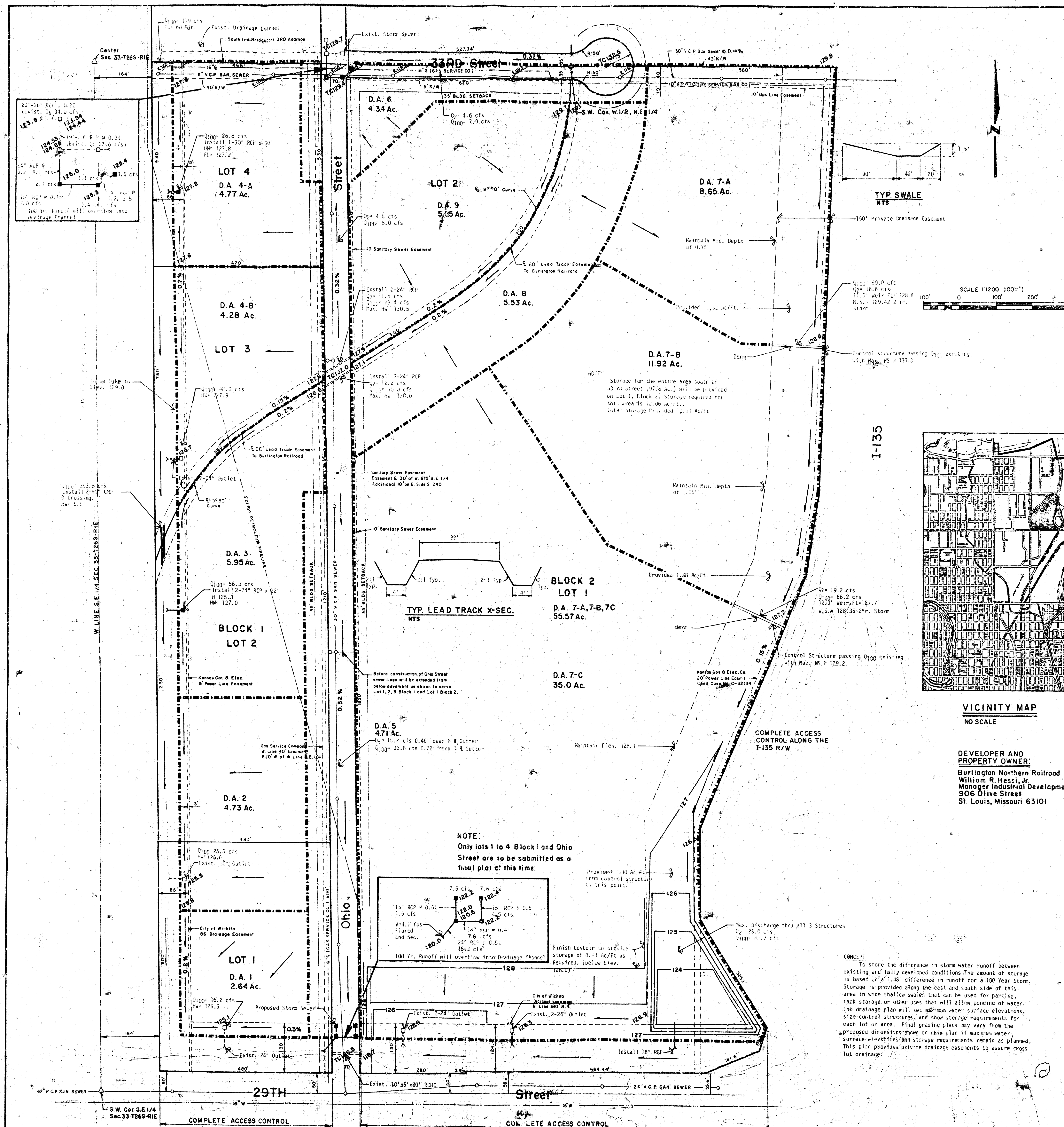


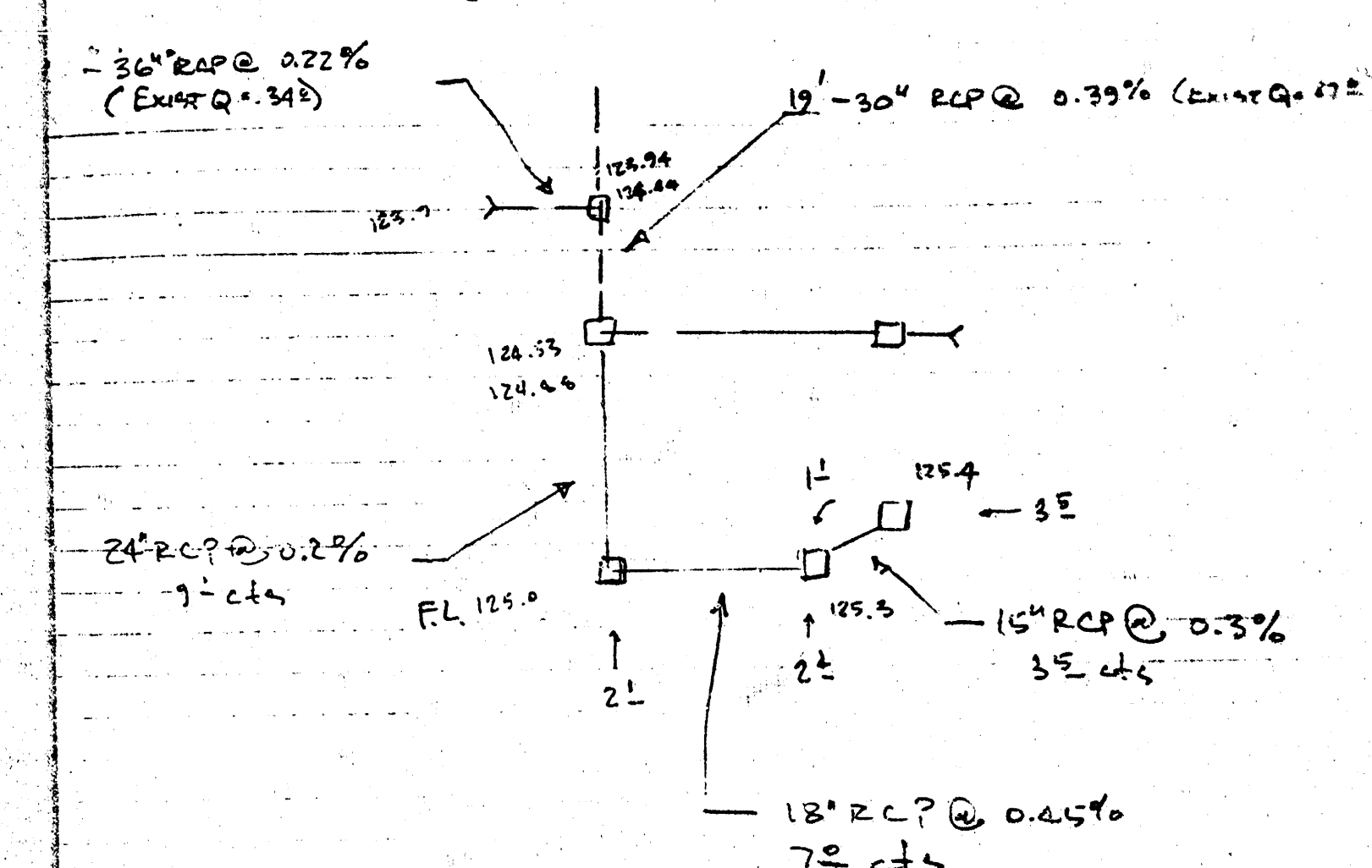
$DA = 1$ $Z = 64$ $A_c = 1$ $L = 500$
 $T_c = 1.5 \times \frac{0.01508}{1 + 0.0003} = 0.116 \text{ MIN}$ $L_{100} = 870$
 $Q_{100} = 2.64 \times 0.7 \times 870 = 16.2 \text{ cfs}$
 $TRAX$
 $7.35 = 174.6$ $EL \text{ INLET} = 175.1$ $L = 36$
 $H = 0.8' \text{ PERIOD @ } 16.2 \text{ cfs}$ $24" \text{ RCP EXIST}$
 $HWS = 175.4$ $4.4' (175.6)$ TO GET 0.5' ABOVE INLET



