

# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 12, 1991

Frank Lovelady Lovelady & Associates 7408 Morrow, NE Albuquerque, New Mexico 87110

RE: ENGINEER'S CERTIFICATION FOR BOBBY JOE'S AUTO (H-17/D63) CERTIFICATION REVISION DATED DECEMBER 10, 1991

Dear Mr. Lovelady:

Based on the information provided on your resubmittal of December 10, 1991, Engineer's Certification for the referenced plan is acceptable.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya, C.E Engineering Assistant

xc: Alan Martinez

BJM/bsj (WP+2780)

PUBLIC WORKS DEPARTMENT



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 17, 1991

Frank Lovelady Lovelady & Associates 7408 Morrow, NE Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR BOBBY JOE'S AUTO

(H-17/D63) ENGINEER'S STAMP DATED JUNE 25, 1991

Dear Mr. Lovelady

Based on the information provided on your submittal of July 1, 1991, the above referenced plan is approved for Building Permit.

Please attach a copy of this plan to the construction sets prior to sign-off by Hydrology.

Prior to release of the Certificate of Occupancy, Engineer's Certification per the DPM will be required. A copy of the compaction tests on the proposed berm will be required along with the Certification.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya, C.E. Engineering Assistant

xc: Alan Martinez

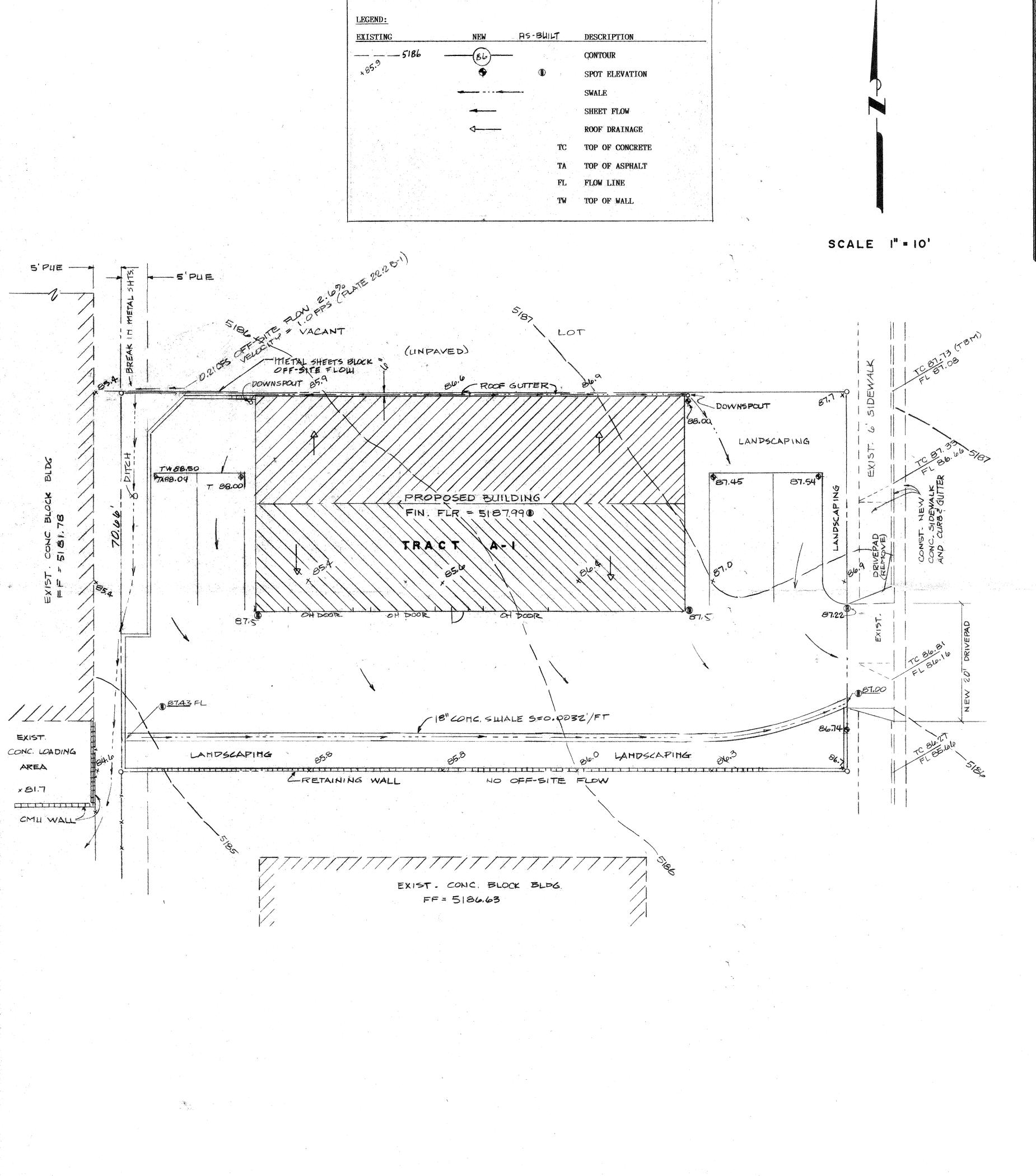
BJM/bsj (WP+2780)

