HYDROLOGY

G14/D3
NO DOCUMENTS
1 PLAN

G 14/D3

1 Plan
No Documents

117 VERANDA RD. N.W.

12'-2" "SIDEWALK"

PROP. LINE

207'-91"

PROP. LINE

40'

5'

25'

40'

120'-0"

PROP. LINE

10'-1"

PROP. LINE

207'-91"

BLOCK C
LOTS 13-14-15
MONK BRIDGE ADD.
AL MORAN SIGNS

(.95-.5) = .47

$\frac{1600}{43,560} \times .47 \times 2.3 = .04$ CFS

$.04 \times 60 \times 60 = 142.9$ CU.F

APPROVED: [signature]
FOR DRAINAGE
9/6/73

PUBLIC WORKS/HYDROLOGY

G14/D3

LEGAL DESCRIPTION

LOT 13-A, BLOCK C
MONKBRIDGE ADDITION
BERNALILLO COUNTY,
NEW MEXICO.

DRAINAGE CALCULATIONS

I. REFERENCES:
- A. CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) VOL. 2 "DESIGN CRITERIA", CHAPTER 22: DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL.
- B. SOIL SURVEY OF BERNALILLO COUNTY AND PARTS OF SANDOVAL AND VALENCIA COUNTIES, NEW MEXICO, UNITED STATES DEPARTMENT OF AGRICULTURE , SOIL CONSERVATION SERVICE.
- C. FLOODWAY, FLOOD BOUNDARY AND FLOODWAY MAP, CITY OF ALBUQUERQUE, NEW MEXICO, PANEL 22 OF 50.
- D. ZONE ATLAS G-14-Z

II. GENERAL INFORMATION:
- A. SOIL TYPE (REF. B, PAGE 21) SOIL TYPE IS GLENDALE (Gm), HYDROLOGIC SOIL GROUP "B".
- B. IMPERVIOUSNESS:
- C. IMPERVIOUSNESS:

TYPE OF SURFACES	EXISTING SQ.FT	EXISTING ACRES	PROPOSED SQ.FT	PROPOSED ACRES
BUILDING ROOF	3840	0.0882	4640	0.1065
CONCRETE SURFACES	2000	0.0459	1200	0.0275
ASPHALT SURFACES	0	0.0000	3830	0.0879
LANDSCAPING	0	0.0000	2500	0.0574
UNDEVELOPED	18950	0.4350	12620	0.2897
SITE TOTAL	24790	0.5691	24790	0.5691

"C" FACTOR

EXISTING IMPERVIOUS SURFACES

	"C" FACTOR	AREA	C X A
BUILDING ROOF	0.90	0.0882	0.0794
CONCRETE SURFACES	0.95	0.0459	0.0436
ASPHALT SURFACES	0.95	0.0000	0.0000
LANDSCAPING	0.25	0.0000	0.0000
UNDEVELOPED	0.40	0.4350	0.1740
SITE TOTAL		0.5691	0.2970

EXISTING WEIGHTED "C" FACTOR 0.52

PROPOSED IMPERVIOUS SURFACES

	"C" FACTOR	AREA	C X A
BUILDING ROOF	0.90	0.1065	0.0959
CONCRETE SURFACES	0.95	0.0275	0.0262
ASPHALT SURFACES	0.95	0.0879	0.0835
LANDSCAPING	0.25	0.0574	0.0143
UNDEVELOPED	0.40	0.2897	0.1159
SITE TOTAL		0.5691	0.3358

PROPOSED WEIGHTED "C" FACTOR 0.59

- D. 100 YEAR RAINFALL, 6 HOUR, P(6): (DPM HAND BOOK): P(6) = 2.20 INCHES
- E. TIME OF CONCENTRATION, Tc: Tc = 10 MINUTES (USE 10 MINUTES (MINIMUM VALUE) FOR CALCULATIONS.
- F. RAINFALL INTENSITY, I: (SEE REF. A, PLATE 22.2 D-2)
  I = P(6) x 6.84 x Tc EXP. (-0.51)
  = 2.10 x 6.84 x 10 EXP. (-0.51)
  = 4.05 INCHES

