HYDROLOGY

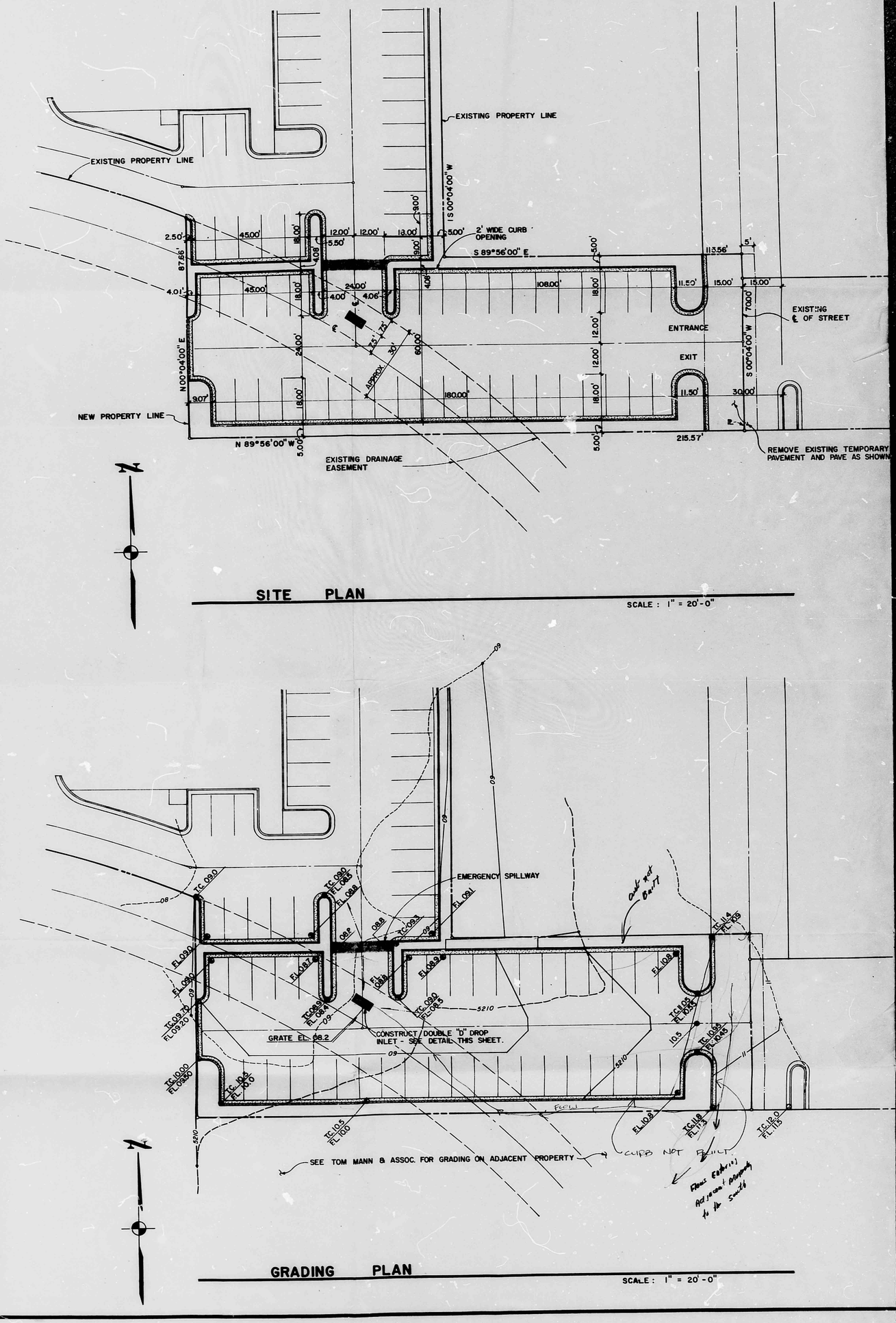
E18/D12
2 PLANS

E18/D12

2 Plans

PLAN SHOT IN TWO SECTIONS.

82425



LEGEND

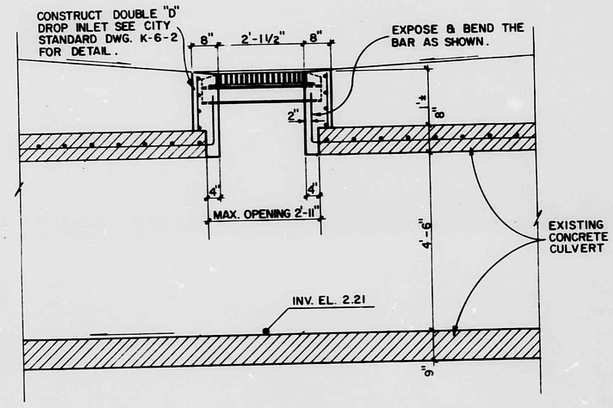
- PROPERTY LINE
- CURB AND GUTTER(NEW)
- CURB AND GUTTER(EXIST.)
- SIDEWALK(NEW)
- SIDEWALK(EXIST.)
- SPOT ELEVATION(NEW)
- SPOT ELEVATION(EXIST.)
- CONTOUR(NEW)
- CONTOUR(EXIST.)

LEGAL DESCRIPTION:

TRACT D OF NORTH ACADEMY BUSINESS PARK, ALBUQUERQUE, NEW MEXICO.

BENCH MARK:

A CITY OF ALBUQUERQUE BRASS CAP MARKED 9-E18W. LOCATED IN THE MEDIAN OF THE EAST QUADRANT OF THE INTERSECTION OF SAN MATEO BOULEVARD AND ACADEMY ROAD N.E. BRASS CAP LIES 22' EAST OF THE NOSE AND 12' NORTH OF THE SOUTH CURB OF THE MEDIAN.
ELEVATION=5207.601



DROP INLET CONNECTION TO EXIST. CONC. CULVERT

STING
F STREET

XISTING TEMPORARY
AND PAVE AS SHOWN.

KEY MAP F - 18 - Z

FLOOD HAZARD BOUNDARY MAP

The proposed development is an annexation to an approved drainage plan which is located southeast of the intersection of San Mateo Blvd. and Academy Road N.E. The site is not located in or near a 100-year flood hazard area.

Existing site is undeveloped with an approximate slope of 1.25% from east to west. A city-owned underground concrete box lies below this site. Off-site flows entering the property from north are approximately 1.14 cfs. The area east of the property drains east. Existing parking area on the west side drains southwest through an existing swale to two downstream inlets. The area south of the property drains to the south. Two existing downstream drop inlets with intercepting capacity of 48 cfs catches the flow from adjacent property.

The proposed development will be a paved parking lot. A curb opening will be provided allowing flow from the north to be transported into proposed site. Existing swale will be regraded to transport flow from east parking lot drain to the proposed parking lot. All flow entering the site will be intercepted by a double 'D' drop inlet which is located on top of existing concrete culvert. Proposed academic business park on the south drains to the south. An emergency spillway will be provided as indicated on the plan. No ponding will be required for this project.

The grading plan shows existing and proposed finished grade indicated by contours at 1'-0" intervals and selected spot elevations. It also shows continuity between proposed and existing elevations.

If developed as shown, the site will not be susceptable to flooding nor will it increase the threat of flooding to downstream areas.

