

GRADING & DRAINAGE PLAN

THE PROPOSED COMMERCIAL RETAIL PROJECT IS LOCATED IN THE NORTH ALBUQ. ACRES AREA OF ALBUQUERQUE ON CARMEL AVE. IMMEDIATELY NORTH OF PASEO DEL NORTE. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO.88-46, AND THE CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR SITE DEVEL.PLAN & BUILDING PERMIT. THE PLAN SHOWS:

1. EXISTING CONTOURS, AND SPOT ELEVATIONS AND EXISTING DRAINAGE PATTERNS AND

2. PROPOSED IMPROVEMENT: 10850 SF OF RETAIL SHOPS BUILDING, ASPHALT DRIVE/PARKING, CONCRETE FLAT WORK, NEW GRADE ELEVATIONS, REFUSE LOCATION, AND LANDSCAPING. 3. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.

4. QUANTIFICATION OF DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS WHICH CONTRIBUTE TO THE

PRESENTLY, THE SITE IS A DIRT-VEGETATED SURFACE. THE SITE IS BOUNDED BY DEVELOPED COMMERCIALLY ZONED FACILITIES. THE SITE FALLS APPROXIMATELY 3% FROM EAST TO WEST.

CARMEL AVE. IS A MAJOR LOCAL STREET WITH 3 LANES, WITH CURB, GUTTER AND ATTACHED SIDEWALKS (EXCLUDING FRONTAGE). SITE RUNOFF WILL BE ALLOWED TO EITHER DRAIN THROUGH THE SITE, OR PONDED IN DEPRESSED LANDSCAPE AREAS. THE SITE HAS HISTORICALLY DRAINED TO THE WEST VIA OVERLAND SHEET

HISTORICAL DOWNSTREAM OUTFALL LOCATIONS WILL REMAIN UNCHANGED WITH DEVELOPMENT. FREE DISCHARGE OF SITE RUNOFF IS ACCEPTABLE SINCE DOWNSTREAM CAPACITY EXISTS WITH THE MINIMAL INCREASE DUE TO DEVELOPMENT. A PORTION OF SITE RUNOFF IS ROUTED THROUGH PROPOSED LANDSCAPING.

CALCULATIONS

DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM)
REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: Q=QPEAK x AREA.."Peak Discharge Rates For Small Watersheds" VOLUMETRIC DISCHARGE: VOLUME = EWeighted x AREA

P100 = 2.60 Inches, Zone 3 Time of Concentration, TC = 10 Minutes

DESIGN STORM: 100—YEAR/6—HOUR, 10—YEAR/6—HOUR [] = 10 YEAR VALUES

LOT AREA = 0.88 ACRES, WHERE EXCESS PRECIP. 'A' =0.66 In. [0.19],
PEAK DISCHARGE, Q100 = 1.7 CFS [0.5), WHERE UNIT PEAK DISCHARGE 'A' = 1.87 CFS/AC. [0.58]
THEREFORE: VOLUME 100 = 2108 CF [607]

