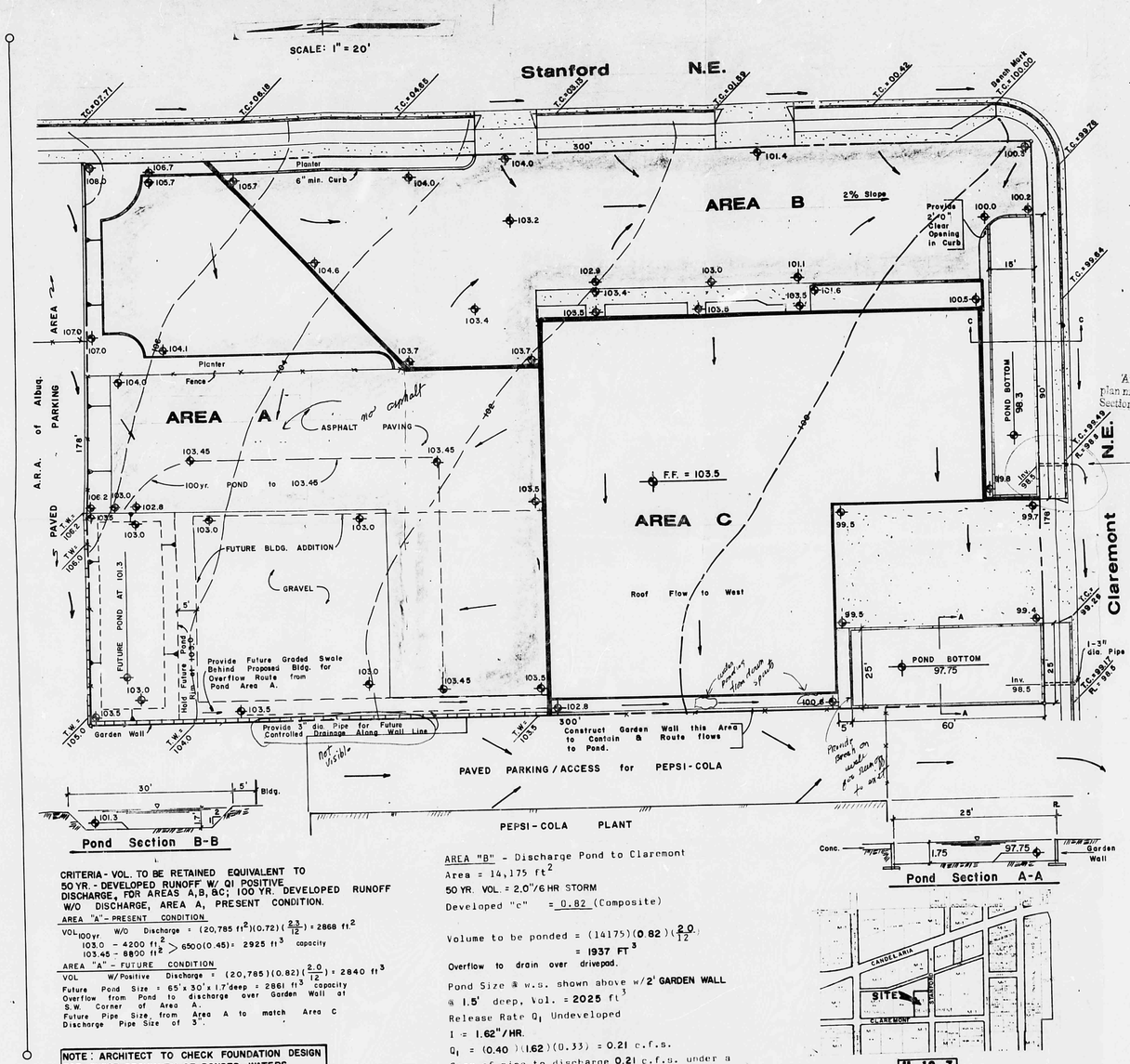
HYDROLOGY

H16/D41
1 PLAN

H16/D41

1 Plan



CRITERIA - VOL. TO BE RETAINED EQUIVALENT TO 50 YR. - DEVELOPED RUNOFF W/ QI POSITIVE DISCHARGE, FOR AREAS A,B,&C; 100 YR. DEVELOPED RUNOFF W/O DISCHARGE, AREA A, PRESENT CONDITION.

AREA "A" - PRESENT CONDITION

VOL 100yr. W/O Discharge = $(20,785\ ft^2)(0.72)(\frac{2.3}{12}) = 2868\ ft^2$

103.0 - 4200 ft^2
103.45 - 8800 ft^2 > 6500(0.45) = 2925 ft^3 capacity

AREA "A" - FUTURE CONDITION

VOL W/Positive Discharge = $(20,785)(0.82)(\frac{2.0}{12}) = 2840\ ft^3$

Future Pond Size = 65' x 30' x 1.7' deep = 2861 ft^3 capacity
Overflow from Pond to discharge over Garden Wall at S.W. Corner of Area A.
Future Pipe Size, from Area A to match Area C Discharge Pipe Size of 3".

NOTE: ARCHITECT TO CHECK FOUNDATION DESIGN FOR CLOSE PROXIMITY OF PONDED WATERS.

AREA "B" - Discharge Pond to Claremont

Area = 14,175 ft^2

50 YR. VOL. = 2.0"/6 HR STORM

Developed "c" = 0.82 (Composite)

Volume to be ponded = $(14175)(0.82)(\frac{2.0}{12})$
= 1937 FT^3

Overflow to drain over drivepad.

Pond Size @ w.s. shown above w/ 2' GARDEN WALL @ 1.5' deep, Vol. = 2025 ft^3

Release Rate Q_1 Undeveloped

I = 1.62"/HR.

Q_1 = (0.40)(1.62)(0.33) = 0.21 c.f.s.

Size of pipe to discharge 0.21 c.f.s. under a head of 1.0' pipe area = 0.03 ft., use 1-2½" dia. Pipe

CITY HYDROLOGY SECTION
Any deletions or modifications to this drainage plan must receive prior approval from City Hydrology Section prior to final inspection.

Owner has option to raise the bottom of ponds "B&C" to the invert elevation of the pipe.

APPROVED FOR DRAINAGE
DATE
TITLE
ADVISE DRAINAGE INSPECTOR WHEN GRADING EXECUTED

AREA "C" - Discharge to Claremont

Area = 18,440 ft^2

Developed "c" =0.85(Composite)

Volume to be ponded
= $(18,440)(0.85)(\frac{2.0}{12})$
= 2612 ft^3

Overflow to drain over drivepad.

Pond Size @ w.s., shown above w/ Garden Wall, ALL Sides, @ 1.75 deep, Vol. = 2625 ft^3

Release Rate Q_1 Undeveloped

I = 1.62"/HR.

Q_1 = (0.40)(1.62)(0.42)=0.3cfs

Size of pipe to discharge 0.3 c.f.s. under a head of 1.0', Pipe Area = 0.05 ft.
Use 1-3" dia. Pipe.

2nd Revision 7-14-80

Revised 2-27-80 CLW

12-13-79

ALBUQUERQUE NEW MEXICO

DRAINAGE EXHIBIT
SUMMIT ELECTRIC SUPPLY CO.
Warehouse & Office

Consultants terrabal inc