1. EXISTING CONDITION:

Contributing area to the north of proposed development:

A=0.69 AC.
C=0.30
Use TC=10 Min.

Q_{100}= 0.3 x 2.2 x 2.5 x 0.69 = 1.14 cfs

Volume = $\frac{0.3 \times 2.5 \times 0.69 \times 43560}{12}$ = 1961 ft^3

Flow from existing area:

A=0.33 AC
C=0.3
Use TC=10 min.

Q_{100}=0.3 x 2.2 x 2.5 x 0.33 = 0.54 cfs

Volume = $\frac{0.3 \times 0.33 \times 43560 \times 2.5}{12}$ = 898 ft^3

2. PROPOSED CONDITION:

Area to the north of proposed development:

Q_{100}=1.14 cfs
Volume = 1961 ft^3

Area to the east of proposed development:

A=220 x 180 = 39600 ft^2 = 0.91 AC.
C=0.90
Use TC=10 min.

Q_{100}=0.9 x 2.2 x 2.5 x 0.91 = 4.50 cfs

Volume = $\frac{0.9 \times 2.6 \times 39600}{12}$ = 7722 ft^3

Total flow from off-site:

Q_{100}=1.14 + 4.50 = 5.64 cfs

Volume = 1961 + 7722 = 9683 ft^3

Proposed site development:

A=0.33 AC
C=0.95
TC=10 min.

Q_{100}=0.95 x 2.2 x 2.5 x 0.33 = 1.77 cfs

Volume = $\frac{0.95 \times 2.6 \times 0.33 \times 43560}{12}$ = 2930 ft^3

Total flow from above:

Q_{100}=1.14 + 4.50 + 1.77 = 6.81 cfs

Volume = 1961 + 7722 + 2930 = 12613 ft^3

3. DROP INLET CAPACITY:

For a double 'D' inlet:

$Q = 0.6\ A\ \sqrt{2g\ H}$ (Orifice flow equation)

Assuming 70% area to be open and ponded water depth = 6"

$Q = 0.6 \times (0.7 \times 2 \times 6) \times (2 \times 32.2 \times 0.5)^{\frac{1}{2}}$ = 28.59 cfs

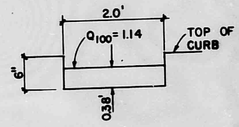
$Q_{capacity}$ = 28.59 cfs > 6.81 cfs o.k.

Available ponding volume = 1575 ft^3 < 12613 ft^3

Therefore, an emergency spillway will be provided as shown on plans.

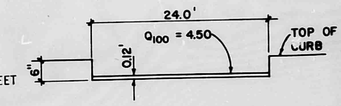
CURB OPENING CAPACITY:

FLOW RATE= 1.14 CFS
SIDE SLOPE= .001 TO 1
BOTTOM WIDTH= 2 FEET
CHANNEL SLOPE= .005 FEET PER FEET
N FACTOR(ROUGHNESS)= .03
FLOW DEPTH IS .38 FEET
FROUDE NUMBER IS .42



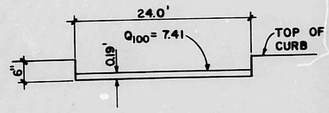
EAST ENTRANCE CAPACITY:

FLOW RATE= 4.5 CFS
SIDE SLOPE= .001 TO 1
BOTTOM WIDTH= 24 FEET
CHANNEL SLOPE= .0166 FEET PER FEET
N FACTOR(ROUGHNESS)= .03
FLOW DEPTH IS .12 FEET
FROUDE NUMBER IS .78



NORTH ENTRANCE (EMERGENCY SPILLWAY) CAPACITY:

FLOW RATE= 7.41 CFS
SIDE SLOPE= .001 TO 1
BOTTOM WIDTH= 24 FEET
CHANNEL SLOPE= .01 FEET PER FEET
N FACTOR(ROUGHNESS)= .03
FLOW DEPTH is .19 FEET
FROUDE NUMBER IS .65



RECEIVED
APR 19 1984
HYDROLOGY SECTION

W.C. KRUGER & ASSOCIATES
ARCHITECTS-PLANNERS, INC.
SUITE 1100 BANK OF NEW MEXICO BUILDING
ALBUQUERQUE, NEW MEXICO
ZIP CODE 87101
TELEPHONE (505) 842-8683

STATE OF NEW MEXICO
W. C. KRUGER
NO. 47
ALBUQUERQUE, NEW MEX.
REGISTERED ARCHITECT

STATE OF NEW MEXICO
W. C. KRUGER & ASSOCIATES INC.
NO. 909
ALBUQUERQUE, N. M.
REGISTERED ARCHITECT

VICTOR J. CHAVEZ
STATE OF NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER

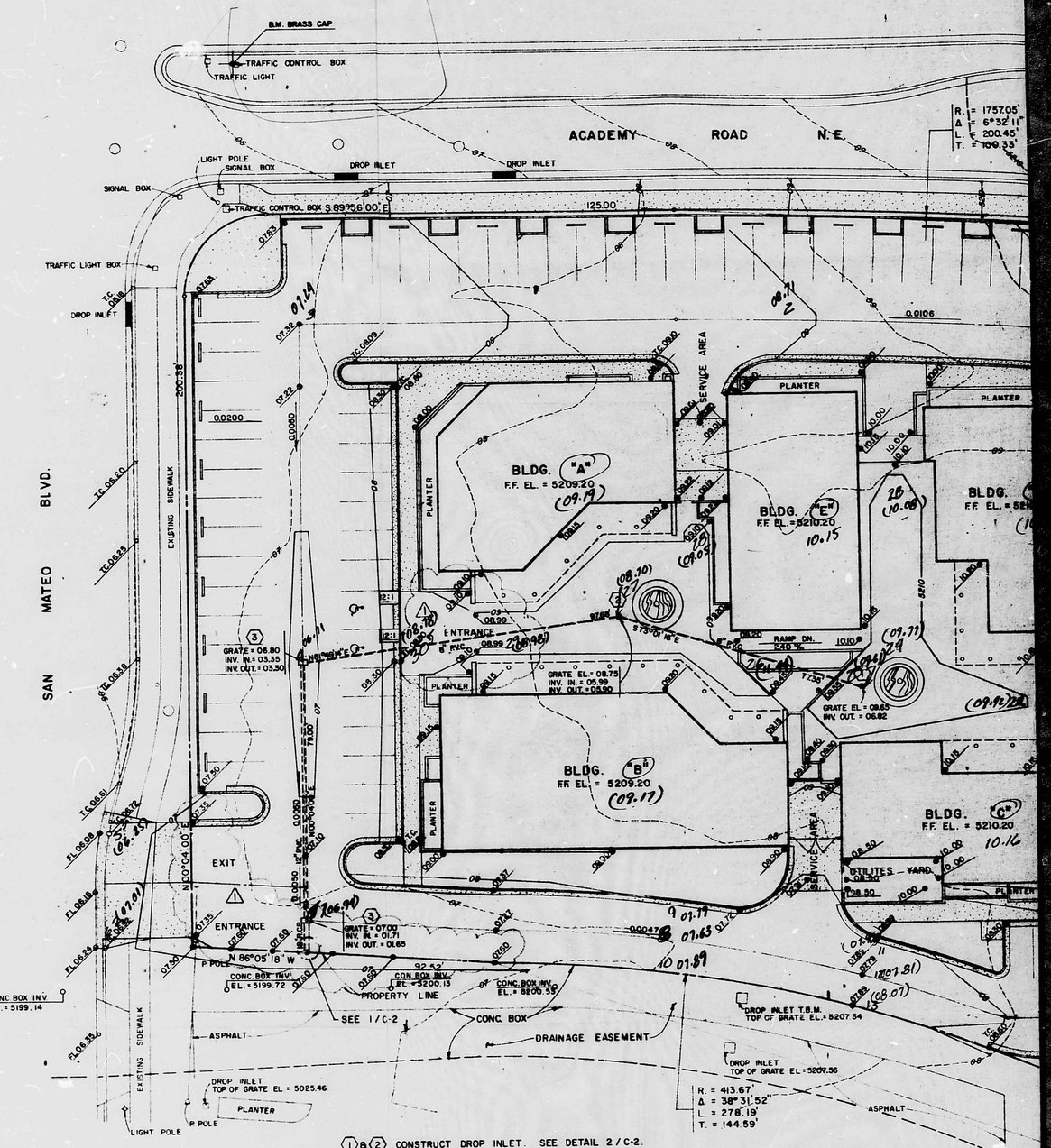
COMMERCIAL CENTER
SAN MATEO BLVD. & ACADEMY ROAD
ALBUQUERQUE, NEW MEXICO

REVISIONS
DATE
DRAWN KJD
CHECKED YKT
JOB NUMBER

SITE PLAN, GRADING PLAN & DETAILS

SHEET NUMBER

PLAN SHOT IN TWO SECTIONS.

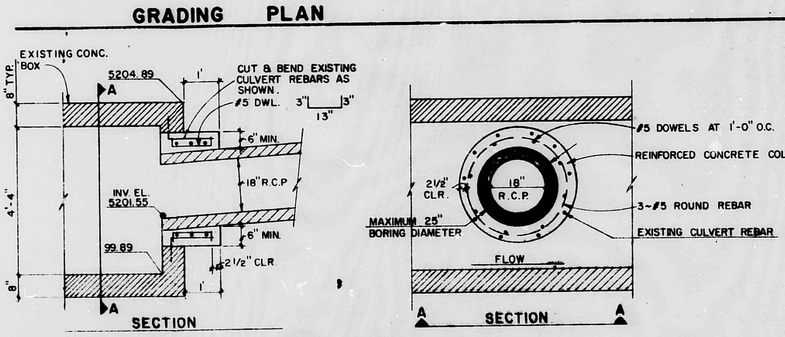


① & ② CONSTRUCT DROP INLET. SEE DETAIL 2/C-2.

③ CONSTRUCT DOUBLE "D" DROP INLET. SEE CITY STANDARD K-6-2.

GRADING PLAN

SCA



CONNECTION TO CONCRETE BOX

1/C-2

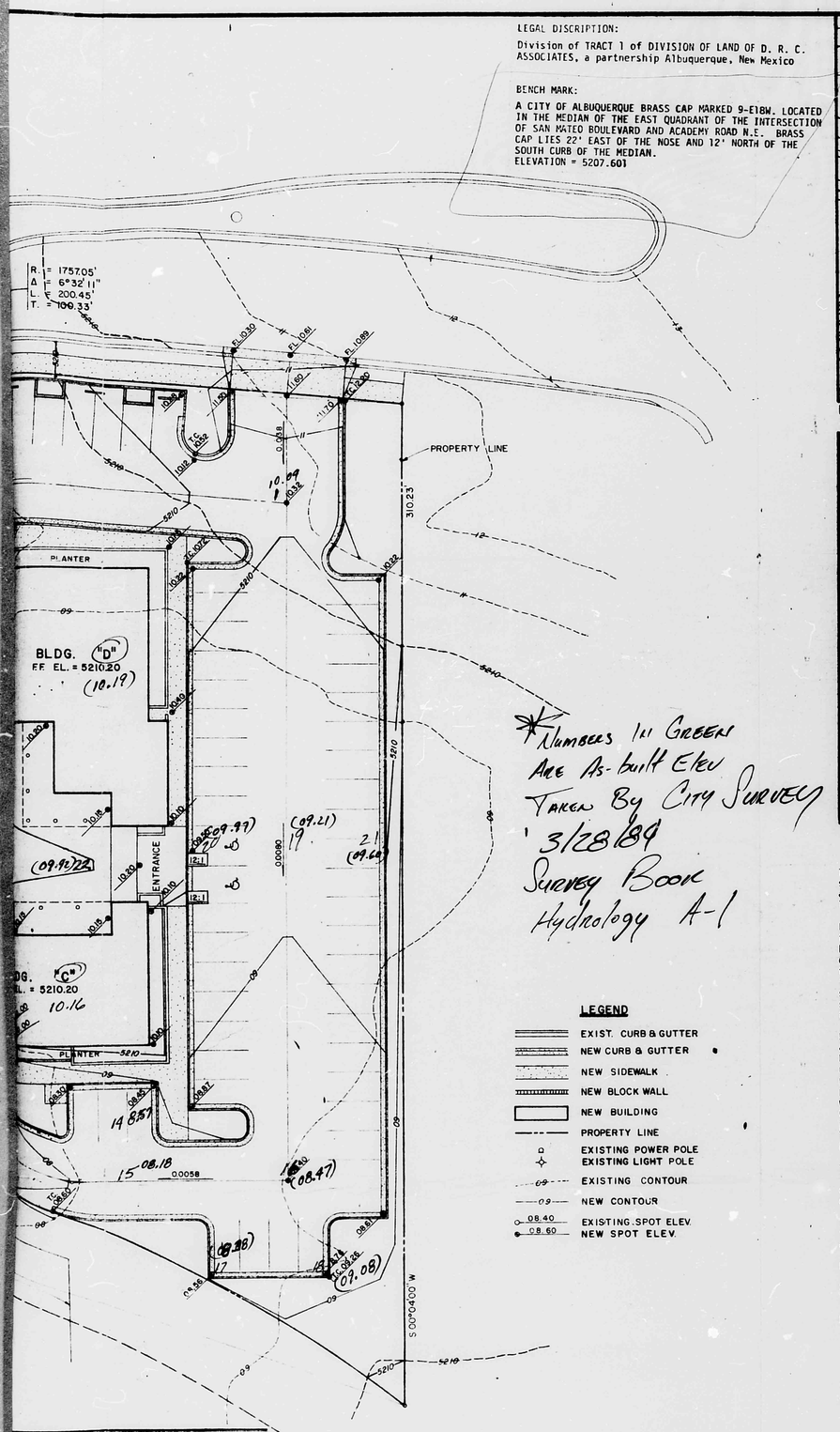
1/2" = 1'-0"

LEGAL DISCRIPTION:

Division of TRACT 1 of DIVISION OF LAND OF D. R. C. ASSOCIATES, a partnership Albuquerque, New Mexico

BENCH MARK:

A CITY OF ALBUQUERQUE BRASS CAP MARKED 9-E18W. LOCATED IN THE MEDIAN OF THE EAST QUADRANT OF THE INTERSECTION OF SAN MATEO BOULEVARD AND ACADEMY ROAD N.E. BRASS CAP LIES 22' EAST OF THE NOSE AND 12' NORTH OF THE SOUTH CURB OF THE MEDIAN.
ELEVATION = 5207.601



