

- LEGEND**
- 5070 ——— EXISTING INDEX CONTOUR
  - EXISTING INTERMEDIATE CONTOUR
  - EXISTING ASPHALT
  - EXISTING CONCRETE
  - EXISTING RETAINING WALL
  - EXISTING MEDIAN CURB & GUTTER
  - 5720 ——— PROPOSED INDEX CONTOUR
  - PROPOSED INTERMEDIATE CONTOUR
  - EXISTING BASIN
  - PROPOSED BASIN
  - PROPOSED SWALE
  - PROPOSED ASPHALT
  - PROPOSED CONCRETE
  - PROPOSED 3/4" GREY CRUSHED ANGULAR GRAVEL
  - PROPOSED RIP RAP
  - 12" WIDE ASPHALT SAWCUT

**Site Location:** 6219 Corona Avenue NE, Albuquerque, New Mexico 87113.

**Methodology:** Section 22.2 of the City of Albuquerque DPM was followed to calculate design volume. The charts and formulas in Part A were followed using the 100-year frequency 6-hour rainfall as the design storm. The site is located in Precipitation Zone 3 as designated in Table A-1. The total peak discharge was calculated as per section A.6.

**Existing Conditions:** The existing topography of the site slopes from east to west. Slopes on the site range between 2% and 15%. In general the east side of the site drains west to an existing retention pond. The west side of the site drains overland to the southwest corner of site and into Corona Avenue. The Soil Survey of Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico, designates the existing soil as Embudo gravelly fine sand loam, 0 to 5 percent slopes. It has the profile described as representative of the series. Runoff is medium and the hazard of water erosion is moderate. It is subject to periodic flooding. Control of moisture is required for proper compaction.

**Hydrologic Analysis:** Existing basins 101 and 102 delineate the pre-development watershed boundaries. Basin 101 is approximately 1.43 acres, and consists of a parking lot, section of the existing building, concrete pad, fueling station, isolated landscaped areas, and undeveloped areas. Presently, the flow for Basin 101 is conveyed overland to Corona Avenue. Basin 102 is approximately 0.98 acre, and consists of a retention pond, landscaped areas, section of the existing building, and undeveloped areas. Presently, Basin 102 flow is conveyed overland to the retention pond.

Existing volumetric runoff and peak discharge quantities are as shown below:

Table 1 - Existing Conditions						
Basin	Area (ac)	A (%)	B (%)	C (%)	D (%)	Q <sub>peak</sub> (cfs)
101	1.43	0	7	63	30	0.19
102	0.98	0	15	70	15	0.11
Total	2.41					0.30

