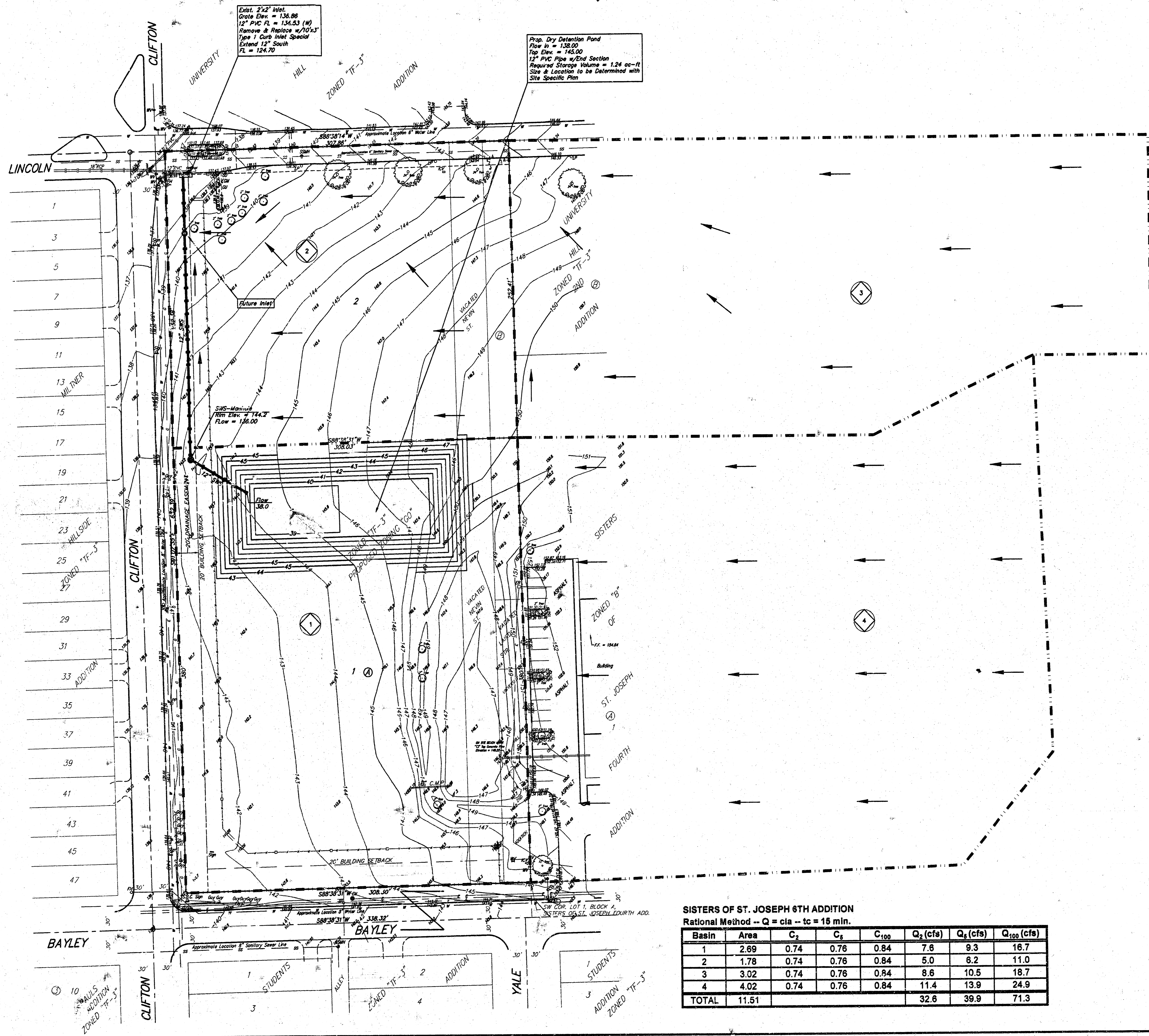


DRAINAGE PLAN SISTERS OF ST. JOSEPH 6TH ADDITION WICHITA, SEDGWICK COUNTY, KANSAS



0 40 80

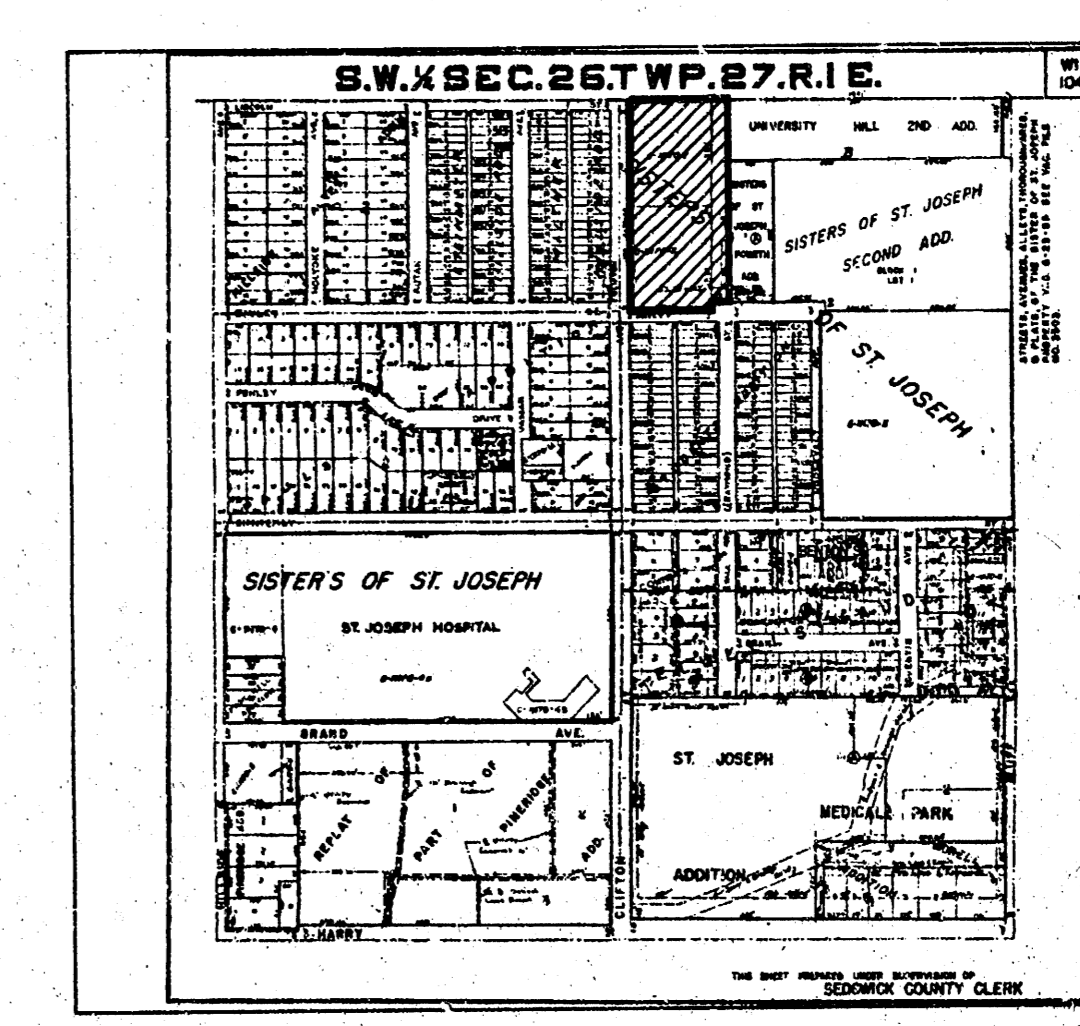
DATE OF PREPARATION: 15 MARCH 2004
DATE OF TOPOGRAPHY: 28 FEBRUARY 2004
CONTour INTERVALS = 1 FOOT

OWNER/DEVELOPER:
The Sisters of St. Joseph of Wichita, Kansas
3700 E. Lincoln
Wichita, KS 67218

BENCHMARK:
City of Wichita benchmark disc - NW corner of intersection
of Harry and Bluffview on base of traffic signal pole.
9.50' North of north curb
42.55' North of centerline of Harry
46.50' West of centerline of Bluffview
Elev. = 152.22 City Datum
1339.62 NGVD29

□ EB = Electric Box
 ○ GV = Gas Valve
 ○ FH = Fire Hydrant
 ○ LP = Light Pole
 □ HLP = High Line Pole
 □ SP = Power Pole
 □ ICV = Irrigation Control Valve - Valve Box
 ○ GP = Guy Pole
 ● WM = Water Meter
 ● WV = Water Valve
 △ Sign = Sign
 ○ TP = Telephone Pole
 — GA = Guy Anchor
 □ EV = Electric Vault
 ● EM = K.G.B. E. Manhole
 ● SSMH = Sanitary Sewer Manhole
 □ SK = Security Keypad
 ● GU = Guard Post (Ballard)
 ● EGM = Electric Gate Motor

