

# Drainage Information

## LILLIE ADDITION

### Wichita, Sedgwick County, Kansas

The following variables are those of which are used as the input variables in HEC-HMS in order to calculate existing runoff, developed runoff, as well as pond peak discharges and peak elevations.

All HMS runs were performed with an SCS Hypothetical Storm Type II Meteorological Method with a 100-yr storm depth of 7.9 inches. Where needed, a 5-yr storm depth of 4.5 inches and a 2-yr storm depth of 3.5 inches was used.

All HMS runs were also performed with control specifications of 1 minute intervals over a 24 hour period.

#### West Drainage Area

##### EXISTING

<i>Area</i>	=	9.9 acres	=	0.0155 sq.mi.
<i>Soil Type</i>	=	Vb, Vd	=	Type B
<i>CN</i>	=	Open Space (Fair Condition)	=	69
<i>Lag Time</i>	=	15 minutes		

##### DEVELOPED

<i>Area</i>	=	9.9 acres	=	0.0155 sq.mi.
<i>Soil Type</i>	=	Vb, Vd	=	Type B
<i>CN</i>	=	Urban Commercial/Business	=	92
<i>Lag Time</i>	=	15 minutes		

##### *Detention Pond Facility*

<i>Static WS</i>	=	125.0 City Datum
<i>Outlet</i>	=	15 in RCP
	=	4.9 sq.ft. cross sectional area
	=	center elevation 125.5 City Datum
	=	discharge coefficient 0.67

#### East Drainage Area

##### EXISTING

<i>Area</i>	=	7.4 acres	=	0.0116 sq.mi.
<i>Soil Type</i>	=	Vb, Vd	=	Type B
<i>CN</i>	=	45% Paved Parking/Roof	=	98
	=	55% Open Space (Fair Condition)	=	69
	=	Adjusted Curve Number	=	82
<i>Lag Time</i>	=	15 minutes		

DEVELOPED

<i>Area</i>	=	7.4 acres	=	0.0116 sq.mi.
<i>Soil Type</i>	=	Vb, Vd	=	Type B
<i>CN</i>	=	Urban Commercial/Business	=	92
<i>Lag Time</i>	=	15 minutes		

*Detention Pond Facility*

Static WS	=	125.5 City Datum
Outlet	=	15 in RCP
	=	4.9 sq.ft. cross sectional area
	=	center elevation 126.0 City Datum
	=	discharge coefficient 0.67