VOLUME 10 = 4153 CF

DEVELOPED CONDITIONS

DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

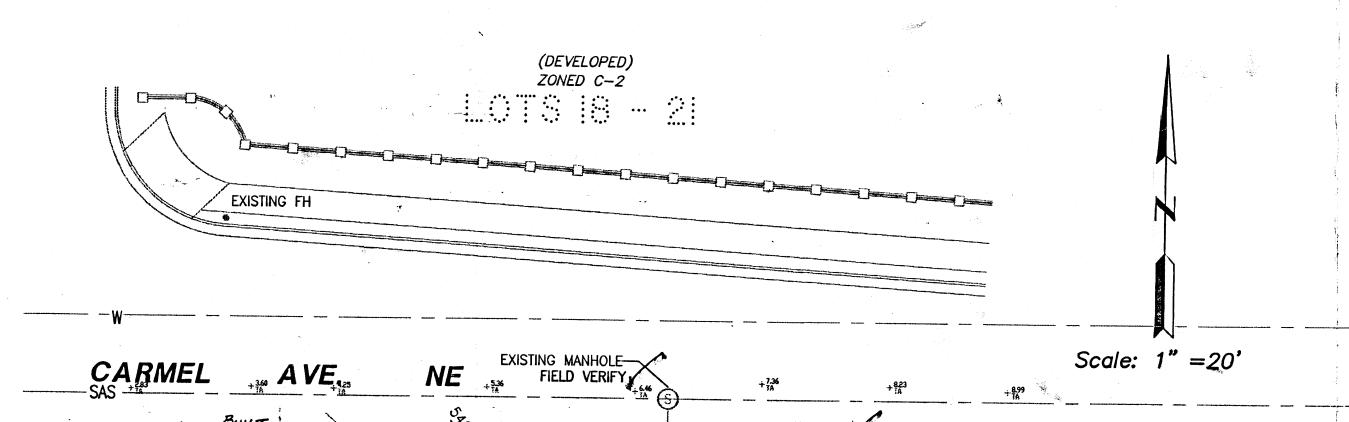
Q _{Peak} 1.87[0.58] 2.60[1.19] 3.45[2.00] 5.02[3.39] UNDEVELOPED 0.66[0.19] 0.92[0.36] 1.29[0.62] 2.36[1.50] LANDSCAPING -COMPACTED SOIL & Slopes > 0.08 Ac. ROOF - PAVEMENT THEREFORE: E_{Weighted} = 2.1 In.[1.3] & Q100 = 4.1 CFSVOLUME 100 = 6708 CF

