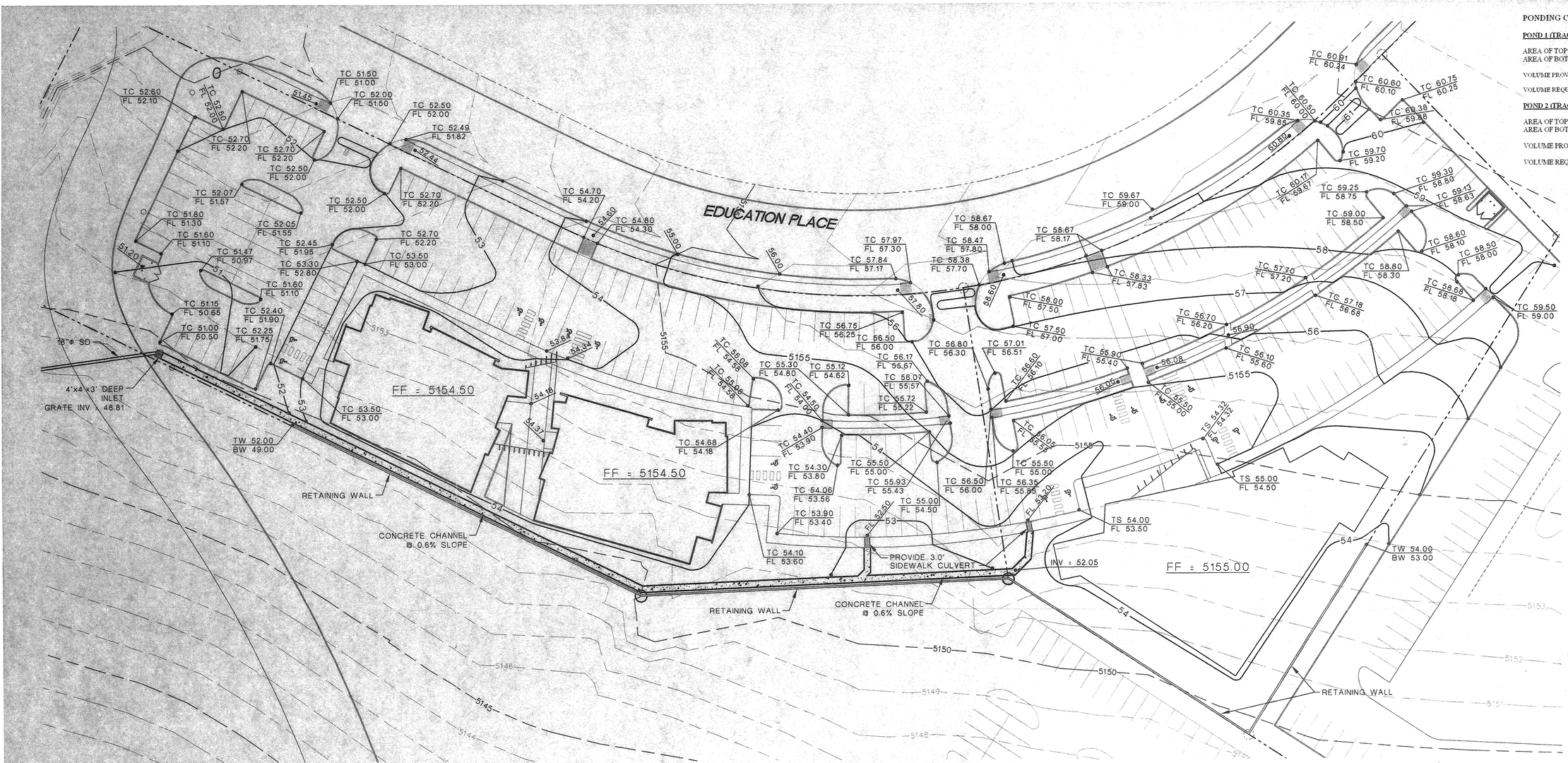


PONDING CALCULATIONS

POND 1 (TRACT E-2)

AREA OF TOP = 10978.56 SQUARE FEET
AREA OF BOTTOM= 6590.00 SQUARE FEET

VOLUME PROVIDED= (10978.56+6590.00)/2 X 3 FEET DEEP = 26352.84 CUBIC FEET

VOLUME REQUIRED = 25874.28 CUBIC FEET

POND 2 (TRACT F)

