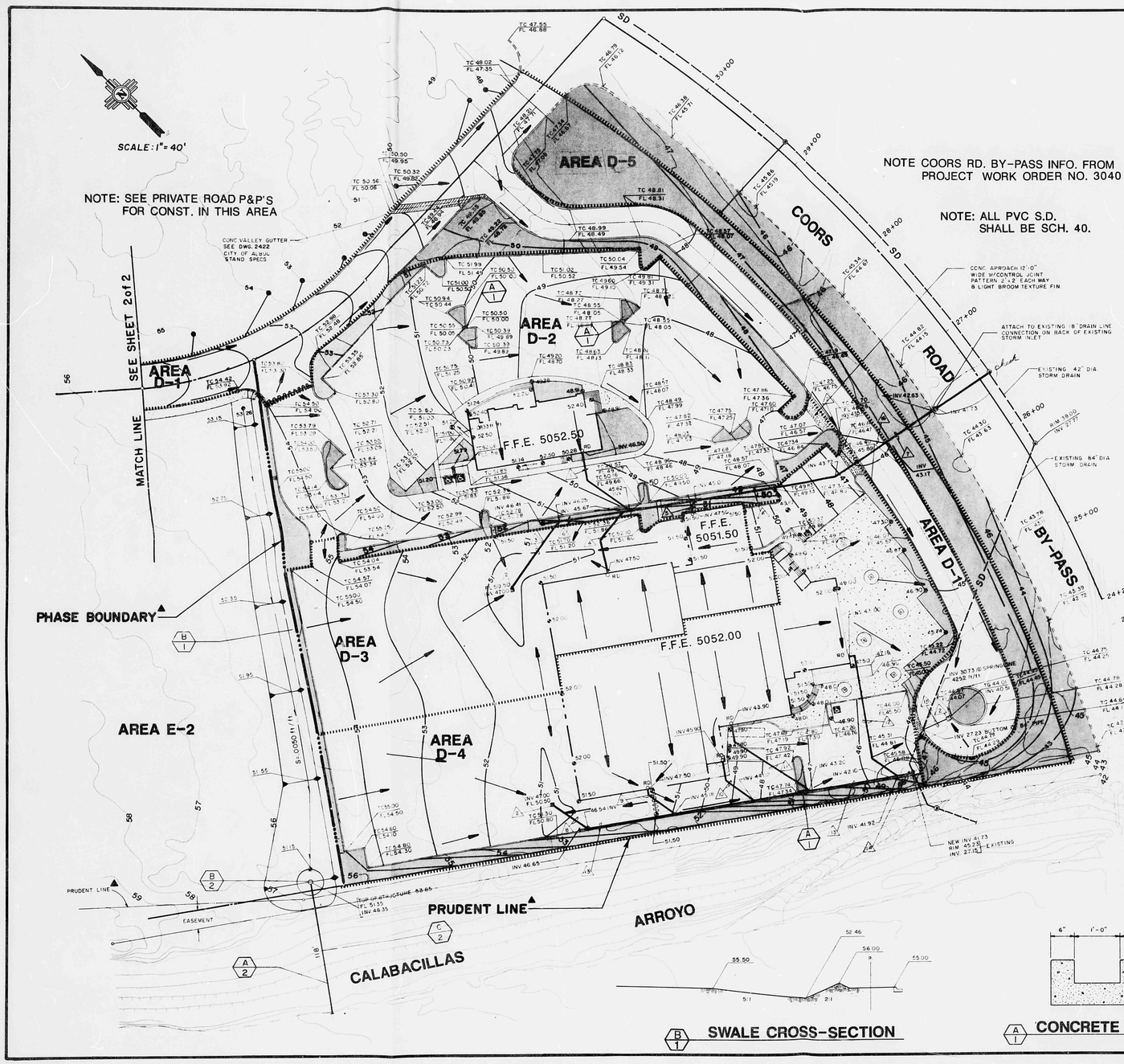
HYDROLOGY

B13/D3
3 PLANS

B13/D3

3 Plans

CITY OF ALBUQUERQUE



LEGEND

EXISTING ELEVATIONS	TC 5088.28 FL 5087.78
EXISTING CONTOURS	--88--
PROPOSED CONTOURS	—88—
EXISTING SPOT ELEV.	⊕ 5088.2
PROPOSED SPOT ELEV.	⊗ 88.2
DRAINAGE AREA BOUNDARY	
DRAINAGE DIVIDE	
WATER BLOCK	
DIRECTION OF FLOW	
NEW ASPHALT PAVING	
LANDSCAPING	
RETAINING WALL	
SWALE	
GARDEN WALL	
PROPERTY LINE	
FENCE	
CATCH BASIN	
STORM DRAIN MANHOLE	
SANITARY SEWER MANHOLE	
FIRE HYDRANT	
PROPOSED ELEVATIONS	TC 5088.28 FL 5087.78
SANITARY SEWER LINE	EXISTING SAS NEW
STORM DRAIN LINE	EXISTING SD NEW
WATER LINE	EXISTING W NEW
CONCRETE	

NOTE:
MEDIAN CURB AND GUTTER THROUGHOUT

KEYED NOTES

1. CONSTRUCT 72' OF 6" DIA. PVC STORM DRAIN AT .0122 FT/FT.
2. CONSTRUCT SINGLE "D" CATCH BASIN. SEE DWG. 2206 CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION.
3. CONSTRUCT 73' OF 6" DIA. PVC STORM DRAIN AT .0103 FT/FT.
4. CONSTRUCT 64' OF 6" DIA. PVC STORM DRAIN AT .0288 FT/FT.
5. CONSTRUCT 12' OF 6" DIA. PVC STORM DRAIN AT .2075 FT/FT.
6. CONSTRUCT 260' OF 18" DIA. PVC STORM DRAIN AT .0103 FT/FT.
7. CONSTRUCT 105' OF 18" DIA. PVC STORM DRAIN AT .0103 FT/FT.
8. CONSTRUCT 35' OF 15" DIA. PVC STORM DRAIN AT .0131 FT/FT.
9. CONSTRUCT 29' OF 8" DIA. PVC STORM DRAIN AT .0800 FT/FT.
