATIO = 1.51									
TOTAL RAINFALL =		5.30, TOTAL	LOSS =	1.95, TOTAL EXCESS =	3.35				
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS)	(HR)	(CFS)		24-HR	72-HR				
+ 174.	12.50	63.	20.	19.	19.				
		(INCHES)	2.666	3.335	3.335				
		(AC-FT)	31.	39.	39.				
		CUMULATIVE AREA = 0.22 SQ MI							

HYDROGRAPH AT STATION East									
FOR PLAN 1, RATIO = 1.77									
TOTAL RAINFALL =		6.20, TOTAL	LOSS =	2.03, TOTAL EXCESS =	4.17				
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS)	(HR)	(CFS)		24-HR	72-HR				
+ 217.	12.42	78.	24.	24.	24.				

NE Middle School Addition - Storm Routing Existing Conditions

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

33 LS SCS LOSS RATE 0.50 INITIAL ABSTRACTION
 STRL 80.00 CURVE NUMBER
 CRVBR 0.00 PERCENT IMPERVIOUS AREA
 RTIMP

32 LD SCS DIMENSIONLESS UNITGRAPH
 TLAG 0.20 LAG

UNIT HYDROGRAPH
 14 END-OF-PERIOD COORDINATES

23.	75.	95.	75.	42.	24.	14.	8.	4.	3.
1.	1.	0.	0.						

TOTAL RAINFALL = 3.50, TOTAL LOSS = 1.86, TOTAL EXCESS = 1.64

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 27.	12.00	7.	2.	2.	2.	2.
		(INCHES)	1.327	1.636	1.636	1.636
		(AC-FT)	3.	4.	4.	4.

CUMULATIVE AREA = 0.05 SQ MI

HYDROGRAPH AT STATION OneSit
 FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 3.50, TOTAL LOSS = 1.86, TOTAL EXCESS = 1.64

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 27.	12.00	7.	2.	2.	2.	2.
		(INCHES)	1.327	1.636	1.636	1.636
		(AC-FT)	3.	4.	4.	4.

CUMULATIVE AREA = 0.05 SQ MI

HYDROGRAPH AT STATION OneSit
 FOR PLAN 1, RATIO = 1.31

TOTAL RAINFALL = 4.60, TOTAL LOSS = 2.05, TOTAL EXCESS = 2.55

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 41.	12.00	10.	3.	3.	3.	3.
		(INCHES)	2.055	2.547	2.547	2.547
		(AC-FT)	5.	6.	6.	6.

CUMULATIVE AREA = 0.05 SQ MI

HYDROGRAPH AT STATION OneSit
 FOR PLAN 1, RATIO = 1.51

TOTAL RAINFALL = 5.30, TOTAL LOSS = 2.14, TOTAL EXCESS = 3.16

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)				
+ 50.	12.00	13.	4.	4.	4.	4.
		(INCHES)	2.535	3.156	3.156	3.156
		(AC-FT)	6.	8.	8.	8.

CUMULATIVE AREA = 0.05 SQ MI

HYDROGRAPH AT STATION OneSit
 FOR PLAN 1, RATIO = 1.77

NE Middle School Addition - Storm Routing Existing Conditions
(AC-FT) 5. 7. 7. 7.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION North
FOR PLAN 1, RATIO = 1.77

TOTAL RAINFALL = 6.20, TOTAL LOSS = 2.85, TOTAL EXCESS = 3.35

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
+ 48.	12.17	14.	4.	4.	4.
		(INCHES) 2.704	3.352	3.352	3.352
		(AC-FT) 7.	8.	8.	8.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION North
FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.96, TOTAL EXCESS = 4.04

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
+ 58.	12.17	16.	5.	5.	5.
		(INCHES) 3.250	4.041	4.041	4.041
		(AC-FT) 8.	10.	10.	10.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION North
FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.80, TOTAL LOSS = 3.05, TOTAL EXCESS = 4.75

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
+ 68.	12.17	19.	6.	6.	6.
		(INCHES) 3.804	4.746	4.746	4.746
		(AC-FT) 10.	12.	12.	12.

CUMULATIVE AREA = 0.05 SQ MI

*
39 KK * Combo1 *

40 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

*** **

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
+ 116.	12.25	45.	14.	14.	14.
		(INCHES) 1.344	1.673	1.673	1.673
		(AC-FT) 22.	28.	28.	28.

CUMULATIVE AREA = 0.31 SQ MI

NE Middle School Addition - Storm Routing Existing Conditions

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 1.31

PEAK FLOW (CFS)	TIME (HR)	6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
184.	12.25	70. 2.077 35.	22. 2.588 43.	21. 2.588 43.	21. 2.588 43.
CUMULATIVE AREA = 0.31 SQ MI					

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 1.51

PEAK FLOW (CFS)	TIME (HR)	6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
229.	12.17	86. 2.561 43.	27. 3.199 53.	26. 3.199 53.	26. 3.199 53.
CUMULATIVE AREA = 0.31 SQ MI					

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 1.77

PEAK FLOW (CFS)	TIME (HR)	6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
290.	12.17	107. 3.193 53.	34. 4.006 67.	32. 4.006 67.	32. 4.006 67.
CUMULATIVE AREA = 0.31 SQ MI					

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 2.00

PEAK FLOW (CFS)	TIME (HR)	6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
344.	12.17	126. 3.763 63.	40. 4.738 79.	38. 4.738 79.	38. 4.738 79.
CUMULATIVE AREA = 0.31 SQ MI					

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 2.23

PEAK FLOW (CFS)	TIME (HR)	6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
398.	12.17	146. 4.337 72.	46. 5.482 91.	44. 5.482 91.	44. 5.482 91.
CUMULATIVE AREA = 0.31 SQ MI					

41 KK * Combo2 *

NE Middle School Addition - Storm Routing Existing Conditions
 42 HC HYDROGRAPH COMBINATION 2 NUMBER OF HYDROGRAPHS TO COMBINE
 IOCHP

***		***		***		***		***	
HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 1.00									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)	(INCHES)	(AC-FT)	(CFS)	(INCHES)	(AC-FT)	(CFS)	(INCHES)
121.	12.25	49.	1.298	24.	16.	1.649	31.	15.	1.649
CUMULATIVE AREA = 0.35 SQ MI									

HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 1.31									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)	(INCHES)	(AC-FT)	(CFS)	(INCHES)	(AC-FT)	(CFS)	(INCHES)
192.	12.25	76.	2.014	38.	26.	2.556	48.	23.	2.556
CUMULATIVE AREA = 0.35 SQ MI									

HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 1.51									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)	(INCHES)	(AC-FT)	(CFS)	(INCHES)	(AC-FT)	(CFS)	(INCHES)
242.	12.25	94.	2.490	47.	30.	3.162	59.	29.	3.162
CUMULATIVE AREA = 0.35 SQ MI									

HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 1.77									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)	(INCHES)	(AC-FT)	(CFS)	(INCHES)	(AC-FT)	(CFS)	(INCHES)
306.	12.25	118.	3.117	58.	37.	3.964	74.	36.	3.964
CUMULATIVE AREA = 0.35 SQ MI									

HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 2.00									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)	(INCHES)	(AC-FT)	(CFS)	(INCHES)	(AC-FT)	(CFS)	(INCHES)
364.	12.17	139.	3.682	69.	44.	4.693	88.	43.	4.693
CUMULATIVE AREA = 0.35 SQ MI									

HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 2.23									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	

NE Middle School Addition - Storm Routing Existing Conditions

	(CFS)	(HR)	(CFS)	6-HR	24-HR	72-HR	24.92-HR
+	424.	12.17		161.	51.	49.	49.
			(INCHES)	4.252	5.432	5.432	5.432
			(AC-FT)	80.	102.	102.	102.

CUMULATIVE AREA = 0.35 SQ MI

43 KK *****
 * NPond *
 *

 Eagles Landing (North Drainage Pond)

HYDROGRAPH ROUTING DATA

45 RS	STORAGE ROUTING	1	NUMBER OF SUBREACHES
	INSTPS	ELEV	TYPE OF INITIAL CONDITION
	ITYP	192.00	INITIAL CONDITION
	RSVRIC	0.00	WORKING R AND D COEFFICIENT
	X		

46 SA	AREA	2.2	2.8	3.0						
47 SE	ELEVATION	192.00	195.00	196.00						
48 SQ	DISCHARGE	0.	2.	4.	83.	230.	430.	740.	1170.	1770.
49 SE	ELEVATION	192.00	192.50	193.00	193.50	194.00	194.50	195.00	195.50	196.00

COMPUTED STORAGE-ELEVATION DATA

STORAGE	0.00	7.48	10.38
ELEVATION	192.00	195.00	196.00

COMPUTED STORAGE-CUTFLOW-ELEVATION DATA

STORAGE	0.00	1.12	2.30	3.52	4.79	6.11	7.48	8.91	10.38
OUTFLOW	0.00	1.50	4.20	83.00	230.00	430.00	740.00	1170.00	1770.00
ELEVATION	192.00	192.50	193.00	193.50	194.00	194.50	195.00	195.50	196.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 740. TO 1770.
 THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
 THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

HYDROGRAPH AT STATION NPond
 FOR PLAN 1, RATIO = 1.00

PEAK FLOW	TIME	6-HR	24-HR	72-HR	24.92-HR	
+	(CFS)					
+	119.	12.50	46.	14.	14.	14.
			(INCHES)	1.222	1.527	1.527
			(AC-FT)	23.	29.	29.

PEAK STORAGE	TIME	6-HR	24-HR	72-HR	24.92-HR	
+	(AC-FT)					
+	4.	12.50	3.	1.	1.	1.

PEAK STAGE	TIME	6-HR	24-HR	72-HR	24.92-HR	
+	(FEET)					
+	193.62	12.50	193.25	192.64	192.61	192.61

CUMULATIVE AREA = 0.35 SQ MI

HYDROGRAPH AT STATION NPond
 FOR PLAN 1, RATIO = 1.31

PEAK FLOW	TIME	6-HR	24-HR	72-HR	24.92-HR	
+	(CFS)					
+	190.	12.42	74.	23.	22.	22.

NE Middle School Addition - Storm Routing Existing Conditions						
		(INCHES)	1.969	2.432	2.432	2.432
		(AC-FT)	37.	46.	46.	46.
PEAK STORAGE	TIME					
+ (AC-FT)	(HR)		6-HR	MAXIMUM AVERAGE STORAGE	24-HR	24.92-HR
			3.	2.	2.	2.
PEAK STAGE	TIME					
+ (FEET)	(HR)		6-HR	MAXIMUM AVERAGE STAGE	24-HR	24.92-HR
			193.39	192.70	192.68	192.68
			CUMULATIVE AREA = 0.35 SQ MI			
***	***	***	***	***	***	***
HYDROGRAPH AT STATION NPond FOR PLAN 1, RATIO = 1.51						
PEAK FLOW	TIME					
+ (CFS)	(HR)		6-HR	MAXIMUM AVERAGE FLOW	24-HR	24.92-HR
		(CFS)	93.	29.	28.	28.
		(INCHES)	2.466	3.037	3.037	3.037
		(AC-FT)	46.	57.	57.	57.
PEAK STORAGE	TIME					
+ (AC-FT)	(HR)		6-HR	MAXIMUM AVERAGE STORAGE	24-HR	24.92-HR
			3.	2.	2.	2.
PEAK STAGE	TIME					
+ (FEET)	(HR)		6-HR	MAXIMUM AVERAGE STAGE	24-HR	24.92-HR
			193.47	192.75	192.72	192.72
			CUMULATIVE AREA = 0.35 SQ MI			
***	***	***	***	***	***	***
HYDROGRAPH AT STATION NPond FOR PLAN 1, RATIO = 1.77						
PEAK FLOW	TIME					
+ (CFS)	(HR)		6-HR	MAXIMUM AVERAGE FLOW	24-HR	24.92-HR
		(CFS)	118.	36.	35.	35.
		(INCHES)	3.110	3.838	3.838	3.838
		(AC-FT)	58.	72.	72.	72.
PEAK STORAGE	TIME					
+ (AC-FT)	(HR)		6-HR	MAXIMUM AVERAGE STORAGE	24-HR	24.92-HR
			4.	2.	2.	2.
PEAK STAGE	TIME					
+ (FEET)	(HR)		6-HR	MAXIMUM AVERAGE STAGE	24-HR	24.92-HR
			193.56	192.81	192.78	192.78
			CUMULATIVE AREA = 0.35 SQ MI			
***	***	***	***	***	***	***
HYDROGRAPH AT STATION NPond FOR PLAN 1, RATIO = 2.00						
PEAK FLOW	TIME					
+ (CFS)	(HR)		6-HR	MAXIMUM AVERAGE FLOW	24-HR	24.92-HR
		(CFS)	139.	43.	42.	42.
		(INCHES)	3.678	4.566	4.566	4.566
		(AC-FT)	69.	86.	86.	86.
PEAK STORAGE	TIME					
+ (AC-FT)	(HR)		6-HR	MAXIMUM AVERAGE STORAGE	24-HR	24.92-HR
			4.	2.	2.	2.
PEAK STAGE	TIME					
+ (FEET)	(HR)		6-HR	MAXIMUM AVERAGE STAGE	24-HR	24.92-HR
			193.63	192.86	192.83	192.83

NE Middle School Addition - Storm Routing Existing Conditions

		11 END-OF-PERIOD ORDINATES				
		3.	1.	0.	0.	
TOTAL RAINFALL =		3.50	TOTAL LOSS =	2.20	TOTAL EXCESS =	1.30
PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				
+	(CFS)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+	3.	12.00	(CFS)	1.	0.	0.
			(INCHES)	1.052	1.302	1.302
			(AC-FT)	0.	0.	0.
CUMULATIVE AREA =		0.01 SQ MI				
***	***	***	***	***	***	
HYDROGRAPH AT STATION		ESite				
FOR PLAN 1, RATIO =		1.00				
TOTAL RAINFALL =		4.60	TOTAL LOSS =	2.47	TOTAL EXCESS =	2.13
PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				
+	(CFS)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+	4.	12.00	(CFS)	1.	0.	0.
			(INCHES)	1.728	2.129	2.129
			(AC-FT)	0.	1.	1.
CUMULATIVE AREA =		0.01 SQ MI				
***	***	***	***	***	***	
HYDROGRAPH AT STATION		ESite				
FOR PLAN 1, RATIO =		1.31				
TOTAL RAINFALL =		5.30	TOTAL LOSS =	2.61	TOTAL EXCESS =	2.69
PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				
+	(CFS)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+	5.	12.00	(CFS)	1.	0.	0.
			(INCHES)	2.183	2.695	2.695
			(AC-FT)	1.	1.	1.
CUMULATIVE AREA =		0.01 SQ MI				
***	***	***	***	***	***	
HYDROGRAPH AT STATION		ESite				
FOR PLAN 1, RATIO =		1.51				
TOTAL RAINFALL =		6.20	TOTAL LOSS =	2.75	TOTAL EXCESS =	3.45
PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW				
+	(CFS)	(HR)	6-HR	24-HR	72-HR	24.92-HR
+	6.	12.00	(CFS)	2.	0.	0.
			(INCHES)	2.785	3.453	3.453
			(AC-FT)	1.	1.	1.
CUMULATIVE AREA =		0.01 SQ MI				
***	***	***	***	***	***	

