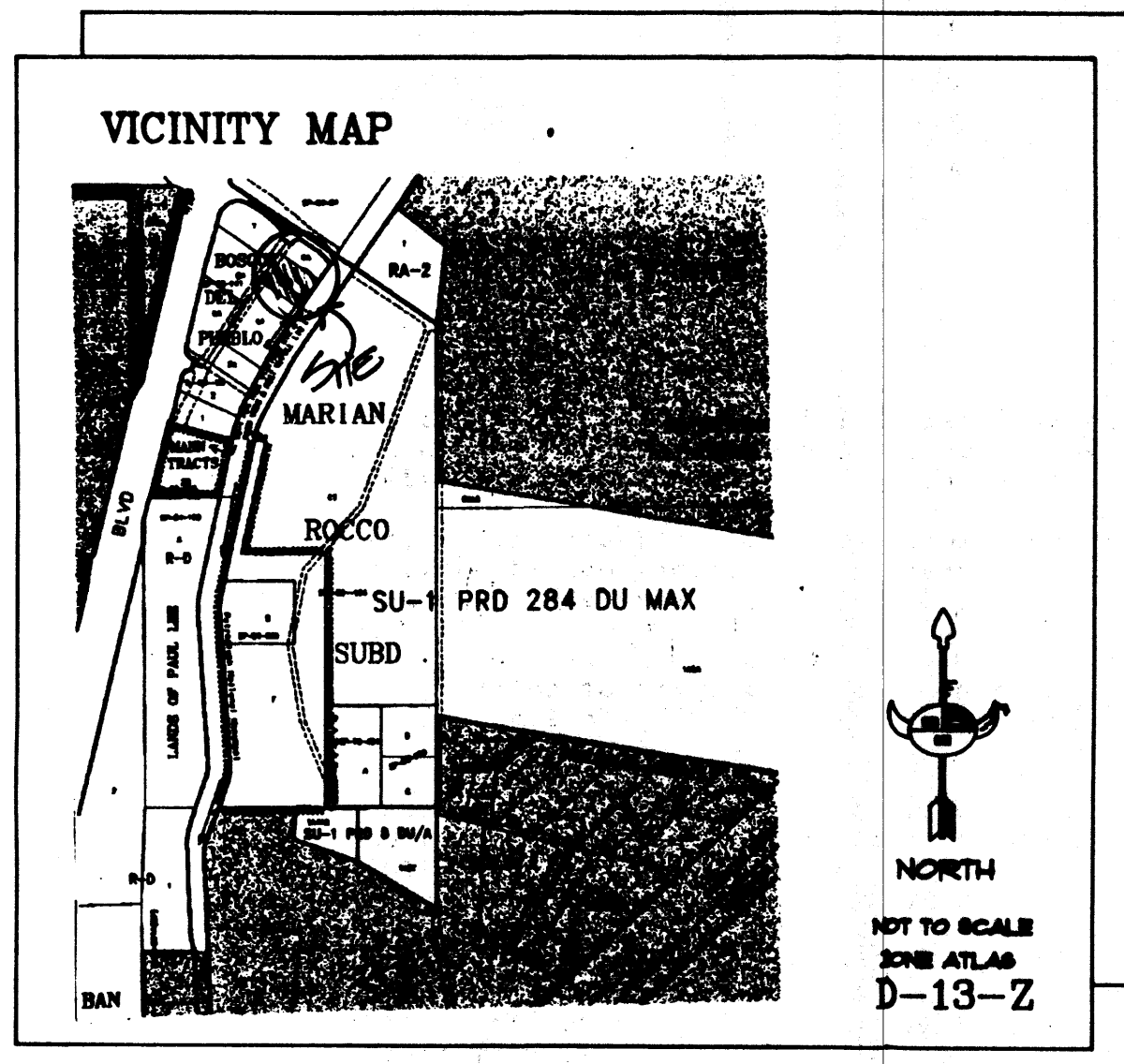




LEGAL DESCRIPTION
LOT 5A
BOSQUE DEL PEBLO SUBDIVISION
ALBUQUERQUE, BERNALILLO COUNTY,
NEW MEXICO.
UPC #1-013-063-065-481-202-15

EROSION CONTROL MEASURES.

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT OF STORM RUNOFF DURING CONSTRUCTION; HE SHALL INSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

- ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF TO LEAVE THE SITE AND ENTERING ADJACENT PROPERTY.
- ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER THE PUBLIC STREETS.
- THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY OR ALL SEDIMENT WITHIN THE PUBLIC STREETS THAT HAVE BEEN ERODED FROM THE SITE AND DEPOSITED THERE.