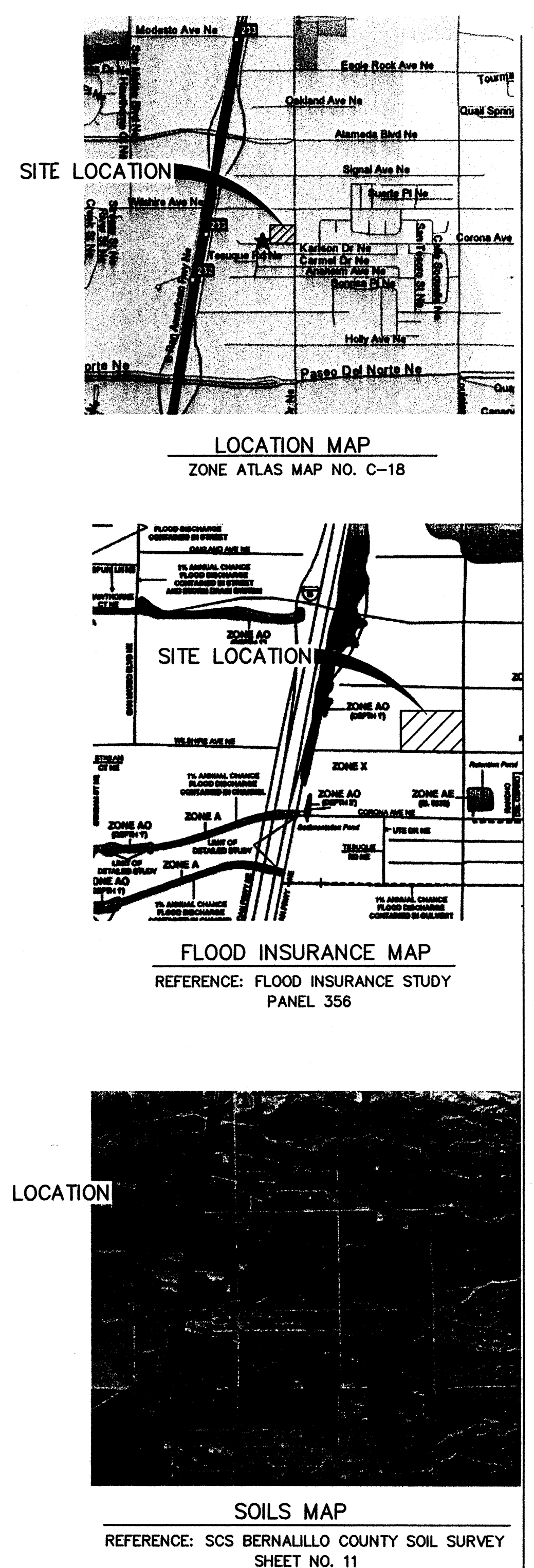
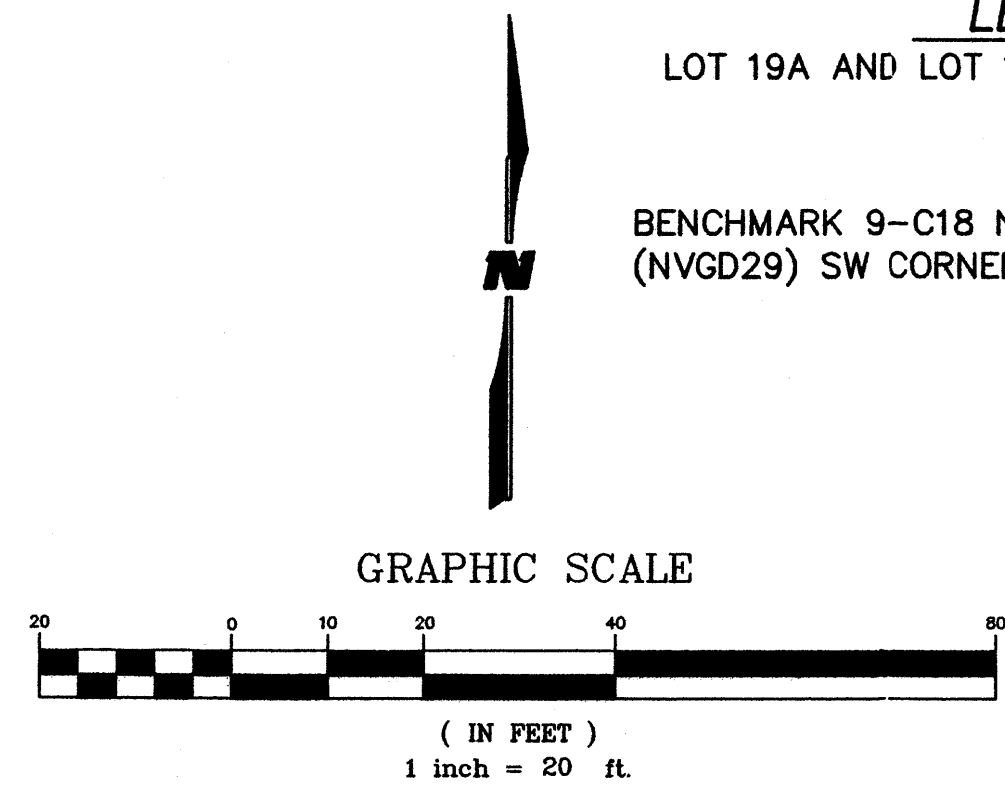
**Proposed Conditions:** The purpose of this Grading & Drainage Plan is to secure a Grading & Drainage Plan and Building Permit approval for the proposed site improvements. Improvements include a building addition, and new additional parking.

**Hydrologic Analysis:** Basins 201 and 202 represent post-development conditions. Basin 201 increased in size to 1.70 acres to include additional parking. Land treatment D increased due to required paved parking and the proposed new building. Basin 201 will continue to be conveyed flow overland to Corona Avenue. Basin 202 decreased in size to 0.71 acre due to decrease in retention pond size. Basin 202 will continue to convey flow overland to the regraded retention pond.

