

EXISTING CONDITIONS
 ORIGINAL DRAINAGE CALCULATIONS
 TO EXIST. CONCENTRATION POINT A

Drainage Calculations (T.H.D. Hydraulic Manual)
 Rolling Terrain 1% 36%
 Impervious Soil
 Commercial C=0.9 (use C=0.75)
 For Dallas County
 $I_a = (1.48)^{0.774} = 9.3 \text{ in/hr.}$
 $Q_a = C.I.A. = (0.75)(9.3)(A)$
 $Q_a = 6.95(A)$

POINT 'A' ACRES = 31.5
 $Q_{25} = 218.9 \text{ c.f.s.}$

PROPOSED CONDITIONS
 $I_{100} = \frac{106}{(10+8.3)^{0.722}} = 11.57 \text{ in/hr.}$
 $Q_{100} = C.I.A.$

DIRECT Q TO EXISTING
 SYSTEM IN BELTLINE

ACRES	C
0.8	0.95
4.3	0.75
2.2	0.85
6.6	0.95
TOTALS 13.9 Ac.	0.84

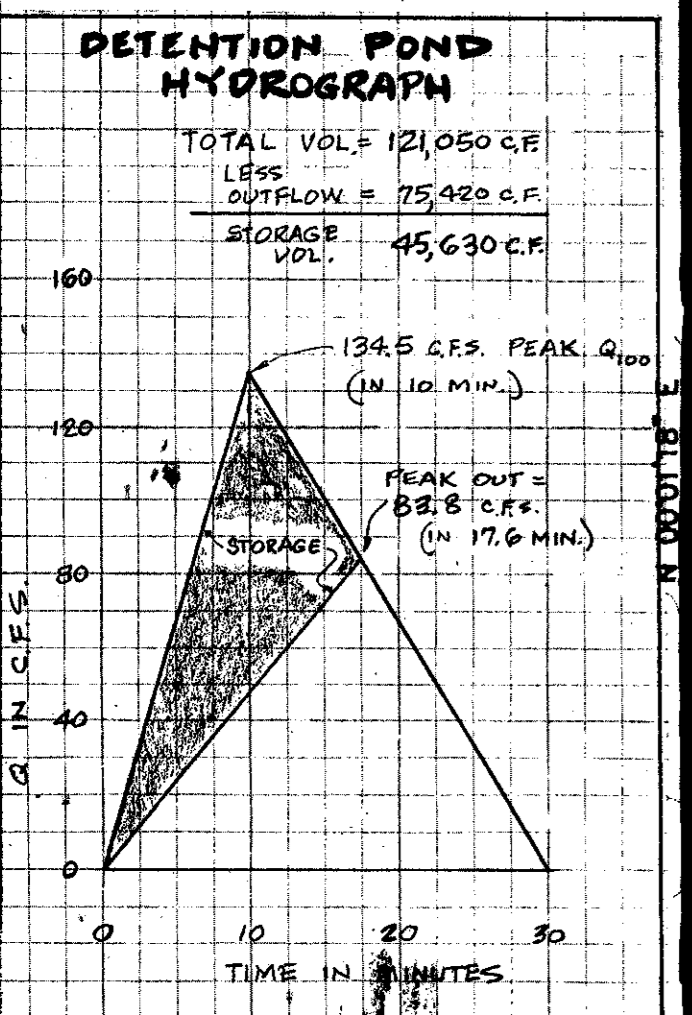
$Q_{100} = 135.1 \text{ c.f.s.}$
 DIRECT