NOTE TO CONTRACTOR

1. An excavation/construction permit will be required before beginning any work within the City right-of-way. Approved copy of this plan must be submitted at the time of application for permit.
2. All work detailed in this plan to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with City of Albuquerque Interim Standard Specification for Public Works Construction 1985.
3. Two working days prior to any excavation, contractor must contact line locating services at (505) 280-1990 for locating existing utilities.
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all construction. 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 residential use.
6. 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.

DRAINAGE CALCULATIONS

- I. REFERENCES:
 - A. 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.
 - B. FLOODWAY, FLOOD BOUNDARY AND FLOODWAY MAP, CITY OF ALBUQUERQUE, NEW MEXICO, PANEL 08 OF 50.
- II. GENERAL INFORMATION:
 - A. SITE LIES IN ZONE ONE(1) (SEE REF. A, PAGE A-1)
 - B. ZONE VARIATION COEFFICIENT CRITERIA
 - C. TIME OF CONCENTRATION, T_c : $T_c = 0.2$ hr(12 MINUTES).

BASIN 'A'

IMPERVIOUSNESS:		EXISTING		PROPOSED	
TREATMENT	TYPES OF SURFACES	SQ. FT.	ACRES	SQ. FT.	ACRES
A	UNDEVELOPED	0	0.0000	0	0.0000
B	LANDSCAPING	0	0.0000	0	0.0000
C	COMPACTED/VACANT	0	0.0000	0	0.0000
D	IMPERVIOUS	3615	0.0830	3615	0.0830
	TOTAL AREA (TA)	3615	0.0830	3615	0.0830

ACCESSIBLE ROUTE
THE ACCESSIBLE ROUTE IS A PATH CONNECTING ALL ACCESSIBLE ELEMENTS AND SPACES WITHIN A SITE, BUILDING OR FACILITY THAT IS USABLE BY PERSONS WITH PHYSICAL DISABILITIES. IN THIS FACILITY THE ACCESSIBLE ROUTE CONSISTS OF WALKING SURFACES WITH A SLOPE NOT STEEPER THAN 1:20, RAMP WITH A SLOPE NOT STEEPER THAN 1:12, HC PARKING SPACES AND ACCESS AISLES WITH A SLOPE NOT GREATER THAN 1:48 IN ANY DIRECTION AND CLEAR FLOOR SPACE FOR ACCESSIBLE ELEMENTS. CROSS SLOPES SHALL NOT EXCEED 1:48.

SEDIMENT POND NOTES

- All flows from this site must pass through a sedimentation pond prior to discharging into the MRGCD Corrales main channel. The sedimentation pond will be designed to remove coarse silt (diameter equal to 0.03mm) the flow equal to 50% of the 100 year storm peak flow. The follow design criteria has been established on this criteria:
- Minimum pond sediment storage (Volume below outlet) shall equal 0.0024 ac.ft./ac of upstream drainage basin(Basin B)
 - Velocity of sediment fall shall equal Depth of pond(ft) /0.0002 ft./sec at Q(100)
 - Retention time in pond(sec) shall equal Depth of pond(ft) /0.0002 ft./sec
 - Maximum horizontal velocity in sediment pond shall equal 0.5 ft./sec @ Q(50)

IV. PEAK DISCHARGE 100 YEAR (REF. A, TABLE A-8):

TREATMENT	TYPES OF SURFACES	CFS/Ac	EXISTING Qp(100)	PROPOSED CFS/Ac	PROPOSED Qp(100)
A	UNDEVELOPED	1.28	0.00	1.28	0.00
B	LANDSCAPING	2.03	0.00	2.03	0.00
C	COMPACTED/VACANT	2.87	0.00	2.87	0.00
D	IMPERVIOUS	4.37	0.36	4.37	0.36
	PEAK DISCHARGE FROM SITE		0.36 CFS		0.36 CFS

V. PEAK DISCHARGE 10 YEAR (REF. A, TABLE A-8):

TREATMENT	TYPES OF SURFACES	CFS/Ac	EXISTING Qp(10)	PROPOSED CFS/Ac	PROPOSED Qp(10)
A	UNDEVELOPED	0.24	0.00	0.24	0.00
B	LANDSCAPING	0.76	0.00	0.76	0.00
C	COMPACTED/VACANT	1.49	0.00	1.49	0.00
D	IMPERVIOUS	2.89	0.24	2.89	0.24
	PEAK DISCHARGE FROM SITE		0.24 CFS		0.24 CFS

