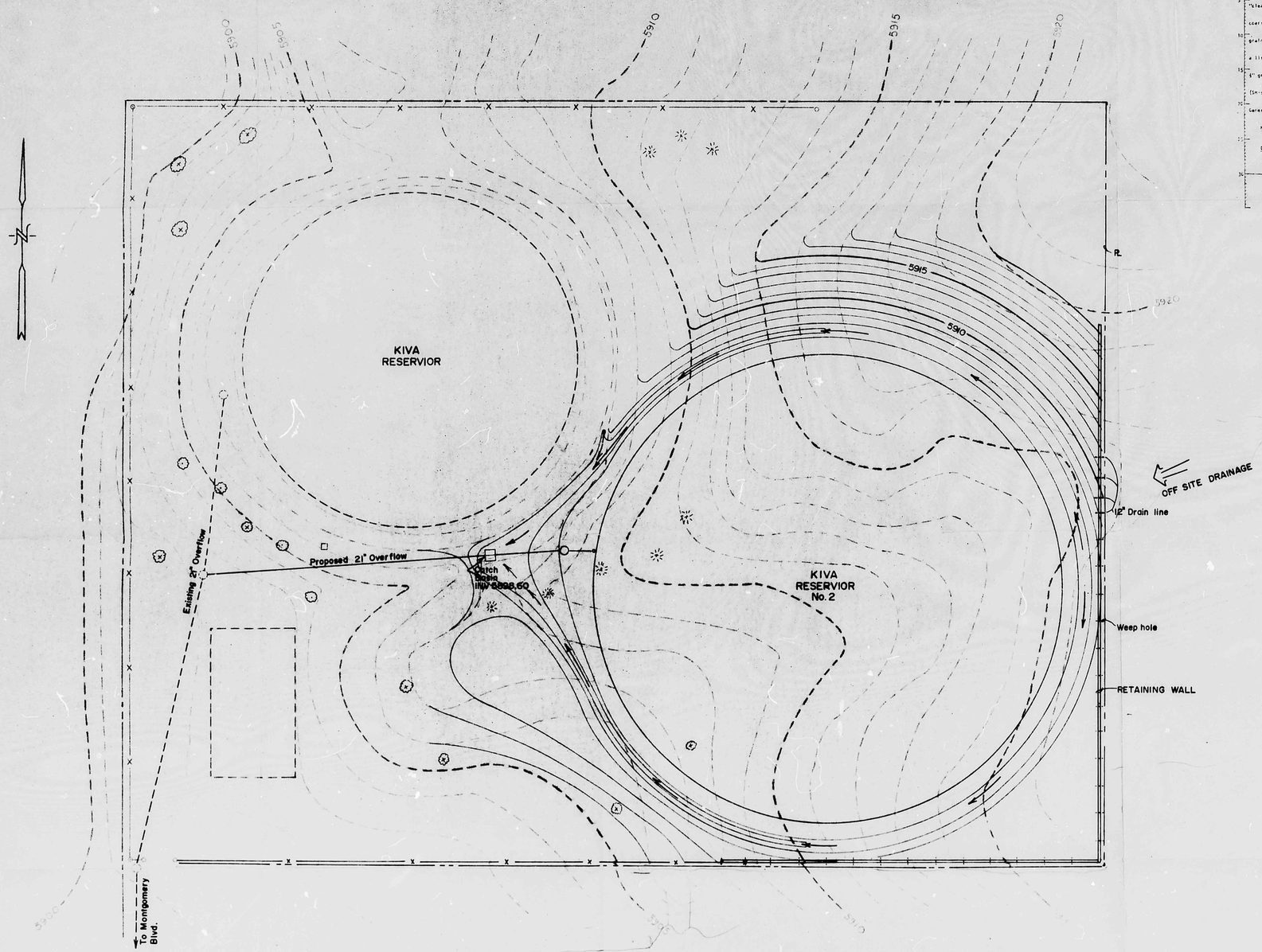
HYDROLOGY

F22/D19
1 PLAN

F22/D19

1 PLAN

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



Scale: 1" = 20'

