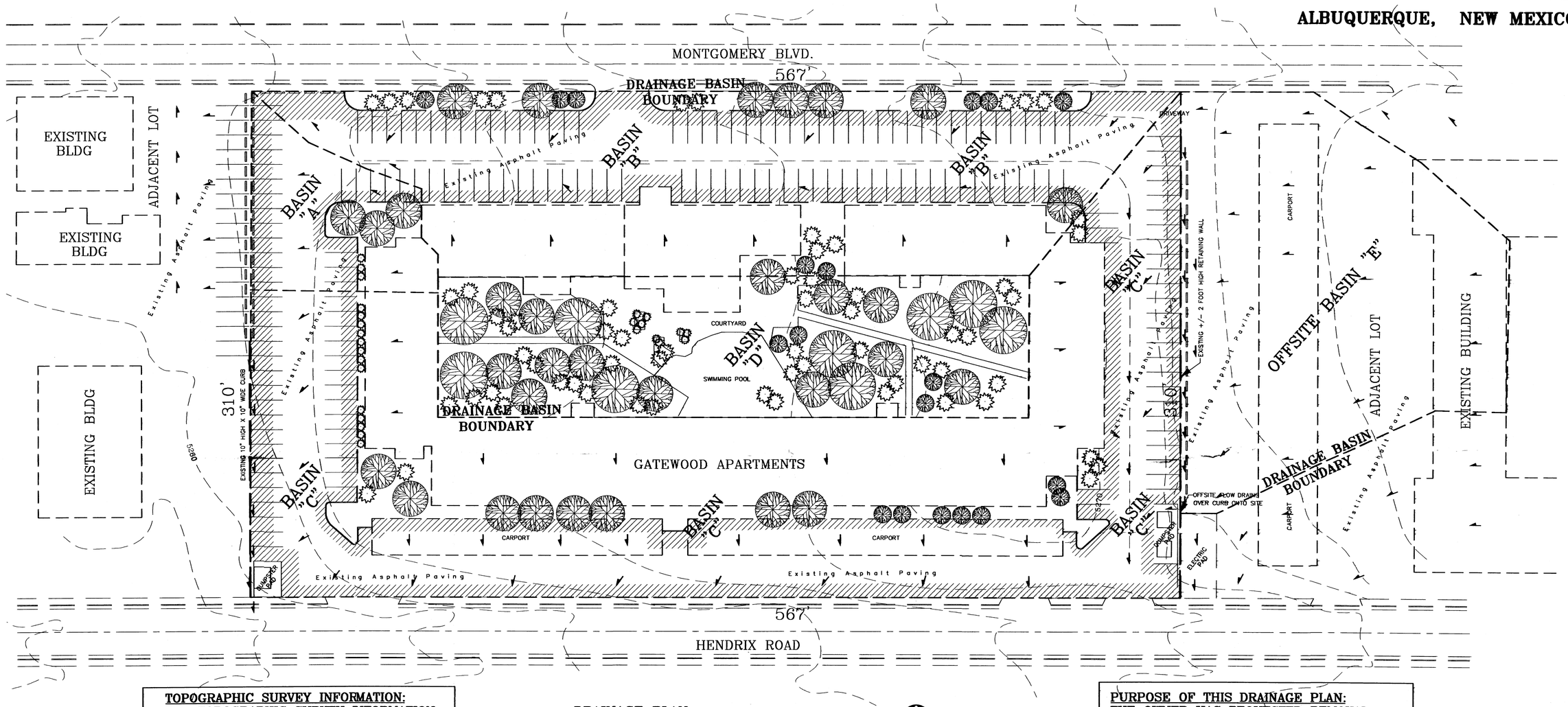
DRAINAGE PLAN
TRACT F2, ALTAMONT ADDITION
6300 MONTGOMERY BLVD NE
ALBUQUERQUE, NEW MEXICO

RECEIVED
OCT 0 9 2003
HYDROLOGY SECTION



TOPOGRAPHIC SURVEY INFORMATION:
THE TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM CITY OF ALBUQUERQUE AERIAL TOPOGRAPHY, NO FIELD SURVEYING WAS PERFORMED FOR THIS SITE.

DRAINAGE PLAN
SCALE: 1" = 30'

PURPOSE OF THIS DRAINAGE PLAN:
THE OWNER HAS REQUESTED REMOVAL AND REPLACEMENT OF ASPHALT PAVING. THE NEW GRADES OF ASPHALT WILL MATCH EXISTING GRADES IN ORDER TO MAINTAIN EXISTING DRAINAGE PATTERNS.

LEGEND

- EXISTING CONTOUR GRADE
- DRAINAGE FLOW DIRECTION
- DRAINAGE BASIN BOUNDARY
- ASPHALT LIMITS RESTORATION

UTILITY PRECAUTIONS
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.