NE Middle School Addition -- Storm Routing Existing Conditions

		HYDROGRAPH AT STATION		ESite	
		FOR PLAN 1, RATIO = 2.00		FOR PLAN 1, RATIO = 2.00	
TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.85, TOTAL EXCESS = 4.15					
PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	24.92-HR
+ (CFS)	(HR)				
+ 8.	12.00	2.	1.	1.	1.
		(INCHES)	3.333	4.149	4.149
		(AC-FT)	1.	1.	1.
CUMULATIVE AREA = 0.01 SQ MI					

		HYDROGRAPH AT STATION		ESite	
		FOR PLAN 1, RATIO = 2.23		FOR PLAN 1, RATIO = 2.23	
TOTAL RAINFALL = 7.80, TOTAL LOSS = 2.94, TOTAL EXCESS = 4.86					
PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	24.92-HR
+ (CFS)	(HR)				
+ 9.	12.00	2.	1.	1.	1.
		(INCHES)	3.894	4.862	4.862
		(AC-FT)	1.	1.	1.
CUMULATIVE AREA = 0.01 SQ MI					

		HYDROGRAPH AT STATION		Combo3	
		FOR PLAN 1, RATIO = 1.00		FOR PLAN 1, RATIO = 1.00	
TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.85, TOTAL EXCESS = 4.15					
PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	24.92-HR
+ (CFS)	(HR)				
+ 119.	12.50	47.	15.	14.	14.
		(INCHES)	1.216	1.523	1.523
		(AC-FT)	23.	29.	29.
CUMULATIVE AREA = 0.36 SQ MI					

		HYDROGRAPH AT STATION		Combo3	
		FOR PLAN 1, RATIO = 1.51		FOR PLAN 1, RATIO = 1.51	
TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.85, TOTAL EXCESS = 4.15					
PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	24.92-HR
+ (CFS)	(HR)				
+ 191.	12.42	75.	23.	22.	22.
		(INCHES)	1.962	2.427	2.427
		(AC-FT)	37.	46.	46.
CUMULATIVE AREA = 0.36 SQ MI					

		HYDROGRAPH AT STATION		Combo3	
		FOR PLAN 1, RATIO = 1.51		FOR PLAN 1, RATIO = 1.51	
TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.85, TOTAL EXCESS = 4.15					
PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	24.92-HR
+ (CFS)	(HR)				
+ 191.	12.42	75.	23.	22.	22.
		(INCHES)	1.962	2.427	2.427
		(AC-FT)	37.	46.	46.
CUMULATIVE AREA = 0.36 SQ MI					

NE Middle School Addition - Storm Routing Existing Conditions

0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
0.04	0.04	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01
0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

61 LS SCS LOSS RATE 0.50 INITIAL ABSTRACTION
 STRTL 80.00 CURVE NUMBER
 CRVBR 80.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

60 LD SCS DIMENSIONLESS UNITGRAPH
 TLAG 0.51 LAG

UNIT HYDROGRAPH

12.	36.	73.	124.	33	164.	184.	185.	172.	151.	124.
95.	71.	55.	44.	END-OF-PERIOD	35.	27.	21.	17.	13.	10.
8.	6.	5.	4.	ORDINATES	3.	2.	2.	2.	1.	1.
1.	0.	0.	0.							

TOTAL RAINFALL = 3.50, TOTAL LOSS = 1.86, TOTAL EXCESS = 1.64

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
(CFS)	(HR)	(CFS)	(INCHES)	(AC-FT)		
+ 97.	12.25	30.	1.319	15.	9.	1.634
					19.	19.

CUMULATIVE AREA = 0.21 SQ MI

HYDROGRAPH AT STATION Nsite
 FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 3.50, TOTAL LOSS = 1.86, TOTAL EXCESS = 1.64

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
(CFS)	(HR)	(CFS)	(INCHES)	(AC-FT)		
+ 97.	12.25	30.	1.319	15.	9.	1.634
					19.	19.

CUMULATIVE AREA = 0.21 SQ MI

HYDROGRAPH AT STATION Nsite
 FOR PLAN 1, RATIO = 1.31

TOTAL RAINFALL = 4.60, TOTAL LOSS = 2.05, TOTAL EXCESS = 2.55

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
(CFS)	(HR)	(CFS)	(INCHES)	(AC-FT)		
+ 153.	12.25	47.	2.049	23.	15.	2.544
					29.	29.

CUMULATIVE AREA = 0.21 SQ MI

HYDROGRAPH AT STATION Nsite
 FOR PLAN 1, RATIO = 1.51

TOTAL RAINFALL = 5.30, TOTAL LOSS = 2.14, TOTAL EXCESS = 3.16

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

NE Middle School Addition - Storm Routing Existing Conditions

+	(CFS)	(HR)	(CFS)	6-HR	24-HR	72-HR	24.92-HR
+	190.	12.25	(INCHES) (AC-FT)	58. 2.531 29.	18. 3.153 36.	17. 3.153 36.	17. 3.153 36.

CUMULATIVE AREA = 0.21 SQ MI

*** HYDROGRAPH AT STATION Nsite FOR PLAN 1, RATIO = 1.77

TOTAL RAINFALL = 6.20, TOTAL LOSS = 2.24, TOTAL EXCESS = 3.96

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	72-HR	24.92-HR		
+	(CFS)	(HR)	(CFS)	6-HR	24-HR	72-HR	24.92-HR
+	238.	12.25	(INCHES) (AC-FT)	72. 3.162 36.	23. 3.958 45.	22. 3.958 45.	22. 3.958 45.

CUMULATIVE AREA = 0.21 SQ MI

*** HYDROGRAPH AT STATION Nsite FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.31, TOTAL EXCESS = 4.69

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	72-HR	24.92-HR		
+	(CFS)	(HR)	(CFS)	6-HR	24-HR	72-HR	24.92-HR
+	281.	12.25	(INCHES) (AC-FT)	85. 3.733 42.	27. 4.690 53.	26. 4.690 53.	26. 4.690 53.

CUMULATIVE AREA = 0.21 SQ MI

*** HYDROGRAPH AT STATION Nsite FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.80, TOTAL LOSS = 2.36, TOTAL EXCESS = 5.44

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	72-HR	24.92-HR		
+	(CFS)	(HR)	(CFS)	6-HR	24-HR	72-HR	24.92-HR
+	325.	12.17	(INCHES) (AC-FT)	98. 4.309 49.	31. 5.433 62.	30. 5.433 62.	30. 5.433 62.

CUMULATIVE AREA = 0.21 SQ MI

*
62 KK * Combo4 *

63 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	72-HR	24.92-HR		
+	(CFS)	(HR)	(CFS)	6-HR	24-HR	72-HR	24.92-HR
+	213.	12.33	(INCHES)	76. 1.241	24. 1.565	23. 1.565	23. 1.565

NE Middle School Addition - Storm Routing Existing Conditions

(AC-FT) 38. 48. 48. 48.

CUMULATIVE AREA = 0.57 SQ MI

HYDROGRAPH AT STATION Carbo4
FOR PLAN 1, RATIO = 1.31

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR
341.	12.25	121.	38.	36.	36.
		(INCHES) 1.984	2.471	2.471	2.471
		(AC-FT) 60.	75.	75.	75.

CUMULATIVE AREA = 0.57 SQ MI

HYDROGRAPH AT STATION Carbo4
FOR PLAN 1, RATIO = 1.51

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR
427.	12.25	152.	47.	45.	45.
		(INCHES) 2.480	3.077	3.077	3.077
		(AC-FT) 75.	93.	93.	93.

CUMULATIVE AREA = 0.57 SQ MI

HYDROGRAPH AT STATION Carbo4
FOR PLAN 1, RATIO = 1.77

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR
543.	12.25	191.	59.	57.	57.
		(INCHES) 3.124	3.879	3.879	3.879
		(AC-FT) 95.	118.	118.	118.

CUMULATIVE AREA = 0.57 SQ MI

HYDROGRAPH AT STATION Carbo4
FOR PLAN 1, RATIO = 2.00

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR
645.	12.25	226.	71.	68.	68.
		(INCHES) 3.692	4.608	4.608	4.608
		(AC-FT) 112.	140.	140.	140.

CUMULATIVE AREA = 0.57 SQ MI

HYDROGRAPH AT STATION Carbo4
FOR PLAN 1, RATIO = 2.23

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR
747.	12.25	261.	82.	79.	79.
		(INCHES) 4.264	5.348	5.348	5.348
		(AC-FT) 129.	162.	162.	162.

CUMULATIVE AREA = 0.57 SQ MI

NE Middle School Addition -- Storm Routing Existing Conditions

***		***		***		***		***	
		HYDROGRAPH AT STATION		ESite2		FOR PLAN 1, RATIO = 1.31			
TOTAL RAINFALL =		4.60,		TOTAL LOSS =		2.47,		TOTAL EXCESS = 2.13	
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	
+ 6.	12.00	2.		0.		0.		0.	
		(INCHES)		2.129		2.129		2.129	
		(AC-FT)		1.		1.		1.	
		CUMULATIVE AREA =		0.01 SQ MI					
***		***		***		***		***	
		HYDROGRAPH AT STATION		ESite2		FOR PLAN 1, RATIO = 1.51			
TOTAL RAINFALL =		5.30,		TOTAL LOSS =		2.61,		TOTAL EXCESS = 2.69	
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	
+ 8.	12.00	2.		1.		1.		1.	
		(INCHES)		2.695		2.695		2.695	
		(AC-FT)		1.		1.		1.	
		CUMULATIVE AREA =		0.01 SQ MI					
***		***		***		***		***	
		HYDROGRAPH AT STATION		ESite2		FOR PLAN 1, RATIO = 1.77			
TOTAL RAINFALL =		6.20,		TOTAL LOSS =		2.75,		TOTAL EXCESS = 3.45	
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	
+ 10.	12.00	2.		1.		1.		1.	
		(INCHES)		3.453		3.453		3.453	
		(AC-FT)		2.		2.		2.	
		CUMULATIVE AREA =		0.01 SQ MI					
***		***		***		***		***	
		HYDROGRAPH AT STATION		ESite2		FOR PLAN 1, RATIO = 2.00			
TOTAL RAINFALL =		7.00,		TOTAL LOSS =		2.85,		TOTAL EXCESS = 4.15	
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	
+ 12.	12.00	3.		1.		1.		1.	
		(INCHES)		4.149		4.149		4.149	
		(AC-FT)		2.		2.		2.	
		CUMULATIVE AREA =		0.01 SQ MI					
***		***		***		***		***	
		HYDROGRAPH AT STATION		ESite2		FOR PLAN 1, RATIO = 2.23			
TOTAL RAINFALL =		7.80,		TOTAL LOSS =		2.94,		TOTAL EXCESS = 4.86	
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	
+ 14.	12.00	3.		1.		1.		1.	
		(INCHES)		4.862		4.862		4.862	
		(AC-FT)		2.		2.		2.	
		CUMULATIVE AREA =		0.01 SQ MI					

NE Middle School Addition - Storm Routing Existing Conditions

+ 37. 12.08 (INCHES) 1.325 1.636 1.636 1.636
 (AC-FT) 5. 6. 6. 6.

CUMULATIVE AREA = 0.07 SQ MI

*** HYDROGRAPH AT STATION Site
 FOR PLAN 1, RATIO = 1.31

TOTAL RAINFALL = 4.60, TOTAL LOSS = 2.05, TOTAL EXCESS = 2.55

PEAK FLOW TIME MAXIMUM AVERAGE FLOW
 (CFS) (HR) 6-HR 24-HR 72-HR 24.92-HR

+ 57. 12.08 (CFS) 15. 5. 4. 4.
 (INCHES) 2.054 2.547 2.547 2.547
 (AC-FT) 7. 9. 9. 9.

CUMULATIVE AREA = 0.07 SQ MI

*** HYDROGRAPH AT STATION Site
 FOR PLAN 1, RATIO = 1.51

TOTAL RAINFALL = 5.30, TOTAL LOSS = 2.14, TOTAL EXCESS = 3.16

PEAK FLOW TIME MAXIMUM AVERAGE FLOW
 (CFS) (HR) 6-HR 24-HR 72-HR 24.92-HR

+ 71. 12.08 (CFS) 19. 6. 6. 6.
 (INCHES) 2.534 3.156 3.156 3.156
 (AC-FT) 9. 11. 11. 11.

CUMULATIVE AREA = 0.07 SQ MI

*** HYDROGRAPH AT STATION Site
 FOR PLAN 1, RATIO = 1.77

TOTAL RAINFALL = 6.20, TOTAL LOSS = 2.24, TOTAL EXCESS = 3.96

PEAK FLOW TIME MAXIMUM AVERAGE FLOW
 (CFS) (HR) 6-HR 24-HR 72-HR 24.92-HR

+ 88. 12.08 (CFS) 23. 7. 7. 7.
 (INCHES) 3.167 3.962 3.962 3.962
 (AC-FT) 12. 14. 14. 14.

CUMULATIVE AREA = 0.07 SQ MI

*** HYDROGRAPH AT STATION Site
 FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.31, TOTAL EXCESS = 4.69

PEAK FLOW TIME MAXIMUM AVERAGE FLOW
 (CFS) (HR) 6-HR 24-HR 72-HR 24.92-HR

+ 103. 12.00 (CFS) 27. 9. 8. 8.
 (INCHES) 3.739 4.694 4.694 4.694
 (AC-FT) 14. 17. 17. 17.

CUMULATIVE AREA = 0.07 SQ MI

*** HYDROGRAPH AT STATION Site
 FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.80, TOTAL LOSS = 2.36, TOTAL EXCESS = 5.44

PEAK FLOW TIME MAXIMUM AVERAGE FLOW
 (CFS) (HR) 6-HR 24-HR 72-HR 24.92-HR

+ 119. 12.00 (CFS) 32. 10. 10. 10.