BORING LOG GRAPH - TEST HOLE NO. 1

Depth (Ft)	Visual Description (Existing Ground Elevation = 5916)	Penetration Resistance N	Blows per 6 in.	Sample	Moisture Content M	Dry Density D	Particle Size Distribution % Gravel	Sand	Silt & Clay	Atterberg Limits % Liquid Limit	Plastic Limit	P.I.
	Sand, brown, silty				2.6		8	68	24	27	18	9
							(Cuttings 0 to 21')					
	to some fairly	11	4 7	S	2.6		14	65	19			
5	"clean" zones,	28	14 12	S	2.4		21	61	18			
	coarse to fine	18	8 10	S	1.9		13	74	13			
10	grained, traces to	15	5 10	S	1.9		18	68	14			
15	a little pea to											
	1" gravel.	19	10 9	S	2.5		10	81	9			
	(SM-some SP)											
20	Generally	16	8 8	S	4.0		8	65	27			
	Medium											
25	Dense	17	9 8	S	4.7		8	65	27			
30		29	15 14	S	2.4		8	62	30			

BORING LOG GRAPH - TEST HOLE NO. 2

Depth (Ft)	Visual Description (Existing Ground Elevation = 5916)	Penetration Resistance N	Blows per 6 in.	Sample	Moisture Content M	Dry Density D	Particle Size Distribution % Gravel	Sand	Silt & Clay	Atterberg Limits % Liquid Limit	Plastic Limit	P.I.
	Sand, brown, silty											
					2.7		(Cuttings 0 to 26')					
	to some fairly	18	5 5	S	3.5							
5	"clean" zones,	26	11 15	S	3.3							
	coarse to fine	19	9 10	S	2.2							
10	grained, traces to											
	a little pea to	16	8 8	S	1.3							
15	1" gravel.											
	(SM-some SP)											
	Generally	26	10 15	S	3.5							
20	Medium											
	Dense	19	9 10	S	3.0							

BORING LOG GRAPH - TEST HOLE NO. 3

Depth (Ft)	Visual Description (Existing Ground Elevation = 5908)	Penetration Resistance N	Blows per 6 in.	Sample	Moisture Content M	Dry Density D	Particle Size Distribution % Gravel	Sand	Silt & Clay	Atterberg Limits % Liquid Limit	Plastic Limit	P.I.
	Sand, brown, silty				3.3		(Cuttings 0 to 21')					
	to "clean", coarse	4	2 2	S	2.5							
	to fine grained											
5	and with trace to	4	2 2	S	2.6							
	a little fine											
	gravel (SM-some SP)	17	7 10	S	2.6							
10	Very Loose through											
	21' becoming	27	11 11	S	2.2							
	medium dense											
	below 28'											
	again.											
15		14	6 8	S	2.7							

1. Penetration Resistance - Blows per foot using "A" rod, 140 lb. hammer with 30-inch guided free fall unless otherwise noted.

   N - Standard Penetration Resistance (ASTM: D-1586), 2" O.D. split barrel sampler.

2. Sample Type

   S - Standard Split Barrel: 2" O.D. x 1-3/8" I.D.

3. Soil Index Properties

   M - Moisture Content, % of dry soil weight.

   D - Density, lbs per cubic foot computed either, by volumetric or displacement methods. Soils Classifications are visual unless accompanied by grain size analysis and Atterberg Limits.

4. Water Table - If encountered is noted on Log Graphs as ⊥

UNIFIED SOIL CLASSIFICATION SYSTEM
ASTM: D2487

COARSE-GRAINED SOIL

MORE THAN 50% LARGER THAN 200 SIEVE SIZE

Symbol	Description	Major Divisions
GW	WELL GRADED GRAVELS OR GRAVEL SAND MIXTURES, LESS THAN 5% - 200 FINES	GRAVELS More than half of coarse fraction is larger than No. 4 sieve size.
GP	POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES, LESS THAN 5% - 200 FINES	
GM	SILTY GRAVELS, GRAVEL SAND SILT MIXTURES, MORE THAN 12% - 200 FINES	
GC	CLAYEY GRAVELS, GRAVEL SAND CLAY MIXTURES, MORE THAN 12% - 200 FINES	
SW	WELL GRADED SANDS OR GRAVELLY SANDS, LESS THAN 5% - 200 FINES	SANDS More than half of coarse fraction is smaller than No. 4 sieve size
SP	POORLY GRADED SANDS OR GRAVELLY SANDS, LESS THAN 5% - 200 FINES	
SM	SILTY SANDS, SAND SILT MIXTURES MORE THAN 12% - 200 FINES	
SC	CLAYEY SANDS, SAND CLAY MIXTURES MORE THAN 12% - 200 FINES	

