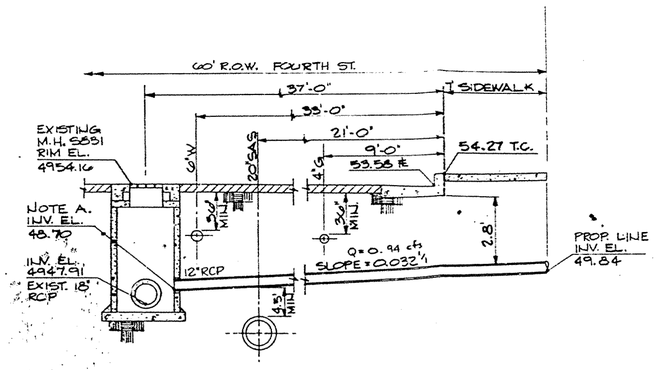


SECTION A-A
N.T.S.

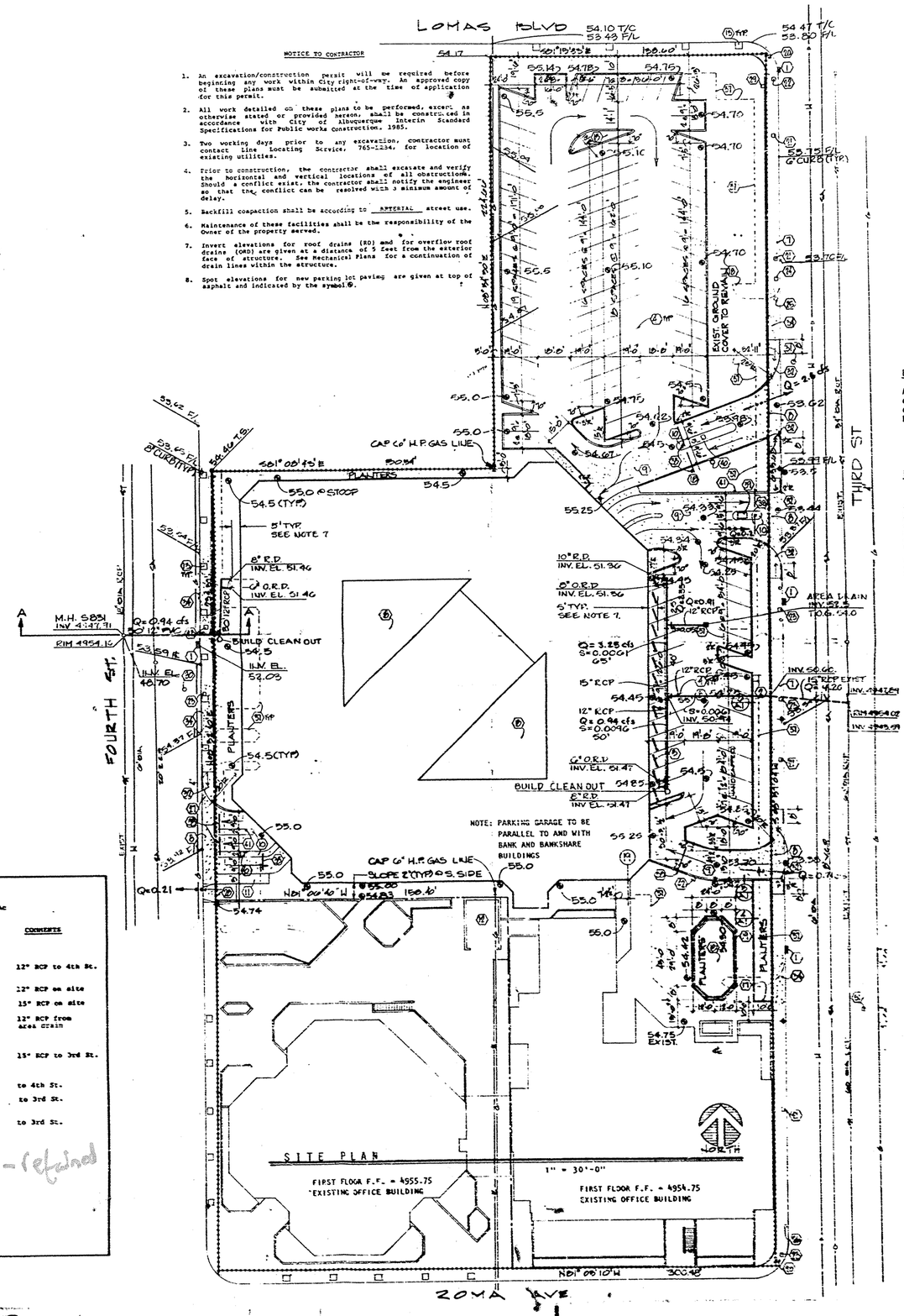
FOR INFORMATION ONLY. TO BE CONSTRUCTED UNDER A CITY OF ALBUQUERQUE WORK ORDER.

