PUBLIC WORKS/HYDROLOGY

G14/D33

PROJECT LOCATION
CANDELARIA
DAVIDSON
LIVINGSTON PLACE
FITZGERALD ADDN

VICINITY MAP G-14
SCALE: 1" = 800'

LEGEND

—4966—	EXISTING CONTOUR
—66—	PROPOSED CONTOUR
⊕	EXISTING SPOT ELEVATION
◆	PROPOSED SPOT ELEVATION
▭	EXISTING BLOCK WALL
-·-·-	EXISTING CHAINLINK FENCE
▬	PROPOSED ASPHALT
▨	PROPOSED CONCRETE

TEMPORARY BENCHMARK

TOP OF FOUND 5/8 REBAR LOCATED @ THE NORTHEAST PROPERTY CORNER, AS SHOWN ELEVATION = 4966.26 FEET (MSLD)

PROJECT BENCHMARK

ACS BENCHMARK 6-G14. A SQUARE, '☒,' CHISELED ON TOP OF THE CONCRETE CURB @ THE ENE CURB RETURN LOCATED @ THE INTERSECTION OF CANDELARIA ROAD NW & FOURTH STREET N.W IN THE NORTHEAST QUADRANT OF THE INTERSECTION (1975) ELEVATION = 4966.56 FEET (MSLD)

LEGAL DESCRIPTION

LOT 7, DAVIDSON ADDITION, NO. 1

Drainage Plan

The following items concerning the 820 Candelaria N.W. apartment complex Drainage Plan are contained hereon:

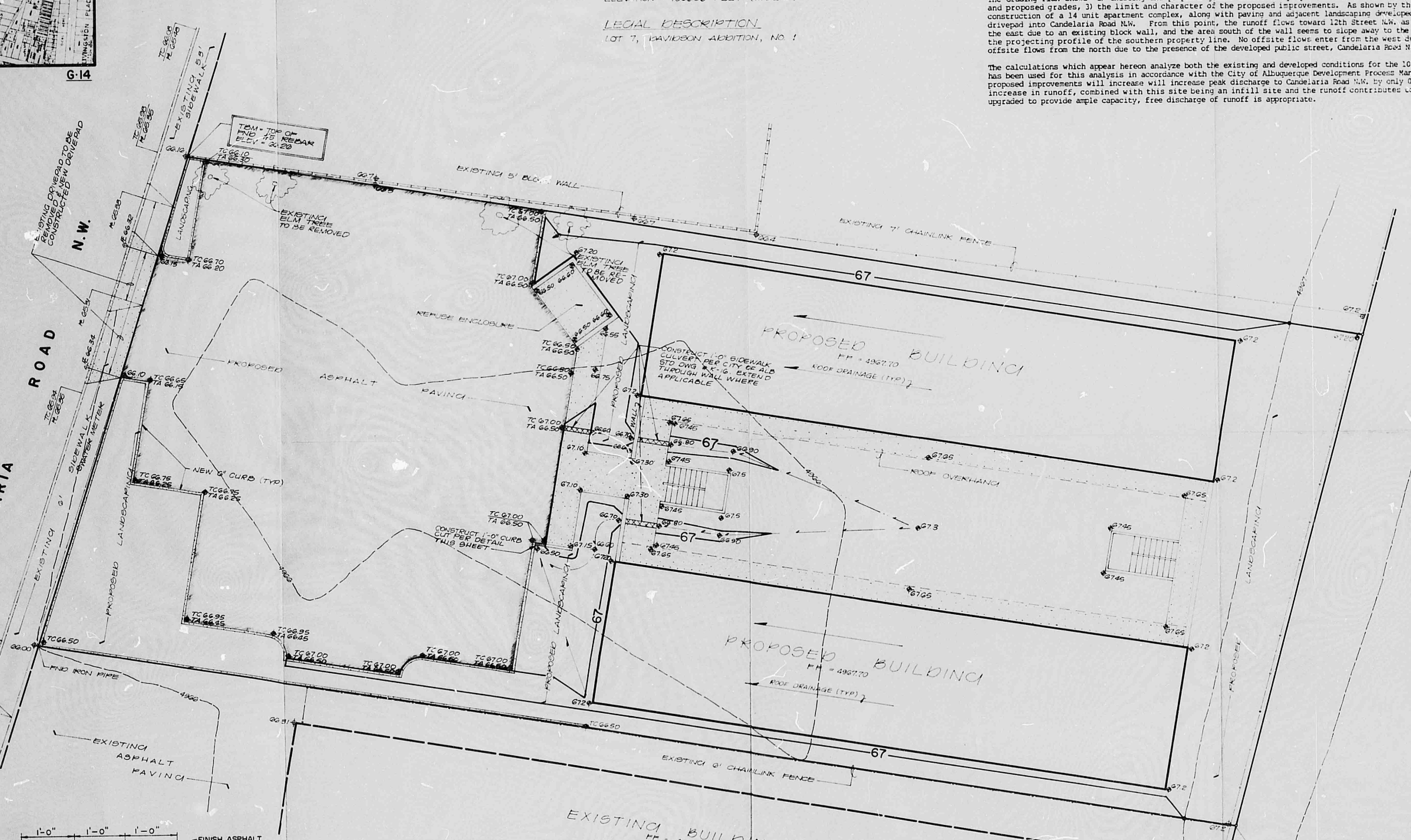
1. Vicinity Map
2. Grading Plan
3. Calculations

