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*Concord, NH - Storm water study Pilot Area.
*Cynthia Carlson, Winter 00/01
*Vertical datum: Mean Sea Level (Off sewer plans of 1978)
*Horizontal datum: NAD 1983
*Ten-year return period storm.
*
*** NBLOCK JIN(1) JOUT(1)
SW 1 0 9
MM 8 1 2 3 10 11 12 13 14
* Generate interface file for Extran block
@ 9 'run10yri.int'
$ANUM
$NOQUOTE
$RUNOFF Call the RUNOFF block with a '$' in first column.
A1 'Concord, NH: Terrible Trapezoid'
A1 '10yr Year storm'
*
* METRIC ISNOW NRGAG INFILM KWALTY IVAP NHR NMN NDAY MONTH IYRSTR [IVCHAN]
B1 0 0 2 0 0 0 0 0 1 10 1989
* IPRN(1) IPRN(2) IPRN(3) IRPNGW
B2 0 0 1
*
* WET WET/DRY DRY LUNIT LONG
B3 60. 120.0 720. 3 9.0
* Line D1 is the first rainfall control line.
*
=====
D1 Line :
ROPT : Precipitation input option.
= 0, Read NRGAG hyetographs on E1, E2 and E3
data groups. (Rain data can be saved permanently
on NSCRAT(1) using the @ function.)
D1 0
*
=====
* KTYPE KINC KPRINT KTHIS KTIME KPREP NHISTO THISTO TZRAIN
E1 2 1 0 0 1 1 38 0.25 0
*
E3 Line :
REIN(1) : Time of precipitation. Units of KTIME.
REIN(2) : Precipitation, first raingage, in./hr [mm/hr].
*
REIN(NRGAG+1) : Precipitation, last raingage, in./hr [mm/hr].
*
=====
* Rainfall from stochastic disaggregation Mitch Heineman did on real rainfall data.

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Runoff Input File

* NAMEG	NGTO	W,ft	Area,ac	%IMP	SLOPE	Ruff-i	Ruff-p	i-sto	p-sto	MAX	MIN	DFULL	GDEPTH
*G1	'Runholly'	'Brook30'	2	1.67	500	0.0085	0	0	0.013	0	0	0	0
*G1	'Runholly1'	'Runholly'	2	1.67	875	0.0083	0	0	0.013	0	0	0	0
*G1	'Runhope'	'Runholly1'	2	1.50	363	0.0050	0	0	0.013	0	0	0	0
G1	'Pill10'	'Brook20'	2	1.25	897	0.0067	0	0	0.013	0	0	0	0
G1	'Pill15'	'Pill10'	2	1.50	389	0.0072	0	0	0.013	0	0	0	0
G1	'Pill20'	'Pill15'	2	1.00	305	0.0190	0	0	0.013	0	0	0	0

* NGOTO	W,ft	Area,ac	%IMP	SLOPE	Ruff-i	Ruff-p	i-sto	p-sto	MAX	MIN	DFULL	GDEPTH	DECAY
H1	'SP350'	'SP350'	600	1.82	43.4	0.03	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'FED100'	'SP370'	900	1.83	43.4	0.01	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'PLE100'	'PLE100'	8250	22.76	36.0	0.07	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'CC350'	'CC350'	1500	8.71	24.8	0.07	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'SP310'	'SP310'	1050	3.48	36.0	0.005	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'SP320'	'SP320'	675	1.76	43.4	0.07	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'SP300'	'SP300'	2100	8.59	36.0	0.005	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'MA200'	'MA200'	1200	2.09	43.4	0.03	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'STA180'	'STA180'	3700	21.83	36.0	0.03	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'SP280'	'SP280'	2100	6.56	36.0	0.005	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'SH'	'CC210'	1475	29.12	18.0	0.005	0.2	0.1	0.2	4	0.45	0.00115	0.00115

*used to drain into 'Monroe', but too much flow for that little pipe, put right into system

H1	'CC270'	'CC300'	1000	10.40	36.0	0.009	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'MA150'	'MA150'	900	1.40	43.4	0.07	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'CC340'	'CC320'	1650	6.32	36.0	0.005	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'CC330'	'CC320'	1125	4.42	24.8	0.03	0.2	0.1	0.2	4	0.45	0.00115	0.00115

*splitting the original STA150 into 2 pieces, one drains to State st. the other to main.

