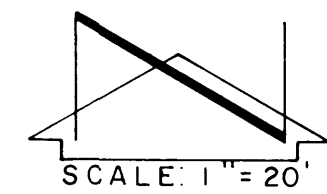


VICINITY MAP F-18  
SCALE: 1" = 800'

PROJECT BENCHMARK:  
A STANDARD N.I.M.S.H.D. BRASS TABLET STAMPED  
"NM-301-1" SET ON TOP OF CONCRETE FOOT SET  
FLUSH W/ GROUND, LOCATED 41' FROM THE NOSE  
OF THE MEDIAN IN SAN MATEO, N.E. 56' NORTH OF  
THE INTERSECTION OF OSUNA RD. N.E. & SAN  
MATEO BLVD.  
ELEV. = 5210.00 FEET (M.S.L.D.)  
TEMPORARY BENCHMARK:  
TOP OF CURB ELEVATION @ PROJECTION OF  
PROPERTY LINE @ N.W. CORNER OF TRACT  
A-2-a AS SHOWN BELOW.  
ELEV. = 5211.00 (M.S.L.D.)  
LEGAL DESCRIPTION:  
TRACT A-2-a, SPANISH LAND COMPANY



- LEGEND
- PROPOSED SPOT ELEVATION
  - EXISTING SPOT ELEVATION
  - PROPOSED CONTOUR
  - EXISTING CONTOUR
  - SWALE
  - PROPERTY LINE
  - CONCRETE
  - PROPOSED ASPHALT
  - PROPOSED FENCE
  - EXISTING FENCE
  - TOP OF CURB
  - FLOW LINE

- CONSTRUCTION NOTES:
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 765-1234, FOR LOCATION OF LISTING UTILITIES.
  - 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 SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
  - 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.
  - ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

- EROSION CONTROL MEASURES
- 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.
  - 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.
  - THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.

#### DRAINAGE PLAN

The following items concerning the Tract A-2-a, Spanish Land Company Drainage Plan are contained hereon:

- Vicinity Map
- Grading Plan
- Calculations

The proposed improvements, as shown by the Vicinity Map, are located on the east side of San Mateo Boulevard N.E. just south of Osuna Road N.E. Presently the site is undeveloped. The adjacent sites to the north and east are developed. The adjacent site to the south is about to undergo development per F18-D39.

As shown by Plate F-18 of the Albuquerque Master Drainage Study (AMDS), this site does not lie within a designated Flood Hazard Zone. From a pre-design meeting for Tract A-2-b, Spanish Land Company, which lies adjacent to the subject site to the south, it was determined that free discharge is appropriate for this site since no downstream flooding is indicated on the AMDS, the development of the site will have little or no effect on downstream conditions, and because of the close proximity of the site to the Bear Arroyo. Presently, runoff, mainly in the form of sheet flow, drains from east to west and discharges to San Mateo Boulevard N.E. From this point, the runoff flows north via the street and the existing public storm drain within San Mateo Boulevard N.E. to the Bear Arroyo. From a grading and drainage plan prepared for Tract A-2-b, Spanish Land Company (F18-D39) by this office, it was determined that no offsite flows will be anticipated from the adjacent site to the south because it has been designed such that the runoff generated by that site will be conveyed west to San Mateo Boulevard N.E. No offsite flows will enter the subject site from the east because an existing block wall located at the east property line prevents flows from entering the site. No offsite flows will enter the project site from the adjacent site to the north because it has been developed in a manner such that those flows are conveyed north away from the project site.

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 proposed improvements, and 3) continuity between existing and proposed grades. As shown by this plan, the proposed improvements include a building, asphalt paving and landscaping. Runoff generated by the site will drain from east to west and discharge to San Mateo Boulevard N.E. via the new driveway under the free discharge conditions previously discussed.

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 for this analysis in accordance with the City of Albuquerque Development Process Manual, Volume II. As shown by these calculations, the proposed improvements will increase the peak discharge to San Mateo Boulevard N.E. by approximately 3.3 cfs.

#### CALCULATIONS

##### Ground Cover Information

From Bernalillo County Soil Survey, Plate 21:  
TgR, Tijeras; Gravelly Fine Sandy Loam  
Hydrologic Soil Group B

##### Rational Method

Discharge:  $Q = CiA$   
where C varies  
 $i = P_6 (6.84) T^{-0.51} = 4.65 \text{ in./hr}$   
 $P_6 = 2.20 \text{ in (DPM Plate 22.2 D-1)}$   
 $T_c = 10 \text{ min (minimum)}$   
 $A = \text{area, acres}$

Volume:  $V = CP_6A(1/12)$   
where C varies  
 $P_6 = 2.20 \text{ in (DPM Plate 22.2 D-1)}$   
 $A = \text{area, acres}$