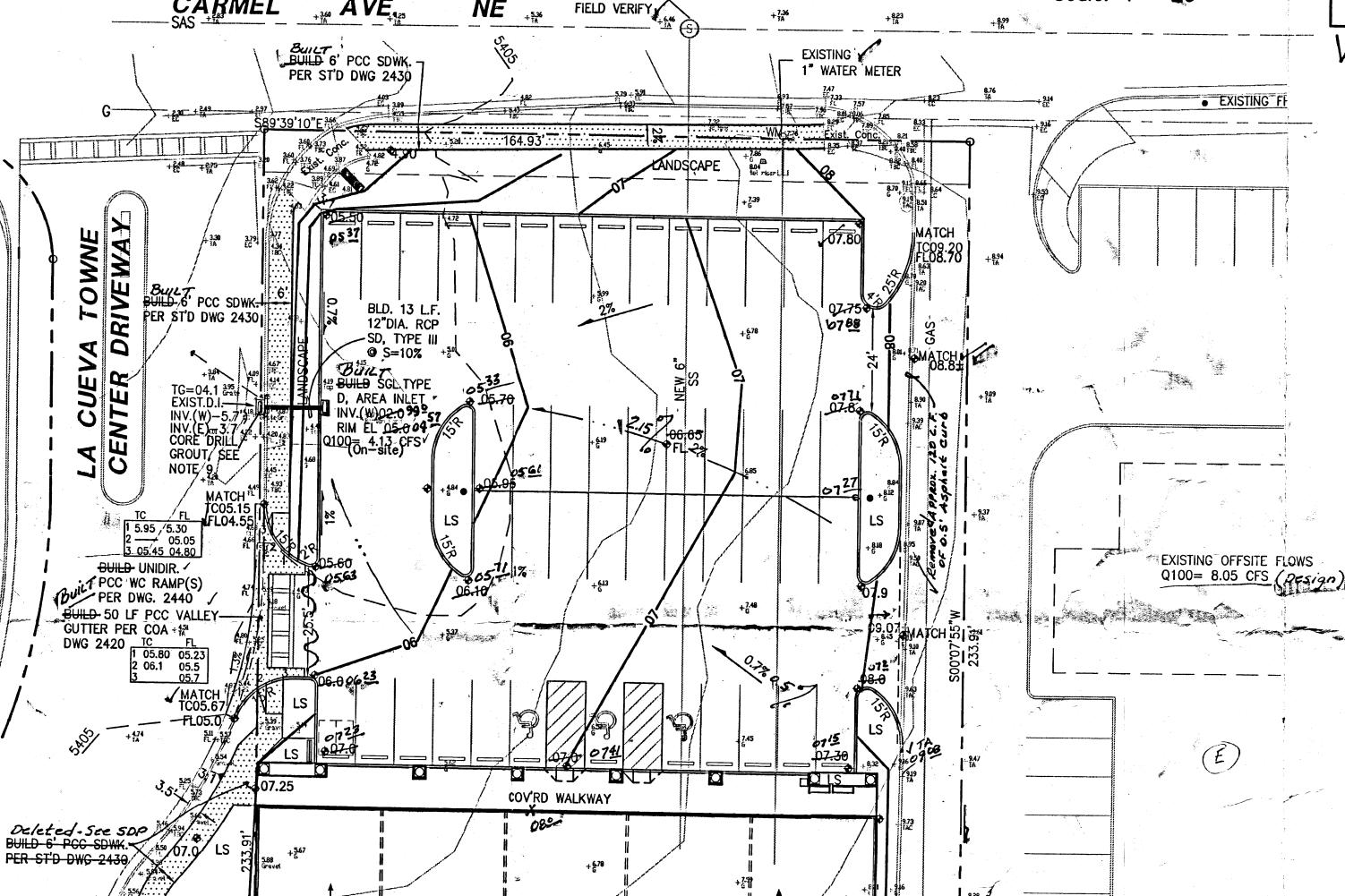
Q10 = 2.7 CFSDOWNSTREAM ANALYSIS

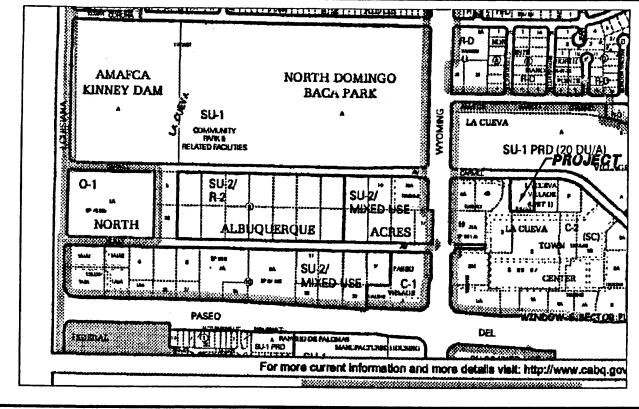
THE SITE HISTORICALLY, AND AS DEVELOPED WILL OUTFALL RUN-OFF TO THE NORTHWEST.

FREE DISCHARGE IS ACCEPTABLE SINCE THE DOWNSTREAM BASIN HAS CAPACITY — EXISTING STORM SEWER SYSTEM DOWNSTREAM TOWNE CENTER MASTER DRAINAGE PLAN, FREE DISCHARGE 4.1 CFS

TO EXISTING DROP INLET IN ENTRANCE ROAD. A PORTION OF DEVELOPED RUNOFF WILL BE ROUTED TO AND/OR THROUGH REQUIRED LANDSCAPING.







- 1. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 7TH EDITION W/ UPDATES.
- 2. AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION
- 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 LANDSCAPING AREA SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL. ASPHALT PARKING AREA SHALL DRAIN DIRECTLY TO EXISTING CURB-CUT. NEW DROP INLET.
- 5. LANDSCAPING IRRIGATION SYSTEM SHALL BE DRIP-TYPE. CONTRACTOR SHALL INSTALL SYSTEM PRIOR TO PLACEMENT OF PAVING.
- 6. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
- 7. REVEGETATE ALL AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
- 8. MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.
- 9. REMOVE/REPLACE EXISTING CURB WITH ST'D. 8" COA CURB/GUTTER. PER DWG. 2415A.

