

**PROFESSIONAL
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LETTER OF TRANSMITTAL

TO City of Wichita
455 N. Main
Wichita, KS 67202

DATE <u>Nov. 18, 1986</u>	JOB NO.
ATTENTION <u>Carl Gipson, P.E.</u>	
RE: <u>Revisions to Drainage Plans</u>	

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

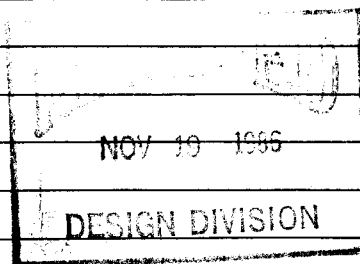
- Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
<u>1</u>			<u>Woodbridge 3rd Addition Drainage Plan (Revised)</u>
<u>1</u>			<u>Woodbridge 4th Addition Drainage Plan (Revised)</u>

THESE ARE TRANSMITTED as checked below:

- For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ 19____ PRINTS RETURNED AFTER LOAN TO US

REMARKS Revision of Pipe size Between Nodes 107 & 105
to carry Q₁₀₀. (Pipe increased From 24"
to 27").



COPY TO _____

SIGNED: Charles Brown



Date Nov. 18, 1986 Page 1 of 3

Project Woodbridge 4th

Item Drainage

OPTION 1

INSTALL NEW INLET @ W. END CUL-DE-SAC
INSTALL LARGER PIPE FROM NODE 107
TO CUL-DE-SAC.

$Q = 30.2$ cfs from Woodbridge 3rd Drainage Plan

Slope: Allow Elev @ Node 107 = 165.5 top grade
 $\frac{0.6' \text{ head}}{166.1}$

Allow Elev @ Cul-De-Sac = T.C. = 164.6

Slope = $\frac{166.1 - 164.6}{150'} = \frac{1.5'}{150} = 1\%$

$n = 0.013$

USE 27" RCP (see page 2)

Additional Cost: 1 inlet \$1800

OPTION 2

INSTALL LARGER PIPE FROM NODE 107 TO NODE 105

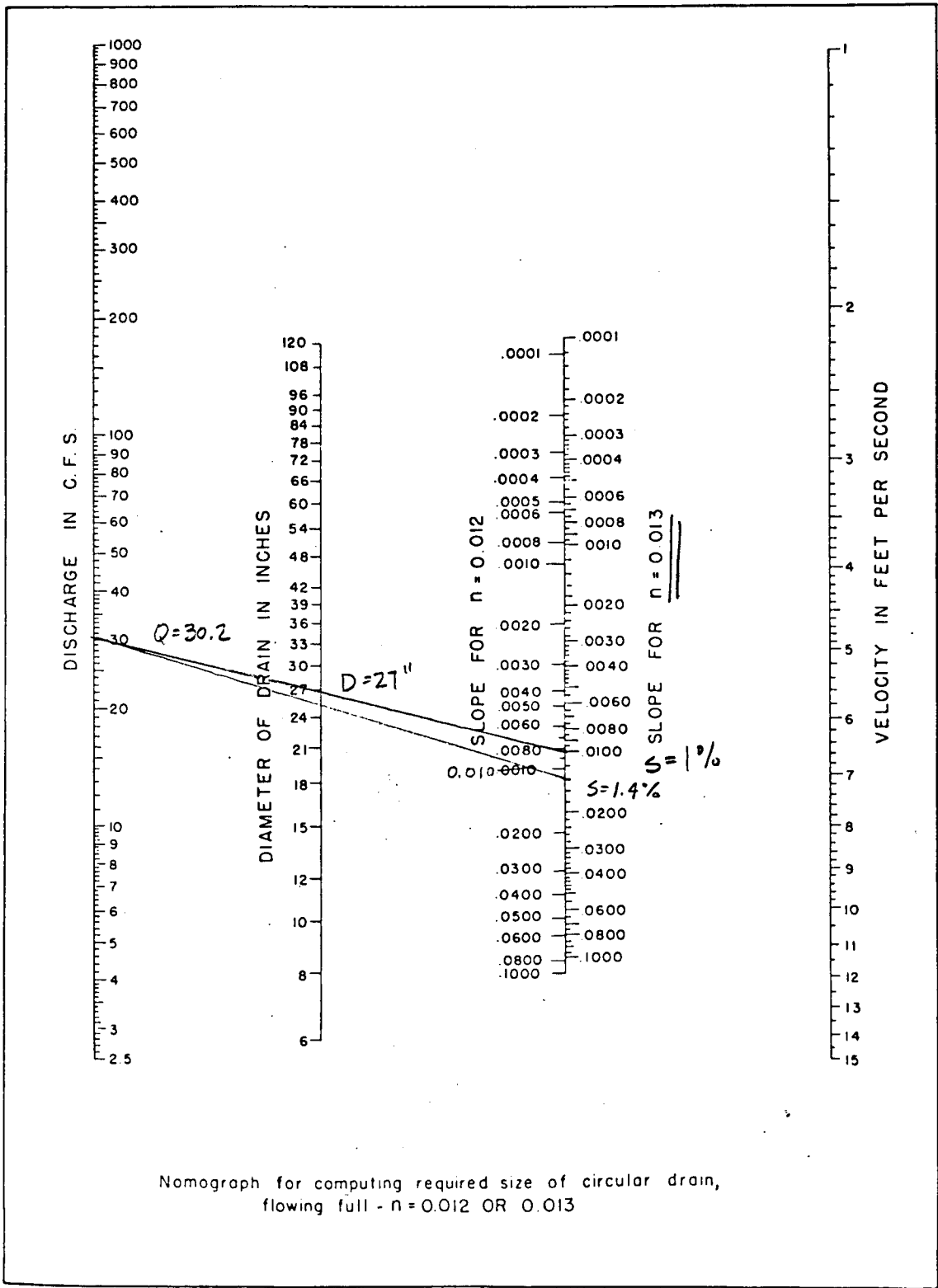
$Q = 30.2$

Slope = $\frac{166.1 \text{ (at Node 107)} - 159.8 \text{ T.C. @ Node 105}}{450'} = \frac{6.3}{450} = 1.4\%$

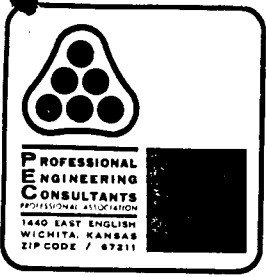
$n = 0.013$

USE 27" RCP

Additional Cost: Extra Cost For Larger Pipe
 $300' @ \$4.00/\text{ft} = \1200



Nomograph for computing required size of circular drain, flowing full - $n = 0.012$ OR 0.013



Date Nov. 18 Page 3 of 3

Project Woodbridge 4th

Item Drainage.

SUMMARY :

USE 27" FROM NODE 107 to NODE 105
DO NOT USE INLET @ CUL-DE-SAC.