III. PEAK DISCHARGE: (RATIONAL METHOD)
- A. EXISTING CONDITION
  Q(100) = 0.94 x 4.65 x 0.5691 = 1.98 CFS
  Q(10) = 0.657 x 1.98 = 0.90 CFS(REF A, PLATE 22.2D-1)
- B. PROPOSED CONDITION
  Q(100) = 0.590 x 4.65 x 0.5691 = 1.56 CFS
  Q(10) = 0.657 x 1.56 = 1.03 CFS(REF A, PLATE 22.2D-1)

IV VOLUME OF DISCHARGE (SCS METHOD)

EXISTING CONDITION
- P(6) = 2.2IN.
- CN = 63
- A(SQ.FT) = 24790
- Q(INCHES)= 1.051438/6.898412
  = 0.152417
- VOLUME = 314.8691 CU.FT.

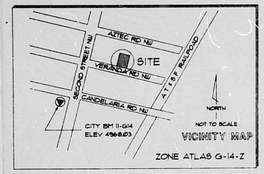
PROPOSED CONDITION

IMPERVIOUS AREA
- P(e) = 2.2IN.
- CN = 90
- A(SQ.FT) = 9670
- Q(INCHES)= 1.911604/3.088888
  = 1.266346
- VOLUME = 1020.464 CU.FT.

PERVIOUS AREA (LANDSCAPE)
- P(e) = 2.2IN.
- CN = 40
- A(SQ.FT) = 2500
- Q(INCHES)= 0.64/14.2
  = 0.04507C
- VOLUME = 9.389671 CU.FT.

UNDEVELOPED AREA
- P(e) = 2.2
- CN = 63
- A(SQ.FT) = 12620
- Q(INCHES)= 1.051438/6.898412
  = 0.152417
- VOLUME = 160.2923 CU.FT.

TOTAL RUNOFF GENERATED DUE TO DEVELOPMENT 875.2775 CU.FT.



FLOOD INFORMATION

THIS SITE DOES NOT LAY IN A DESIGNATED 100 YEAR FLOOD PLAIN. FLOODWAY MAP PANEL 22 OF 50.

GENERAL NOTES:

A. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 765-1234 FOR LOCATION OF EXISTING UTILITIES.

B. PRIOR TO CONSTRUCTION , THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

C. 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.

D. ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

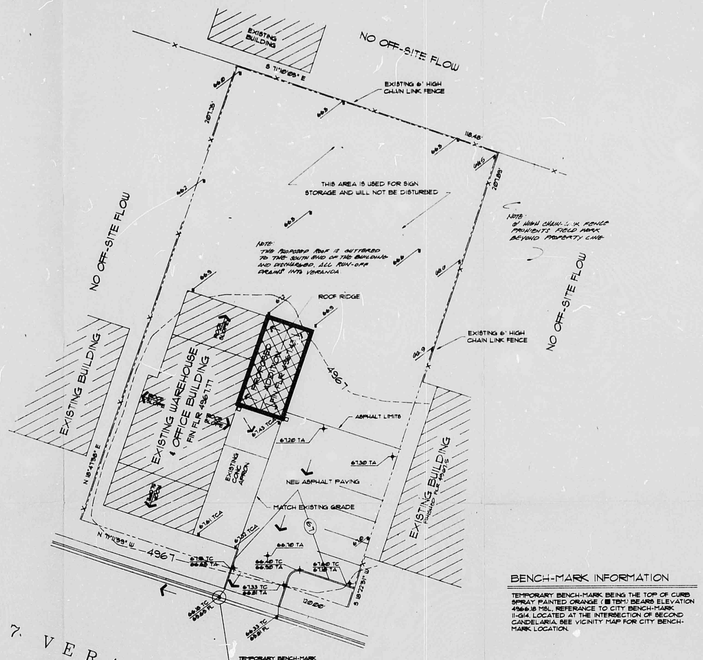
E. FINISH FLOOR ELEVATION SHOWN HEREON REFLECTS THE LEVEL PORTION OF THE BUILDING. SEE ARCHITECTURAL PLANS FOR DETAILS.

EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT FOR 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, FENCES 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.

HYDROLOGY APPROVAL & INSPECTION

APPROVED FOR BUILDING PERMIT
ENGINEER D. Metzger DATE 2/11/91
INSPECTION REQUESTED DATE
APPROVAL DATE DISAPPROVED
SO19 APPROVAL DATE
SURVEY DATE
HYDROLOGY BOOK NO/PAGE NO.
SURVEYED BY
COMMENTS



BENCH-MARK INFORMATION

TEMPORARY BENCH-MARK BEING THE TOP OF CURB SPRAY PAINTED ORANGE (⊠ TBM) BEARS ELEVATION 4966.18 MSL. REFERANCE TO CITY BENCH-MARK 11-G14 LOCATED AT THE INTERSECTION OF SECOND CANDELARIA. SEE VICINITY MAP FOR CITY BENCH-MARK LOCATION.

ABBREVIATION LEGEND

TOP OF CONC APRON	TCA
TOP OF CURB	TC
TOP OF ASPHALT	TA

SYMBOL LEGEND

- EXISTING CONTOUR — 5102
- DESIGN CONTOUR — 100
- PROPOSED SPOT ELEVATION — 100.40TC
- PROPERTY LINE
- EASEMENT LINE
- FLOW DIRECTION
- EXISTING SPOT ELEVATION — 4967
- DOWN SPOUT □

0 5' 10' 20' 40'

GRADING & DRAINAGE PLAN

SCALE: 1"=20.0'

job no: 9052
date: Oct 90
revised:

sheet title: SITE PAVING & GRADING PLAN
HYDROLOGY APPLY
drawn by: HH checked by: R.A.K.

job title: A REPLAT OF LOT 13-A, BLOCK C MONKBRIDGE ADDITION TO THE CITY OF ALBUQUERQUE, NEW MEXICO
117 VERANDA, N.W.
ALBUQUERQUE, NEW MEXICO

MILLER and ASSOCIATES ARCHITECTS PLANNERS
Albuquerque, New Mexico 87107

RECEIVED
FEB 6 1991
HYDROLOGY DIVISION

SHEET OF

RE: Lot DATE 3-26-91 (REV 2-6-91)

CITY OF ALBUQUERQUE

This microimage is certified to be a complete and accurate copy of the original as it appears in the files of the Public Works Department and was created in the normal course of business.

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DIRECTOR

CITY OF ALBUQUERQUE
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OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO

PLANS/PLATS ON FILE

FILE DESC: 6141D3

PLANS/PLATS 3

E 30 D 24 C 20 B 16 A 12 | CITY OF ALBUQUERQUE | C D F

LEGAL DESCRIPTION

LOT 11, BLOCK C
MONK RIDGE ADDITION
BERNALILLO COUNTY,
NEW MEXICO.

DRAINAGE CALCULATIONS

I. REFERENCES:
- A. CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) VOL. 2 DESIGN CRITERIA, CHAPTER 22: DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL.
- B. SOIL SURVEY OF BERNALILLO COUNTY AND PARTS OF SANDOVAL AND VALENCIA COUNTIES, NEW MEXICO, UNITED STATES DEPARTMENT OF AGRICULTURAL, SOIL CONSERVATION SERVICE.
- C. FLOODWAY, FLOOD BOUNDARY AND FLOODWAY MAP, CITY OF ALBUQUERQUE, NEW MEXICO, PANEL 22 OF 50.
- D. ZONE ATLAS PAGE G-14-Z.