NE Middle School Addition - Storm Routing Existing Conditions
 (INCHES) 4.317 5.438 5.438 5.438
 (AC-FT) 16. 20. 20. 20.
 CUMULATIVE AREA = 0.07 SQ MI

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 74 KK * Corbo5 *
 *

75 HC HYDROGRAPH COMBINATION
 ICMF 2 NUMBER OF HYDROGRAPHS TO COMBINE

***		***		***		***		***	
		HYDROGRAPH AT STATION		Corbo5		FOR PLAN 1, RATIO = 1.00			
PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR			
+	(CFS)	(HR)	(CFS)	(CFS)	(CFS)	(CFS)			
+	41.	12.08	11.	3.	3.	3.			
			(INCHES) 1.296	1.600	1.600	1.600			
			(AC-FT) 5.	7.	7.	7.			
CUMULATIVE AREA = 0.08 SQ MI									

		HYDROGRAPH AT STATION		Corbo5		FOR PLAN 1, RATIO = 1.31			
PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR			
+	(CFS)	(HR)	(CFS)	(CFS)	(CFS)	(CFS)			
+	63.	12.08	17.	5.	5.	5.			
			(INCHES) 2.018	2.502	2.502	2.502			
			(AC-FT) 8.	10.	10.	10.			
CUMULATIVE AREA = 0.08 SQ MI									

		HYDROGRAPH AT STATION		Corbo5		FOR PLAN 1, RATIO = 1.51			
PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR			
+	(CFS)	(HR)	(CFS)	(CFS)	(CFS)	(CFS)			
+	78.	12.00	21.	6.	6.	6.			
			(INCHES) 2.496	3.106	3.106	3.106			
			(AC-FT) 10.	13.	13.	13.			
CUMULATIVE AREA = 0.08 SQ MI									

		HYDROGRAPH AT STATION		Corbo5		FOR PLAN 1, RATIO = 1.77			
PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR			
+	(CFS)	(HR)	(CFS)	(CFS)	(CFS)	(CFS)			
+	98.	12.00	26.	8.	8.	8.			
			(INCHES) 3.125	3.907	3.907	3.907			
			(AC-FT) 13.	16.	16.	16.			
CUMULATIVE AREA = 0.08 SQ MI									

		HYDROGRAPH AT STATION		Corbo5		FOR PLAN 1, RATIO = 2.00			

NE Middle School Addition - Storm Routing Existing Conditions

	11. 6.	37. 4.	69. 3.	78. 2.	69. 1.	52. 1.	33. 1.	22. 0.	15. 0.	10.
TOTAL RAINFALL =	3.50		TOTAL LOSS = 1.86		TOTAL EXCESS = 1.64					
PEAK FLOW TIME				6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR			
+ (CFS) (HR)			(CFS)							
+ 29. 12.08			8. (INCHES) 1.325 (AC-FT)	2. 1.636 5.	2. 1.636 5.	2. 1.636 5.	2. 1.636 5.			
	CUMULATIVE AREA = 0.05 SQ MI									
***	***	***	***	***	***	***	***	***	***	***
	HYDROGRAPH AT STATION Wsite FOR PLAN 1, RATIO = 1.00									
TOTAL RAINFALL =	3.50		TOTAL LOSS = 1.86		TOTAL EXCESS = 1.64					
PEAK FLOW TIME				6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR			
+ (CFS) (HR)			(CFS)							
+ 29. 12.08			8. (INCHES) 1.325 (AC-FT)	2. 1.636 5.	2. 1.636 5.	2. 1.636 5.	2. 1.636 5.			
	CUMULATIVE AREA = 0.05 SQ MI									
***	***	***	***	***	***	***	***	***	***	***
	HYDROGRAPH AT STATION Wsite FOR PLAN 1, RATIO = 1.31									
TOTAL RAINFALL =	4.60		TOTAL LOSS = 2.05		TOTAL EXCESS = 2.55					
PEAK FLOW TIME				6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR			
+ (CFS) (HR)			(CFS)							
+ 44. 12.08			12. (INCHES) 2.053 (AC-FT)	4. 2.547 7.	4. 2.547 7.	4. 2.547 7.	4. 2.547 7.			
	CUMULATIVE AREA = 0.05 SQ MI									
***	***	***	***	***	***	***	***	***	***	***
	HYDROGRAPH AT STATION Wsite FOR PLAN 1, RATIO = 1.51									
TOTAL RAINFALL =	5.30		TOTAL LOSS = 2.14		TOTAL EXCESS = 3.16					
PEAK FLOW TIME				6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR			
+ (CFS) (HR)			(CFS)							
+ 55. 12.08			15. (INCHES) 2.534 (AC-FT)	5. 3.156 9.	4. 3.156 9.	4. 3.156 9.	4. 3.156 9.			
	CUMULATIVE AREA = 0.05 SQ MI									
***	***	***	***	***	***	***	***	***	***	***
	HYDROGRAPH AT STATION Wsite FOR PLAN 1, RATIO = 1.77									
TOTAL RAINFALL =	6.20		TOTAL LOSS = 2.24		TOTAL EXCESS = 3.96					
PEAK FLOW TIME				6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR			
+ (CFS) (HR)			(CFS)							
+ 68. 12.08			18. (INCHES) 3.167 (AC-FT)	6. 3.962 11.	5. 3.962 11.	5. 3.962 11.	5. 3.962 11.			
	CUMULATIVE AREA = 0.05 SQ MI									
***	***	***	***	***	***	***	***	***	***	***
	HYDROGRAPH AT STATION Wsite									

NE Middle School Addition - Storm Routing Existing Conditions
FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.31, TOTAL EXCESS = 4.69

PEAK FLOW	TIME	6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)			
+ 80.	12.08	21.	7.	6.	6.
		(INCHES) 3.739	4.694	4.694	4.694
		(AC-FT) 11.	13.	13.	13.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION : wsite
FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.80, TOTAL LOSS = 2.36, TOTAL EXCESS = 5.44

PEAK FLOW	TIME	6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)			
+ 92.	12.08	25.	8.	8.	8.
		(INCHES) 4.316	5.437	5.437	5.437
		(AC-FT) 12.	15.	15.	15.

CUMULATIVE AREA = 0.05 SQ MI

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81 KK * *
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82 HC HYDROGRAPH COMBINATION 3 NUMBER OF HYDROGRAPHS TO COMBINE

ICOMP

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

HYDROGRAPH AT STATION Combo6
FOR PLAN 1, RATIO = 1.00

PEAK FLOW	TIME	6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)			
+ 266.	12.25	94.	30.	29.	29.
		(INCHES) 1.249	1.574	1.574	1.574
		(AC-FT) 47.	59.	59.	59.

CUMULATIVE AREA = 0.70 SQ MI

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

HYDROGRAPH AT STATION Combo6
FOR PLAN 1, RATIO = 1.31

PEAK FLOW	TIME	6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)			
+ 433.	12.17	149.	47.	45.	45.
		(INCHES) 1.988	2.480	2.480	2.480
		(AC-FT) 74.	92.	92.	92.

CUMULATIVE AREA = 0.70 SQ MI

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

HYDROGRAPH AT STATION Combo6
FOR PLAN 1, RATIO = 1.51

PEAK FLOW	TIME	6-HR	24-HR	72-HR	24.92-HR
+ (CFS)	(HR)	(CFS)			
+ 541.	12.17	187.	58.	56.	56.

NE Middle School Addition - Storm Routing Existing Conditions

(INCHES) 2.481 3.086 3.086 3.086
 (AC-FT) 95. 115. 115. 115.

CUMULATIVE AREA = 0.70 SQ MI

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

HYDROGRAPH AT STATION Corbo6
 FOR PLAN 1, RATIO = 1.77

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
688.	12.17	235.	73.	70.	70.
		(INCHES) 3.125	3.889	3.889	3.889
		(AC-FT) 117.	145.	145.	145.

CUMULATIVE AREA = 0.70 SQ MI

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

HYDROGRAPH AT STATION Corbo6
 FOR PLAN 1, RATIO = 2.00

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
818.	12.17	278.	87.	84.	84.
		(INCHES) 3.695	4.618	4.618	4.618
		(AC-FT) 138.	172.	172.	172.

CUMULATIVE AREA = 0.70 SQ MI

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

HYDROGRAPH AT STATION Corbo6
 FOR PLAN 1, RATIO = 2.23

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
947.	12.17	321.	101.	97.	97.
		(INCHES) 4.265	5.358	5.358	5.358
		(AC-FT) 159.	200.	200.	200.

CUMULATIVE AREA = 0.70 SQ MI

1

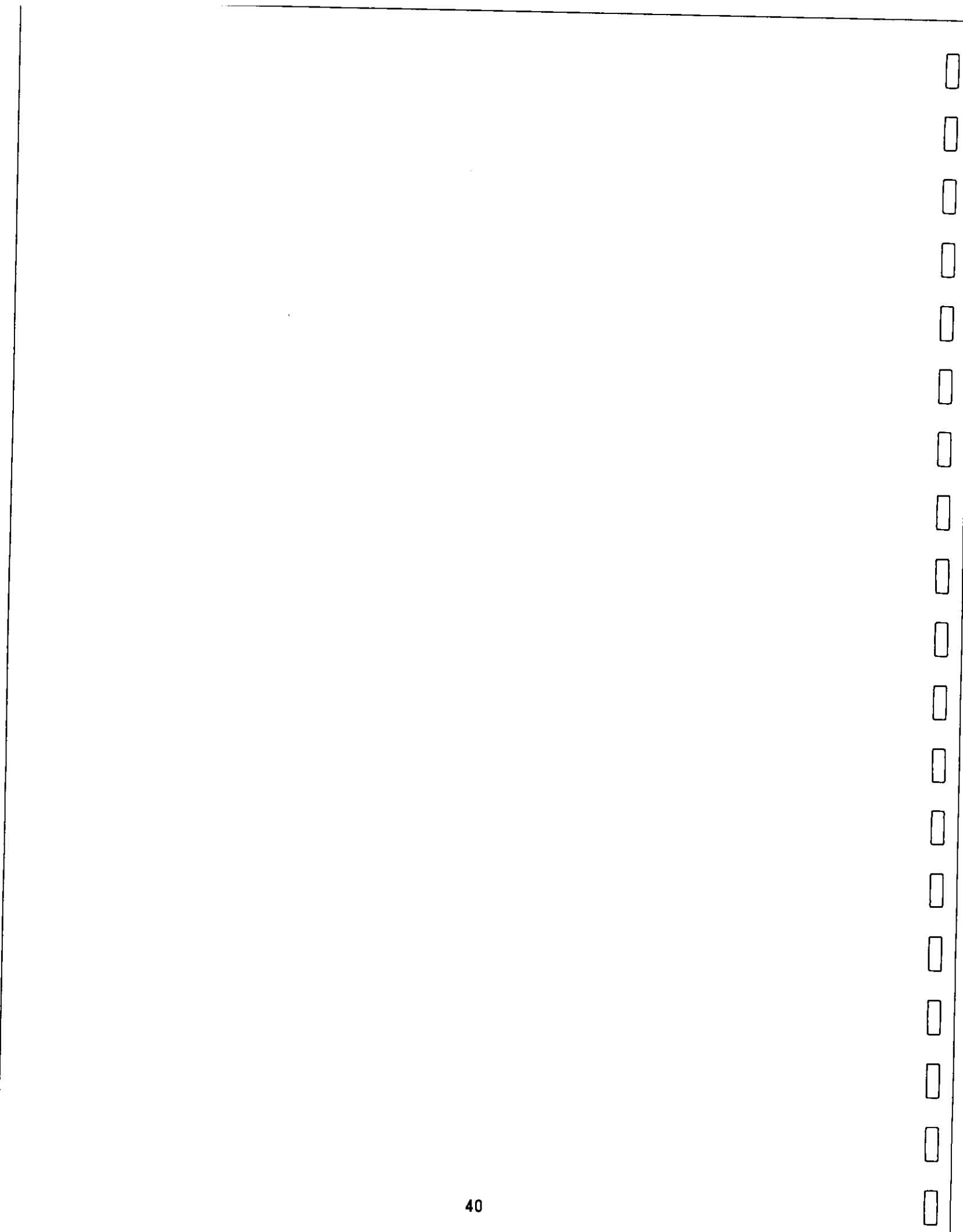
PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
 FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
 TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN	RATIOS APPLIED TO PRECIPITATION					
				RATIO 1 1.00	RATIO 2 1.31	RATIO 3 1.51	RATIO 4 1.77	RATIO 5 2.00	RATIO 6 2.23
HYDROGRAPH AT	Center	0.04	1	21.	33.	41.	51.	60.	69.
ROUTED TO				12.00	12.00	12.00	12.00	12.00	12.00
				5.	9.	13.	18.	22.	28.
				13.17	13.08	12.58	12.50	12.42	12.42
				** PEAK STAGES IN FEET **					
				197.94	198.46	198.76	199.15	199.50	199.82
				13.17	13.08	12.58	12.50	12.42	12.42
HYDROGRAPH AT	East	0.22	1	91.	141.	174.	217.	255.	294.
				12.50	12.50	12.50	12.42	12.42	12.42
HYDROGRAPH AT	OneSit	0.05	1	27.	41.	50.	63.	73.	84.
				12.00	12.00	12.00	12.00	12.00	12.00
HYDROGRAPH AT	North	0.05	1	17.	29.	37.	48.	58.	68.
				12.17	12.17	12.17	12.17	12.17	12.17
3 COMBINED AT	Corbo1	0.31	1	116.	184.	229.	290.	344.	398.
				12.25	12.25	12.17	12.17	12.17	12.17

NE Middle School Addition -- Storm Routing Existing Conditions

+ 2 COMBINED AT	Carbo2	0.35	1	FLOW TIME	121. 12.25	192. 12.25	242. 12.25	306. 12.25	364. 12.17	424. 12.17
+ ROUTED TO	NPond	0.35	1	FLOW TIME	119. 12.50	190. 12.42	239. 12.33	303. 12.33	360. 12.33	419. 12.33
			1	** PEAK STAGES IN FEET ** STAGE TIME	193.62 12.50	193.86 12.42	194.02 12.33	194.18 12.33	194.33 12.33	194.47 12.33
+ HYDROGRAPH AT	ESite	0.01	1	FLOW TIME	3. 12.00	4. 12.00	5. 12.00	6. 12.00	8. 12.00	9. 12.00
+ 2 COMBINED AT	Carbo3	0.36	1	FLOW TIME	119. 12.50	191. 12.42	241. 12.33	306. 12.33	363. 12.25	423. 12.25
+ HYDROGRAPH AT	Nsite	0.21	1	FLOW TIME	97. 12.25	153. 12.25	190. 12.25	238. 12.25	281. 12.25	325. 12.17
+ 2 COMBINED AT	Carbo4	0.57	1	FLOW TIME	213. 12.33	341. 12.25	427. 12.25	543. 12.25	645. 12.25	747. 12.25
+ HYDROGRAPH AT	ESite2	0.01	1	FLOW TIME	4. 12.00	6. 12.00	8. 12.00	10. 12.00	12. 12.00	14. 12.00
+ HYDROGRAPH AT	Site	0.07	1	FLOW TIME	37. 12.08	57. 12.08	71. 12.08	88. 12.08	103. 12.00	119. 12.00
+ 2 COMBINED AT	Carbo5	0.08	1	FLOW TIME	41. 12.08	63. 12.08	78. 12.00	98. 12.00	115. 12.00	133. 12.00
+ HYDROGRAPH AT	Wsite	0.05	1	FLOW TIME	29. 12.08	44. 12.08	55. 12.08	68. 12.08	80. 12.08	92. 12.08
+ 3 COMBINED AT	Carbo6	0.70	1	FLOW TIME	266. 12.25	433. 12.17	541. 12.17	688. 12.17	818. 12.17	947. 12.17

*** NORMAL END OF HEC-1 ***



NE Middle School Addition - Storm Routing Developed Conditions

 * FLOOD HYDROGRAPH PACKAGE (HEC-1) *
 * MAY 1991 *
 * VERSION 4.0.1E *
 * Lahey F77-EM/32 version 5.01 *
 * Dodson & Associates, Inc. *
 * RUN DATE 11/29/01 TIME 07:32:39 *