Q_{100} THRU DETENTION PONDS

ACRES	C
3.9	0.35
0	0.75
2.1	0.85
8.9	0.95
TOTALS 14.9	0.78

$Q_{100} \text{ IN} = 134.5 \text{ c.f.s.}$

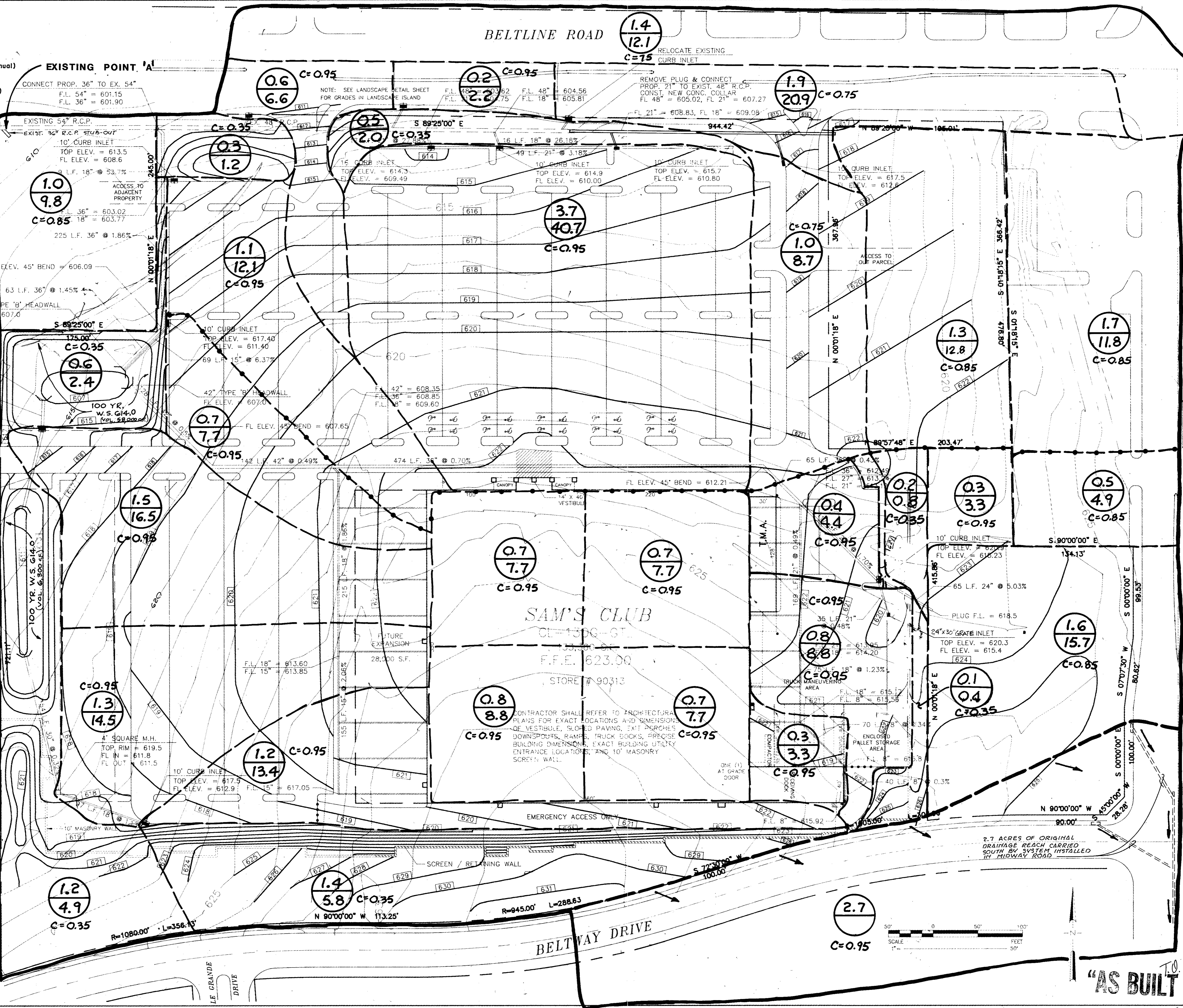
ORIGINAL Q_{25} TO POINT A = 218.9 C.F.S.
 LESS Q_{100} DIRECT TO SYSTEM = 135.1 C.F.S.
 MAX. Q_{100} OUT FROM PONDS = 83.8 C.F.S.



LEGEND

- DRAINAGE REACH
- - - AREA DIVIDES
- - - DETENTION DIVIDE

(ACRES)
 C.F.S.



REVISION DESCRIPTION
 NO. DATE



DATE: 1-20-99

SHEET TITLE: DRAINAGE MAP AND CALCULATIONS
 PROJECT TITLE: WAL-MART
 BELTLINE + MIDWAY
 ADDISON, TEXAS
 SAM'S CLUB

DUNAWAY ASSOCIATES, Inc.
 PLANNERS ENGINEERS ARCHITECTS
 1000 WEST WALKER STREET, SUITE 100
 FORT WORTH, TEXAS 76107
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JOB No. 9102800
 DESIGNED BY: ac/T.S.G.
 CHECKED BY: T.O.H.
 DATE: FEB 10, 1991
 SCALE: 1" = 50'-0"
 SHEET 5 OF 24 SHEETS

T.O. Huffines
 "AS BUILT PLANS"