FINE-GRAINED SOIL

MORE THAN 50% SMALLER THAN 200 SIEVE SIZE

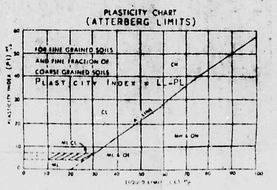
Symbol	Description	Major Divisions
ML	INORGANIC SILTS AND VERY FINE SAND, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	SILTS AND CLAYS Liquid limit less than 50
CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
OL	ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY	
MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS, ELASTIC SILTS	SILTS AND CLAYS Liquid limit greater than 50
CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS	

NOTE - Soils with 5 to 12 percent minus 200 fines should be classified with dual symbols.

SOIL FRACTIONS

Component		Size Range
Boulders		Above 12 in.
Cobbles		3 in. to 12 in.
Gravel		3 in. to No. 4 sieve
Coarse Gravel	G	3 in. to ¾ in.
Fine gravel		¾ in. to No. 4 sieve
Sand		No. 4 to No. 200
Coarse	CS	No. 4 to No. 10
Medium	MS F.S.	No. 10 to No. 40
Fine	FS	No. 40 to No. 200
Fines (silt or clay)	S/C	Below No. 200 sieve

PLASTICITY CHART
(ATTERBERG LIMITS)



RECEIVED
SEP 24 1986
HYDROLOGY SECTION

NO	REVISION	BY	DATE

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY
DATE

ESPEY, HUSTON & ASSOCIATES, INC.
Engineering & Environmental Consultants
4801 Indian School Rd. N.E. - Suite 204
Albuquerque, New Mexico 87110
ph: (505) - 255-1625

KIVA RESERVIOR No. 2
GRADING PLAN & SITE LAYOUT

SHEET NO
OF SHEETS
FILE NO

PUBLIC WORKS/HYDROLOGY

F22/D19

KIVA RESERVOIR NO. 2
DRAINAGE PLAN REVISION
FROM SHEET 2-15 OF PLANS FOR CONSTRUCTION
OF KIVA RESERVOIR NO 2 - CITY PROJECT NO 6710

ELEVATIONS BASED ON BM 11 F-22, BRASS CAP, LOCATED ON THE N.W. CORNER OF THE INTERSECTION OF TRAMWAY BLVD. & MONTGOMERY BLVD.
ELEVATION 5918.03 MSL

NOTE: Soil and Boring information for design and information purposes only. Contractor shall be responsible for verification of information given.

MAR 14 1988

CITY OF ALBUQUERQUE
WATER RESOURCES DEPARTMENT
ENGINEERING DIVISION

TITLE: KIVA RESERVOIR 2
GRADING PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	DATE
CITY ENGINEER			WATER RESOURCES	
A.C.E.-DESIGN			PARKS	
A.C.E.-PLANNING			PARKS	

DRAWING NO. 2098

ESPEY, HUSTON AND ASSOCIATES, INC.
Engineering & Environmental Consultants

APPROVED FOR CONSTRUCTION

DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY

R# 26 DATE 3-24-1992 DOP

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 (NBS115-1979)

DIRECTOR

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
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PLANS/PLATS ON FILE

