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MASTER DESIGN STORM SUMMARY

Default Network Design Storm File, ID SEDGWICK.RN Sedgwick24

Return Event	Total Depth in	Rainfall Type	RNF File	RNF ID
2y24h	3.5000	Synthetic Curve	SCSTYPES	Type I 24hr
5y24h	4.5000	Synthetic Curve	SCSTYPES	Type I 24hr
100y24	7.9000	Synthetic Curve	SCSTYPES	Type I 24hr

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversi on;)
(Trun= HYG Truncation; Blank=None; L=Left; R=Rt; LR=Left&Rt)

Storage Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
DEVELOPED	AREA	2	.912		12.0500	12.62		
DEVELOPED	AREA	5	1.236		12.0500	16.81		
DEVELOPED	AREA	100	2.354		12.0500	30.83		
DEVELOPED EAST	AREA	2	.479		12.0500	6.63		
DEVELOPED EAST	AREA	5	.649		12.0500	8.82		
DEVELOPED EAST	AREA	100	1.236		12.0500	16.19		
DRY DETENTION IN	POND	2	.912		12.0500	12.62		
DRY DETENTION IN	POND	5	1.236		12.0500	16.81		
DRY DETENTION IN	POND	100	2.354		12.0500	30.83		
DRY DETENTION OUT	POND	2	.911		12.3000	3.76	1373.64	.259
DRY DETENTION OUT	POND	5	1.236		12.3000	5.06	1374.10	.371
DRY DETENTION OUT	POND	100	2.354		12.3000	9.43	1375.65	.827
EXISTING SITE	AREA	2	.882		12.0500	12.70		
EXISTING SITE	AREA	5	1.363		12.0500	19.81		
EXISTING SITE	AREA	100	3.196		12.0500	45.83		
NORTH OFFSITE	AREA	2	1.326		12.2000	13.43		
NORTH OFFSITE	AREA	5	1.839		12.2000	18.40		
NORTH OFFSITE	AREA	100	3.633		12.1500	35.15		

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversi on;)
(Trun= HYG Truncati on; Blank=None; L=Left; R=Rt; LR=Left&Rt)

Storage Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond ac-ft
*OUT 10	JCT	2	.882		12.0500	12.70		
*OUT 10	JCT	5	1.363		12.0500	19.81		
*OUT 10	JCT	100	3.196		12.0500	45.83		
*OUT 20	JCT	2	1.497		12.0500	10.87		
*OUT 20	JCT	5	2.050		12.0500	14.91		
*OUT 20	JCT	100	3.979		12.0500	28.72		
*OUT 30	JCT	2	1.326		12.2000	13.43		
*OUT 30	JCT	5	1.839		12.2000	18.40		
*OUT 30	JCT	100	3.633		12.1500	35.15		
WEST ROW	AREA	2	.107		12.0500	1.54		
WEST ROW	AREA	5	.166		12.0500	2.41		
WEST ROW	AREA	100	.389		12.0500	5.57		

Type... Design Storms
Name... Sedgwick24

File... C:\HAESTAD\PPKW\RAINFALL\SEDGWICK.RNO
Title...

JOB TITLE NOT SPECIFIED
Click Project Summary on the File Menu to enter title

DESIGN STORMS SUMMARY

Design Storm File, ID = SEDGWICK.RNO Sedgwick24

Storm Tag Name = 2y24h

Data Type, File, ID = Synthetic Storm SCSTYPES.RNF TypeI 24hr
Storm Frequency = 2 yr
Total Rainfall Depth= 3.5000 in
Duration Multiplier = 1
Resulting Duration = 24.0000 hrs
Resulting Start Time= .0000 hrs Step= .1000 hrs End= 24.0000 hrs

Storm Tag Name = 5y24h
Description: Sedgwick County 5-yr 24 hour Duration

Data Type, File, ID = Synthetic Storm SCSTYPES.RNF TypeI 24hr
Storm Frequency = 5 yr
Total Rainfall Depth= 4.5000 in
Duration Multiplier = 1
Resulting Duration = 24.0000 hrs
Resulting Start Time= .0000 hrs Step= .1000 hrs End= 24.0000 hrs

Storm Tag Name = 100y24
Description: Sedgwick County 100-yr 24 hour Duration

Data Type, File, ID = Synthetic Storm SCSTYPES.RNF TypeI 24hr
Storm Frequency = 100 yr
Total Rainfall Depth= 7.9000 in
Duration Multiplier = 1
Resulting Duration = 24.0000 hrs
Resulting Start Time= .0000 hrs Step= .1000 hrs End= 24.0000 hrs

Type... Design Storms
Name... Sedgwick24
File... C:\HAESTAD\PPKW\RAI NFALL\SEDGWICK.RNQ
Storm... Typell 24hr Tag: 2y24h