*H1	'STA150'	'STA140'	1500	16.04	43.4	0.03	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'MA125'	'MA160'	1200	4.61	43.4	0.03	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'STA150'	'STA140'	1500	11.42	43.4	0.03	0.2	0.1	0.2	4	0.45	0.00115	0.00115

H1	'SP260'	'SP260'	300	0.69	36.0	0.01	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'SP220'	'SP220'	1200	4.68	36.0	0.01	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'MA100'	'MA100'	900	4.67	43.4	0.07	0.2	0.1	0.2	4	0.45	0.00115	0.00115

H1	'CC290'	'CC280'	2025	6.92	36.0	0.07	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'SP210'	'SP210'	300	1.83	36.0	0.01	0.2	0.1	0.2	4	0.45	0.00115	0.00115

H1	'CC240'	'CC230'	1800	4.20	36.0	0.03	0.2	0.1	0.2	4	0.45	0.00115	0.00115
H1	'SP200'	'SP200'	300	1.40	36.0	0.01	0.2	0.1	0.2	4	0.45	0.00115	0.00115

H1	1	'SP190'	'SP190'	450	3.01	36.0	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'AS100'	'MA100'	900	3.04	43.4	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'CC220'	'CC220'	3300	12.51	36.0	0.01	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'SP150'	'SP150'	1500	5.70	39.7	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'STA100'	'STA100'	2100	7.89	43.4	0.03	0.03	0.2	0.1	0.2	4	0.45	0.00115
*														
H1	1	'ALLISON'	'CC130'	1500	8.21	42.0	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'CC210'	'CC210'	5850	19.24	24.8	0.01	0.03	0.2	0.1	0.2	4	0.45	0.00115
*														
H1	1	'SP130'	'ALL130'	1350	3.74	43.4	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'SP140'	'ALL140'	675	3.52	39.7	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'CC170'	'CC170'	1350	4.76	39.7	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'CC200'	'CC190'	1500	4.36	24.8	0.01	0.03	0.2	0.1	0.2	4	0.45	0.00115
*														
H1	1	'PILLSBUR'	'Brook20'	5850	21.67	34.0	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'ALL1'	'All2x3us'	5100	17.24	24.8	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'ALL2'	'All2us'	2850	12.20	36.0	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'HOLLY'	'Holly'	5700	40.26	18.0	0.008	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'Carter'	'All2us'	1350	4.95	25.0	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'STONE'	'Pill20'	1350	5.26	27.0	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
H1	1	'HOPE'	'McKinley'	3900	40.69	20.0	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
*														

*Wiggin discharges into the pond.

*H1	1	'WIGGIN'	'Brook20'	4400	16.12	25.0	0.005	0.03	0.2	0.1	0.2	4	0.45	0.00115
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=====
 * Enter Subcatchment Snow Input Data on data groups I1 and I2 (if modeled).
 *=====
 *

Note: If ISNOW = 0, skip to group J1.
 If ISNOW = 1, read only group I1.
 If ISNOW = 2, read both groups I1 and I2, in pairs.

 Enter General Quality Control on data group J1.
 #####

=====
 * Enter data for Channel/Inlet Print Control on data group M1.
 *=====
 *

M1 Line :
 NPRNT : Total number of channels/pipes/inlets for which
 non-zero flows (and concentrations) are
 to be printed (maximum = NG).
 *

```
*
* INTERV : Print Control.
* = 0, Print statistical summary only.
* = 1, Print every time step.
* = K, Print every K time steps.
*
* =====
* NPRNT INTERV
M1 0 0
*
* =====
* End your input data set with a $ENDPROGRAM.
*
$ENDPROGRAM
```

*Concord, NH - Storm water study Pilot Area.
 *"Terrible Trapezoid" from Pleasant street to Allison Street"
 *Cynthia Carlson, Winter 00/01
 *Vertical datum: Mean Sea Level (Off sewer plans of 1978)
 *Horizontal datum: NAD 1983
 *Ten-year return period storm.
 *