Proposed volumetric runoff and peak discharge quantities are as shown below:

Table 2 - Proposed Conditions						
Basin	Area (ac)	A (%)	B (%)	C (%)	D (%)	Q <sub>peak</sub> (cfs)
201	1.70	0	6	54	40	0.24
202	0.71	0	20	60	20	0.08
Total	2.41					0.32

**Conclusion:** Site Improvements by TruGreen Landcare include re-grading the existing retention pond, general site grading & drainage, installation of concrete curb & gutter, and flatwork. There is minimal runoff increase of 0.03 ac-ft and peak discharge rate of 0.30 cfs. Basin 101 presently discharges southwesterly to Corona Avenue, whereby flows are captured via curb inlets. This Drainage Report recommends no change to existing 48" city storm drain system to accommodate Basin 201 flow. The re-graded retention pond will have an approximate capacity of 0.08 ac-ft, and will capture Basin 202 flow. The Average End Area Method was used to calculate capacity of the re-graded retention ponds. Although flow from Basin 202 can be free discharged into the city storm drain system the retention pond will be used as a form of landscaping and water quality feature.



**LEGAL DESCRIPTION**  
LOT 19A AND LOT 17, BLOCK 14, N ABQ ACRES TR A UNIT B

**BENCH MARK**  
BENCHMARK 9-C18 N:1521435.09 E:402255.61 ELEV: 5229.79 (NVGD29) SW CORNER OF WILSHIRE/SAN PEDRO