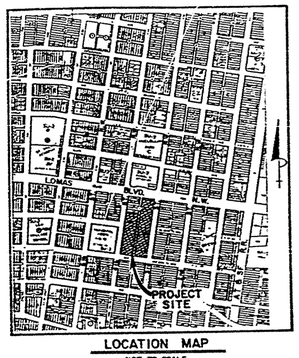
CONSTRUCTION NOTES:

A. CORE DRILL INTO E. SIDE OF EXIST. MANHOLE. GROUT AROUND NEW PVC PIPE WITH NONSHRINK, NONMETALLIC GROUT.

NOTICE TO CONTRACTOR

1. An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with City of Albuquerque Interim Standard Specifications for Public works Construction, 1985.
3. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to ARTERIAL street use.
6. Maintenance of these facilities shall be the responsibility of the Owner of the property served.
7. Invert elevations for roof drains (RD) and for overflow roof drains (ORD) are given at a distance of 5 feet from the exterior face of structure. See Mechanical Plans for a continuation of drain lines within the structure.
8. Spot elevations for new parking lot paving are given at top of asphalt and indicated by the symbol ⊗.





LOCATION MAP
NOT TO SCALE
ZONE ATLAS MAP NO. J-14-Z

ELEVATION DATA:

ACS Brass cap 1-J14, set in a square block of concrete on the east side of 4th Street, midway between the East-West streets of Marble and Slate, and adjacent to the west side of McClellan Park Elev. = 4955.65' MSL.

LEGAL DESCRIPTION:

A certain tract of land situate within the City of Albuquerque, Bernalillo County, New Mexico being Lots Six (6) thru Twelve (12) and Lots Twenty-one (21) thru Twenty-four (24) of Block H and Lots One (1) thru Twelve (12) and Twenty-two (22) thru Twenty-four (24) of Block I, MANDEL BUSINESS AND RESIDENCE ADDITION as the same is shown and designated on the plat filed in the office of the County Clerk of Bernalillo County, New Mexico on February 3, 1926 in Volume C, Folio 193, together with Lots Thirteen (13) thru Twenty (20) of Block H, MANDEL BUSINESS AND RESIDENCE ADDITION as the same is shown and designated on the plat filed in the office of the County Clerk of Bernalillo County, New Mexico on November 19, 1945 in Volume B, Folio 125, together with a portion of Block Twenty (20) and an unnumbered triangular shaped tract of land within the FRANCISCO ARMIJO I GIRNO ADDITION as the same is shown and designated on the plat filed in the office of the County Clerk of Bernalillo County, New Mexico on March 9, 1892 in Volume D2, Folio 16 together with a vacated portion of Fruit Street (Vacation Ordinance 194-1972) together with a vacated portion of an alley (Vacation Ordinance V-76-25) and being more particularly described by plat bearings and ground distances as follows:

BEGINNING at the southwest corner of Lot Twenty-four (24) of said Block H being the intersection of the easterly right-of-way of Fourth Street and the northerly right-of-way of Roma Avenue and from said point of beginning trending thence along said easterly right-of-way, N00°52'40"E, 838.45 feet to the northwest corner of said Lot Twenty-two (22) of Block I; thence leaving said right-of-way and continuing along the northerly boundary of said Lot 22, S81°08'13"E, 150.51 feet to a point; thence continuing along the center of said vacated alley, N00°52'50"E, 224.44 feet to a point on the southerly right-of-way of Lomas Boulevard, N.W.; thence continuing along said southerly right-of-way, S81°15'32"E, 190.64 feet to a point on the westerly right-of-way of Third Street, N.W.; thence continuing along said westerly right-of-way, S00°57'08"W, 659.72 feet to a point on the said northerly right-of-way of Roma Avenue; thence continuing along said northerly right-of-way, N81°05'10"W, 300.48 feet to the point and place of beginning.

Tract contains 3.7776 acres, more or less.

DRAINAGE PLAN

DISCUSSION

The site is in a fully developed urban area, with curb and gutter on all adjoining streets. Curb heights are 6 inches above flow line on all adjoining streets except the east side of Third Street, where the curb is only 4 inches high. The property is the southeast quadrant of the Lomas/Fourth Street intersection (Route 66 North). Since no offsite flows enter the property, it appears the property does not lie in any designated Flood Hazard Zone.