VI. WEIGHTED "E" 100 YEAR, 6 HR. (REF. A, TABLE A-8):

TREATMENT	TYPES OF SURFACES	E	EXISTING EXA/TA	PROPOSED E	PROPOSED EXA/TA
A	UNDEVELOPED	0.44	0.00	0.44	0.00
B	LANDSCAPING	0.67	0.00	0.67	0.00
C	COMPACTED/VACANT	0.89	0.00	0.89	0.00
D	IMPERVIOUS	1.97	1.97	1.97	1.97
	WEIGHTED "E" FACTOR		1.97 IN		1.97 IN

VII. VOLUME 100 YEAR, V(360) (REF. A, TABLE A-8):

EXISTING	PROPOSED
$1.97 \times 0.083/12 = 0.01$ AC. FT.	$1.97 \times 0.083/12 = 0.01$ AC. FT.
593.46 CU.FT.	593.46 CU.FT.

BASIN 'B'

IV. IMPERVIOUSNESS:

TREATMENT	TYPES OF SURFACES	SQ. FT.	ACRES	SQ. FT.	ACRES
A	UNDEVELOPED	27017	0.6202	0	0.0000
B	LANDSCAPING	0	0.0000	7005	0.1608
C	COMPACTED/VACANT	0	0.0000	0	0.0000
D	IMPERVIOUS	0	0.0000	20012	0.4584
	TOTAL AREA (TA)	27017	0.6202	27017	0.6202

IX. PEAK DISCHARGE 100 YEAR (REF. A, TABLE A-8):

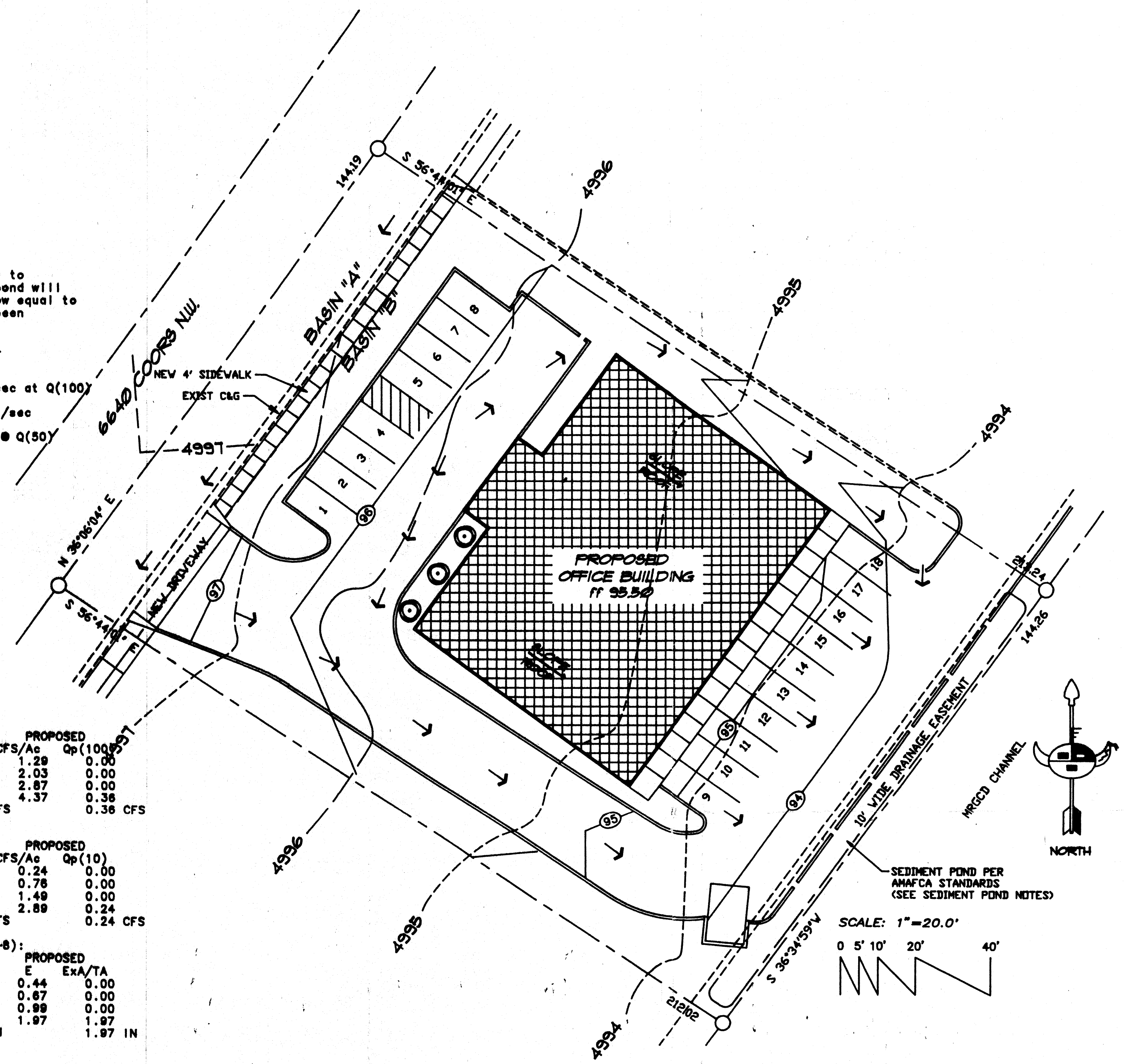
TREATMENT	TYPES OF SURFACES	CFS/Ac	EXISTING Qp(100)	PROPOSED CFS/Ac	PROPOSED Qp(100)
A	UNDEVELOPED	1.28	0.80	1.28	0.00
B	LANDSCAPING	2.03	0.00	2.03	0.33
C	COMPACTED/VACANT	2.87	0.00	2.87	0.00
D	IMPERVIOUS	4.37	0.00	4.37	2.01
	PEAK DISCHARGE FROM SITE		0.80 CFS		2.33 CFS