SW 1 7 8 0 0
 MM 5 12 13 14 15 16
 @ 7 'run10yri.int'
 @ 8 '10yri.out'

\$ANUM

\$NOQUOTE

*=====

\$EXTRAN

*=====

*=====

*=====

*=====

*=====

*=====

A1 'Concord Stormdrain - Terrible Trapezoid'

A1 'XYS=Concord.XYS'

B0 0 0

BB 0 0 0 0

*#steps sec

*B1 5000 10 0 0 -20 20 0 19990101

B1 8000 10 0 0 -20 20 0 19990101

B2 0 1 12.57 100 0.01

B3 0 0 0 0

*C1 'FED120' 'FED120' 'FED120' 0 1 0 1.25 0 25 0 0 0.013 0 0

*C1 'FED110' 'FED110' 'FED110' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

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*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

*C1 'FED100' 'FED100' 'FED100' 0 1 0 1.25 0 58 0 0 0.013 0 0

Extran Input File

C1 'SP320' 'SP320' 'SP310' 0 1 0 2 0 187 0.44 0 0.013 0 0
 C1 'CC370' 'CC370' 'CC360' 0 1 0 2 0 209 0 0 0.013 0 0
 C1 'CC360' 'CC360' 'CC350' 0 2 0 2 3 120 0 0 0.015 0 0
 C1 'SP310' 'SP310' 'SP300' 0 1 0 2 0 215 0 0 0.013 0 0
 C1 'SP315' 'SP315' 'SP310' 0 1 0 1 0 110 0 0 0.013 0 0
 C1 'SP300' 'SP300' 'SP290' 0 1 0 2 0 208 0 0 0.013 0 0
 C1 'SP290' 'SP290' 'SP280' 0 1 0 2 0 188 0 0 0.013 0 0
 C1 'SP280' 'SP280' 'SP270' 0 1 0 2 0 68 0 0 0.013 0 0
 C1 'SP270' 'SP270' 'SP260' 0 1 0 2 0 120 0 0 0.013 0 0
 C1 'SP260' 'SP260' 'SP250' 0 1 0 2 0 83 0 0 0.013 0 0
 C1 'SP250' 'SP250' 'SP240' 0 1 0 2 0 280 0 0 0.013 0 0
 *C1 'Monroe' 'Monroe' 'CC300' 0 1 0 1 0 299 0 0 0.013 0 0
 C1 'CC350' 'CC350' 'CC320' 0 2 0 2 3 530 0 0 0.015 0 0
 C1 'CC320' 'CC320' 'CC300' 0 2 0 2 3 101 0 0 0.015 0 0
 C1 'SP240' 'SP240' 'SP230' 0 1 0 2 0 143 0 0 0.013 0 0
 C1 'SP230' 'SP230' 'SP220' 0 1 0 2 0 142 0 0 0.013 0 0
 *C1 'Thorn' 'Thorn' 'CC280' 0 1 0 1 0 205 0 0 0.013 0 0
 C1 'CC300' 'CC300' 'CC280' 0 2 0 2 3 257 0 0 0.015 0 0
 C1 'SP220' 'SP220' 'SP210' 0 1 0 3 0 245 0 0 0.013 0 0
 C1 'SP210' 'SP210' 'SP200' 0 1 0 3 0 282 0 0 0.013 0 0
 C1 'SP200' 'SP200' 'SP190' 0 1 0 3 0 265 0 0 0.013 0 0
 C1 'SP190' 'SP190' 'SP180' 0 1 0 3 0 77 0 0 0.013 0 0
 C1 'CC280' 'CC280' 'CC250' 0 2 0 2 3 550 0 0 0.015 0 0
 C1 'CC250' 'CC250' 'CC230' 0 2 0 2 3 250 0 0 0.015 0 0
 C1 'CC230' 'CC230' 'CC220' 0 2 0 2 3 24 0 0 0.015 0 0
 C1 'CC220' 'CC220' 'CC210' 0 2 0 2 3 440 0 0 0.015 0 0
 *C1 'West' 'West' 'CC210' 0 1 0 1 0 57 0 0 0.013 0 0
 C1 'SP180' 'SP180' 'SP170' 0 1 0 3 0 71 0 0 0.013 0 0
 C1 'SP170' 'SP170' 'SP160' 0 1 0 3 0 377 0 0 0.013 0 0
 C1 'CC210' 'CC210' 'CC190' 0 2 0 2 3 882 0 0 0.015 0 0

*equivalent pipe for stability.

