



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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February 7, 1992

Steve Crawford, P.E.  
BPLW Architects & Engineers  
2400 Louisiana Boulevard, NE Suite 400  
Albuquerque, New Mexico 87110

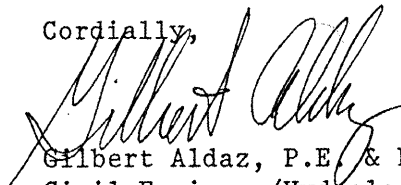
RE: DRAINAGE PLAN FOR FHP MEDICAL CLINIC  
(G-20/D4A) ENGINEER'S STAMP DATED JANUARY 9, 1992

Dear Mr. Crawford:

Based on the information provided on the referenced submittal received January 10, 1991, the plan is approved for Certificate of Occupancy release.

If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially,



Gilbert Aldaz, P.E. & P.S.  
Civil Engineer/Hydrology

GA  
(WP+84)

PUBLIC WORKS DEPARTMENT

---

Walter H. Nickerson, Jr., P.E.  
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

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AN EQUAL OPPORTUNITY EMPLOYER

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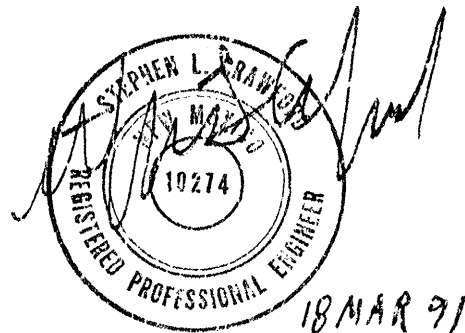
for

# FHP HEALTH CARE

MARCH, 1991

Prepared by: BPLW Architects & Engineers, Inc.  
2400 Louisiana Blvd. NE  
AFC #5, Suite 400  
Albuquerque, NM 87110

Author: Stephen L. Crawford, PE #10274



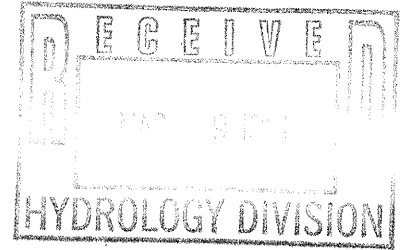


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**1. GENERAL INFORMATION:**

The project site is located at the southeast corner of Wyoming and General Chenault, NE. The project is a medical office complex situated on Tract A-1 (formerly the westerly 2.67 acres of Tract A, Montgomery Crossing Phase III). Montgomery Blvd. to the north of this site is designated as a 100 year floodway by the FEMA floodway maps. The site's soils consist of Embudo-Tijeras Complex (EtC) and Tijeras gravelly loam (TgB) soil associations, both of which are designated as hydrologic soil group 'B' by the SCS. Because Montgomery Blvd. currently carries significant surface flows in the 100 year storm, previous drainage studies have limited the peak developed discharge from the entire 6.52 acres of former Tract A (now Tracts A-1 & A-2).

## 2. PROJECT DEVELOPMENT BACKGROUND:

A Conceptual Grading and Drainage Plan was prepared for Tract A (before it was subdivided) in December of 1990. During this time period, the EPC site plan for Tract A was administratively amended to accommodate the proposed medical office uses on the west half of the site (now Tract A-1). The Conceptual Grading & Drainage Plan (Engineer's stamp dated 16 Dec, 1990) was based directly on the original site plan drainage scheme as prepared by Bohannon/Huston in April of 1987. This drainage scheme combined the public offsite storm waters from Hendrix Road to the east with the onsite developed flows and routed them through a series of detention ponds in order to mitigate the sites runoff to an average of 0.5 cfs/acre. These ponds were located in the center of former Tract A. Tract A was subdivided just west of the ponds and the westerly portion was sold to FHP, Inc. based on the site plan as modified. This effectively gave Tract A-1 free discharge at the expense of Tract A-2 and the offsite flows to the east being greatly restricted by the detention ponds. The December Conceptual Grading & Drainage Plan was approved in January of 1991 after Tract A-1 was sold to FHP, Inc.