DA # 5 4.71 Ac
 Assume Average Flow 1.5 ft/s
 $1730 \times 0.15475 = 19.2 \text{ MIN}$
 $V = 15 \text{ MIN}$ $I_g = 5.21$ $100 = 2.95$ $C = 93$
 $C_g = 0.62$ $C_{100} = 0.90$ (BIRMINGHAM) $85\% \text{ INP}$
 $Q_g = 4.71 \times 0.62 \times 5.21 = 15.2 \text{ cfs}$
 $Q_{100} = 4.71 \times 0.90 \times 5.21 = 33.4 \text{ cfs}$

DA # 6 4.77 Ac
 $V = 15 \text{ MIN}$ $I_g = 5.21$ $100 = 2.95$ $C = 93$
 $C_g = 0.62$ $C_{100} = 0.90$ (BIRMINGHAM) $85\% \text{ INP}$
 $Q_g = 4.77 \times 0.62 \times 5.21 = 15.2 \text{ cfs}$
 $Q_{100} = 4.77 \times 0.90 \times 5.21 = 33.4 \text{ cfs}$

DA # 7 4.77 Ac
 $V = 15 \text{ MIN}$ $I_g = 5.21$ $100 = 2.95$ $C = 93$
 $C_g = 0.62$ $C_{100} = 0.90$ (BIRMINGHAM) $85\% \text{ INP}$
 $Q_g = 4.77 \times 0.62 \times 5.21 = 15.2 \text{ cfs}$
 $Q_{100} = 4.77 \times 0.90 \times 5.21 = 33.4 \text{ cfs}$

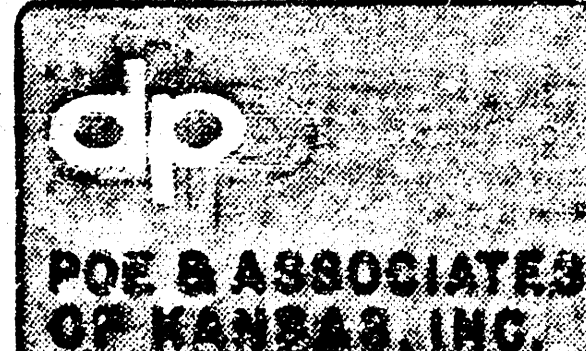


VICINITY MAP
 NO SCALE

DEVELOPER AND PROPERTY OWNER:
 Burlington Northern Railroad
 William R. Hess, Jr.
 Manager Industrial Development
 905 Olive Street
 St. Louis, Missouri 63101

CONCLUSION:
 To store the difference in storm water runoff between existing and fully developed conditions the amount of storage is based on a 1.48" difference in runoff for a 100 Year Storm. Storage is provided along the east and south side of this area in wide shallow swales that can be used for parking, rack storage or other uses that will allow ponding of water. The drainage plan will set maximum water surface elevations, size control structures, and show storage requirements for each lot or area. Final grading plans may vary from the proposed dimensions shown on this plan if maximum water surface elevations and storage requirements remain as planned. This plan provides private drainage easements to assure cross lot drainage.

DRAINAGE PLAN BURLINGTON NORTHERN INDUSTRIAL CENTER



dp
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37TH ST. NO.

33

BROADWAY

OHIO

29TH ST. NO.

DRAINAGE PLAN

BURLINGTON NORTHERN INDUSTRIAL
CENTER SECOND ADDITION

LOWELL D. HIGH, L.S.
APRIL 24, 1986