II. GENERAL INFORMATION:
- A. SOIL TYPE (REF. B, PAGE 20) SOIL TYPE IS GLENDALE (Gm), HYDROLOGIC SOIL GROUP "B".
- B. IMPERVIOUSNESS:

TYPE OF SURFACES	EXISTING SQ.FT	EXISTING ACRES	PROPOSED SQ.FT	PROPOSED ACRES
BUILDING ROOF	2000	0.0459	3000	0.0689
CONCRETE SURFACES	50	0.0011	120	0.0028
ASPHALT SURFACES	0	0.0000	3955	0.0908
LANDSCAPING	0	0.0000	479	0.0110
UNDEVELOPED	9993	0.2294	4489	0.1031
SITE TOTAL	12043	0.2765	12043	0.2765

- C. "C" FACTOR

EXISTING IMPERVIOUS SURFACES

	"C" FACTOR	AREA	C X A
BUILDING ROOF	0.90	0.0459	0.0413
CONCRETE SURFACES	0.95	0.0011	0.0011
ASPHALT SURFACES	0.90	0.0000	0.0000
LANDSCAPING	0.25	0.0000	0.0000
UNDEVELOPED	0.40	0.2294	0.0918
SITE TOTAL		0.2765	0.1342

EXISTING WEIGHTED "C" FACTOR 0.485

PROPOSED IMPERVIOUS SURFACES

	"C" FACTOR	AREA	C X A
BUILDING ROOF	0.90	0.0689	0.0620
CONCRETE SURFACES	0.95	0.0028	0.0026
ASPHALT SURFACES	0.90	0.0908	0.0817
LANDSCAPING	0.25	0.0110	0.0027
UNDEVELOPED	0.40	0.1031	0.0412
SITE TOTAL		0.2765	0.1948

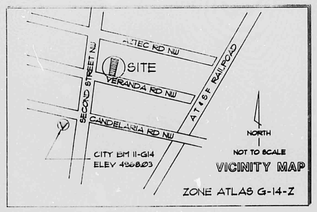
PROPOSED WEIGHTED "C" FACTOR 0.705

- D. 100 YEAR RAINFALL, 6 HOUR, P(6); (SEE REF. A, PLATE 22.2 D-1); P(6) = 2.20 INCHES. (INTERPOLATION VALUE)
- E. TIME OF CONCENTRATION, Tc; Tc = 10 MINUTES (USE 10 MINUNTES (MINIMUM VALUE) FOR CALCULATIONS.
- F. RAINFALL INTENSITY, I; (SEE REF. A, PLATE 22.2 D-2)
  I = P(6) x 6.84 x Tc EXP.(-0.51)
  = 2.20 x 6.84 x 10 EXP (-0.51)
  = 4.65 INCHES

III. PEAK DISCHARGE: (RATIONAL METHOD)
- A. EXISTING CONDITION
  Q(100)= 0.485 X 4.65 X 0.2765 = 0.62 CFS
  Q(10) = 0.657 X 0.623 = 0.40 CFS (REF A, PLATE 22.2D-1)
- B. PROPOSED CONDITION
  Q(100)= 0.704 X 4.65 X 0.2765 = 0.90 CFS
  Q(10) = 0.857 X 0.905 = 0.59 CFS (REF A, PLATE 22.2D-1)

IV. VOLUME: TOTAL DEVELOPED AREA (REF A, PLATE 22.2C-2,3,4)

EXISTING CONDITIONS	PROPOSED CONDITIONS
IMPERVIOUS AREA	IMPERVIOUS AREA
P(6) = 2.2	P(6) = 2.2
CN = 95	CN = 95
A(SQ.FT) = 2000	A(SQ.FT) = 7075
Q(INCHES)= 4.387 / 2.621 = 1.674	Q(INCHES)= 4.387/2.621 = 1.674
VOLUME = 279.0 CU.FT.	VOLUME= 987.0 CU.FT.
PERVIOUS AREA (LANDSCAPE)	PERVIOUS AREA (LANDSCAPE)
P(6) = 0	P(6) = 2.2
CN = 40	CN = 40
A(SQ.FT) = 0	A(SQ.FT) = 479
Q(INCHES)= 9/12.000 = 0.75	Q(INCHES)= 0.64/14.2 = 0.045
VOLUME = 0 CU.FT.	VOLUME= 1.799 CU.FT.
UNDEVELOPED AREA	UNDEVELOPED AREA
P(6) = 2.2	P(6) = 2.2
CN = 63	CN = 63
A(SQ.FT) = 9993	A(SQ.FT) = 4489
Q(INCHES)= 1.051/6.898 = 0.152	Q(INCHES)= 1.051/6.898 = 0.152
VOLUME = 126.9 CU.FT.	VOLUME = 57.01 CU.FT.
TOTAL 406 CU.FT.	TOTAL 1045 CU.FT.



