SCANNED BY PLANNING

PROJECT DESCRIPTION

THE PROPERTY IS UNDEVELOPED VACANT LAND LOCATED ON A PRIVATE EASEMENT OFF GUADALUPE TRAIL NW. DRAINAGE IS CONFINED TO THE SITE WITH LITTLE OR NO CROSS DRAINAGE TO OR FROM THE PROPERTY. THE PROPOSED CONSTRUCTION IS A THREE (3) LOT RESIDENTIAL SUBDIVISION.

DESIGN CRITERIA

PEAK RUNOFF – CITY OF ALBUQUERQUE DPM, SECTION 22.2 HYDROLOGY, JANUARY 1993
PRECIPITATION ZONE 2
DESIGN STORM – 100 YEAR

FLOOD ZONE

THE PROJECT IS IN FLOOD ZONE X SHOWN ON THE REFERENCED MAP WITH DOTS AND DESCRIBED AS – AREAS OF 0.2% ANNUAL CHANCE FLOOD. AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF 1' OR WITH DRAINAGE ARES LESS THAN 1 SQUARE MILE AND ARE PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD.

EXISTING CONDITIONS

THE DRAINAGE AREA FOR THIS PROJECT INCLUDES THE EASEMENT FROM THE END OF THE EXISTING ROAD TO THE PROPERTY AND THE AREA TO BE SUBDIVIDED. THE TOTAL AREA IS 37,972 SF = 0.872 AC. THE EASEMENT IS 7311 SF = 0.168 AC. THE SUBDIVIDED AREA IS 30,661 SF = 0.704 AC.

LAND TREATMENT	DESCRIPTION	SQ. FT.	ACRE
C	VACANT LAND	37,972	0.872

PEAK DISCHARGE – (0.872)(3.14) = 2.74 CFS

RUNOFF VOLUME – (0.872)(1.13)/12 = (0.985)/12= 0.082 AC-FT = 3572 CF

PROPOSED CONDITIONS

ON-SITE
ROOF AREA- 9,740 SF (D)
LANDSCAPE & PONDING – 12,508 SF (B)
GRAVEL STREETS – 6565 SF (C)
INDIVIDUAL DRIVEWAYS – 1,848 SF (D)

EASEMENT
GRAVEL STREETS – 5183 SF (C)
LANDSCAPE & PONDING – 2128 SF (B)

LAND TREATMENT	DESCRIPTION	SQ. FT.	ACRE
B	LANDSCAPE	14,636	0.3360
C	STREETS	11,748	0.2697
D	DRIVEWAYS	1,848	0.0424
D	ROOF	9,740	0.2236
TOTALS		37,972	0.872

PEAK DISCHARGE – (0.3360)(2.28) + (0.2697)(3.14) + (0.2660)(4.70) = 0.77 + 0.85 + 1.25 = 2.87 CFS
RUNOFF VOLUME – (0.3360)(0.78) + (0.2697)(1.13) + (0.2660)(2.12) = (0.262 + 0.305+ 0.564)/12= 0.0943 AC-FT = 4108 CF
PEAK DISCHARGE WILL INCREASE BY 0.13 CFS AND RUNOFF VOLUME WILL INCREASE BY 0.0123 AC-FT.

FLAT GRADING SCHEME

DEVELOPMENT OF THIS SITE IS QUALIFIED TO USE THE FLAT GRADING SCHEME.
BUILDING AREA 9,740 SF
DRIVEWAY AREA – 1848 SF
TOTAL AREA – 37,972 SF
HARD SURFACES – 30.5%

PROPOSED DRAINAGE

DRAINAGE FROM THE EASEMENT WILL BE PONDED WITHIN THE EASEMENT. THE ROAD WILL BE CONSTRUCTED WITH A DITCH ON THE SOUTH SIDE. (SEE DETAIL THIS SHEET). THE REQUIRED PONDING AREA WILL BE PROVIDED AT THE EAST END OF THE EASEMENT.