* Numbers in Green Are As-built Elev Taken By City Survey 3/28/84 Survey Book Hydrology A-1

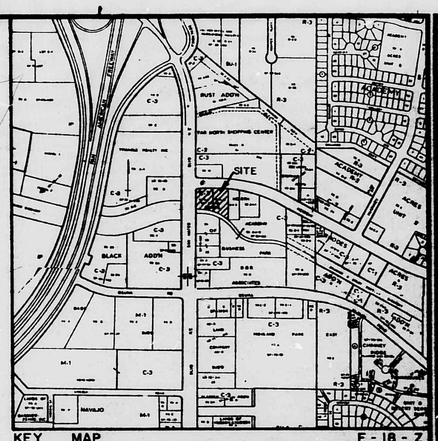
LEGEND

- EXIST. CURB & GUTTER
- NEW CURB & GUTTER
- NEW SIDEWALK
- NEW BLOCK WALL
- NEW BUILDING
- PROPERTY LINE
- EXISTING POWER POLE / EXISTING LIGHT POLE
- 09 EXISTING CONTOUR
- 09 NEW CONTOUR
- 08.40 EXISTING SPOT ELEV.
- 08.60 NEW SPOT ELEV.

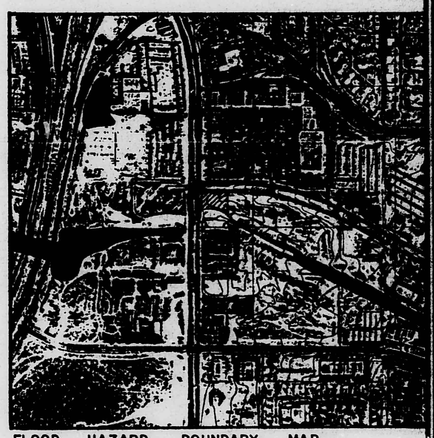
NOTES:

1. GRATE MATERIAL, NEENAH FOUNDRY CO. NO. R 2569.
2. SEE GRADING PLAN FOR PIPE INVERT EL.
3. DROP INLET (2) DETAIL IS SIMILAR TO DROP INLET (1) EXCEPT AS NOTED.

(2) C-2 DROP INLET DETAIL 3/4" = 1'-0"



KEY MAP F-18-Z



FLOOD HAZARD BOUNDARY MAP

The proposed site development is located southeast of the intersection of San Mateo Blvd. and Academy Road N.E. and contain approximately 1.95 acres. The site is not located in or near a 100-year Flood Hazard Area.

Existing site is undeveloped, with an approximate slope of 1.25% from northeast to southwest. A City-owned underground concrete box drainage structure lies immediately to the south of the property. Existing flows from San Mateo Blvd. and Academy Road are transported by existing curb and gutter into downstream drop inlets. Off-site flows entering the property from the east and south side are approximately 2.95 c.f.s.. Two existing downstream drop inlets with intercepting capacity of 4.8 c.f.s. catch the flows that might be entering the site from these two directions.

Development of the site will include 5 building areas, parking lots and associated landscaping. Curb cuts will be required on San Mateo Blvd. and Academy Road for access to the site. Flows along the north and west side of the property will continue to be transported into existing drop inlets. All flows generated from the proposed development will be directed into on-site drop inlets which will be drainged through an 18" R.C.P. into the existing City-owned drainage structure. Tap-in from the side wall with the pipe invert 18" above existing concrete box flow line will be used. This will minimize interference with the flow in the concrete box. No ponding will be required for this site.

The grading plan shows: existing and proposed finished grades indicated by contours at 1'-0" intervals and selected spot elevations. It also shown continuity between proposed and existing elevations.

If developed as shown, the site will not be susceptable to flooding nor will it increase the threat of flooding to downstream areas.

EXISTING CONDITIONS:

Site Area = 1.95 Acres
Total Anticipated Contributing Area = 2.70 Acres.

$L = 482'$. Slope $= \frac{13-7}{480} = 0.0125$

$T_c = 0.0078 \times \frac{(482)^{0.77}}{(0.0125)^{0.385}} = 4.95$ min (use 10 min)

$C = 0.45$

TOTAL $Q_{100} = 0.45 \times 2.2 \times 2.5 \times 2.79 = 6.90$ c.f.s.

$Vol. = 0.45 \times \frac{2.5}{12} \times 2.79 \times 43560 = 11393$ cu. ft.

Flow Area Intercepting By Existing Drop Inlet
A = 1.19 Acres
$Q = 0.45 \times 2.2 \times 2.5 \times 1.19 = 2.95$ c.f.s.
Drop Inlet Grating Capacity = 4.8 c.f.s. > 2.95 c.f.s.
Net Flow $Q_{100} = 6.90 - 2.95 = 3.95$ c.f.s.

DEVELOPED CONDITIONS:

$C_d = 0.95$

$Q_{100} = 0.95 \times 2.2 \times 2.5 \times 1.95 = 10.19$ c.f.s.

$Vol = 0.95 \times \frac{2.5}{12} \times 1.95 \times 43560 = 16811$ cu. ft.

For 18" R.C.P. K = 105.0 L = 10'

Required Slope $= \left(\frac{10.19}{105}\right)^2 = 0.0094$

Slope Provided $= \frac{1.65 - 1.55}{10} = 0.01 > 0.0094$

RECEIVED OCT 11 1983 HYDROLOGY SECTION

W.C. KRUGER & ASSOCIATES ARCHITECTS-PLANNERS, INC.
SUITE 1100 BANK OF NEW MEXICO BUILDING
ALBUQUERQUE, NEW MEXICO
ZIP CODE 87101
TELEPHONE (505) 842-8863

