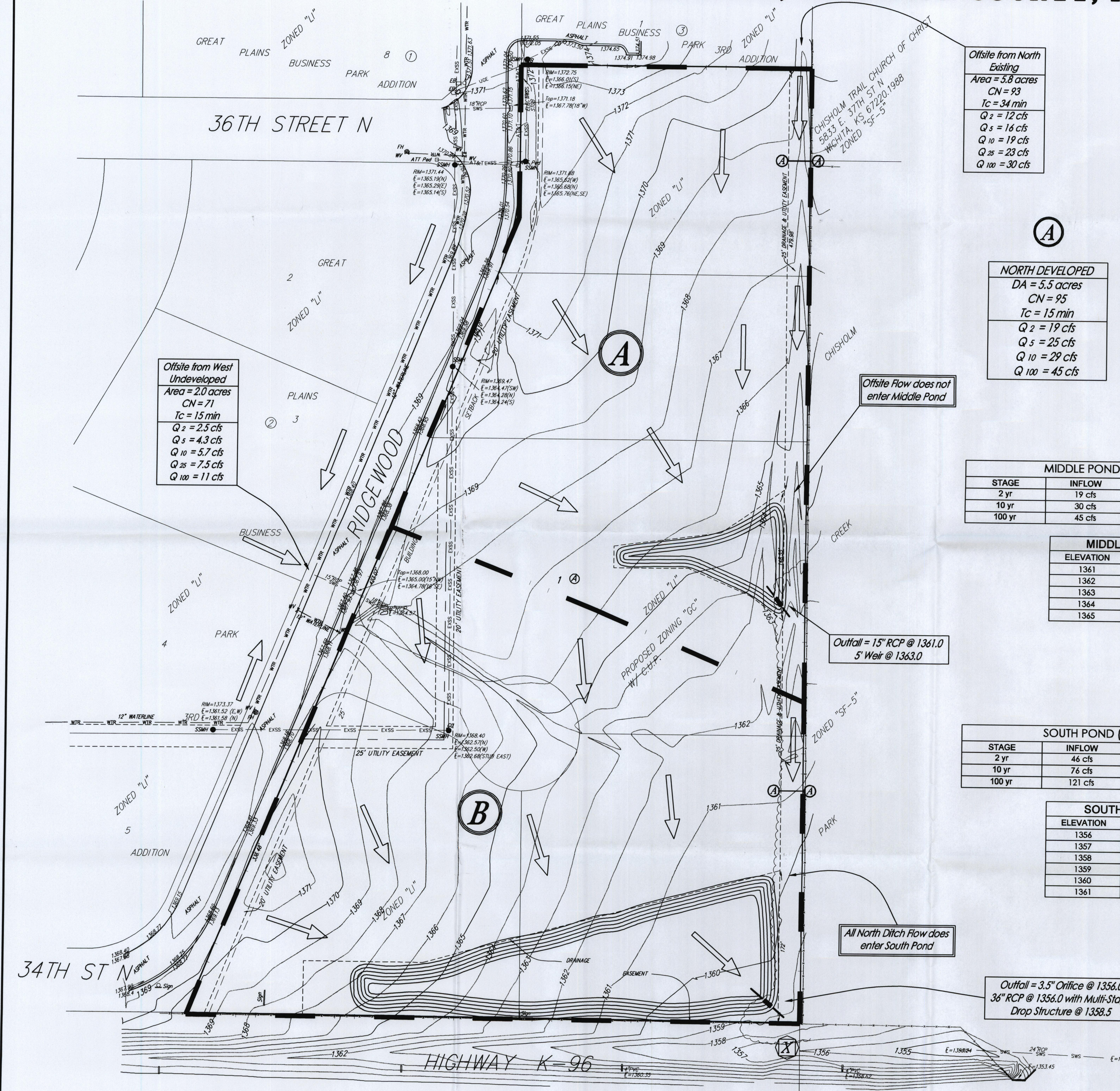
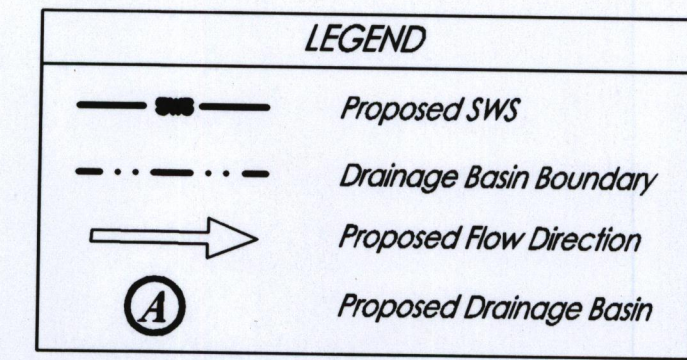
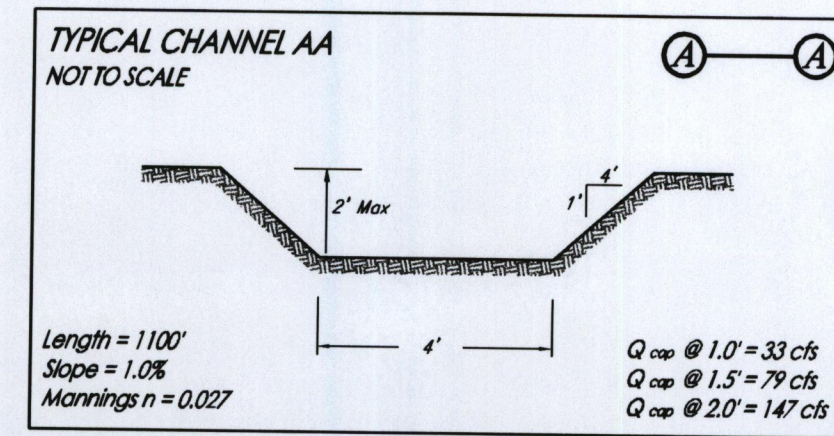