**WILSON & COMPANY**  
4900 LANG AVE. NE  
ALBUQUERQUE, NEW MEXICO 87109  
(505) 348-4000

**Renaissance Group**  
7000 goodlett farms, ste.100  
cordova, in 38016  
901.332.5533  
fax: 901.332.5534

**TRUGREEN ChemLawn®**  
6150.05-022-C Warehouse  
Addition & Office Renovation  
Albuquerque, NM

GRADING AND DRAINAGE PLAN  
Sheet Title

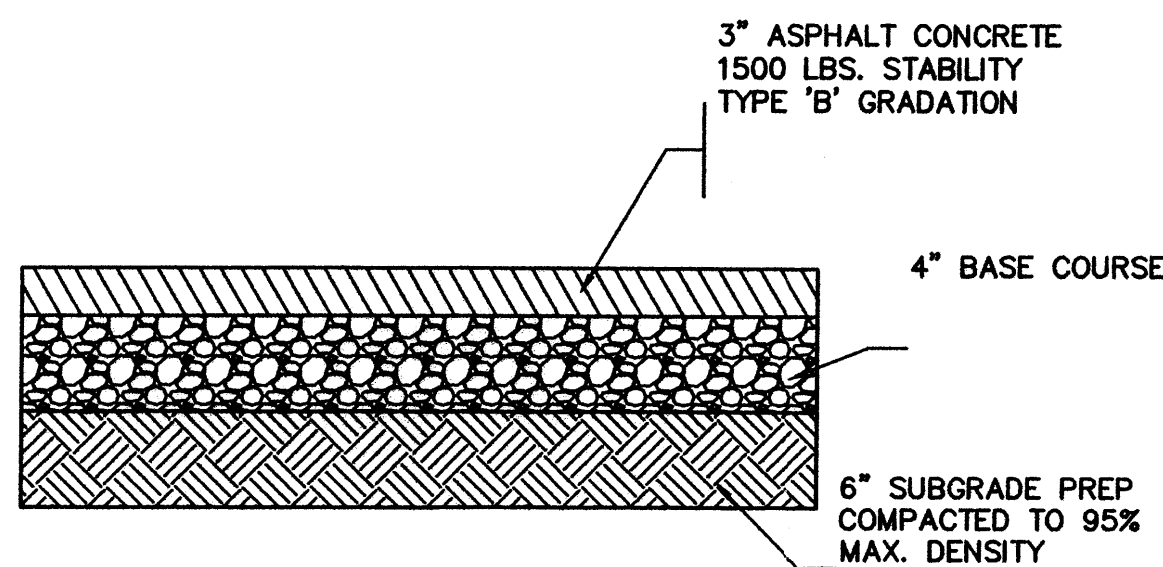
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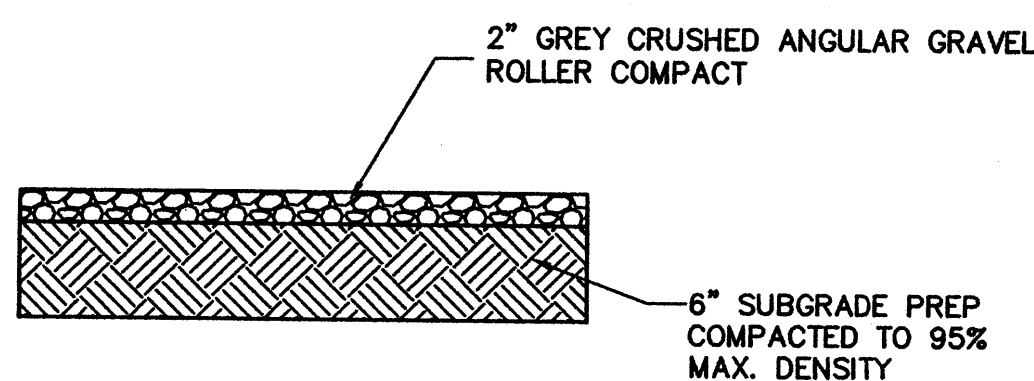
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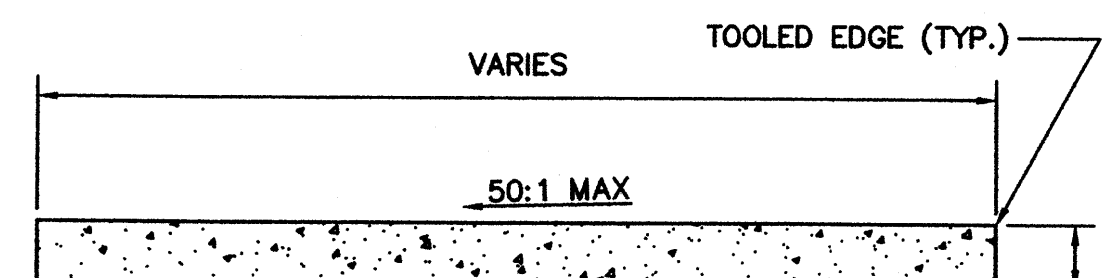
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3" ASPHALT SECTION  
SCALE: 1" = 1'



2" 3/4" GREY CRUSHED ANGULAR GRAVEL  
SCALE: 1" = 1'



4" PCC SIDEWALK DETAIL

NOTE: 1. AS MUCH AS POSSIBLE SIDEWALK JOINTS SHALL MATCH CURB & GUTTER JOINT SPACING.

**WILSON  
& COMPANY**  
4900 LANG AVE. NE  
ALBUQUERQUE, NEW MEXICO 87109  
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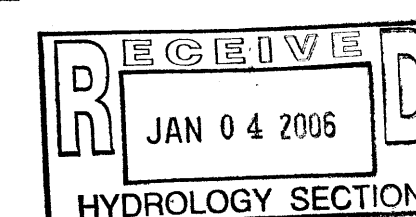


**Renaissance  
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**TRUGREEN ChemLawn®**  
6150.05-022-C Warehouse  
Addition & Office Renovation  
Albuquerque, NM



DETAILS

Sheet Title

X5218102

Project No.