C1 'CC190' 'CC190' 'CC180' 0 2 0 2 3 100 6.6 0 0.0051 0 0
 **C1 'CC190' 'CC190' 'CC180' 0 2 0 2 3 34 0 0 0.013 0 0
 C1 'CC180' 'CC180' 'CC170' 0 1 0 2 0 184 0 0 0.013 0 0
 C1 'CC170' 'CC170' 'CC160' 0 1 0 2 0 215 0 0 0.013 0 0
 C1 'CC160' 'CC160' 'CC150' 0 1 0 2 0 112 0 0 0.013 0 0
 C1 'SP160' 'SP160' 'SP155' 0 1 0 3 0 218 0 0 0.013 0 0
 C1 'SP155' 'SP155' 'SP150' 0 1 0 3 0 352 0 0 0.013 0 0
 C1 'ALL150' 'ALL150' 'ALL140' 0 1 0 3 0 265 0 0 0.013 0 0

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C1 'CC150' 'CC150' 'CC140' 0 1 0 4 0 274 0 0 0.013 0 0
C1 'CC140' 'CC140' 'CC130' 0 1 0 4 0 329 0 0 0.013 0 0
*C1 'SP130' 'SP130' 'ALL130' 0 1 0 3 0 274 0 0 0.013 0 0
C1 'ALL130' 'ALL130' 'ALL110' 0 1 0 3 0 70 0 0 0.013 0 0
C1 'ALL110' 'ALL110' 'ALL100' 0 1 0 3 0 216 0 0 0.013 0 0
C1 'CC130' 'CC130' 'CC110' 0 1 0 4 0 180 0 0 0.013 0 0
C1 'CC110' 'CC110' 'CC100' 0 1 0 4 0 116 0 0 0.013 0 0
C1 'CC100' 'CC100' 'MA080' 0 1 0 4 0 364 0 0 0.013 0 0
C1 'MA110' 'MA110' 'MA100' 0 1 0 2 0 105 0 0 0.013 0 0
C1 'MA100' 'MA100' 'GAS100' 0 1 0 2 0 466 0 0 0.013 0 0
C1 'GAS100' 'GAS100' 'MA080' 0 1 0 4 0 174 0 0 0.013 0 0
C1 'MA170' 'MA170' 'MA160' 0 1 0 1.5 0 128 0 0.02 0.013 0 0
C1 'MA160' 'MA160' 'MA150' 0 1 0 1.5 0 48 0 0.08 0.013 0 0
C1 'MA150' 'MA150' 'MA140' 0 1 0 2 0 140 0 0.1 0.013 0 0
C1 'MA140' 'MA140' 'MA130' 0 1 0 2 0 71 0 0 0.013 0 0
C1 'MA130' 'MA130' 'MA110' 0 1 0 2 0 386 0 0 0.013 0 0
C1 'MA200' 'MA200' 'MA190' 0 1 0 1.5 0 175 0 0.05 0.013 0 0
C1 'MA190' 'MA190' 'MA170' 0 1 0 1.5 0 351 0 0 0.013 0 0
C1 'STA180' 'STA180' 'STA170' 0 1 0 1.5 0 202 0 0 0.013 0 0
C1 'STA170' 'STA170' 'STA160' 0 1 0 1.5 0 244 0 0 0.013 0 0
*
*remove STA150 for stability.
*C1 'STA160' 'STA160' 'STA150' 0 1 0 1.5 0 53 0 0 0.013 0 0
*C1 'STA150' 'STA150' 'STA140' 0 1 0 1.5 0 95 0.1 0 0.013 0 0
C1 'STA150' 'STA160' 'STA140' 0 1 0 1.5 0 148 0.1 0 0.013 0 0
*
C1 'ALL100' 'ALL100' 'SP090' 0 2 0 3 2 244 0 0 0.015 0 0
C1 'SP090' 'SP090' 'GAS200' 0 2 0 2 3 40 0 0 0.015 0 0
C1 'STA140' 'STA140' 'STA130' 0 1 0 2 0 106 0 0 0.013 0 0
*
*remove STA125 for stability
*C1 'STA130' 'STA130' 'STA125' 0 1 0 2 0 25 0 0.5 0.013 0 0
*C1 'STA125' 'STA125' 'STA120' 0 1 0 2 0 60 0 0 0.013 0 0
C1 'STA125' 'STA130' 'STA120' 0 1 0 2 0 85 0 0 0.013 0 0
*
C1 'STA120' 'STA120' 'STA115' 0 1 0 2 0 131 0 0.1 0.013 0 0
C1 'STA115' 'STA115' 'STA110' 0 1 0 2 0 32 0 0 0.013 0 0
C1 'STA110' 'STA110' 'STA100' 0 1 0 2 0 27 0 0.3 0.013 0 0
C1 'STA100' 'STA100' 'GAS200' 0 1 0 2 0 170 0 0 0.013 0 0
C1 'Allups1' 'All2x3us' 'CC190' 0 2 0 2 3 353 0 0.4 0.015 0 0