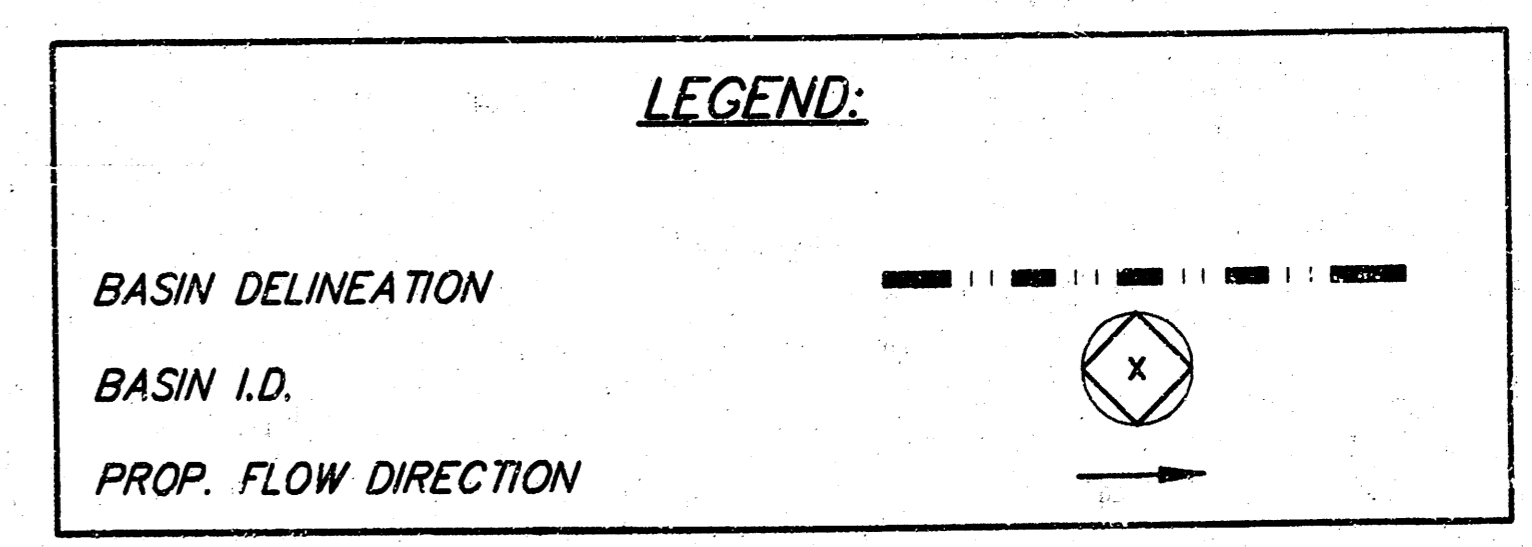
● = #1 REBAR W/ "BAUGHMAN" CAP (SET)
 ○ = 3/4" IRON FOUND
 (M) = MEASURED
 (D) = DESCRIBED
 (P) = PLATTED
 (C) = CALCULATED



DRAINAGE NOTE:
The proposed dry detention pond has been sized for the entire 11.5 acre drainage basin. The SCS runoff method was used to calculate the peak flow and runoff volume for both existing and developed conditions. The minimum time of concentration of fifteen minutes was used for both conditions. The results are as follows:

Existing Conditions --
 CN = 80
 Q5 = 34 cfs
 Q100 = 75 cfs
 Total Vol. = 3,624 ac-ft

Developed Conditions --
 CN = 91
 Q5 = 46 cfs
 Q100 = 87 cfs
 Total Vol. = 4,751 ac-ft



SISTERS OF ST. JOSEPH 6TH ADDITION
Rational Method -- Q = CIA -- tc = 15 min.

| Basin | Area | C ₂ | C _s | C ₁₀₀ | Q ₂ (cfs) | Q ₅ (cfs) | Q ₁₀₀ (cfs) |
|--------------|--------------|----------------|----------------|------------------|----------------------|----------------------|------------------------|
| 1 | 2.69 | 0.74 | 0.76 | 0.84 | 7.6 | 9.3 | 16.7 |
| 2 | 1.78 | 0.74 | 0.76 | 0.84 | 5.0 | 6.2 | 11.0 |
| 3 | 3.02 | 0.74 | 0.76 | 0.84 | 8.6 | 10.5 | 18.7 |
| 4 | 4.02 | 0.74 | 0.76 | 0.84 | 11.4 | 13.9 | 24.9 |
| TOTAL | 11.51 | | | | 32.6 | 39.9 | 71.3 |