EXIST. SPOT ELEVATION NEW SPOT ELEVATION \$ 24.0 A5.BLT 0741 NEW CONTOUR NEW SWALE DRAINAGE DIRECTION, EXISTING NEW CONCRETE CURB (0.5' HEIGHT) NEW P.C.C., CONCRETE TOP OF CURB. EXISTING FLOWLINE FACE OF CURB/FACE OF CURB EXISTING TOP OF ASPHALT CURB EXIST. TOP OF ASPHALT EXIST. GROUND EXIST. EDGE OF CONCRETE

DRAINAGE CERTIFICATION

I, Philip W. Clark, NMPE 1045 OF THE FIRM Clark Consulting Englis., HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 8/13/07. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY ME OR UNDER MY DIRECT SUPERVISION 1+AS SUPPLEMENTAL DATA TO THE ORIGINAL TOPOGRAPHIC SURVEY PREPARED BY PALL W. TURNER NAMES 1020 FOR THE FIRM TERMATERICS: +JAND IS TRUE AND CORFECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR CERTIFICATE OF Occupancy

(DESCRIBE ANY EXCEPTIONS) W.C. Ramps Under Constr'n @ South (DESCRIBE ANY DEFICIENCIES) Return of Private Driveway. 25' WIDE

DEVENAY BUILT PENDING Approved Agreement. THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USE TO THOSE ANY OTHER PURPOSE.

Philip W. Clark, NMPE 10265

EXIST. CONC.

EXIST, FLETUSE



APR 2 8 2008

HYDROLOGY

PROJECT DATA

LEGAL DESCRIPTION (Existing Platting) LOT D, LA CUEVA VILLAGE, UNIT 1 Albuquerque, Bernalillo County, New Mexico

PROJECT BENCHMARK GPS, TO ACS, NGVD 29 DATUM

TOPOGRAPHIC DESIGN SURVEY Compiled by Clark Consulting Engineers From Design Survey Performed BY TERRAMETRICS (PHIL TURNER, PS), 7/07

Tele: (505) 281-2444 REVISION 4-26-08 As-Buict Ruc

Clark Consulting Engineers 19 Ryan Road Edgewood, New Mexico 87015 LA CUEVA TOWNE CTR. SHOPPING CENTER -WINKELJOHN RETAIL 7900 CARMEL AVE. NE Grading & Drainage

Plan DESIGNED BY: PWC | DRAWN BY: CCE | JOB #: Winkeljohn C1 OF 1 CHECKED BY: PWC DATE: 7/12/07

OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE

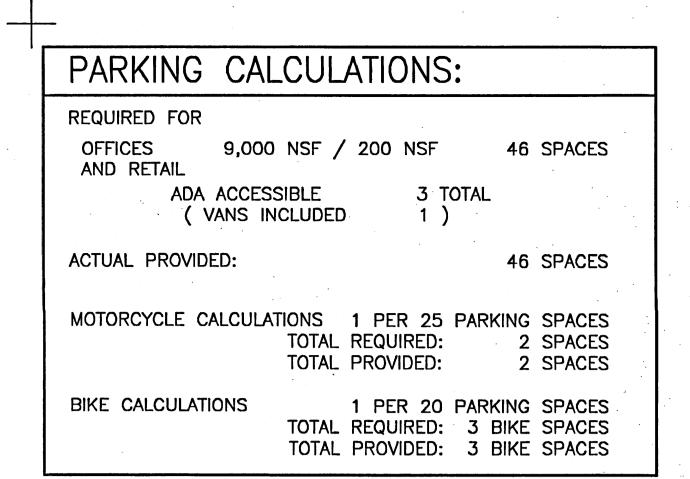
9,400 IGSF HEATED

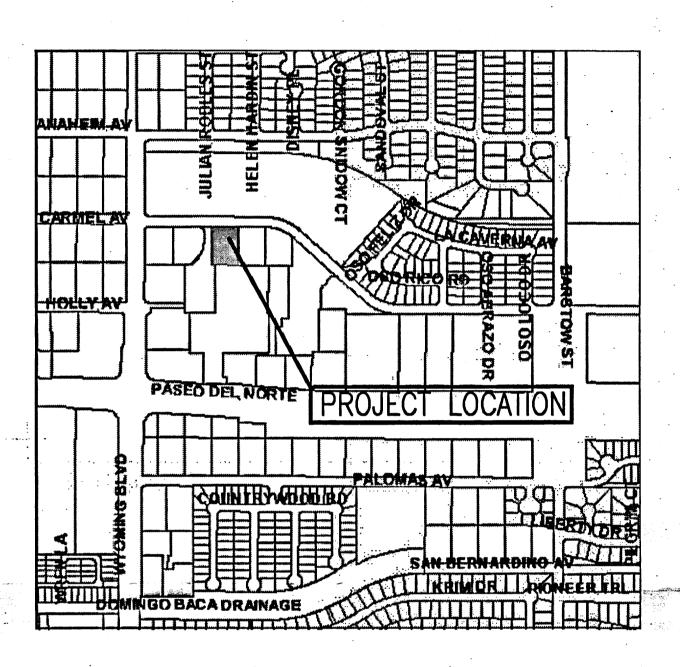