AREA OF TOP = 9970.00 SQUARE FEET
AREA OF BOTTOM= 7341.00 SQUARE FEET

VOLUME PROVIDED = (9970 + 7341)/2 X 3 FEET DEEP = 25966.50 CUBIC FEET

VOLUME REQUIRED = 22807.65 CUBIC FEET

ABQ Engineering, Inc
·Engineers ·Planners ·Construction Services
6739 Academy Rd. NE, Suite 130 Albuquerque, NM 87109
505-255-7802 FAX 505-255-7902 ABQ Project: 25126

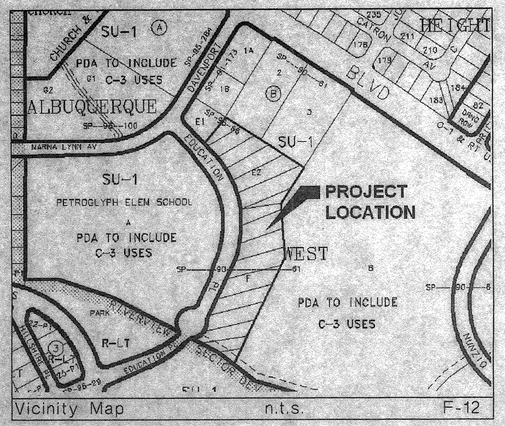
FOUNTAIN HILLS
BUILDINGS #1 & #2
Education Pl AND Ridgemont Ave
ALBUQUERQUE NEW MEXICO

JLS ARCHITECTS
1600 rio grande nw
albuquerque
new mexico 87104
505 246 0870
fax 505 246 0437

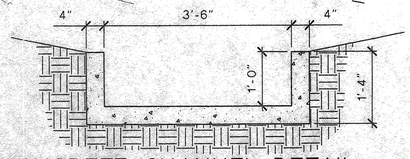
Engineer's Statement

I, the Engineer of record, certify that I have personally visited the site and the existing grades and contours depicted on this plan match what presently exists at the present location

MARTIN J. GARCIA, N.M.P.E. No. 11767



Vicinity Map n.t.s. F-12



CONCRETE CHANNEL DETAIL

1 / C2

3/4" = 1'-0"

Channel Calculations

$Q = \frac{1.49}{n} A r^{2/3} S_o^{1/2}$

$Q = \frac{1.49}{.015}(3.5)(.7113)(.0775)$

h = 1 FT.
w = 3.50 FT.
S = .6%
n = .015

Q = 21.23 CFS – PROVIDED
Q = 17.81 CFS – REQUIRED

Drainage Calculations

Fountain Hills
Ponding calcs - Tract E-2
25126

Hydrology Calculations
Date: January 12, 2006
DPM - Section 22.2
Volume 2, January 1993
Tract E
Precipitation Zone 1
100 Year Storm Depth, P (360) 2.2
100 year Storm Depth, P (10 day) 3.67

Treatment Area	A	B	C	D
Excess Precipitation Factors	0.44	0.67	0.99	1.97
Peak Discharge Factors	1.29	2.03	2.87	4.37

Land Treatment Area	Acres	Existing	Proposed
Type "D" (Roof)		0.00	2.00
Type "C" (Unpaved Roadway)		0.00	0.00
Type "B" (Irrigated Lawns)		0.00	0.37
Type "A" (Undeveloped)		2.37	0.00
Total (Acres)		2.37	2.37
Excess Precipitation(in)		0.44	1.77
Volume (100), cf		3785.36	15202.08
Volume (10),cf		2536.19	10185.39
Volume (100,10 day), cf		3785.36	25874.28
Q (100), cfs		3.06	9.49
Q (10), cfs		2.05	6.36

Fountain Hills
Ponding calcs - Tract F
25126

Hydrology Calculations
Date: January 12, 2006
DPM - Section 22.2
Volume 2, January 1993
Tract E
Precipitation Zone 1
100 Year Storm Depth, P (360) 2.2
100 year Storm Depth, P (10 day) 3.67