LAND TREATMENT	DESCRIPTION	SQ. FT.	ACRE
C	STREET	7,311	0.1678

RUNOFF VOLUME – (0.1678)(1.13)/12= 0.0158 AC-FT = 688 CF

RUNOFF VOLUME FOR SUBDIVISION = .0785 + 0.2660(3.67 + 2.20)/12 = 0.0785 + 0.0326 = 0.111 AC-FT = 4835 CF
PROVIDE A MINIMUM PONDING AREA OF 4835 CF FOR THE THREE LOTS AND A MINIMUM OF 688 CF IN THE EASEMENT.

RAIN BARRELS

WE RECOMMEND THE USE OF RAIN BARRELS TO COLLECT ROOF DRAINAGE AND THE REUSE OF THIS WATER TO SUPPLEMENT THE LANDSCAPE IRRIGATION. RAIN BARREL VOLUME SHOULD BE 1000 GALLON PER HOUSE. FOR THE 3500 SF TOTAL ROOF AREA A 1/2" RAIN WOULD PRODUCE 3500x.5/12= 145.8 CF =1090 GALLONS. THIS WATER COULD BE PIPED TO THE LANDSCAPE AREAS USING A DRIP IRRIGATION SYSTEM.

POND CALCULATIONS

POND	AREA – SF	DEPTH – '	VOLUME – CF
ON-SITE			
1	6740	1'	5208
2	721	1'	486
3	939	1'	584
TOTAL			6278
EASEMENT			
4	1553	1'	814

POND VOLUME = AREA OF 72 CONTOUR x 1 PLUS AREA BETWEEN 72&73x0.5
POND 1 3702 + 3011x0.5 = 5208 CF
POND 2 251 + 470x0.5 = 486 CF
POND 3 230 + 709x0.5 = 584 CF

POND VOLUME = AREA OF 71 CONTOUR x 1 PLUS AREA BETWEEN 71&72x0.5
POND 4 76 + 1477x0.5 = 814 CF

THE AREA SHOWN AS PONDING AREA NO. 1 WILL BE DESIGNATED ON THE PLAT AS A COMMON DRAINAGE EASEMENT AND WILL BE MAINTAINED BY ALL PROPERTY OWNERS. PONDING AREA NO. 4 IS IN AN EXISTING ROADWAY EASEMENT AND WILL BE USED FOR THE THE ROADWAY ONLY AND WILL BE MAINTAINED BY ALL OF THE PROPERTY OWNERS. PONDS 2 & 3 WILL BE ON INDIVIDUAL LOTS AND MAINTAINED BY THOSE LOT OWNERS.

LEGAL DESCRIPTION

TRACT 154-C M.R.G.C.D. MAP NO. 32
ALBUQUERQUE, BERNALILLO COUNTY , NEW MEXICO

SURVEY INFORMATION

TOPOGRAPHIC SURVEY PERFORMED AND COMPILED BY ANTHONY L. HARRIS, N.M.P.L.S. # 11483 HARRIS SURVEYING, INC. 2412-D MONROE STREET NE ALBUQUEQUE, NEW MEXICO JULY, 2008. (505) 889-8056 FAX 889-8645

TEMPORARY PROJECT BENCHMARK(T.B.M.)