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C1	'Allups2'	'All2us'	'CC180'	0	1	0	2	0	390	0	0	0.013	0	0
C1	'CC190a'	'CC190'	'ALL170'	0	1	0	3	0	182	5.6	0	0.013	0	0
C1	'ALL140'	'ALL140'	'ALL130'	0	1	0	3	0	274	0	0	0.013	0	0
C1	'ALL170'	'ALL170'	'ALL150'	0	1	0	3	0	604	0	0	0.013	0	0
C1	'SP150'	'SP150'	'CC150'	0	1	0	3	0	316	0	0.1	0.013	0	0
C1	'Water100'	'GAS100'	'Water100'	0	1	0	4	0	704	0	0.2	0.013	0	0
C1	'Water200'	'GAS200'	'Water200'	0	1	0	4	0	682	0	0	0.013	0	0
C1	'Water110'	'Water100'	'Water110'	0	1	0	4	0	88	0	0	0.013	0	0
C1	'Water210'	'Water200'	'Water210'	0	1	0	4	0	80	0	0.2	0.013	0	0
C1	'Water220'	'Water210'	'Water220'	0	1	0	4	0	180	0	0	0.013	0	0
*C1	'NEW10'	'FED100'	'NEW10'	0	1	0	1.5	0	150	0	0	0.013	0	0
*C1	'NEW20'	'NEW10'	'SP350'	0	1	0	2.5	0	15	0	0	0.013	0	0
*C1	'NEW30'	'PLE100'	'NEW10'	0	1	0	1.25	0	9.8	0	0	0.013	0	0
C1	'NEW30'	'PLE100'	'SP350'	0	1	0	1.25	0	9.8	0	0	0.013	0	0
C1	'NEW40'	'SP320'	'CC370'	0	1	0	1.25	0	4	1.45	0.013	0	0	0
C1	'Brook10'	'CC190'	'Brook10'	0	1	0	3.2	0	200	0	0	0.013	0	0
C1	'Brook20'	'Brook10'	'Brook20'	0	1	0	3.2	0	685	0	0	0.013	0	0
C1	'Brook30'	'Brook20'	'Brook30'	0	1	0	3	0	1210	0	0	0.013	0	0
C1	'Brook40'	'Brook30'	'Brook40'	0	1	0	3	0	950	0	0	0.013	0	0
C1	'Brook50'	'Brook40'	'Brook50'	0	1	0	3	0	725	0	0	0.013	0	0
*C1	'Holly'	'Holly'	'Brook30'	0	1	0	1.67	0	270	0	0	0.013	0	0
C1	'McKinley'	'McKinley'	'Holly'	0	1	0	1.67	0	875	0	0	0.013	0	0
*C1	'JUN	'GRELEV	'Z	'QINST	'Y	'[XLOC	'YLOC	'IWHICH	'J					
D1	'PLE100'	293.5	275.38	0	0	6135.807235	-2689.413512							
*D1	'FED100'	282.2	274.2	0	0	6443.210843	-2542.340032							
*D1	'FED110'	282	274.8	0	0	6587.776367	-2397.774508							
*D1	'FED120'	281.6	300	0	0	6584.67	-2417.04							
D1	'SP370'	292.1	274.65	0	0	6779.228007	-2534.525679							
D1	'SP360'	282.2	274.3	0	0	6540.890251	-2663.462498							
D1	'SP350'	283.1	274.01	0	0	6161.894148	-2854.914137							
*D1	'edge'	283.1	276.3	0	0	15000	-14000							
D1	'SP340'	281.78	273.84	0	0	6288.08285	-3613.11803							
D1	'SP330'	282.2	273.6	0	0	6350.068525	-4213.514594							
D1	'SP320'	278.6	273.48	0	0	6841.697913	-4157.78795							
D1	'CC370'	278.6	271.9	0	0	6915.979178	-4269.311964							
D1	'SP310'	283.6	273.5	0	0	7362.043543	-4165.939579							
D1	'CC360'	279	271.1	0	0	6914.680463	-4749.332962							

