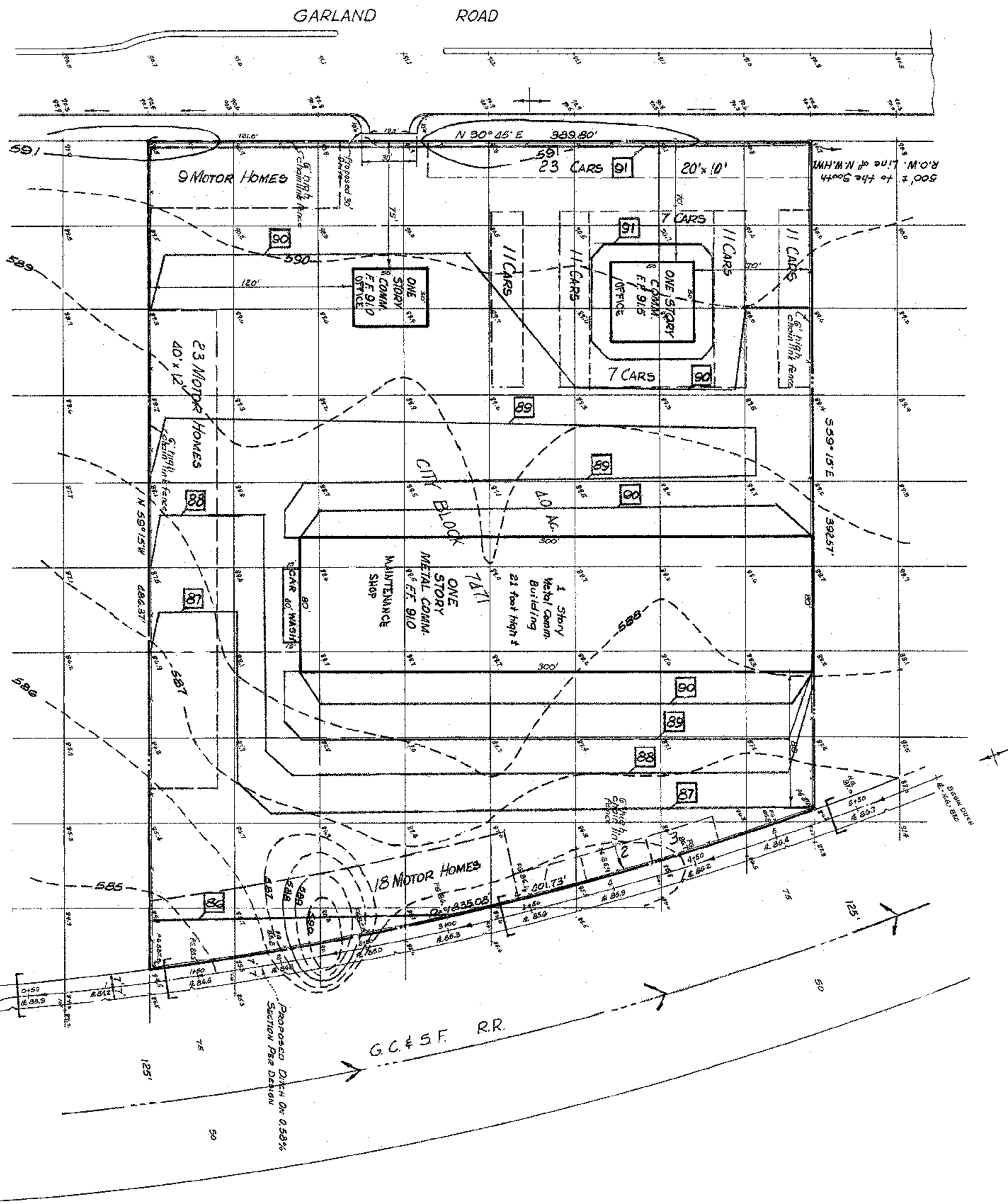




Exhibit 50



BENCH MARK: Top Open Nail On Fire Hydrant At NE Corner - 590.87
Garland Road and N.W. Highway: ELEV. - 590.87