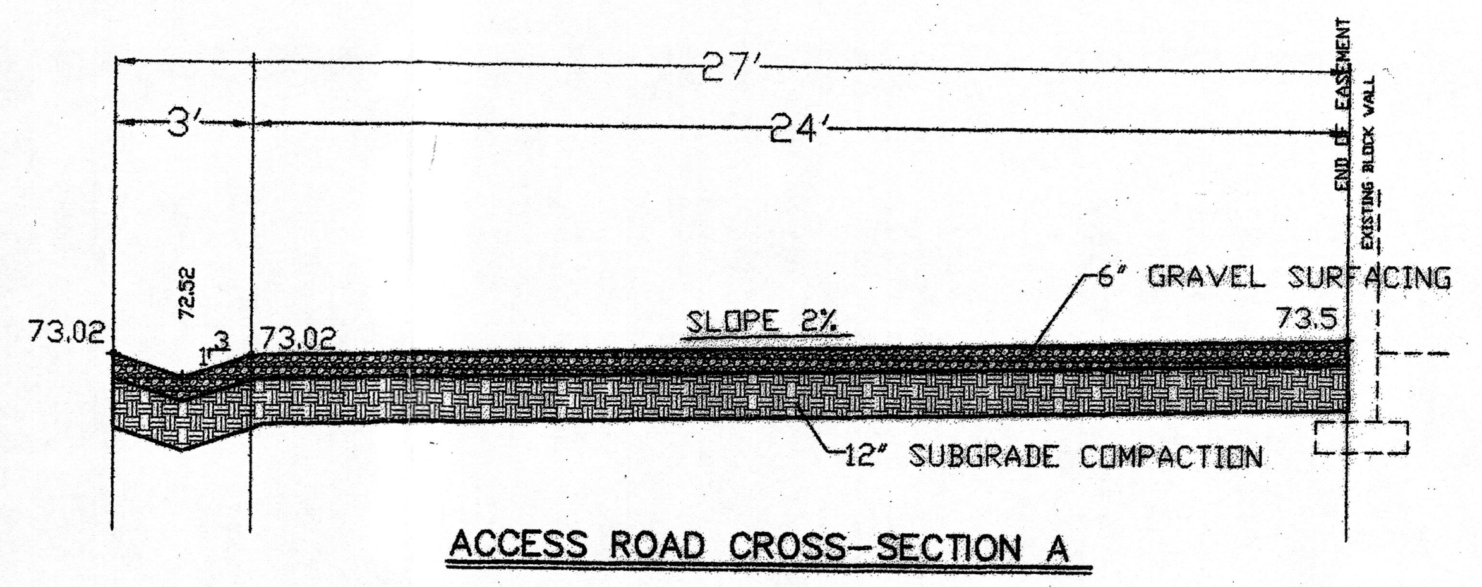
PROJECT BENCHMARK IS THE NORTH RIM OF AN EXISTNG MANHOLE IN GUADALUPE TRAIL ELEVATION 4974.11'

BUILDER

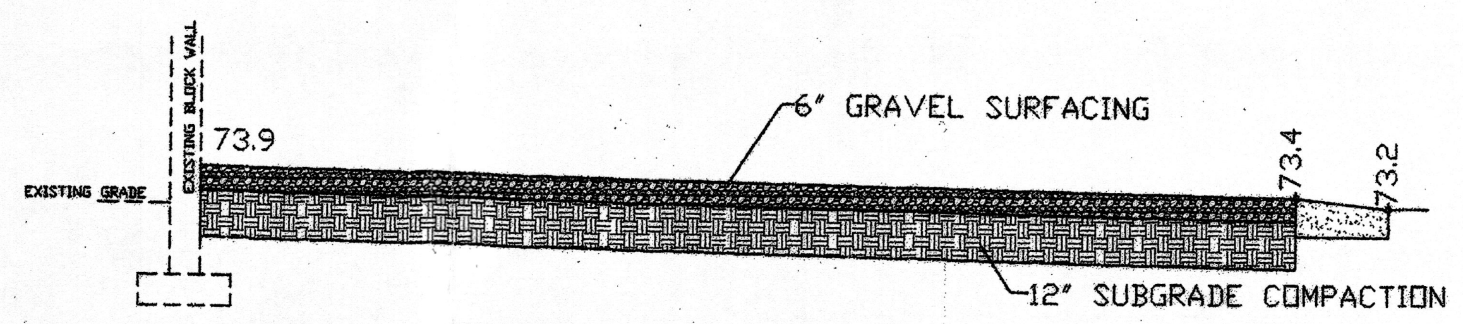
MICHAEL EAVES (505) 259-5210
2720 SHERIDAN NW
ALBUQUERQUE, NM 87104

