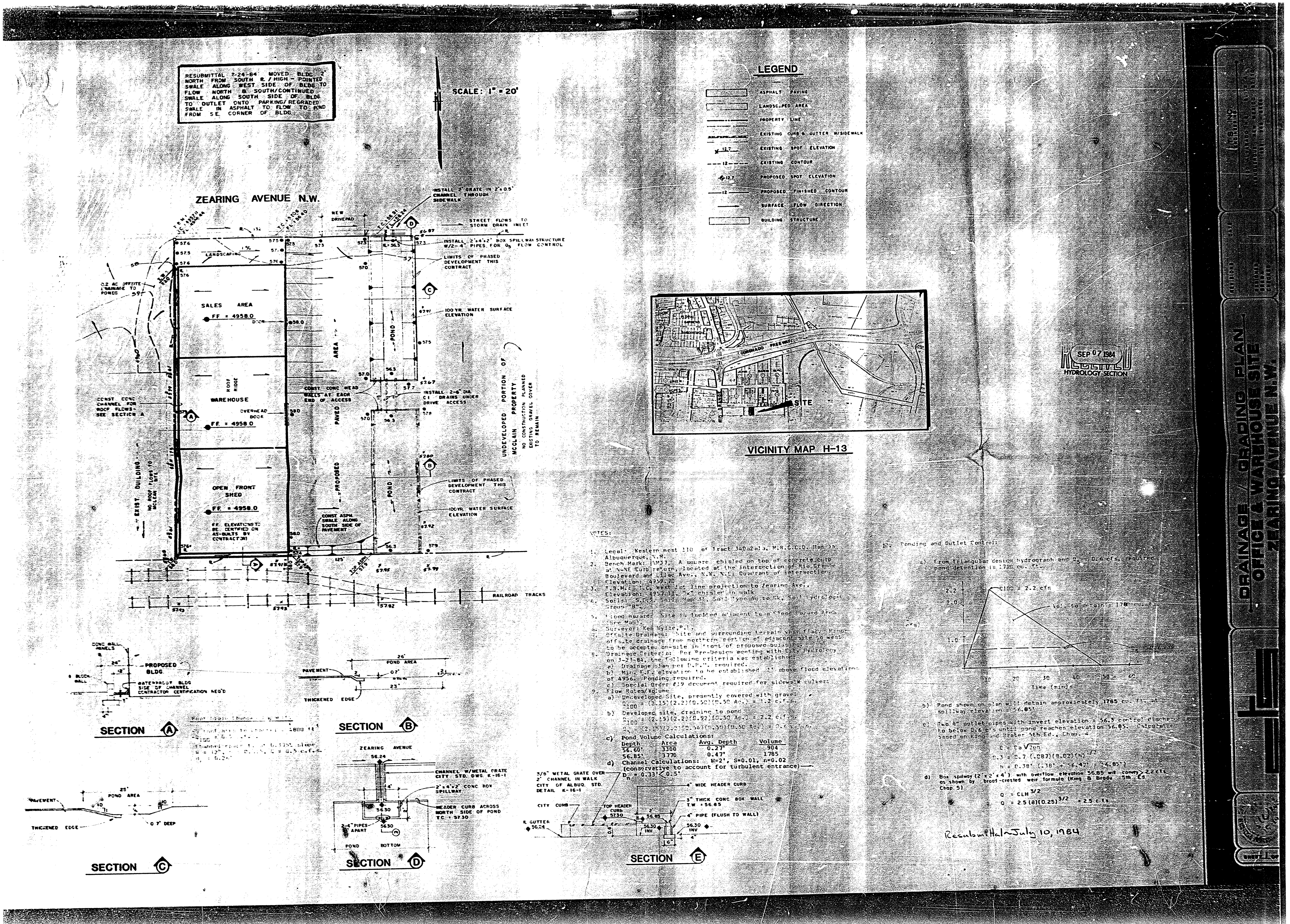

RESUBMITTAL 7-24-84 MOVED BLDG. 2' NORTH FROM SOUTH ℞ / HIGH - POINTED SWALE ALONG WEST SIDE OF BLDG TO FLOW NORTH & SOUTH/CONTINUED SWALE ALONG SOUTH SIDE OF BLDG TO OUTLET ONTO PARKING/REGRADED SWALE IN ASPHALT TO FLOW TO POND FROM S.E. CORNER OF BLDG.
SCALE: 1" = 20'
LEGEND
ASPHALT PAVING
LANDSCAPED AREA
PROPERTY LINE
EXISTING CURB & GUTTER W/SIDEWALK
EXISTING SPOT ELEVATION
EXISTING CONTOUR
PROPOSED SPOT ELEVATION
PROPOSED FINISHED CONTOUR
SURFACE FLOW DIRECTION
BUILDING STRUCTURE
ZEARING AVENUE N.W.