10,850 IGSF ROOF AREA

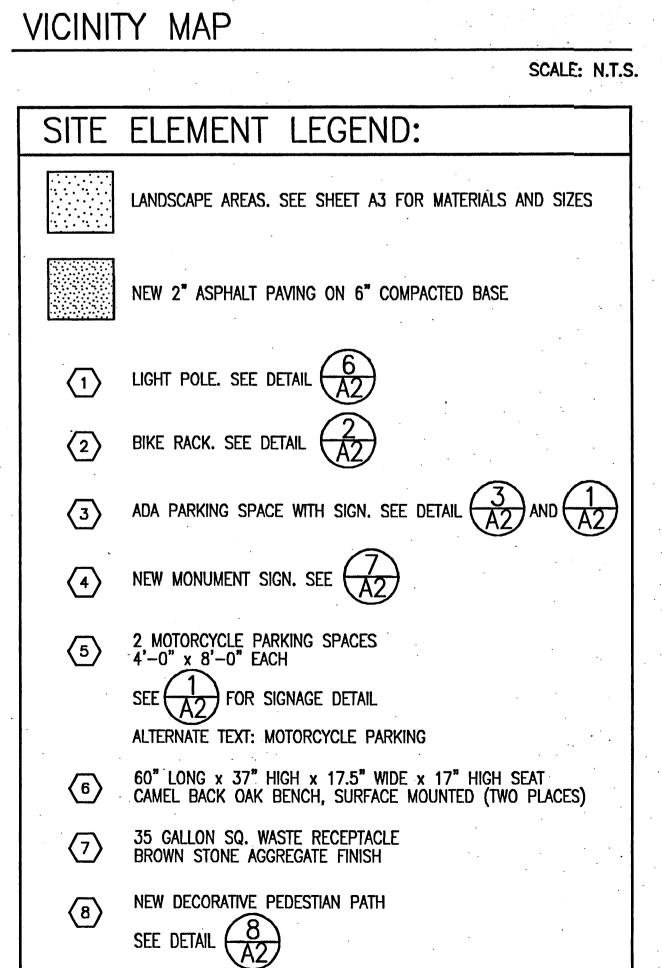
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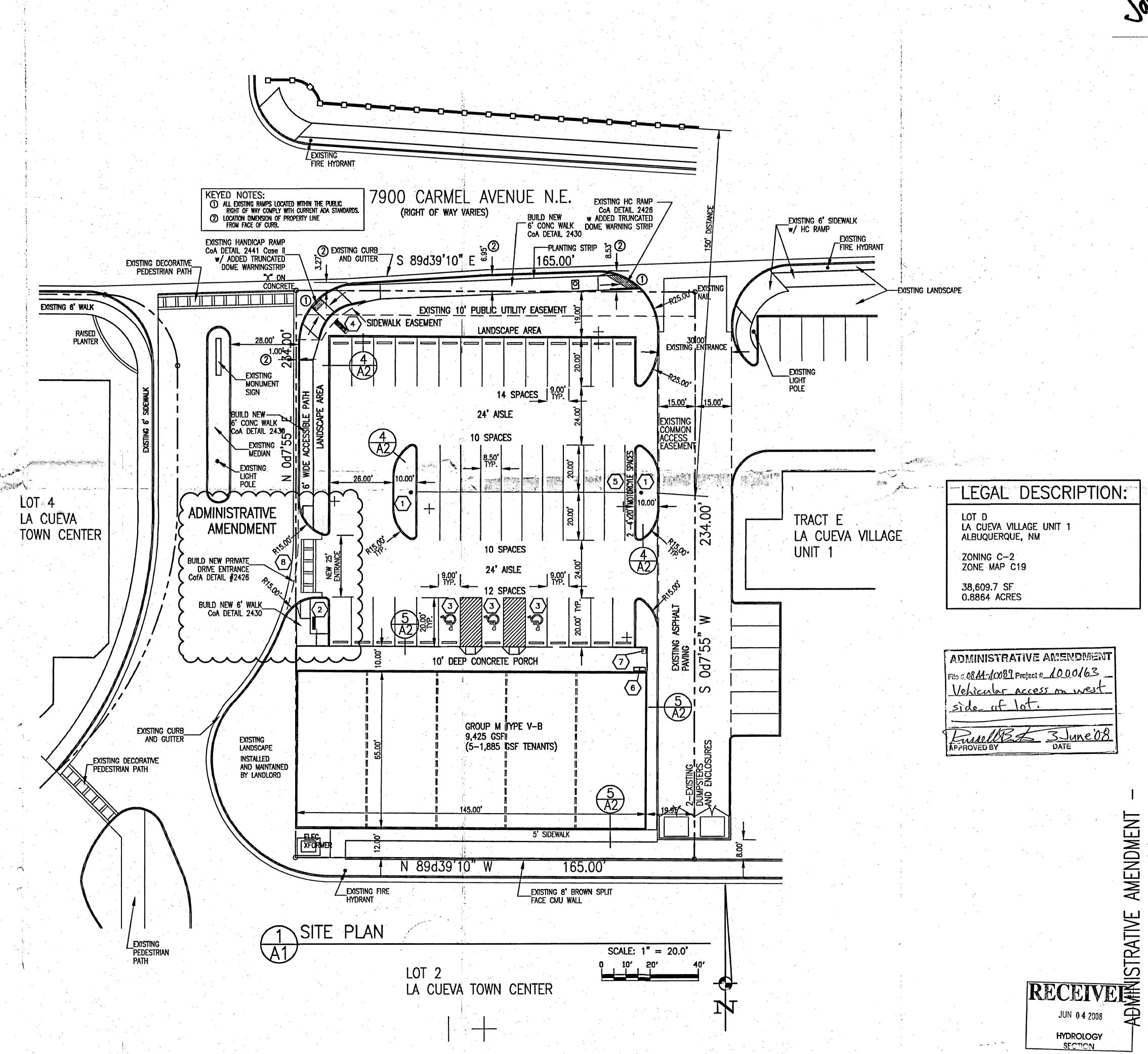
LANDSCAPE_O