The proposed development will not change either the current drainage pattern or the impact/response to any significant degree, as the previous development had included a paved parking lot. Increased use of landscaped areas on the re-developed site will actually decrease runoff slightly, when compared to the previous development. As per the Subdivision Plat Map for Tracts A, B, C & D, recorded October 1984, a common reciprocal drainage easement is provided between all four tracts. The connection to the existing manhole No. 5831 in Fourth Street, N.W. will be accomplished under a City of Albuquerque Work Order, administered by the Public Works Department.

CALCULATIONS

As the quantity of runoff from the proposed development does not differ significantly from the quantity generated from the existing development within the precision of the hydrologic variables, it is assumed that the calculations for the existing and proposed conditions would be identical. The calculations are based on the 100-year, 6-hour rainfall using the Rational Method to quantify the peak rate of discharge and the SCS (S.C.S.) Method to quantify the volume of runoff. Procedures have been used in accordance with the City of Albuquerque Development Process Manual, Volume II and the "Mayor's Emergency Rule", adopted January 24, 1986.

The model requirement for analysis of downstream capacity in order to justify free discharge of runoff from the site was waived by PWD engineer Robert H. Begnoche on January 13, 1987 for the following reasons:

1. Flooding has not been observed at this location in the watershed for the existing development, and the proposed development is not increasing runoff into the storm sewer system.
2. Flows entering the manholes directly from the site are the result of relatively insignificant amounts of runoff from roof drains on the proposed parking structure.
3. Insufficient data is available from City records on the existing storm sewer system in the surrounding streets, from which a system analysis could be carried out.

Site Characteristics

Area = 3.778 ha = 164,600 sq ft

Coefficient of runoff, C = 0.95 (max.)

Curve Number, CN = 95 (max.)

Time of Concentration/Time to Peak

$T_c = 0.0078\ L^{0.77}/S^{0.385}$ (Kirpich Equation)

$T_p = T_c = 10$ min. (minimum)

Peak Rainfall: 100-yr, 6-hr

$P_6 = 2.25$ in. (DPM Plate 22.2 D-2)

Rational Method

Discharge: Q = CIA

where $I = P_6\,(6.84)\,T_c^{-0.51}$
$= 4.76$ in/hr

$Q_{100} = 0.95(4.76)(3.778)$
$= 17.1$ cfs

SCS Method

Volume: $V = (43560/12)\,RA$

where $R = (1000-10\,CN)/CN$
$= 0.526$

$R = (P-0.2R)^2/(P+0.8\,R)$ DPM Plate 22.2 C-4
$= 1.72$

$V_{100} = (43560/12)(1.72)(3.778)$
$= 23,800$ cfs

RUNOFF SUMMARY

$q_{100} = 17.1/3.778 = 4.526$ cfs/ac

AREA DESCRIPTION	AREA (Acres)	RUNOFF (CFS)	COMMENTS
Piped Discharge:			
1. Roof drains at NW corner of garage	0.207	0.94	12" RCP to 4th St.
2. Roof drains at SE corner	0.207	0.94	12" RCP on site
3. Remainder of roof area	0.519	2.35	15" RCP on site
4. 27-car surface lot on east side of garage	0.202	0.91	12" RCP from area drain
Subtotal to 3rd St. (Areas 2, 3 & 4):		4.20	15" RCP to 3rd St.
Surface flows from driveways to streets:			
5. Entrance at NW corner	0.046	0.21	to 4th St.
6. Patio & entrance at SE corner	0.157	0.71	to 3rd St.
7. Entrance & surface lot at NE corner (Tract D)	0.579	2.62	to 3rd St.
Runoff retained on site in planting areas:			
8. Landscaped areas along 3rd & 4th St., in garage atrium & patio planters	0.415	1.87	- retained
Runoff from existing developed areas:			
9. Tract A (west) Tract B (west)	1.446	6.55	
TOTALS	3.778	17.10	

STEVENS MALLORY PEARL & CAMPBELL, P.A.
ARCHITECTS 110 AMERISTAT BLDG ALBUQUERQUE, NEW MEXICO 87108

CHECKED T. SCHWENK
DRAWN E.T.
DATE 12/9/86

GRADING & DRAINAGE PLAN
SUNWEST BANK PARKING GARAGE

C1

RECEIVED JAN 20 1987 HYDROLOGY SECTION

PRINTED

12-9-86
1-20-87

CITY OF ALBUQUERQUE