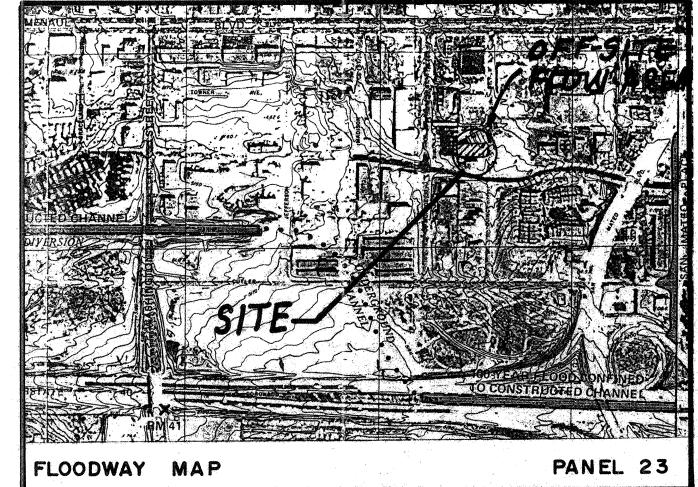
PUBLIC WORKS DEPARTMENT

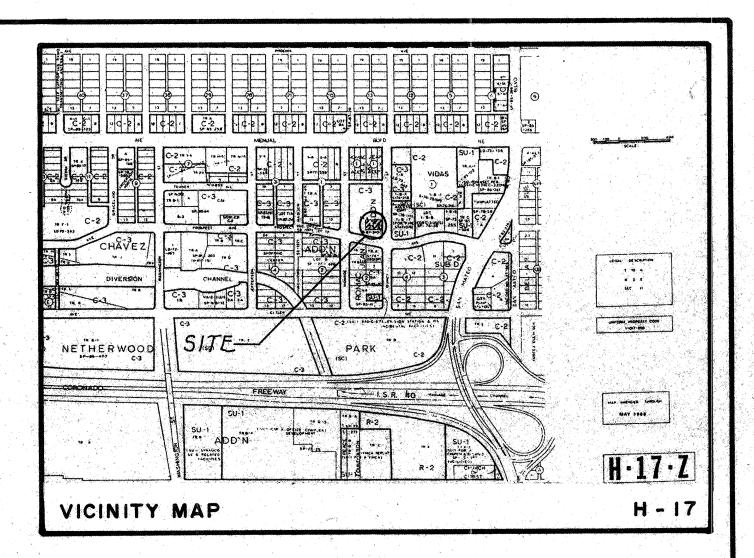
Walter H. Nickerson, Jr., P.E. Assistant Director Public Works

**ENGINEERING GROUP** 

Telephone (505) 768-2500







## DRAINAGE

### EXISTING CONDITIONS:

The site is presently an unpaved vacant tract that slopes away from the street at slightly more than one percent. It has a 5' public utility easement at the west end. The adjacent property north of the site is also unpaved and slopes southwest toward the site, thereby generating some off-site flow. West of the site is a large concrete block building which is five feet west of the property line due to a 5' public utility easement. The building fronts on Monroe Street and ends 9.5' from the south boundary of the site. The building has a walled-in concrete loading area adjacent to its south end. The site is fenced on three sides. On the west side, the existing building completes the enclosure. There is no off-site flow coming from the west. South of the site there is a concrete block building set back 16' from the property line. The lot is lower than the site so there is no off-site flow. The runoff from the site and the off-site flow from the property north of the site runs to the 10' public utility easement centered on the west property line, then runs south and flows around the outside of the walled concrete loading area and then flows generally in the direction of the intersection of Cutler Avenue and Monroe Street. **DEVELOPED CONDITIONS:** 

It is proposed to construct an auto repair facility with asphalt parking. It will be necessary to construct retaining walls to cause on-site runoff to drain into Quincy Street through the proposed new drivepad. Off-site flow will be accepted at the northwest corner of the lot and will continue to flow down the utility easement as it presently does. The building roof will slope north and south from a center ridge. Runoff on the north side will be guttered to downspouts at the NW and NE corners of the buildings, then discharged through the driveway.