FLOOD INSURANCE RATE MAP

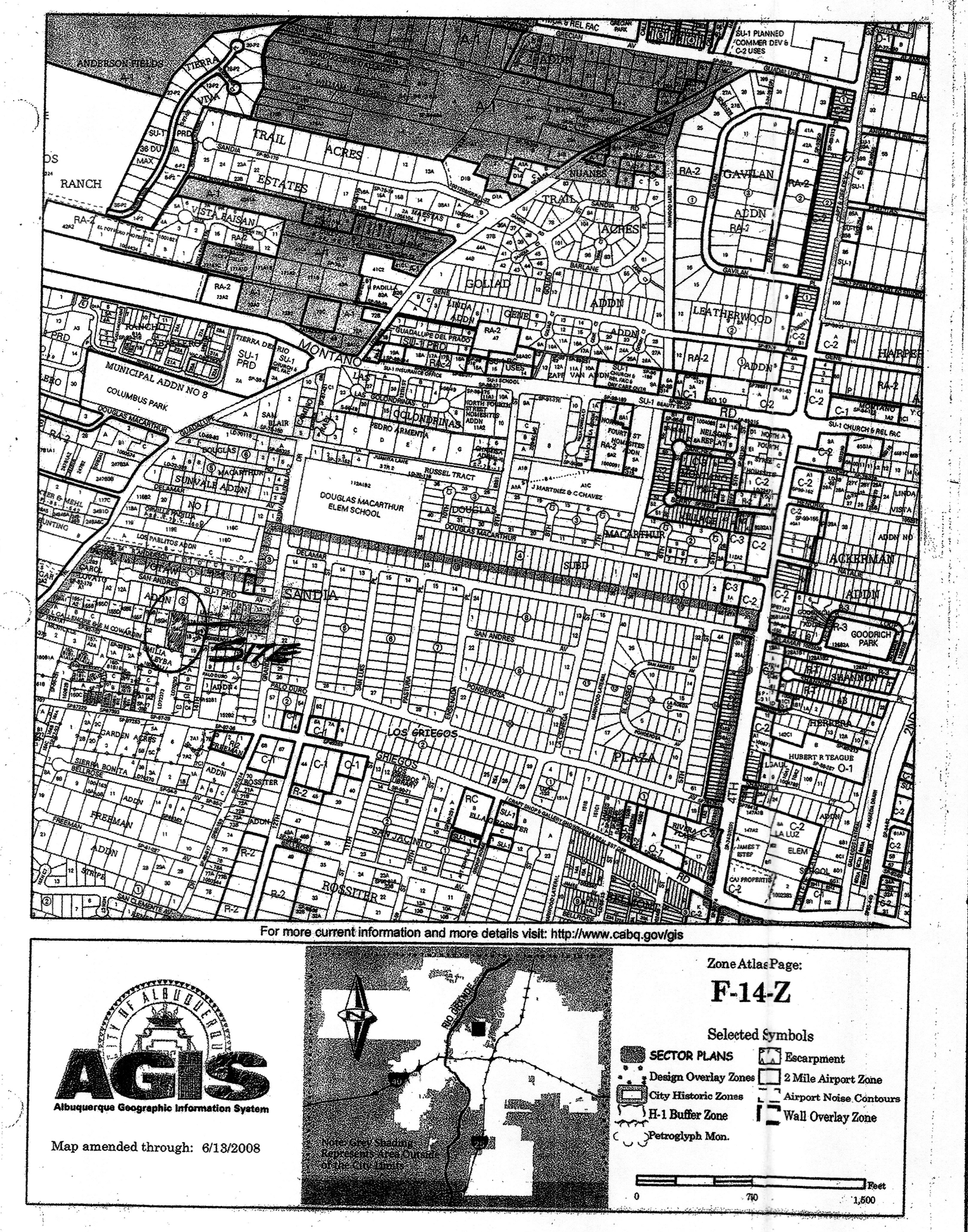
BERNALILLO COUNTY, NEW MEXICO AND INCORPORATED AREAS
MAP NUMBER – 35001C0119G


27'
3'
24'
END OF EASEMENT
EXISTING BLOCK WALL
73.02
72.52
1
3
73.02
SLOPE 2%
6" GRAVEL SURFACING
73.5
12" SUBGRADE COMPACTION