D1 'SP300' 282 273 0 0 7319.721211 -4739.838664
 D1 'CC350' 282 270.6 0 0 7267.534281 -4754.273347
 D1 'SP315' 285.3 274.1 0 0 7388.610447 -3812.742386
 D1 'SP290' 279.4 272.9 0 0 7297.524968 -5292.501163
 D1 'SP280' 278.3 272.3 0 0 7269.297144 -5785.402396
 D1 'SP270' 278 272.2 0 0 7256.268917 -5965.626194
 D1 'CC320' 278.5 268.4 0 0 7172.092517 -6124.592005
 D1 'SP260' 278.5 272 0 0 7238.069033 -6255.044014
 D1 'SP250' 278.8 271.6 0 0 7221.483904 -6487.235827
 D1 'SP240' 277.5 270.8 0 0 7238.069033 -7194.86802
 D1 'CC300' 277.6 268.1 0 0 7288.141384 -6456.160195
 *D1 'Monroe' 292.5 273.6 0 0 7940.23 -6025.12
 D1 'CC280' 276.7 267 0 0 7500.15115 -7065.710304
 D1 'SP230' 276.6 270.5 0 0 7587.41 -7053.03
 D1 'SP220' 278.1 269.9 0 0 7923.5 -6859.96
 *D1 'Thorn' 279.5 272.2 0 0 7979.619039 -6804.591642
 D1 'SP210' 278.6 268.9 0 0 8231.67 -7369.64
 D1 'SP200' 279.6 267.7 0 0 8620.08426 -8067.584885
 D1 'SP190' 280.3 266.4 0 0 8995.690303 -8644.408451
 D1 'SP180' 281.2 266.3 0 0 9207.23246 -8715.960108
 D1 'CC210' 272.6 261.5 0 0 8221.708297 -10538.76268
 *D1 'West' 275.2 267.1 0 0 8064.474194 -10639.84174
 D1 'CC250' 276 264.8 0 0 7601.96 -8492.52
 D1 'CC230' 275 263.8 0 0 7703.93 -9280.46
 D1 'CC220' 275 263.4 0 0 7685.388873 -9614.173835
 D1 'SP170' 280.4 266.2 0 0 9316.891165 -8881.851783
 D1 'SP160' 277.6 265.7 0 0 9789.656034 -9688.33303
 D1 'SP150' 273 262.2 0 0 10704.9335 -11099.63281
 *

*move the invert down to put it more in line.

D1 'ALL150' 272.1 256.58 0 0 11095.86637 -11614.45821
 *D1 'ALL150' 272.1 260.8 0 0 11095.86637 -11614.45821
 D1 'CC190' 271.9 256.8 0 0 9824.618324 -12118.00622
 D1 'CC180' 272.1 263.2 0 0 10199.2742 -12169.57347
 D1 'CC170' 274.3 262.6 0 0 10461.73135 -12088.81742
 D1 'CC160' 272.5 261.7 0 0 10852.05225 -11886.9273
 D1 'CC150' 272.4 260.8 0 0 11114.50941 -11806.17126
 D1 'SP155' 276.4 264.6 0 0 10061.41 -10071.46
 D1 'CC140' 266.7 259 0 0 11780.7468 -11516.79542
 D1 'CC130' 266.3 256.2 0 0 12602.88805 -11106.97299