## SOIL INFORMATION:

(Refer to "Soil Survey of Bernalillo County", June, 1977). Soil is EtC, Embudo-Tijeras complex, O to 9 percent slopes, hydrologic Soil Group "B". TIME OF CONCENTRATION:

## (Use ten (10) minutes, minimum time of concentration.)

RAINFALL, 100-YEAR, 6-HOUR:

(Refer to D.P.M., Plate 22.2 D-1).  $R_6 = 2.25$  inches.

 $I = R_6 \times 6.84 \times Tc^{-0.51} = 2.25 \times 6.84 \times 10^{-0.51} = 4.76$  inches per hour. OFF-SITE FLOW SWALE CAPACITY: (SEE SEC A-A)  $A = (0.25 \times 2)/2 = 0.255F$ Off-site flow is generated on the land north of the site by an area equal to  $P = 2(|^2 + 0.25^2)/2 = 2.06 FT$  P = A/P = 0.05/2.06 = 0.121 FTOff-site flow is generated on the land north of the site by an area equal to approximately one-half the site. Therefore, the off-site flow is about one-half of the site undeveloped peak discharge, or 0.21 cfs. This off-site flow is constant.

## CALCULATIONS

Surface Type	nCn.	"CN"	Direct Runoff	Existing Area (S.F.)	Developed Area (S.F.)
Building Roof	0.90	98	2.30		3200
Asphalt	0.95	98	2.30		4709
Landscaping	0.25	61	0.25		558
Unpaved	0.40	82	0.90	9539	1072
TOTALS				9539	9539
LIBTOTOPPO HOU WAT	1117 -				

### PEAK DISCHARGE

Existing:  $Q_{100} = CIA = 0.40 \times 4.76 \times 0.219 = 0.42 \text{ cfs}$ 

Developed:  $Q_{100} = CIA = 0.83 \times 4.76 \times 0.219 = 0.86 \text{ cfs}$ 

## $Q_{10} = 0.657 \times 0.86 = 0.57 \text{ efs}$

Existing:

 $V_{100} = 9539 (0.90 / 12) = 715 cf$ 

 $V_{10} = 0.657 \text{ X } 715 = 470 \text{ cf}$ 

VOLUME, 100-YEAR, 6-HOUR:

## Developed:

 $V_{100} = \frac{(2.30 (3200 + 4709) + 0.25 \times 558 + 0.90 \times 1072)}{12} = 1607 \text{ cf}$ 

 $V_{10} = 0.657 \times 1607 = 1056 \text{ cf}$ 

## OFF-SITE FLOW:

is accepted and allowed to pass through the site along the historic flow path.

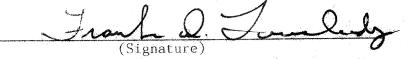
## EROSION CONTROL NOTES:

The contractor shall be responsible for compliance with the following:

- 1. No sediment-bearing water shall be allowed to discharge from the site during construction.
- 2. During grading operations and until the project has been completed, all adjacent property, rights-of-way, and easements shall be protected from flooding from runoff from the site.
- 3. Should the contractor fail to prevent sediment-bearing water from entering public right-of-way or adjacent private property, he shall promptly remove all sediment originating from the site.
- 4. Control of sediment-bearing waters will be accomplished by use of a compacted earth berm of adequate height. The berm shall be located along the downstream perimeter of the property.

## ENGINEER'S CERTIFICATION:

Having completed a field inspection of the site, I hereby certify that the elevations and layout shown on this plan is in substantial compliance with the approved grading and drainage plan dated June 25, 1991.



# BENCH MARK:

Station NDC 19-B1, located at the Washington Street bridge over the AMAFCA Embudo Diversion Channel. Station is 42.5 feet Southwest of the Southwest headwall of bridge, 14.5' east of guard rail. Station is AMAFCA brass tablet stamped "NDC 19-B1", set on a concrete post projecting 0.3 feet above ground. Elevation = 5163.4 feet.

## TEMPORARY BENCH MARK:

The temporary bench mark (TBM) for this site is a 2-inch square and letters "TBM" painted on top of curb at the extended north property line. Elevation = 5187.73 feet.

**DEC** | 0 1991

## LEGAL DESCRIPTION:

ROMAC, Jean Addition Tract A-1, a replat of a portion of Tract "A", City of Albuquerque, New Mexico, Bernalillo County, said replat being recorded on October 6, 1987 in map book C-34, folio 173, in the records of the County Clerk of Bernalillo County, State of New Mexico.



REVISED 11/22/91 REVISED 12/10/91

GRADING AND DRAINAGE PLAN NEW 40' X 80' OFFICE AND SHOP BUILDING FOR JOE'S AUTO 2505 QUINCY N.E. ALBUQUERQUE, NEW MEXICO