APPENDIX B

AHYMO_97 Full Future Development Conditions
100-yr. 24-hour Storm

2 models included as described here :

1st. Model ***WITH proposed drainage improvements P1)***

Note – Only 2 changes were implemented in this model compared to the 2nd model.

1.Assume the 42-inch cmp under Paseo Del Norte is blocked - AP 12.91

2. Assume no flow passes across the N. Div. Channel on El Pueblo Rd. - AP 1.92

AHYMO_97 Summary Table

File name P1100-24.txt

2nd. Model ***WITHOUT proposed drainage improvements)***

AHYMO_97 Summary Table and Input File

File name El100-24.txt

The CD included includes the full output file,

input file and summary table

1st. Model *WITH proposed drainage improvements P1*)

Note – Only 2 changes were implemented in this model compared to the 2nd model.

1.Assume the 42-inch cmp under Paseo Del Norte is blocked - AP 12.91

2. Assume no flow passes across the N. Div. Channel on El Pueblo Rd. - AP 1.92

AHYMO_97 Summary Table

File name P1100-24.txt

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) -                    - VERSION:  1997.02c      RUN DATE (MON/DAY/YR) =01/28/2007
  INPUT FILE = Z:\Projects\2003PR-1\103115-3\ahymo\p1100-24.TXT                        USER NO.= AHYMO-S-9702c01|SEC01A-AH

                                                                                                                    PAGE =   1
                                 FROM  TO                    PEAK      RUNOFF                    TIME TO   CFS
COMMAND      HYDROGRAPH          ID    ID       AREA         DISCHARGE VOLUME     RUNOFF         PEAK      PER
             IDENTIFICATION      NO.   NO.      (SQ MI)      (CFS)     (AC-FT)    (INCHES)       (HOURS)   ACRE      NOTATION
*S FILE NAME      P1100-24.TXT
 *S
 *S TITLE 1 - EL PUEBLO ROAD DRAINAGE STUDY TO NORTH DIVERSION CHANNEL
 *S TITLE 2 - FUTURE DEVELOPMENT CONDITIONS-
 *S
 *S PROPOSED IMPROVEMENT P1 -
 *S
 *S   ASSUME 42-INCH CMP UNDER PDN IS BLOCKED  - AP 12.91
 *S   AND ASSUME NO FLOW PASSES THE N. DIV. CHAN. ON EL PUEBLO RD.  - AP 1.92
 *S   AP 1.98 = TOTAL Q THAT WILL BE AT INLET OF EX. 30-IN. CMP AT N. DIV. CHANNEL
 *S   OR PROPOSED OUTFALL AT SAME LOCATION
*S
*S          100-YR. 24-HOUR STORM
*S     THIS IS AN AHYMO_97 HYDROLOGIC MODEL FOR:
*S          THE EL PUEBLO ROAD DRAINAGE STUDY
*S          (Study of Drainage to the North Diversion Channel from
*S          Paseo Del Norte and North Frontage Road, El Pueblo Rd.
*S          and Basins south of El Pueblo Rd. to N. Div. Channel inlet
*S          located approx. 100 ft. south of El Pueblo Rd.)
*S             PREPARED FOR AMAFCA
*S             PREPARED BY SMITH ENGINEERING COMPANY (PLS, FC)
*S
*S        MODEL DESCRIPTION -
*S
*S   1.   THIS MODEL IS FOR FUTURE DEVELOPMENT CONDITIONS
*S        NOTE THAT MOST BASINS ARE FULLY DEVELOPED NOW OR WILL BE
*S        VERY SOON. LAND USE TREATMENT %'S WERE DETERMINED FROM
*S        AERIAL PHOTOGRAPHS, FIELD OBSERVATION AND COMMERCIAL INDUSTRIAL
*S        NATURE OF ALL OF THE DRAINAGE BASINS.
*S   2.   100-YEAR 24-HOUR RAINFALL EVENT (RAINFALL DATA OBTAINED FROM
*S        NOAA ATALS 14 - INTERNET DATA
*S   3.   STORM DRAINS ARE MODELED AS THE LESSOR OF THE COMBINBED
*S        INLET CAPACITIES OR THE NON-PRESSURE FULL PIPE FLOW (WHICHEVER
*S        IS LESS AS THE DIVIDE HYDRROGRAPH DISCHARGE,
*S   4.   NO SEDIMENT BULKING APPLIED DUE TO
*S              A.  ALL BASINS ARE OR WILL VERY SOON BE DEVELOPED
*S   5.   USE PROCEDURES FROM COA DPM SECTION 22
*S
START
LOCATION                        BERNALILLO COUNTY                                          TIME=        .00
```

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
   *S
   RAINFALL  TYPE= 2                                                                    RAIN24=   2.690
   *S


COMPUTE NM HYD         34.00   -     1        .02144        51.12       2.437      2.13086    1.500    3.726 PER IMP=  80.00
   *S
   COMPUTE NM HYD         33.00   -     2        .00864        19.92       1.056      2.29091    1.500    3.603 PER IMP=  90.00
   *S
   ADD HYD                33.98  1& 2   5        .03008        71.04       3.492      2.17681    1.500    3.690
   *S
   *S HYD 33.98 IS TOTAL Q TO 30" RCP FROM EAST OF I-25 AND I-25 MEDIAN DICHTES
   *S
   *S
```

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
										PAGE = 2
COMPUTE NM HYD	35.00	-	1	.04323	101.74	5.210	2.25982	1.500	3.677	PER IMP= 90.00
*S										
ADD HYD	35.99	1& 5	5	.07331	172.79	8.702	2.22576	1.500	3.683	
*S										
*S HYD 35.99 IS TOTAL Q EXISTING RETENTION POND IN BASIN 35.00										
*S										
DIVIDE HYD	35.91	5	50	.07331	172.79	8.702	2.22576	1.500	3.683	
	35.92	and	51	.00000	.00	.000	.00000	-.050	.000	
*S HYD 35.91 IS TOTAL FLOW TO EXISTING RETENTION POND IN BASIN 29.00										
*S										
*S HYD 35.92 IS EXCESS FLOW (NONE IN EXISTING CONDITIONS)										
*S										
COMPUTE NM HYD	30.00	-	1	.03753	94.09	4.523	2.25982	1.500	3.917	PER IMP= 90.00
*S										
DIVIDE HYD	30.91	1	10	.03437	58.00	4.143	2.25982	1.400	2.636	
	30.92	and	11	.00316	36.09	.380	2.25982	1.500	17.873	
*S HYD 30.91 IS SUM OF EXISTING INLET CAPACITIES										
*S										
*S HYD 30.92 IS FLOW IN EXCESS OF INLET CAPACITIES TO JEFFERSON ST.										
*S										
COMPUTE NM HYD	31.00	-	1	.02262	56.72	2.726	2.25982	1.500	3.918	PER IMP= 90.00
*S										
DIVIDE HYD	31.91	1	12	.02105	37.00	2.537	2.25981	1.450	2.746	
	31.92	and	13	.00157	19.72	.189	2.25981	1.500	19.658	
*S HYD 31.91 IS SUM OF EXISTING INLET CAPACITIES										
*S										
*S HYD 31.92 IS FLOW IN EXCESS OF INLET CAPACITIES TO JEFFERSON ST.										
*S										
COMPUTE NM HYD	29.00	-	1	.04144	77.66	4.803	2.17330	1.600	2.928	PER IMP= 85.00
*S										
ADD HYD	31.93	10&12	5	.05543	95.00	6.680	2.25981	1.450	2.678	
*S										

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
*S HYD 31.93 IS Q IN JEFFERSON STORM DRAIN BEFORE ADDING BASIN 29.00
*S
*S
ADD HYD              31.94  1& 5   5        .09687       172.66      11.484      2.22280    1.600    2.785
*S
*S HYD 31.94 IS Q IN JEFFERSON STORM DRAIN AFTER ADDING BASIN 29.00
*S
*S


ADD HYD              31.95 11&13   6        .00472        55.81        .569      2.25981    1.500   18.465
*S
*S HYD 31.95 IS Q IN JEFERSON STREET
*S
*S
COMPUTE NM HYD       32.00   -     1        .02313        51.27       2.788      2.25982    1.550    3.463 PER IMP=  90.00
*S
DIVIDE HYD           32.91    1   14        .02225        40.00       2.682      2.25980    1.500    2.809
                     32.92  and   15        .00088        11.27        .106      2.25980    1.550   19.996
*S HYD 32.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 32.92 IS FLOW IN EXCESS OF INLET CAPACITIES TO JEFFERSON ST.

                                FROM  TO                    PEAK      RUNOFF                TIME TO   CFS       PAGE =   3
                   HYDROGRAPH    ID   ID        AREA      DISCHARGE   VOLUME     RUNOFF      PEAK     PER
COMMAND          IDENTIFICATION  NO.  NO.     (SQ MI)      (CFS)     (AC-FT)   (INCHES)    (HOURS)  ACRE     NOTATION
*S
ADD HYD              32.95  5&14   7        .11912       212.66      14.165      2.22971    1.600    2.790
*S
*S HYD 32.95 IS Q IN JEFF. ST. SD BEFORE ADDING E. BOUND PDN SD Q
*S
*S
ADD HYD              32.99  6&15  30        .00560        65.57        .675      2.25981    1.500   18.283
*S
*S HYD 32.99 IS TOTAL JEFF. ST. FLOW THAT WILL FLOW WEST ON EAST BOUND PDN
*S
*S
COMPUTE NM HYD       28.00   -     1        .00624        14.39        .810      2.43285    1.550    3.603 PER IMP= 100.00
*S
DIVIDE HYD           28.91    1   16        .00570         9.00        .740      2.43279    1.450    2.467
                     28.92  and   17        .00054         5.39        .070      2.43279    1.550   15.620
*S HYD 28.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 28.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON E. BOUND PDN.
*S
ADD HYD              32.96  7&16  31        .12482       221.66      14.905      2.23899    1.600    2.775
*S
*S HYD 32.96 IS TOTAL Q IN JEFF. ST. AT E. BOUND PDN
*S
*S
```

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
COMPUTE NM HYD         27.00   -     1        .00641        14.78        .832      2.43285    1.550     3.603 PER IMP= 100.00
*S
DIVIDE HYD             27.91    1   18        .00598        10.00        .775      2.43279    1.450     2.614
                       27.92  and   19        .00043         4.78        .056      2.43279    1.550    17.230
*S HYD 27.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 27.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
COMPUTE NM HYD         26.00   -     1        .02574        58.13       3.102      2.25982    1.500     3.529 PER IMP=  90.00
*S
DIVIDE HYD             26.91    1   20        .02283        33.00       2.752      2.25981    1.450     2.258
                       26.92  and   21        .00291        25.13        .351      2.25981    1.500    13.495
*S HYD 26.91 IS SUM OF EXISTING INLET CAPACITIES


*S
*S HYD 26.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
ADD HYD                27.95 31&18  32        .13079       231.66      15.680      2.24784    1.600     2.767
*S
*S HYD 27.95 IS Q IN JEFF. ST. STORM DRAIN AT W. BOUND PDN
*S
*S
ADD HYD                27.96 20&32  33        .15362       264.66      18.432      2.24962    1.600     2.692
*S    *     *      *     *     *     *     *      *       *       *      *
*S HYD 27.96 IS TOTAL Q IN JEFF. ST. STORM DRAIN AT W. BOUND PDN
*S           TO DOM. BACA ARROYO
*S
*S    *     *      *     *     *     *     *     *      *       *      *
*S
```

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 4 NOTATION
ADD HYD	28.95	30&17	60	.00614	70.04	.745	2.27499	1.500	17.818	

```
*S
*S HYD 28.95 IS TOTAL Q IN E. BOUND PDN AT JEFFERSON ST.
*S
*S
DIVIDE HYD             28.71   60   85        .00154        17.51        .186      2.27499    1.500    17.818
                       28.72  and   86        .00461        52.53        .559      2.27499    1.500    17.818
*S HYD 28.71 IS FLOW ASSUMED TO SPILL FROM PDN INTO BASIN 10 (NO CONC. WALL)
*S
*S HYD 28.72 IS THE FLOW THAT WILL CONTINUE W. ON E. BOUND PDN.
*S
ADD HYD                27.97 19&21   5        .00334        29.34        .407      2.28224    1.550    13.713
*S
*S HYD 27.97 IS TOTAL Q IN W. BOUND PDN AT JEFFERSON ST.
*S
*S
```

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
COMPUTE NM HYD          21.00   -     1        .00298         7.86        .387      2.43286    1.500    4.119 PER IMP= 100.00
*S
ADD HYD                 21.98  1& 5   5        .00632        36.83        .794      2.35318    1.500    9.101
*S
*S HYD 21.98 IS Q IN W. BOUND PDN
*S
*S
DIVIDE HYD              21.91    5   61        .00426        14.00        .535      2.35318    1.450    5.129
                        21.92  and   11        .00206        22.83        .258      2.35318    1.500   17.329
*S HYD 21.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 21.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
COMPUTE NM HYD          19.00   -     1        .00192         5.06        .249      2.43285    1.500    4.121 PER IMP= 100.00
*S
ADD HYD                 19.99  1&11   5        .00398        27.89        .507      2.39156    1.500   10.955
*S
*S HYD 19.99 IS Q IN W. BOUND PDN


*S
*S
DIVIDE HYD              19.91    5   62        .00306        13.00        .390      2.39156    1.500    6.645
                        19.92  and   11        .00092        14.89        .118      2.39156    1.500   25.252
*S HYD 19.91 IS SUM OF EXISTING INLET CAPACITIES(to 24" SD in Front. Rd)
*S
*S HYD 19.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
DIVIDE HYD              19.93   11   63        .00046         7.45        .059      2.39156    1.500   25.252
                        19.94  and   12        .00046         7.45        .059      2.39156    1.500   25.252
*S HYD 19.93 ASSUME 50% SPILLS THRU CONC. WALL OPENING(RR TRACKS)TO FRONT. ROAD
*S
*S HYD 19.94 EXCESS THAT WILL FLOW W. ON W. BOUND PDN.
*S
COMPUTE NM HYD          18.00   -     1        .00226         5.39        .293      2.43285    1.500    3.727 PER IMP= 100.00
*S
ADD HYD                 18.99  1&12   5        .00272        12.84        .352      2.42573    1.500    7.372
*S
```

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


```
*S HYD 18.99 IS Q IN W. BOUND PDN
*S
*S
DIVIDE HYD              18.91    5   64        .00250         9.00        .324      2.42573    1.500    5.621
                        18.92  and   11        .00022         3.84        .028      2.42573    1.500   27.367
*S HYD 18.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S *    *    *    *    *    *    *    *    *    *    *    *
```

