

DRAINAGE PLAN
TOWN AND COUNTRY CHRISTIAN CHURCH ADDITION
April 9, 1986

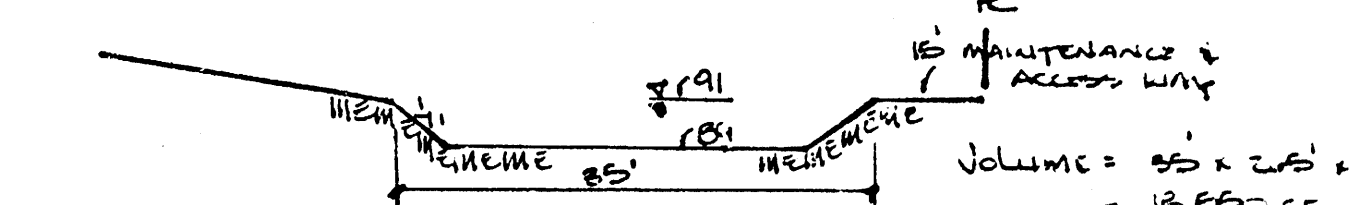
The proposed plat is to be a proposed church site with a maximum runoff co-efficient of 0.75. The lot drains to the south and will eventually discharge to Edgemoor - at the southeast corner of the plat. Edgemoor is presently unimproved and generally drains south to discharge into Chisolm Creek. The amount of discharge of storm water runoff to Edgemoor will be limited to only the equivalent of the plat as if it was undeveloped ground. All other runoff will be detained for some time in a proposed detention pond.

Existing soil type is Farnum loam which is gently sloped and well drained soil with slow permeability. The soil group is B. The undeveloped runoff co-efficient of the ground as pasture land is 0.22. The undeveloped runoff amount from this condition is $Q_{100} = CIA = 0.22(8.98)4.06 \text{ Ac.} = 8 \text{ CFS}$. This is the amount which can be discharged to Edgemoor to drain south. The amount generated by the fully developed lot which exceeds the 8 CFS will be detained on the site over a longer period of time within a detention pond as indicated on the plan.

