

VICINITY MAP
SCALE: 1" = 800'

PROJECT BENCHMARK

B.M. # 5-J224 - A SQUARE, CHISELED ON TOP OF CONCRETE CURB AT THE S.S.E. RETURN OF THE INTERSECTION OF JUAN TABO BLVD. N.E. AND MOUNTAIN ROAD N.E.
ELEVATION = 5585.052 FEET (M.S.L.D.)

T.B.M.

TOP OF CURB ELEVATION LOCATED AT THE W.S.W. RETURN OF THE INTERSECTION OF MOUNTAIN RD. N.E. AND JUAN TABO BLVD. N.E. AS SHOWN ON THE DRAWING BELOW.
ELEVATION = 5584.86 FEET (M.S.L.D.)

LEGAL DESCRIPTION

LOT 2, BLOCK 39-B, DALE J. BELLAMAH'S PRINCESS JEANNE PARK.

LEGEND

- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING INVERT
- EXISTING BLOCK WALL
- TC
- FL
- TSW
- TA
- TOP OF SIDEWALK
- TOP OF ASPHALT
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- NEW BUILDING LINE
- PROPOSED INVERT
- PROPOSED WATERBLOCK

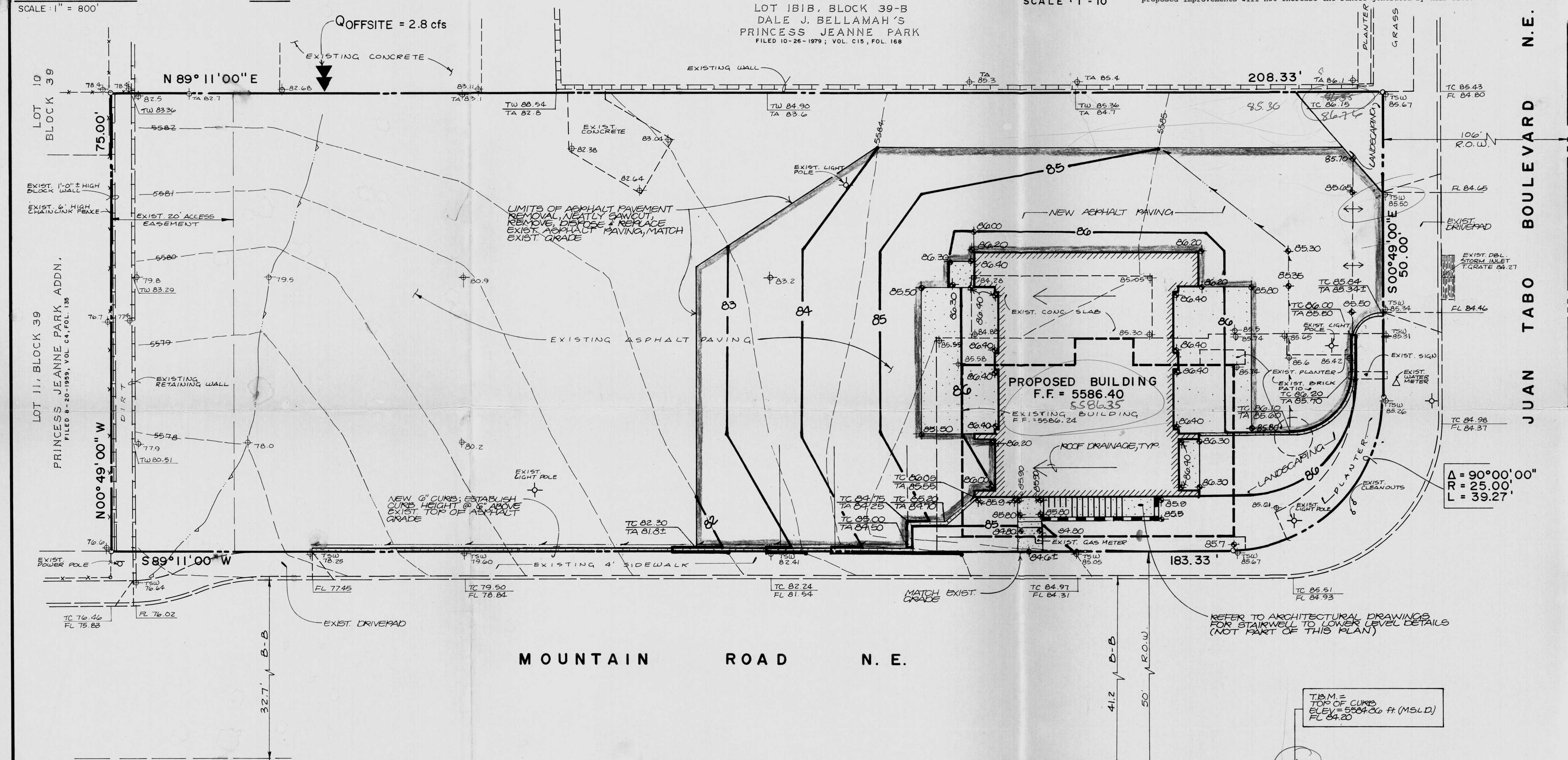
The following items concerning the Valvoline Juan Tabo Instant Oil Change Drainage Plan are contained herein:

1. Vicinity Map
2. Grading Plan
3. Calculations

As shown by the Vicinity Map, the site is located at the northwest corner of the intersection of Juan Tabo Boulevard N.E. and Mountain Road N.E. At present, the site is developed. Much of the surrounding area is currently developed both residentially and commercially, making this a modification to an existing site within an infill area. As shown by Panel 31 of the National Flood Insurance Program Flood Boundary and Floodway Maps for the City of Albuquerque, New Mexico, this site does not lie within a designated flood hazard zone. This site does lie adjacent to a designated flood zone in Juan Tabo Boulevard N.E. Because of this, the finished floor elevation of the proposed building has been established at least two feet above the corresponding flowline elevation in Juan Tabo Boulevard N.E. At present, runoff generated by the site drains from northeast to southwest onto Mountain Road N.E. via an existing driveway. Mountain Road N.E. drains westerly to Muriel Street N.E. From that point, runoff flows south to Lomas Boulevard N.E. where there is a public storm drain system. Offsite flows are not anticipated from Juan Tabo Boulevard N.E. due to the fact that the mapped flooding appears to be confined within the public right-of-way and the site will be graded at elevations higher than the corresponding street grades. The site is topographically higher than Mountain Road N.E. and the site to the west, therefore, no offsite flows are anticipated from those directions. Offsite flows will enter the site from the north as shown. These flows, as quantified by a previously approved grading plan prepared by Frank D. Lovelady, will be accepted and conveyed through the site to Mountain Road N.E.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) the limit and character of the existing improvements, 3) the limit and character of the proposed improvements, and 4) continuity between existing and proposed grades. As shown by this plan, the proposed improvements consist of the removal of an existing building and paving and the construction of a new building along with adjacent paving and landscaping. Runoff generated by the proposed improvements will drain from northeast to southwest onto Mountain Road N.E. Mountain Road N.E. drains west as previously discussed. This pattern is consistent with existing site drainage. Based upon the fact that this site is a modification to an existing site within an infill area, no increase in runoff generated by the proposed improvements, and the proximity of downstream facilities, the free discharge of runoff from this site is appropriate.

The calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The Rational Method has been used to quantify the peak rate of discharge and the SCS Method has been used to quantify the volume of runoff. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, and the Mayor's Emergency Rule adopted January 14, 1986. As shown by these calculations, the proposed improvements will not increase the runoff generated by this site.



CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey, Plate 32: - Tg8 - Tijeras gravelly fine sandy loam
Hydrologic Soil Group: B
Existing Pervious CN = 69 (DPM Plate 22.2 C-2)
Landscaping: fair condition
Developed Pervious CN = 69 (DPM Plate 22.2 C-2)
Landscaping: fair condition

Time of Concentration/Time to Peak

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

$T_p = T_c = 10$ min.