Treatment Area	A	B	C	D
Excess Precipitation Factors	0.44	0.67	0.99	1.97
Peak Discharge Factors	1.29	2.03	2.87	4.37

Land Treatment Area	Acres	Existing	Proposed
Type "D" (Roof)		0.00	1.77
Type "C" (Unpaved Roadway)		0.00	0.00
Type "B" (Irrigated Lawns)		0.00	0.29
Type "A" (Undeveloped)		2.06	0.00
Total (Acres)		2.06	2.06
Excess Precipitation(in)		0.44	1.79
Volume (100), cf		3290.23	13362.76
Volume (10),cf		2204.46	8953.05
Volume (100,10 day), cf		3290.23	22807.65
Q (100), cfs		2.66	8.32
Q (10), cfs		1.78	5.58

Design Narrative

THE SITE FOR THE FOUNTAIN HILLS OFFICE BUILDINGS IS LOCATED ALONG EDUCATION BOULEVARD JUST NORTH OF PASEO DEL NORTE IN THE NORTHWEST PART OF ALBUQUERQUE. THE SITE IS COMPRISED OF TRACT E-2 WHICH CONTAINS 2.37 ACRES, AND TRACT F WHICH CONTAINS 2.06 ACRES. THE SITE IS CURRENTLY UNDEVELOPED. THE SITE IS INCLUDED AS PART OF THE FOUNTAIN HILLS DEVELOPMENT PLAN WHICH WILL DIRECT ALL STORM DRAINAGE RUNOFF INTO AN AMAFCA POND LOCATED AT THE EAST END OF THE SITE. THE POND WILL THEN CONTROL RELEASE INTO THE STORM DRAIN SYSTEM LOCATED AT PARADISE ROAD AND EAGLE RANCH ROAD.

IN ITS UNDEVELOPED CONDITION, THE RUNOFF FROM THE SITE IS 3.06 CFS FOR TRACT E-2, AND 2.66 CFS FROM TRACT F. THE DEVELOPED FLOWS FOR THE LOTS ARE 9.49 CFS AND 8.32 CFS RESPECTIVELY. IT IS THE INTENT OF THIS GRADING AND DRAINAGE PLAN TO ALLOW THE TWO TRACTS TO DRAIN INTO A CONCRETE CHANNEL ALONG THE EAST PROPERTY LINE THAT IN TURN DRAINS TO THE PROPOSED STORM DRAIN WHICH IS PART OF THE FOUNTAIN HILLS PROJECT.

THERE IS NOT ANY OFF-SITE DRAINAGE COMING ONTO THIS PROPERTY, AND THIS PROPERTY IS NOT WITHIN A 100-YEAR FLOODPLAIN.

GRADING PLAN

SCALE: 1" = 30'

NORTH

Benchmark

A.C.S. "3-B12"
X = 369,484.87 Y = 1,524,345.87

Elevation = 5277.263

Legal Description

Tracts E-2 and F, Albuquerque West, Unit 1, Albuquerque, Bernalillo County, New Mexico, as the same as is shown and designated on the Plat thereof, filed in the Office of the County Clerk of Bernalillo County, New Mexico.