 * U.S. ARMY CORPS OF ENGINEERS *
 * HYDROLOGIC ENGINEERING CENTER *
 * 609 SECOND STREET *
 * DAVIS, CALIFORNIA 95616 *
 * (916) 551-1748 *

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THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KKKMM AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KM.
 THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTICR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
 THE DEFINITION OF -AMSK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
 NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE, SINGLE EVENT DAMAGE CALCULATION, DSS-WRITE STAGE FREQUENCY,
 DSS-READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION
 KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

```

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
1 ID Northeast Middle School Addition
2 ID Post-Developed Conditions
3 ID SCS Method - 2,5,10,25,50, & 100 YR Storm Event
4 IT 5 20NOV01 0000 300 2000
5 IO 3 0
6 UR PREC 1.0000 1.3143 1.5143 1.7714 2.0000 2.2286
* Diagram
*
7 KK Center
8 KM Eagles Landing (Center Basin)
9 BA .039
10 PB 3.5
11 IN 60
12 PC 0 0.011 0.022 0.035 0.048 0.063 0.080 0.098 0.120 0.147
13 PC 0.181 0.235 0.663 0.772 0.820 0.854 0.880 0.902 0.921 0.937
14 PC 0.952 0.965 0.978 0.989 1.000
15 LD .20
16 LS 0 79
*
17 KK OPond
18 KM Eagles Landing (Center Pond)
19 RS 1 ELEV
20 SA 1.4 1.8 2.0 2.2
21 SE 197 200 201 202
22 SQ 0 7 10 13
23 SE 197.0 198.25 198.5 198.75 199.0 199.25 199.5 200.0 200.75 201.5
*
24 KK East
25 KM Eagles Landing (East Off-site Drainage)
26 BA .21875
27 LD .79
28 LS 0 82
*
29 KK OneSit
30 KM Eagles Landing (North Basin)
31 BA .046875
32 LD .2
33 LS 0 80
*
34 KK North
35 KM Eagles Landing (North Off-site Drainage)
36 BA .046875
37 LD .39
38 LS 0 74
    
```

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

NE Middle School Addition - Storm Routing Developed Conditions

39	KK	Combo1																	
40	HC	3																	
	*																		
41	KK	Combo2																	
42	HC	2																	
	*																		
43	KK	NPond																	
44	KM	Eagles Landing (North Drainage Pond)																	
45	RS	1	ELEV	192.0															
46	SA	2.2	2.8	3															
47	SE	192	195	196															
48	SD	0	1.5	4.2		83	230	430	740	1170	1770								
49	SE	192.0	192.5	193.0	193.5	194.0	194.5	195.0	195.5	196.0									
	*																		
50	KK	ESite																	
51	KM	Proposed Residential (East of NE Middle School)																	
52	BA	.00531																	
53	LD	.15																	
54	LS	0	75																
	*																		
55	KK	Combo3																	
56	HC	2																	
	*																		
57	KK	Wsite																	
58	KM	NE Middle School (Off-site North of 45th Street North)																	
59	BA	0.2125																	
60	LD	.51																	
61	LS	0	80																
	*																		
62	KK	Combo4																	
63	HC	2																	
	*																		
64	KK	ESite2																	
65	KM	Proposed Residential (East of NE Middle School)																	
66	BA	.00828																	
67	LD	.15																	
68	LS	0	75																
	*																		
69	KK	Site																	
70	KM	NE Middle School Basin																	
71	BA	.06813																	
72	LD	.15																	
73	LS	0	88																
	*																		

1 HEC-1 INPUT PAGE 3

LINE ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

74	KK	Combo5																	
75	HC	2																	
	*																		
76	KK	Wsite																	
77	KM	NE Middle School (West Off-site Basin)																	
78	BA	.05344																	
79	LD	.29																	
80	LS	0	80																
	*																		
81	KK	Combo6																	
82	HC	3																	
	*																		
83	ZZ																		

1 SCHEMATIC DIAGRAM OF STREAM NETWORK

INPUT LINE (V) ROUTING (--->) DIVERSION OR PUMP FLOW

NO. (.) CONNECTOR (<---) RETURN OF DIVERTED OR PUMPED FLOW

7 Center
V
V

17 CPond
.
.

24 . East
.
.

29 . OneSit

NE Middle School Addition - Storm Routing Developed Conditions

```

34      . . . . . North
39      . . . . . Corba1
41      . . . . . Corba2
      . . . . . V
43      . . . . . NPond
50      . . . . . ESite
55      . . . . . Corba3
57      . . . . . Nsite
62      . . . . . Corba4
64      . . . . . ESite2
69      . . . . . Site
74      . . . . . Corba5
76      . . . . . Wsite
81      . . . . . Corba6
    
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```

*****
* FLOOD HYDROGRAPH PACKAGE (HEC-1) *
* MAY 1991 *
* VERSION 4.0.1E *
* Lahey F77L-EM/32 version 5.01 *
* Dodson & Associates, Inc. *
* RUN DATE 11/29/01 TIME 07:32:39 *
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* (916) 551-1748 *
*****
    
```

Northeast Middle School Addition
 Post-Developed Conditions
 SCS Method - 2,5,10,25,50, & 100 YR Storm Event

```

5 IO  OUTPUT CONTROL VARIABLES
      IPRINT 3 PRINT CONTROL
      IPLOT 0 PLOT CONTROL
      QSCAL 0. HYDROGRAPH PLOT SCALE

IT  HYDROGRAPH TIME DATA
      NMIN 5 MINUTES IN COMPUTATION INTERVAL
      IDATE 20NOV 1 STARTING DATE
      ITIME 0000 STARTING TIME
      NQ 300 NUMBER OF HYDROGRAPH ORDINATES
      NDATE 21NOV 1 ENDING DATE
      NDTIME 0055 ENDING TIME
      ICENT 20 CENTURY MARK

      COMPUTATION INTERVAL 0.08 HOURS
      TOTAL TIME BASE 24.92 HOURS

ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-Feet
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

JP  MULTI-PLAN OPTION
      NPLAN 1 NUMBER OF PLANS

JR  MULTI-RATIO OPTION
      RATIOS OF PRECIPITATION
      1.00 1.31 1.51 1.77 2.00 2.23
    
```


NE Middle School Addition - Storm Routing Developed Conditions
 TOTAL RAINFALL = 3.50, TOTAL LOSS = 1.93, TOTAL EXCESS = 1.57

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
21.	12.00	(CFS)	5.	2.	2.	2.
		(INCHES)	1.270	1.566	1.566	1.566
		(AC-FT)	3.	3.	3.	3.

CUMULATIVE AREA = 0.04 SQ MI

*** **

HYDROGRAPH AT STATION Center
 FOR PLAN 1, RATIO = 1.31

TOTAL RAINFALL = 4.60, TOTAL LOSS = 2.14, TOTAL EXCESS = 2.46

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
33.	12.00	(CFS)	8.	3.	2.	2.
		(INCHES)	1.988	2.461	2.461	2.461
		(AC-FT)	4.	5.	5.	5.

CUMULATIVE AREA = 0.04 SQ MI

*** **

HYDROGRAPH AT STATION Center
 FOR PLAN 1, RATIO = 1.51

TOTAL RAINFALL = 5.30, TOTAL LOSS = 2.24, TOTAL EXCESS = 3.06

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
41.	12.00	(CFS)	10.	3.	3.	3.
		(INCHES)	2.464	3.062	3.062	3.062
		(AC-FT)	5.	6.	6.	6.

CUMULATIVE AREA = 0.04 SQ MI

*** **

HYDROGRAPH AT STATION Center
 FOR PLAN 1, RATIO = 1.77

TOTAL RAINFALL = 6.20, TOTAL LOSS = 2.34, TOTAL EXCESS = 3.86

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
51.	12.00	(CFS)	13.	4.	4.	4.
		(INCHES)	3.090	3.859	3.859	3.859
		(AC-FT)	6.	8.	8.	8.

CUMULATIVE AREA = 0.04 SQ MI

*** **

HYDROGRAPH AT STATION Center
 FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.42, TOTAL EXCESS = 4.58

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
60.	12.00	(CFS)	15.	5.	5.	5.
		(INCHES)	3.659	4.584	4.584	4.584
		(AC-FT)	8.	10.	10.	10.

CUMULATIVE AREA = 0.04 SQ MI

*** **

HYDROGRAPH AT STATION Center
 FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.80, TOTAL LOSS = 2.48, TOTAL EXCESS = 5.32

NE Middle School Addition - Storm Routing Developed Conditions

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
69.	12.00	18. (INCHES) 4.235 (AC-FT) 9.	6. 5.322 11.	5. 5.322 11.	5. 5.322 11.

CUMULATIVE AREA = 0.04 SQ MI

*** **

*
* Cpond *
*

Eagles Landing (Center Pond)

HYDROGRAPH ROUTING DATA

19 RS	STORAGE ROUTING	1	NUMBER OF SUBREACHES				
	NSTPS	ELEV	TYPE OF INITIAL CONDITION				
	ITYP	0.00	INITIAL CONDITION				
	RSWRIC	0.00	WORKING R AND D COEFFICIENT				
	X						
20 SA	AREA	1.4	1.8	2.0	2.2		
21 SE	ELEVATION	197.00	200.00	201.00	202.00		
22 SQ	DISCHARGE	0.	7.	10.	13.	16.	20.
						22.	32.
						36.	42.
23 SE	ELEVATION	197.00	198.25	198.50	198.75	199.00	199.25
						199.50	200.00
						200.75	201.50

COMPUTED STORAGE-ELEVATION DATA

STORAGE	0.00	4.79	6.69	8.79
ELEVATION	197.00	200.00	201.00	202.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	0.00	1.85	2.24	2.65	3.06	3.48	3.91	4.79	6.19	6.69
OUTFLOW	0.00	7.00	10.00	13.00	16.00	20.00	22.00	32.00	36.00	38.00
ELEVATION	197.00	198.25	198.50	198.75	199.00	199.25	199.50	200.00	200.75	201.00
STORAGE	7.71	8.79								
OUTFLOW	42.00	46.00								
ELEVATION	201.50	202.00								

*** **

HYDROGRAPH AT STATION Cpond
FOR PLAN 1, RATIO = 1.00

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
5.	13.17	4. (INCHES) 0.968 (AC-FT) 2.	2. 1.454 3.	1. 1.454 3.	1. 1.454 3.
PEAK STORAGE + (AC-FT)	TIME (HR)	6-HR	MAXIMUM AVERAGE STORAGE 24-HR	72-HR	24.92-HR
1.	13.17	1.	0.	0.	0.
PEAK STAGE + (FEET)	TIME (HR)	6-HR	MAXIMUM AVERAGE STAGE 24-HR	72-HR	24.92-HR
197.94	13.17	197.72	197.27	197.26	197.26

CUMULATIVE AREA = 0.04 SQ MI

*** **

HYDROGRAPH AT STATION Cpond
FOR PLAN 1, RATIO = 1.31

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW
-----------	------	----------------------

NE Middle School Addition - Storm Routing Developed Conditions

		6-HR	24-HR	72-HR	24.92-HR
+	(CFS)				
+	9. 13.08	7. 1.558	2. 2.299	2. 2.299	2. 2.299
		(INCHES)			
		(AC-FT)	3.	5.	5.
PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE		
+	(AC-FT)	6-HR	24-HR	72-HR	24.92-HR
	2. 13.00	2.	1.	1.	1.
PEAK STAGE	TIME		MAXIMUM AVERAGE STAGE		
+	(FEET)	6-HR	24-HR	72-HR	24.92-HR
	198.46 13.08	198.11	197.42	197.40	197.40
CUMULATIVE AREA = 0.04 SQ MI					

HYDROGRAPH AT STATION Cpond FOR PLAN 1, RATIO = 1.51					
PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW		
+	(CFS)	6-HR	24-HR	72-HR	24.92-HR
	13. 12.58	8. 1.963	3. 2.870	3. 2.870	3. 2.870
		(INCHES)			
		(AC-FT)	4.	6.	6.
PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE		
+	(AC-FT)	6-HR	24-HR	72-HR	24.92-HR
	3. 12.58	2.	1.	1.	1.
PEAK STAGE	TIME		MAXIMUM AVERAGE STAGE		
+	(FEET)	6-HR	24-HR	72-HR	24.92-HR
	198.76 12.58	198.30	197.49	197.47	197.47
CUMULATIVE AREA = 0.04 SQ MI					

HYDROGRAPH AT STATION Cpond FOR PLAN 1, RATIO = 1.77					
PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW		
+	(CFS)	6-HR	24-HR	72-HR	24.92-HR
	18. 12.50	11. 2.561	4. 3.631	4. 3.631	4. 3.631
		(INCHES)			
		(AC-FT)	5.	8.	8.
PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE		
+	(AC-FT)	6-HR	24-HR	72-HR	24.92-HR
	3. 12.50	2.	1.	1.	1.
PEAK STAGE	TIME		MAXIMUM AVERAGE STAGE		
+	(FEET)	6-HR	24-HR	72-HR	24.92-HR
	199.15 12.50	198.53	197.58	197.56	197.56
CUMULATIVE AREA = 0.04 SQ MI					

HYDROGRAPH AT STATION Cpond FOR PLAN 1, RATIO = 2.00					
PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW		
+	(CFS)	6-HR	24-HR	72-HR	24.92-HR
	22. 12.42	13. 3.097	5. 4.326	4. 4.326	4. 4.326
		(INCHES)			
		(AC-FT)	6.	9.	9.
PEAK STORAGE	TIME		MAXIMUM AVERAGE STORAGE		
+	(AC-FT)	6-HR	24-HR	72-HR	24.92-HR
	4. 12.42	3.	1.	1.	1.
PEAK STAGE	TIME		MAXIMUM AVERAGE STAGE		

NE Middle School Addition - Storm Routing Developed Conditions
 TLAG 0.79 LAG

		UNIT HYDROGRAPH										
		49 END-OF-PERIOD ORDINATES										
		60.	84.	104.	118.	126.	127.					
		60.	84.	104.	118.	126.	127.					
4.	13.	24.	40.	49	60.	84.	104.	118.	126.	127.		
126.	118.	109.	99.	86.	71.	58.	49.	42.	35.			
31.	26.	22.	19.	16.	13.	12.	10.	8.	7.			
6.	5.	4.	4.	3.	3.	2.	2.	2.	2.			
1.	1.	1.	1.	1.	0.	0.	0.	0.	0.			

TOTAL RAINFALL = 3.50, TOTAL LOSS = 1.72, TOTAL EXCESS = 1.78

PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW	
(CFS)	(HR)	(CFS)	24-HR	72-HR	24.92-HR
91.	12.50	34.	10.	10.	10.
		(INCHES)	1.427	1.774	1.774
		(AC-FT)	17.	21.	21.

CUMULATIVE AREA = 0.22 SQ MI

HYDROGRAPH AT STATION East

FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 3.50, TOTAL LOSS = 1.72, TOTAL EXCESS = 1.78

PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW	
(CFS)	(HR)	(CFS)	24-HR	72-HR	24.92-HR
91.	12.50	34.	10.	10.	10.
		(INCHES)	1.427	1.774	1.774
		(AC-FT)	17.	21.	21.