10. CONSTRUCT 42' OF 3" DIA. PVC STORM DRAIN AT .0448 FT/FT.
11. CONSTRUCT 95' OF 5" DIA. PVC STORM DRAIN AT .0075 FT/FT.
12. CONSTRUCT 125' OF 6" DIA. PVC STORM DRAIN AT .0088 FT/FT.
13. CONSTRUCT 285' OF 15" DIA. PVC STORM DRAIN AT .0161 FT/FT.
14. CONSTRUCT 12' OF 18" DIA. PVC STORM DRAIN AT .0161 FT/FT.
15. CONSTRUCT 23' OF 18" DIA. PVC STORM DRAIN AT .4252 FT/FT.
16. CONSTRUCT 40' OF 12" PVC SD @ .010 FT/FT

GM DEALERSHIP

COORS ROAD & COORS BY-PASS ROAD NW
ALBUQUERQUE, NEW MEXICO

VT AUTOPARK

PATRICK McCLERNON ARCHITECTS/PLANNERS PA
1401 FIFTH STREET NW ALBUQUERQUE NEW MEXICO

CIVIL ENGINEERING:
EASTERLING & ASSOCIATES
5643 PARADISE BLVD NW ALBUQUERQUE, NEW MEXICO 87114

STRUCTURAL ENGINEERING:
RANDY HOLT & ASSOCIATES, INC.
7320 MOUNTAIN ROAD NE ALBUQUERQUE, NEW MEXICO 87110

MECHANICAL & ELECTRICAL ENGINEERING:
COUPLAND MORAN ASSOCIATES, INC.
214 COAL SW ALBUQUERQUE, NEW MEXICO 87102

SHEET TITLE:
GRADING & DRAINAGE PLAN

LEGAL DESCRIPTION:

A PORTION OF TRACT N1-A OF SEVEN BAR RANCH, TOWN OF ALAMEDA GRANT, CITY OF ALBUQ., BERNALILLO COUNTY, NEW MEXICO

BENCHMARK INFORMATION:

ACS STA. 1-813 BRASS CAP ATOP CONCRETE MONUMENT 3' WEST OF EAST ROW FENCE OF COORS ROAD, 216' SOUTH OF CALABACILLAS ARROYO. ELEV.- 5045 .088

DATE:

SHT NO

C-5

GENERAL NOTES

1. CLEAR AND GRUB SITE PRIOR TO EARTHWORK OPERATIONS. REMOVE AND DISPOSE OF ALL DELETERIOUS MATERIALS.
2. UNDER PAVED AREAS, THE TOP EIGHT (8) INCHES OF SUBGRADE SHALL BE PROCESSED NATURAL SOILS (SCARIFIED, MOISTENED TO WITHIN ±2% OF OPTIMUM AND COMPACTED WITH A HEAVY COMPACTOR TO A MINIMUM OF 95% OF MAXIMUM DENSITY ACCORDING TO ASTM D-1557). FILLS REQUIRED UNDER PAVED AREAS SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY EXCEPT THE UPPER EIGHT (8) INCHES WHICH SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY.
3. UNDER FLOOR SLABS, PRIOR TO SLAB OR FILL PLACEMENT, THE NATURAL SOILS SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES, MOISTENED TO WITHIN ±2% OF OPTIMUM AND COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557, WITH A MINIMUM OF 20 PASSES WITH A MINIMUM 20 TON VIBRATORY ROLLER. FILLS SHALL BE CONTROLLED STRUCTURAL FILL AS DEFINED IN THE SUBSURFACE INVESTIGATION PREPARED BY FOX & ASSOCIATES OF NEW MEXICO, INC.
4. BUILDING FOOTINGS WILL BE REQUIRED TO BE PLACED ON THREE (3) FEET OF CONTROLLED STRUCTURAL FILL AS DEFINED IN THE SUBSURFACE INVESTIGATION PREPARED BY FOX & ASSOCIATES OF NEW MEXICO, INC. PRIOR TO CONTROLLED FILL PLACEMENT, SCARIFY TO A DEPTH OF 12 INCHES, MOISTEN TO WITHIN ±2% OF OPTIMUM MOISTURE AND COMPACT TO 95% OF MAXIMUM DENSITY PER ASTM D-1557.

NO.	REVISIONS	BY	DATE
▲	PRUDENT LINE & PHASE BOUNDARY	DLS	6-29-87

V.T. AUTO PARK

COORS ROAD AND COORS BY-PASS ROAD

GRADING AND DRAINAGE PLAN

RECEIVED JUN 30 1987 HYDROLOGY SECTION

JESSE A. MAY III NEW MEXICO 972A REGISTERED PROFESSIONAL ENGINEER

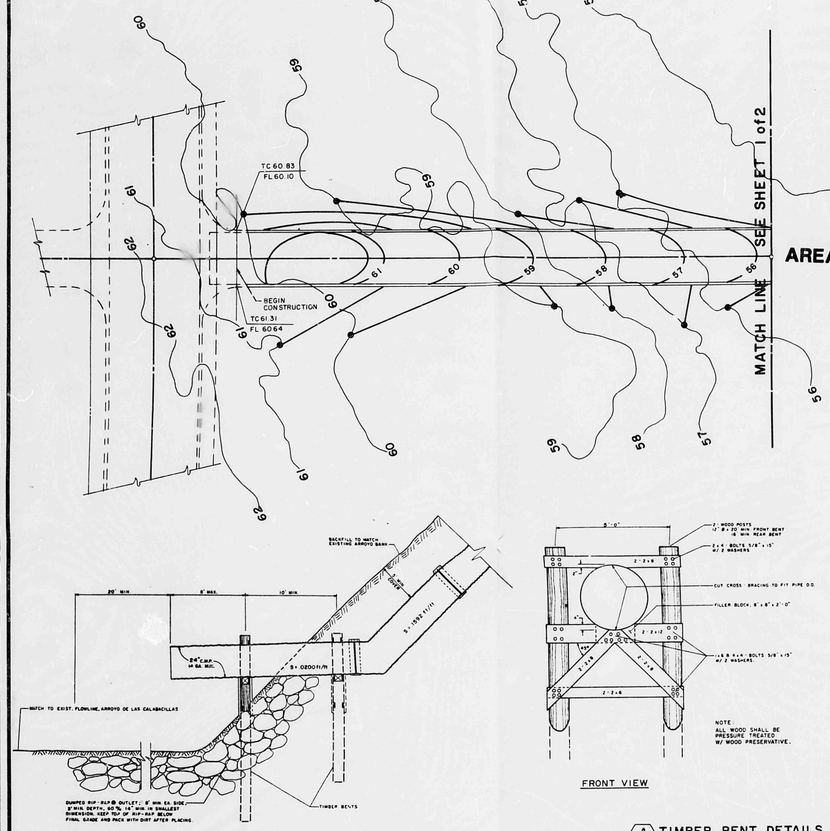
EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
5643 Paradise Blvd. N.W.
Albuquerque, New Mexico 87114