VICINITY MAP
ZONE ATLAS G-14-Z

BENCH-MARK INFORMATION

TEMPORARY BENCH-MARK BEING THE TOP OF CURB SPRAY PAINTED ORANGE (■ TBM) BEARS ELEVATION 4966.81 MSL. REFERANCE TO CITY BENCH-MARK 11-G14, LOCATED AT THE INTERSECTION OF SECOND CANDELARIA. SEE VICINITY MAP FOR CITY BENCH-MARK LOCATION.

PROJECT BRIEF

EXISTING STRUCTURES ARE NOT SHOWN HOWEVER THE DRAINAGE CALCULATIONS REFLECT THE IMPERVIOUS CONDITIONS. THIS REDEVELOPMENT WILL HAVE MINIMAL IMPACT ON DOWNSTREAM CONDITIONS. RUNOFF GENERATED ARE DISCHARGED DIRECTLY IN TO THE STORM DRAINAGE SYSTEM VIA NEW CATCH BASIN ON SITE.

CONSTRUCTION NOTES

1. EXISTING STANDARD TYPE "C" CATCH BASIN TO BE REMOVED AND REPLACED WITH A NEW TYPE "D" INSTALL PER CITY STANDARD DRAWING K-6-3. MATCH EXISTING FLOWLINE AND INVERT ELEVATIONS AS SHOWN ON DRAWING HEREON.
2. TIE NEW 12" PVC SCHEDULE 40 STORM SEWER MAIN TO THE BACK OF THE CATCH BASIN PER CITY STANDARD DRAWING K-17-2.
3. INSTALL NEW STANDARD TYPE "D" CATCH BASIN PER CITY STANDARD DRAWING K-6-3 WITH TOP OF GRATE ELEVATION 4966.50 AND INVERT ELEVATION 4964.00.

FLOOD INFORMATION

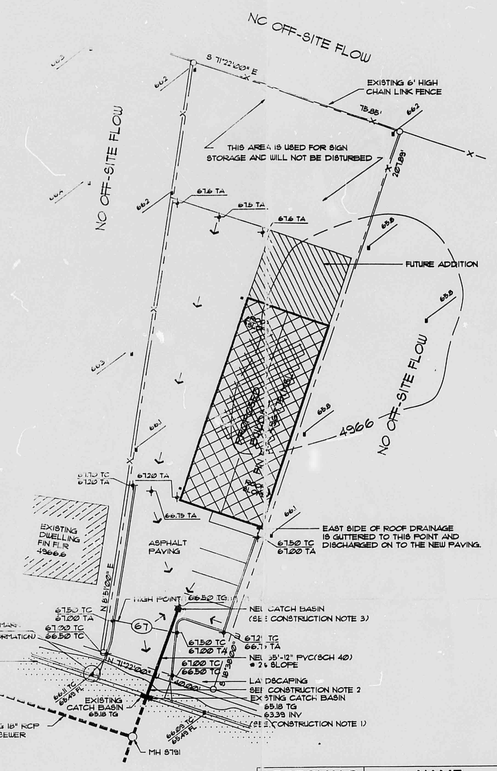
THIS SITE LIES WITHIN A ZONE C FLOODING, AREAS OF MINIMAL FLOODING. A 100 YEAR, ZONE AO(DEPTH 1) ENCROACHES ON TO THE PROPERTY FROM THE STREET. SEE THE FLOOD LIMITS ON DRAWING.