D1 'ALL140' 266.9 255.6 0 0 11721.56714 -11352.75527
D1 'CC110' 265.9 255.8 0 0 12709.93804 -10547.01919
D1 'CC100' 265.6 255.2 0 0 12718.17265 -9921.012917
D1 'ALL130' 266 254.6 0 0 12421.72652 -11041.09607
D1 'ALL110' 266.1 254.2 0 0 12512.30728 -10901.10762
D1 'ALL100' 265.6 253.2 0 0 12593.70193 -10408.21745
D1 'MA080' 262.5 250.5 0 0 12784.04957 -9484.578339
D1 'GAS100' 257.5 245.8 0 0 12849.92649 -8891.686081
D1 'MA100' 267.6 255.7 0 0 13072.26108 -7722.370796
D1 'MA110' 267 256.5 0 0 13278.12645 -7532.974658
D1 'MA130' 269.8 257.5 0 0 12866.4 -6635.4
D1 'MA140' 269.3 257.8 0 0 12635.83 -6404.83
D1 'MA160' 268 258.52 0 0 12422.19 -6059.18
D1 'MA150' 268 258.05 0 0 12529.24 -6240.34
D1 'MA170' 268 259.18 0 0 12224.56 -5770.97
D1 'MA190' 268 260.28 0 0 11795.9 -4974.62
D1 'MA200' 278.2 261.09 0 0 11557.09 -4595.82
D1 'STA180' 291.5 262.7 0 0 11263.43 -7440.31
D1 'STA170' 271.6 261.4 0 0 11487.01 -7986.82
D1 'STA160' 270.9 260.1 0 0 11694.02 -8541.61
*D1 'STA150' 270.5 259.8 0 0 11751.98 -8665.82
D1 'STA140' 270 259 0 0 11834.79 -8914.23
D1 'SP090' 264 251.5 0 0 12579.06576 -10017.08554
D1 'GAS200' 263.5 250.6 0 0 12654.686 -9770.709911
D1 'STA130' 267.01 258.4 0 0 11949.35933 -9169.56765
*D1 'STA125' 267.1 257.7 0 0 11975.3823 -9226.348428
D1 'STA120' 266.1 256.6 0 0 12038.23132 -9370.90118
D1 'STA115' 266.4 256.3 0 0 12167.68285 -9689.125279
D1 'STA110' 267 255.6 0 0 12224.06 -9767.32
D1 'STA100' 267.4 254.8 0 0 12278.61 -9825.52
D1 'All12us' 282 269.3 0 0 8886.928495 -12738.08345
D1 'All12x3us' 281.8 259.7 0 0 8772.530282 -12443.91662
D1 'ALL170' 274.3 258.8 0 0 10280.03025 -11934.035
D1 'Water100' 235 224.6 0 0 14193.73581 -9300.0514
D1 'Water200' 235 225.6 0 0 13934.44875 -10300.15863
D1 'Water110' 235 224 0 0 14737.00393 -9670.461483
D1 'Water210' 235 225.1 0 0 14638.22791 -10287.81162
D1 'Water220' 234.5 225 0 0 14860.47396 -10794.03874
*D1 'NEW10' 283.21 271.11 0 0 6144.01 -2770.9
D1 'Brook10' 269.67 255.02 0 0 10211.88 -12499.13

```

*brook20 is on pillsbury street
D1 'Brook20' 269 246.7 0 0 10860.2 -12933.88
D1 'Brook30' 248 238.23 0 0 11672.7 -12911.46
D1 'Brook40' 240 229.82 0 0 12310.7 -12893.9
D1 'Brook50' 233.44 223.39 0 0 12797.52 -12880.49
*
*running south on main street passed holly and hope streets.
D1 'Holly' 260.5 245.7 0 0 11672.7 -13367.49
D1 'McKinley' 287.1 253.0 0 0 11672.7 -13854.49
**
*
* JFREE NBCF
I1 'Water110' 1
I1 'Water220' 1
I1 'Brook50' 1
J1 1
*
*
*
$ENDPROGRAM

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