APPROVED BY
CITY ENGINEER
11-2-43 1947
City Secretary

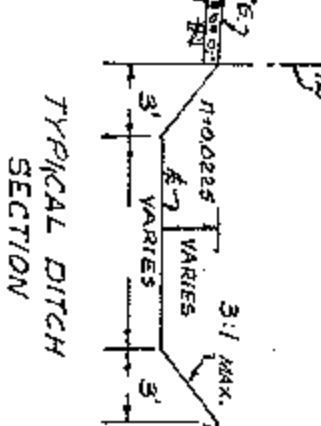
DRAINAGE DESIGN:
Zoning: All Commercial; C = 0.9, I = 7.8, U130 = 7.02 cfs/ac.
Drainage Area: At Northeast corner: 0.45 ac; $Q = 0.9 \times 7.8 \times 0.45 = 3.2$ cfs.
At center line property: 1.1 ac; $Q = 0.9 \times 7.8 \times 1.10 = 7.7$ cfs.
At Southeast corner: 5.25 ac; $Q = 0.9 \times 7.8 \times 5.25 = 36.8$ cfs.
At Culvert: 6.54 ac; $Q = 0.9 \times 7.8 \times 6.54 = 45.9$ cfs

Ditch Design: Side slope on 3/1; Bottom width varies; Depth varies; S = 0.0038
For Ditch Section at Ditch Station 0+00 - Face of 48" C.M. Pipe Culvert:
Use 14 Foot Wide Ditch, 1.0 feet deep:
A = $8 \times 1 + 2(3 \times 1 \times 0.5) = 11$ sq ft
P = $8 + 2(3 \times 1) = 14$; R = $11/14 = 0.786$; F 2/3 = 0.84; S 1/2 = 0.07616
C = $11 \times 1.486/0.0225 \times 0.84 \times 0.07616 = 40.5$ cfs (40.5 cfs required)

For Ditch Section at Ditch Station 1+50: Southeast Property Corner.
Use 12 Foot Wide Ditch, 1.0 feet deep:
A = $6 \times 1 + 2(3 \times 1 \times 0.5) = 9$ sq ft
P = $6 + 2(3 \times 1) = 12$; R = $9/12 = 0.75$; F 2/3 = 0.81; S 1/2 = 0.07616
C = $9 \times 1.486/0.0225 \times 0.81 \times 0.07616 = 36.7$ cfs (36.8 cfs required)

For Ditch Section at Ditch Station 3+00: Center line of property.
Use 9 Foot wide Ditch, 0.5 feet deep:
A = $3 \times 0.5 + 2(3 \times 0.5 \times 0.5) = 3.0$ sq ft
P = $3 + 2(3 \times 0.5) = 6$; R = $3/6 = 0.5$; F 2/3 = 0.67; S 1/2 = 0.07616
C = $3 \times 1.486/0.0225 \times 0.67 \times 0.07616 = 7.2$ cfs (7.2 cfs required)

For Ditch Section at Ditch Station 5+00: Northeast property corner.
Use 8 Foot wide Ditch, 0.5 feet deep:
A = $2 \times 0.5 + 2(3 \times 0.5 \times 0.5) = 2.5$ sq ft
P = $2 + 2(3 \times 0.5) = 5$; R = $2.5/5 = 0.5$; F 2/3 = 0.67; S 1/2 = 0.07616
C = $2.5 \times 1.486/0.0225 \times 0.67 \times 0.07616 = 5.8$ cfs (5.8 cfs required)



APPROVED
CITY PLAN COMMISSION
March 10 1977
8022

REVISION	DATE	DESCRIPTION	BY
1		SITE PLAN FOR R. O. EVANS MOTOR HOMES, SALES AND MAINTENANCE, GARLAND ROAD AT NORTHWEST HIGHWAY, DALLAS, DALLAS COUNTY, TEXAS	

H. LOU HORNE JR. - ENGINEER - DALLAS, TEXAS
DESIGN DRAWN DATE SCALE NOTES CKD. JOB NO.