GENERAL NOTES:

- A. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 765-1234 FOR LOCATION OF EXISTING UTILITIES.
- B. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- C. 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.
- D. ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT FOR 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.*



APPROVALS	NAME	DATE
A.C.E/Design		
Inspector		
A.C.E/Field		

117 VERANDA ROAD N. W.

ABBREVIATION LEGEND

TOP OF CONC APRON	TCA
TOP OF CURB	TC
TOP OF ASPHALT	TA

SYMBOL LEGEND

EXISTING CONTOUR	5102
DESIGN CONTOUR	103
PROPOSED SPOT ELEVATION	6650 TC
PROPERTY LINE	
EASEMENT LINE	
FLOW DIRECTION	
EXISTING SPOT ELEVATION	
DOWN SPOUT (NO TO SCALE)	

GRADING & DRAINAGE PLAN

SCALE: 1"=20.0'

0 5' 10' 20' 40'

A. E. LEE, JR. NEW MEXICO 10787 REGISTERED PROFESSIONAL ENGINEER 07/25/91

job no:
date:
revised:
sheet title:
drawn by:
checked by:
job title:
SHEET OF

MILLER and ASSOCIATES ARCHITECTS PLANNERS 2823 Richmond, NE. Albuquerque, N.M. 87107

AUG 30 1991
HYDROLOGY DIVISION

CITY OF ALBUQUERQUE
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R# 26 DATE 3-26-92 ODP ESP

CITY OF ALBUQUERQUE

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DIRECTOR 11/5/82

NOTARY PUBLIC
OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE C

LEGAL DESCRIPTION

LOT 11, BLOCK C
MONKBRIDGE ADDITION
BERNALILLO COUNTY,
NEW MEXICO.

DRAINAGE CALCULATIONS

I. REFERENCES:
- A. CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) VOL. 2 DESIGN CRITERIA, CHAPTER 22: DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL.
- B. SOIL SURVEY OF BERNALILLO COUNTY AND PARTS OF SANDOVAL AND VALENCIA COUNTIES, NEW MEXICO, UNITED STATES DEPARTMENT OF AGRICULTURAL, SOIL CONSERVATION SERVICE.
- C. FLOODWAY, FLOOD BOUNDARY AND FLOODWAY MAP, CITY OF ALBUQUERQUE, NEW MEXICO, PANEL 22 OF 50.
- D. ZONE ATLAS PAGE G-14-Z.

II. GENERAL INFORMATION:
- A. SOIL TYPE (REF. B, PAGE 20) SOIL TYPE IS GLENDALE (Gn), HYDROLOGIC SOIL GROUP "B".
- B. IMPERVIOUSNESS:

TYPE OF SURFACES	EXISTING SQ.FT	EXISTING ACRES	PROPOSED SQ.FT	PROPOSED ACRES
BUILDING ROOF	2000	0.0459	3000	0.0689
CONCRETE SURFACES	50	0.0011	120	0.0028
ASPHALT SURFACES	0	0.0000	3955	0.0908
LANDSCAPING	0	0.0000	479	0.0110
UNDEVELOPED	9993	0.2294	4489	0.1031
SITE TOTAL	12043	0.2765	12043	0.2765

- C. "C" FACTOR
  EXISTING IMPERVIOUS SURFACES

	"C" FACTOR	AREA	C X A
BUILDING ROOF	0.90	0.0459	0.0413
CONCRETE SURFACES	0.95	0.0011	0.0011
ASPHALT SURFACES	0.95	0.0000	0.0000
LANDSCAPING	0.25	0.0000	0.0000
UNDEVELOPED	0.40	0.2294	0.0918
SITE TOTAL		0.2765	0.1342