FILE DESC: E22/D19

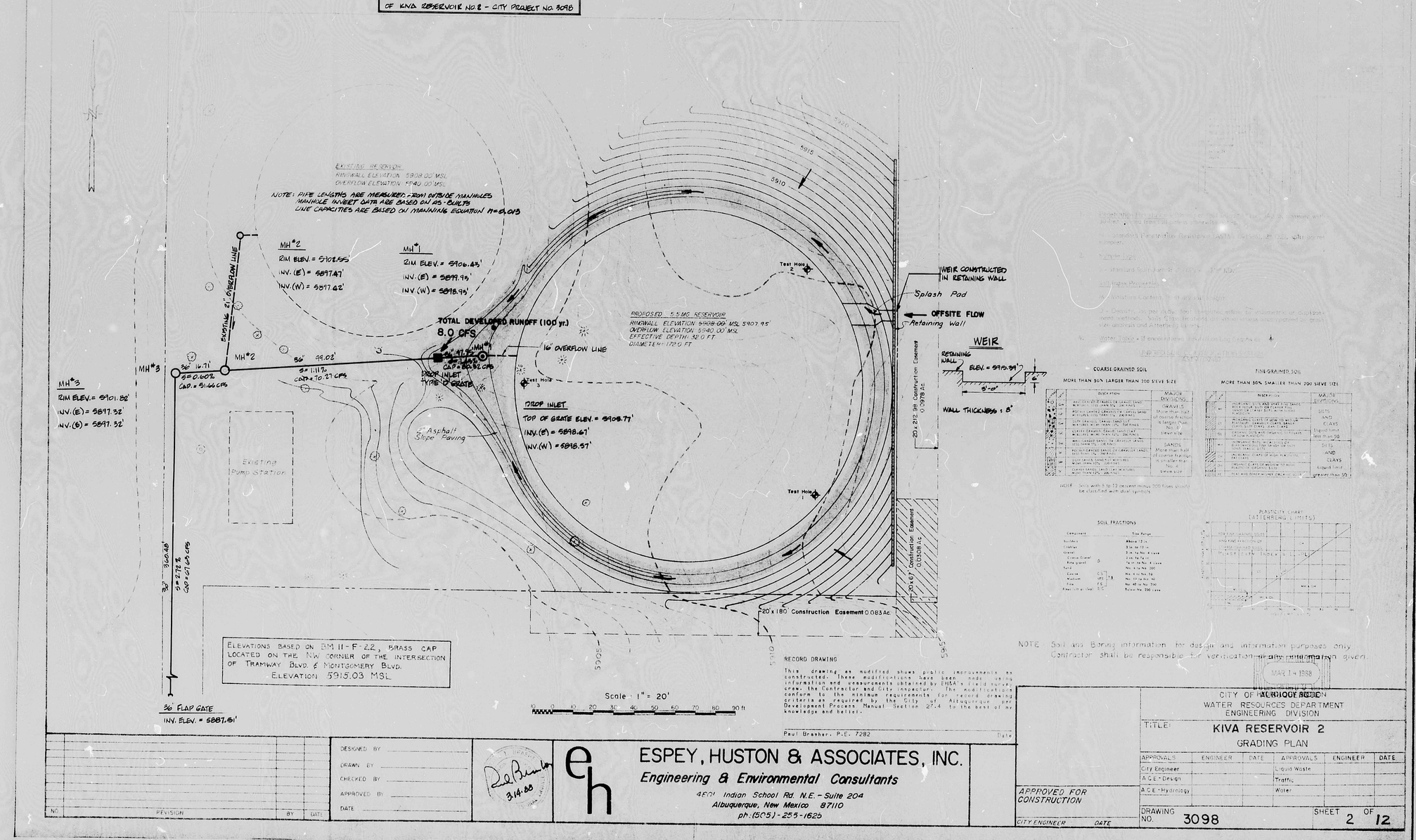
PLANS/PLATS 2

E 30 D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D F

KIVA RESERVOIR NO. 2
DRAINAGE PLAN REVISION
FROM SHEET 2-12 OF PLANS FOR CONSTRUCTION OF KIVA RESERVOIR NO. 2 - CITY PROJECT NO. 3098



PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

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R# 26 DATE 3-26-02 OP

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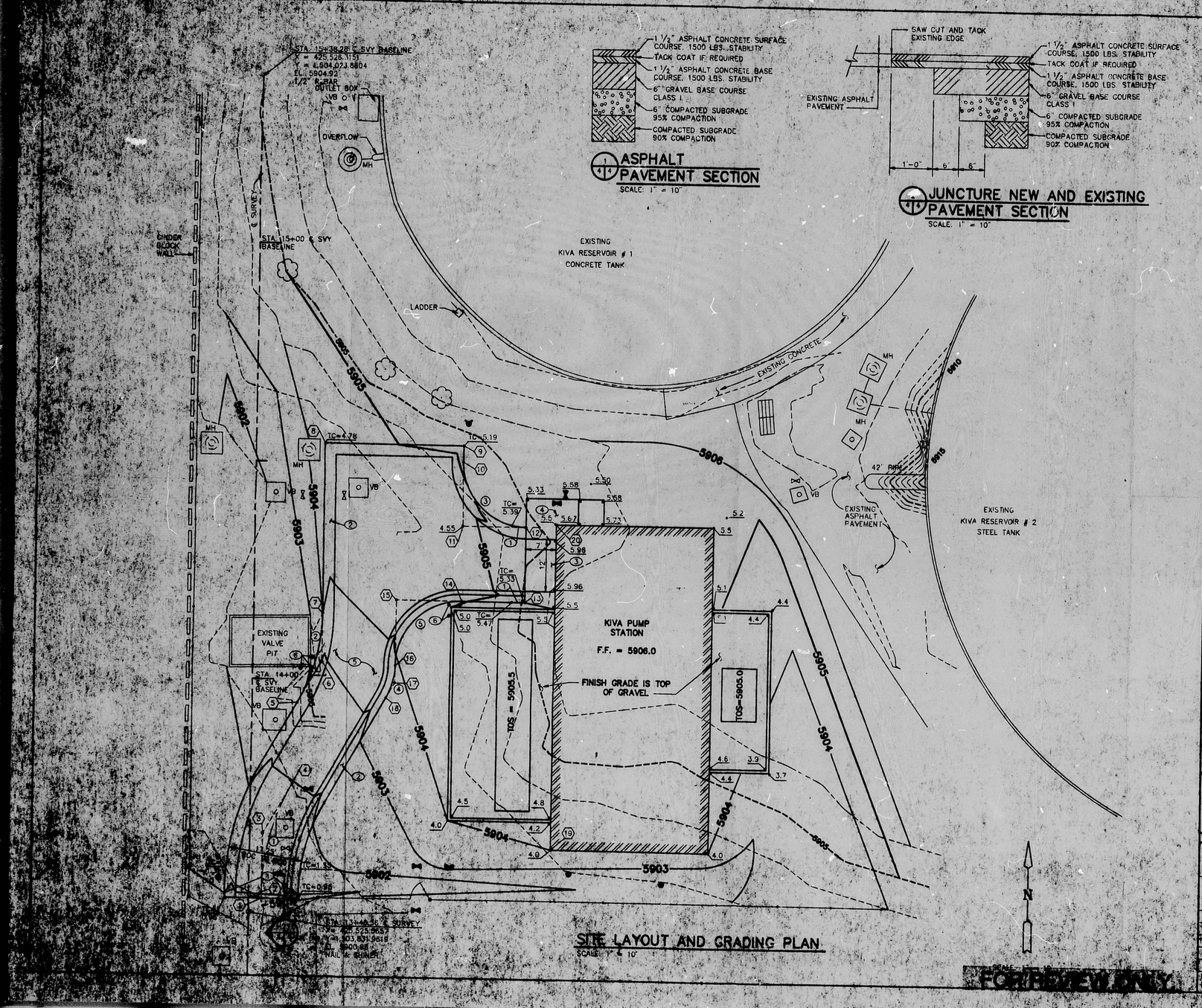
DIRECTOR 11/5/02

NOTARY PUBLIC
OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
07/07/02

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE C D



1 ASPHALT PAVEMENT SECTION
SCALE: 1" = 10"

1 JUNCTURE NEW AND EXISTING PAVEMENT SECTION
SCALE: 1" = 10"

GENERAL NOTES

1. IRRIGATION SYSTEM AND LANDSCAPING REPLACEMENTS NOT SHOWN FOR CLARITY. SEE IRRIGATION AND LANDSCAPING SHEETS FOR DETAILS.
2. EXISTING VALVE BOXES AND MANHOLES SHALL BE REMOVED AND REPLACED OR ADJUSTED TO GRADE AS REQUIRED.