CUMULATIVE AREA = 0.22 SQ MI

HYDROGRAPH AT STATION East

FOR PLAN 1, RATIO = 1.31

TOTAL RAINFALL = 4.60, TOTAL LOSS = 1.88, TOTAL EXCESS = 2.72

PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW	
(CFS)	(HR)	(CFS)	24-HR	72-HR	24.92-HR
141.	12.50	51.	16.	15.	15.
		(INCHES)	2.176	2.712	2.712
		(AC-FT)	25.	32.	32.

CUMULATIVE AREA = 0.22 SQ MI

HYDROGRAPH AT STATION East

FOR PLAN 1, RATIO = 1.51

TOTAL RAINFALL = 5.30, TOTAL LOSS = 1.95, TOTAL EXCESS = 3.35

PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW	
(CFS)	(HR)	(CFS)	24-HR	72-HR	24.92-HR
174.	12.50	63.	20.	19.	19.
		(INCHES)	2.666	3.335	3.335
		(AC-FT)	31.	39.	39.

CUMULATIVE AREA = 0.22 SQ MI

HYDROGRAPH AT STATION East

FOR PLAN 1, RATIO = 1.77

TOTAL RAINFALL = 6.20, TOTAL LOSS = 2.03, TOTAL EXCESS = 4.17

PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW	
(CFS)	(HR)	(CFS)	24-HR	72-HR	24.92-HR
217.	12.42	78.	24.	24.	24.

NE Middle School Addition - Storm Routing Developed Conditions

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

33 LS SCS LOSS RATE
 STRL 0.50 INITIAL ABSTRACTION
 CRVNR 80.00 CURVE NUMBER
 RTIMP 0.00 PERCENT IMPERVIOUS AREA

32 LD SCS DIMENSIONLESS UNITGRAPH
 TLAG 0.20 LAG

UNIT HYDROGRAPH
 14 END-OF-PERIOD ORDINATES

23.	75.	95.	75.	42.	24.	14.	8.	4.	3.
1.	1.	0.	0.						

TOTAL RAINFALL = 3.50, TOTAL LOSS = 1.86, TOTAL EXCESS = 1.64

PEAK FLOW TIME MAXIMUM AVERAGE FLOW
 + (CFS) (HR) 6-HR 24-HR 72-HR 24.92-HR

+ 27. 12.00 (CFS) 7. 2. 2. 2.
 (INCHES) 1.327 1.636 1.636 1.636
 (AC-FT) 3. 4. 4. 4.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION OneSit
 FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 3.50, TOTAL LOSS = 1.86, TOTAL EXCESS = 1.64

PEAK FLOW TIME MAXIMUM AVERAGE FLOW
 + (CFS) (HR) 6-HR 24-HR 72-HR 24.92-HR

+ 27. 12.00 (CFS) 7. 2. 2. 2.
 (INCHES) 1.327 1.636 1.636 1.636
 (AC-FT) 3. 4. 4. 4.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION OneSit
 FOR PLAN 1, RATIO = 1.31

TOTAL RAINFALL = 4.60, TOTAL LOSS = 2.05, TOTAL EXCESS = 2.55

PEAK FLOW TIME MAXIMUM AVERAGE FLOW
 + (CFS) (HR) 6-HR 24-HR 72-HR 24.92-HR

+ 41. 12.00 (CFS) 10. 3. 3. 3.
 (INCHES) 2.055 2.547 2.547 2.547
 (AC-FT) 5. 6. 6. 6.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION OneSit
 FOR PLAN 1, RATIO = 1.51

TOTAL RAINFALL = 5.30, TOTAL LOSS = 2.14, TOTAL EXCESS = 3.16

PEAK FLOW TIME MAXIMUM AVERAGE FLOW
 + (CFS) (HR) 6-HR 24-HR 72-HR 24.92-HR

+ 50. 12.00 (CFS) 13. 4. 4. 4.
 (INCHES) 2.535 3.156 3.156 3.156
 (AC-FT) 6. 8. 8. 8.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION OneSit
 FOR PLAN 1, RATIO = 1.77

NE Middle School Addition - Storm Routing Developed Conditions
 (AC-FT) 5. 7. 7.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION North
 FOR PLAN 1, RATIO = 1.77

TOTAL RAINFALL = 6.20, TOTAL LOSS = 2.85, TOTAL EXCESS = 3.35

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
48.	12.17	14.	4.	4.	4.
		(INCHES) 2.704	3.352	3.352	3.352
		(AC-FT) 7.	8.	8.	8.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION North
 FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.96, TOTAL EXCESS = 4.04

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
58.	12.17	16.	5.	5.	5.
		(INCHES) 3.250	4.041	4.041	4.041
		(AC-FT) 8.	10.	10.	10.

CUMULATIVE AREA = 0.05 SQ MI

*** **

HYDROGRAPH AT STATION North
 FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.80, TOTAL LOSS = 3.05, TOTAL EXCESS = 4.75

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
68.	12.17	19.	6.	6.	6.
		(INCHES) 3.804	4.746	4.746	4.746
		(AC-FT) 10.	12.	12.	12.

CUMULATIVE AREA = 0.05 SQ MI

39 KK * Combo1 *

40 HC HYDROGRAPH COMBINATION
 ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

*** **

HYDROGRAPH AT STATION Combo1
 FOR PLAN 1, RATIO = 1.00

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
116.	12.25	45.	14.	14.	14.
		(INCHES) 1.344	1.673	1.673	1.673
		(AC-FT) 22.	28.	28.	28.

CUMULATIVE AREA = 0.31 SQ MI

NE Middle School Addition - Storm Routing Developed Conditions

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 1.31

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	MAXIMUM AVERAGE FLOW 24-HR (INCHES)	72-HR (INCHES)	24.92-HR (INCHES)
184.	12.25	70.	22.	21.	21.
		2,077	2,588	2,588	2,588
		35.	43.	43.	43.

CUMULATIVE AREA = 0.31 SQ MI

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 1.51

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	MAXIMUM AVERAGE FLOW 24-HR (INCHES)	72-HR (INCHES)	24.92-HR (INCHES)
229.	12.17	86.	27.	26.	26.
		2,561	3,199	3,199	3,199
		43.	53.	53.	53.

CUMULATIVE AREA = 0.31 SQ MI

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 1.77

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	MAXIMUM AVERAGE FLOW 24-HR (INCHES)	72-HR (INCHES)	24.92-HR (INCHES)
290.	12.17	107.	34.	32.	32.
		3,193	4,006	4,006	4,006
		53.	67.	67.	67.

CUMULATIVE AREA = 0.31 SQ MI

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 2.00

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	MAXIMUM AVERAGE FLOW 24-HR (INCHES)	72-HR (INCHES)	24.92-HR (INCHES)
344.	12.17	126.	40.	38.	38.
		3,763	4,738	4,738	4,738
		63.	79.	79.	79.

CUMULATIVE AREA = 0.31 SQ MI

HYDROGRAPH AT STATION Combo1
FOR PLAN 1, RATIO = 2.23

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	MAXIMUM AVERAGE FLOW 24-HR (INCHES)	72-HR (INCHES)	24.92-HR (INCHES)
398.	12.17	146.	46.	44.	44.
		4,337	5,482	5,482	5,482
		72.	91.	91.	91.

CUMULATIVE AREA = 0.31 SQ MI

41 KK *
* Combo2 *
*

NE Middle School Addition - Storm Routing Developed Conditions
 42 HC HYDROGRAPH COMBINATION 2 NUMBER OF HYDROGRAPHS TO COMBINE

***		***		***		***		***	
HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 1.00									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	
+ 121.	12.25			49	16.	15.	15.		
		(INCHES)		1.298	1.649	1.649	1.649		
		(AC-FT)		24.	31.	31.	31.		
CUMULATIVE AREA = 0.35 SQ MI									

HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 1.31									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	
+ 192.	12.25			76.	24.	23.	23.		
		(INCHES)		2.014	2.556	2.556	2.556		
		(AC-FT)		38.	48.	48.	48.		
CUMULATIVE AREA = 0.35 SQ MI									

HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 1.51									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	
+ 242.	12.25			94.	30.	29.	29.		
		(INCHES)		2.490	3.162	3.162	3.162		
		(AC-FT)		47.	59.	59.	59.		
CUMULATIVE AREA = 0.35 SQ MI									

HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 1.77									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	
+ 306.	12.25			118.	37.	36.	36.		
		(INCHES)		3.117	3.964	3.964	3.964		
		(AC-FT)		58.	74.	74.	74.		
CUMULATIVE AREA = 0.35 SQ MI									

HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 2.00									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	
+ 364.	12.17			139.	44.	43.	43.		
		(INCHES)		3.682	4.693	4.693	4.693		
		(AC-FT)		69.	88.	88.	88.		
CUMULATIVE AREA = 0.35 SQ MI									

HYDROGRAPH AT STATION Combo2 FOR PLAN 1, RATIO = 2.23									
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24-HR		72-HR	
+ (CFS)	(HR)	(CFS)		24-HR		72-HR		24.92-HR	

NE Middle School Addition - Storm Routing Developed Conditions

	(CFS)	(HR)	(CFS)	6-HR	24-HR	72-HR	24.92-HR
+	424.	12.17		161.	51.	49.	49.
			(INCHES)	4.252	5.432	5.432	5.432
			(AC-FT)	80.	102.	102.	102.

CUMULATIVE AREA = 0.35 SQ MI

*** **

43 KK * NPond *

Eagles Landing (North Drainage Pond)

HYDROGRAPH ROUTING DATA

45 RS	STORAGE ROUTING	1	NUMBER OF SUBREACHES
	INSTPS	ELEV	TYPE OF INITIAL CONDITION
	ITYP	192.00	INITIAL CONDITION
	RSVRIC	0.00	WORKING R AND D COEFFICIENT
	X		
46 SA	AREA	2.2	2.8 3.0
47 SE	ELEVATION	192.00	195.00 196.00
48 SQ	DISCHARGE	0.	2. 4. 83. 230. 430. 740. 1170. 1770.
49 SE	ELEVATION	192.00	192.50 193.00 193.50 194.00 194.50 195.00 195.50 196.00

COMPUTED STORAGE-ELEVATION DATA

STORAGE	0.00	7.48	10.38
ELEVATION	192.00	195.00	196.00

COMPUTED STORAGE-OUTFLOW-ELEVATION DATA

STORAGE	0.00	1.12	2.30	3.52	4.79	6.11	7.48	8.91	10.38
OUTFLOW	0.00	1.50	4.20	83.00	230.00	430.00	740.00	1170.00	1770.00
ELEVATION	192.00	192.50	193.00	193.50	194.00	194.50	195.00	195.50	196.00

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN 740. TO 1770. THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS. THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** **

HYDROGRAPH AT STATION NPond FOR PLAN 1, RATIO = 1.00

PEAK FLOW	TIME	6-HR	24-HR	72-HR	24.92-HR
+	(CFS)				
+	119.	12.50	46.	14.	14.
			(INCHES)	1.222	1.527
			(AC-FT)	23.	29.
PEAK STORAGE	TIME	6-HR	24-HR	72-HR	24.92-HR
+	(AC-FT)				
+	4.	12.50	3.	1.	1.
PEAK STAGE	TIME	6-HR	24-HR	72-HR	24.92-HR
+	(FEET)				
+	193.62	12.50	193.25	192.64	192.61

CUMULATIVE AREA = 0.35 SQ MI

*** **

HYDROGRAPH AT STATION NPond FOR PLAN 1, RATIO = 1.31

PEAK FLOW	TIME	6-HR	24-HR	72-HR	24.92-HR
+	(CFS)				
+	190.	12.42	74.	23.	22.

NE Middle School Addition - Storm Routing Developed Conditions

		1.969		2.432		2.432		2.432	
		(INCHES)		(AC-FT)		(INCHES)		(AC-FT)	
PEAK STORAGE	TIME		37.	46.	46.	46.	46.	46.	46.
+ (AC-FT)	(HR)		6-HR	MAXIMUM AVERAGE	STORAGE				24.92-HR
			4.	12.42	3.	2.	2.	2.	2.
PEAK STAGE	TIME		6-HR	MAXIMUM AVERAGE	STAGE				24.92-HR
+ (FEET)	(HR)		193.86	12.42	193.39	192.70	192.68	192.68	192.68
CUMULATIVE AREA = 0.35 SQ MI									

*** HYDROGRAPH AT STATION NPond FOR PLAN 1, RATIO = 1.51 ***

		6-HR		24-HR		72-HR		24.92-HR	
PEAK FLOW	TIME								
+ (CFS)	(HR)								
			239.	12.33					
			(CFS)						
			(INCHES)						
			(AC-FT)						
PEAK STORAGE	TIME		6-HR	MAXIMUM AVERAGE	STORAGE				24.92-HR
+ (AC-FT)	(HR)		5.	12.33	3.	2.	2.	2.	2.
PEAK STAGE	TIME		6-HR	MAXIMUM AVERAGE	STAGE				24.92-HR
+ (FEET)	(HR)		194.02	12.33	193.47	192.75	192.72	192.72	192.72
CUMULATIVE AREA = 0.35 SQ MI									

*** HYDROGRAPH AT STATION NPond FOR PLAN 1, RATIO = 1.77 ***

		6-HR		24-HR		72-HR		24.92-HR	
PEAK FLOW	TIME								
+ (CFS)	(HR)								
			303.	12.33					
			(CFS)						
			(INCHES)						
			(AC-FT)						
PEAK STORAGE	TIME		6-HR	MAXIMUM AVERAGE	STORAGE				24.92-HR
+ (AC-FT)	(HR)		5.	12.33	4.	2.	2.	2.	2.
PEAK STAGE	TIME		6-HR	MAXIMUM AVERAGE	STAGE				24.92-HR
+ (FEET)	(HR)		194.18	12.33	193.56	192.81	192.78	192.78	192.78
CUMULATIVE AREA = 0.35 SQ MI									

*** HYDROGRAPH AT STATION NPond FOR PLAN 1, RATIO = 2.00 ***

		6-HR		24-HR		72-HR		24.92-HR	
PEAK FLOW	TIME								
+ (CFS)	(HR)								
			360.	12.33					
			(CFS)						
			(INCHES)						
			(AC-FT)						
PEAK STORAGE	TIME		6-HR	MAXIMUM AVERAGE	STORAGE				24.92-HR
+ (AC-FT)	(HR)		6.	12.33	4.	2.	2.	2.	2.
PEAK STAGE	TIME		6-HR	MAXIMUM AVERAGE	STAGE				24.92-HR
+ (FEET)	(HR)		194.33	12.33	193.63	192.86	192.83	192.83	192.83