X. PEAK DISCHARGE 10 YEAR (REF. A, TABLE A-8):

TREATMENT	TYPES OF SURFACES	CFS/Ac	EXISTING Qp(10)	PROPOSED CFS/Ac	PROPOSED Qp(10)
A	UNDEVELOPED	0.24	0.15	0.24	0.00
B	LANDSCAPING	0.76	0.00	0.76	0.12
C	COMPACTED/VACANT	1.49	0.00	1.49	0.00
D	IMPERVIOUS	2.89	0.00	2.89	1.33
	PEAK DISCHARGE FROM SITE		0.15 CFS		1.45 CFS

XI. WEIGHTED "E" 100 YEAR, 6 HR. (REF. A, TABLE A-8):

TREATMENT	TYPES OF SURFACES	E	EXISTING EXA/TA	PROPOSED E	PROPOSED EXA/TA
A	UNDEVELOPED	0.44	0.44	0.44	0.00
B	LANDSCAPING	0.67	0.00	0.67	0.17
C	COMPACTED/VACANT	0.89	0.00	0.89	0.00
D	IMPERVIOUS	1.97	0.00	1.97	1.48
	WEIGHTED "E" FACTOR		0.44 IN		1.63 IN



GRADING & DRAINAGE PLAN

BENCH-MARK INFORMATION

TEMPORARY BENCH-MARK BEING THE TOP OF CURB AT THE SOUTH EAST CORNER BEARS ELEVATION 5104.44 (MSL). REFERENCE TO CITY BENCH-MARK 6-C17 BEARING ELEVATION 5120.280

SYMBOL LEGEND

- EXISTING CONTOUR
- EXISTING CONTOUR
- DESIGNED SPOT ELEVATION
- PROPERTY LINE
- EASEMENT LINE
- FLOW DIRECTION
- EXISTING SPOT ELEVATION
- DOWN SPOUT