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

FILE: 030101 – GATEWOOD APARTMENTS BASE.dwg

GILBERT ALDAZ
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER

DRAINAGE PLAN
FOR
GATEWOOD APARTMENTS

Applied Engineering & Surveying, Inc.
1600 BLAIR DRIVE NE
ALBUQUERQUE, NEW MEXICO 87112 PH: (505)237-1456

DATE/REVISIONS:

SHEET NUMBER:
1

DRAINAGE CALCULATIONS
TRACT F2, ALTAMONT ADDITION
6300 MONTGOMERY BLVD NE
ALBUQUERQUE, NEW MEXICO

DRAINAGE PLAN
THE FOLLOWING ITEMS CONCERNING TRACT F2, ALTAMONT ADDITION, 6300 MONTGOMERY BOULEVARD NE, ALBUQUERQUE, NEW MEXICO, GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

1. DRAINAGE CALCULATIONS
2. VICINITY MAP (G-18)
3. FLOODMAP

EXITING CONDITIONS
AS SHOWN BY THE VICINITY MAP, THE SITE CONTAINS APPROXIMATELY 4.10 (SEE ATTACHED VICINITY MAP G-20). THE EXISTING SITE IS CURRENTLY FULLY DEVELOPED WITH A 3 STORY APARTMENT COMPLEX, EXISTING ASPHALT PARKING, CONCRETE SIDEWALKS AND LANDSCAPING IMPROVEMEMENTS.

PROPOSED CONDITIONS
AS SHOWN BY THE DRAINAGE PLAN, THE IMPROVEMENTS PROPOSED IS TO PERFORM RESTORATION OF THE ASPHALT PAVING PARKING LOT IMPROVEMENTS AND NOT CHANGE THE CURRENT GRADING CONCEPT AS IT CURRENTLY EXIST IN ORDER TO MAINTAIN EXISTING DRAINAGE PATTERNS.

THE CALCULATIONS THAT APPEAR HEREON, ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6-HOUR RAINFALL RUNOFF FOR PEAK FLOWS AND STORM DURATION FOR VOLUME REQUIREMENTS. THE PROCEDURE FOR 40 ACRE AND SMALLER BASINS AS SET FORTH IN THE REVISION OF SECTION 22.7 HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY 1993. THIS D.P.M. PROCEDURE IS USED FOR ANALYZING ONSITE FLOWS.

DOWNSTREAM CAPACITY
SINCE THIS SITE IS ALREADY FULLY DEVELOPED AND THE SURROUNDING AREA IS FULLY DEVELOPED IT WOULD BE CONSERVATIVE TO SAY THAT THE DEVELOPED DISCHARGE FROM THE REPLACEMENT OF EXISTING ASPHALT PAVING WILL HAVE MINIMAL IMPACT TO THE SURROUNDING AREA, SINCE THERE IS NO INCREASE IN FLOW RATES; THEREFORE, IT APPEARS THAT FREE DISCHARGE IS APPROPRIATE.

A PORTION OF THE DRAINAGE BASIN ALONG THE NORTHWEST CORNER OF THE SITE CURRENTY DRAINS INTO AN ADJACENT PARKING LOT, THAN DISCHARGES INTO MONTGOMERY BOULEVARD NE. THIS REPAVING PROJECT WILL NOT CHANGE THE GRADING IN THIS AREA SO THAT FLOWS WILL REMAIN THE SAME TO THIS OFFSITE PROPERTY.

EROSION CONTROL
TEMPORARY EROSION CONTROL WILL BE REQUIRED DURING THE CONSTRUCTION PHASE TO PROTECT DOWNSTREAM PROPERY AND IMPROVEMENTS FROM SEDIMENT AND UNCONTROLLED RUNOFF. THE CONTRACTOR SHALL INCLUDE TEMPORARY EARTH BERMING ALONG THE SOUTH, NORTH AND WEST SIDE OF THE PROJECT BOUNDARIES DURING CONSTRUTION TO MITIGATE SOIL RUNOFF. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY MAINTAIN THESE FACILITIES DURING THE CONSTRUCTION PHASE OF THE PROJECT.

OFFSITE FLOWS
BASED ON A FIELD VISIT OF THE SITE IT APPEARS THAT OFFSITE FLOWS DO ENTER THE PROPERTY FROM THE NORTHEAST CORNER OF THIS SITE. THIS OFFSITE BASIN IS FROM AN ADJACENT PARKING LOT AND A PORTION OF EXISTING APARTMENT BUILDING. SEE ATTACHED CALCULATIONS. THIS PROPERTY WILL CONTINUE TO ACCEPT THESE FLOWS AS PART OF THIS REPAVING PROJECT.