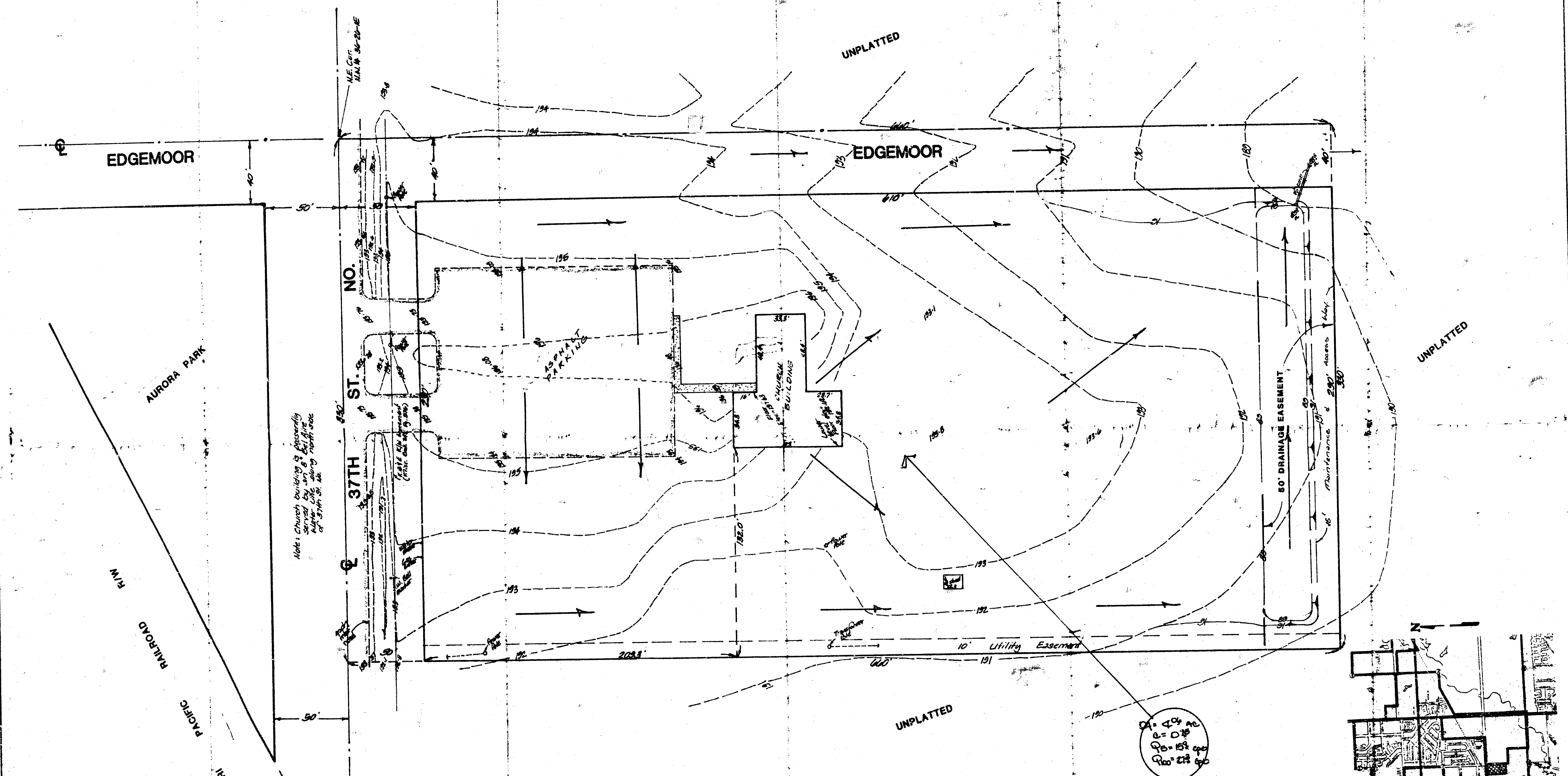
Developed Runoff Amount:
 $Q_{100} = .75(8.98)4.06 \text{ Ac.} = 27.3 \text{ CFS}$
 $R(\text{Volume}) = (27.3 - 8) \text{ CFS}(15 \text{ minutes})60 = 17,370 \text{ CF} = 0.40 \text{ Ac-Ft. Storage Required.}$

The detention pond will be located at the southeast corner of the lot as indicated. A single 15" C.M.F. will be placed to discharge runoff from the plat to Edgemoor, which will not exceed the 8 CFS flow amount.

Dimensions of the pond site will be:



At the time that Edgemoor is improved in the future, the pipe will be replaced with a flume directed to the street pavement.



SKETCH PLAT
TOWN AND COUNTRY CHRISTIAN CHURCH ADDITION

A TRACT IN THE N.W. 1/4 OF SEC. 36, TWP. 26-S, R1E

OWNER: TOWN AND COUNTRY CHRISTIAN CHURCH, INC.

DRAINAGE PLAN

*** GENERAL NOTES ***

The lot is to be developed for a church site as it is presently used. The lot drains west and east to Edgemoor which drains south and is unimproved at this time. The developed asphalt parking lot and building areas presently drain east and west as indicated. Any future development on the lot will require that the lot be graded to conform to the drainage direction indicated on the plan and the discharge point from the property onto Edgemoor be adequately provided for to prevent any erosion from occurring.

Bench mark:
City disc, 30 feet north &
44 feet east of the intersection
of 37th St. No. 8 & Edgemoor.
Elevation = 133.66 City datum

Area = 4.06 Ac.
C = 0.75
Q₁₀₀ = 27.3 CFS
Q₈ = 8 CFS

BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316042-7271 • 330 LAURA • WICHITA, KANSAS 67211

OCT. 25, 1986