ABBREVIATION LEGEND

- TOP OF CON. PAD
- TOP OF CURB
- TOP OF ASPHALT
- FLOWLINE

JUL 24 1997
HYDROLOGY SECTION

Job Number
9612

Date
June 16, 1997

Revised

Sheet Title
CONCEPTUAL
Grading and Drainage Plan

Drawn by
HOOD & COMPANY

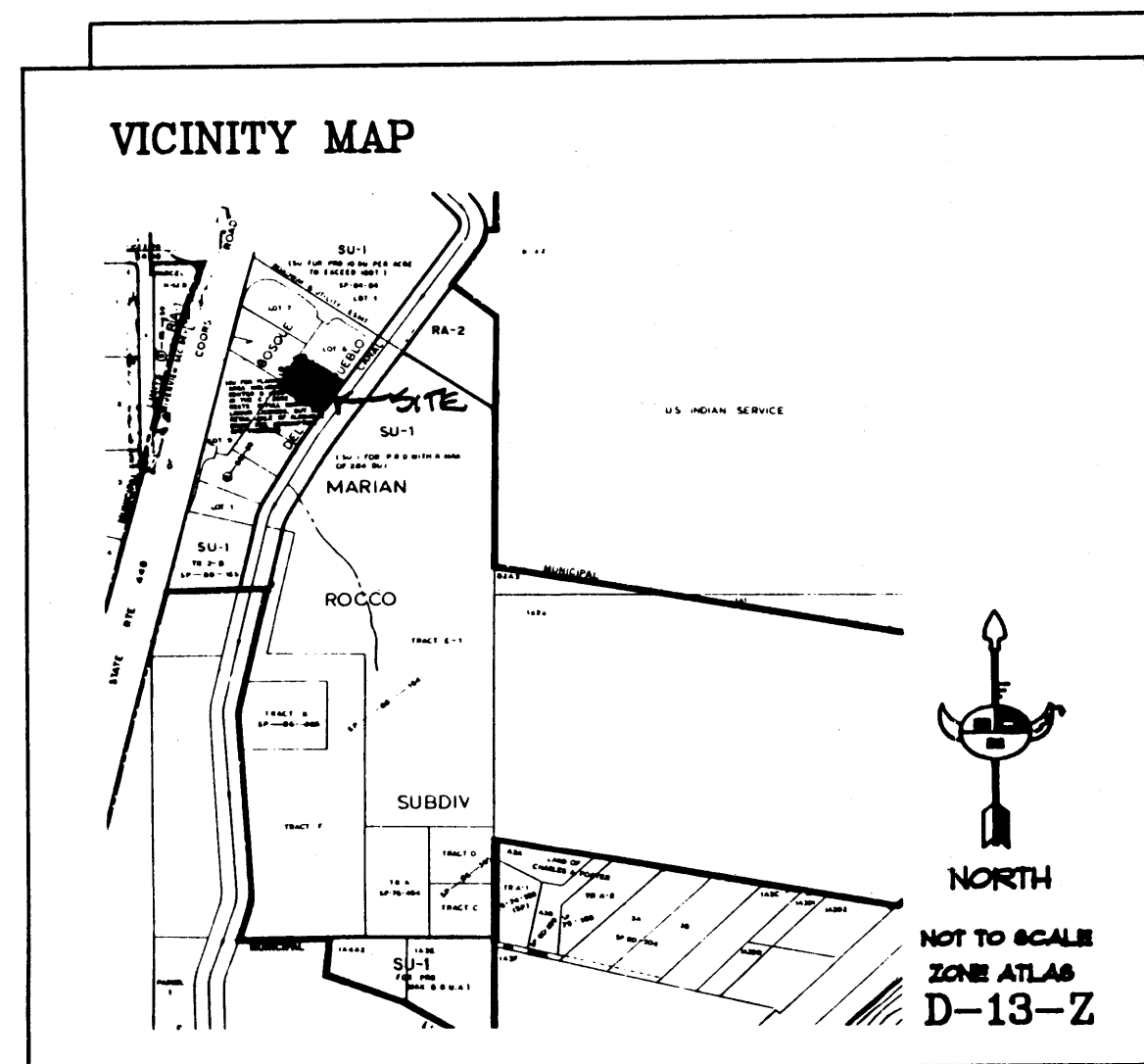
Checked by
RUS LEMAR

HOOD & COMPANY
DEVELOPMENT CONSULTANTS - GENERAL CONTRACTING

PROPOSED NEW MEXICO
ASSEMBLIES OF GOD OFFICE COMPLEX
ALBUQUERQUE, NEW MEXICO

Job Title

Sheet Number



LEGAL DESCRIPTION

LOT 5A
BOSQUE DEL PUEBLO SUBDIVISION
ALBUQUERQUE, BERNALILLO COUNTY,
NEW MEXICO.

UPC #1-013-063-065-481-202-15

EROSION CONTROL MEASURES.

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5. Backfill compaction shall be according to residential use.
6. 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.