STATE OF NEW MEXICO W. C. KRUGER NO. 47 ALBUQUERQUE NEW MEX. REGISTERED ARCHITECT

STATE OF NEW MEXICO W. C. KRUGER & ASSOCIATES INC. NO. 908 ALBUQUERQUE N.M. REGISTERED ARCHITECT

COMMERCIAL CENTER
SAN MATEO BLVD. & ACADEMY ROAD
ALBUQUERQUE, NEW MEXICO

10-11-83 REVISIONS	
DATE	
DRAWN	KJD
CHECKED	YKT
JOB NUMBER	615

GRADING, DRAINAGE PLAN & DETAILS

SHEET NUMBER C-2

PUBLIC WORKS/HYDROLOGY

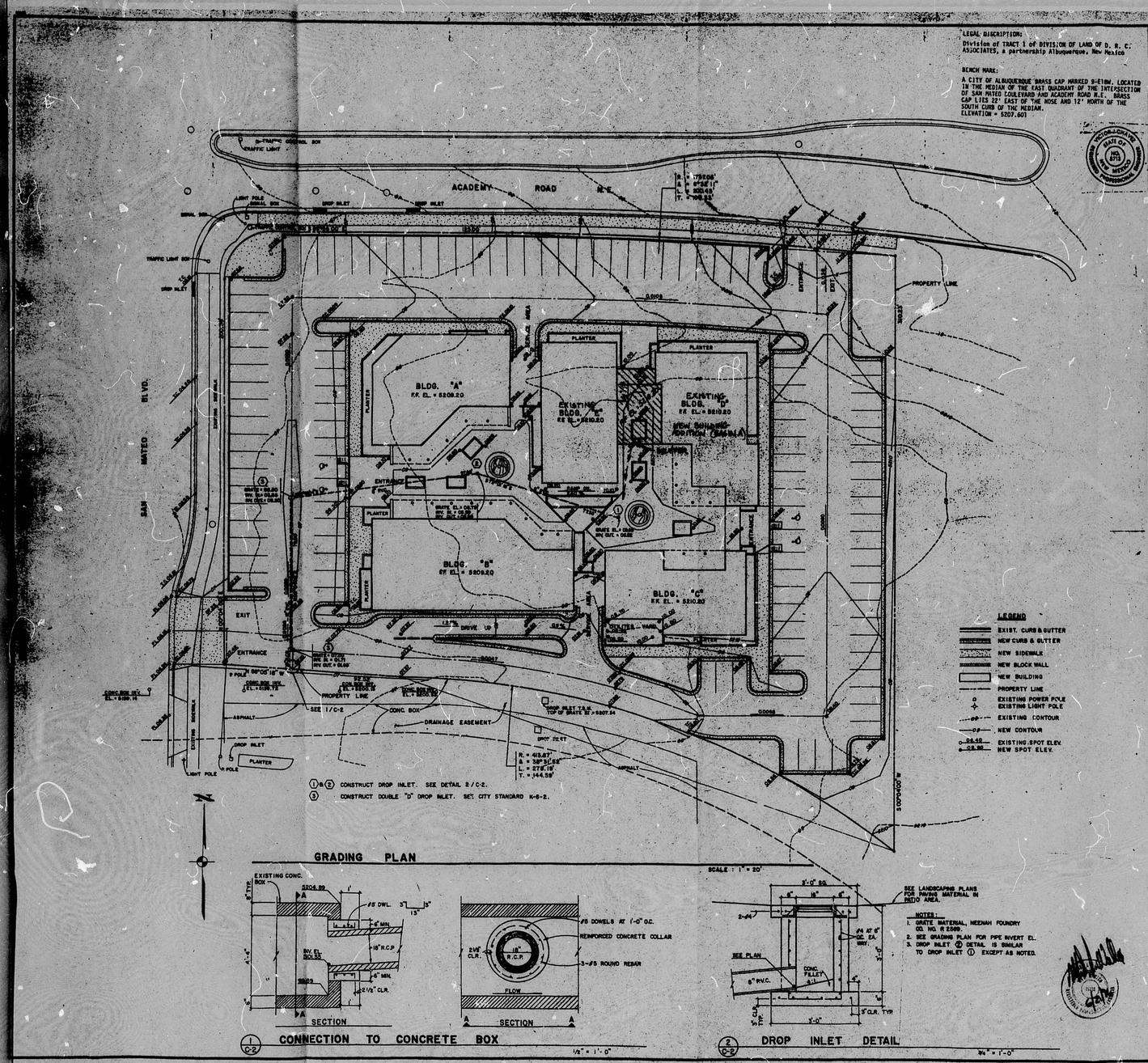
E18/D12

LEGAL DISCRIPTION:

Division of TRACT 1 of DIVISION OF LAND OF D. R. C. ASSOCIATES, a partnership Albuquerque, New Mexico

BENCH MARK:

A CITY OF ALBUQUERQUE BRASS CAP MARKED B-E19W, LOCATED IN THE MEDIAN OF THE EAST QUADRANT OF THE INTERSECTION OF SAN MATEO LOULEVARD AND ACADEMY ROAD N.E. BRASS CAP LIES 22' EAST OF THE NOSE AND 12' NORTH OF THE SOUTH CURB OF THE MEDIAN.
ELEVATION = 5207.601



GRADING PLAN

SCALE : 1" = 20'

① C-2 CONNECTION TO CONCRETE BOX

1/2" = 1'-0"

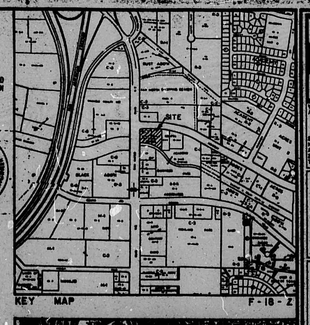
NOTES:
1. GRATE MATERIAL, NEENAH FOUNDRY CO. NO. R 2580.
2. SEE GRADING PLAN FOR PIPE INVERT EL.
3. DROP INLET Ⓔ DETAIL IS SIMILAR TO DROP INLET ① EXCEPT AS NOTED.

② C-2 DROP INLET DETAIL

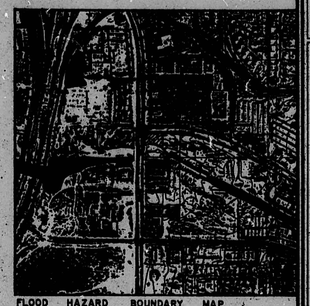
3/4" = 1'-0"

LEGEND

- EXIST. CURB & GUTTER
- NEW CURB & GUTTER
- NEW SIDEWALK
- NEW BLOCK WALL
- NEW BUILDING
- PROPERTY LINE
- EXISTING POWER POLE / EXISTING LIGHT POLE
- EXISTING CONTOUR
- NEW CONTOUR
- EXISTING SPOT ELEV.
- NEW SPOT ELEV.



KEY MAP F-16-Z



FLOOD HAZARD BOUNDARY MAP

The proposed site development is located southeast of the intersection of San Mateo Blvd. and Academy Road N.E. and contains approximately 1.95 acres. The site is not located in or near a 100-year Flood Hazard Area.

Existing site is undeveloped, with an approximate slope of 1.25% from northeast to southeast. A City-owned underground concrete box drainage structure lies immediately to the south of the property. Existing flows from San Mateo Blvd. and Academy Road are transported by existing curb and gutter into downstream drop inlets. Off-site flows entering the property from the east and south side are approximately 2.95 c.f.s.. Two existing downstream drop inlets with intercepting capacity of 4.8 c.f.s. catch the flows that might be entering the site from these two directions.

Development of the site will include 5 building areas, parking lots and associated landscaping. Curb cuts will be required on San Mateo Blvd. and Academy Road for access to the site. Flows along the north and west side of the property will continue to be transported into existing drop inlets. All flows generated from the proposed development will be directed into on-site drop inlets which will be drainged through an 18" R.C.P. into the existing City-owned drainage structure. Tap-in from the side wall with the pipe invert 18" above existing concrete box flow line will be used. This will minimize interference with the flow in the concrete box. No ponding will be required for this site.

The grading plan shows: existing and proposed finished grades indicated by contours at 1'-0" intervals and selected spot elevations. It also shows continuity between proposed and existing elevations.

If developed as shown, the site will not be susceptable to flooding nor will it increase the threat of flooding to downstream areas.

EXISTING CONDITIONS:

Site Area = 1.95 Acres
Total Anticipated Contributing Area = 2.70 Acres.

$L = 482'$, Slope $= \frac{13.7}{482} = 0.0125$

$T_c = 0.0078 \times \frac{(482)^{0.77}}{(0.0125)^{0.385}} = 4.95$ min (use 10 min)

$C = 0.45$

TOTAL $Q_{100} = 0.45 \times 2.2 \times 2.5 \times 2.79 = 6.90$ c.f.s.

VOL. $= 0.45 \times \frac{2.5}{12} \times 2.79 \times 43560 = 11393$ cu. ft.