DRAINAGE CALCULATIONS
1. PRECIPITATION ZONE = 3
2. DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM
   6-HOUR = 2.60 INCHES
   24-HOUR = 3.10 INCHES
   10 DAY = 4.90 INCHES
3. PEAK DISCHARGE (CFS/ACRE) FOR 100-YEAR, ZONE 2, TABLE A-9:
   Q = 1.87 CFS/ACRE SOIL UNCOMPACTED "A"
   Q = 2.60 CFS/ACRE LANDSCAPED "B"
   Q = 3.45 CFS/AC COMPACTED SOIL "C"
   Q = 5.02 CFS/ACRE IMPERVIOUS AREA "D"
   FOR WATERSHEDS LESS THAN OR EQUAL TO 40 ACRES
4. EXCESS PRECIPITATION, E (INCHES), 6 HOUR STORM, ZONE 2, TABLE A-8 :
   E = 0.66 INCHES SOIL UNCOMPACTED "A"
   E = 0.92 INCHES LANDSCAPED "B"
   E = 1.29 INCHES COMPACTED SOIL "C"
   E = 2.36 INCHES IMPERVIOUS AREA 'D"

4. EXISTING EQUALS PROPOSED CONDITIONS (SINCE NO INCREASE IN LAND TREATMENT "D" PROPOSED WITH THESE PAVING IMPROVEMENTS:

DRAINAGE BASIN "A"
THIS DRAINAGE BASIN CURRENTLY DRAINS INTO THE ADJACENT LOT AT THE NORTHWEST CORNER OF THE SITE, THAN INTO MONTGOMERY BOULEVARD.

TREATMENT	AREA(ACRES)
A	0
B	0.03(LANDSCAPED ISLANDS)
C	0
D	0.18(ROOF AREA, ASPHALT & CONCRETE AREA)

Q = (2.60 X 0.03) + (5.02 X 0.18)
= 0.98CFS (6HR) ONSITE EXISTING FLOW INTO ADJACENT LOT
V = ((0.92 X 0.03) + (2.36 X 0.18))/ 12)
= 0.04AC-FT = 1,642CF

DRAINAGE BASIN "B"
THIS DRAINAGE BASIN CURRENTLY DRAINS INTO MONTGOMERY BOULEVARD, THE NORTH SIDE OF THIS SITE.

TREATMENT	AREA(ACRES)
A	0
B	0.15(LANDSCAPED ISLANDS)
C	0
D	1.01(ROOF AREA, ASPHALT & CONCRETE AREA)

Q = (2.60 X 0.15) + (5.02 X 1.01)
= 5.46CFS (6HR) ONSITE EXISTING FLOW INTO MONTGOMERY BLVD
V = ((0.92 X 0.15) + (2.36 X 1.01))/ 12)
= 0.21AC-FT = 9,153CF

DRAINAGE BASIN "C"
THIS DRAINAGE BASIN CURRENTLY DRAINS INTO HENDRIX ROAD, THE SOUTH SIDE OF THIS SITE.

TREATMENT	AREA(ACRES)
A	0
B	0.18(LANDSCAPED ISLANDS)
C	0
D	1.77(ROOF AREA, ASPHALT & CONCRETE AREA)

Q = (2.60 X 0.18) + (5.02 X 1.77)
= 9.35CFS (6HR) ONSITE EXISTING FLOW INTO MONTGOMERY BLVD
V = ((0.92 X 0.18) + (2.36 X 1.77))/ 12)
= 0.35AC-FT = 15,163CF

DRAINAGE BASIN "D"
THIS DRAINAGE BASIN CURRENTLY DRAINS INTO THE MALL CENTER OF THE BUILDING COMPLEX WHICH CONSIST MAINLY OF LANDSCAPING AND A SWIMMING POOL

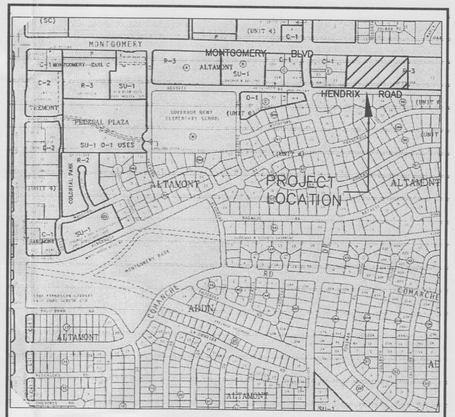
TREATMENT	AREA(ACRES)
A	0
B	0.60(LANDSCAPED AREAS)
C	0
D	0.11(ROOF AREA & CONCRETE AREA)

Q = (2.60 X 0.60) + (5.02 X 0.11)
= 2.11CFS (6HR) ONSITE EXISTING FLOW INTO MONTGOMERY BLVD
V = ((0.92 X 0.60) + (2.36 X 0.11))/ 12)
= 0.07AC-FT = 2,946CF