JGH

Drawn By

12/15/05

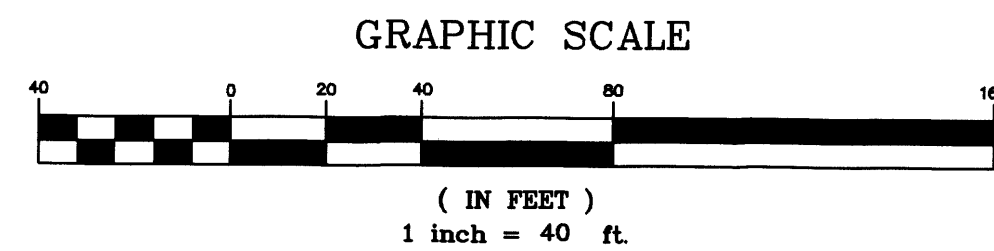
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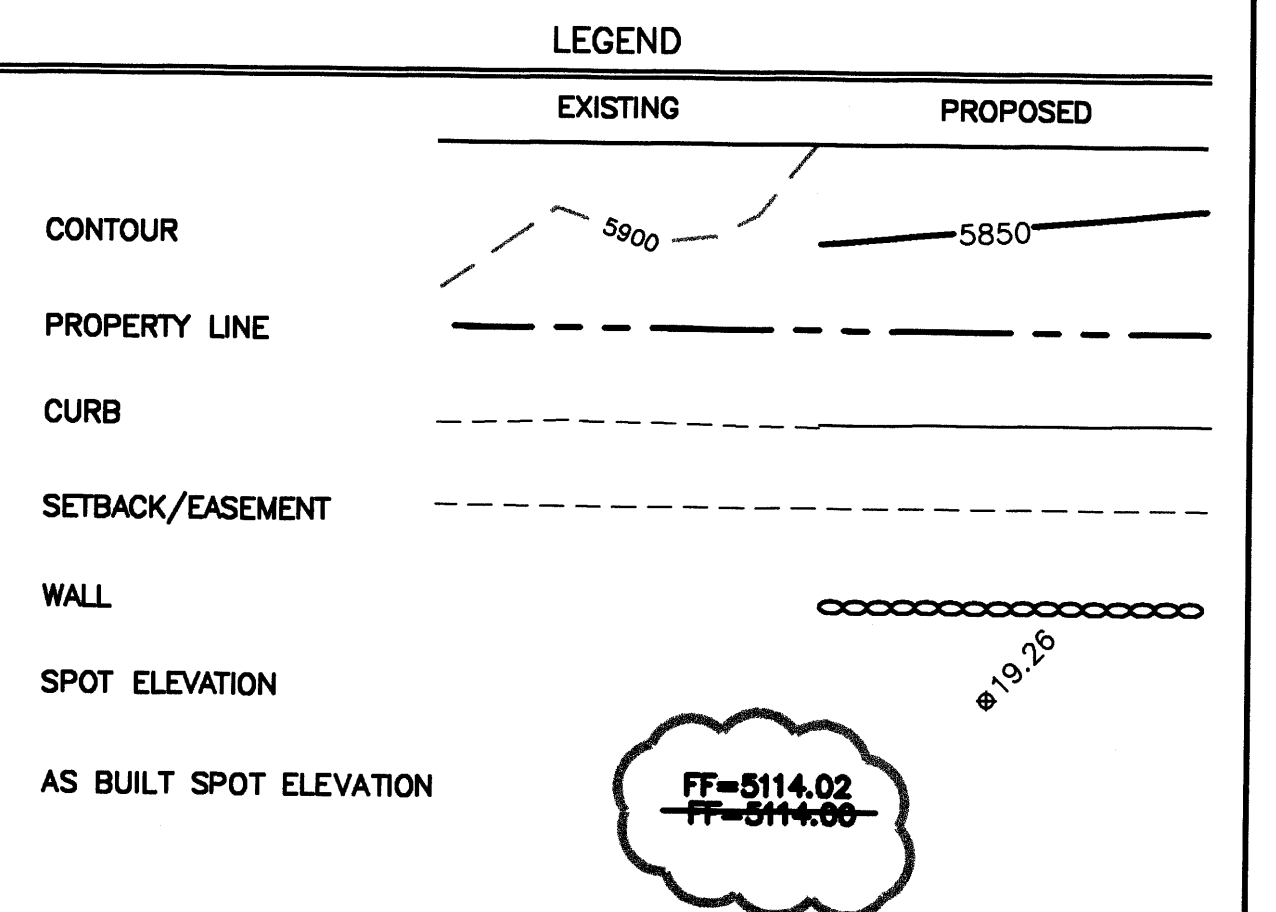
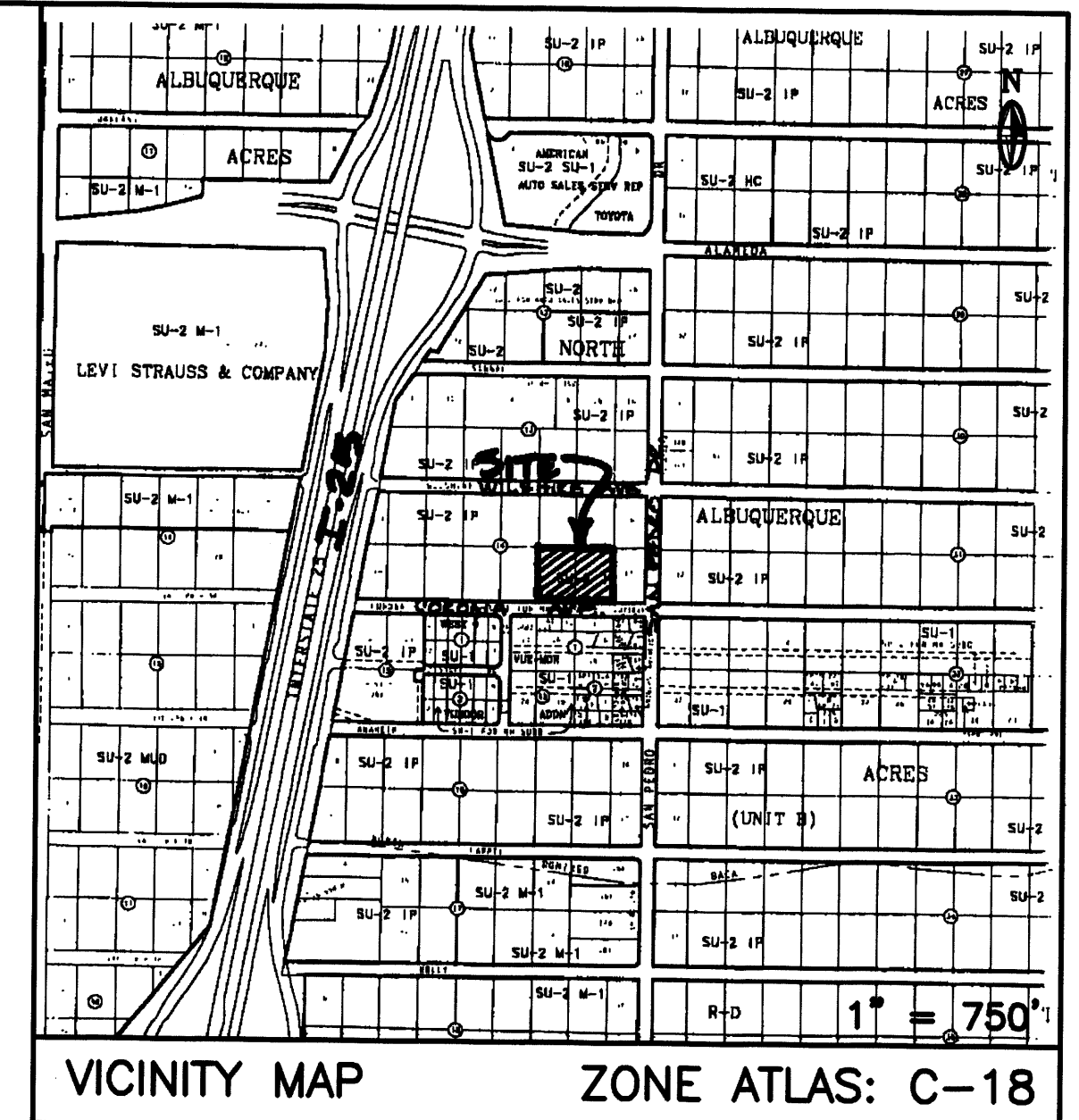
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LOTS 18 & 19  
OF  
BLOCK 14, TRACT A, UNIT B  
NORTH ALBUQUERQUE ACRES  
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO



- PROPERTY CORNER
- PROPERTY CORNER
- WATER VALVE
- SEWER MANHOLE
- WATER METER
- GROUND SHOT
- POWER POLE
- FIRE HYDRANT
- GUY WIRE



**DRAINAGE CERTIFICATION:**

I, JACKIE S. MCDOWELL, P.E., OF MCDOWELL ENGINEERING, INC. NMPE #10903 HEREBY CERTIFY THAT THE AS-BUILT DRAINAGE CONDITIONS OF THE SITE ARE IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN, TO THE BEST OF MY KNOWLEDGE AND BELIEF. AS-BUILT ELEVATIONS ARE SHOWN ON THE PLAN WHERE THE ORIGINAL DESIGN ELEVATION HAS BEEN CROSSED OUT AND THE AS-BUILT ELEVATION ADDED.

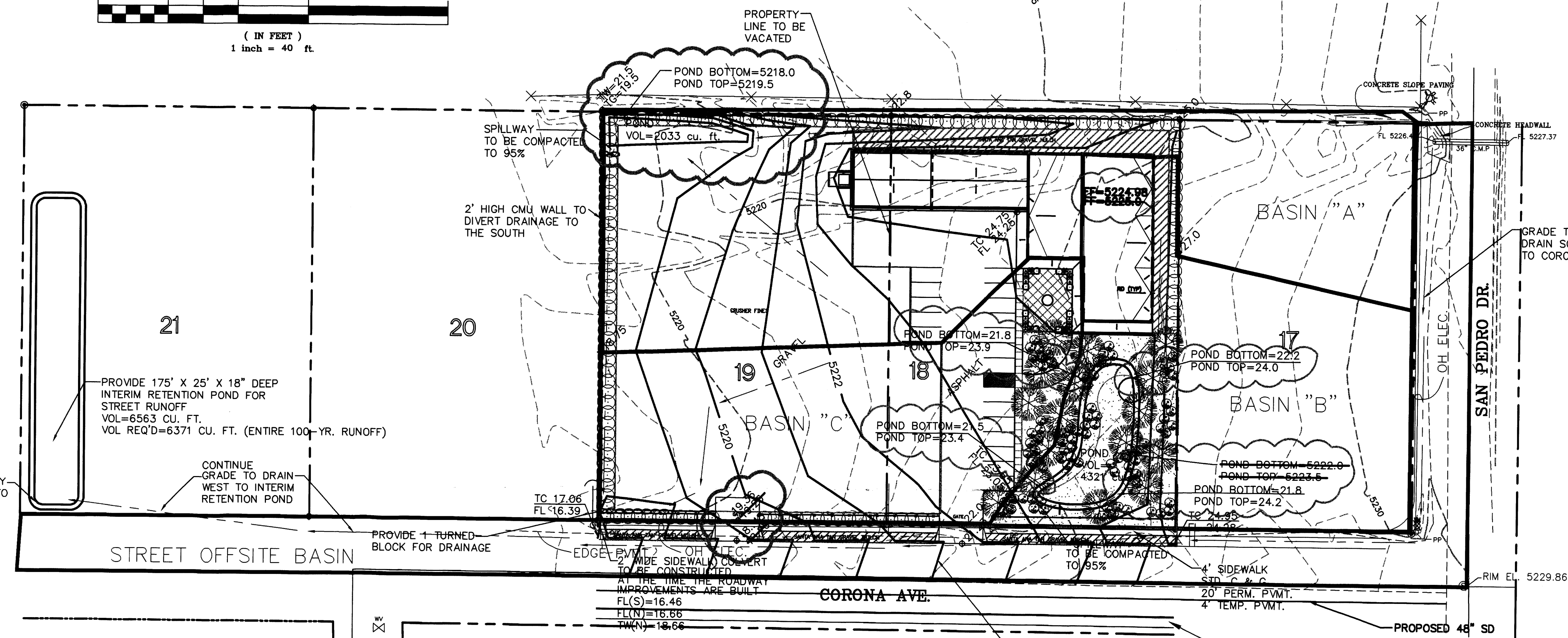
*Jackie S. McDowell*  
JACKIE S. MCDOWELL, P.E.

9-5-03  
DATE

*Jackie S. McDowell*  
REGISTERED PROFESSIONAL ENGINEER  
NEW MEXICO  
10903

2-2-98  
Rev. 3-15-98  
Rev. 4-10-98  
Rev. 5-5-98  
Rev. 12-14-98  
Rev. 4-14-99

RECEIVED  
SEP 08 2003  
HYDROLOGY SECTION



**NOTE:**

ALL OFFSITE INFRASTRUCTURE IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS BY RTI DATED 11-4-96 FILED WITH THE COA HYDROLOGY DEPARTMENT, INCLUDING SIDEWALK, CURB, GUTTER, PAVEMENT, SANITARY SEWER, AND STORM SEWER.