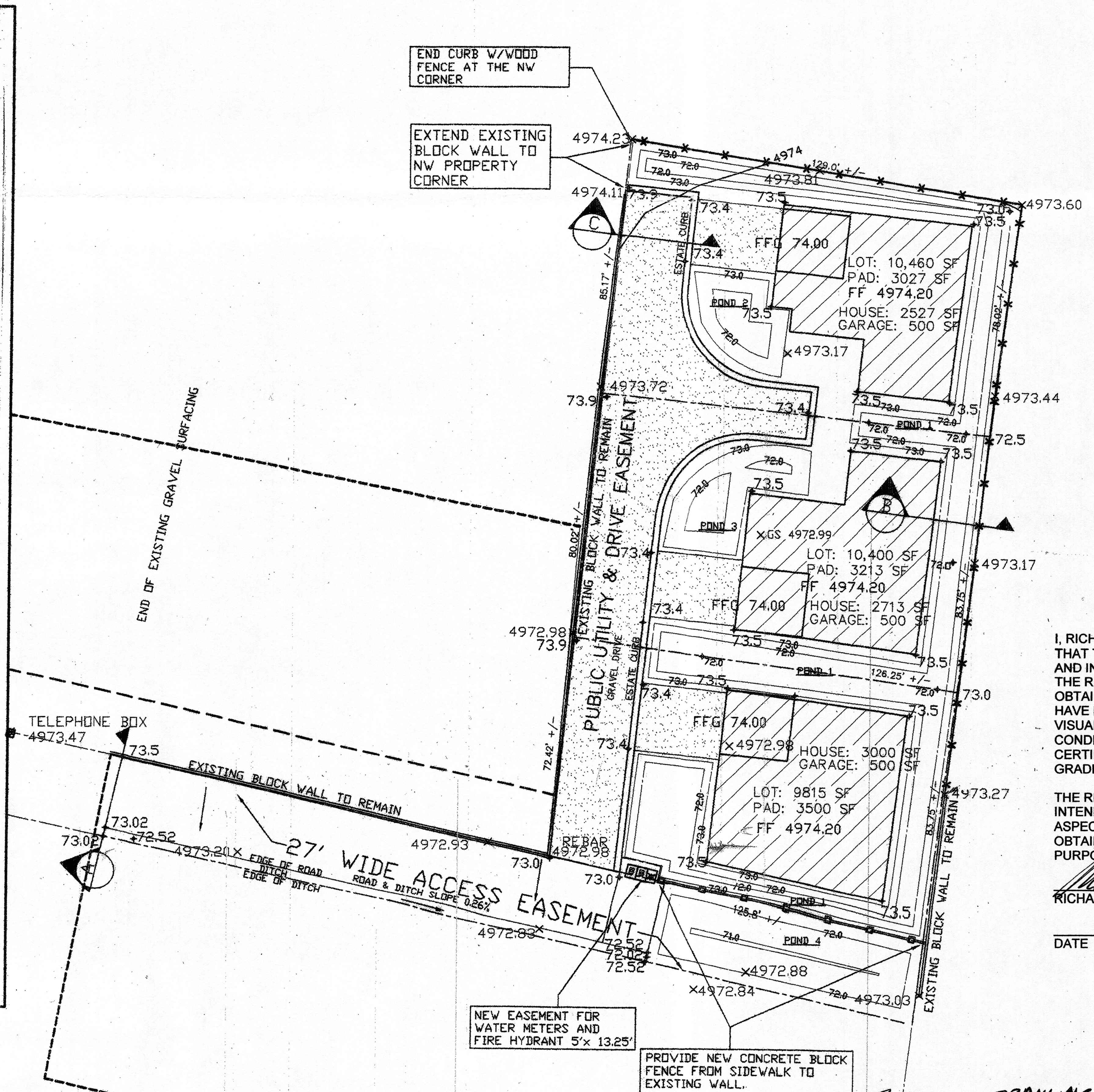
ACCESS ROAD CROSS-SECTION A


EXISTING BLOCK WALL
EXISTING GRADE
73.9
6" GRAVEL SURFACING
73.4
73.2
12" SUBGRADE COMPACTION

PRIVATE ROAD CROSS-SECTION C


SITE
TRAIL ACRES ESTATES
MONTANO
DOUGLAS MACARTHUR ELEM SCHOOL
LOS GRIEGOS
For more current information and more details visit: http://www.cabq.gov/gis
AGIS
Albuquerque Geographic Information System
Map amended through: 6/13/2008
Zone Atlas Page:
F-14-Z
Selected Symbols
SECTOR PLANS
Design Overlay Zones
City Historic Zones
H-1 Buffer Zone
Petroglyph Mon.
Escarpment
2 Mile Airport Zone
Airport Noise Contours
Wall Overlay Zone
Note: Grey Shading Represents Area Outside of the City Limits
0
750
1,500
Feet

ZONE ATLAS PAGE F-14


END CURB W/WOOD FENCE AT THE NW CORNER
EXTEND EXISTING BLOCK WALL TO NW PROPERTY CORNER
4974.23
4974
4973.81
129.0' +/-
4974.11
4973.60
73.9
73.4
73.5
FFG 74.00
LOT: 10,460 SF
PAD: 3027 SF
FF 4974.20
HOUSE: 2527 SF
GARAGE: 500 SF
POND 2
ESTATE CURB
4973.17
85.17' +/-
78.02' +/-
4973.72
4973.44
POND 1
72.5
POND 3
GS 4972.99
LOT: 10,400 SF
PAD: 3213 SF
FF 4974.20
FFG 74.00
HOUSE: 2713 SF
GARAGE: 500 SF
4973.17