```
*S HYD 18.92 EXCESS THAT WILL FLOW W. ON W. BOUND PDN.
*S           THAT WILL PASS THE NORTH DIVERSION CHANNEL
*S *    *    *    *    *    *    *    *    *    *    *    *
*S
COMPUTE NM HYD          25.00    -     1        .01168        28.51       1.471      2.36188    1.500     3.815 PER IMP=  95.00
*S
DIVIDE HYD              25.91     1    65        .01058        17.00       1.332      2.36186    1.450     2.511
                        25.92   and    11        .00110        11.51        .139      2.36186    1.500    16.311
*S HYD 25.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 25.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
COMPUTE NM HYD          24.00    -     1        .00066         1.74        .086      2.43285    1.500     4.130 PER IMP= 100.00
*S
ADD HYD                 24.99  1&11    5        .00176        13.26        .225      2.38829    1.500    11.751
*S
*S HYD 24.99 IS Q W. BOUND IN FRONTAGE RD. JUST EAST OF RR TRACKS
*S
*S
DIVIDE HYD              24.91     5    15        .00114         5.00        .145      2.38829    1.450     6.852
                        24.92   and    11        .00062         8.26        .079      2.38829    1.500    20.717
*S HYD 24.91 IS SUM OF EXISTING INLET CAPACITIES TO 24" CMP OUT OF BASIN
*S


*S HYD 24.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
ADD HYD                 24.97 62&15   66        .00420        18.00        .535      2.39067    1.500     6.701
*S     *      *      *      *      *      *      *      *      *      *      *      *
*S HYD 24.97 IS TOTAL Q IN 24" SD THAT LEAVES BASIN JUST WEST OF RR TRACKS
*S     *      *      *      *      *      *      *      *      *      *      *      *
*S
*S
DIVIDE HYD              24.93    11    67        .00031         4.13        .040      2.38829    1.500    20.717
                        24.94   and    11        .00031         4.13        .040      2.38829    1.500    20.717
*S     *      *      *      *      *      *      *      *      *      *      *      *
*S HYD 24.93 ASSUME 50% OF FRONT. RD. Q SPILLS OUT OF BASIN AT RR TRACKS
*S     *      *      *      *      *      *      *      *      *      *      *      *
*S
*S HYD 24.94 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
ADD HYD                 24.95 11&63   5        .00077        11.58        .098      2.39024    1.500    23.423
*S
*S HYD 24.95 IS Q IN FRONT. RD. INCLUDING SPILL FROM W.BOUND PDN AT RR TRACKS
*S
*S
```

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

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
COMPUTE NM HYD          23.00    -      1         .00082          2.17         .106       2.43285    1.500     4.130 PER IMP= 100.00
*S
ADD HYD                 23.99  1& 5     5         .00159         13.74         .205       2.41198    1.500    13.487
*S
*S HYD 23.99 IS Q W. BOUND IN FRONTAGE RD. AT PRIVATE DRIVEWAY
*S
*S
DIVIDE HYD              23.91    5     68         .00127         10.99         .164       2.41198    1.500    13.487
                        23.92  and     11         .00032          2.75         .041       2.41198    1.500    13.487
*S     *     *      *      *      *       *       *       *        *
*S HYD 23.91 ASSUME 80% SPILLS FROM FRONTAGE RD. TO PRIVATE DRIVEWAY
*S           (out of basin)
*S     *     *      *      *      *       *       *       *        *
*S
*S HYD 23.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
COMPUTE NM HYD          22.00    -      1         .00044          1.17         .057       2.43285    1.500     4.139 PER IMP= 100.00
*S
ADD HYD                 22.97  1&11     5         .00076          3.91         .098       2.42362    1.500     8.064
*S
*S HYD 22.97 IS Q IN W. BOUND IN FRONTAGE RD.
*S
*S
DIVIDE HYD              22.91    5     69         .00065          2.00         .085       2.42362    1.500     4.779
                        22.92  and     11         .00010          1.91         .014       2.42362    1.500    28.627
*S HYD 22.91 SUM OF INLET CAPACITIES
*S
*S HYD 22.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.


*S
DIVIDE HYD              22.93    11    70         .00008          1.44         .010       2.42362    1.500    28.627
                        22.94  and     71         .00003           .48         .003       2.42362    1.500    28.627
*S     *     *      *      *      *       *       *       *        *
*S HYD 22.93 ASSUME 75% SPILLS OUT OF FRONTAGE RD DUE TO CURB OPENING
*S           (out of drainage basin)
*S     *     *      *      *      *       *       *       *        *
*S
*S    *    *     *     *      *     *      *      *      *      *
*S HYD 22.94 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S           PAST THE NORTH DIVERSION CHANNEL
*S
COMPUTE NM HYD          20.00    -      1         .00327          8.62         .424       2.43286    1.500     4.119 PER IMP= 100.00
*S
ADD HYD                 20.99  1&86     5         .00788         61.15         .983       2.34049    1.500    12.131
*S
*S HYD 20.99 IS Q IN E. BOUND PDN
*S
*S
DIVIDE HYD              20.91    5     72         .00473         17.00         .590       2.34049    1.450     5.618
                        20.92  and     11         .00315         44.15         .393       2.34049    1.500    21.910
```

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
*S HYD 20.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 20.92 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN

                                                                                                                    PAGE =   7
                                FROM  TO                      PEAK          RUNOFF                 TIME TO    CFS
                    HYDROGRAPH   ID   ID        AREA      DISCHARGE      VOLUME      RUNOFF          PEAK      PER
COMMAND          IDENTIFICATION  NO.  NO.     (SQ MI)       (CFS)      (AC-FT)    (INCHES)       (HOURS)     ACRE      NOTATION
*S
COMPUTE NM HYD          17.00    -     1        .00200        5.28         .260     2.43286         1.500    4.121 PER IMP= 100.00
*S
ADD HYD                 17.99  1&11    5        .00515       49.43         .653     2.37631         1.500   15.000
*S
*S HYD 17.99 IS Q IN E. BOUND PDN
*S
*S
DIVIDE HYD              17.91    5    73        .00284       13.00         .361     2.37631         1.450    7.140
                        17.92  and    11        .00230       36.43         .292     2.37631         1.500   24.706
*S HYD 17.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 17.92 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
*S
DIVIDE HYD              17.93   11    74        .00161       25.50         .204     2.37631         1.500   24.706
                        17.94  and    12        .00069       10.93         .088     2.37631         1.500   24.706
*S HYD 17.93 ASSUME 70% SPILLS THRU OPENING IN CONC. WALL BARRIER (RR TRACKS)
*S
*S HYD 17.94 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
*S
COMPUTE NM HYD          16.00    -     1        .00183        4.71         .237     2.43286         1.500    4.020 PER IMP= 100.00
*S
ADD HYD                 16.99  1&12    5        .00252       15.64         .325     2.41721         1.500    9.691
*S
*S HYD 16.99 IS Q IN E. BOUND PDN


*S
*S
DIVIDE HYD              16.91    5    75        .00219        8.00         .283     2.41722         1.450    5.699
                        16.92  and    76        .00033        7.64         .042     2.41722         1.500   36.411
*S HYD 16.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S    *     *     *      *      *     *      *      *      *       *       *
*S HYD 16.92 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
*S           ACROSS THE NORTH DIVERSION CHANNEL
*S     *     *      *      *      *       *       *       *       *
*S
ADD HYD                 16.93 64&75   77        .00470       17.00         .606     2.42176         1.500    5.657
*S
*S HYD 16.93 IS INTERMEDIATE Q IN PDN SHORT STORM DRAIN THAT OUTFALLS
*S              UNDER PDN MEDIAN TO THE N. DIV. CHANNEL
*S
```

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
*S
ADD HYD                16.94 77&69  78        .00535        19.00        .691      2.42198    1.500     5.550
*S     *      *      *      *      *      *      *      *      *
*S
*S HYD 16.94 IS TOTAL Q IN PDN SHORT STORM DRAIN THAT OUTFALLS
*S              UNDER PDN MEDIAN TO THE N. DIV. CHANNEL
*S     *      *      *      *      *      *      *      *      *
*S
*S
COMPUTE NM HYD         15.00   -     1        .00094         2.48        .122      2.43285    1.500     4.127 PER IMP= 100.00
*S
```

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 8 NOTATION
DIVIDE HYD	15.91	1	10	.00024	.62	.030	2.43255	1.500	4.127	
	15.92	and	11	.00071	1.86	.091	2.43255	1.500	4.127	

```
*S HYD 15.91 ASSUME 25% SPILLS THROUGH CURB OPENING TOWARDS EX. INLET
*S
*S     *      *      *      *      *      *      *      *      *      *      *
*S HYD 15.92 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.
*S
COMPUTE NM HYD         10.00   -     1        .00690        13.01        .399      1.08438    1.500     2.945 PER IMP=   5.00
*S
ADD HYD                10.97  1&85   4        .00844        30.52        .585      1.30110    1.500     5.653
*S
*S HYD 10.97 IS SPILL FROM PDN PLUS BASIN 10
*S
*S
ADD HYD                10.98  4&10   6        .00867        31.14        .616      1.33175    1.500     5.611
*S
*S HYD 10.98 IS SPILL FROM BASIN 10 AND PART OF BASIN 15 INTO EL PUEBLO RD
*S
*S
ADD HYD                15.99 11& 6   5        .00938        33.00        .707      1.41452    1.500     5.500
*S
*S HYD 15.99 IS FLOW IN EL PUEBLO RD. AT W.END BASIN 15


*S
*S
COMPUTE NM HYD         14.00   -     1        .00162         4.15        .198      2.29091    1.500     4.006 PER IMP=  90.00
*S
ADD HYD                14.98  5& 1  15        .01100        37.15        .905      1.54361    1.500     5.280
*S
*S HYD 14.98 IS TOTAL FLOW IN EL PUEBLO RD. IN BASIN 14
*S
*S
DIVIDE HYD             14.91   15    11        .00861        16.00        .709      1.54361    1.450     2.903
                       14.92  and    12        .00238        21.15        .196      1.54361    1.500    13.860
```

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
*S    *     *     *      *      *     *      *      *      *      *      *
*S HYD 14.91 SUM OF EX. INLET CAPACITIES IN BASIN 14 EL PUEBLO RD.
*S
*S    *     *     *      *      *     *      *      *      *      *      *
*S HYD 14.92 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.
*S
ADD HYD               25.93 61&65   5        .01484       31.00       1.868      2.35936    1.450    3.264
*S
*S HYD 25.93 IS ADDITIONAL Q FROM FRONT. RD. AND W. BOUND PDN INLETS
*S           TO 24" CMP ALONG N. SIDE OF EL PUEBLO RD.
*S
*S
ADD HYD               20.95  5&72   6        .01957       48.00       2.458      2.35480    1.450    3.832
*S
*S HYD 20.95 IS ADD Q FROM E. BOUND PDN INLETS TO 24" CMP
*S           ALONG N. SIDE OF EL PUEBLO RD.
*S
*S
```

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 9 NOTATION
ADD HYD	14.94	6&11	17	.02818	64.00	3.167	2.10693	1.450	3.549	
*S HYD 14.94 IS TOTAL Q TO 24" CMP ALONG N. SIDE OF EL PUEBLO RD. AND OUTFALLS										
*S TO ASPHALT CHANNEL										
COMPUTE NM HYD	9.00	-	1	.01792	36.49	2.054	2.14897	1.550	3.181	PER IMP= 80.00
DIVIDE HYD	9.92	1	11	.01792	36.49	2.054	2.14894	1.550	3.181	
	9.91	and	52	.00000	.00	.000	.00000	-.050	.000	
*S HYD 9.92 ASSUME 100% BY PASSES EXISTING RETENTION POND INTO BASIN 8										
*S HYD 9.91 Q THAT COULD FLOW TO EXISTING RETENTION POND										
COMPUTE NM HYD	8.00	-	1	.07904	145.35	8.311	1.97152	1.550	2.873	PER IMP= 70.00
ADD HYD	8.99	1&11	5	.09696	181.84	10.365	2.00431	1.550	2.930	
*S HYD 8.99 IS TOTAL Q THAT WILL SPILL INTO EL PUEBLO RD. FROM BASINS										
*S EAST OF RR TRACKS										
ADD HYD	14.99	5&15	6	.10796	211.64	11.270	1.95738	1.550	3.063	
*S HYD 14.99 IS TOTAL Q IN EL PUEBLO RD AT RR TRACKS										

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
*S
*S
DIVIDE HYD            14.81    6   18        .08636       169.32       9.016      1.95738    1.550    3.063
                      14.82  and   11        .02159        42.33       2.254      1.95738    1.550    3.063
*S HYD 14.81 ASSUME 80% SPILLS FROM EL PUEBLO RD. AT RR TRACKS
*S           TO ASPHALT CHANNEL
*S
*S HYD 14.82 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.
*S
ADD HYD               14.95 17&18   5        .11454       233.32      12.183      1.99418    1.550    3.183
*S
*S HYD 14.95 IS TOTAL Q AT EAST END OF ASPHALT CHANNEL (N. OF EL PUEBLO RD)
*S
*S
COMPUTE NM HYD        12.00    -    1        .00128         2.42        .074      1.08439    1.500    2.959 PER IMP=   5.00
*S
ADD HYD               12.97  1& 5   6        .11582       235.44      12.256      1.98397    1.550    3.176
*S
*S HYD 12.97 PARTIAL Q IN ASPHALT CHANNEL BEFORE ADDING PRIVATE STORM DRAIN
*S
*S
COMPUTE NM HYD         7.00    -    1        .00586        15.22        .738      2.36188    1.500    4.058 PER IMP=  95.00
*S
DIVIDE HYD             7.91    1   13        .00472         6.00        .594      2.36182    1.350    1.988
                       7.92  and   12        .00114         9.22        .144      2.36183    1.500   12.592
*S HYD 7.91 SUM OF INLET CAPACITIES (TO 42" SD UNDER EL PUEBLO RD)
*S
```

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


```
*S HYD 7.92 EXCESS Q THAT SPILL INTO EL PUEBLO RD
*S
ADD HYD                7.95 11&12  79        .02273        49.35       2.398      1.97771    1.550    3.392
*S
*S HYD 7.95 Q IN EL PUEBLO RD
*S
*S
COMPUTE NM HYD         6.00    -    1        .00853        22.14       1.074      2.36188    1.500    4.056 PER IMP=  95.00
*S
DIVIDE HYD             6.91    1   11        .00853        22.00       1.074      2.36185    1.500    4.032
                       6.92  and   80        .00000          .14        .001      2.36170    1.500   47.628
*S HYD 6.91 SUM OF INLET CAPACITIES (TO 42" SD UNDER EL PUEBLO RD)
*S
*S HYD 6.92 EXCESS Q THAT WILL SPILL INTO BASIN 4 IF INLET CAPACITY EXCEEDED
*S
ADD HYD                6.95 11&13   5        .01324        28.00       1.668      2.36184    1.500    3.304


*S
```