EXISTING WEIGHTED "C" FACTOR 0.485

PROPOSED IMPERVIOUS SURFACES

	"C" FACTOR	AREA	C X A
BUILDING ROOF	0.90	0.0689	0.0620
CONCRETE SURFACES	0.95	0.0028	0.0026
ASPHALT SURFACES	0.95	0.0908	0.0863
LANDSCAPING	0.25	0.0110	0.0027
UNDEVELOPED	0.40	0.1031	0.0412
SITE TOTAL		0.2765	0.1948

PROPOSED WEIGHTED "C" FACTOR 0.705

- D. 100 YEAR RAINFALL, 6 HOUR, P(6); (SEE REF. A, PLATE 22.2 D-1); P(6) = 2.20 INCHES (INTERPOLATION VALUE)
- E. TIME OF CONCENTRATION, Tc: Tc = 10 MINUTES (USE 10 MINUNTES (MINIMUM VALUE) FOR CALCULATIONS)
- F. RAINFALL INTENSITY, I: (SEE REF. A, PLATE 22.2 D-2)
  I = P(6) x 6.84 x Tc EXP (-0.51)
  = 2.20 x 6.84 x 10 EXP (-0.51)
  = 4.65 INCHES

III. PEAK DISCHARGE: (RATIONAL METHOD)
- A. EXISTING CONDITION
  Q(100)= 0.485 X 4.65 X 0.2765 = 0.62 CFS
  Q(10) = 0.457 X 0.623 = 0.40 CFS (REF A, PLATE 22.2D-1)
- B. PROPOSED CONDITION
  Q(100)= 0.704 X 4.65 X 0.2765 = 0.90 CFS
  Q(10) = 0.657 X 0.905 = 0.59 CFS (REF A, PLATE 22.2D-1)

IV. VOLUME: TOTAL DEVELOPED AREA (REF A, PLATE 22.2C-2,3,4)

EXISTING CONDITIONS
IMPERVIOUS AREA
P(6) = 2.2
CN = 95
A(SQ.FT) = 2000
Q(INCHES)= 4.387 / 2.621
= 1.674
VOLUME = 279.0 CU.FT.

PERVIOUS AREA (LANDSCAPE)
P(6) = 0
CN = 40
A(SQ.FT) = 0
Q(INCHES)= 9/12.000
= 0.75
VOLUME = 0 CU.FT.

UNDEVELOPED AREA
P(6) = 2.2
CN = 63
A(SQ.FT) = 9993
Q(INCHES)= 1.051/6.898
= 0.152
VOLUME = 126.9 CU.FT.

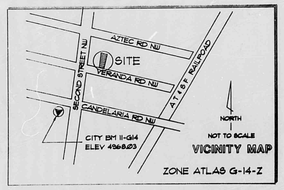
TOTAL 406 CU.FT.

PROPOSED CONDITIONS
IMPERVIOUS AREA
P(6) = 2.2
CN = 95
A(SQ.FT) = 7075
Q(INCHES)= 4.387/2.621
= 1.674
VOLUME= 237.0 CU.FT.

PERVIOUS AREA (LANDSCAPE)
P(6) = 2.2
CN = 40
A(SQ.FT) = 479
Q(INCHES = 0.64/14.2
= 0.045
VOLUME= 1.799 CU.FT.

UNDEVELOPED AREA
P(6) = 2.2
CN = 63
A(SQ.FT) = 4489
Q(INCHES = 1.051/6.898
= 0.152
VOLUME = 57.01 CU.FT.

TOTAL 1045 CU.FT.



BENCH-MARK INFORMATION

TEMPORARY BENCH-MARK BEING THE TOP OF CURB SPRAY PAINTED ORANGE (⊞ TBM) BEARS ELEVATION 4966.81 MSL. REFERANCE TO CITY BENCH-MARK 1-G14, LOCATED AT THE INTERSECTION OF SECOND CANDELARIA. SEE VICINITY MAP FOR CITY BENCH-MARK LOCATION.