LANDSCAPE:









RCHITECTS, INC
200 WYOMING BLVD. NE SUITE B-1
BUQUERQUE, NM 87111 242-1866 ASTERWORKS OVERQUE, NM 87111

FILE # 0550DSITE 31 MAY 06 REV: 09 JUN 06 REV: 27 MAR 07 **REV: 22 APR 08**

FOR

MEXICO

BUILDING

PROPERTY

3-70167 EDGE OF

08DRB WEST

No.

DRB Case NE ENTRANCE

DRÍVE

PROJECT No. 1000163 CONSTRUCT PRIVATE DI

AMENDMENT

HYDROLOGY SECTION

SNLY A NEW SHELL OMINE WINE THE MINE THE MINE ALBUQUERQUE,

PERMIT BUILDING FOR PLAN SITE SIE

SHEET

01

ADA ACCESSIBLE (VANS INCLUDED

ACTUAL PROVIDED:

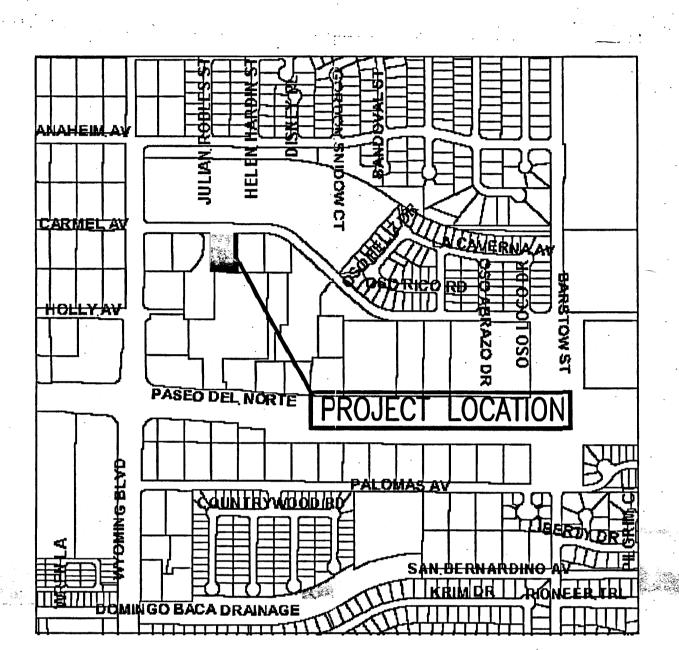