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
*S HYD 6.95 Q IN EL PUEBLO RD
*S
*S
ADD HYD                12.98  5& 6   7        .12907       260.39      13.924      2.02274    1.550    3.152
*S
*S HYD 12.98 PARTIAL Q IN ASPHALT CHANNEL AFTER ADDING 42" PRIVITE SD
*S           (UNDER EL PUEBLO RD)
*S
*S .
ADD HYD                12.99  7&73   5        .13191       273.39      14.284      2.03036    1.550    3.238
*S
*S    *      *      *      *      *       *       *     *      *      *
*S HYD 12.99 TOTAL Q IN ASPHALT CHANNEL TO 42" UNDER PDN
*S    *      *      *      *      *       *       *     *      *      *
*S
*S
*S    *      *      *      *      *       *       *     *      *      *
*S NOTE 42-INCH CUVLERT HAS 35 CFS CAPACITY - ASSUME O FOR THIS MODEL
DIVIDE HYD             12.91    5   81        .01690         1.00       1.830      2.03036     .600     .092
                       12.92  and   11        .11501       272.39      12.454      2.03036    1.550    3.701
*S HYD 12.91 IS THE CAPACITY OF THE 42" SD UNDER PASEO DEL NORTE
*S
*S HYD 12.92 EXCESS Q THAT WILL SPILL INTO BASIN 2 IF 42" SD CAP. EXCEEDED
*S
ADD HYD                12.93 11&74   5        .11662       286.98      12.658      2.03515    1.500    3.845
*S
*S HYD 12.93 IS FLOW ALONG RR TRACKS JUST S. OF PDN IN BASIN 2
*S
*S
COMPUTE NM HYD          2.00   -     1        .00176         4.58        .222      2.36188    1.500    4.066 PER IMP=  95.00
*S
ADD HYD                 2.98  1& 5  10        .11838       291.56      12.880      2.04000    1.500    3.848
*S
*S HYD 2.98 IS FLOW ALONG RR TRACKS JUST E. OF EL PUEBLO RD. CROSSING RR TRACKS
*S
```

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


```
*S
COMPUTE NM HYD         13.00   -     1        .00043         1.14        .056      2.43286    1.500    4.139 PER IMP= 100.00
*S
ADD HYD                13.99  1&79   5        .02316        50.32       2.454      1.98615    1.550    3.394
*S
*S HYD 13.99 IS FLOW IN EL PUEBLO RD.
*S
*S
COMPUTE NM HYD         11.00   -     1        .00053         1.40        .069      2.43285    1.500    4.134 PER IMP= 100.00
*S
ADD HYD                11.99  1& 5   6        .02369        51.52       2.523      1.99613    1.550    3.398
```

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
*S
*S HYD 11.99 IS FLOW IN EL PUEBLO RD.


*S
*S
DIVIDE HYD            11.91    6   11        .00711        15.46         .757      1.99613    1.550     3.398
                      11.92  and   12        .01659        36.07        1.766      1.99613    1.550     3.398
*S HYD 11.91 ASSUME 30% OF EL PUEBLO RD. FLOW SPILLS N. INTO BASIN 2 AT
*S           RR TRACK INTERSECTION WITH EL PUEBLO RD.
*S
*S HYD 11.92 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.
*S
DIVIDE HYD            11.93   12   15        .00995        21.64        1.059      1.99613    1.550     3.398
                      11.94  and   14        .00663        14.43         .706      1.99613    1.550     3.398
*S HYD 11.93 ASSUME 60% OF EL PUEBLO RD. FLOW SPILLS OUT S. OF EL PUEBLO RD.
*S           AT RR TRACK INTERSECTION WITH EL PUEBLO RD. (WILL FLOW TOWARDS
*S           30" CMP OUTFALL TO N. DIV. CHAN.
*S
*S HYD 11.94 ASSUME EXCESS WILL FLOW W. ON EL PUEBLO RD.
*S
ADD HYD                2.99 11&10   5        .12549       306.72       13.637      2.03751    1.500     3.819
*S
*S HYD 2.99 IS TOTAL FLOW TO INLETS AT THE RR TRACK INTERSECTION WITH
*S          EL PUEBLO RD.
*S
*S
DIVIDE HYD             2.91    5   10        .04306        26.00        4.679      2.03751    1.300      .944
                       2.92  and   11        .08243       280.72        8.958      2.03751    1.500     5.321
*S HYD 2.91 SUM OF ALL INLET CAPACITIES
*S
*S HYD 2.92 EXCESS Q THAT WILL SPILL INTO BASIN 1 (EL PUEBLO RD.)
*S
COMPUTE NM HYD         1.00    -    1        .00218         4.72         .184      1.58119    1.500     3.384 PER IMP=  40.00
*S
ADD HYD                1.98  1&11   5        .08461       285.44        9.142      2.02576    1.500     5.271
*S
*S HYD 1.98 IS FLOW IN EL PUEBLO RD.
*S
*S
ADD HYD                1.99  5&14   6        .09125       299.59        9.848      2.02360    1.500     5.130
*S
*S HYD 1.99 IS TOTAL FLOW IN EL PUEBLO RD. AT THE S. SIDE CURB CUT
```

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


```
*S          JUST EAST OF THE N. DIV. CHANNEL (OUTFALLS TO 30" CMP
*S          UNDER N. DIV. CHAN.
*S
```

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

```
*S
*S ASSUME FOR THIS MODEL THAT 100% OF FLOW SPILLS TO EX. 30-IN.CMP
*S AT N. DIV. CHANNEL
DIVIDE HYD              1.91    6   82        .09125       299.59       9.848      2.02360    1.500    5.130
                        1.92  and   83        .00000          .00        .000       .00000    -.050     .000
*S HYD 1.91 ASSUME 100% OF EL PUEBLO RD. FLOW WILL SPILL THROUGH
*S          S. SIDE CURB CUT JUST EAST OF THE N. DIV. CHANNEL


*S          (OUTFALLS TO 30" CMP UNDER N. DIV. CHAN.
*S
*S    *      *      *      *       *     *      *      *       *      *
*S HYD 1.92 EXCESS EL PUEBLO RD. Q THAT WILL FLOW ACROSS
*S          THE NORTH DIVERSION CHANNEL
*S    *      *      *      *       *     *      *      *       *      *
*S
ADD HYD               11.95 10&15   5        .05301        47.64       5.738      2.02974    1.550    1.404
*S
*S HYD 11.95 IS PARTIAL Q TO THE 30" CMP UNDER N. DIV. CHAN.
*S
*S
ADD HYD                 1.95  5&82  84        .14426       346.81      15.586      2.02585    1.500    3.756
*S     *      *      *       *      *       *       *       *        *
*S HYD 1.95 IS PARTIAL Q TO THE 30" CMP UNDER N. DIV. CHAN.
*S          (EXCLUDES Q FROM EXISTING PNM 21" CMP THAT OUTFALLS
*S          AT THE INLET TO THE 30" CMP)
*S    *      *      *      *       *     *      *      *       *      *
*S
*S
COMPUTE NM HYD          4.00    -     1        .06456        96.52       4.646      1.34940    1.600    2.336 PER IMP=  25.00
*S
ADD HYD                 4.99  1&80    5        .06456        96.52       4.647      1.34947    1.600    2.336
*S
*S HYD 4.99 IS BASIN 4 COMBINED WITH ANY SPILL FROM BASIN 6
*S
*S
*S DIVIDE BY CAPACITY OF 21" CMP IN PNM POND
*S
DIVIDE HYD              4.91    5   10        .03143        17.00       2.262      1.34947    1.400     .845
                        4.92  and   11        .03314        79.52       2.385      1.34947    1.600    3.749
*S HYD 4.91 IS MAX. CAPACITY OF 21" RCP (with 11 ft. head)
*S          FROM THE PNM POND THAT OUTFALLS AT THE 30"CMP AT N. DIV. CHAN.
*S
*S    *      *      *      *       *     *      *      *       *      *
*S HYD 4.92 FLOW IN EXCESS OF 21" RCP CAPACITY THAT WILL REMAIN IN PND POND
*S    *      *      *      *       *     *      *      *       *      *
*S
*S ADD PNM 21" CMP Q TO Q AT INLET TO 30" CMP AT N. DIV. CHAN.
*S         THIS IS TOTAL Q AT 30" CMP
*S
```

AHYMO_97 MODEL FOR IMPROVEMENT P1 - only 2 AP divides were changed as compared to existing conditions model – see description on page 1 this summary

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ADD HYD	1.98	84&10	87	.17568	363.81	17.848	1.90486	1.500	3.236	
*S										
*S HYD 1.98 IS TOTAL Q AT 30" CMP AT N. DIV. CHAN.										
*S										
*S										
DIVIDE HYD	1.96	87	90	.07814	48.00	7.939	1.90486	1.300	.960	
	1.97	and	91	.09754	315.81	9.910	1.90486	1.500	5.059	
*S * * * * * * * * * *										
*S										
*S HYD 1.96 IS THE CAPACITY OF THE EX. 30" CMP TO N. DIV. CHAN.										
*S										
*S * * * * * * * * * *										
*S HYD 1.97 FLOW IN EXCESS OF 30" CMP THAT WILL SPILL TO N. DIV. CHANNEL										
*S										
*S * * * * * * * * * *										
*S										
COMPUTE NM HYD	5.00	-	1	.05271	82.37	3.048	1.08438	1.550	2.442	PER IMP= 5.00
*S										
COMPUTE NM HYD	3.00	-	2	.00520	12.64	.587	2.11494	1.500	3.797	PER IMP= 80.00
*S										
ADD HYD	3.97	1& 2	6	.05791	93.23	3.635	1.17691	1.550	2.515	
*S * * * * * * * * * *										
*S										
*S HYD 3.97 IS Q TO N. DIV. CHANNEL INLET (JUST SOUTH OF RR TRACKS)										
*S * * * * * * * * * *										
*S										
*S										
FINISH										

2nd. Model *WITHOUT proposed drainage improvements*)

AHYMO_97 Summary Table and Input File

File name EI100-24.txt

AHYMO PROGRAM SUMMARY TABLE (AHYMO_97) - - VERSION: 1997.02c RUN DATE (MON/DAY/YR) =12/10/2006
INPUT FILE = Z:\Projects\2003PR-1\103115-3\ahymo\EI100-24.TXT USER NO.= AHYMO-S-9702c01SEC01A-AH

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

```
*S FILE NAME      EI100-24.TXT
*S
*S TITLE 1 - EL PUEBLO ROAD DRAINAGE STUDY TO NORTH DIVERSION CHANNEL
*S TITLE 2 - FUTURE DEVELOPMENT CONDITIONS- EXISTING INFRASTRUCTURE
*S           100-YR. 24-HOUR STORM
*S     THIS IS AN AHYMO_97 HYDROLOGIC MODEL FOR:
*S          THE EL PUEBLO ROAD DRAINAGE STUDY
*S          (Study of Drainage to the North Diversion Channel from
*S          Paseo Del Norte and North Frontage Road, El Pueblo Rd.
*S          and Basins south of El Pueblo Rd. to N. Div. Channel inlet
*S          located approx. 100 ft. south of El Pueblo Rd.)
*S             PREPARED FOR AMAFCA
*S             PREPARED BY SMITH ENGINEERING COMPANY (PLS, FC)
*S
*S        MODEL DESCRIPTION -
*S
*S   1.   THIS MODEL IS FOR FUTURE DEVELOPMENT CONDITIONS
*S        NOTE THAT MOST BASINS ARE FULLY DEVELOPED NOW OR WILL BE
*S        VERY SOON. LAND USE TREATMENT %'S WERE DETERMINED FROM
*S        AERIAL PHOTOGRAPHS, FIELD OBSERVATION AND COMMERCIAL INDUSTRIAL
*S        NATURE OF ALL OF THE DRAINAGE BASINS.
*S   2.   100-YEAR 24-HOUR RAINFALL EVENT (RAINFALL DATA OBTAINED FROM
*S        NOAA ATALS 14 - INTERNET DATA
*S   3.   STORM DRAINS ARE MODELED AS THE LESSOR OF THE COMBINBED
*S        INLET CAPACITIES OR THE NON-PRESSURE FULL PIPE FLOW (WHICHEVER
*S        IS LESS AS THE DIVIDE HYDRROGRAPH DISCHARGE,
*S   4.   NO SEDIMENT BULKING APPLIED DUE TO
*S              A.  ALL BASINS ARE OR WILL VERY SOON BE DEVELOPED
*S   5.   USE PROCEDURES FROM COA DPM SECTION 22
*S
START                                                                    TIME=      .00
LOCATION                      BERNALILLO COUNTY
*S
RAINFALL  TYPE= 2                                                        RAIN24=  2.690
*S
COMPUTE NM HYD        34.00   -     1       .02144      51.12     2.437    2.13086  1.500   3.726 PER IMP=  80.00
*S
COMPUTE NM HYD        33.00   -     2       .00864      19.92     1.056    2.29091  1.500   3.603 PER IMP=  90.00
*S
ADD HYD               33.98  1& 2   5       .03008      71.04     3.492    2.17681  1.500   3.690
*S
*S HYD 33.98 IS TOTAL Q TO 30" RCP FROM EAST OF I-25 AND I-25 MEDIAN DICHTES
*S
```

```
*S
COMPUTE NM HYD          35.00   -     1        .04323       101.74       5.210      2.25982     1.500     3.677 PER IMP=  90.00
*S
ADD HYD                 35.99  1& 5   5        .07331       172.79       8.702      2.22576     1.500     3.683
*S
*S HYD 35.99 IS TOTAL Q EXISTING RETENTION POND IN BASIN 35.00
*S
```