Legend

TC	TOP OF CONCRETE
FL	FLOW LINE
TS	TOP OF SIDEWALK
FF	FINISH FLOOR
TW	TOP OF WALL
BW	BOTTOM OF WALL

RECEIVED
JUN 18 2007
HYDROLOGY SECTION

Grading Plan

REVISIONS

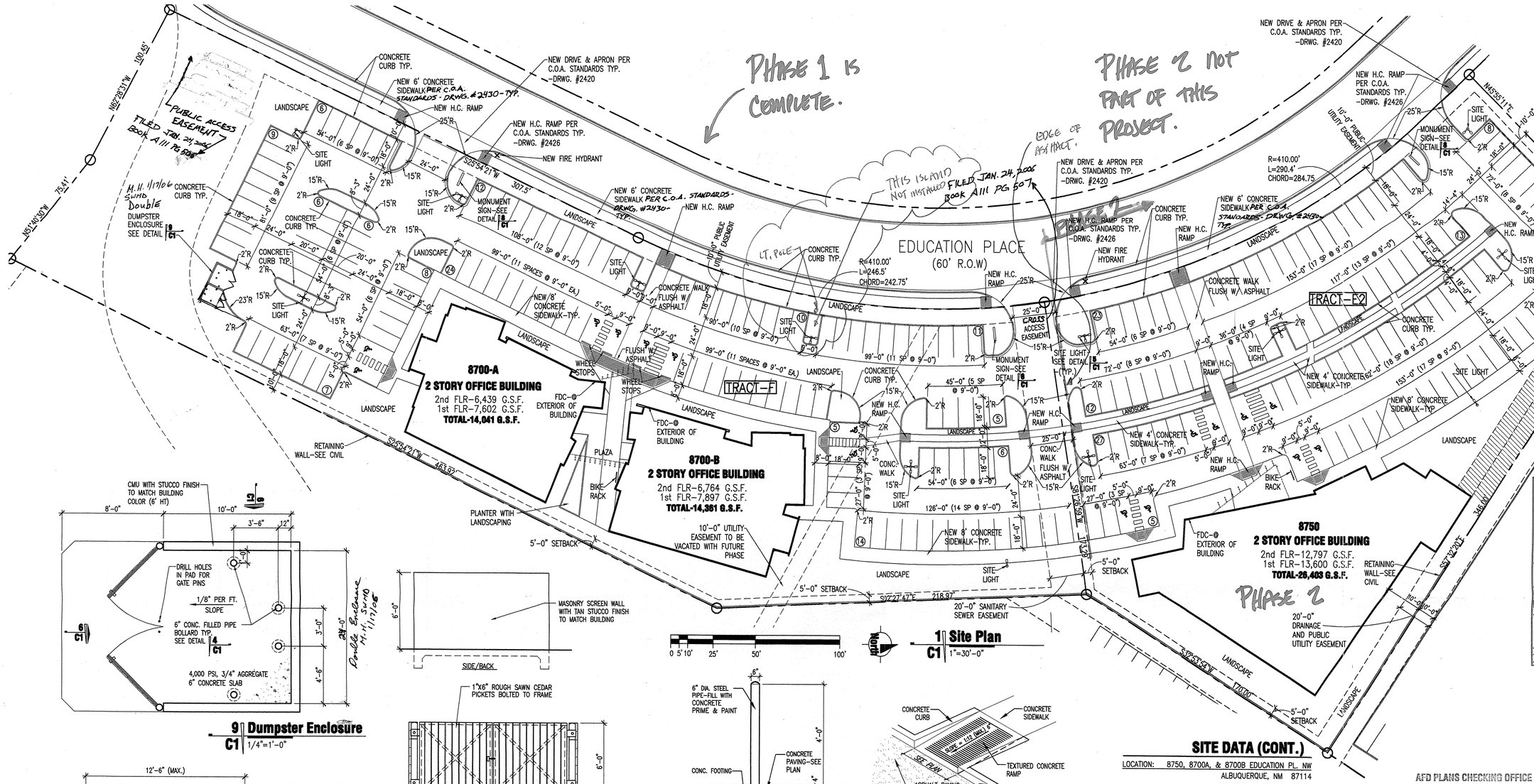
ARCHITECT

ENGINEER

MARTIN J. GARCIA NEW MEXICO 11767 REGISTERED PROFESSIONAL ENGINEER

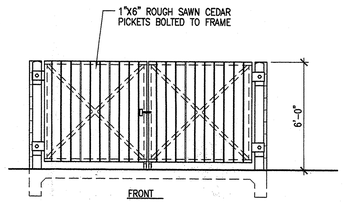
DATE 06-13-07

SHEET C2

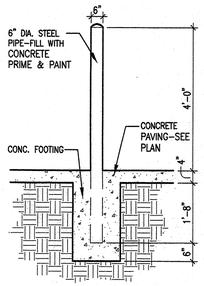


1 Site Plan
C1 1"=30'-0"

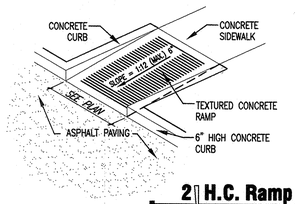
9 Dumpster Enclosure
C1 1/4"=1'-0"