80.02' +/-
83.75' +/-
EXISTING BLOCK WALL TO REMAIN
PUBLIC UTILITY & DRIVE EASEMENT
GRAVEL DRIVE
4972.98
126.25' +/-
73.0
FFG 74.00
4972.98
HOUSE: 3000 SF
GARAGE: 500 SF
LOT: 9815 SF
PAD: 3500 SF
FF 4974.20
72.42' +/-
4973.27
TELEPHONE BOX
4973.47
END OF EXISTING GRAVEL SURFACING
EXISTING BLOCK WALL TO REMAIN
27' WIDE ACCESS EASEMENT
4973.20
EDGE OF ROAD
DITCH
EDGE OF DITCH
ROAD & DITCH SLOPE 0.26%
4972.93
REBAR 4972.98
4972.83
72.52
72.02
125.8' +/-
POND 4
4972.88
4972.84
4973.03
EXISTING BLOCK WALL TO REMAIN
NEW EASEMENT FOR WATER METERS AND FIRE HYDRANT 5'x 13.25'
PROVIDE NEW CONCRETE BLOCK FENCE FROM SIDEWALK TO EXISTING WALL.
N

SCALE: 1" = 30'
CONTOUR INTERVAL 1'

I, RICHARD BURTON, NMPE #4947 OF THE FIRM BURTON ENGINEERS, LLC. 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 12/16/08. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY NMPS #11463, OF THE FIRM HARRIS SURVEYS, INC. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 10/19/09 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR FINAL DRAINAGE AND GRADING APPROVAL.

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 USING IT FOR ANY OTHER PURPOSE.