NEW DRIVEPAD
INSTALL 2' GRATE IN 2'x0.5' CHANNEL THROUGH SIDEWALK
STREET FLOWS TO STORM DRAIN INLET
INSTALL 2'x4'x2' BOX SPILLWAY STRUCTURE W/2-4" PIPES FOR Qp FLOW CONTROL
LIMITS OF PHASED DEVELOPMENT THIS CONTRACT
LANDSCAPING
0.2 AC OFFSITE DRAINAGE TO PONDS
SALES AREA
FF = 4958.0
100 YR. WATER SURFACE ELEVATION
POND
AREA
ROOF RIDGE
WAREHOUSE
OVERHEAD DOOR
FF = 4958.0
CONST. CONC HEAD WALLS AT EACH END OF ACCESS
INSTALL 2-6" DIA. C.I. DRAINS UNDER DRIVE ACCESS
CONST. CONC CHANNEL FOR ROOF FLOWS - SEE SECTION A
PAVED
PROPOSED
UNDEVELOPED PORTION OF MCCLAIN PROPERTY
NO CONSTRUCTION PLANNED EXISTING GRAVEL COVER TO REMAIN
OPEN FRONT SHED
FF = 4958.0
EXIST. BUILDING
LIMITS OF PHASED DEVELOPMENT THIS CONTRACT
100 YR. WATER SURFACE ELEVATION
CONST. ASPH. SWALE ALONG SOUTH SIDE OF PAVEMENT
FF ELEVATIONS TO BE CERTIFIED ON AS-BUILTS BY CONTRACTOR
RAILROAD TRACKS
VICINITY MAP H-13
SITE
SEP 07 1984
HYDROLOGY SECTION
PROPOSED BLDG
WATERPROOF BLDG SIDE OF CHANNEL CONTRACTOR CERTIFICATION REQ'D
SECTION A
PAVEMENT
POND AREA
THICKENED EDGE
SECTION B
PAVEMENT
POND AREA
THICKENED EDGE
0.7' DEEP
SECTION C
ZEARING AVENUE
CHANNEL W/METAL GRATE CITY STD. DWG. K-16-1
2'x4'x2' CONC BOX SPILLWAY
HEADER CURB ACROSS NORTH SIDE OF POND T.C. = 57.30
2-4" PIPES 1' APART
POND BOTTOM
SECTION D
3/8" METAL GRATE OVER 2' CHANNEL IN WALK CITY OF ALBUQ. STD. DETAIL K-16-1
CITY CURB
TOP HEADER CURB 57.30
4" WIDE HEADER CURB
3" THICK CONC. BOX WALL T.W. = 56.85
4" PIPE (FLUSH TO WALL)
56.30 INV.
SECTION E
NOTES:
1. Legal: Western most 110' of Tract 340a2a13, M.R.G.C.D. Map 35 Albuquerque, N.M.
2. Bench Mark: BM37. A square chisled on top of concrete curb at N-NE Curb return, located at the intersection of Rio Grande Boulevard and Lilac Ave., N.W. N.E. Quadrant of intersection. Elevation: 4959.70
3. T.B.M.: T.C. west lot line projection to Zearing Ave. Elevation: 4957.11. "x" chisled in walk
4. Soils: S.C.S. Soils Map 31, Soil Type Ag to Gk, Soil Hydrologic Group "B".
5. Flood Hazard: Site is located adjacent to a Flood Hazard Area (See Map).
6. Surveyor: Ken Wylie, P.L.
7. Offsite Drainage: Site and surrounding terrain very flat. Minor offsite drainage from northern portion of adjacent site to west to be accepted on-site in front of proposed building.
8. Drainage Criteria: Per Pre-Design meeting with City Hydrology on 3-23-84, the following criteria was established:
a) Drainage plan per D.P.M. required.
b) Min. F.F. elevation to be established 1' above flood elevation of 4956. Ponding required.
c) Special Order #19 document required for sidewalk culvert
9. Flow Rates/Volume
a) Undeveloped Site, presently covered with gravel
Q_{100} = (2.15)(2.2)(0.50)(0.50 Ac.) = 1.2 c.f.s.
b) Developed site, draining to pond
Q_{100} = (2.15)(2.2)(0.92)(0.50 Ac.) = 2.2 c.f.s.
Q_s = (2.15)(2.2)(2.56)(0.50)(0.50 Ac.) = 0.6 c.f.s.
c) Pond Volume Calculations:
Depth / Area / Avg. Depth / Volume
56.60' / 3300 / 0.27' / 904
56.85' / 3770 / 0.47' / 1785
d) Channel Calculations: W=2', S=0.01, n=0.02 (conservative to account for turbulent entrance)
D_n = 0.33' < 0.5'
10. Ponding and Outlet Control:
a) From triangular design hydrograph and Q_s = 0.6 cfs, required pond detention is 1730 cu. ft.
Q100 = 2.2 cfs
Vol. to detain = 1780 cu. ft.
Q (cfs)
Time (min)
b) Pond shown on plan will detain approximately 1785 cu. ft. at spillway elevation = 56.85'
c) Two 4" outlet pipes with invert elevation = 56.3 control discharge to below 0.6 cfs until pond reaches elevation 56.85. Calculations based on King and Brater 5th Ed., Chap. 4
$Q = Ca\sqrt{2gh}$
$0.3 = 0.7\,(.087)(8.02)(h)^{1/2}$
h = 0.38' (.38' + 56.47' = 56.85')
d) Box spillway (2' x 2' x 4') with overflow elevation 56.85 will convey > 2.2 cfs as shown by broad-crested weir formula (King & Brater 5th Ed. Chap. 5)
$Q = CLH^{3/2}$
$Q = 2.5(8)(0.25)^{3/2} = 2.5$ c.f.s.
Resubmittal July 10, 1984
DRAINAGE / GRADING PLAN
OFFICE & WAREHOUSE SITE
ZEARING AVENUE N.W.