Page 2.02
Event: 2 yr

DESIGN STORMS SUMMARY

Design Storm File, ID = SEDGWICK.RNQ Sedgwick24

Storm Tag Name = 2y24h

Data Type, File, ID = Synthetic Storm SCSTYPES.RNF Typell 24hr
Storm Frequency = 2 yr
Total Rainfall Depth= 3.5000 in
Duration Multiplier = 1
Resulting Duration = 24.0000 hrs
Resulting Start Time= .0000 hrs Step= .1000 hrs End= 24.0000 hrs

Storm Tag Name = 5y24h
Description: Sedgwick County 5-yr 24 hour Duration

Data Type, File, ID = Synthetic Storm SCSTYPES.RNF Typell 24hr
Storm Frequency = 5 yr
Total Rainfall Depth= 4.5000 in
Duration Multiplier = 1
Resulting Duration = 24.0000 hrs
Resulting Start Time= .0000 hrs Step= .1000 hrs End= 24.0000 hrs

Storm Tag Name = 100y24
Description: Sedgwick County 100-yr 24 hour Duration

Data Type, File, ID = Synthetic Storm SCSTYPES.RNF Typell 24hr
Storm Frequency = 100 yr
Total Rainfall Depth= 7.9000 in
Duration Multiplier = 1
Resulting Duration = 24.0000 hrs
Resulting Start Time= .0000 hrs Step= .1000 hrs End= 24.0000 hrs

File. . . . F:\HYDRO\PROJECTS\PRICE TRANSPORTATION\PONDPACK\POND.PPW

Elevation (ft)	Planimeter (sq. in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
1372.30	-----	.1500	.0000	.000	.000
1373.00	-----	.2000	.5232	.122	.122
1374.00	-----	.2500	.6736	.225	.347
1375.00	-----	.3000	.8239	.275	.621
1376.00	-----	.3500	.9740	.325	.946

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

$$\text{Volume} = (1/3) * (\text{EL2}-\text{EL1}) * (\text{Area1} + \text{Area2} + \text{sq. rt.}(\text{Area1}*\text{Area2}))$$

where: EL1, EL2 = Lower and upper elevations of the increment
 Area1, Area2 = Areas computed for EL1, EL2, respectively
 Volume = Incremental volume between EL1 and EL2

Type... Outlet Input Data
Name... PIPE

File... F:\HYDRO\PROJECTS\PRICE TRANSPORTATION\PONDPACK\POND.PPW

REQUESTED POND WS ELEVATIONS:

Min. Elev. = 1372.30 ft
Increment = 5.00 ft
Max. Elev. = 1376.00 ft

OUTLET CONNECTIVITY

---> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.	Outfall	E1, ft	E2, ft
----- Culvert-Circular TW SETUP, DS Channel	CV	---> TW	1372.300	1376.000

File... F:\HYDRO\PROJECTS\PRICE TRANSPORTATION\PONDPACK\POND.PPW

OUTLET STRUCTURE INPUT DATA

Structure ID = CV
Structure Type = Culvert-Circular

No. Barrels = 1
Barrel Diameter = 1.2500 ft
Upstream Invert = 1372.30 ft
Dnstream Invert = 1372.22 ft
Horiz. Length = 30.00 ft
Barrel Length = 30.00 ft
Barrel Slope = .00267 ft/ft

OUTLET CONTROL DATA...

Mannings n = .0130
Ke = .5000 (forward entrance loss)
Kb = .023225 (per ft of full flow)
Kr = .5000 (reverse entrance loss)
HW Convergence = .001 +/- ft

INLET CONTROL DATA...

Equation form = 1
Inlet Control K = .0098
Inlet Control M = 2.0000
Inlet Control c = .03980
Inlet Control Y = .6700
T1 ratio (HW/D) = 1.159
T2 ratio (HW/D) = 1.305
Slope Factor = -.500

Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...

At T1 Elev = 1373.75 ft ---> Flow = 4.80 cfs
At T2 Elev = 1373.93 ft ---> Flow = 5.49 cfs

Structure ID = TW
Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...

Maximum Iterations = 30
Min. TW tolerance = .01 ft
Max. TW tolerance = .01 ft
Min. HW tolerance = .01 ft
Max. HW tolerance = .01 ft
Min. Q tolerance = .10 cfs
Max. Q tolerance = .10 cfs

S/N: 121201A06A8A
PondPack Ver. 7.5 (767)

Baughman Company PA
Compute Time: 09:45:05

Date: 01/05/2007

Index of Starting Page Numbers for ID Names

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DRY DETENTION... 3.01

----- P -----

PIPE... 4.01

----- S -----

Sedgwick24... 2.01, 2.02

----- W -----

Watershed... 1.01