DRAINAGE PLAN GREAT PLAINS BUSINESS PARK 4TH ADDITION WICHITA, SEDGWICK COUNTY, KANSAS



Offsite from North
Existing
Area = 3.8 acres
CN = 93
Tc = 34 min
Q₂ = 12 cfs
Q₅ = 16 cfs
Q₁₀ = 19 cfs
Q₂₅ = 23 cfs
Q₁₀₀ = 30 cfs



Offsite from West
Undeveloped
Area = 2.0 acres
CN = 71
Tc = 15 min
Q₂ = 25 cfs
Q₅ = 43 cfs
Q₁₀ = 57 cfs
Q₂₅ = 75 cfs
Q₁₀₀ = 111 cfs

A
NORTH DEVELOPED
DA = 5.5 acres
CN = 95
Tc = 15 min
Q₂ = 19 cfs
Q₅ = 25 cfs
Q₁₀ = 29 cfs
Q₁₀₀ = 45 cfs

B
SOUTH DEVELOPED
DA = 6.5 acres
CN = 95
Tc = 15 min
Q₂ = 23 cfs
Q₅ = 30 cfs
Q₁₀ = 35 cfs
Q₁₀₀ = 53 cfs

MIDDLE POND (Static = 1361.0)

STAGE	INFLOW	OUTFLOW	ELEVATION
2 yr	19 cfs	14 cfs	1364.0
10 yr	30 cfs	23 cfs	1364.5
100 yr	45 cfs	37 cfs	1365.0

MIDDLE POND

ELEVATION	AREA (sq ft)
1361	4600
1362	6400
1363	8600
1364	10750
1365	11000

SOUTH POND (Static = 1356.0)

STAGE	INFLOW	OUTFLOW	ELEVATION
2 yr	46 cfs	8.3 cfs	1358.8
10 yr	76 cfs	30 cfs	1359.6
100 yr	121 cfs	57 cfs	1360.8

SOUTH POND

ELEVATION	AREA (sq ft)
1356	29200
1357	33500
1358	38000
1359	42500
1360	47200
1361	49000