ALL INFRASTRUCTURE FRONTING THE SUBJECT PROPERTY WILL BE FINANCIALLY GUARANTEED AND CONSTRUCTED AT THIS TIME. THE STORM SEWER WILL BE CONSTRUCTED AND CONNECTED TO THE SAN PEDRO STORM SEWER TERMINUS.

ALL OFFSITE WATERLINE IMPROVEMENTS ARE IN PLACE.

SANITARY SEWER WILL BE EXTENDED FROM THE MANHOLE IN UTE DR. IN ACCORDANCE WITH THE WATER & SANITARY SEWER AVAILABILITY STATEMENT.

**NOTE:**

A LETTER OF MAP REVISION (LOMR) WAS ISSUED BY FEMA ON MARCH 25, 1998 WHICH REMOVED THE FLOODPLAIN FROM THESE LOTS. THE LOMR WAS DUE TO THE CONSTRUCTION OF THE WYOMING STORM DRAIN, NOT DUE TO THE UPSTREAM SUBDIVISION. THE SUBDIVISION ONLY REDUCED THE OFF-SITE DRAINAGE BASIN.

**DRAINAGE PLAN**

**SCOPE:**

Pursuant to the latest City of Albuquerque and Bernalillo County Drainage Ordinances, the Drainage Plan shown hereon outlines the drainage management criteria for controlling developed runoff on and exiting the project sites. A commercial building with related storage and covered parking buildings are proposed for the two lots, with associated access, landscaping, and utility improvements.

**EXISTING CONDITIONS:**

Presently, the two lots contain 0.89 acres each of undeveloped property. The total area is 1.78 acres. The site is bounded on the east, north, and west by private property zoned SU-2, IP lots and on the south by Corona Avenue. The site is vegetated with native grasses and shrubs. Site topography slopes from the east to the west at approximately 3 percent. The site is located in a future vacated flood plain, which is currently being processed through FEMA. Floodway Map No. 137.

~~Residential development to the east of the site has provided a large retention pond which has eliminated the flood plain from the subject property. All upstream offsite drainage east of San Pedro is collected in the pond. A minimal amount of offsite drainage enter the property from the east. Calculations are attached.~~

**PROPOSED CONDITIONS:**

The plan shows the building locations and parking areas. On site flows will drain around the buildings, and continue to flow to the southwest. The lot line between Lots 18 & 19 will be vacated. Interim retention ponds will be provided at this time. The ponds will be vacated at the time that the entire upstream and downstream drainage improvements are in place.

All roof drainage will discharge from the roof to the lots and be directed around the structures. Access will be taken from Corona Avenue. Corona Avenue will be improved in accordance with the approved plans on file with the City Hydrology Department. The improvements include sidewalk, curb & gutter, pavement, sanitary sewer, and a 48" storm sewer. The improvement will be either financially guaranteed or constructed for that portion which is in front and adjacent to the subject lots (Lots 18 & 19).

The existing minimal amount of offsite drainage (Lot 17) will be allowed to continue to drain through the site until such time as the lot is developed in accordance with the approved conceptual drainage plan. The approved conceptual drainage plan calls for all drainage from Lots 17-21 to be diverted on each lot to Corona Avenue.

**CALCULATIONS:**

The calculations shown hereon define the 100 year/6 hour design storm falling within the project area under existing and developed conditions. The Hydrology is per "Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, for the City of Albuquerque, New Mexico" in cooperation with Bernalillo County, New Mexico and the Albuquerque Metropolitan Arroyo Flood Control Authority.

**PROPERTY ADDRESS:**

Corona Avenue NE

**LEGAL DESCRIPTION:**

Lots 18 & 19, Block 14, Tract A, Unit B, North Albuquerque Acres

**SURVEY:**

Topographic information provided by Wilson & Associates.

Supplemental calculation have been provided to the City of Albuquerque Hydrology Department as Attachment No. 1. DATED 2-5-98 AND REVISED 3-15-98.

CITY OF ALBUQUERQUE, BERNALILLO COUNTY NEW MEXICO

LOTS 18 & 19, BLOCK 14, TRACT A  
UNIT B, NORTH ALBUQ. ACRES

WEAVER DEVELOPMENT - GRADING & DRAINAGE PLAN

**McDowell Engineering Inc.**

Designed JSM	Drawn STAFF	Checked JSM	Sheet 1 of 1
File WLO197T	Date APRIL, 1999		