NE Middle School Addition - Storm Routing Developed Conditions

		UNIT HYDROGRAPH				11 END-OF-PERIOD ORDINATES					
		5.	13.	12.	6.	3.	1.	1.	0.	0.	0.
TOTAL RAINFALL =		3.50, TOTAL LOSS =		2.20, TOTAL EXCESS =		1.30					
PEAK FLOW	TIME			6-HR	MAXIMUM AVERAGE FLOW		72-HR		24.92-HR		
+ (CFS)	(HR)			(CFS)							
+ 3.	12.00			1.	0.		0.		0.		
				(INCHES)	1.052		1.302		1.302		
				(AC-FT)	0.		0.		0.		
				CUMULATIVE AREA =		0.01 SQ MI					
		***	***	***	***	***	***				
		HYDROGRAPH AT STATION ESite FOR PLAN 1, RATIO = 1.00									
TOTAL RAINFALL =		3.50, TOTAL LOSS =		2.20, TOTAL EXCESS =		1.30					
PEAK FLOW	TIME			6-HR	MAXIMUM AVERAGE FLOW		72-HR		24.92-HR		
+ (CFS)	(HR)			(CFS)							
+ 3.	12.00			1.	0.		0.		0.		
				(INCHES)	1.052		1.302		1.302		
				(AC-FT)	0.		0.		0.		
				CUMULATIVE AREA =		0.01 SQ MI					
		***	***	***	***	***	***				
		HYDROGRAPH AT STATION ESite FOR PLAN 1, RATIO = 1.31									
TOTAL RAINFALL =		4.60, TOTAL LOSS =		2.47, TOTAL EXCESS =		2.13					
PEAK FLOW	TIME			6-HR	MAXIMUM AVERAGE FLOW		72-HR		24.92-HR		
+ (CFS)	(HR)			(CFS)							
+ 4.	12.00			1.	0.		0.		0.		
				(INCHES)	1.728		2.129		2.129		
				(AC-FT)	0.		1.		1.		
				CUMULATIVE AREA =		0.01 SQ MI					
		***	***	***	***	***	***				
		HYDROGRAPH AT STATION ESite FOR PLAN 1, RATIO = 1.51									
TOTAL RAINFALL =		5.30, TOTAL LOSS =		2.61, TOTAL EXCESS =		2.69					
PEAK FLOW	TIME			6-HR	MAXIMUM AVERAGE FLOW		72-HR		24.92-HR		
+ (CFS)	(HR)			(CFS)							
+ 5.	12.00			1.	0.		0.		0.		
				(INCHES)	2.183		2.695		2.695		
				(AC-FT)	1.		1.		1.		
				CUMULATIVE AREA =		0.01 SQ MI					
		***	***	***	***	***	***				
		HYDROGRAPH AT STATION ESite FOR PLAN 1, RATIO = 1.77									
TOTAL RAINFALL =		6.20, TOTAL LOSS =		2.75, TOTAL EXCESS =		3.45					
PEAK FLOW	TIME			6-HR	MAXIMUM AVERAGE FLOW		72-HR		24.92-HR		
+ (CFS)	(HR)			(CFS)							
+ 6.	12.00			2.	0.		0.		0.		
				(INCHES)	2.785		3.453		3.453		
				(AC-FT)	1.		1.		1.		
				CUMULATIVE AREA =		0.01 SQ MI					
		***	***	***	***	***	***				

NE Middle School Addition - Storm Routing Developed Conditions

HYDROGRAPH AT STATION ESite
FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.85, TOTAL EXCESS = 4.15

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
8.	12.00	2. 3.333 1.	1. 4.149 1.	1. 4.149 1.	1. 4.149 1.

CUMULATIVE AREA = 0.01 SQ MI

HYDROGRAPH AT STATION ESite
FOR PLAN 1, RATIO = 2.23

TOTAL RAINFALL = 7.80, TOTAL LOSS = 2.94, TOTAL EXCESS = 4.86

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
9.	12.00	2. 3.894 1.	1. 4.862 1.	1. 4.862 1.	1. 4.862 1.

CUMULATIVE AREA = 0.01 SQ MI

55 KK * Comba3 *

56 HC HYDROGRAPH COMBINATION 2 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION Comba3
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
119.	12.50	47. 1.216 23.	15. 1.523 29.	14. 1.523 29.	14. 1.523 29.

CUMULATIVE AREA = 0.36 SQ MI

HYDROGRAPH AT STATION Comba3
FOR PLAN 1, RATIO = 1.31

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW
191.	12.42	75. 1.962 37.	23. 2.427 46.	22. 2.427 46.	22. 2.427 46.

CUMULATIVE AREA = 0.36 SQ MI

HYDROGRAPH AT STATION Comba3
FOR PLAN 1, RATIO = 1.51

PEAK FLOW (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR MAXIMUM AVERAGE FLOW

NE Middle School Addition - Storm Routing Developed Conditions

(CFS)	(HR)	(CFS)	6-HR	24-HR	72-HR	24.92-HR
190.	12.25	58. (INCHES) 2.531 (AC-FT)	18. 3.153 36.	17. 3.153 36.	17. 3.153 36.	17. 3.153 36.

CUMULATIVE AREA = 0.21 SQ MI

HYDROGRAPH AT STATION Nsite
FOR PLAN 1, RATIO = 1.77

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
238.	12.25	72. (CFS) 3.162 (INCHES) 36.	23. 3.958 45.	22. 3.958 45.	22. 3.958 45.	22. 3.958 45.

CUMULATIVE AREA = 0.21 SQ MI

HYDROGRAPH AT STATION Nsite
FOR PLAN 1, RATIO = 2.00

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
281.	12.25	85. (CFS) 3.733 (INCHES) 42.	27. 4.690 53.	26. 4.690 53.	26. 4.690 53.	26. 4.690 53.

CUMULATIVE AREA = 0.21 SQ MI

HYDROGRAPH AT STATION Nsite
FOR PLAN 1, RATIO = 2.23

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
325.	12.17	98. (CFS) 4.309 (INCHES) 49.	31. 5.433 62.	30. 5.433 62.	30. 5.433 62.	30. 5.433 62.

CUMULATIVE AREA = 0.21 SQ MI

62 KK
* Corbo4 *

63 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

HYDROGRAPH AT STATION Corbo4
FOR PLAN 1, RATIO = 1.00

PEAK FLOW	TIME	6-HR	MAXIMUM AVERAGE FLOW	24-HR	72-HR	24.92-HR
213.	12.33	76. (CFS) 1.241 (INCHES)	24. 1.565	23. 1.565	23. 1.565	23. 1.565

NE Middle School Addition - Storm Routing Developed Conditions 48.

(AC-FT) 38. 48. 48. 48.

CUMULATIVE AREA = 0.57 SQ MI

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

HYDROGRAPH AT STATION Carbo4
FOR PLAN 1, RATIO = 1.31

PEAK FLOW	TIME		6-HR	MAXIMUM AVERAGE FLOW	72-HR	24.92-HR
+	(CFS)	(HR)	(CFS)	24-HR	72-HR	
+	341.	12.25	121.	38.	36.	36.
			(INCHES)	2.471	2.471	2.471
			(AC-FT)	60.	75.	75.

CUMULATIVE AREA = 0.57 SQ MI

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

HYDROGRAPH AT STATION Carbo4
FOR PLAN 1, RATIO = 1.51

PEAK FLOW	TIME		6-HR	MAXIMUM AVERAGE FLOW	72-HR	24.92-HR
+	(CFS)	(HR)	(CFS)	24-HR	72-HR	
+	427.	12.25	152.	47.	45.	45.
			(INCHES)	2.480	3.077	3.077
			(AC-FT)	75.	93.	93.

CUMULATIVE AREA = 0.57 SQ MI

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

HYDROGRAPH AT STATION Carbo4
FOR PLAN 1, RATIO = 1.77

PEAK FLOW	TIME		6-HR	MAXIMUM AVERAGE FLOW	72-HR	24.92-HR
+	(CFS)	(HR)	(CFS)	24-HR	72-HR	
+	543.	12.25	191.	59.	57.	57.
			(INCHES)	3.124	3.879	3.879
			(AC-FT)	95.	118.	118.

CUMULATIVE AREA = 0.57 SQ MI

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

HYDROGRAPH AT STATION Carbo4
FOR PLAN 1, RATIO = 2.00

PEAK FLOW	TIME		6-HR	MAXIMUM AVERAGE FLOW	72-HR	24.92-HR
+	(CFS)	(HR)	(CFS)	24-HR	72-HR	
+	645.	12.25	226.	71.	68.	68.
			(INCHES)	3.692	4.608	4.608
			(AC-FT)	112.	140.	140.

CUMULATIVE AREA = 0.57 SQ MI

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

HYDROGRAPH AT STATION Carbo4
FOR PLAN 1, RATIO = 2.23

PEAK FLOW	TIME		6-HR	MAXIMUM AVERAGE FLOW	72-HR	24.92-HR
+	(CFS)	(HR)	(CFS)	24-HR	72-HR	
+	747.	12.25	261.	82.	79.	79.
			(INCHES)	4.264	5.348	5.348
			(AC-FT)	129.	162.	162.

CUMULATIVE AREA = 0.57 SQ MI

NE Middle School Addition - Storm Routing Developed Conditions

***		***		***		***		***	
HYDROGRAPH AT STATION ESite2 FOR PLAN 1, RATIO = 1.31									
TOTAL RAINFALL =		4.60, TOTAL LOSS =		2.47, TOTAL EXCESS =		2.13			
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS)	(HR)	(CFS)							
+ 6.	12.00	2.	0.	0.	0.				
		(INCHES)	1.728	2.129	2.129	2.129	2.129	2.129	2.129
		(AC-FT)	1.	1.	1.	1.	1.	1.	1.
		CUMULATIVE AREA = 0.01 SQ MI							

HYDROGRAPH AT STATION ESite2 FOR PLAN 1, RATIO = 1.51									
TOTAL RAINFALL =		5.30, TOTAL LOSS =		2.61, TOTAL EXCESS =		2.69			
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS)	(HR)	(CFS)							
+ 8.	12.00	2.	1.	1.	1.				
		(INCHES)	2.183	2.695	2.695	2.695	2.695	2.695	2.695
		(AC-FT)	1.	1.	1.	1.	1.	1.	1.
		CUMULATIVE AREA = 0.01 SQ MI							

HYDROGRAPH AT STATION ESite2 FOR PLAN 1, RATIO = 1.77									
TOTAL RAINFALL =		6.20, TOTAL LOSS =		2.75, TOTAL EXCESS =		3.45			
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS)	(HR)	(CFS)							
+ 10.	12.00	2.	1.	1.	1.				
		(INCHES)	2.785	3.453	3.453	3.453	3.453	3.453	3.453
		(AC-FT)	1.	2.	2.	2.	2.	2.	2.
		CUMULATIVE AREA = 0.01 SQ MI							

HYDROGRAPH AT STATION ESite2 FOR PLAN 1, RATIO = 2.00									
TOTAL RAINFALL =		7.00, TOTAL LOSS =		2.85, TOTAL EXCESS =		4.15			
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS)	(HR)	(CFS)							
+ 12.	12.00	3.	1.	1.	1.				
		(INCHES)	3.333	4.149	4.149	4.149	4.149	4.149	4.149
		(AC-FT)	1.	2.	2.	2.	2.	2.	2.
		CUMULATIVE AREA = 0.01 SQ MI							

HYDROGRAPH AT STATION ESite2 FOR PLAN 1, RATIO = 2.23									
TOTAL RAINFALL =		7.80, TOTAL LOSS =		2.94, TOTAL EXCESS =		4.86			
PEAK FLOW	TIME	6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS)	(HR)	(CFS)							
+ 14.	12.00	3.	1.	1.	1.				
		(INCHES)	3.894	4.862	4.862	4.862	4.862	4.862	4.862
		(AC-FT)	2.	2.	2.	2.	2.	2.	2.
		CUMULATIVE AREA = 0.01 SQ MI							

NE Middle School Addition - Storm Routing Developed Conditions

+	53.	12.00	(INCHES) (AC-FT)	13. 7.	4. 2.269 8.	4. 2.269 8.	4. 2.269 8.
							4. 2.269 8.
							CUMULATIVE AREA = 0.07 SQ MI
***							***
							HYDROGRAPH AT STATION Site FOR PLAN 1, RATIO = 1.31
							TOTAL RAINFALL = 4.60, TOTAL LOSS = 1.31, TOTAL EXCESS = 3.29
PEAK FLOW	TIME						
+	(CFS)	(HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
+	75.	12.00	(CFS) (INCHES) (AC-FT)	19. 2.607 9.	6. 3.290 12.	6. 3.290 12.	6. 3.290 12.
							CUMULATIVE AREA = 0.07 SQ MI
***							***
							HYDROGRAPH AT STATION Site FOR PLAN 1, RATIO = 1.51
							TOTAL RAINFALL = 5.30, TOTAL LOSS = 1.35, TOTAL EXCESS = 3.95
PEAK FLOW	TIME						
+	(CFS)	(HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
+	89.	12.00	(CFS) (INCHES) (AC-FT)	23. 3.117 11.	7. 3.955 14.	7. 3.955 14.	7. 3.955 14.
							CUMULATIVE AREA = 0.07 SQ MI
***							***
							HYDROGRAPH AT STATION Site FOR PLAN 1, RATIO = 1.77
							TOTAL RAINFALL = 6.20, TOTAL LOSS = 1.38, TOTAL EXCESS = 4.82
PEAK FLOW	TIME						
+	(CFS)	(HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
+	106.	12.00	(CFS) (INCHES) (AC-FT)	28. 3.774 14.	9. 4.819 18.	9. 4.819 18.	9. 4.819 18.
							CUMULATIVE AREA = 0.07 SQ MI
***							***
							HYDROGRAPH AT STATION Site FOR PLAN 1, RATIO = 2.00
							TOTAL RAINFALL = 7.00, TOTAL LOSS = 1.41, TOTAL EXCESS = 5.59
PEAK FLOW	TIME						
+	(CFS)	(HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
+	122.	12.00	(CFS) (INCHES) (AC-FT)	32. 4.358 16.	10. 5.593 20.	10. 5.593 20.	10. 5.593 20.
							CUMULATIVE AREA = 0.07 SQ MI
***							***
							HYDROGRAPH AT STATION Site FOR PLAN 1, RATIO = 2.23
							TOTAL RAINFALL = 7.80, TOTAL LOSS = 1.43, TOTAL EXCESS = 6.37
PEAK FLOW	TIME						
+	(CFS)	(HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
+	138.	12.00	(CFS)	36.	12.	11.	11.