KEYED NOTES

1. STA. 13+49.60, 3.00' RT. ℄ SVY.
2. PC STA. 13+51.08, 3.00' RT. ℄ SVY.
3. PI STA. 13+64.47, 3.00' RT. ℄ SVY.
4. PT STA. 13+76.08, 9.70' RT. ℄ SVY.
5. PT STA. 13+94.64, 10.46' RT. ℄ SVY.
6. PI STA. 14+04.24, 16.00' RT. ℄ SVY.
7. PC STA. 14+15.33, 16.00' RT. ℄ SVY.
8. STA. 14+54.46, 16.00' RT. ℄ SVY.
9. STA. 14+54.46, 48.25' RT. ℄ SVY.
10. PT STA. 14+50.71, 48.25' RT. ℄ SVY.
11. PI STA. 14+35.96, 48.25' RT. ℄ SVY.
12. PC STA. 14+35.96, 63.00' RT. ℄ SVY.
13. STA. 14+18.71, 63.00' RT. ℄ SVY.
14. PT STA. 14+18.71, 48.25' RT. ℄ SVY.
15. PI STA. 14+18.71, 33.25' RT. ℄ SVY.
16. PRC STA. 14+83.71, 33.25' RT. ℄ SVY.
17. PI STA. 13+99.69, 33.25' RT. ℄ SVY.
18. PT STA. 13+96.21, 31.24' RT. ℄ SVY.
19. STA. 13+62.00, 70.00' RT. ℄ SVY.
20. STA. 14+38.67, 70.00' RT. ℄ SVY.

KEYED NOTES

1. TRANSITION CURB HEIGHT FROM 3/4" TO 6" IN 3' OF LENGTH AT ENDS OF CURB.
2. MOUNTABLE CURB ROLL TYPE PER STD. DWG. 2415.
3. DRIVEPAD PER STD. DWG. 2425.
4. SIDEWALK PER STD. DWG. 2430
5. PAVEMENT PER 1/4
6. STATIONARY POST PER STD. DWG. 2250

CURVE DATA - (ALL DATA AT BACK OF CURB UNLESS OTHERWISE NOTED)

	Δ	R	L	T
1 R. ROAD	30°00'00"	50.00'	26.18'	13.40'
2	30°00'00"	41.38'	21.66'	11.09'
3	90°00'00"	14.75'	23.17'	14.75'
4	30°00'00"	15.00'	7.85'	4.02'
5	90°00'00"	15.00'	23.56'	15.00'

1 PC 2 3 4 5 PT

1/4 PT. ELEVATION - TOP OF CURB

	1	2	3	4	5
1 WEST	5901.37	5901.59	5901.80	5902.02	5902.23
1 EAST	5901.42	5901.63	5901.84	5902.05	5902.26
2	5904.00	5903.70	5903.40	5903.10	5902.80
3	5905.33	5905.12	5904.90	5905.01	5905.12
4	5903.88	5903.80	5903.71	5903.62	5903.53
5	5903.88	5904.15	5904.44	5904.69	5904.94

8026 21001 / KIVA1BTE.DWG

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	ALBQ. SURVEY	5/90

BENCH MARKS

THE STATION IS AN ACS BRASS TABLET STAMPED "10-F22A", LOCATED ON THE NORTH CURB OF MONTGOMERY BLVD. AT THE INTERSECTION OF MONTGOMERY BLVD. AND SEAGRAVES PL. NE.

ELEVATION = 5906.0 (CITY DATUM)

AS BUILT INFORMATION

NO.	DATE	REMARKS	BY

ENGINEER'S SEAL

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: KIVA PUMP STATION RECONSTRUCTION
SITE LAYOUT AND GRADING PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN			WATER		
TRANSPORTATION			WASTE WATER		
HYDROLOGY					

PROJECT NO. 3337 MAP NO. F-22

FOR REVIEW ONLY

FILM SPOT BLOCK

CITY OF ALBUQUERQUE
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R# 26 DATE 3-26-02 DD BBP