DRAINAGE OFFSITE BASIN "E"
THIS DRAINAGE BASIN CURRENTLY DRAINS INTO THIS SITE ALONG THE EAST PROPERTY LINE FROM AN OFFSITE DRAINAGE BASIN

TREATMENT	AREA(ACRES)
A	0
B	0.06(LANDSCAPED AREAS)
C	0
D	0.85(ROOF AREA & CONCRETE AREA)

Q = (2.60 X 0.06) + (5.02 X 0.85)
= 4.42CFS (6HR) ONSITE EXISTING FLOW INTO MONTGOMERY BLVD
V = ((0.92 X 0.06) + (2.36 X 0.85))/ 12)
= 0.17AC-FT = 7,482CF


MONTGOMERY
MONTGOMERY BLVD
HENDRIX ROAD
PROJECT LOCATION
ALTAMONT
ALTAMONT
ALTAMONT

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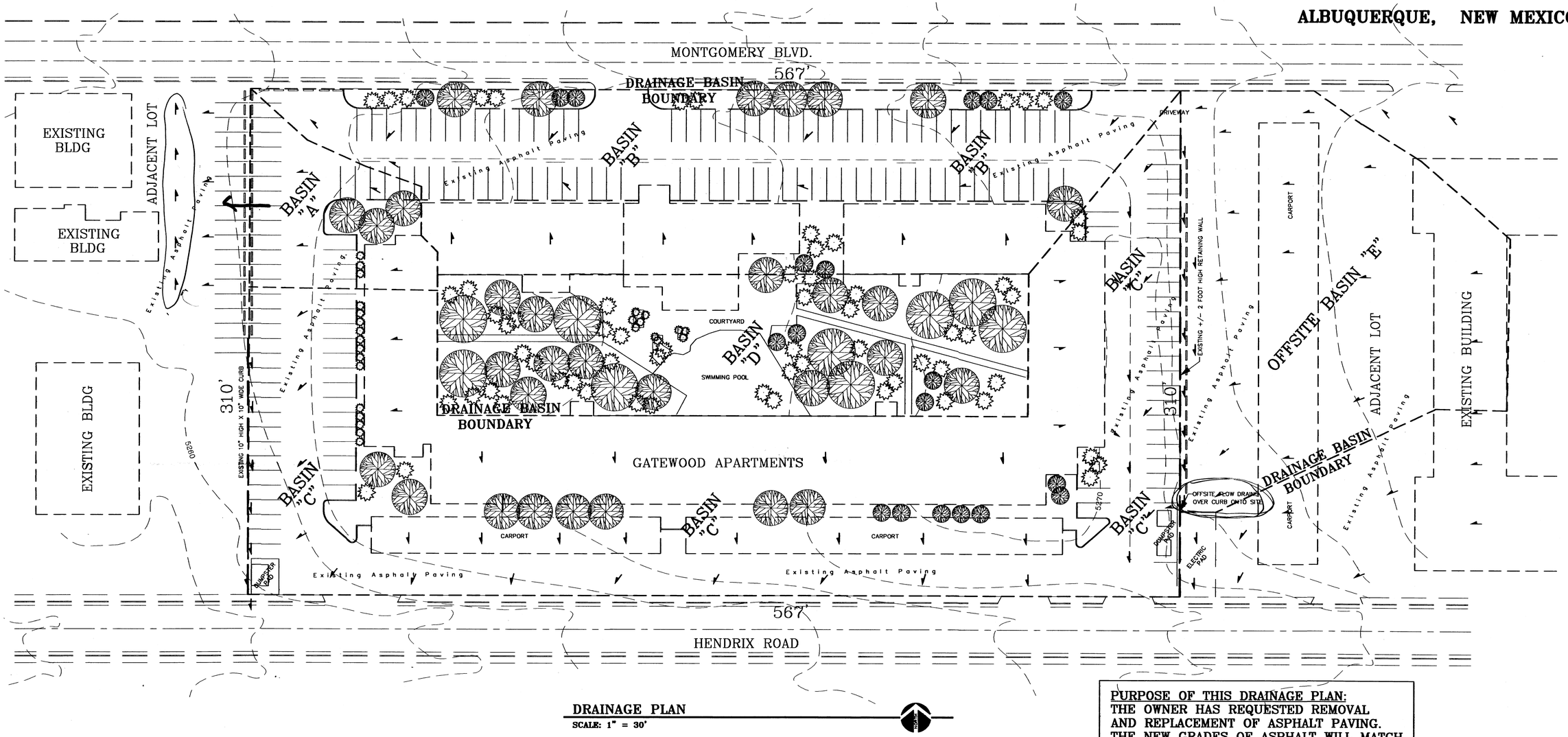

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