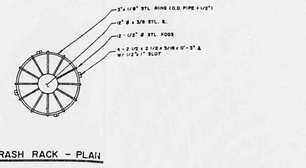
Designed	Drawn: DLS	Checked: JAM	Sheet 1
Job No: 703703	Date: MAY 1987		of 2

D 24 C 20 B 16 A 12

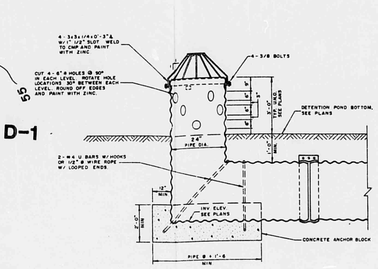
CITY OF ALBUQUERQUE

C D



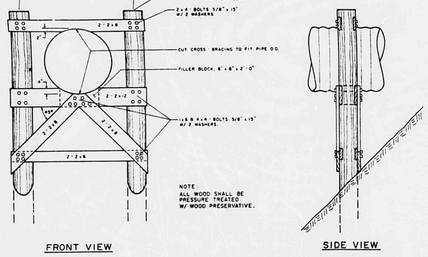


B/2 TRASH RACK - PLAN

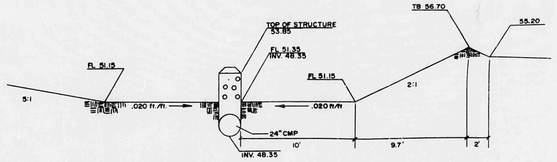


B/2 CMP INLET STRUCTURE
(TYPICAL UNLESS OTHERWISE NOTED) NO SCALE

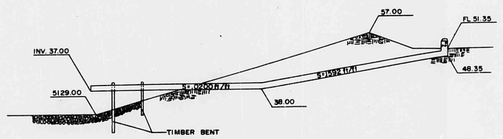
A/2 STORMDRAIN OUTLET



A/2 TIMBER BENT DETAILS
NO SCALE



C/2 SECTION AT CMP INLET STRUCTURE
SCALE: 1" = 5'



C/2 SECTION AT CMP INLET STRUCTURE
SCALE: 1" = 20'

NOTES

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - 1986 EDITION EXCEPT FOR GENERAL CONDITIONS.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO ARTERIAL STREET USE.
6. MAINTENANCE OF THE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
8. DISPOSAL OF ALL WASTE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AS SPECIFIED IN SECTION 8-1.6 OF THE GENERAL CONDITIONS IN THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - 1986 EDITION.
9. ALL CONCRETE DUMPSTER PADS SHALL BE SIX INCH REINFORCED CONCRETE 18' X 8', 10 GA. W.W.M.).
10. OWNERSHIP OF DOCUMENTS: THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF EASTERLING & ASSOCIATES, INC. AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF EASTERLING & ASSOCIATES, INC.
11. CONSTRUCTION SAFETY: THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL REMAIN THE CONTRACTOR'S RESPONSIBILITY.
12. EROSION CONTROL: THE SITE WILL BE FULLY DEVELOPED IMMEDIATELY. EROSION PROBLEMS GENERATED BY PHASED DEVELOPMENT WILL NOT, THEREFORE, BE A PROBLEM.
13. CONSTRUCTION PHASE: THE CONTRACTOR SHALL EXERCISE REASONABLE CARE DURING CONSTRUCTION TO PREVENT THE MOVEMENT OF SEDIMENT FROM THE SITE INTO THE STREET. LOOSE SOIL STOCKPILES IN THE STREET DURING UTILITY CONNECTION ACTIVITIES SHALL BE PROTECTED FROM BEING CARRIED DOWNSTREAM BY FLOWING WATER IN THE STREET.