The proposed improvements, as shown by the Vicinity Map, are located on the south side of Candelaria Road N.W. between 7th Street N.W. and 10th Street N.W. At present, the site is undeveloped. The surrounding area is developed residentially making the site an infill site.

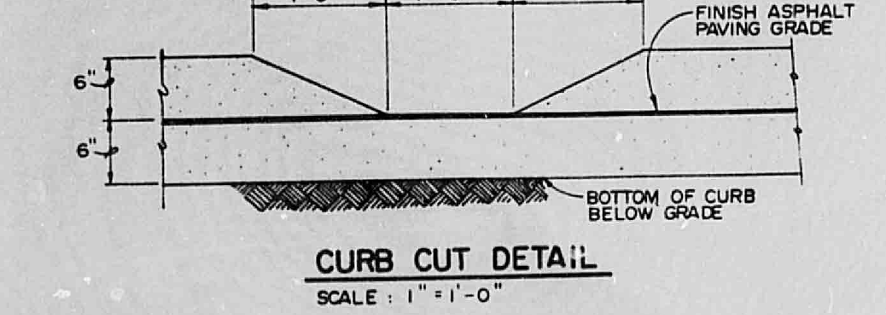
As shown by Plate G-15 of the Albuquerque Master Drainage Study (AMDS), the site does not lie within a designated Flood Hazard Zone. Furthermore, this site does not appear to contribute to a designated Flood Hazard Zone. Runoff generated by this site does not have a well defined pattern. The runoff appears to pond on site with a small portion flowing to Candelaria Road N.W. and onto the adjacent properties to the east and west the runoff which does enter Candelaria Road N.W. will then enter the existing public storm sewer which lies within Candelaria Road N.W. This system discharges to the 12th Street N. W. Storm Sewer, which has just been built, empties into the Embudo Arroyo. This constitutes the outfall for this site.

The Grading Plan shows 1) existing and proposed grades indicated by spot elevations and contours at 1'0" intervals, 2) continuity between existing and proposed grades, 3) the limit and character of the proposed improvements. As shown by this plan the proposed improvements consist of the construction of a 14 unit apartment complex, along with paving and adjacent landscaping developed. Runoff generated by this site will exit via the drivepad into Candelaria Road N.W. From this point, the runoff flows toward 12th Street N.W. as previously discussed. No offsite flows enter from the east due to an existing block wall, and the area south of the wall seems to slope away to the east. No offsite flows enter from the south due to the projecting profile of the southern property line. No offsite flows enter from the west due to the existing building. Lastly, there are no offsite flows from the north due to the presence of the developed public street, Candelaria Road N.W.