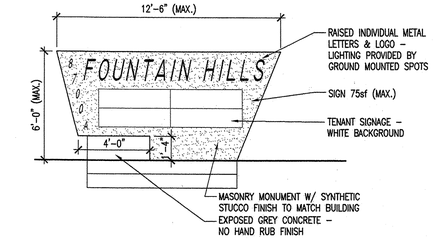
6 Dumpster Enclosure
C1 1/4"=1'-0"



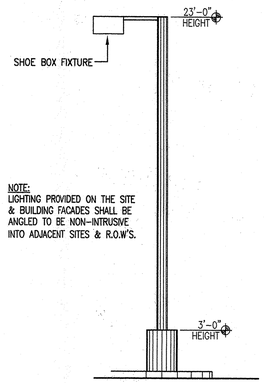
4 Bollard Detail
C1 1/2"=1'-0"



2 H.C. Ramp
C1 1/4"=1'-0"

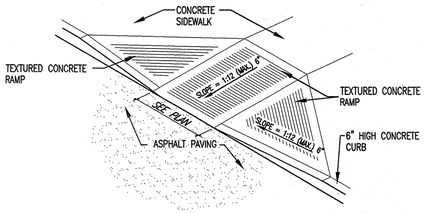


8 Monument Sign
C1 1/4"=1'-0"

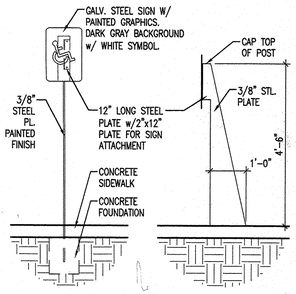


NOTE:
LIGHTING PROVIDED ON THE SITE & BUILDING FACADES SHALL BE ANGLED TO BE NON-INTRUSIVE INTO ADJACENT SITES & R.O.W'S.

5 Site Lighting
C1 N.T.S.



7 H.C. Ramp
C1 1/4"=1'-0"



3 H.C. Sign
C1 1/2"=1'-0"

SITE DATA

TRACT-E2 REQUIRED PARKING:	111 SPACES
PARKING REQUIREMENTS:	
GROUND FLOOR: 1 SPACE PER 200 SF 13,600 SF/200=68 SPACES	
UPPER FLOORS: 1 SPACE PER 300 SF 12,797 SF/300=43 SPACES	
PARKING PROVIDED:	111 SPACES
REQUIRED H.C. PARKING:	8 SPACES
H.C. PARKING PROVIDED:	8 SPACES
1 BICYCLE SPACE PER 20 PARKING SPACES BICYCLE PARKING PROVIDED:	6 SPACES
TRACT-F REQUIRED PARKING:	123 SPACES
PARKING REQUIREMENTS:	
GROUND FLOOR: 1 SPACE PER 200 SF 15,499 SF/200=78 SPACES	
UPPER FLOORS: 1 SPACE PER 300 SF 13,203 SF/300=45 SPACES	
PARKING PROVIDED:	129 SPACES
REQUIRED H.C. PARKING:	8 SPACES
H.C. PARKING PROVIDED:	8 SPACES
1 BICYCLE SPACE PER 20 PARKING SPACES BICYCLE PARKING PROVIDED:	7 SPACES
TOTAL REQUIRED PARKING:	234 SPACES
TOTAL PROVIDED PARKING:	243 SPACES

SITE DATA (CONT.)