##### Existing Condition

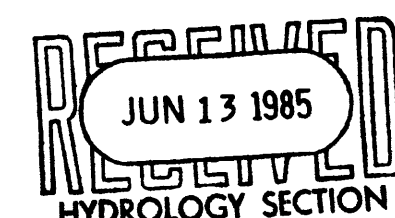
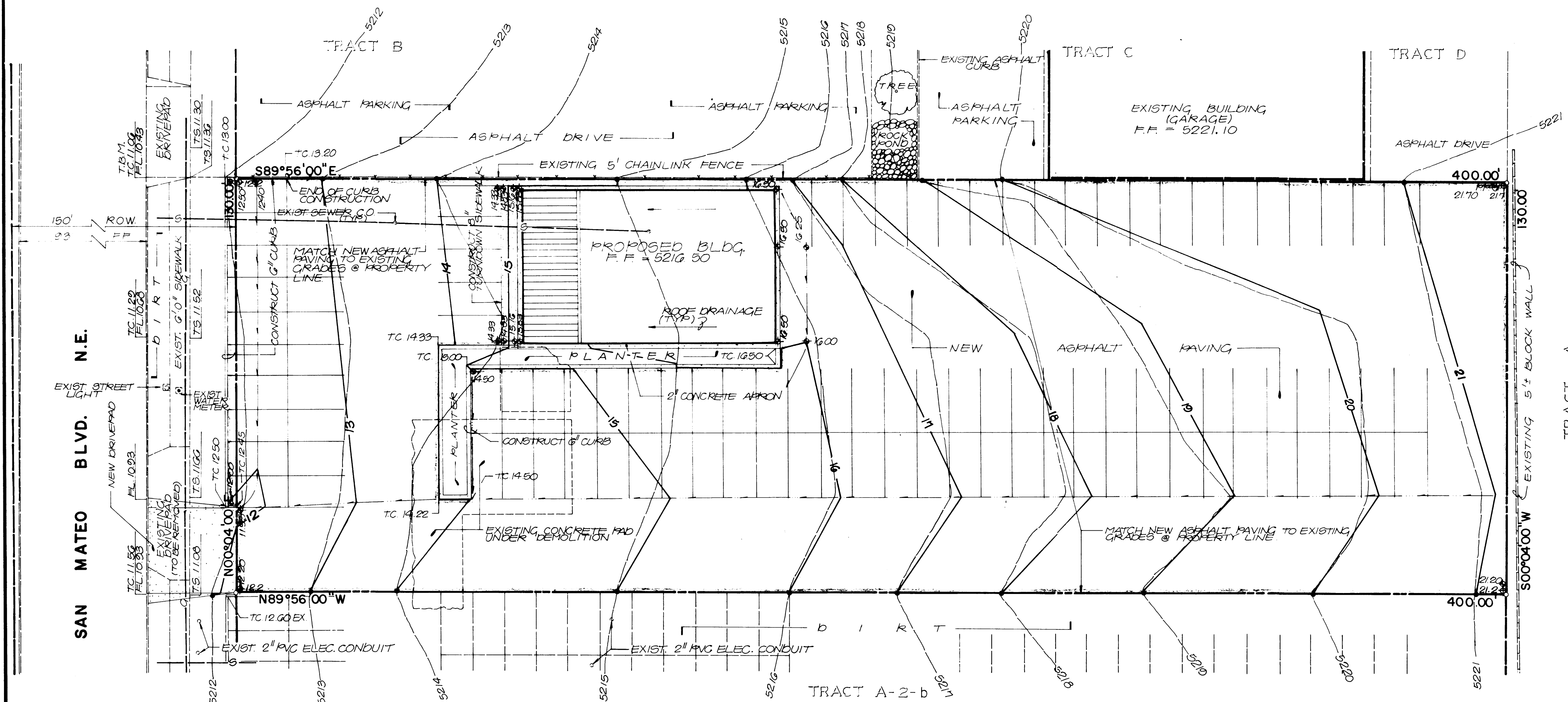
$A_{\text{total}} = 52,000 \text{ sf} = 1.19 \text{ Ac}$   
 $A_{\text{imp}} = 2,325 \text{ sf}; \% \text{ impervious} = 4\%$   
 $C_{\text{imp}} = 0.36 \text{ (DPM Plate 22.2 C-1)}$   
 $Q_{100} = CiA = 0.36(4.65)(1.19) = 2.0 \text{ cfs}$   
 $V_{100} = CP_6A = 0.36(2.20/12)(52,000) = 3,430 \text{ cf}$

##### Developed Condition

$A_{\text{total}} = 52,000 \text{ sf} = 1.19 \text{ Ac}$   
 $A_{\text{imp}} = 51,155 \text{ sf}; \% \text{ impervious} = 98\%$   
 $C_{\text{imp}} = 0.96 \text{ (DPM Plate 22.2 C-1)}$   
 $Q_{100} = CiA = 0.96(4.65)(1.19) = 5.3 \text{ cfs}$   
 $V_{100} = CP_6A = 0.96(2.20/12)(52,000) = 9,150 \text{ cf}$

##### Comparison

$Q_{100} = 5.3 - 2.0 = 3.3 \text{ cfs (increase)}$   
 $V_{100} = 9,150 - 3,430 = 5,720 \text{ cfs (increase)}$



811 DALLAS N.E. • ALBUQUERQUE • NEW MEXICO • 87110  
ENGINEERS

NO.	DATE	BY	REVISIONS

DESIGNED BY: J.T.O.  
DRAWN BY: J.M.C.  
APPROVED: J.G.M.

JOB NO.  
**50063**  
DATE  
**5/85**

## GRADING & DRAINAGE PLAN TRACT A-2-a, SPANISH LAND CO.

FILE NO.  
SHEET 1 OF 1