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 will increase peak discharge to Candelaria Road N.W. by only 0.8 cfs, (approximately). Based upon this negligible increase in runoff, combined with this site being an infill site and the runoff contributes to an existing storm sewer, which has been recently upgraded to provide ample capacity, free discharge of runoff is appropriate.



SCALE 1" = 10'
CANDELARIA ROAD N.W.
EXISTING 5.5' SIDEWALK
EXISTING 6' SIDEWALK
EXISTING DRIVEPAD TO BE REMOVED & NEW DRIVEPAD CONSTRUCTED
TBM = TOP OF FND #5 REBAR ELEV = 66.26
EXISTING 5' BLOCK WALL
EXISTING 7' CHAINLINK FENCE
EXISTING ELM TREE TO BE REMOVED
REFUSE ENCLOSURE
PROPOSED ASPHALT PAVING
NEW 6" CURB (TYP)
PROPOSED LANDSCAPING
CONSTRUCT 1'-0" SIDEWALK CULVERT PER CITY OF ALB STD DWG # K-16. EXTEND THROUGH WALL WHERE APPLICABLE
CONSTRUCT 1'-0" CURB CUT PER DETAIL THIS SHEET
PROPOSED BUILDING FF = 4967.70
ROOF DRAINAGE (TYP)
ROOF OVERHANG
FND IRON PIPE
EXISTING ASPHALT PAVING
EXISTING BUILDING
EXISTING 6' CHAINLINK FENCE
67
4966



1'-0"
6"
FINISH ASPHALT PAVING GRADE
BOTTOM OF CURB BELOW GRADE

CURB CUT DETAIL
SCALE: 1" = 1'-0"

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey, Plate 20:
Gb - Gila loam
Hydrologic Soil Group B

Rational Method

Discharge: $Q = CiA$
where C varies
$i = P_6 (6.84) T_c^{-0.51} = 4.65$ in./hr
$P_6 = 2.2$ in (DPM Plate 22.2 D-1)
$T_c = 10$ min (minimum)
A = area, acres

Volume: $V = CP_6A(1/12)$
where C varies
$P_6 = 2.2$ in (DPM Plate 22.2 D-1)
A = area, sf

Existing Condition

$A_{total} = 22{,}980$ sf = 0.527 Ac
$A_{imp} = 0$ sf; % impervious = 0%
'C' = 0.34 (DPM Plate 22.2 C-1)
$Q_{100} = CiA = (0.34)(4.65)(0.5276) = 0.8$ cfs
$V_{100} = CP_6A = (0.34)(2.2/12)(22{,}980) = 1430$ cf

Developed Condition

$A_{total} = 22{,}980$ sf = 0.5276 Ac
$A_{imp} = 14.560$ sf; % impervious = 63%
'C' = 0.65 (DPM Plate 22.2 C-1)
$Q_{100} = CiA = (0.65)(4.65)(0.5276) = 1.6$ cfs
$V_{100} = CP_6A = (0.65)(2.2/12)(22{,}980) = 2740$ cf

Comparison

$\Delta Q_{100} = 1.6 - 0.8 = 0.8$ cfs (increase)
$\Delta V_{100} = 2740 - 1430 = 1310$ cf (increase)

JEFFREY G. MORTENSEN 8547
12-20-85

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DEC 26 1985
HYDROLOGY SECTION

Tom Mann & Associates, Inc.
811 DALLAS N.E. • ALBUQUERQUE • NEW MEXICO • 87110
ENGINEERS

NO.	DATE	BY	REVISIONS

DESIGNED BY RHD
DRAWN BY LBD
APPROVED JGM
JOB NO. 51541
DATE 12·85

GRADING & DRAINAGE PLAN
820 CANDELARIA N.W.

FILE NO
SHEET 1 OF 1

R# 26 DATE 3-26-02 OP E.S.P.

CITY OF ALBUQUERQUE

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11/15/02
DIRECTOR

Roberta Duran
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7/08/02

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PLANS/PLATS ON FILE
FILE DESC: G14/D33

PLANS/PLATS 1

E 30 D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D F