Flow Area Intercepting By Existing Drop Inlet
$A = 1.19$ Acres
$Q = 0.45 \times 2.2 \times 2.5 \times 1.19 = 2.95$ c.f.s.
Drop Inlet Grating Capacity = 4.8 c.f.s. > 2.95 c.f.s.
Net Flow $Q_{100} = 6.90 - 2.95 = 3.95$ c.f.s.

DEVELOPED CONDITIONS:

$C_{10} = 0.95$

$Q_{100} = 0.95 \times 2.2 \times 2.5 \times 1.95 = 10.19$ c.f.s.

Vol $= 0.95 \times \frac{2.5}{12} \times 1.95 \times 43560 = 16811$ cu. ft.

For 18" R.C.P. K = 105.0 L = 10'

Required Slope $= \left(\frac{10.19}{105}\right)^2 = 0.0094$

Slope Provided $= \frac{11.65 - 11.55}{10} = 0.01 > 0.0094$

W.C. KRUGER & ASSOCIATES
ARCHITECTS-PLANNERS, INC.
SUITE 110B BANK OF NEW MEXICO BLDG (DRIVE)
ALBUQUERQUE, NEW MEXICO
ZIP CODE 87109
TELEPHONE (505) 345-8860

STATE OF NEW MEXICO — W. C. KRUGER — NO. 47 — ALBUQUERQUE, NEW MEXICO — REGISTERED PLANNER

STATE OF NEW MEXICO — W. C. KRUGER & ASSOCIATES — NO. 108 — ALBUQUERQUE, N.M. — REGISTERED ARCHITECT

REVISIONS

DATE

DRAWN KJD

CHECKED YKT

JOB NUMBER

GRADING, DRAINAGE PLAN & DETAILS

SHEET NUMBER C-2

RECEIVED JUN 24 1986 HYDROLOGY

R# 25 DATE 3-15-12 OR 87

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.

The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (NMS115-1977)

DIRECTOR 11/15/12

NOTARY PUBLIC

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

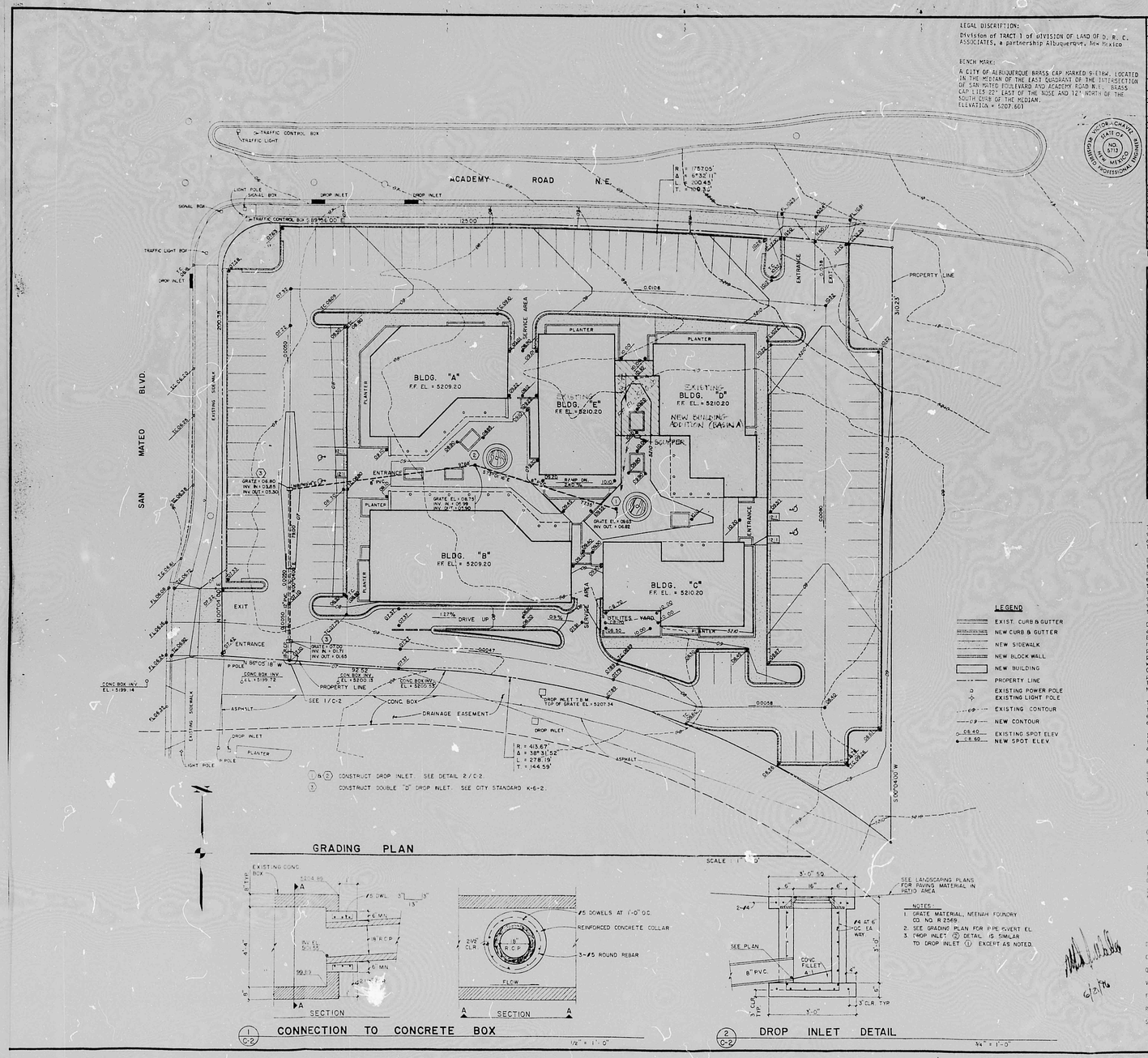
PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