Point Rainfall

$P_6 = 2.48$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = CIA$

where C varies

$C = P_6 (6.84) T_c^{-0.51} = 5.24$ in/hr

$P_6 = 2.48$ in (DPM Plate 22.2D-1)

$T_c = 10$ min (minimum)

A = area, acres

SCS Method

Volume: $V = 3630(DRO) A$

Where DRO = Direct runoff in inches

A = area, acres

Existing Condition

Atotal = 15,490 sf = 0.35 Ac
Roof area = 1,760 sf (0.11)
Paved area = 13,025 sf (0.84)
Landscaped area = 480 sf (0.03)
Dirt area = 290 sf (0.02)
 $C = 0.92$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = CIA = 0.92(5.24)(0.35) = 1.7$ cfs
 $A_{imp} = 14,785$ sf; % impervious = 95 %
Composite CN = 96 (DPM Plate 22.2 C-2)
DRO = 2.1 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630(DRO) A = 2,670$ cf

Developed Condition

Atotal = 15,490 sf = 0.35 Ac
Roof area = 1,240 sf (0.08)
Paved area = 13,125 sf (0.85)
Landscaped area = 1,125 sf (0.07)
 $C = 0.90$ (Weighted average per Emergency Rule, 1/14/86)
 $Q_{100} = CIA = 0.90(5.24)(0.35) = 1.7$ cfs
 $A_{imp} = 14,365$ sf; % impervious = 93 %
Composite CN = 96 (DPM Plate 22.2 C-2)
DRO = 2.1 in (DPM Plate 22.2 C-4)
 $V_{100} = 3630(DRO) A = 2,670$ cf

Comparison

$Q_{100} = 1.7 - 1.7 = 0$ cfs (no change)

$V_{100} = 2,670 - 2,670 = 0$ cf (no change)

CONSTRUCTION NOTES

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call Service 266-1990, for location of existing utilities.
2. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all potential obstructions. Should a conflict exist, the contractor shall notify the engineer in writing so that the conflict can be resolved with a minimum amount of delay.
3. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.
5. If any utility lines, pipelines, or underground utility lines are shown on these drawings, they are shown in an approximate manner only, and such lines may exist where none are shown. If any such existing lines are shown, the location is based upon information provided by the owner of said utility, and the information may be incomplete, or may be obsolete by the time construction commences. The engineer has conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, makes no representation pertaining thereto, and assumes no responsibility or liability therefor. The contractor shall inform itself of the location of any utility line, pipeline, or underground utility line in or near the area of the work in advance of and during excavation work. The contractor is fully responsible for any and all damage caused by its failure to locate, identify and preserve any and all existing utilities, pipelines, and underground utility lines. In planning and conducting excavation, the contractor shall comply with state statutes, municipal and local ordinances, rules and regulations, if any, pertaining to the location of these lines and facilities.
6. The design of planters and landscaped areas is not part of this plan. All planters and landscaped areas adjacent to the building(s) shall be provided with positive drainage to avoid any ponding adjacent to the structure. For construction details, refer to landscaping plan.

Erosion Control Measures

1. The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property. This can be achieved by constructing temporary berms at the property lines and wetting the soil to keep it from blowing.
2. The contractor shall promptly clean up any material excavated within the public right-of-way so that the excavated material is not susceptible to being washed down the street.
3. The contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.

HYDROLOGY APPROVAL & INSPECTION

APPROVED FOR BUILDING PERMIT
ENGINEER Randy Matyas DATE 4/23/90
INSPECTION REQUESTED DATE 8-6-90
APPROVAL DATE 8-6-90 DISAPPROVED
SOPR APPROVAL DATE N/A
SURVEY DATE 8-6-90
HYDROLOGY BOOK NO./PAGE NO. 89-1 Pg. 101 #49
SURVEYED BY
COMMENTS



JEFF MORTENSEN & ASSOCIATES, INC.
811 DALLAS, N.E. ALBUQUERQUE, NM 87110
ENGINEERS & TELEPHONE (505) 265-5611

GRADING AND DRAINAGE PLAN VALVOLINE JUAN TABO INSTANT OIL CHANGE

DESIGNED BY	J. G. M.	NO.	DATE	BY	REVISIONS	JOB NO.
DRAWN BY	S. G. H.					900261
APPROVED BY	J. G. M.					DATE 3 - 90
						SHEET 1 OF 1