RICHARD BURTON, NMPE #4947

02/15/10
DATE

RECORD DRAWING

I THE UNDERSIGNED BEING A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO DO HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON ACTUAL FIELD MEASUREMENTS MADE BY BURTON ENGINEERS, LLC AND ON THAT DATE THE AS-BUILT CONDITION ON THE SITE WAS IN SUBSTANTIAL COMPLIANCE WITH PLANS PREPARED BY BURTON ENGINEERS, LLC FOR CITY OF ALBUQUERQUE PROJECT NO. 477882

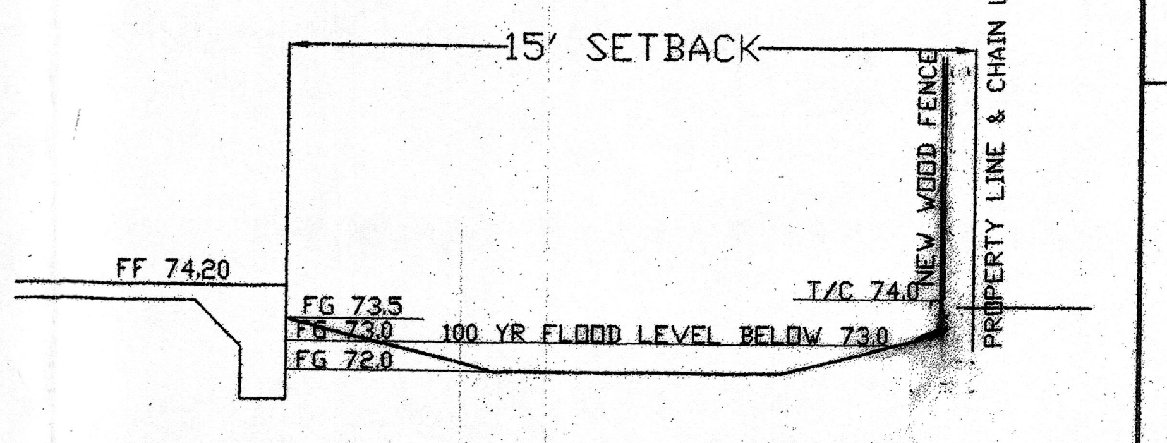
RICHARD BURTON NMPE#4947

10/19/09
DATE

Seal: RICHARD L. BURTON 4947 2/15/10

LEGEND

EXISTING SPOT ELEVATION	x4972.88
NEW SPOT ELEVATION	+74.0
BLOCK WALL NEW OR EXISTING	▬
FINISH CONTOUR	72.0
EXISTING CONTOUR	4974
CONCRETE BLOCK PIER	▫
LOT LINE	- - - -


15' SETBACK
NEW WOOD FENCE
PROPERTY LINE & CHAIN LINK FENCE
FF 74.20
FG 73.5
FG 73.0
FG 72.0
100 YR FLOOD LEVEL BELOW 73.0
T/C 74.0

PROVIDE 10"x 18" CONC FOOTING W/2#4 CONT & #4 CROSS BARS @ 18' 16' HIGH CMU WALL FILL ALL CELLS IN CMU

REAR YARD SECTION B

AS-BUILT INFORMATION
CONTRACTOR Armour Pavement Inc DATE
WORK STAKED BY Harris Surveying DATE
INSPECTOR'S ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWING CORRECTED BY DATE

MICRO FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARK
ELEVATIONS ARE BASED ON ALBUQUERQUE STATION NO. "17-F13" ELEVATION OF 4973.334

SURVEY INFORMATION
FIELD NOTES

BY	DATE
ANTHONY L. HARRIS	JULY, 2008

ENGINEER'S SEAL
RICHARD BURTON 4947
3/21/09

REMARKS
REVISIONS

NO.	DATE	BY

DATE – MAY, 2006
DESIGNED BY – RLB
DRAWN BY – RLB
CHECKED BY – RLB

BURTON ENGINEERS, LLC.
2900 VISTA GRANDE NW
ALBUQUERQUE, NM 87120
(505) 839-9365

RECEIVED
FEB 16 2010
HYDROLOGY SECTION

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

TITLE
DRAINAGE PLAN For Information Only

Design Review Committee	City Engineer Approval	Last Design Update	MO./DAY/YR.	MO./DAY/YR.

City Project No.	DRB NO.	Zone Map No.	Sheet 1 OF 1
477882	1007303	F-14	