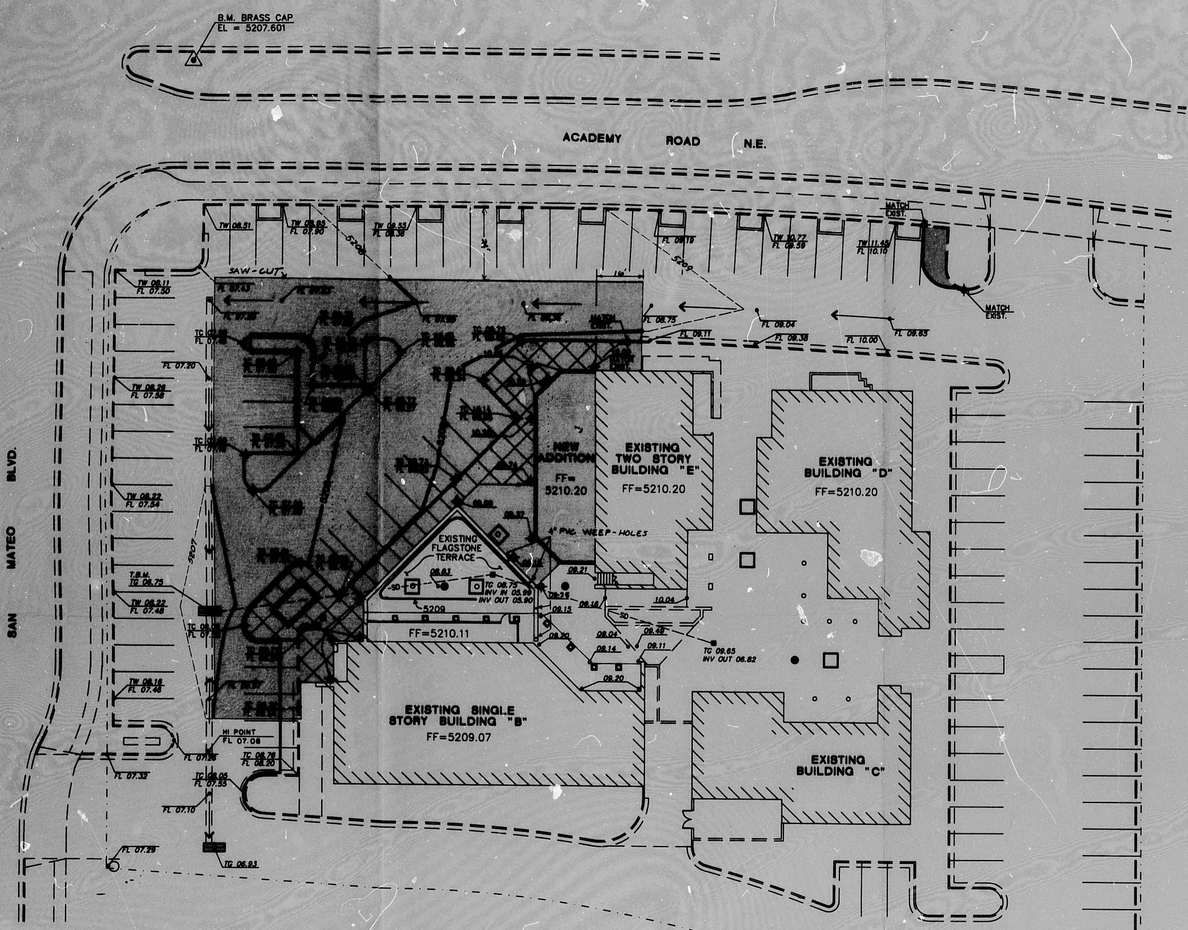
CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

PLANS/PLATS ON FILE

FILE DESC: EB/D12

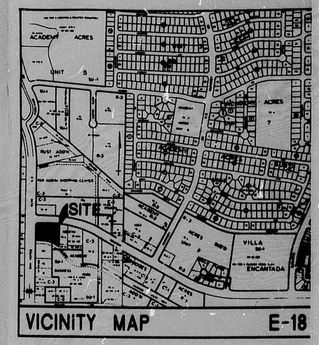
PLANS/PLATS 2


ACADEMY ROAD N.E.
SAN MATEO BLVD.
BLDG. "A"
F.F. EL. = 5209.20
EXISTING BLDG. "E"
F.F. EL. = 5210.20
EXISTING BLDG. "D"
F.F. EL. = 5210.20
NEW BUILDING ADDITION (PHASE A)
BLDG. "B"
F.F. EL. = 5209.20
BLDG. "C"
F.F. EL. = 5210.20
PROPERTY LINE
ENTRANCE
EXIT
DRIVE UP
DRAINAGE EASEMENT
SEE 1/C-2
CONC. BOX
DROP INLET
PLANTER
ASPHALT
SCUPPER
TRAFFIC CONTROL BOX
TRAFFIC LIGHT
LIGHT POLE
SIGNAL BOX
DROP INLET
CONC. BOX INV. EL.= 5199.19
CONC. BOX INV. EL.= 5200.15
CONC. BOX INV. EL.= 5200.52
GRATE = 5210.20 INV. IN = 5205.95 INV. OUT = 5205.70
GRATE = 5208.70 INV. IN = 5205.78 INV. OUT = 5205.53
GRATE = 5208.70 INV. IN = 5205.78 INV. OUT = 5205.53
GRATE EL.=



LEGEND

DESCRIPTION	NEW	EXISTING
PROPERTY LINE		
BUILDING		
CURB AND GUTTER		
DROP INLET		
TREE WELL		
CONTOUR	5209	5209
SPOT ELEVATION	TC 07.90 FL 07.40	FL 07.53
LIGHT POLE		
FLOWLINE		
LIMITS OF DEMOLITION AND REGRADING		



LEGAL DISCRIPTION:

DIVISION OF TRACT 1 OF DIVISION OF LAND OF D.R.C. ASSOCIATES, A PARTNERSHIP, ALBUQUERQUE, NEW MEXICO.

BENCH MARK:

A CITY OF ALBUQUERQUE BRASS CAP MARKED 9-E18W. LOCATED IN THE MEDIAN OF THE EAST QUADRANT OF THE INTERSECTION OF SAN MATEO BOULEVARD AND ACADEMY ROAD N.E. BRASS CAP LIES 22' EAST OF THE NOSE AND 12' NORTH OF THE SOUTH CURB OF THE MEDIAN. SEE PLAN FOR LOCATION. ELEVATION = 5207.601

T.B.M. (TEMPORARY BENCH MARK)

TOP OF DROP INLET, EL = 06.75. SEE PLAN FOR LOCATION.

SURVEY DATA:

SURVEY DATA PROVIDED BY DAVID C. CLAUSEN, N.M.L.S. NO. 6547, ALBUQUERQUE, NEW MEXICO.

RECORD PRINT
DATE SEP 26 1990

NORTH

GRADING AND DRAINAGE PLAN

SEPTEMBER 21, 1990 SCALE: 1"=20'

RINCONADA SQUARE PARKING LOT IMPROVEMENTS

SAN MATEO AT ACADEMY ROAD, NE
ALBUQUERQUE, NEW MEXICO

RECEIVED
SEP 27 1990
HYDROLOGY DIVISION

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

R# 25 DATE 3-15-92 OP ESP

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.

The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (MS115-1977)

DIRECTOR

NOTARY PUBLIC

OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My commission expires 7/01/92

GENERAL NOTES

SITE DESCRIPTION:

PRESENT: - The site is located on the southeast corner of San Mateo Boulevard and Academy Road N.E. within North Academy Business Park Subdivision in Albuquerque, New Mexico. The site is presently developed. Runoff from the site is directed into on-site drop inlets which drain through 18" R.C.P. into existing City-owned drainage structure. A grading and drainage plan was approved by the City for the site in 1983. The plan shows existing and developed conditions affecting storm runoff and drop inlet capacities. Since approval of the grading and drainage plan, Building "A" and sidewalks adjoining the building have been demolished. No improvements have been made to this area.

PROPOSAL: - Proposed development of the site includes a building addition onto Building "E" and parking in demolished Building "A" area. If developed as shown, the site will not increase runoff conditions as shown on the grading and drainage plan approved by the City in 1983, and free discharge to the existing city drainage structure can continue.

FLOOD HAZARD ZONE: Zone C.

SOIL TYPE: EmB - Embudo gravelly fine sandy loam. H.S.G. = B

DRAINAGE AREA: 1.95 Acres

OFF-SITE DRAINAGE: Properties adjacent to the subject property have been developed and no off-site drainage enters the study area.

CALCULATIONS:

Area = 1.95 acres
I = 2.1 in./hr. Plate 22.2 D-2
6-hour, 100-year rainfall = 2.2 in. Plate 22.2 D-1
i = (2.1)(2.2) = 4.6 in./hr.