DRAINAGE CALCULATIONS

- I. REFERENCES:
 - A. 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.
 - B. FLOODWAY, FLOOD BOUNDARY AND FLOODWAY MAP, CITY OF ALBUQUERQUE, NEW MEXICO, PANEL 08 OF 50.
- II. GENERAL INFORMATION:
 - A. SITE LIES IN ZONE ONE(1) (SEE REF. A, PAGE A-1)
 - B. 100 YEAR, 6 HOUR RAINFALL CRITERIA
 - C. TIME OF CONCENTRATION, $T_c = 0.2$ hr(12 MINUTES).
 - D. ZONE ATLAS PAGE D-13-Z.

BASIN 'A'

TREATMENT TYPE	TYPES OF SURFACES	EXISTING SQ.FT	ACRES	PROPOSED SQ.FT	ACRES
A	UNDEVELOPED	0	0.0000	0	0.0000
B	LANDSCAPING	0	0.0000	0	0.0000
C	COMPACTED/VACANT	0	0.0000	0	0.0000
D	IMPERVIOUS	3615	0.0830	3615	0.0830
	TOTAL AREA (TA)	3615	0.0830	3615	0.0830

ACCESSIBLE ROUTE
THE ACCESSIBLE ROUTE IS A PATH CONNECTING ALL ACCESSIBLE ELEMENTS AND SPACES WITHIN A SITE, BUILDING OR FACILITY THAT IS USABLE BY PERSONS WITH PHYSICAL DISABILITIES. IN THIS FACILITY THE ACCESSIBLE ROUTE CONSISTS OF WALKING SURFACES WITH A SLOPE NOT STEEPER THAN 1:20, RAMPS WITH A SLOPE NOT STEEPER THAN 1:12, NO PARKING SPACES AND ACCESS AISLES WITH A SLOPE NOT GREATER THAN 1:48 IN ANY DIRECTION AND CLEAR FLOOR SPACE FOR ACCESSIBLE ELEMENTS. CROSS SLOPES SHALL NOT EXCEED 1:48.

SEDIMENT POND NOTES & CALCULATIONS

All flows from this site must pass through a sedimentation pond prior to discharging into the MRGCD Corrales main channel. The sedimentation pond will be designed to remove coarse silt (diameter equal to 0.03mm) the flow equal to 50% of the 100 year storm peak flow. The follow design criteria has been established on this criteria:

- Minimum pond sediment storage (Volume below outlet) shall equal 0.0024 ac.ft./ac of upstream drainage basin(Basin B)
- Velocity of sediment fall shall equal Depth of pond(ft) / 0.0002 ft./sec at Q(100)
- Retention time in pond(sec) shall equal Depth of pond(ft) / 0.0002 ft./sec
- Maximum horizontal velocity in sediment pond shall equal 0.5 ft./sec @ Q(50)

Q100(LOT 3A)=1.80 cfs(D13/D1-C)
Q100(LOT 4A)=5.00 cfs(D13/D7)
Q100(LOT 5A)=2.33 cfs(C13/D1-C)
TOTAL=9.13 cfs

Areas
LOT 3A=0.55 ac
LOT 4A=1.33 ac
LOT 5A=0.62 ac
TOTAL=2.50 ac

Volume Required = 0.0024 ac-ft/ac = 0.0024*2.5*43560 = 261cf

V=0.47 ft/sec (see channel hydraulic calculations)
d=0.56 ft
t Retain = 0.56 ft/0.002 ft/sec=2.80 sec
L(280 sec)*(0.46 ft/sec)=132 ft

IV. PEAK DISCHARGE 100 YEAR (REF. A, TABLE A-9):

TREATMENT TYPE	TYPES OF SURFACES	EXISTING CFS/Ac	Qp(100)	PROPOSED CFS/Ac	Qp(100)
A	UNDEVELOPED	1.29	0.00	1.29	0.00
B	LANDSCAPING	2.03	0.00	2.03	0.00
C	COMPACTED/VACANT	2.87	0.00	2.87	0.00
D	IMPERVIOUS	4.37	0.36	4.37	0.36
	PEAK DISCHARGE FROM SITE		0.36 CFS		0.36 CFS

V. PEAK DISCHARGE 10 YEAR (REF. A, TABLE A-9):

TREATMENT TYPE	TYPES OF SURFACES	EXISTING CFS/Ac	Qp(10)	PROPOSED CFS/Ac	Qp(10)
A	UNDEVELOPED	0.24	0.00	0.24	0.00
B	LANDSCAPING	0.76	0.00	0.76	0.00
C	COMPACTED/VACANT	1.49	0.00	1.49	0.00
D	IMPERVIOUS	2.89	0.24	2.89	0.24
	PEAK DISCHARGE FROM SITE		0.24 CFS		0.24 CFS