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
										PAGE = 2
DIVIDE HYD	35.91	5	50	.07331	172.79	8.702	2.22576	1.500	3.683	
	35.92	and	51	.00000	.00	.000	.00000	-.050	.000	

```
*S HYD 35.91 IS TOTAL FLOW TO EXISTING RETENTION POND IN BASIN 29.00
*S
*S HYD 35.92 IS EXCESS FLOW (NONE IN EXISTING CONDITIONS)
*S
COMPUTE NM HYD          30.00   -     1        .03753        94.09       4.523      2.25982     1.500     3.917 PER IMP=  90.00
*S
DIVIDE HYD              30.91    1    10       .03437        58.00       4.143      2.25982     1.400     2.636
                        30.92  and    11       .00316        36.09        .380      2.25982     1.500    17.873
*S HYD 30.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 30.92 IS FLOW IN EXCESS OF INLET CAPACITIES TO JEFFERSON ST.
*S
COMPUTE NM HYD          31.00   -     1        .02262        56.72       2.726      2.25982     1.500     3.918 PER IMP=  90.00
*S
DIVIDE HYD              31.91    1    12       .02105        37.00       2.537      2.25981     1.450     2.746
                        31.92  and    13       .00157        19.72        .189      2.25981     1.500    19.658
*S HYD 31.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 31.92 IS FLOW IN EXCESS OF INLET CAPACITIES TO JEFFERSON ST.
*S
COMPUTE NM HYD          29.00   -     1        .04144        77.66       4.803      2.17330     1.600     2.928 PER IMP=  85.00
*S
ADD HYD                 31.93 10&12   5        .05543        95.00       6.680      2.25981     1.450     2.678
*S
*S HYD 31.93 IS Q IN JEFFERSON STORM DRAIN BEFORE ADDING BASIN 29.00
*S
*S
ADD HYD                 31.94  1& 5   5        .09687       172.66      11.484      2.22280     1.600     2.785
*S
*S HYD 31.94 IS Q IN JEFFERSON STORM DRAIN AFTER ADDING BASIN 29.00
*S
*S
ADD HYD                 31.95 11&13   6        .00472        55.81        .569      2.25981     1.500    18.465
*S
*S HYD 31.95 IS Q IN JEFERSON STREET
*S
*S
```

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
COMPUTE NM HYD	32.00	-	1	.02313	51.27	2.788	2.25982	1.550	3.463	PER IMP= 90.00
*S										
DIVIDE HYD	32.91	1	14	.02225	40.00	2.682	2.25980	1.500	2.809	
	32.92	and	15	.00088	11.27	.106	2.25980	1.550	19.996	
*S HYD 32.91 IS SUM OF EXISTING INLET CAPACITIES										
*S										
*S HYD 32.92 IS FLOW IN EXCESS OF INLET CAPACITIES TO JEFFERSON ST.										
*S										
ADD HYD	32.95	5&14	7	.11912	212.66	14.165	2.22971	1.600	2.790	
*S										
*S HYD 32.95 IS Q IN JEFF. ST. SD BEFORE ADDING E. BOUND PDN SD Q										
*S										
*S										

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
ADD HYD	32.99	6&15	30	.00560	65.57	.675	2.25981	1.500	18.283	
*S										
*S HYD 32.99 IS TOTAL JEFF. ST. FLOW THAT WILL FLOW WEST ON EAST BOUND PDN										
*S										
*S										
COMPUTE NM HYD	28.00	-	1	.00624	14.39	.810	2.43285	1.550	3.603	PER IMP= 100.00
*S										
DIVIDE HYD	28.91	1	16	.00570	9.00	.740	2.43279	1.450	2.467	
	28.92	and	17	.00054	5.39	.070	2.43279	1.550	15.620	
*S HYD 28.91 IS SUM OF EXISTING INLET CAPACITIES										
*S										
*S HYD 28.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON E. BOUND PDN.										
*S										
ADD HYD	32.96	7&16	31	.12482	221.66	14.905	2.23899	1.600	2.775	
*S										
*S HYD 32.96 IS TOTAL Q IN JEFF. ST. AT E. BOUND PDN										
*S										
*S										
COMPUTE NM HYD	27.00	-	1	.00641	14.78	.832	2.43285	1.550	3.603	PER IMP= 100.00
*S										
DIVIDE HYD	27.91	1	18	.00598	10.00	.775	2.43279	1.450	2.614	
	27.92	and	19	.00043	4.78	.056	2.43279	1.550	17.230	
*S HYD 27.91 IS SUM OF EXISTING INLET CAPACITIES										
*S										
*S HYD 27.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.										
*S										
COMPUTE NM HYD	26.00	-	1	.02574	58.13	3.102	2.25982	1.500	3.529	PER IMP= 90.00
*S										
DIVIDE HYD	26.91	1	20	.02283	33.00	2.752	2.25981	1.450	2.258	
	26.92	and	21	.00291	25.13	.351	2.25981	1.500	13.495	
*S HYD 26.91 IS SUM OF EXISTING INLET CAPACITIES										

```
*S
*S HYD 26.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
ADD HYD                27.95 31&18  32        .13079       231.66       15.680      2.24784    1.600    2.767
*S
*S HYD 27.95 IS Q IN JEFF. ST. STORM DRAIN AT W. BOUND PDN
*S
*S
ADD HYD                27.96 20&32  33        .15362       264.66       18.432      2.24962    1.600    2.692
*S    *     *      *     *     *      *     *      *       *       *      *
*S HYD 27.96 IS TOTAL Q IN JEFF. ST. STORM DRAIN AT W. BOUND PDN
*S           TO DOM. BACA ARROYO
*S
*S    *     *      *     *     *      *     *      *       *       *      *
*S
ADD HYD                28.95 30&17  60        .00614        70.04        .745       2.27499    1.500   17.818
*S
*S HYD 28.95 IS TOTAL Q IN E. BOUND PDN AT JEFFERSON ST.
*S
*S
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COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
										PAGE = 4
DIVIDE HYD	28.71	60	85	.00154	17.51	.186	2.27499	1.500	17.818	
	28.72	and	86	.00461	52.53	.559	2.27499	1.500	17.818	

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*S HYD 28.71 IS FLOW ASSUMED TO SPILL FROM PDN INTO BASIN 10 (NO CONC. WALL)
*S
*S HYD 28.72 IS THE FLOW THAT WILL CONTINUE W. ON E. BOUND PDN.
*S
ADD HYD                27.97 19&21   5        .00334        29.34        .407       2.28224    1.550   13.713
*S
*S HYD 27.97 IS TOTAL Q IN W. BOUND PDN AT JEFFERSON ST.
*S
*S
COMPUTE NM HYD         21.00   -     1        .00298         7.86        .387       2.43286    1.500    4.119 PER IMP= 100.00
*S
ADD HYD                21.98  1& 5   5        .00632        36.83        .794       2.35318    1.500    9.101
*S
*S HYD 21.98 IS Q IN W. BOUND PDN
*S
*S
DIVIDE HYD             21.91    5    61        .00426        14.00        .535       2.35318    1.450    5.129
                       21.92  and    11        .00206        22.83        .258       2.35318    1.500   17.329
*S HYD 21.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 21.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
COMPUTE NM HYD         19.00   -     1        .00192         5.06        .249       2.43285    1.500    4.121 PER IMP= 100.00
*S
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ADD HYD              19.99  1&11   5        .00398        27.89        .507      2.39156    1.500    10.955
*S
*S HYD 19.99 IS Q IN W. BOUND PDN
*S
*S
DIVIDE HYD           19.91    5    62       .00306        13.00        .390      2.39156    1.500     6.645
                     19.92  and    11       .00092        14.89        .118      2.39156    1.500    25.252
*S HYD 19.91 IS SUM OF EXISTING INLET CAPACITIES(to 24" SD in Front. Rd)
*S
*S HYD 19.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
DIVIDE HYD           19.93   11    63       .00046         7.45        .059      2.39156    1.500    25.252
                     19.94  and    12       .00046         7.45        .059      2.39156    1.500    25.252
*S HYD 19.93 ASSUME 50% SPILLS THRU CONC. WALL OPENING(RR TRACKS)TO FRONT. ROAD
*S
*S HYD 19.94 EXCESS THAT WILL FLOW W. ON W. BOUND PDN.
*S
COMPUTE NM HYD       18.00    -     1        .00226         5.39        .293      2.43285    1.500     3.727 PER IMP= 100.00
*S
ADD HYD              18.99  1&12   5        .00272        12.84        .352      2.42573    1.500     7.372
*S
*S HYD 18.99 IS Q IN W. BOUND PDN
*S
*S
DIVIDE HYD           18.91    5    64       .00250         9.00        .324      2.42573    1.500     5.621
                     18.92  and    11       .00022         3.84        .028      2.42573    1.500    27.367
*S HYD 18.91 IS SUM OF EXISTING INLET CAPACITIES
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COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION


```
*S
*S *    *    *    *    *    *    *    *    *    *    *    *
*S HYD 18.92 EXCESS THAT WILL FLOW W. ON W. BOUND PDN.
*S           THAT WILL PASS THE NORTH DIVERSION CHANNEL
*S *    *    *    *    *    *    *    *    *    *    *    *
*S
COMPUTE NM HYD       25.00    -     1        .01168        28.51       1.471      2.36188    1.500     3.815 PER IMP=  95.00
*S
DIVIDE HYD           25.91    1    65        .01058        17.00       1.332      2.36186    1.450     2.511
                     25.92  and    11        .00110        11.51        .139      2.36186    1.500    16.311
*S HYD 25.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 25.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
COMPUTE NM HYD       24.00    -     1        .00066         1.74        .086      2.43285    1.500     4.130 PER IMP= 100.00
*S
ADD HYD              24.99  1&11   5        .00176        13.26        .225      2.38829    1.500    11.751
*S
*S HYD 24.99 IS Q W. BOUND IN FRONTAGE RD. JUST EAST OF RR TRACKS
*S
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```
*S
DIVIDE HYD              24.91    5   15        .00114         5.00        .145      2.38829    1.450     6.852
                        24.92  and   11        .00062         8.26        .079      2.38829    1.500    20.717
*S HYD 24.91 IS SUM OF EXISTING INLET CAPACITIES TO 24" CMP OUT OF BASIN
*S
*S HYD 24.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
ADD HYD                 24.97 62&15  66        .00420        18.00        .535      2.39067    1.500     6.701
*S     *     *      *      *      *       *       *       *       *
*S HYD 24.97 IS TOTAL Q IN 24" SD THAT LEAVES BASIN JUST WEST OF RR TRACKS
*S     *     *      *      *      *       *       *       *       *
*S
*S
DIVIDE HYD              24.93   11   67        .00031         4.13        .040      2.38829    1.500    20.717
                        24.94  and   11        .00031         4.13        .040      2.38829    1.500    20.717
*S     *     *      *      *      *       *       *       *       *
*S HYD 24.93 ASSUME 50% OF FRONT. RD. Q SPILLS OUT OF BASIN AT RR TRACKS
*S     *     *      *      *      *       *       *       *       *
*S
*S HYD 24.94 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
ADD HYD                 24.95 11&63   5        .00077        11.58        .098      2.39024    1.500    23.423
*S
*S HYD 24.95 IS Q IN FRONT. RD. INCLUDING SPILL FROM W.BOUND PDN AT RR TRACKS
*S
*S
COMPUTE NM HYD          23.00    -    1        .00082         2.17        .106      2.43285    1.500     4.130 PER IMP= 100.00
*S
ADD HYD                 23.99  1& 5   5        .00159        13.74        .205      2.41198    1.500    13.487
*S
*S HYD 23.99 IS Q W. BOUND IN FRONTAGE RD. AT PRIVATE DRIVEWAY
*S
```

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


```
*S
DIVIDE HYD              23.91    5   68        .00127        10.99        .164      2.41198    1.500    13.487
                        23.92  and   11        .00032         2.75        .041      2.41198    1.500    13.487
*S     *     *      *      *      *       *       *       *       *
*S HYD 23.91 ASSUME 80% SPILLS FROM FRONTAGE RD. TO PRIVATE DRIVEWAY
*S          (out of basin)
*S     *     *      *      *      *       *       *       *       *
*S
*S HYD 23.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
COMPUTE NM HYD          22.00    -    1        .00044         1.17        .057      2.43285    1.500     4.139 PER IMP= 100.00
*S
ADD HYD                 22.97  1&11   5        .00076         3.91        .098      2.42362    1.500     8.064
*S
*S HYD 22.97 IS Q IN W. BOUND IN FRONTAGE RD.
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```
*S
*S
DIVIDE HYD              22.91    5   69        .00065         2.00        .085      2.42362    1.500     4.779
                        22.92  and   11        .00010         1.91        .014      2.42362    1.500    28.627
*S HYD 22.91 SUM OF INLET CAPACITIES
*S
*S HYD 22.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
DIVIDE HYD              22.93   11   70        .00008         1.44        .010      2.42362    1.500    28.627
                        22.94  and   71        .00003          .48        .003      2.42362    1.500    28.627
*S     *     *      *      *      *      *      *      *      *
*S HYD 22.93 ASSUME 75% SPILLS OUT OF FRONTAGE RD DUE TO CURB OPENING
*S           (out of drainage basin)
*S     *     *      *      *      *      *      *      *      *
*S
*S    *    *     *     *     *     *     *     *     *     *
*S HYD 22.94 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S           PAST THE NORTH DIVERSION CHANNEL
*S
COMPUTE NM HYD          20.00    -    1        .00327         8.62        .424      2.43286    1.500     4.119 PER IMP= 100.00
*S
ADD HYD                 20.99  1&86   5        .00788        61.15        .983      2.34049    1.500    12.131
*S
*S HYD 20.99 IS Q IN E. BOUND PDN
*S
*S
DIVIDE HYD              20.91    5   72        .00473        17.00        .590      2.34049    1.450     5.618
                        20.92  and   11        .00315        44.15        .393      2.34049    1.500    21.910
*S HYD 20.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 20.92 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
*S
COMPUTE NM HYD          17.00    -    1        .00200         5.28        .260      2.43286    1.500     4.121 PER IMP= 100.00
*S
ADD HYD                 17.99  1&11   5        .00515        49.43        .653      2.37631    1.500    15.000
*S
*S HYD 17.99 IS Q IN E. BOUND PDN
```

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