EXISTING ON-SITE CONDITIONS: PER 1983 GRADING AND DRAINAGE PLAN

SURFACE TYPE	"C" VALUE	A (ACRES)	"C"X A	COMPOSITE "C"=CIA/A
Streets, Drives, Walks	0.95	1.48	1.41	
Roofs	0.90	0.38	0.34	
Lawns & Landscaping	0.25	0.09	0.02	
Undeveloped	0.40	0	0	
TOTAL		1.95	1.77	0.91 (Composite coefficient of runoff from previous plan = 0.95)

Q(100) = (0.95)(4.6)(1.95) = 8.5 cfs
Q(10) = (0.657)(8.5) = 5.6 cfs
CH = 98 Plate 22.2 C-2
Direct Runoff = 1.9 in. Plate 22.2 C-4
V(100) = (1.9)(1.95)(43560)/12 = 13,449 cu. ft.
V(10) = (0.657)(13,449) = 8836 cu. ft.

PROPOSED ON-SITE CONDITIONS:

SURFACE TYPE	"C" VALUE	A (ACRES)	"C"X A	COMPOSITE "C"=CIA/A
Streets, Drives, Walks	0.95	1.56	1.48	
Roofs	0.90	0.34	0.31	
Lawns & Landscaping	0.25	0.05	0.01	
Undeveloped	0.40	0	0	
TOTAL		1.95	1.80	0.92

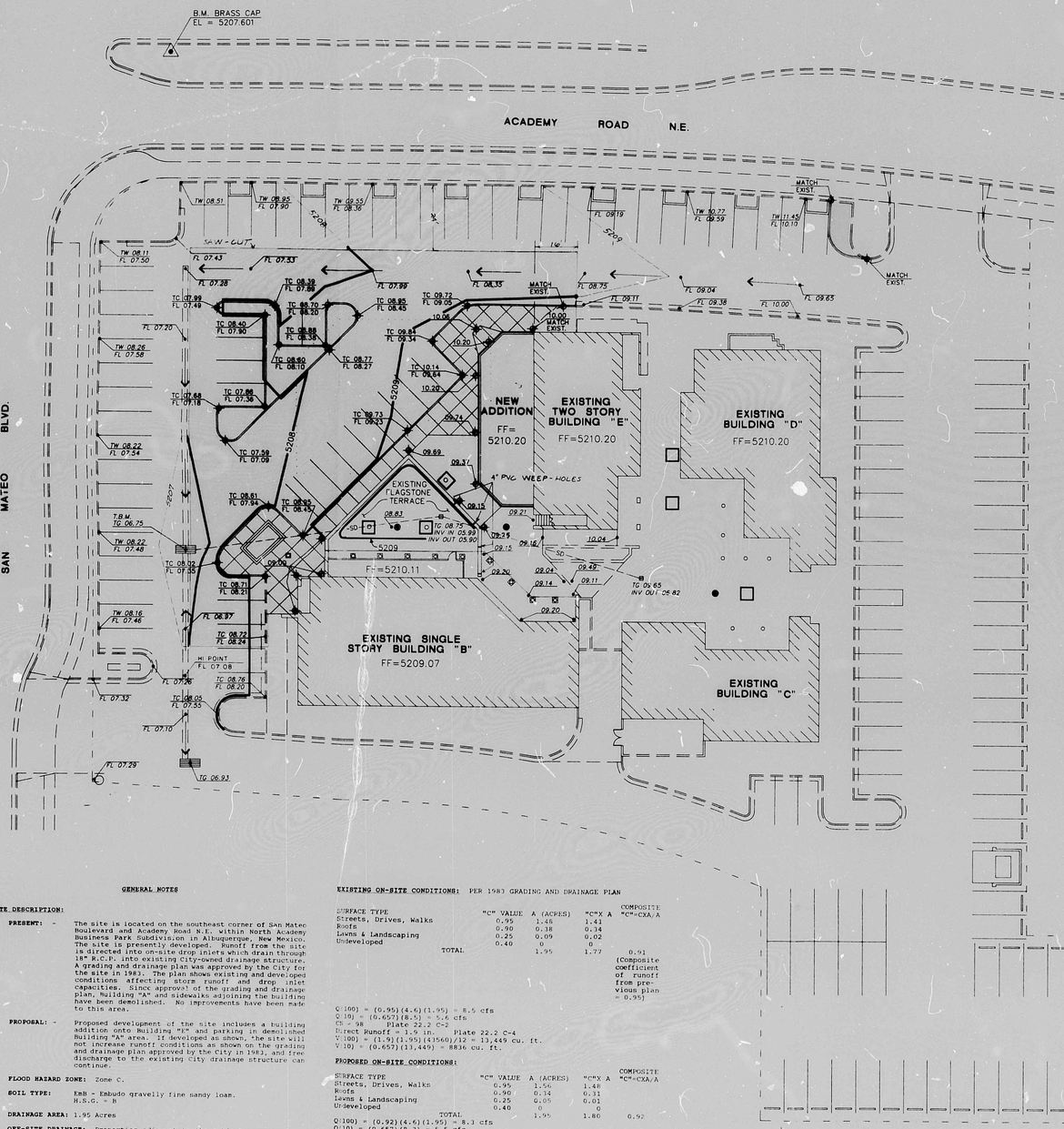
Q(100) = (0.92)(4.6)(1.95) = 8.3 cfs
Q(10) = (0.657)(8.3) = 5.5 cfs
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Direct Runoff = 1.9 in. Plate 22.2 C-4
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VICTOR J. CHAVEZ
STATE OF NEW MEXICO
9813
REGISTERED PROFESSIONAL ENGINEER
9/26/90

KUNKGRADING GRADING & DRAINAGE PLAN (PLOT @ 1=20)

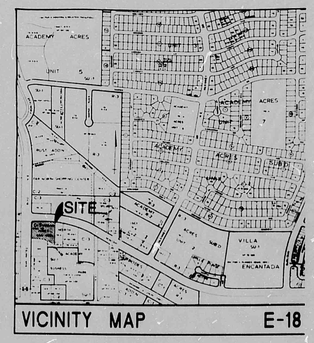
B 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE C



LEGEND

DESCRIPTION	NEW	EXISTING
PROPERTY LINE		
BUILDING		
CURB AND GUTTER		
DROP INLET		
TREE WELL		
CONTOUR	5209	5209
SPOT ELEVATION	TC 07.99 FL 07.49	FL 07.53
LIGHT POLE		
FLOWLINE		
LIMIT OF DEMOLITION AND REGRADING		



VICINITY MAP E-18

LEGAL DISCRIPTION:

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RECORD PRINT
DATE

NORTH

GRADING AND DRAINAGE PLAN
SEPTEMBER 21, 1990 SCALE: 1"=20'

RINCONADA SQUARE
PARKING LOT IMPROVEMENTS
SAN MATEO AT ACADEMY ROAD, NE
ALBUQUERQUE, NEW MEXICO

RECEIVED
SEP 27 1990
HYDROLOGY DIVISION

8/26/90

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R# 25 DATE 3-15-92 OP E.P.

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 8/01/92

KINK(PAD).DWG GRADING & DRAINAGE PLAN (PLOT @ 1"=20')

D24 C20 B16 A12 | CITY OF ALBUQERQUE C D