CITY OF ALBUQUERQUE

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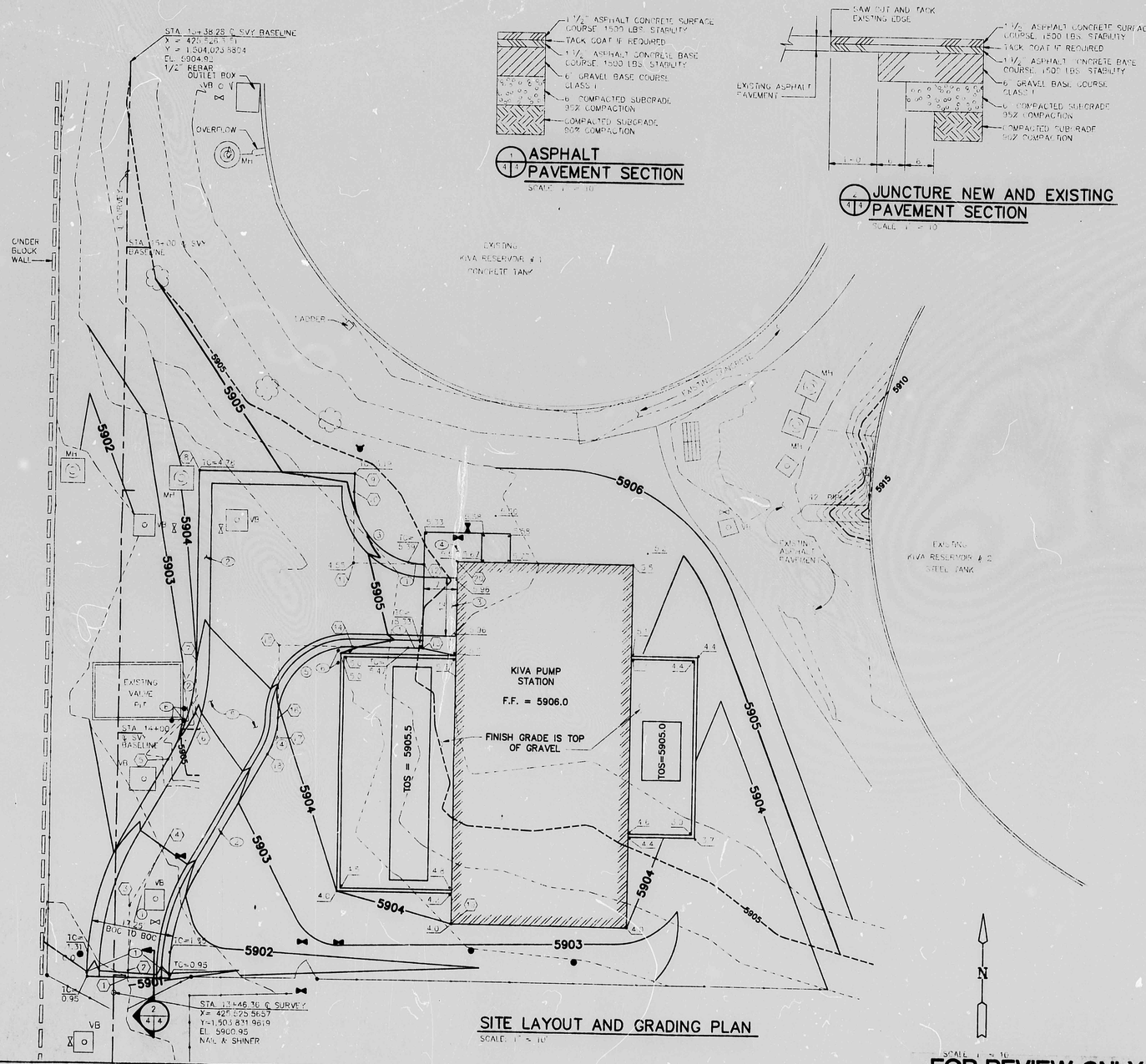
DIRECTOR 11/5/02

NOTARY PUBLIC

OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 11/5/02

CITY OF ALBUQUERQUE



SITE LAYOUT AND GRADING PLAN

SCALE 1" = 10'

ASPHALT PAVEMENT SECTION

SCALE 1" = 10'

JUNCTURE NEW AND EXISTING PAVEMENT SECTION

SCALE 1" = 10'