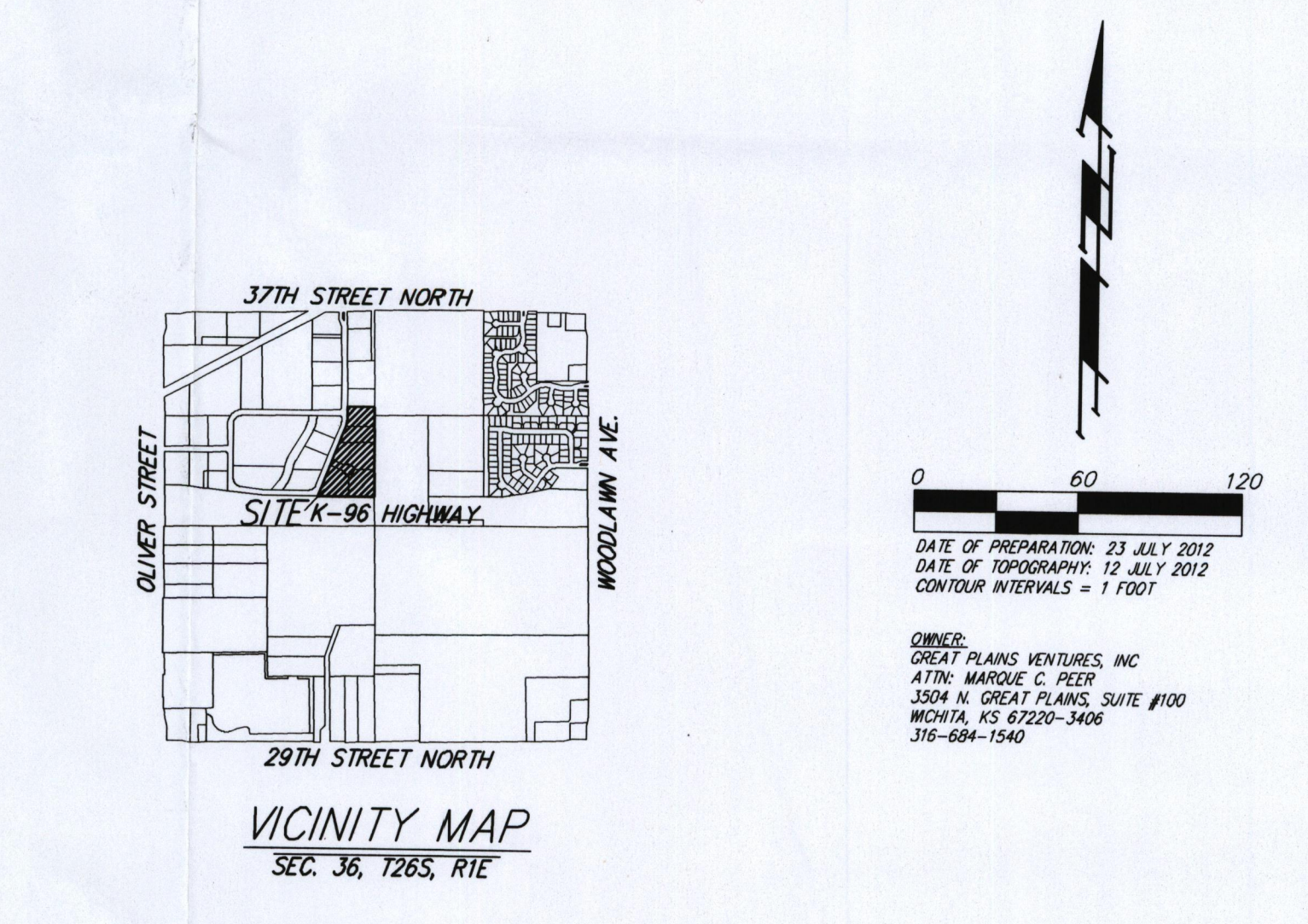


Table 4-13 Volumetric Runoff Coefficients by Land Use and Hydrologic Soil Group

Land Use	Hydrologic Soil Group A				Hydrologic Soil Group B			
	C	D	E	F	C	D	E	F
Undisturbed	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.08
Turf or Disturbed Soil	0.15	0.20	0.25	0.25	0.25	0.30	0.35	0.40
Impervious Cover	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85

Pond Volume at Static Pool

Depth	Static	Flow	Volume	Depth	Volume
1.0	4600	0.1	1000	0.0	0.4
2.0	29200	0.2	10500	0.2	3.2
		0.7		0.2	3.2

X
SOUTH KDOT ROW DISCHARGE POINT
EXISTING (from North and Site)
Q₂ = 16 cfs
Q₅ = 25 cfs
Q₁₀ = 32 cfs
Q₁₀₀ = 59 cfs
Area = 17.8 acres
CN = 97
Tc = 65 min
DEVELOPED (Post Detention)
Q₂ = 8.2 cfs
Q₅ = 22 cfs
Q₁₀ = 31 cfs
Q₁₀₀ = 57 cfs

Outfall = 3.5' Orifice @ 1356.0
36" RCP @ 1356.0 with Multi-Stage
Drop Structure @ 1358.5

NOTES: There is no FEMA SFHA located on this property as of this date per FEMA FRM Panel 357 of 700, for Wichita, Sedgwick County, Kansas, effective February 2, 2007.
The Internal Storm Water Sewer will be sited and final location approved during the site plan process.

**DRAINAGE PLAN
GREAT PLAINS BUSINESS
PARK 4TH ADDITION**
12/18/2012

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