HYDROLOGY

L14/D1C

ONE PLAN

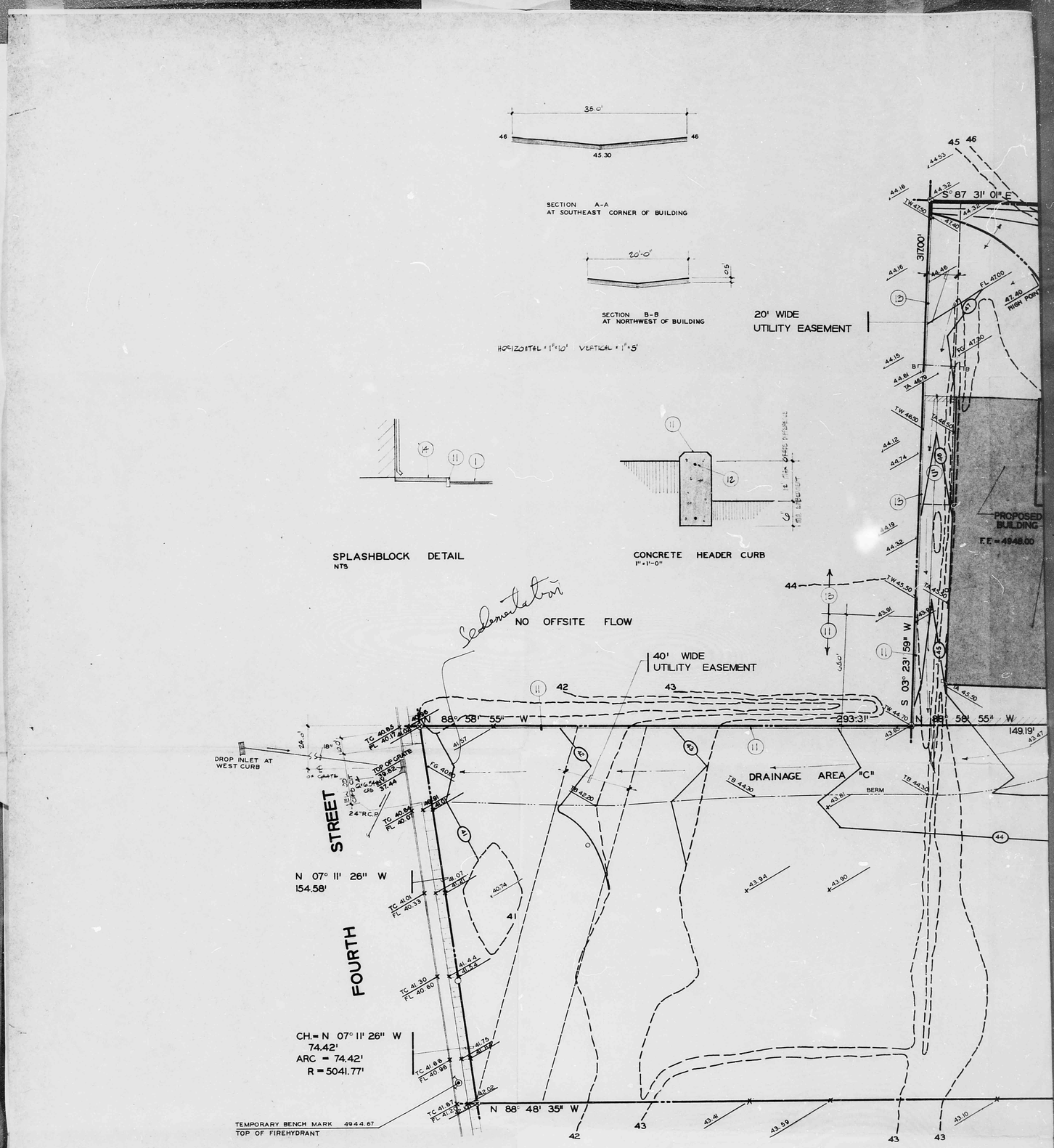
ROSE'S SOUTHWEST

PAPER PRODUCTS

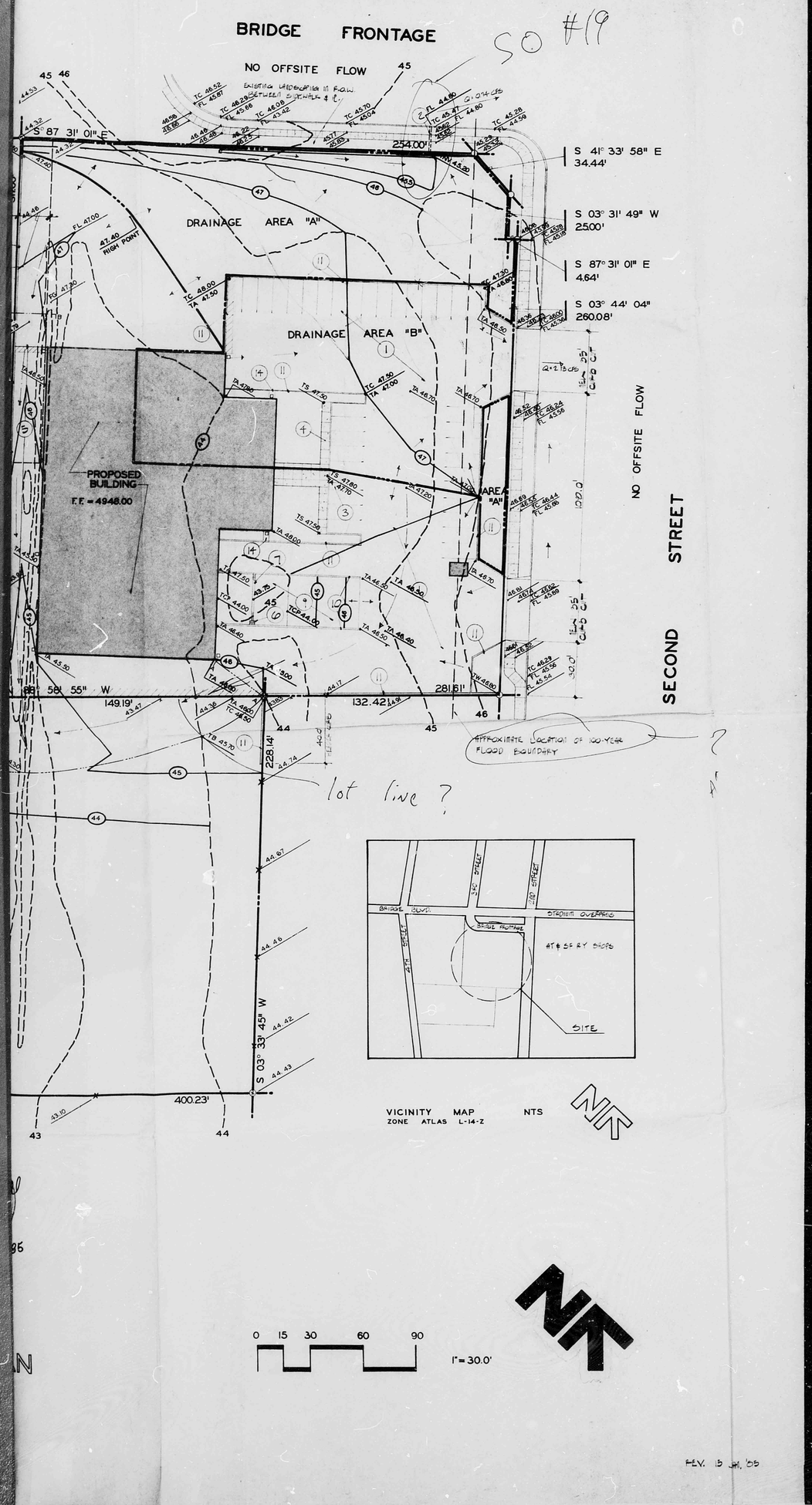
214 /DIC

1 PLAN

PLAN SHOT IN TWO SECTIONS



GRADING AND DRAINAGE PLAN



SO #19

KEYED NOTES

1. Asphalt paving.
2. 4" PVC drain pipe through face of curb as per City Standard Drawing K-15.
3. New handicap ramp. 1:12 slope.
4. New sidewalk.
5. Asphalt lined swale. See Section B-B.
6. Sump pit.
7. Trench drain.
8. Direction of outflow from sump pit.
9. New concrete slab-on-grade in truck well.
10. New concrete retaining walls at sides of truck well.
11. New 8" wide concrete header curb with 3/4" champher at exposed edges.
12. 1-#4 top and bottom continuous.
13. New concrete retaining wall. Detail B/S-2 similar.
14. Splashblock & asphalt @ 2% slope to curb.