TEXT

EXISTING CONDITIONS:

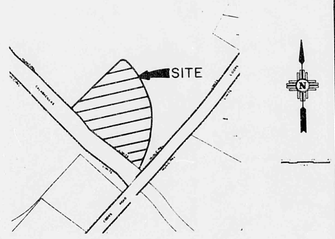
THE 7.5 ACRE TRACT IS ENTIRELY UNDEVELOPED AT THIS TIME. THE NEW COORS ROAD BY-PASS IS CURRENTLY BEING BUILT ON THE EAST SIDE OF THIS TRACT OF LAND. THERE IS NO OFF-SITE FLOW ENTERING OR RUNNING THROUGH THE SITE DUE TO THE 100-YEAR OR SMALLER STORMS. THE PROPERTY SLOPES FROM WEST TO EAST AT 1.5%.

DEVELOPED CONDITIONS:

THE SITE WILL BE DIVIDED INTO 5 SUB-AREAS. AREA D-1 COMPRISES THE SERVICE ROAD ON THE NORTH AND EAST SIDE OF THE TRACT. AREA D-2 IS BASICALLY THE NORTH HALF OF THE TRACT. AREA D-3 IS THE NORTH HALF OF THE ROOF AND HALF OF THE PARKING LOT BEHIND THE BUILDING. AREA D-4 IS THE SOUTH HALF OF THE ROOF AND THE REMAINDER OF THE PARKING LOT. AREA D-5 IS A LARGE STRIP OF LANDSCAPING ON THE EAST PROPERTY LINE RUNNING THE LENGTH OF THE TRACT. ALL DRAINAGE WILL BE DIRECTED INTO A NEW 84" RCP THAT DISCHARGES INTO THE CALABACILLAS ARROYO.

AREA E-2 WHICH IS DIRECTLY ABOVE THE PROPOSED TRACT WILL HAVE A SWALE AND BERM CONSTRUCTED TO DRAIN ALL RUNOFF INTO A CMP INLET STRUCTURE THAT WILL IN TURN DRAIN INTO THE CALABACILLAS ARROYO VIA A TIMBER BENT STRUCTURE.

VICINITY MAP ZONE ATLAS MAP NO. B13 & B14



FLOOD HAZARD MAP & OFFSITE FLOWS FROM F.E.M.A. MAP NO. 2

SCALE: 1" = 500'

SOILS MAP FROM SOIL SURVEY, BERN. CO. U.S.D.A., S.C.S. MAP NO. 10

SCALE: 1" = 2000'

RECEIVED JUN 30 1987 HYDROLOGY SECTION

HYDROLOGY

Existing & Developed Hydrologic Conditions

AFB	DA acres	SOILS TYPE	LENGTH feet	HEIGHT feet	C	CM	TC min	P2 in	P10 in	P100 in	I2 in/hr	I10 in/hr	I100 in/hr	V2 cu ft	V10 cu ft	V100 cu ft	Q2 cfs	Q10 cfs	Q100 cfs
E-1 Exist	7.50	A	660	11	0.40	54	10.00	0.98	1.45	2.20	2.07	3.06	4.65	0	220	744	6.2	9.2	14.0
E-2 Exist	5.30	A	625	7	0.40	54	10.00	0.98	1.45	2.20	2.07	3.06	4.65	0	155	526	4.4	6.5	9.9
D-1 Devel	1.40	A	1360	17	0.86	95	10.00	0.98	1.45	2.20	1.98	2.92	4.45	2112	4890	8508	2.4	3.5	5.4
D-2 Devel	2.30	A	548	8	0.88	96	10.00	0.98	1.45	2.20	2.07	3.06	4.65	5027	8708	14765	4.2	6.2	9.4
D-3 Devel	1.20	A	240	4	0.92	98	10.00	0.98	1.45	2.20	2.07	3.06	4.65	3113	5342	8593	2.3	3.4	5.1
D-4 Devel	2.30	A	300	8	0.87	96	10.00	0.98	1.45	2.20	2.07	3.06	4.65	5170	8708	14765	4.1	6.1	9.3
D-5 Devel	0.60	A	93	2	0.25	51	10.00	0.98	1.45	2.20	2.07	3.06	4.65	0	54	17	0.3	0.5	0.7

SOILS INFORMATION FROM SOIL SURVEY, BERNALILLO CO. U.S.D.A., S.C.S.