```
*S
*S
DIVIDE HYD              17.91    5   73        .00284        13.00        .361      2.37631    1.450     7.140
                        17.92  and   11        .00230        36.43        .292      2.37631    1.500    24.706
*S HYD 17.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S HYD 17.92 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
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*S
DIVIDE HYD            17.93   11   74        .00161        25.50        .204      2.37631    1.500    24.706
                      17.94  and   12        .00069        10.93        .088      2.37631    1.500    24.706
*S HYD 17.93 ASSUME 70% SPILLS THRU OPENING IN CONC. WALL BARRIER (RR TRACKS)
*S
*S HYD 17.94 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
*S
COMPUTE NM HYD        16.00    -    1         .00183         4.71        .237      2.43286    1.500     4.020 PER IMP= 100.00
*S
ADD HYD               16.99  1&12   5         .00252        15.64        .325      2.41721    1.500     9.691
*S
*S HYD 16.99 IS Q IN E. BOUND PDN
*S
*S
DIVIDE HYD            16.91    5   75         .00219         8.00        .283      2.41722    1.450     5.699
                      16.92  and   76         .00033         7.64        .042      2.41722    1.500    36.411
*S HYD 16.91 IS SUM OF EXISTING INLET CAPACITIES
*S
*S    *     *     *      *     *     *      *     *      *      *
*S HYD 16.92 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
*S           ACROSS THE NORTH DIVERSION CHANNEL
*S     *     *      *      *      *      *      *      *      *
*S
ADD HYD               16.93 64&75  77         .00470        17.00        .606      2.42176    1.500     5.657
*S
*S HYD 16.93 IS INTERMEDIATE Q IN PDN SHORT STORM DRAIN THAT OUTFALLS
*S              UNDER PDN MEDIAN TO THE N. DIV. CHANNEL
*S
*S
ADD HYD               16.94 77&69  78         .00535        19.00        .691      2.42198    1.500     5.550
*S     *     *      *      *      *      *      *      *      *
*S
*S HYD 16.94 IS TOTAL Q IN PDN SHORT STORM DRAIN THAT OUTFALLS
*S              UNDER PDN MEDIAN TO THE N. DIV. CHANNEL
*S     *     *      *      *      *      *      *      *      *
*S
*S
COMPUTE NM HYD        15.00    -    1         .00094         2.48        .122      2.43285    1.500     4.127 PER IMP= 100.00
*S
DIVIDE HYD            15.91    1   10         .00024          .62        .030      2.43255    1.500     4.127
                      15.92  and   11         .00071         1.86        .091      2.43255    1.500     4.127
*S HYD 15.91 ASSUME 25% SPILLS THROUGH CURB OPENING TOWARDS EX. INLET
*S
*S    *     *     *      *     *     *      *     *      *      *
*S HYD 15.92 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.
```

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

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
*S										
COMPUTE NM HYD	10.00	-	1	.00690	13.01	.399	1.08438	1.500	2.945	PER IMP= 5.00
*S										
ADD HYD	10.97	1&85	4	.00844	30.52	.585	1.30110	1.500	5.653	
*S										
*S HYD 10.97 IS SPILL FROM PDN PLUS BASIN 10										
*S										
*S										
ADD HYD	10.98	4&10	6	.00867	31.14	.616	1.33175	1.500	5.611	
*S										
*S HYD 10.98 IS SPILL FROM BASIN 10 AND PART OF BASIN 15 INTO EL PUEBLO RD										
*S										
*S										
ADD HYD	15.99	11& 6	5	.00938	33.00	.707	1.41452	1.500	5.500	
*S										
*S HYD 15.99 IS FLOW IN EL PUEBLO RD. AT W.END BASIN 15										
*S										
*S										
COMPUTE NM HYD	14.00	-	1	.00162	4.15	.198	2.29091	1.500	4.006	PER IMP= 90.00
*S										
ADD HYD	14.98	5& 1	15	.01100	37.15	.905	1.54361	1.500	5.280	
*S										
*S HYD 14.98 IS TOTAL FLOW IN EL PUEBLO RD. IN BASIN 14										
*S										
*S										
DIVIDE HYD	14.91	15	11	.00861	16.00	.709	1.54361	1.450	2.903	
	14.92	and	12	.00238	21.15	.196	1.54361	1.500	13.860	
*S * * * * * * * * * * * *										
*S HYD 14.91 SUM OF EX. INLET CAPACITIES IN BASIN 14 EL PUEBLO RD.										
*S										
*S * * * * * * * * * * * *										
*S HYD 14.92 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.										
*S										
ADD HYD	25.93	61&65	5	.01484	31.00	1.868	2.35936	1.450	3.264	
*S										
*S HYD 25.93 IS ADDITIONAL Q FROM FRONT. RD. AND W. BOUND PDN INLETS										
*S TO 24" CMP ALONG N. SIDE OF EL PUEBLO RD.										
*S										
*S										
ADD HYD	20.95	5&72	6	.01957	48.00	2.458	2.35480	1.450	3.832	
*S										
*S HYD 20.95 IS ADD Q FROM E. BOUND PDN INLETS TO 24" CMP										
*S ALONG N. SIDE OF EL PUEBLO RD.										
*S										
*S										
ADD HYD	14.94	6&11	17	.02818	64.00	3.167	2.10693	1.450	3.549	
*S										
*S HYD 14.94 IS TOTAL Q TO 24" CMP ALONG N. SIDE OF EL PUEBLO RD. AND OUTFALLS										
*S TO ASPHALT CHANNEL										

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	NOTATION
COMPUTE NM HYD	9.00	-	1	.01792	36.49	2.054	2.14897	1.550	3.181	PER IMP= 80.00
*S										
DIVIDE HYD	9.92	1	11	.01792	36.49	2.054	2.14894	1.550	3.181	
	9.91	and	52	.00000	.00	.000	.00000	-.050	.000	
*S HYD 9.92 ASSUME 100% BY PASSES EXISTING RETENTION POND INTO BASIN 8										
*S										
*S HYD 9.91 Q THAT COULD FLOW TO EXISTING RETENTION POND										
*S										
COMPUTE NM HYD	8.00	-	1	.07904	145.35	8.311	1.97152	1.550	2.873	PER IMP= 70.00
*S										
ADD HYD	8.99	1&11	5	.09696	181.84	10.365	2.00431	1.550	2.930	
*S * * * * * * * * * *										
*S										
*S HYD 8.99 IS TOTAL Q THAT WILL SPILL INTO EL PUEBLO RD. FROM BASINS										
*S EAST OF RR TRACKS										
*S										
*S * * * * * * * * *										
ADD HYD	14.99	5&15	6	.10796	211.64	11.270	1.95738	1.550	3.063	
*S										
*S HYD 14.99 IS TOTAL Q IN EL PUEBLO RD AT RR TRACKS										
*S										
*S										
DIVIDE HYD	14.81	6	18	.08636	169.32	9.016	1.95738	1.550	3.063	
	14.82	and	11	.02159	42.33	2.254	1.95738	1.550	3.063	
*S HYD 14.81 ASSUME 80% SPILLS FROM EL PUEBLO RD. AT RR TRACKS										
*S TO ASPHALT CHANNEL										
*S										
*S HYD 14.82 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.										
*S										
ADD HYD	14.95	17&18	5	.11454	233.32	12.183	1.99418	1.550	3.183	
*S										
*S HYD 14.95 IS TOTAL Q AT EAST END OF ASPHALT CHANNEL (N. OF EL PUEBLO RD)										
*S										
*S										
COMPUTE NM HYD	12.00	-	1	.00128	2.42	.074	1.08439	1.500	2.959	PER IMP= 5.00
*S										
ADD HYD	12.97	1& 5	6	.11582	235.44	12.256	1.98397	1.550	3.176	
*S										
*S HYD 12.97 PARTIAL Q IN ASPHALT CHANNEL BEFORE ADDING PRIVATE STORM DRAIN										
*S										
*S										
COMPUTE NM HYD	7.00	-	1	.00586	15.22	.738	2.36188	1.500	4.058	PER IMP= 95.00
*S										

```
DIVIDE HYD              7.91    1   13        .00472        6.00        .594      2.36182    1.350    1.988
                        7.92  and   12        .00114        9.22        .144      2.36183    1.500   12.592
*S HYD 7.91 SUM OF INLET CAPACITIES (TO 42" SD UNDER EL PUEBLO RD)
*S
*S HYD 7.92 EXCESS Q THAT SPILL INTO EL PUEBLO RD
*S
ADD HYD                 7.95 11&12  79        .02273       49.35       2.398      1.97771    1.550    3.392
*S
*S HYD 7.95 Q IN EL PUEBLO RD
*S
```

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


```
*S
COMPUTE NM HYD          6.00    -    1        .00853       22.14       1.074      2.36188    1.500    4.056 PER IMP=  95.00
*S
DIVIDE HYD              6.91    1   11        .00853       22.00       1.074      2.36185    1.500    4.032
                        6.92  and   80        .00000         .14        .001      2.36170    1.500   47.628
*S HYD 6.91 SUM OF INLET CAPACITIES (TO 42" SD UNDER EL PUEBLO RD)
*S
*S HYD 6.92 EXCESS Q THAT WILL SPILL INTO BASIN 4 IF INLET CAPACITY EXCEEDED
*S
ADD HYD                 6.95 11&13   5        .01324       28.00       1.668      2.36184    1.500    3.304
*S
*S HYD 6.95 Q IN EL PUEBLO RD
*S
*S
ADD HYD                12.98  5& 6   7        .12907      260.39      13.924      2.02274    1.550    3.152
*S
*S HYD 12.98 PARTIAL Q IN ASPHALT CHANNEL AFTER ADDING 42" PRIVITE SD
*S           (UNDER EL PUEBLO RD)
*S
*S
ADD HYD                12.99  7&73   5        .13191      273.39      14.284      2.03036    1.550    3.238
*S
*S    *      *      *      *      *      *      *     *      *      *
*S HYD 12.99 TOTAL Q IN ASPHALT CHANNEL TO 42" UNDER PDN
*S    *      *      *      *      *      *      *     *      *      *
*S
*S
*S    *      *      *      *      *      *      *     *      *      *
DIVIDE HYD             12.91    5   81        .06354       35.00       6.880      2.03036    1.300     .861
                       12.92  and   11        .06837      238.39       7.404      2.03036    1.550    5.448
*S HYD 12.91 IS THE CAPACITY OF THE 42" SD UNDER PASEO DEL NORTE
*S
*S HYD 12.92 EXCESS Q THAT WILL SPILL INTO BASIN 2 IF 42" SD CAP. EXCEEDED
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```
*S
ADD HYD              12.93 11&74   5        .06999       252.98        7.608      2.03834    1.500     5.648
*S
*S HYD 12.93 IS FLOW ALONG RR TRACKS JUST S. OF PDN IN BASIN 2
*S
*S
COMPUTE NM HYD        2.00   -     1        .00176         4.58         .222      2.36188    1.500     4.066 PER IMP=  95.00
*S
ADD HYD               2.98  1& 5  10        .07175       257.56        7.830      2.04627    1.500     5.609
*S
*S HYD 2.98 IS FLOW ALONG RR TRACKS JUST E. OF EL PUEBLO RD. CROSSING RR TRACKS
*S
*S
COMPUTE NM HYD       13.00   -     1        .00043         1.14         .056      2.43286    1.500     4.139 PER IMP= 100.00
*S
ADD HYD              13.99  1&79   5        .02316        50.32        2.454      1.98615    1.550     3.394
*S
*S HYD 13.99 IS FLOW IN EL PUEBLO RD.
*S
```

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


```
*S
COMPUTE NM HYD       11.00   -     1        .00053         1.40         .069      2.43285    1.500     4.134 PER IMP= 100.00
*S
ADD HYD              11.99  1& 5   6        .02369        51.52        2.523      1.99613    1.550     3.398
*S
*S HYD 11.99 IS FLOW IN EL PUEBLO RD.
*S
*S
DIVIDE HYD           11.91    6    11       .00711        15.46         .757      1.99613    1.550     3.398
                     11.92  and    12       .01659        36.07        1.766      1.99613    1.550     3.398
*S HYD 11.91 ASSUME 30% OF EL PUEBLO RD. FLOW SPILLS N. INTO BASIN 2 AT
*S           RR TRACK INTERSECTION WITH EL PUEBLO RD.
*S
*S HYD 11.92 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.
*S
DIVIDE HYD           11.93   12    15       .00995        21.64        1.059      1.99613    1.550     3.398
                     11.94  and    14       .00663        14.43         .706      1.99613    1.550     3.398
*S HYD 11.93 ASSUME 60% OF EL PUEBLO RD. FLOW SPILLS OUT S. OF EL PUEBLO RD.
*S           AT RR TRACK INTERSECTION WITH EL PUEBLO RD. (WILL FLOW TOWARDS
*S           30" CMP OUTFALL TO N. DIV. CHAN.
*S
*S HYD 11.94 ASSUME EXCESS WILL FLOW W. ON EL PUEBLO RD.
*S
ADD HYD               2.99 11&10   5        .07886       272.72        8.587      2.04175    1.500     5.404
*S
*S HYD 2.99 IS TOTAL FLOW TO INLETS AT THE RR TRACK INTERSECTION WITH
*S          EL PUEBLO RD.
*S
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```
*S
DIVIDE HYD              2.91    5   10        .01963        26.00       2.138      2.04174    1.350     2.069
                        2.92  and   11        .05922       246.72       6.449      2.04174    1.500     6.509
*S HYD 2.91 SUM OF ALL INLET CAPACITIES
*S
*S HYD 2.92 EXCESS Q THAT WILL SPILL INTO BASIN 1 (EL PUEBLO RD.)
*S
COMPUTE NM HYD          1.00    -    1        .00218         4.72        .184      1.58119    1.500     3.384 PER IMP=  40.00
*S
ADD HYD                 1.98  1&11   5        .06140       251.44       6.633      2.02539    1.500     6.398
*S
*S HYD 1.98 IS FLOW IN EL PUEBLO RD.
*S
*S
ADD HYD                 1.99  5&14   6        .06804       265.59       7.339      2.02253    1.500     6.099
*S
*S HYD 1.99 IS TOTAL FLOW IN EL PUEBLO RD. AT THE S. SIDE CURB CUT
*S          JUST EAST OF THE N. DIV. CHANNEL (OUTFALLS TO 30" CMP
*S          UNDER N. DIV. CHAN.
*S
*S
DIVIDE HYD              1.91    6   82        .05443       212.47       5.871      2.02253    1.500     6.099
                        1.92  and   83        .01361        53.12       1.468      2.02253    1.500     6.099
*S HYD 1.91 ASSUME 80% OF EL PUEBLO RD. FLOW WILL SPILL THROUGH
```

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