LEGEND

- Existing spot elevation
- Existing contour
- Proposed contour
- Proposed spot elevation
- Edge of asphalt
- T C — Top of curb
- T A — Top of asphalt
- T B — Top of berm
- F L — Flow line
- F F — Finish floor
- F G — Finish grade
- T C P — Top of concrete paving
- T S — Top of sidewalk
- T W — Top of wall
- I N V — Invert

DRAINAGE INFORMATION

I. References
- A. City of Albuquerque, Development Process Manual (DPM), Volume 2, Design Criteria.
- B. Soil Survey of Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico, U.S. Soil Conservation Service, Sheet 32.
- C. Flood Insurance Rate Map, City of Albuquerque, New Mexico Panel 34/50.

II. General Information
- A. Site Location
  1. Legal Description: Tracts D & E, South Barelas Industrial Park
  2. Total Site Area: Tract D-2.198 ac, Tract E-2.019 ac
  3. City Address: 1701 Second Street SW
  4. City Bench Mark: 10-K14 4938.262
  5. City Zone Atlas: L-14
- B. Soil Type (Reference B)
  Hydrologic Soils Group "B", Soil Series Glendale (Gm)
- C. 6-hour, 100-year, R6 = 2.25 inches Reference A, Plate 22.2 D-1.
- D. Runoff Coefficient ("C" Factor) Reference A, Plate 22.2 C-1. Undeveloped "C" Factor, Curve B is 0.34 Reference A, Plate 22.2 C-1. Developed "C" Factor, assume the following values:

Buildings & concrete surfaces	1.00
Asphalt concrete paving	0.90
Landscaping, same as natural soil	0.34

Weighted "C" Factor:

Type of Surface	"C"	Area (SF)	"C" × A
Buildings	1.00	19750	19750
Concrete	1.00	3900	3900
Asphalt paving	0.90	14200	12580
Landscaping or natural	0.34	145808	49506
Totals		183658	86136

Weighted "C" Factor = $\frac{\Sigma(\text{"C"} \times A)}{A}$ = 0.47

- E. Time of Concentration - Developed Area
  Watershed length L = 720 ft
  Watershed change in elevation h = 3.9 ft
  Watershed slope S = h/L = 0.0054 ft/ft
  By Kirpich equation T = 0.0078 (L0.77/S0.385)
  T = 9.2 minutes
  Tc = 10 minutes minimum
- F. Intensity Reference A, Plate 22.2 D-2
  I = R6 × 6.84 × Tc-0.51
  = 4.75 in/hr
- G. Peak Discharge - Rational Method: Q = CIA
  Drainage Area "A" 19875 sq. ft.
  Q = 0.34 × 4.75 × (19875/43560)
  Q = 0.74 cfs
  Drainage Area "B" 20600 sq. ft.
  Q = 0.85 × 4.75 × (20600/43560)
  Q = 2.13 cfs
  Drainage Area "C" 143183 sq. ft.
  Q = 0.42 × 4.75 × (143183/43560)
  Q = 6.54 cfs

III. Existing Conditions
- A. "C" Factor = 0.34
- B. Time of Concentration
  Watershed length L = 695 ft
  Watershed change in elevation h = 4 ft
  Watershed slope S = h/L = 0.0059 ft/ft
  by Kirpich equation T = 0.0078 (L0.77/S0.385)
  = 5.9 minutes
  Tc = 10 minutes minimum
- C. Intensity Reference A, Plate 22.2 D-2
  I = (R6 × 6.84)/Tc 0.51
  = 4.75 in/hr
- D. Peak Discharge - Rational Method: Q = CIA
  Q = 0.34 × 4.75 × (183658/43560)
  = 6.91 cfs

IV. Flood Plain Information

In reference to City of Albuquerque, New Mexico Flood Insurance Rate Map, portion of this property encroaches Flood Hazard Zone "B". (shown on drainage plan)

V. Flood Proofing

Zone "B" areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.

Finish floor sets at 4948.0
Flood line approx. 4946.0
2.0 ft > 1.0 ft

GRADING AND DRAINAGE PLAN

ROSE'S SOUTHWEST PAPER PRODUCTS
1701 SECOND STREET S.W.
ALBUQUERQUE, NEW MEXICO

RECEIVED
FEB 15 1985
HYDROLOGY SECTION

C-2

L14/DIC