LOCATION:	8750, 8700A, & 8700B EDUCATION PL. NW ALBUQUERQUE, NM 87114
OWNER:	INTERSTATE DEVELOPMENT CORPORATION INC. 4509 ALAMEDA NE SUITE B
(505) 821-5263	ALBUQUERQUE, NM 87113
LEGAL DESCRIPTION:	TRACT E & F ALBUQUERQUE WEST UNIT 1 ALBUQUERQUE, NM
CONSTRUCTION TYPE:	2-B FULLY SPRINKLED
TRACT-E2 UPC #:	101206438439410606
TRACT-F UPC #:	101206437535110613
CURRENT ZONING:	SU-1 PDA TO INCLUDE C-3 USES
ZONE ATLAS PAGE:	C-12
APPLICABLE CODE:	2003 IBC
TRACT-E2 LOT AREA: (1.7464 AC)	76,076 S.F.
TRACT-F LOT AREA: (2.4755 AC)	107,835 S.F.
TOTAL LOT AREA: (4.2219 AC)	183,911 S.F.
TRACT-E2 BUILDING FOOTPRINT AREA:	13,600 S.F.
TRACT-F BUILDINGS FOOTPRINT AREA:	15,499 S.F.
TOTAL BUILDING FOOTPRINT AREA:	29,099 S.F.
TRACT-E NET LOT AREA:	62,476 S.F.
TRACT-F NET LOT AREA:	92,336 S.F.
TOTAL NET LOT AREA:	154,812 S.F.
TRACT-E PAVED AREA:	37,262 S.F.
TRACT-F PAVED AREA:	46,008 S.F.
TOTAL PAVED AREA:	83,270 S.F.
TRACT-E LANDSCAPE AREA:	25,214 SF.
TRACT-F LANDSCAPE AREA:	46,328 S.F.
TOTAL LANDSCAPE AREA:	71,542 S.F.
TRACT-E LANDSCAPE % NET LOT AREA:	40 %
TRACT-F LANDSCAPE % NET LOT AREA:	50 %
TOTAL LANDSCAPE % NET LOT AREA:	46 %
TRACT-E LANDSCAPE TO PAVED AREA RATIO:	1:1.4
TRACT-F LANDSCAPE TO PAVED AREA RATIO:	1:1
TOTAL LANDSCAPE TO PAVED AREA RATIO:	1:1.2

SIGNATURE BLOCK

PROJECT NUMBER 100 3445

APPLICATION NUMBER 06DRB-00075

Is an infrastructure list required? ( )yes (X)no If yes, then a set of approved DRC plans with a work order is required for any construction within public right-of-way or for construction of public improvements.

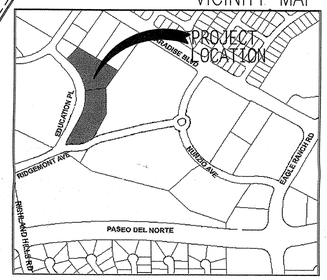
TRAFFIC ENGINEERING, TRANSPORTATION DIVISION	DATE: 1-5-06
UTILITIES DEVELOPMENT	DATE: 2/1/06
PARKS AND RECREATION	DATE: 2/1/06
CITY ENGINEER	DATE: 2/1/06
ENVIRONMENTAL HEALTH DEPT. (if required)	DATE:
SOLID WASTE MANAGEMENT	DATE: 1/17/06
DRB CHAIRPERSON, PLANNING DEPARTMENT	DATE: 2-1-06
NEW MEXICO GAS COMPANY	DATE: 1-16-06

AFD PLANS CHECKING OFFICE
924-3611
APPROVED/DISAPPROVED
1-17-06
SIGNATURE & DATE

GENERAL NOTES

1. VERIFY SITE UTILITY ROUTING AND NEW UTILITY CONNECTIONS WITH UTILITY PROVIDERS
2. CURBS DIMENSIONED TO FACE OF CURB U.N.O.
3. PATCH & REPAIR OR REPLACE EXISTING CURB & GUTTER ALONG STREET FRONTAGES AS NECESSARY IN COORDINATION W/ DRIVEWAY CONSTRUCTION
4. VERIFY ALL NEW DRIVEWAY REQ.'S W/ CITY OF ALBUQUERQUE STANDARDS
5. SITE LIGHTING
LIGHTING TO BE PROVIDED ON BUILDING FACADES TO BE CUT-OFF TYPE ANGLED TO BE NON-INTRUSIVE TO ADJACENT PROPERTIES AND RIGHT-OF-WAYS.

VICINITY MAP



FOUNTAIN HILLS
Education Pl AND Ridgemont Ave
ALBUQUERQUE NEW MEXICO

JLS ARCHITECTS
1600 rio grande nw
albuquerque
new mexico 87104
505 246 0870
fax 505 246 0437

Site Plan

REVISIONS

ARCHITECT

STATE OF NEW MEXICO JOEL E. SINGLE No. 3284 REGISTERED ARCHITECT 1-16-06

ENGINEER

RECEIVED JAN 21 2006 HYDROLOGY SECTION

DATE
1-16-06

SHEET
C1