```
*S          S. SIDE CURB CUT JUST EAST OF THE N. DIV. CHANNEL
*S          (OUTFALLS TO 30" CMP UNDER N. DIV. CHAN.
*S
*S    *      *      *      *      *     *      *      *      *
*S HYD 1.92 EXCESS EL PUEBLO RD. Q THAT WILL FLOW ACROSS
*S          THE NORTH DIVERSION CHANNEL
*S    *      *      *      *      *     *      *      *      *
*S
ADD HYD                11.95 10&15   5        .02958        47.64       3.197      2.02639    1.550     2.516
*S
*S HYD 11.95 IS PARTIAL Q TO THE 30" CMP UNDER N. DIV. CHAN.
*S
*S
ADD HYD                 1.95  5&82  84        .08401       259.69       9.069      2.02389    1.500     4.830
*S     *      *      *      *      *     *      *      *      *
*S HYD 1.95 IS PARTIAL Q TO THE 30" CMP UNDER N. DIV. CHAN.
*S          (EXCLUDES Q FROM EXISTING PNM 21" CMP THAT OUTFALLS
*S          AT THE INLET TO THE 30" CMP)
*S    *      *      *      *      *     *      *      *      *
*S
*S
COMPUTE NM HYD          4.00    -    1        .06456        96.52       4.646      1.34940    1.600     2.336 PER IMP=  25.00
*S
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ADD HYD                 4.99  1&80   5        .06456        96.52        4.647      1.34947     1.600      2.336
*S
*S HYD 4.99 IS BASIN 4 COMBINED WITH ANY SPILL FROM BASIN 6
*S
*S
*S DIVIDE BY CAPACITY OF 21" CMP IN PNM POND
*S
DIVIDE HYD              4.91    5   10        .03143        17.00        2.262      1.34947     1.400       .845
                        4.92  and   11        .03314        79.52        2.385      1.34947     1.600      3.749
*S HYD 4.91 IS MAX. CAPACITY OF 21" RCP (with 11 ft. head)
*S          FROM THE PNM POND THAT OUTFALLS AT THE 30"CMP AT N. DIV. CHAN.
*S
*S    *      *      *      *       *     *       *      *       *      *
*S HYD 4.92 FLOW IN EXCESS OF 21" RCP CAPACITY THAT WILL REMAIN IN PND POND
*S    *      *      *      *       *     *       *      *       *      *
*S
*S ADD PNM 21" CMP Q TO Q AT INLET TO 30" CMP AT N. DIV. CHAN.
*S         THIS IS TOTAL Q AT 30" CMP
*S
ADD HYD                 1.98 84&10  87        .11544       276.69       11.330      1.84029     1.500      3.745
*S
*S HYD 1.98 IS TOTAL Q AT 30" CMP AT N. DIV. CHAN.
*S
*S
DIVIDE HYD              1.96   87   90        .05379        48.00        5.280      1.84029     1.350      1.394
                        1.97  and   91        .06165       228.69        6.051      1.84029     1.500      5.796
*S    *      *      *      *       *     *       *      *       *      *
*S
*S HYD 1.96 IS THE CAPACITY OF THE EX. 30" CMP TO N. DIV. CHAN.
```

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 13 NOTATION

```
*S
*S    *      *      *      *       *     *       *      *       *      *
*S HYD 1.97 FLOW IN EXCESS OF 30" CMP THAT WILL SPILL TO N. DIV. CHANNEL
*S
*S    *      *      *      *       *     *       *      *       *      *
*S
COMPUTE NM HYD          5.00    -    1        .05271        82.37        3.048      1.08438     1.550      2.442 PER IMP=   5.00
*S
COMPUTE NM HYD          3.00    -    2        .00520        12.64         .587      2.11494     1.500      3.797 PER IMP=  80.00
*S
ADD HYD                 3.97  1& 2   6        .05791        93.23        3.635      1.17691     1.550      2.515
*S    *      *      *      *       *     *       *      *       *      *
*S
*S HYD 3.97 IS Q TO N. DIV. CHANNEL INLET (JUST SOUTH OF RR TRACKS)
*S    *      *      *      *       *     *       *      *       *      *
*S
*S
FINISH
```

AHYMO_97 MODEL

INPUT FILE

```
*S FILE NAME     EI100-24.TXT
*S
*S TITLE 1 - EL PUEBLO ROAD DRAINAGE STUDY TO NORTH DIVERSION CHANNEL
*S TITLE 2 - FUTURE DEVELOPMENT CONDITIONS- EXISTING INFRASTRUCTURE
*S           100-YR. 24-HOUR STORM
*RP 100-yr / 24-hr
*DC
*S     THIS IS AN AHYMO_97 HYDROLOGIC MODEL FOR:
*S          THE EL PUEBLO ROAD DRAINAGE STUDY
*S          (Study of Drainage to the North Diversion Channel from
*S          Paseo Del Norte and North Frontage Road, El Pueblo Rd.
*S          and Basins south of El Pueblo Rd. to N. Div. Channel inlet
*S          located approx. 100 ft. south of El Pueblo Rd.)
*S             PREPARED FOR AMAFCA
*S             PREPARED BY SMITH ENGINEERING COMPANY (PLS, FC)
*S
*S        MODEL DESCRIPTION -
*S
*S   1.   THIS MODEL IS FOR FUTURE DEVELOPMENT CONDITIONS
*S        NOTE THAT MOST BASINS ARE FULLY DEVELOPED NOW OR WILL BE
*S        VERY SOON. LAND USE TREATMENT %'S WERE DETERMINED FROM
*S        AERIAL PHOTOGRAPHS, FIELD OBSERVATION AND COMMERCIAL INDUSTRIAL
*S        NATURE OF ALL OF THE DRAINAGE BASINS.
*S   2.   100-YEAR 24-HOUR RAINFALL EVENT (RAINFALL DATA OBTAINED FROM
*S        NOAA ATALS 14 - INTERNET DATA
*S   3.   STORM DRAINS ARE MODELED AS THE LESSOR OF THE COMBINBED
*S        INLET CAPACITIES OR THE NON-PRESSURE FULL PIPE FLOW (WHICHEVER
*S        IS LESS AS THE DIVIDE HYDRROGRAPH DISCHARGE,
*S   4.   NO SEDIMENT BULKING APPLIED DUE TO
*S              A.  ALL BASINS ARE OR WILL VERY SOON BE DEVELOPED
*S   5.   USE PROCEDURES FROM COA DPM SECTION 22
*S
START              TIME=0.0  PUNCH CODE=0 PRINT CODE=0
LOCATION           BERNALILLO COUNTY
*S
RAINFALL           TYPE=2
                   QUARTER=0.0     ONE= 1.77 IN
                   SIX= 2.38 IN    DAY= 2.69 IN   DT = 0.05 HR
*S
COMPUTE NM HYD     ID=1   HYD NO=34.00     DA=0.02144 SQ MI
                   PER A=0   PER B=5   PER C=15  PER D=80
                   TP=0.14  MASSRAIN=-1
PRINT HYD          ID=1   CODE=1
*S
COMPUTE NM HYD     ID=2   HYD NO=33.00     DA=0.00864 SQ MI
                   PER A=0   PER B=0   PER C=10  PER D=90
                   TP=0.16  MASSRAIN=-1
PRINT HYD          ID=2   CODE=1
*S
ADD HYD            ID=5   HYD=33.98     ID I=1   ID II=2
*S
*S HYD 33.98 IS TOTAL Q TO 30" RCP FROM EAST OF I-25 AND I-25 MEDIAN DICHTES
*S
PRINT HYD          ID=5   CODE=1
*S
COMPUTE NM HYD     ID=1   HYD NO=35.00     DA=0.04323 SQ MI
                   PER A=0   PER B=10   PER C=0   PER D=90
                   TP=0.15   MASSRAIN=-1
PRINT HYD          ID=1   CODE=1
*S
ADD HYD            ID=5   HYD=35.99     ID I=1   ID II=5
*S
*S HYD 35.99 IS TOTAL Q EXISTING RETENTION POND IN BASIN 35.00
*S
DIVIDE HYD          ID=5  PER=-100       ID  I=50   HYD NO=35.91
                                         ID II=51   HYD NO=35.92
PRINT HYD          ID=50    CODE=1
*S HYD 35.91 IS TOTAL FLOW TO EXISTING RETENTION POND IN BASIN 29.00
*S
PRINT HYD          ID=51    CODE=1
*S HYD 35.92 IS EXCESS FLOW (NONE IN EXISTING CONDITIONS)
*S
COMPUTE NM HYD     ID=1   HYD NO=30.00     DA=0.03753 SQ MI
                   PER A=0   PER B=10   PER C=0   PER D=90
                   TP=0.13   MASSRAIN=-1
PRINT HYD          ID=1   CODE=1
*S
```

```
DIVIDE HYD            ID=1  Q=58          ID  I=10   HYD NO=30.91
                                          ID II=11   HYD NO=30.92
PRINT HYD             ID=10    CODE=1
*S HYD 30.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD             ID=11    CODE=1
*S HYD 30.92 IS FLOW IN EXCESS OF INLET CAPACITIES TO JEFFERSON ST.
*S
COMPUTE NM HYD        ID=1   HYD NO=31.00     DA=0.02262 SQ MI
                      PER A=0   PER B=10   PER C=0   PER D=90
                      TP=0.13   MASSRAIN=-1
PRINT HYD             ID=1   CODE=1
*S
DIVIDE HYD            ID=1  Q=37          ID  I=12   HYD NO=31.91
                                          ID II=13   HYD NO=31.92
PRINT HYD             ID=12    CODE=1
*S HYD 31.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD             ID=13    CODE=1
*S HYD 31.92 IS FLOW IN EXCESS OF INLET CAPACITIES TO JEFFERSON ST.
*S
COMPUTE NM HYD        ID=1      HYD NO=29.00  DA=0.04144 SQ MI
                      PER A=0   PER B=15   PER C=0   PER D=85
                      TP=0.23   MASSRAIN=-1
PRINT HYD             ID=1   CODE=1
*S
ADD HYD               ID=5   HYD=31.93     ID I=10   ID II=12
*S
*S HYD 31.93 IS Q IN JEFFERSON STORM DRAIN BEFORE ADDING BASIN 29.00
*S
PRINT HYD             ID=5   CODE=1
*S
ADD HYD               ID=5   HYD=31.94     ID I=1   ID II=5
*S
*S HYD 31.94 IS Q IN JEFFERSON STORM DRAIN AFTER ADDING BASIN 29.00
*S
PRINT HYD             ID=5   CODE=1
*S
ADD HYD               ID=6   HYD=31.95     ID I=11   ID II=13
*S
*S HYD 31.95 IS Q IN JEFERSON STREET
*S
PRINT HYD             ID=6   CODE=1
*S
COMPUTE NM HYD        ID=1   HYD NO=32.00     DA=0.02313 SQ MI
                      PER A=0   PER B=10   PER C=0   PER D=90
                      TP=0.17   MASSRAIN=-1
PRINT HYD             ID=1   CODE=1
*S
DIVIDE HYD            ID=1  Q=40          ID  I=14   HYD NO=32.91
                                          ID II=15   HYD NO=32.92
PRINT HYD             ID=14    CODE=1
*S HYD 32.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD             ID=15    CODE=1
*S HYD 32.92 IS FLOW IN EXCESS OF INLET CAPACITIES TO JEFFERSON ST.
*S
ADD HYD               ID=7   HYD=32.95     ID I=5   ID II=14
*S
*S HYD 32.95 IS Q IN JEFF. ST. SD BEFORE ADDING E. BOUND PDN SD Q
*S
PRINT HYD             ID=7   CODE=1
*S
ADD HYD               ID=30   HYD=32.99     ID I=6   ID II=15
*S
*S HYD 32.99 IS TOTAL JEFF. ST. FLOW THAT WILL FLOW WEST ON EAST BOUND PDN
*S
PRINT HYD             ID=30   CODE=1
*S
COMPUTE NM HYD        ID=1   HYD NO=28.00     DA=0.00624 SQ MI
                      PER A=0   PER B=0   PER C=0   PER D=100
                      TP=0.18   MASSRAIN=-1
PRINT HYD             ID=1   CODE=1
*S
DIVIDE HYD            ID=1  Q=9          ID  I=16   HYD NO=28.91
                                         ID II=17   HYD NO=28.92
PRINT HYD             ID=16    CODE=1
```

```
*S HYD 28.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD             ID=17    CODE=1
*S HYD 28.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON E. BOUND PDN.
*S
ADD HYD               ID=31   HYD=32.96     ID I=7  ID II=16
*S
*S HYD 32.96 IS TOTAL Q IN JEFF. ST. AT E. BOUND PDN
*S
PRINT HYD             ID=31   CODE=1
*S
COMPUTE NM HYD        ID=1   HYD NO=27.00     DA=0.00641 SQ MI
                      PER A=0   PER B=0   PER C=0   PER D=100
                      TP=0.18   MASSRAIN=-1
PRINT HYD             ID=1   CODE=1
*S
DIVIDE HYD             ID=1  Q=10          ID  I=18   HYD NO=27.91
                                         ID II=19   HYD NO=27.92
PRINT HYD              ID=18    CODE=1
*S HYD 27.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD              ID=19    CODE=1
*S HYD 27.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
COMPUTE NM HYD        ID=1   HYD NO=26.00     DA=0.02574 SQ MI
                      PER A=0   PER B=10   PER C=0   PER D=90
                      TP=0.16   MASSRAIN=-1
PRINT HYD             ID=1   CODE=1
*S
DIVIDE HYD             ID=1  Q=33          ID  I=20   HYD NO=26.91
                                         ID II=21   HYD NO=26.92
PRINT HYD              ID=20    CODE=1
*S HYD 26.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD              ID=21    CODE=1
*S HYD 26.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
ADD HYD               ID=32   HYD=27.95     ID I=31  ID II=18
*S
*S HYD 27.95 IS Q IN JEFF. ST. STORM DRAIN AT W. BOUND PDN
*S
PRINT HYD             ID=32   CODE=1
*S
ADD HYD               ID=33   HYD=27.96     ID I=20  ID II=32
*S    *     *      *     *     *      *     *      *       *        *      *
*S HYD 27.96 IS TOTAL Q IN JEFF. ST. STORM DRAIN AT W. BOUND PDN
*S           TO DOM. BACA ARROYO
*S
PRINT HYD             ID=33   CODE=1
*S    *     *      *     *     *      *     *      *       *        *      *
*S
ADD HYD               ID=60   HYD=28.95     ID I=30  ID II=17
*S
*S HYD 28.95 IS TOTAL Q IN E. BOUND PDN AT JEFFERSON ST.
*S
PRINT HYD             ID=60   CODE=1
*S
DIVIDE HYD             ID=60  PER=-25          ID  I=85   HYD NO=28.71
                                               ID II=86   HYD NO=28.72
PRINT HYD              ID=85    CODE=1
*S HYD 28.71 IS FLOW ASSUMED TO SPILL FROM PDN INTO BASIN 10 (NO CONC. WALL)
*S
PRINT HYD              ID=86    CODE=1
*S HYD 28.72 IS THE FLOW THAT WILL CONTINUE W. ON E. BOUND PDN.
*S
ADD HYD               ID=5   HYD=27.97     ID I=19  ID II=21
*S
*S HYD 27.97 IS TOTAL Q IN W. BOUND PDN AT JEFFERSON ST.
*S
PRINT HYD             ID=5   CODE=1
*S
COMPUTE NM HYD        ID=1   HYD NO=21.00     DA=0.00298 SQ MI
                      PER A=0   PER B=0   PER C=0   PER D=100
                      TP=0.13   MASSRAIN=-1
PRINT HYD             ID=1   CODE=1
*S
ADD HYD               ID=5   HYD=21.98     ID I=1  ID II=5
```