SOIL SERIES AND MAP SYMBOLS	DEGREE AND KIND OF LIMITATIONS FOR						SUITABILITY AS SOURCE OF—				SOIL FEATURES AFFECTING—		HYDROLOGIC SOIL GROUP
	TERTIARY TRANS. ABSORPTION FIELDS	SEWAGE LAGOONS	SHALLOW EXCAVATIONS	DWELLINGS WITHOUT BASEMENTS	SANITARY LANDFILL (TRENCH TYPE)	LOCAL ROAD AND STREETS	ROAD FILL	SAND	GRAVEL	TOPSOIL	POND RESERVOIR AREAS	DIKES, LEVEES, AND OTHER EMBANKMENTS	
*Bluepoint: Bb, BcA, BCC, Bd1, BKD. For Wink part of Bd1, see Wink series; for Kokan part of BKD, see Kokan series.	Slight if slope is 1 to 8 percent; moderate if 8 to 15.	Severe: seepage.	Severe: cut-banks cave.	Slight if slope is 1 to 8 percent; moderate if 8 to 15.	Moderate: too sandy.	Slight if slope is 1 to 8 percent; moderate if 8 to 15.	Good.....	Fair: excess fines.	Unsuited.....	Poor: too sandy.	Seepage.....	Piping; seepage.....	A

BCC—Bluepoint loamy fine sand, 1 to 9 percent slopes. This soil is nearly level to moderately sloping. It has the profile described as representative of the series, but on about 10 percent of the acreage the surface layer is sand. Included in mapping are areas of Madurez, Pajarito, and Wink soils, which make up about 15 percent of the unit.

Runoff is slow, and the hazard of soil blowing is severe. This soil is used for range, watershed, wildlife habitat, recreation, and community development. Dryland capability subclass VIIe; native plant community 2.

NO.	REVISIONS	BY	DATE

V.T. AUTO PARK

COORS ROAD AND COORS BY-PASS ROAD

GRADING AND DRAINAGE PLAN

JESSE A. MAX III, N.M. REG. 8788, REGISTERED PROFESSIONAL ENGINEER

EASTERLING & ASSOCIATES, INC.
CONSULTING ENGINEERS
5643 Paradise Blvd. N.W.
Albuquerque, New Mexico 87114

Designed DLS	Drawn JEL	Checked JAM	Sheet 2
Job No. 703703	Date MAY, 1987		of 2

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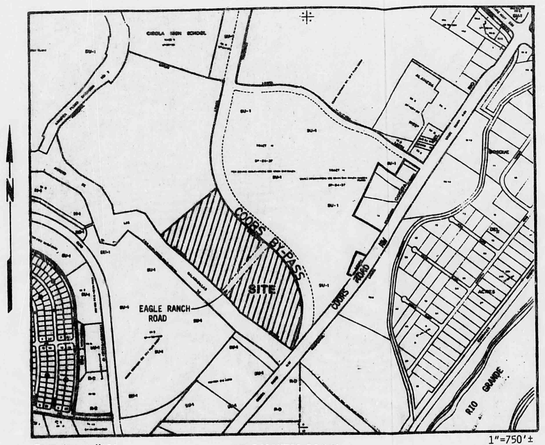
CITY OF ALBUQUERQUE