NE Middle School Addition - Storm Routing Developed Conditions
 (INCHES) 4.941 6.373 6.373 6.373
 (AC-FT) 18. 25. 23. 23.
 CUMULATIVE AREA = 0.07 SQ MI

 *
 74 KK * Combo5 *
 *

75 HC HYDROGRAPH COMBINATION 2 NUMBER OF HYDROGRAPHS TO COMBINE
 IOCMP *****

*** ** HYDROGRAPH AT STATION Combo5
 FOR PLAN 1, RATIO = 1.00
 PEAK FLOW TIME 6-HR MAXIMUM AVERAGE FLOW 24.92-HR
 + (CFS) (HR) (CFS) 24-HR 72-HR
 + 57. 12.00 (CFS) 14. 4. 4. 4.
 (INCHES) 1.727 2.164 2.164 2.164
 (AC-FT) 7. 9. 9. 9.
 CUMULATIVE AREA = 0.08 SQ MI

*** ** HYDROGRAPH AT STATION Combo5
 FOR PLAN 1, RATIO = 1.31
 PEAK FLOW TIME 6-HR MAXIMUM AVERAGE FLOW 24.92-HR
 + (CFS) (HR) (CFS) 24-HR 72-HR
 + 81. 12.00 (CFS) 21. 7. 6. 6.
 (INCHES) 2.508 3.165 3.165 3.165
 (AC-FT) 10. 13. 13. 13.
 CUMULATIVE AREA = 0.08 SQ MI

*** ** HYDROGRAPH AT STATION Combo5
 FOR PLAN 1, RATIO = 1.51
 PEAK FLOW TIME 6-HR MAXIMUM AVERAGE FLOW 24.92-HR
 + (CFS) (HR) (CFS) 24-HR 72-HR
 + 97. 12.00 (CFS) 25. 8. 8. 8.
 (INCHES) 3.013 3.818 3.818 3.818
 (AC-FT) 12. 16. 16. 16.
 CUMULATIVE AREA = 0.08 SQ MI

*** ** HYDROGRAPH AT STATION Combo5
 FOR PLAN 1, RATIO = 1.77
 PEAK FLOW TIME 6-HR MAXIMUM AVERAGE FLOW 24.92-HR
 + (CFS) (HR) (CFS) 24-HR 72-HR
 + 117. 12.00 (CFS) 30. 10. 9. 9.
 (INCHES) 3.664 4.671 4.671 4.671
 (AC-FT) 15. 19. 19. 19.
 CUMULATIVE AREA = 0.08 SQ MI

*** ** HYDROGRAPH AT STATION Combo5
 FOR PLAN 1, RATIO = 2.00

NE Middle School Addition - Storm Routing Developed Conditions

	11.6	37.4	69.3	78.2	69.1	52.1	33.1	22.0	15.0	10.
TOTAL RAINFALL =	3.50,		TOTAL LOSS =		1.86,		TOTAL EXCESS = 1.64			
PEAK FLOW TIME			6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS) (HR)										
+ 29. 12.08	(CFS)		8.		2.		2.		2.	
	(INCHES)		1.325		1.636		1.636		1.636	
	(AC-FT)		4.		5.		5.		5.	
	CUMULATIVE AREA = 0.05 SQ MI									
***	***		***		***		***			
	HYDROGRAPH AT STATION Wsite FOR PLAN 1, RATIO = 1.00									
TOTAL RAINFALL =	3.50,		TOTAL LOSS =		1.86,		TOTAL EXCESS = 1.64			
PEAK FLOW TIME			6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS) (HR)										
+ 29. 12.08	(CFS)		8.		2.		2.		2.	
	(INCHES)		1.325		1.636		1.636		1.636	
	(AC-FT)		4.		5.		5.		5.	
	CUMULATIVE AREA = 0.05 SQ MI									
***	***		***		***		***			
	HYDROGRAPH AT STATION Wsite FOR PLAN 1, RATIO = 1.31									
TOTAL RAINFALL =	4.60,		TOTAL LOSS =		2.05,		TOTAL EXCESS = 2.55			
PEAK FLOW TIME			6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS) (HR)										
+ 44. 12.08	(CFS)		12.		4.		4.		4.	
	(INCHES)		2.053		2.547		2.547		2.547	
	(AC-FT)		6.		7.		7.		7.	
	CUMULATIVE AREA = 0.05 SQ MI									
***	***		***		***		***			
	HYDROGRAPH AT STATION Wsite FOR PLAN 1, RATIO = 1.51									
TOTAL RAINFALL =	5.30,		TOTAL LOSS =		2.14,		TOTAL EXCESS = 3.16			
PEAK FLOW TIME			6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS) (HR)										
+ 55. 12.08	(CFS)		15.		5.		4.		4.	
	(INCHES)		2.534		3.156		3.156		3.156	
	(AC-FT)		7.		9.		9.		9.	
	CUMULATIVE AREA = 0.05 SQ MI									
***	***		***		***		***			
	HYDROGRAPH AT STATION Wsite FOR PLAN 1, RATIO = 1.77									
TOTAL RAINFALL =	6.20,		TOTAL LOSS =		2.24,		TOTAL EXCESS = 3.96			
PEAK FLOW TIME			6-HR		MAXIMUM AVERAGE FLOW		24.92-HR			
+ (CFS) (HR)										
+ 68. 12.08	(CFS)		18.		6.		5.		5.	
	(INCHES)		3.167		3.962		3.962		3.962	
	(AC-FT)		9.		11.		11.		11.	
	CUMULATIVE AREA = 0.05 SQ MI									
***	***		***		***		***			
	HYDROGRAPH AT STATION Wsite									

NE Middle School Addition - Storm Routing Developed Conditions
FOR PLAN 1, RATIO = 2.00

TOTAL RAINFALL = 7.00, TOTAL LOSS = 2.31, TOTAL EXCESS = 4.69
 PEAK FLOW TIME 6-HR MAXIMUM AVERAGE FLOW 24.92-HR
 + (CFS) (HR) (CFS) 24-HR 72-HR
 + 80. 12.08 (CFS) 21. 7. 6. 6.
 (INCHES) 3.739 4.694 4.694 4.694
 (AC-FT) 11. 13. 13. 13.
 CUMULATIVE AREA = 0.05 SQ MI

*** **
 HYDROGRAPH AT STATION White
 FOR PLAN 1, RATIO = 2.23
 TOTAL RAINFALL = 7.80, TOTAL LOSS = 2.36, TOTAL EXCESS = 5.44
 PEAK FLOW TIME 6-HR MAXIMUM AVERAGE FLOW 24.92-HR
 + (CFS) (HR) (CFS) 24-HR 72-HR
 + 92. 12.08 (CFS) 25. 8. 8. 8.
 (INCHES) 4.316 5.437 5.437 5.437
 (AC-FT) 12. 15. 15. 15.
 CUMULATIVE AREA = 0.05 SQ MI

81 KK * *
 * * Carbo6 *
 * *

82 HC HYDROGRAPH COMBINATION 3 NUMBER OF HYDROGRAPHS TO COMBINE
 ICOMP ***
 *** **
 HYDROGRAPH AT STATION Carbo6
 FOR PLAN 1, RATIO = 1.00
 PEAK FLOW TIME 6-HR MAXIMUM AVERAGE FLOW 24.92-HR
 + (CFS) (HR) (CFS) 24-HR 72-HR
 + 262. 12.17 (CFS) 97. 31. 30. 30.
 (INCHES) 1.291 1.636 1.636 1.636
 (AC-FT) 48. 61. 61. 61.
 CUMULATIVE AREA = 0.70 SQ MI

*** **
 HYDROGRAPH AT STATION Carbo6
 FOR PLAN 1, RATIO = 1.31
 PEAK FLOW TIME 6-HR MAXIMUM AVERAGE FLOW 24.92-HR
 + (CFS) (HR) (CFS) 24-HR 72-HR
 + 432. 12.08 (CFS) 153. 48. 46. 46.
 (INCHES) 2.035 2.553 2.553 2.553
 (AC-FT) 76. 95. 95. 95.
 CUMULATIVE AREA = 0.70 SQ MI

*** **
 HYDROGRAPH AT STATION Carbo6
 FOR PLAN 1, RATIO = 1.51
 PEAK FLOW TIME 6-HR MAXIMUM AVERAGE FLOW 24.92-HR
 + (CFS) (HR) (CFS) 24-HR 72-HR
 + 539. 12.08 (CFS) 190. 59. 57. 57.

NE Middle School Addition - Storm Routing Developed Conditions
 (INCHES) 2.529 3.164 3.164 3.164
 (AC-FT) 94. 118. 118. 118.

CUMULATIVE AREA = 0.70 SQ MI

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

HYDROGRAPH AT STATION Combo6
 FOR PLAN 1, RATIO = 1.77

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR
+ 685.	12.08	239.	75.	72.	72.
		(INCHES) 3.177	3.972	3.972	3.972
		(AC-FT) 118.	148.	148.	148.

CUMULATIVE AREA = 0.70 SQ MI

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

HYDROGRAPH AT STATION Combo6
 FOR PLAN 1, RATIO = 2.00

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR
+ 813.	12.08	282.	88.	85.	85.
		(INCHES) 3.746	4.705	4.705	4.705
		(AC-FT) 140.	175.	175.	175.

CUMULATIVE AREA = 0.70 SQ MI

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

HYDROGRAPH AT STATION Combo6
 FOR PLAN 1, RATIO = 2.23

PEAK FLOW + (CFS)	TIME (HR)	6-HR (CFS)	24-HR MAXIMUM AVERAGE FLOW	72-HR MAXIMUM AVERAGE FLOW	24.92-HR
+ 941.	12.08	325.	102.	99.	99.
		(INCHES) 4.318	5.449	5.449	5.449
		(AC-FT) 161.	203.	203.	203.

CUMULATIVE AREA = 0.70 SQ MI

1

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
 FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
 TIME TO PEAK IN HOURS

OPERATION	STATION	AREA	PLAN	RATIOS APPLIED TO PRECIPITATION						
				RATIO 1 1.00	RATIO 2 1.31	RATIO 3 1.51	RATIO 4 1.77	RATIO 5 2.00	RATIO 6 2.23	
HYDROGRAPH AT	Center	0.04	1	FLOW	21.	33.	41.	51.	60.	69.
ROUTED TO				TIME	12.00	12.00	12.00	12.00	12.00	12.00
+	Pond	0.04	1	FLOW	5.	9.	13.	18.	22.	28.
+				TIME	13.17	13.08	12.58	12.50	12.42	12.42
				** PEAK STAGES IN FEET **						
			1	STAGE	197.94	198.46	198.76	199.15	199.50	199.82
				TIME	13.17	13.08	12.58	12.50	12.42	12.42
HYDROGRAPH AT	East	0.22	1	FLOW	91.	141.	174.	217.	255.	294.
+				TIME	12.50	12.50	12.50	12.42	12.42	12.42
HYDROGRAPH AT	OneSit	0.05	1	FLOW	27.	41.	50.	63.	73.	84.
+				TIME	12.00	12.00	12.00	12.00	12.00	12.00
HYDROGRAPH AT	North	0.05	1	FLOW	17.	29.	37.	48.	58.	68.
+				TIME	12.17	12.17	12.17	12.17	12.17	12.17
3 COMBINED AT	Combo1	0.31	1	FLOW	116.	186.	229.	290.	344.	398.
+				TIME	12.25	12.25	12.17	12.17	12.17	12.17

NE Middle School Addition – Storm Routing Developed Conditions

+ 2 COMBINED AT	Carbo2	0.35	1	FLOW TIME	121.12.25	192.12.25	242.12.25	306.12.25	364.12.17	424.12.17
+ ROUTED TO	NPond	0.35	1	FLOW TIME	119.12.50	190.12.42	239.12.33	303.12.33	360.12.33	419.12.33
				** PEAK STAGES IN FEET **						
			1	STAGE TIME	193.6212.50	193.8612.42	194.0212.33	194.1812.33	194.3312.33	194.4712.33
+ HYDROGRAPH AT	ESite	0.01	1	FLOW TIME	3.12.00	4.12.00	5.12.00	6.12.00	8.12.00	9.12.00
+ 2 COMBINED AT	Carbo3	0.36	1	FLOW TIME	119.12.50	191.12.42	241.12.33	306.12.33	363.12.25	423.12.25
+ HYDROGRAPH AT	Nsite	0.21	1	FLOW TIME	97.12.25	153.12.25	190.12.25	238.12.25	281.12.25	325.12.17
+ 2 COMBINED AT	Carbo4	0.57	1	FLOW TIME	213.12.33	341.12.25	427.12.25	543.12.25	645.12.25	747.12.25
+ HYDROGRAPH AT	ESite2	0.01	1	FLOW TIME	4.12.00	6.12.00	8.12.00	10.12.00	12.12.00	14.12.00
+ HYDROGRAPH AT	Site	0.07	1	FLOW TIME	53.12.00	75.12.00	89.12.00	106.12.00	122.12.00	138.12.00
+ 2 COMBINED AT	Carbo5	0.08	1	FLOW TIME	57.12.00	81.12.00	97.12.00	117.12.00	134.12.00	152.12.00
+ HYDROGRAPH AT	Wsite	0.05	1	FLOW TIME	29.12.08	44.12.08	55.12.08	68.12.08	80.12.08	92.12.08
+ 3 COMBINED AT	Carbo6	0.70	1	FLOW TIME	262.12.17	432.12.08	539.12.08	685.12.08	813.12.08	941.12.08

*** NORMAL END OF HEC-1 ***



CURRENT DATE: 11-29-2001
CURRENT TIME: 11:16:07

FILE DATE: 11-29-2001
FILE NAME: NEMID2

***** FHWA CULVERT ANALYSIS *****
***** HY-8, VERSION 6.1 *****

C U L V NO.	SITE DATA			CULVERT SHAPE, MATERIAL, INLET				
	INLET ELEV. (ft)	OUTLET ELEV. (ft)	CULVERT LENGTH (ft)	BARRELS SHAPE MATERIAL	SPAN (ft)	RISE (ft)	MANNING n	INLET TYPE
1	189.50	189.00	88.00	2 RCB	9.00	3.00	.012	CONVENTIONAL
2								
3								
4								
5								
6								

SUMMARY OF CULVERT FLOWS (cfs) FILE: NEMID2 DATE: 11-29-2001

ELEV (ft)	TOTAL	1	2	3	4	5	6	ROADWAY	ITR
189.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	1
190.39	45.0	45.0	0.0	0.0	0.0	0.0	0.0	0.00	1
190.91	90.0	90.0	0.0	0.0	0.0	0.0	0.0	0.00	1
191.35	135.0	135.0	0.0	0.0	0.0	0.0	0.0	0.00	1
191.75	180.0	180.0	0.0	0.0	0.0	0.0	0.0	0.00	1
192.11	225.0	225.0	0.0	0.0	0.0	0.0	0.0	0.00	1
192.48	270.0	270.0	0.0	0.0	0.0	0.0	0.0	0.00	1
192.85	315.0	315.0	0.0	0.0	0.0	0.0	0.0	0.00	1
193.25	360.0	360.0	0.0	0.0	0.0	0.0	0.0	0.00	1
193.69	405.0	405.0	0.0	0.0	0.0	0.0	0.0	0.00	1
193.86	421.0	421.0	0.0	0.0	0.0	0.0	0.0	0.00	1
195.30	539.2	539.2	0.0	0.0	0.0	0.0	0.0	0.0	OVERTOPPING

SUMMARY OF ITERATIVE SOLUTION ERRORS FILE: NEMID2 DATE: 11-29-2001

HEAD ELEV (ft)	HEAD ERROR (ft)	TOTAL FLOW (cfs)	FLOW ERROR (cfs)	% FLOW ERROR
189.50	0.000	0.00	0.00	0.00
190.39	0.000	45.00	0.00	0.00
190.91	0.000	90.00	0.00	0.00
191.35	0.000	135.00	0.00	0.00
191.75	0.000	180.00	0.00	0.00
192.11	0.000	225.00	0.00	0.00
192.48	0.000	270.00	0.00	0.00
192.85	0.000	315.00	0.00	0.00
193.25	0.000	360.00	0.00	0.00
193.69	0.000	405.00	0.00	0.00
193.86	0.000	421.00	0.00	0.00