```
*S
*S HYD 21.98 IS Q IN W. BOUND PDN
*S
PRINT HYD            ID=5    CODE=1
*S
DIVIDE HYD            ID=5  Q=14          ID  I=61   HYD NO=21.91
                                        ID II=11   HYD NO=21.92
PRINT HYD             ID=61    CODE=1
*S HYD 21.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD             ID=11    CODE=1
*S HYD 21.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
COMPUTE NM HYD       ID=1   HYD NO=19.00      DA=0.00192 SQ MI
                     PER A=0   PER B=0   PER C=0   PER D=100
                     TP=0.13   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
ADD HYD              ID=5   HYD=19.99      ID I=1  ID II=11
*S
*S HYD 19.99 IS Q IN W. BOUND PDN
*S
PRINT HYD            ID=5   CODE=1
*S
DIVIDE HYD            ID=5  Q=13          ID  I=62   HYD NO=19.91
                                        ID II=11.  HYD NO=19.92
PRINT HYD             ID=62    CODE=1
*S HYD 19.91 IS SUM OF EXISTING INLET CAPACITIES(to 24" SD in Front. Rd)
*S
PRINT HYD             ID=11    CODE=1
*S HYD 19.92 IS FLOW IN EXCESS OF INLET CAP. THAT WILL FLOW W. ON W. BOUND PDN.
*S
DIVIDE HYD            ID=11  PER=-50        ID  I=63   HYD NO=19.93
                                        ID II=12   HYD NO=19.94
PRINT HYD             ID=63    CODE=1
*S HYD 19.93 ASSUME 50% SPILLS THRU CONC. WALL OPENING(RR TRACKS)TO FRONT. ROAD
*S
PRINT HYD             ID=12    CODE=1
*S HYD 19.94 EXCESS THAT WILL FLOW W. ON W. BOUND PDN.
*S
COMPUTE NM HYD       ID=1   HYD NO=18.00      DA=0.00226 SQ MI
                     PER A=0   PER B=0   PER C=0   PER D=100
                     TP=0.16   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
ADD HYD              ID=5   HYD=18.99      ID I=1  ID II=12
*S
*S HYD 18.99 IS Q IN W. BOUND PDN
*S
PRINT HYD            ID=5   CODE=1
*S
DIVIDE HYD            ID=5  Q=9          ID  I=64   HYD NO=18.91
                                        ID II=11   HYD NO=18.92
PRINT HYD             ID=64    CODE=1
*S HYD 18.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD             ID=11    CODE=1
*S *    *    *    *    *    *    *    *    *    *    *    *
*S HYD 18.92 EXCESS THAT WILL FLOW W. ON W. BOUND PDN.
*S           THAT WILL PASS THE NORTH DIVERSION CHANNEL
*S *    *    *    *    *    *    *    *    *    *    *    *
*S
COMPUTE NM HYD       ID=1   HYD NO=25.00      DA=0.01168 SQ MI
                     PER A=0   PER B=0   PER C=5   PER D=95
                     TP=0.15   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
DIVIDE HYD            ID=1  Q=17          ID  I=65   HYD NO=25.91
                                        ID II=11   HYD NO=25.92
PRINT HYD             ID=65    CODE=1
*S HYD 25.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD             ID=11    CODE=1
*S HYD 25.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
COMPUTE NM HYD       ID=1   HYD NO=24.00      DA=0.00066 SQ MI
                     PER A=0   PER B=0   PER C=0   PER D=100
```

```
                    TP=0.13   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*S
ADD HYD             ID=5   HYD=24.99     ID I=1  ID II=11
*S
*S HYD 24.99 IS Q W. BOUND IN FRONTAGE RD. JUST EAST OF RR TRACKS
*S
PRINT HYD           ID=5   CODE=1
*S
DIVIDE HYD           ID=5  Q=5          ID  I=15   HYD NO=24.91
                                       ID II=11   HYD NO=24.92
PRINT HYD            ID=15    CODE=1
*S HYD 24.91 IS SUM OF EXISTING INLET CAPACITIES TO 24" CMP OUT OF BASIN
*S
PRINT HYD            ID=11    CODE=1
*S HYD 24.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
ADD HYD             ID=66   HYD=24.97     ID I=62  ID II=15
*S     *     *      *      *      *       *       *       *
*S HYD 24.97 IS TOTAL Q IN 24" SD THAT LEAVES BASIN JUST WEST OF RR TRACKS
*S     *     *      *      *      *       *       *       *
*S
PRINT HYD           ID=66   CODE=1
*S
DIVIDE HYD           ID=11  PER=-50         ID  I=67   HYD NO=24.93
                                          ID II=11   HYD NO=24.94
PRINT HYD            ID=67    CODE=1
*S     *     *      *      *      *       *       *       *       *
*S HYD 24.93 ASSUME 50% OF FRONT. RD. Q SPILLS OUT OF BASIN AT RR TRACKS
*S     *     *      *      *      *       *       *       *       *
*S
PRINT HYD            ID=11    CODE=1
*S HYD 24.94 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
ADD HYD             ID=5   HYD=24.95     ID I=11  ID II=63
*S
*S HYD 24.95 IS Q IN FRONT. RD. INCLUDING SPILL FROM W.BOUND PDN AT RR TRACKS
*S
PRINT HYD           ID=5   CODE=1
*S
COMPUTE NM HYD      ID=1   HYD NO=23.00     DA=0.00082 SQ MI
                    PER A=0   PER B=0   PER C=0   PER D=100
                    TP=0.13   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*S
ADD HYD             ID=5   HYD=23.99     ID I=1  ID II=5
*S
*S HYD 23.99 IS Q W. BOUND IN FRONTAGE RD. AT PRIVATE DRIVEWAY
*S
PRINT HYD           ID=5   CODE=1
*S
DIVIDE HYD           ID=5  PER=-80        ID  I=68   HYD NO=23.91
                                         ID II=11   HYD NO=23.92
PRINT HYD            ID=68    CODE=1
*S     *     *      *      *      *       *       *       *       *
*S HYD 23.91 ASSUME 80% SPILLS FROM FRONTAGE RD. TO PRIVATE DRIVEWAY
*S           (out of basin)
*S     *     *      *      *      *       *       *       *       *
*S
PRINT HYD            ID=11    CODE=1
*S HYD 23.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
COMPUTE NM HYD      ID=1   HYD NO=22.00     DA=0.00044 SQ MI
                    PER A=0   PER B=0   PER C=0   PER D=100
                    TP=0.13   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*S
ADD HYD             ID=5   HYD=22.97     ID I=1  ID II=11
*S
*S HYD 22.97 IS Q IN W. BOUND IN FRONTAGE RD.
*S
PRINT HYD           ID=5   CODE=1
*S
DIVIDE HYD           ID=5  Q=2            ID  I=69   HYD NO=22.91
                                         ID II=11   HYD NO=22.92
PRINT HYD            ID=69    CODE=1
*S HYD 22.91 SUM OF INLET CAPACITIES
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```
*S
PRINT HYD            ID=11    CODE=1
*S HYD 22.92 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S
DIVIDE HYD           ID=11  PER=-75          ID  I=70   HYD NO=22.93
                                            ID II=71   HYD NO=22.94
PRINT HYD            ID=70    CODE=1
*S     *     *      *      *      *       *       *       *        *
*S HYD 22.93 ASSUME 75% SPILLS OUT OF FRONTAGE RD DUE TO CURB OPENING
*S           (out of drainage basin)
*S     *     *      *      *      *       *       *       *        *
*S
PRINT HYD            ID=71    CODE=1
*S    *    *     *     *      *     *      *      *      *      *
*S HYD 22.94 EXCESS Q THAT WILL FLOW W. ON FRONTAGE RD.
*S           PAST THE NORTH DIVERSION CHANNEL
*S
COMPUTE NM HYD       ID=1   HYD NO=20.00     DA=0.00327 SQ MI
                     PER A=0   PER B=0   PER C=0   PER D=100
                     TP=0.13   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
ADD HYD              ID=5   HYD=20.99     ID I=1  ID II=86
*S
*S HYD 20.99 IS Q IN E. BOUND PDN
*S
PRINT HYD            ID=5   CODE=1
*S
DIVIDE HYD           ID=5  Q=17         ID  I=72   HYD NO=20.91
                                       ID II=11   HYD NO=20.92
PRINT HYD            ID=72    CODE=1
*S HYD 20.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD            ID=11    CODE=1
*S HYD 20.92 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
*S
COMPUTE NM HYD       ID=1   HYD NO=17.00     DA=0.00200 SQ MI
                     PER A=0   PER B=0  PER C=0   PER D=100
                     TP=0.13   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
ADD HYD              ID=5   HYD=17.99     ID I=1  ID II=11
*S
*S HYD 17.99 IS Q IN E. BOUND PDN
*S
PRINT HYD            ID=5   CODE=1
*S
DIVIDE HYD           ID=5  Q=13         ID  I=73   HYD NO=17.91
                                       ID II=11   HYD NO=17.92
PRINT HYD            ID=73    CODE=1
*S HYD 17.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD            ID=11    CODE=1
*S HYD 17.92 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
*S
DIVIDE HYD           ID=11  PER=-70         ID  I=74   HYD NO=17.93
                                       ID II=12   HYD NO=17.94
PRINT HYD            ID=74    CODE=1
*S HYD 17.93 ASSUME 70% SPILLS THRU OPENING IN CONC. WALL BARRIER (RR TRACKS)
*S
PRINT HYD            ID=12    CODE=1
*S HYD 17.94 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
*S
COMPUTE NM HYD       ID=1   HYD NO=16.00     DA=0.00183 SQ MI
                     PER A=0   PER B=0   PER C=0   PER D=100
                     TP=0.14   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
ADD HYD              ID=5   HYD=16.99     ID I=1  ID II=12
*S
*S HYD 16.99 IS Q IN E. BOUND PDN
*S
PRINT HYD            ID=5   CODE=1
*S
DIVIDE HYD           ID=5  Q=8          ID  I=75   HYD NO=16.91
                                       ID II=76   HYD NO=16.92
PRINT HYD            ID=75    CODE=1
```

```
*S HYD 16.91 IS SUM OF EXISTING INLET CAPACITIES
*S
PRINT HYD            ID=76    CODE=1
*S    *     *     *      *      *     *      *      *      *       *       *
*S HYD 16.92 EXCESS Q THAT WILL FLOW W. ON E. BOUND PDN
*S           ACROSS THE NORTH DIVERSION CHANNEL
*S     *     *      *      *      *       *       *       *       *
*S
ADD HYD              ID=77   HYD=16.93     ID I=64  ID II=75
*S
*S HYD 16.93 IS INTERMEDIATE Q IN PDN SHORT STORM DRAIN THAT OUTFALLS
*S               UNDER PDN MEDIAN TO THE N. DIV. CHANNEL
*S
PRINT HYD            ID=77   CODE=1
*S
ADD HYD              ID=78   HYD=16.94     ID I=77  ID II=69
*S     *     *      *      *      *       *       *       *       *
*S
*S HYD 16.94 IS TOTAL Q IN PDN SHORT STORM DRAIN THAT OUTFALLS
*S               UNDER PDN MEDIAN TO THE N. DIV. CHANNEL
*S     *     *      *      *      *       *       *       *       *
*S
PRINT HYD            ID=78   CODE=1
*S
COMPUTE NM HYD       ID=1   HYD NO=15.00     DA=0.00094 SQ MI
                     PER A=0   PER B=0   PER C=0   PER D=100
                     TP=0.13   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
DIVIDE HYD            ID=1  PER=-25          ID  I=10   HYD NO=15.91
                                          ID II=11   HYD NO=15.92
PRINT HYD             ID=10    CODE=1
*S HYD 15.91 ASSUME 25% SPILLS THROUGH CURB OPENING TOWARDS EX. INLET
*S
PRINT HYD             ID=11    CODE=1
*S    *     *     *      *      *     *      *      *      *       *       *
*S HYD 15.92 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.
*S
COMPUTE NM HYD       ID=1   HYD NO=10.00     DA=0.00690 SQ MI
                     PER A=0   PER B=0   PER C=95   PER D=5
                     TP=0.13   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
ADD HYD              ID=4   HYD=10.97     ID I=1  ID II=85
*S
*S HYD 10.97 IS SPILL FROM PDN PLUS BASIN 10
*S
PRINT HYD            ID=4   CODE=1
*S
ADD HYD              ID=6   HYD=10.98     ID I=4  ID II=10
*S
*S HYD 10.98 IS SPILL FROM BASIN 10 AND PART OF BASIN 15 INTO EL PUEBLO RD
*S
PRINT HYD            ID=6   CODE=1
*S
ADD HYD              ID=5   HYD=15.99     ID I=11  ID II=6
*S
*S HYD 15.99 IS FLOW IN EL PUEBLO RD. AT W.END BASIN 15
*S
PRINT HYD            ID=5   CODE=1
*S
COMPUTE NM HYD       ID=1   HYD NO=14.00     DA=0.00162 SQ MI
                     PER A=0   PER B=0   PER C=10   PER D=90
                     TP=0.13   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
ADD HYD              ID=15   HYD=14.98     ID I=5  ID II=1
*S
*S HYD 14.98 IS TOTAL FLOW IN EL PUEBLO RD. IN BASIN 14
*S
PRINT HYD            ID=15   CODE=1
*S
DIVIDE HYD            ID=15  Q=16          ID  I=11   HYD NO=14.91
                                         ID II=12   HYD NO=14.92
PRINT HYD             ID=11    CODE=1
*S    *     *     *      *      *     *      *      *      *       *       *
*S HYD 14.91 SUM OF EX. INLET CAPACITIES IN BASIN 14 EL PUEBLO RD.
```