VI. WEIGHTED "E" 100 YEAR, 6 HR. (REF. A, TABLE A-8):

TREATMENT TYPE	TYPES OF SURFACES	EXISTING E	EXA/TA	PROPOSED E	EXA/TA
A	UNDEVELOPED	0.44	0.00	0.44	0.00
B	LANDSCAPING	0.67	0.00	0.67	0.00
C	COMPACTED/VACANT	0.99	0.00	0.99	0.00
D	IMPERVIOUS	1.97	1.97	1.97	1.97
	WEIGHTED "E" FACTOR		1.97 IN		1.97 IN

VII. VOLUME 100 YEAR, V(360) (REF. A, TABLE A-8):

EXISTING	PROPOSED
1.97 x 0.083/12 = 0.01 AC. FT.	1.97 x 0.083/12 = 0.01 AC. FT.
593.48 CU.FT	593.48 CU.FT

BASIN 'B'

IV. IMPERVIOUSNESS:

TREATMENT TYPE	TYPES OF SURFACES	EXISTING SQ.FT	ACRES	PROPOSED SQ.FT	ACRES
A	UNDEVELOPED	27017	0.6202	0	0.0000
B	LANDSCAPING	0	0.0000	7005	0.1608
C	COMPACTED/VACANT	0	0.0000	0	0.0000
D	IMPERVIOUS	0	0.0000	20012	0.4584
	TOTAL AREA (TA)	27017	0.6202	27017	0.6202

IX. PEAK DISCHARGE 100 YEAR (REF. A, TABLE A-9):

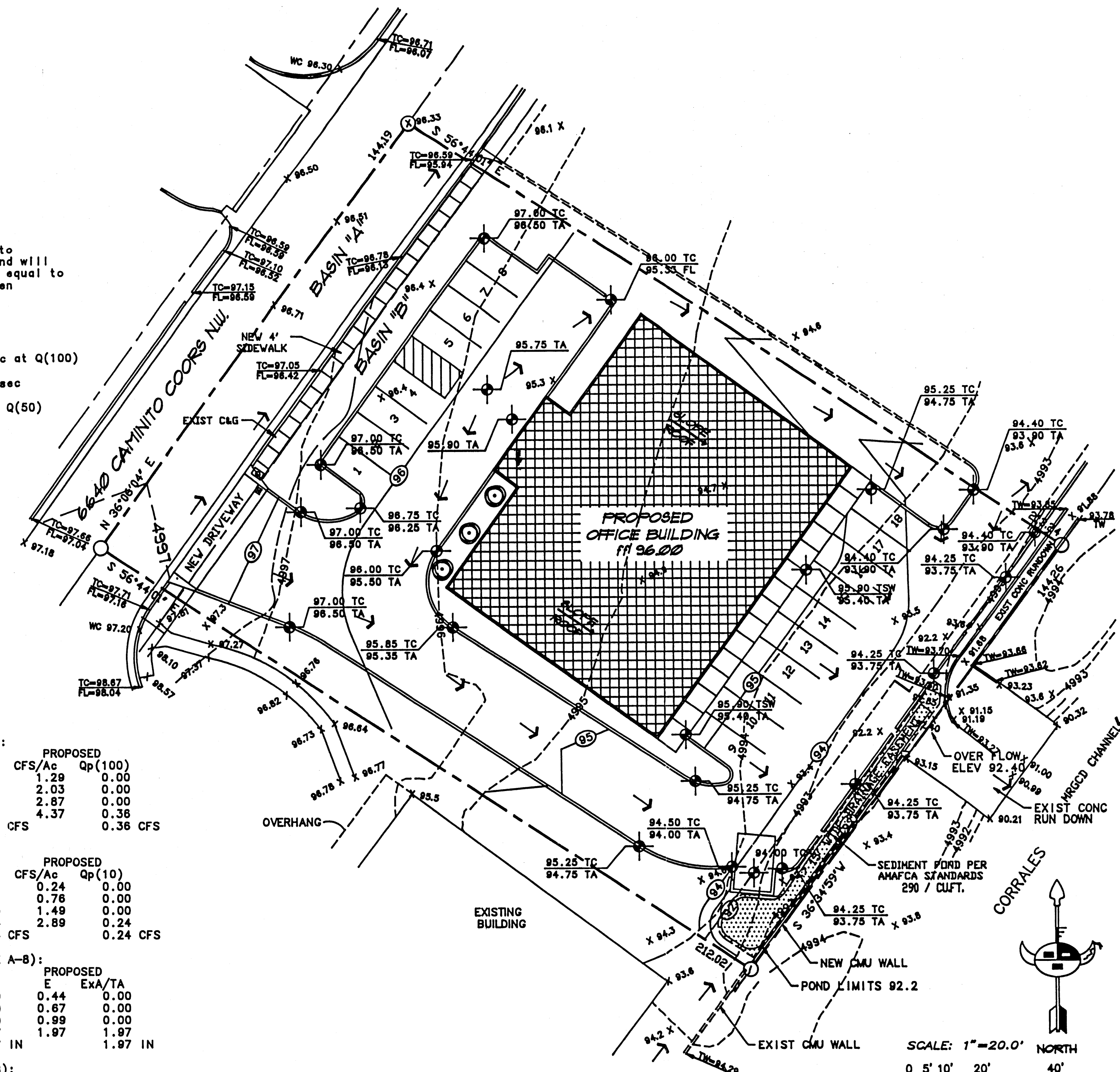
TREATMENT TYPE	TYPES OF SURFACES	EXISTING CFS/Ac	Qp(100)	PROPOSED CFS/Ac	Qp(100)
A	UNDEVELOPED	1.29	0.80	1.29	0.00
B	LANDSCAPING	2.03	0.00	2.03	0.33
C	COMPACTED/VACANT	2.87	0.00	2.87	0.00
D	IMPERVIOUS	4.37	0.00	4.37	2.01
	PEAK DISCHARGE FROM SITE		0.80 CFS		2.33 CFS