<1> TOLERANCE (ft) = 0.010 <2> TOLERANCE (%) = 1.000

CURRENT DATE: 11-29-2001 FILE DATE: 11-29-2001
CURRENT TIME: 11:16:07 FILE NAME: NEMID2

PERFORMANCE CURVE FOR CULVERT 1 - 2(9.00 (ft) BY 3.00 (ft)) RCB

DIS- CHARGE FLOW (cfs)	HEAD- WATER ELEV. (ft)	INLET CONTROL DEPTH (ft)	OUTLET CONTROL DEPTH (ft)	FLOW TYPE <F4>	NORMAL DEPTH (ft)	CRIT. DEPTH (ft)	OUTLET DEPTH (ft)	TW DEPTH (ft)	OUTLET VEL. (fps)	TW VEL. (fps)
0.00	189.50	0.00	0.00	0-NF	0.00	0.00	0.00	0.00	0.00	0.00
45.00	190.39	0.89	0.89	1-S2n	0.46	0.58	0.38	0.36	6.57	1.53
90.00	190.91	1.41	1.41	1-S2n	0.72	0.92	0.62	0.54	8.05	1.99
135.00	191.35	1.85	1.85	1-S2n	0.94	1.21	0.97	0.68	7.76	2.31
180.00	191.75	2.25	2.25	1-S2n	1.13	1.46	1.18	0.81	8.48	2.57
225.00	192.11	2.61	2.61	1-S2n	1.31	1.70	1.37	0.92	9.09	2.79
270.00	192.48	2.98	2.98	1-S2n	1.49	1.92	1.56	1.03	9.59	2.98
315.00	192.85	3.35	3.35	5-S2n	1.65	2.12	1.74	1.12	10.04	3.15
360.00	193.25	3.75	3.75	5-S2n	1.80	2.32	1.91	1.22	10.47	3.30
405.00	193.69	4.19	4.19	5-S2n	1.95	2.51	2.08	1.30	10.81	3.44
421.00	193.86	4.36	4.36	5-S2n	2.00	2.58	2.14	1.33	10.95	3.49
*****					El. inlet face invert 189.50 ft El. outlet invert 189.00 ft					
*****					El. inlet throat invert 0.00 ft El. inlet crest 0.00 ft					

***** SITE DATA ***** CULVERT INVERT *****
 INLET STATION 100.00 ft
 INLET ELEVATION 189.50 ft
 OUTLET STATION 188.00 ft
 OUTLET ELEVATION 189.00 ft
 NUMBER OF BARRELS 2
 SLOPE (V/H) 0.0057
 CULVERT LENGTH ALONG SLOPE 88.00 ft

***** CULVERT DATA SUMMARY *****
 BARREL SHAPE BOX
 BARREL SPAN 9.00 ft
 BARREL RISE 3.00 ft
 BARREL MATERIAL CONCRETE
 BARREL MANNING'S n 0.012
 INLET TYPE CONVENTIONAL
 INLET EDGE AND WALL SQUARE EDGE (30-75 DEG. FLARE)
 INLET DEPRESSION NONE

CURRENT DATE: 11-29-2001
CURRENT TIME: 11:16:07

FILE DATE: 11-29-2001
FILE NAME: NEMID2

***** TAILWATER *****

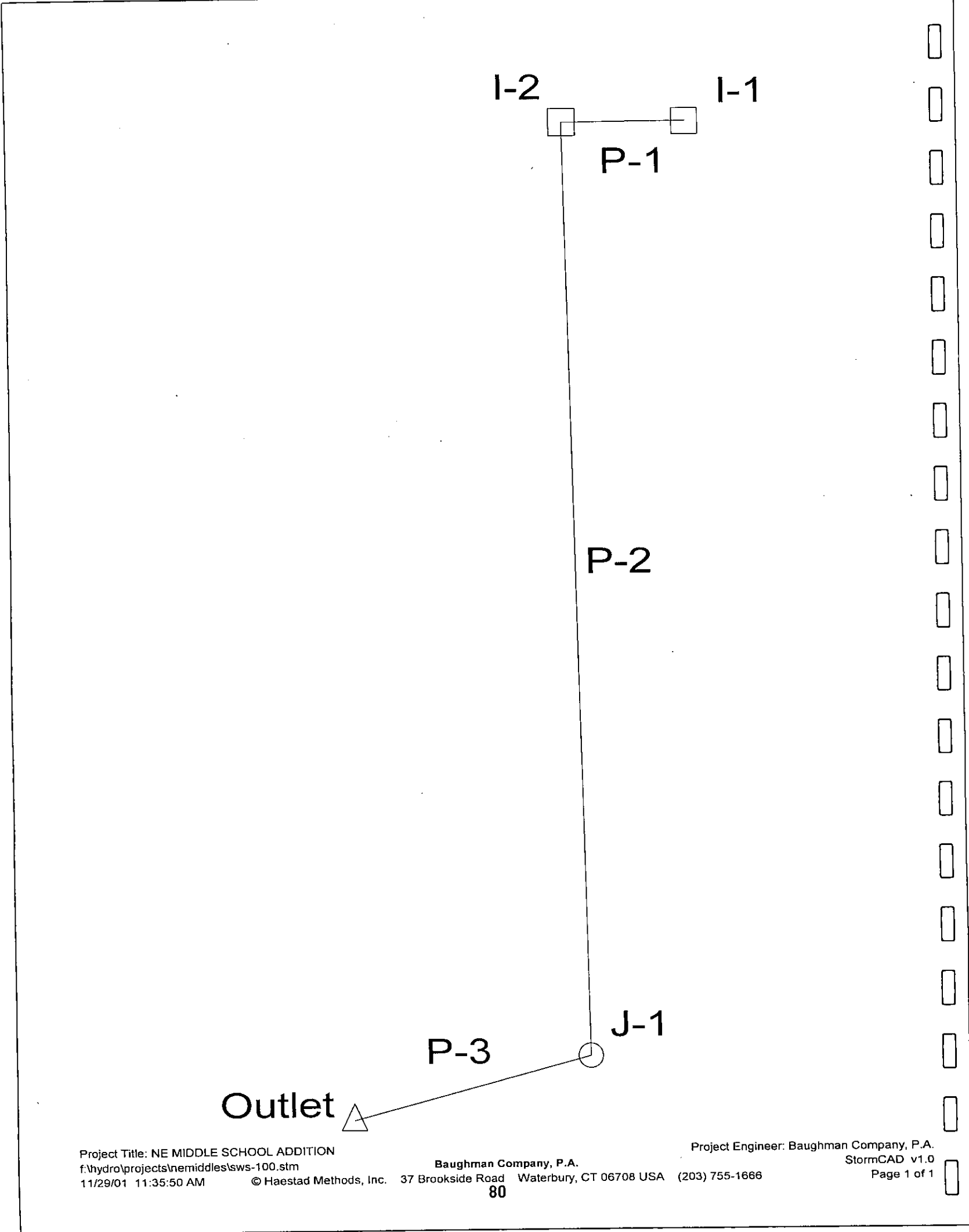
***** REGULAR CHANNEL CROSS SECTION *****
BOTTOM WIDTH 80.00 ft
SIDE SLOPE H/V (X:1) 8.0
CHANNEL SLOPE V/H (ft/ft) 0.007
MANNING'S n (.01-0.1) 0.040
CHANNEL INVERT ELEVATION 189.00 ft
CULVERT NO.1 OUTLET INVERT ELEVATION 189.00 ft

***** UNIFORM FLOW RATING CURVE FOR DOWNSTREAM CHANNEL

FLOW (cfs)	W.S.E. (ft)	FROUDE NUMBER	DEPTH (ft)	VEL. (f/s)	SHEAR (psf)
0.00	189.00	0.000	0.00	0.00	0.00
45.00	189.36	0.451	0.36	1.53	0.16
90.00	189.54	0.477	0.54	1.99	0.23
135.00	189.68	0.493	0.68	2.31	0.30
180.00	189.81	0.503	0.81	2.57	0.35
225.00	189.92	0.511	0.92	2.79	0.40
270.00	190.03	0.518	1.03	2.98	0.45
315.00	190.12	0.523	1.12	3.15	0.49
360.00	190.22	0.528	1.22	3.30	0.53
405.00	190.30	0.531	1.30	3.44	0.57
421.00	190.33	0.533	1.33	3.49	0.58

***** ROADWAY OVERTOPPING DATA *****

ROADWAY SURFACE PAVED
EMBANKMENT TOP WIDTH 64.00 ft
CREST LENGTH 100.00 ft
OVERTOPPING CREST ELEVATION 195.30 ft



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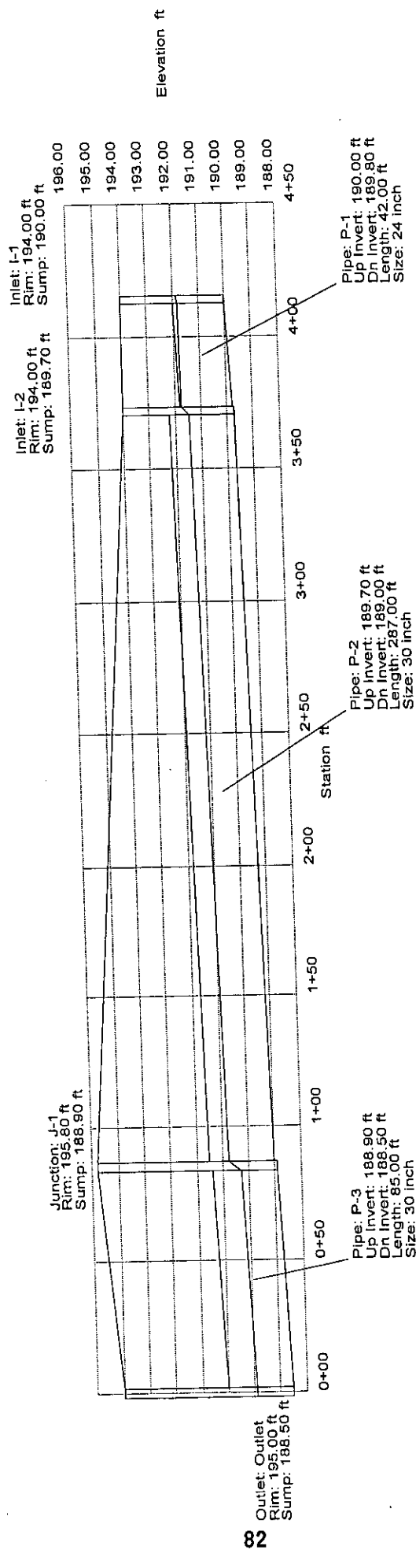
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SYSTEM #1

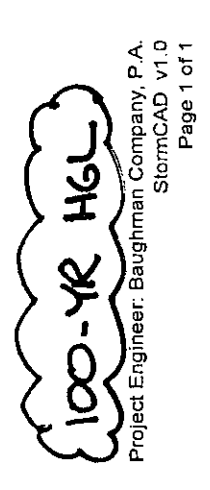
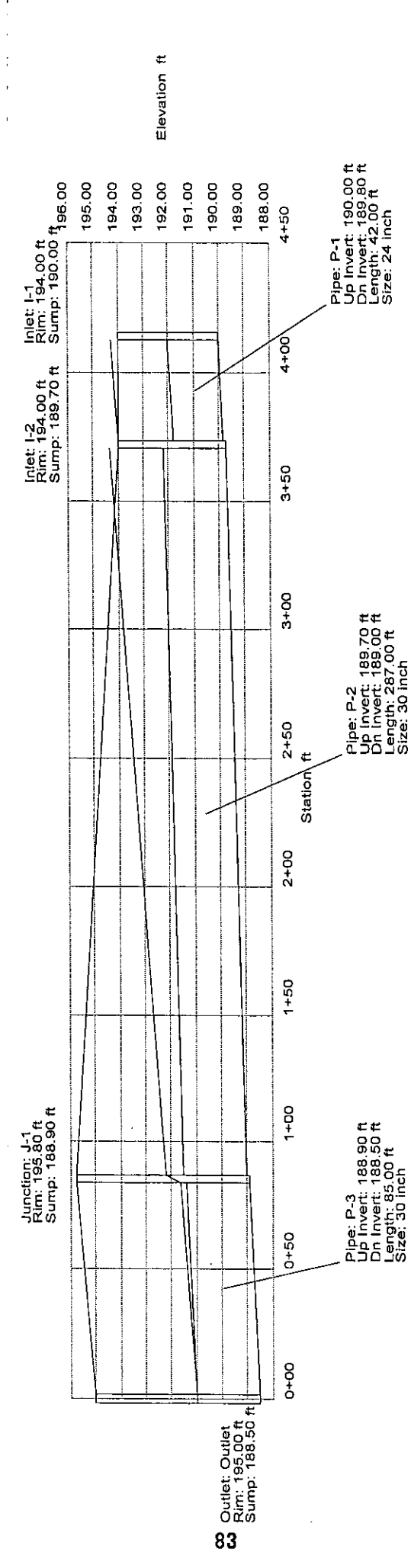
Pipe Report													
Pipe Section	Upstream Node	Downstream Node	Discharge (cfs)	Constructed (ft/ft)	Length (ft)	Section Size	Manning's n	Upstream Invert (ft)	Downstream Invert (ft)	Upstream Ground (ft)	Downstream Ground (ft)	Upstream HGL (ft)	Downstream HGL (ft)
5-Yr	P-1	I-1	8.77	0.004762	42	24 inch	0.013	190.00	189.80	194.00	194.00	191.79	191.75
	P-2	I-2	17.42	0.002439	287	30 inch	0.013	189.70	189.00	194.00	195.80	191.48	190.74
	P-3	J-1	16.92	0.004706	85	30 inch	0.013	188.90	188.50	195.80	195.00	190.30	189.90
100-yr	P-1	I-1	17.65	0.004762	42	24 inch	0.013	190.00	189.80	194.00	194.00	195.23	194.97
	P-2	I-2	35.19	0.002439	287	30 inch	0.013	189.70	189.00	194.00	195.80	194.33	192.22
	P-3	J-1	34.58	0.004706	85	30 inch	0.013	188.90	188.50	195.80	195.00	191.60	191.00

Node Report										
Node	Area (acres)	Runoff Coefficient	Tc (min)	Rainfall Intensity (in/hr)	Discharge (cfs)	Ground Elevation (ft)	HGL In (ft)	HGL Out (ft)		
5-Yr	I-1	3.6	0.53	15	8.77	194.00	191.86	191.79		
	I-2	3.6	0.53	15	17.42	194.00	191.75	191.48		
	J-1	N/A	N/A	N/A	16.92	195.80	190.74	190.30		
100-yr	I-1	3.6	0.66	15	17.65	194.00	195.47	195.23		
	I-2	3.6	0.66	15	35.19	194.00	194.97	194.33		
	J-1	N/A	N/A	N/A	34.58	195.80	192.22	191.60		
Outlet	N/A	N/A	N/A	7.18	N/A	195.00	191.00	191.00		



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