GENERAL NOTES

1. IRRIGATION SYSTEM AND LANDSCAPING REPLACEMENTS NOT SHOWN FOR CLARITY. SEE IRRIGATION AND LANDSCAPING SHEETS FOR DETAILS.
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KEYED NOTES

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4. PT STA. 13+76.08, 9.70' RT. ℄ SVY.
5. PT STA. 13+94.64, 10.48' RT. ℄ SVY.
6. PI STA. 14+04.24, 16.00' RT. ℄ SVY.
7. PC STA. 14+15.33, 16.00' RT. ℄ SVY.
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15. PI STA. 14+18.71, 33.25' RT. ℄ SVY.
16. PRC STA. 14+83.71, 33.25' RT. ℄ SVY.
17. PI STA. 13+90.93, 33.25' RT. ℄ SVY.
18. PT STA. 13+96.21, 31.24' RT. ℄ SVY.
19. STA. 13+52.00, 70.00' RT. ℄ SVY.
20. STA. 14+36.67, 70.00' RT. ℄ SVY.

KEYED NOTES

1. TRANSITION CURB HEIGHT FROM 3/4" TO 4 IN. OF LENGTH AT END OF CURB
2. MOUNTABLE CURB ROLL TYPE PER STD. DWG. 2415
3. DRIVEPAD PER STD. DWG. 2425
4. SIDEWALK PER STD. DWG. 2430
5. PAVEMENT PER
6. STATIONARY POST PER STD. DWG. 2250

CURVE DATA - (ALL DATA AT BACK OF CURB UNLESS OTHERWISE NOTED)

	Δ	R	L	T
1 (RING)	30°00'00"	30.00'	26.18'	13.40'
2	70°00'00"	41.38'	21.66'	11.00'
3	90°00'00"	14.75'	23.17'	14.75'
4	30°00'00"	15.00'	7.85'	4.02'
5	90°00'00"	15.00'	23.56'	15.00'

1/4 PT. ELEVATION - TOP OF CURB

	1	2	3	4	5
WEST	5901.37	5901.59	5901.80	5902.02	5902.23
EAST	5901.42	5901.63	5901.84	5902.05	5902.26
2	5904.00	5903.77	5903.40	5903.10	5902.80
3	5905.33	5905.12	5904.93	5904.01	5905.13
4	5903.88	5903.85	5903.71	5903.62	5903.53
5	5903.88	5904.15	5904.44	5904.69	5904.94

SCALE 1"=10' / RIVASTEDWG

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: KIVA PUMP STATION RECONSTRUCTION
SITE LAYOUT AND GRADING PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN			WATER		
TRANSPORTATION			WASTE WATER		
HYDROLOGY					

PROJECT NO.	MAP NO.	SHEET	OF
3337	F-22	4	14

RECEIVED JUL 27 1990 HYDROLOGY DIVISION

AS BUILT INFORMATION

CONTRACTOR / WORK STAKED BY / ACCEPTABLE BY / VERIFICATION BY / CHIEF INSPECTOR — DATE

MICRO-FILM INFORMATION — RECORDED BY / DATE / NO.

BENCH MARKS

THE STATION IS AN ACS BRASS TABLET STAMPED "10-F22A" LOCATED ON THE NORTH CURB OF MONTGOMERY BLVD. NE AT THE INTERSECTION OF MONTGOMERY BLVD. AND SHENANDOAH TL. NE.
ELEVATION = 5831.93 (1ST. ORDER)

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE
1	AERO SURVEY	3/90

ENGINEER'S SEAL — JOHN E. ROBERTS, REGISTERED PROFESSIONAL ENGINEER, 9-28-89

NO.	DATE	REMARKS	BY
		REVISIONS	

DESIGN — DATE JUNE 1990
RECORDED BY K. BELL — DATE JUNE 1990
DRAWN BY K. H. FARRIN — DATE JUNE 1990
CHECKED BY — DATE JUNE 1990

FOR REVIEW ONLY

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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R# 2x DATE 3-26-02 OP

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DIRECTOR 11/5/02

NOTARY PUBLIC
OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 8/8/02

D24 C20 B16 A12 CITY OF ALBUQUERQUE C D