46 SPACES

MOTORCYCLE CALCULATIONS 1 PER 25 PARKING SPACES 2 SPACES TOTAL REQUIRED: 2 SPACES

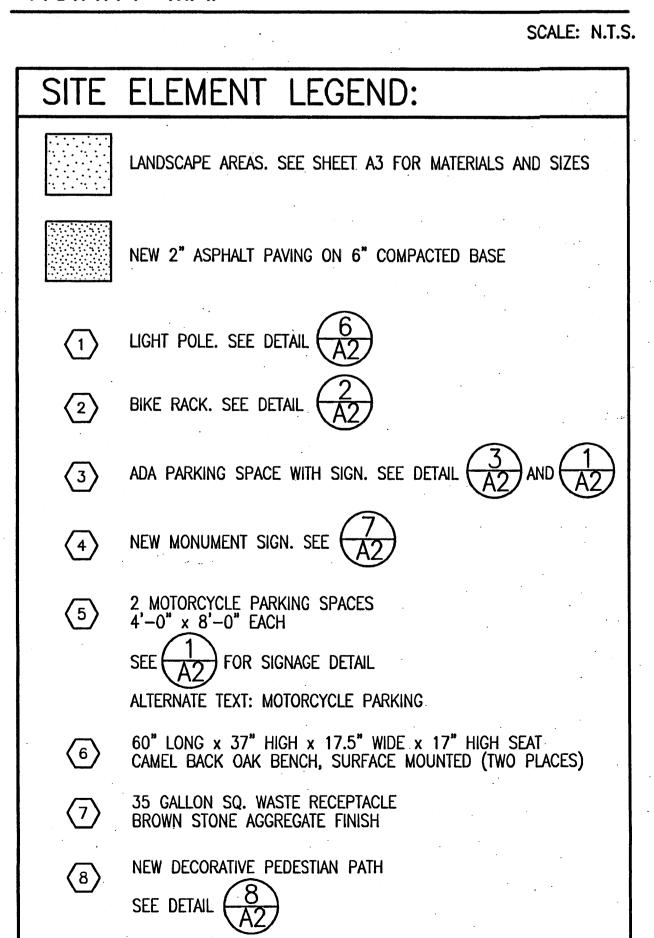
BIKE CALCULATIONS

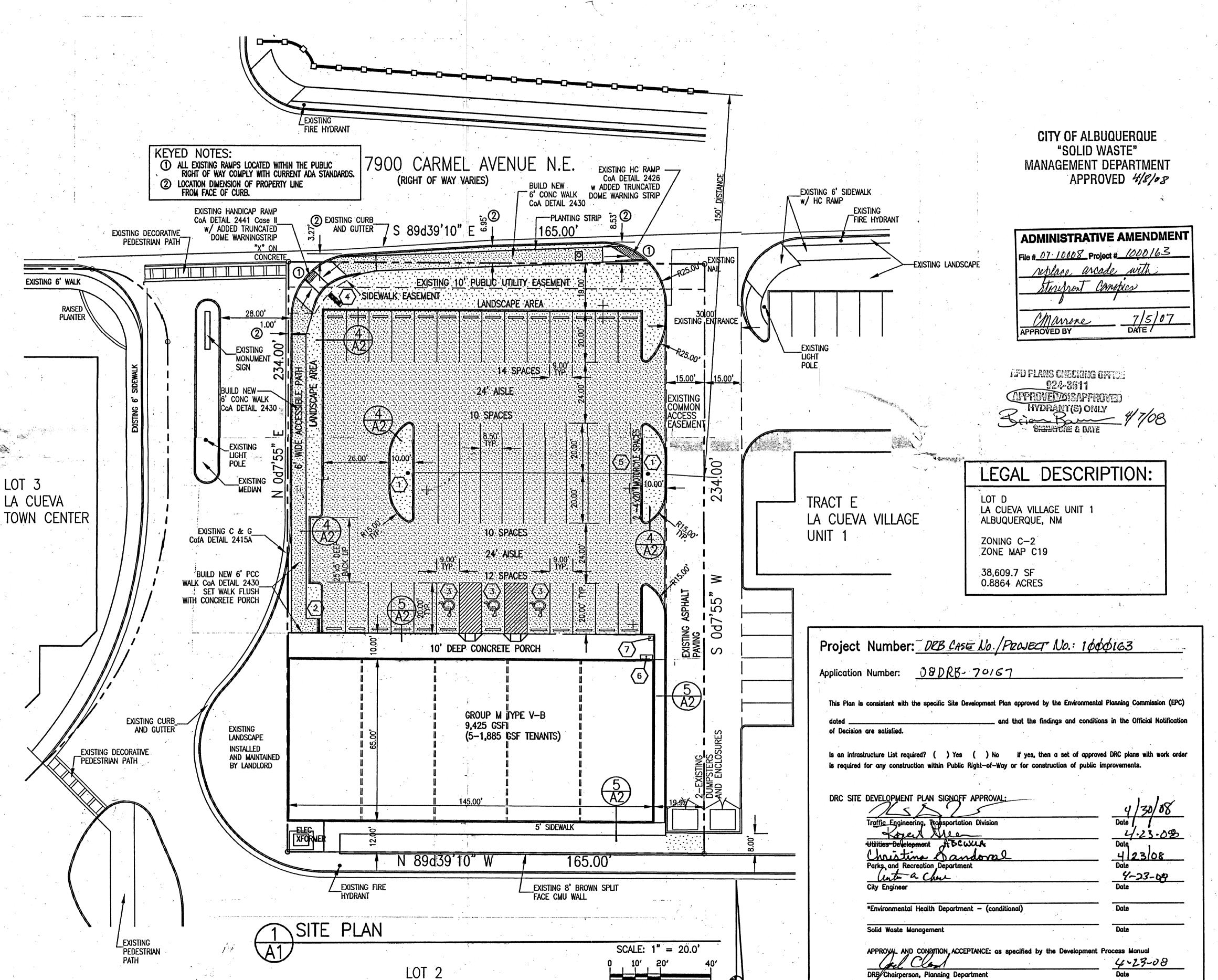
1 PER 20 PARKING SPACES TOTAL REQUIRED: 3 BIKE SPACES TOTAL PROVIDED: 3 BIKE SPACES

3 TOTAL



VICINITY MAP





LA CUEVA TOWN CENTER

FILE # 0550DSITE 31 MAY 06 **REV: 09 JUN 06 REV: 27 MAR 07 REV: 15 JUN 07 REV: 22 APR 08**

FOR

BUILDING SN X

90 BC

PERMIT BUILDING FOR

NEW

PLAN SITE

SHEET OF

RECEIVED

JUN 04 2008

HYDROLOGY SECTION

and EPC case plannet