C D



ZONE ATLAS MAPS
B-13 & B-14

VICINITY MAP

1"=750'±

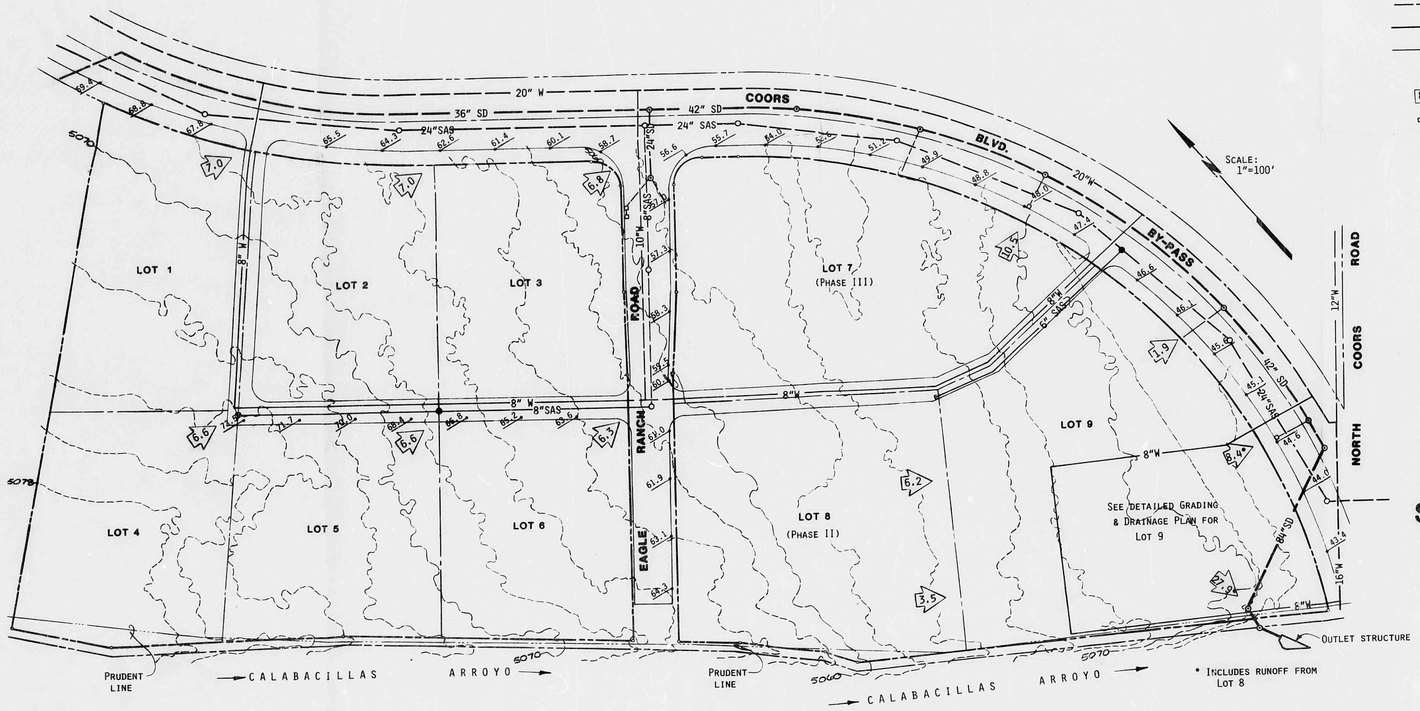
NOTES

1. PONDING AND CONTROLLED RELEASE ARE REQUIRED FOR LOTS 1-8 TO LIMIT OUTFLOW TO 1.9 CFS PER ACRE. FREE DISCHARGE IS PROPOSED FOR LOT 9.
2. STREET GRADES WERE OBTAINED FROM INFRASTRUCTURE PLANS PREPARED BY BOHANNAN HUSTON. PUBLIC STORM DRAIN ALSO BY BOHANNAN HUSTON, PROJECT NO. 3040.
3. PUBLIC WATER & SEWER PLANS PREPARED BY ISAACSON & ARFMAN, PROJECT NO. 3082.
4. ALL UTILITY LINES SHOWN AS "FUTURE" ARE BONDED, INFRASTRUCTURE IMPROVEMENTS; ALL LINES SHOWN AS "PROPOSED" ARE ADDITIONS PROPOSED FOR CONSTRUCTION AS INDIVIDUAL LOTS DEVELOP.

LEGEND

——42" SD—	STORM DRAIN (FUTURE)* W/MANHOLE
——24" SAS-	SANITARY SEWER (FUTURE)* W/MANHOLE
——20"W—	WATER (FUTURE)*
——8"W—	WATER (PROPOSED)
——6" SAS-	SANITARY SEWER (PROPOSED) W/MANHOLE
45.6	TOP OF CURB ELEVATIONS
8.4	DEVELOPED RUNOFF, CFS
	CATCH BASIN (FUTURE)*

* SEE NOTE 4 ABOVE



CONCEPTUAL GRADING, DRAINAGE & UTILITY PLAN
for
SITE DEVELOPMENT PLAN
Tract N-1 & N-2 (Now N-1A & N-1B)

RECEIVED
MAR 09 1987
HYDROLOGY SECTION

D 24 C 20 B 16 A 12 | CITY OF ALBUQUERQUE C D