PROJECT BRIEF

EXISTING STRUCTURES ARE NOT SHOWN HOWEVER THE DRAINAGE CALCULATIONS REFLECT THE IMPERVIOUS CONDITIONS. THIS REDEVELOPMENT WILL HAVE MINIMAL IMPACT ON DOWNSTREAM CONDITIONS. RUNOFF GENERATED ARE DISCHARGED DIRECTLY IN TO THE STORM DRAINAGE SYSTEM VIA NEW CATCH BASIN ON SITE.

CONSTRUCTION NOTES

1. EXISTING STANDARD TYPE "C" CATCH BASIN TO BE REMOVED AND REPLACED WITH A NEW TYPE "D" INSTALL PER CITY STANDARD DRAWING K-6-3. MATCH EXISTING FLOWLINE AND INVERT ELEVATIONS AS SHOWN ON DRAWING HEREON.
2. TIE NEW 12" PVC SCHEDULE 40 STORM SEWER MAIN TO THE BACK OF THE CATCH BASIN PER CITY STANDARD DRAWING K-17-2.
3. INSTALL NEW STANDARD TYPE "D" CATCH BASIN PER CITY STANDARD DRAWING K-6-3 WITH TOP OF GRATE ELEVATION 4966.50 AND INVERT ELEVATION 4964.00.

FLOOD INFORMATION

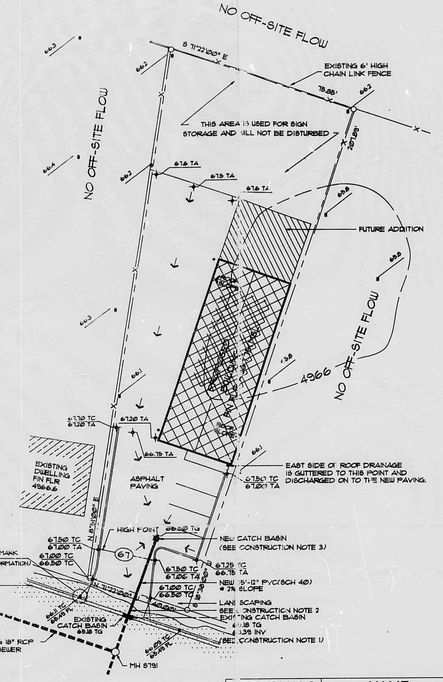
THIS SITE LIES WITHIN A ZONE C FLOODING, AREAS OF MINIMAL FLOODING. A 100 YEAR, ZONE AO(DEPTH 1) ENCROACHES ON TO THE PROPERTY FROM THE STREET. SEE THE FLOOD LIMITS ON DRAWING.

GENERAL NOTES:

- A. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 765-1234 FOR LOCATION OF EXISTING UTILITIES.
- B. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- C. 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.
- D. ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT FOR 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.*



117 VERANDA ROAD N. W.

APPROVALS	NAME	DATE
A.C.E/Design		
Inspector		
A.C.E/Field		

SYMBOL LEGEND

EXISTING CONTOUR — 5102 —
DESIGN CONTOUR — 5103 —
PROPOSED SHOT ELEVATION — 6.630 TC
PROPERTY LINE
EASEMENT LINE
FLOW DIRECTION
EXISTING SPOT ELEVATION
DOWN SPOUT (NO TO SCALE)

ABBREVIATION LEGEND

TOP OF CONC APRON – TCA
TOP OF CURB – TC
TOP OF ASPHALT – TA

GRADING & DRAINAGE PLAN

SCALE: 1"=20.0'

0 10' 20' 40'

M. E. LEE, JR. NEW MEXICO 7257 REGISTERED PROFESSIONAL ENGINEER
6/25/07

job no:
date:
revised:

sheet title:
checked by:
drawn by:

MILLER and ASSOCIATES ARCHITECTS P.A.

job title:

SHEET F

AUG 30 1991
CITY DIVISION

CITY OF ALBUQUERQUE
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R# 26 DATE 3-26-92 OP

CITY OF ALBUQUERQUE

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DIRECTOR 11/5/92

NOTARY PUBLIC

OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 8/16/92

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