X. PEAK DISCHARGE 10 YEAR (REF. A, TABLE A-9):

TREATMENT TYPE	TYPES OF SURFACES	EXISTING CFS/Ac	Qp(10)	PROPOSED CFS/Ac	Qp(10)
A	UNDEVELOPED	0.24	0.15	0.24	0.00
B	LANDSCAPING	0.76	0.00	0.76	0.12
C	COMPACTED/VACANT	1.49	0.00	1.49	0.00
D	IMPERVIOUS	2.89	0.00	2.89	1.33
	PEAK DISCHARGE FROM SITE		0.15 CFS		1.45 CFS

XI. WEIGHTED "E" 100 YEAR, 6 HR. (REF. A, TABLE A-8):

TREATMENT TYPE	TYPES OF SURFACES	EXISTING E	EXA/TA	PROPOSED E	EXA/TA
A	UNDEVELOPED	0.44	0.44	0.44	0.00
B	LANDSCAPING	0.67	0.00	0.67	0.17
C	COMPACTED/VACANT	0.99	0.00	0.99	0.00
D	IMPERVIOUS	1.97	0.00	1.97	1.46
	WEIGHTED "E" FACTOR		0.44 IN		1.63 IN



GRADING & DRAINAGE PLAN

BENCH-MARK INFORMATION

TEMPORARY BENCH-MARK BEING THE TOP OF ASPHALT AT THE NORTHWEST CORNER BEARS ELEVATION 4996.33 (MSL). REFERENCE TO CITY BENCH-MARK 6-C17 BEARING ELEVATION 5120.260

SYMBOL LEGEND

EXISTING CONTOUR	---	5102
EXISTING CONTOUR	---	29
DESIGNED SPOT ELEVATION	27.50 TC	27.00 TA
PROPERTY LINE	---	
EASEMENT LINE	---	
FLOW DIRECTION	←	
EXISTING SPOT ELEVATION	HIGH POINT	TW=93.85
	GROUND SHOT	X 91.88
DOWN SPOUT	□	

ABBREVIATION LEGEND

TOP OF CON. PAD	---	TOP
TOP OF CURB	---	TC
TOP OF ASPHALT	---	TA
FLOWLINE	---	FL
TOP OF WALL	---	TW

RECEIVED
JAN 08 1998
HYDROLOGY SECTION

Job Number
9612

Date
June 16, 1997

Revised

Grading and Drainage Plan

Sheet Title

Drawn by HUWOOD

Checked by R.G. LEE, JR.

HOOD & COMPANY
DEVELOPMENT CONSULTANTS - GENERAL CONTRACTING

300 UNIVERSITY ST. NE • ALBUQUERQUE, NM • 87102 • (505) 262-3707

PROPOSED NEW MEXICO
ASSEMBLIES OF GOD OFFICE COMPLEX
ALBUQUERQUE, NEW MEXICO

Job Title

Sheet Number