```
*S
PRINT HYD            ID=12    CODE=1
*S    *     *     *      *      *     *      *      *      *      *      *
*S HYD 14.92 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.
*S
ADD HYD              ID=5   HYD=25.93     ID I=61  ID II=65
*S
*S HYD 25.93 IS ADDITIONAL Q FROM FRONT. RD. AND W. BOUND PDN INLETS
*S           TO 24" CMP ALONG N. SIDE OF EL PUEBLO RD.
*S
PRINT HYD            ID=5   CODE=1
*S
ADD HYD              ID=6   HYD=20.95     ID I=5  ID II=72
*S
*S HYD 20.95 IS ADD Q FROM E. BOUND PDN INLETS TO 24" CMP
*S           ALONG N. SIDE OF EL PUEBLO RD.
*S
PRINT HYD            ID=6   CODE=1
*S
ADD HYD              ID=17   HYD=14.94     ID I=6  ID II=11
*S
*S HYD 14.94 IS TOTAL Q TO 24" CMP ALONG N. SIDE OF EL PUEBLO RD. AND OUTFALLS
*S           TO ASPHALT CHANNEL
*S
PRINT HYD            ID=17   CODE=1
*S
COMPUTE NM HYD       ID=1   HYD NO=9.00     DA=0.01792 SQ MI
                     PER A=0   PER B=0   PER C=20   PER D=80
                     TP=0.20   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
DIVIDE HYD            ID=1  PER=-100          ID  I=11   HYD NO=9.92
                                              ID II=52   HYD NO=9.91
PRINT HYD             ID=11    CODE=1
*S HYD 9.92 ASSUME 100% BY PASSES EXISTING RETENTION POND INTO BASIN 8
*S
PRINT HYD             ID=52    CODE=1
*S HYD 9.91 Q THAT COULD FLOW TO EXISTING RETENTION POND
*S
COMPUTE NM HYD       ID=1   HYD NO=8.00     DA=0.07904 SQ MI
                     PER A=0   PER B=10   PER C=20   PER D=70
                     TP=0.21   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
ADD HYD              ID=5   HYD=8.99     ID I=1  ID II=11
*S    *      *      *       *      *      *      *      *      *      *
*S
*S HYD 8.99 IS TOTAL Q THAT WILL SPILL INTO EL PUEBLO RD. FROM BASINS
*S          EAST OF RR TRACKS
*S
PRINT HYD            ID=5   CODE=1
*S    *     *      *       *       *       *       *       *       *
ADD HYD              ID=6   HYD=14.99     ID I=5  ID II=15
*S
*S HYD 14.99 IS TOTAL Q IN EL PUEBLO RD AT RR TRACKS
*S
PRINT HYD            ID=6   CODE=1
*S
DIVIDE HYD            ID=6  PER=-80          ID  I=18   HYD NO=14.81
                                          ID II=11   HYD NO=14.82
PRINT HYD             ID=18    CODE=1
*S HYD 14.81 ASSUME 80% SPILLS FROM EL PUEBLO RD. AT RR TRACKS
*S           TO ASPHALT CHANNEL
*S
PRINT HYD             ID=11    CODE=1
*S HYD 14.82 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.
*S
ADD HYD              ID=5   HYD=14.95     ID I=17  ID II=18
*S
*S HYD 14.95 IS TOTAL Q AT EAST END OF ASPHALT CHANNEL (N. OF EL PUEBLO RD)
*S
PRINT HYD            ID=5   CODE=1
*S
COMPUTE NM HYD       ID=1   HYD NO=12.00     DA=0.00128 SQ MI
                     PER A=0   PER B=0   PER C=95   PER D=5
                     TP=0.13   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
```

```
*S
ADD HYD             ID=6   HYD=12.97     ID I=1  ID II=5
*S
*S HYD 12.97 PARTIAL Q IN ASPHALT CHANNEL BEFORE ADDING PRIVATE STORM DRAIN
*S
PRINT HYD           ID=6   CODE=1
*S
COMPUTE NM HYD      ID=1   HYD NO=7.00     DA=0.00586 SQ MI
                    PER A=0   PER B=0   PER C=5   PER D=95
                    TP=0.13   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*S
DIVIDE HYD           ID=1  Q=6        ID  I=13   HYD NO=7.91
                                      ID II=12   HYD NO=7.92
PRINT HYD            ID=13    CODE=1
*S HYD 7.91 SUM OF INLET CAPACITIES (TO 42" SD UNDER EL PUEBLO RD)
*S
PRINT HYD            ID=12    CODE=1
*S HYD 7.92 EXCESS Q THAT SPILL INTO EL PUEBLO RD
*S
ADD HYD             ID=79   HYD=7.95     ID I=11  ID II=12
*S
*S HYD 7.95 Q IN EL PUEBLO RD
*S
PRINT HYD           ID=79   CODE=1
*S
COMPUTE NM HYD      ID=1   HYD NO=6.00     DA=0.00853 SQ MI
                    PER A=0   PER B=0   PER C=5   PER D=95
                    TP=0.13   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*S
DIVIDE HYD           ID=1  Q=22        ID  I=11   HYD NO=6.91
                                      ID II=80   HYD NO=6.92
PRINT HYD            ID=11    CODE=1
*S HYD 6.91 SUM OF INLET CAPACITIES (TO 42" SD UNDER EL PUEBLO RD)
*S
PRINT HYD            ID=80    CODE=1
*S HYD 6.92 EXCESS Q THAT WILL SPILL INTO BASIN 4 IF INLET CAPACITY EXCEEDED
*S
ADD HYD             ID=5   HYD=6.95     ID I=11  ID II=13
*S
*S HYD 6.95 Q IN EL PUEBLO RD
*S
PRINT HYD           ID=5   CODE=1
*S
ADD HYD             ID=7   HYD=12.98     ID I=5  ID II=6
*S
*S HYD 12.98 PARTIAL Q IN ASPHALT CHANNEL AFTER ADDING 42" PRIVITE SD
*S           (UNDER EL PUEBLO RD)
*S
PRINT HYD           ID=7   CODE=1
*S
ADD HYD             ID=5   HYD=12.99     ID I=7  ID II=73
*S
*S    *      *      *      *      *       *       *     *      *      *
*S HYD 12.99 TOTAL Q IN ASPHALT CHANNEL TO 42" UNDER PDN
*S    *      *      *      *      *       *       *     *      *      *
*S
PRINT HYD           ID=5   CODE=1
*S
*S    *      *      *      *      *       *       *     *      *       *
DIVIDE HYD           ID=5  Q=35         ID  I=81   HYD NO=12.91
                                       ID II=11   HYD NO=12.92
PRINT HYD            ID=81    CODE=1
*S HYD 12.91 IS THE CAPACITY OF THE 42" SD UNDER PASEO DEL NORTE
*S
PRINT HYD            ID=11    CODE=1
*S HYD 12.92 EXCESS Q THAT WILL SPILL INTO BASIN 2 IF 42" SD CAP. EXCEEDED
*S
ADD HYD             ID=5   HYD=12.93     ID I=11  ID II=74
*S
*S HYD 12.93 IS FLOW ALONG RR TRACKS JUST S. OF PDN IN BASIN 2
*S
PRINT HYD           ID=5   CODE=1
*S
COMPUTE NM HYD      ID=1   HYD NO=2.00     DA=0.00176 SQ MI
                    PER A=0   PER B=0  PER C=5   PER D=95
```

```
                    TP=0.13   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*S
ADD HYD             ID=10   HYD=2.98     ID I=1  ID II=5
*S
*S HYD 2.98 IS FLOW ALONG RR TRACKS JUST E. OF EL PUEBLO RD. CROSSING RR TRACKS
*S
PRINT HYD           ID=10   CODE=1
*S
COMPUTE NM HYD      ID=1   HYD NO=13.00     DA=0.00043 SQ MI
                    PER A=0   PER B=0   PER C=0   PER D=100
                    TP=0.13   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*S
ADD HYD             ID=5   HYD=13.99     ID I=1  ID II=79
*S
*S HYD 13.99 IS FLOW IN EL PUEBLO RD.
*S
PRINT HYD           ID=5   CODE=1
*S
COMPUTE NM HYD      ID=1   HYD NO=11.00     DA=0.00053 SQ MI
                    PER A=0   PER B=0   PER C=0  PER D=100
                    TP=0.13   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*S
ADD HYD             ID=6   HYD=11.99     ID I=1  ID II=5
*S
*S HYD 11.99 IS FLOW IN EL PUEBLO RD.
*S
PRINT HYD           ID=6   CODE=1
*S
DIVIDE HYD           ID=6  PER=-30          ID  I=11   HYD NO=11.91
                                         ID II=12   HYD NO=11.92
PRINT HYD            ID=11    CODE=1
*S HYD 11.91 ASSUME 30% OF EL PUEBLO RD. FLOW SPILLS N. INTO BASIN 2 AT
*S           RR TRACK INTERSECTION WITH EL PUEBLO RD.
*S
PRINT HYD            ID=12    CODE=1
*S HYD 11.92 EXCESS Q THAT WILL FLOW W. ON EL PUEBLO RD.
*S
DIVIDE HYD           ID=12  PER=-60          ID  I=15   HYD NO=11.93
                                         ID II=14   HYD NO=11.94
PRINT HYD            ID=15    CODE=1
*S HYD 11.93 ASSUME 60% OF EL PUEBLO RD. FLOW SPILLS OUT S. OF EL PUEBLO RD.
*S           AT RR TRACK INTERSECTION WITH EL PUEBLO RD. (WILL FLOW TOWARDS
*S           30" CMP OUTFALL TO N. DIV. CHAN.
*S
PRINT HYD            ID=14    CODE=1
*S HYD 11.94 ASSUME EXCESS WILL FLOW W. ON EL PUEBLO RD.
*S
ADD HYD             ID=5   HYD=2.99     ID I=11  ID II=10
*S
*S HYD 2.99 IS TOTAL FLOW TO INLETS AT THE RR TRACK INTERSECTION WITH
*S          EL PUEBLO RD.
*S
PRINT HYD           ID=5   CODE=1
*S
DIVIDE HYD           ID=5  Q=26          ID  I=10   HYD NO=2.91
                                        ID II=11   HYD NO=2.92
PRINT HYD            ID=10    CODE=1
*S HYD 2.91 SUM OF ALL INLET CAPACITIES
*S
PRINT HYD            ID=11    CODE=1
*S HYD 2.92 EXCESS Q THAT WILL SPILL INTO BASIN 1 (EL PUEBLO RD.)
*S
COMPUTE NM HYD      ID=1   HYD NO=1.00     DA=0.00218 SQ MI
                    PER A=0   PER B=0   PER C=60   PER D=40
                    TP=0.13   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*S
ADD HYD             ID=5   HYD=1.98     ID I=1  ID II=11
*S
*S HYD 1.98 IS FLOW IN EL PUEBLO RD.
*S
PRINT HYD           ID=5   CODE=1
*S
ADD HYD             ID=6   HYD=1.99     ID I=5  ID II=14
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*S
*S HYD 1.99 IS TOTAL FLOW IN EL PUEBLO RD. AT THE S. SIDE CURB CUT
*S          JUST EAST OF THE N. DIV. CHANNEL (OUTFALLS TO 30" CMP
*S          UNDER N. DIV. CHAN.
*S
PRINT HYD            ID=6   CODE=1
*S
DIVIDE HYD            ID=6  PER=-80          ID  I=82   HYD NO=1.91
                                          ID II=83   HYD NO=1.92
PRINT HYD             ID=82    CODE=1
*S HYD 1.91 ASSUME 80% OF EL PUEBLO RD. FLOW WILL SPILL THROUGH
*S          S. SIDE CURB CUT JUST EAST OF THE N. DIV. CHANNEL
*S          (OUTFALLS TO 30" CMP UNDER N. DIV. CHAN.
*S
PRINT HYD             ID=83    CODE=1
*S    *      *      *      *      *     *       *      *       *      *
*S HYD 1.92 EXCESS EL PUEBLO RD. Q THAT WILL FLOW ACROSS
*S          THE NORTH DIVERSION CHANNEL
*S    *      *      *      *      *     *       *      *       *      *
*S
ADD HYD              ID=5   HYD=11.95     ID I=10  ID II=15
*S
*S HYD 11.95 IS PARTIAL Q TO THE 30" CMP UNDER N. DIV. CHAN.
*S
PRINT HYD            ID=5   CODE=1
*S
ADD HYD              ID=84   HYD=1.95     ID I=5  ID II=82
*S     *      *      *      *      *      *       *       *         *
*S HYD 1.95 IS PARTIAL Q TO THE 30" CMP UNDER N. DIV. CHAN.
*S          (EXCLUDES Q FROM EXISTING PNM 21" CMP THAT OUTFALLS
*S          AT THE INLET TO THE 30" CMP)
*S    *      *      *      *      *     *       *      *       *      *
PRINT HYD            ID=84   CODE=1
*S
*S
COMPUTE NM HYD       ID=1   HYD NO=4.00     DA=0.06456 SQ MI
                     PER A=0   PER B=5   PER C=70   PER D=25
                     TP=0.22   MASSRAIN=-1
PRINT HYD            ID=1   CODE=1
*S
ADD HYD              ID=5   HYD=4.99     ID I=1  ID II=80
*S
*S HYD 4.99 IS BASIN 4 COMBINED WITH ANY SPILL FROM BASIN 6
*S
PRINT HYD            ID=5   CODE=1
*S
*S DIVIDE BY CAPACITY OF 21" CMP IN PNM POND
*S
DIVIDE HYD            ID=5  Q=17       ID  I=10   HYD NO=4.91
                                       ID II=11   HYD NO=4.92
PRINT HYD             ID=10    CODE=1
*S HYD 4.91 IS MAX. CAPACITY OF 21" RCP (with 11 ft. head)
*S          FROM THE PNM POND THAT OUTFALLS AT THE 30"CMP AT N. DIV. CHAN.
*S
PRINT HYD             ID=11    CODE=1
*S    *      *      *      *      *     *       *      *       *      *
*S HYD 4.92 FLOW IN EXCESS OF 21" RCP CAPACITY THAT WILL REMAIN IN PND POND
*S    *      *      *      *      *     *       *      *       *      *
*S
*S ADD PNM 21" CMP Q TO Q AT INLET TO 30" CMP AT N. DIV. CHAN.
*S         THIS IS TOTAL Q AT 30" CMP
*S
ADD HYD              ID=87   HYD=1.98     ID I=84  ID II=10
*S
*S HYD 1.98 IS TOTAL Q AT 30" CMP AT N. DIV. CHAN.
*S
PRINT HYD            ID=87   CODE=1
*S
DIVIDE HYD            ID=87  Q=48         ID  I=90   HYD NO=1.96
                                          ID II=91   HYD NO=1.97
PRINT HYD             ID=90    CODE=1
*S    *      *      *      *      *     *       *      *       *      *
*S
*S HYD 1.96 IS THE CAPACITY OF THE EX. 30" CMP TO N. DIV. CHAN.
*S
*S    *      *      *      *      *     *       *      *       *      *
PRINT HYD            ID=91    CODE=1
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*S HYD 1.97 FLOW IN EXCESS OF 30" CMP THAT WILL SPILL TO N. DIV. CHANNEL
*S
*S    *      *      *      *      *      *      *      *      *      *
*S
COMPUTE NM HYD      ID=1   HYD NO=5.00     DA=0.05271 SQ MI
                    PER A=0   PER B=0   PER C=95   PER D=5
                    TP=0.18   MASSRAIN=-1
PRINT HYD           ID=1   CODE=1
*S
COMPUTE NM HYD      ID=2   HYD NO=3.00     DA=0.00520 SQ MI
                    PER A=0   PER B=10   PER C=10   PER D=80
                    TP=0.13   MASSRAIN=-1
PRINT HYD           ID=2   CODE=1
*S
ADD HYD             ID=6   HYD=3.97     ID I=1  ID II=2
*S    *      *      *      *      *      *      *      *      *      *
*S
*S HYD 3.97 IS Q TO N. DIV. CHANNEL INLET (JUST SOUTH OF RR TRACKS)
*S    *      *      *      *      *      *      *      *      *      *
*S
PRINT HYD           ID=6   CODE=1
*S
FINISH
```