In February, 1991 the design Grading & Drainage Plan was prepared along with Public Infrastructure Design Plans for the ponds. By the design of the approved Conceptual Grading and Drainage Plan, the ponds were proposed to be public since they carried street runoff from Hendrix Road to the east.

During the DRC review of the Public Infrastructure Design for the ponds, numerous issues pertaining to the City's liability concerning the public nature of the detention ponds were raised. Discussions were held with the City Engineer and his staff at which time it was agreed that the public interest would be best served if the public nature of the detention ponds could be eliminated. The developers of Tracts A-1 and A-2 were both agreeable to diverting the Hendrix Road storm waters directly north in a public surface conveyance channel and converting the detention pond to exclusively non-public storm flows. For practical reasons (the sale of Tract A-1 to FHP, Inc. with a free discharge understanding), the discharge rate for Tract A-2 only will be limited to the 0.5 cfs/acre discharge rate commonly applied along this portion of Montgomery Blvd. This modification of the average discharge rate for former Tract A is allowable in lieu of the reduction in liability to the City which is affected by changing the detention ponding area from a public to a private concern. This design change will also improve the visual appearance of the site from Montgomery Blvd. by reducing the area devoted to detention ponding by about 40%.

### 3. EXISTING CONDITIONS:

The site currently receives offsite flows from the east from two offsite flow basins.

A) OS-1 is a City Well site and has the following hydrologic properties:

A = 0.34 acres  
P100 = 2.4 inches

Tc < 10 minutes	%Imp = 25
I100 = 5.07 in/hr	Perv CN = 79 (poor range)
CC = 0.53	CCN = 83
12%(0.90)+13%(0.95)+75%(0.40)	RO = 1.0 inches
Q100 = 0.91 cfs	V100 = 1234 cf

B) OS-2 is a developed (medium density residential) site and has the following hydrologic properties:

A = 2.65 acres

Tc < 10 minutes	%Imp = 65
I100 = 5.07 in/hr	CN = 85
C = 0.79	RO = 1.2 inches
Q100 = 10.61 cfs	V100 = 11,540 cf

C) The onsite existing hydrologic conditions for basin B-1 (the project site) are as follows:

A = 2.67 acres

Tc < 10 minutes	CN = 70 (fair range)
I100 = 5.07 in/hr	RO = 0.5 inches
C = 0.40	V100 = 4850 cf
Q100 = 5.41 cfs	

D) Basin B-2 (east portion Tract A) has the following existing hydrologic properties:

A = 3.85 acres

Tc < 10 minutes	CN = 70 (fair range)
I100 = 5.07 in/hr	RO = 0.5 inches
C = 0.40	V100 = 6990 cf
Q100 = 7.81 cfs	

E) The total existing 100 year flow rate (offsite and onsite) from Tract A into Montgomery Blvd. is 24.74 cfs.

#### 4. PROPOSED DRAINAGE SOLUTION:

To mitigate the effects of developing Tracts A-1 & A-2, onsite detention ponding will be constructed in basin B-2 near the center of former Tract A. Based on the Project Development history recited in section 2 of this plan: the flows from basin B-1 will be allowed to discharge freely; the flows from basin OS-2 will be diverted north to Montgomery via a surface conveyance channel; and the flows from basins OS-1 & B-2 will be routed through an on-site detention pond. This will reduce the cumulative developed peak flows from Tract A to an acceptable level and will allow Tract A-1 to be developed as indicated on the site plan without adversely impacting the drainage conditions in Montgomery Blvd. Basin B-1 can be developed with a free discharge condition provided that the construction of the detention ponding and offsite water block (at NE corner of OS-1) are done concurrently. See sheet C2.3 in the map pocket and the calculations in Appendix 'A'.

5. DEVELOPED CONDITIONS:

A) The site/grading plan (see sheet C2.1 in map pocket) for basin B-1 indicates that it will have the following hydrologic properties after development:

A = 2.67 acres

Tc < 10 minutes	%Imp = 78
I100 = 5.07 in/hr	Perv CN = 61 (good lawn)
CC = 0.79	CCN = 88
21%(0.90)+22%(0.25)+57%(0.95)	RO = 1.4 inches
Q100 = 10.69 cfs	V100 = 13,570 cf

B) Tract A-2 (basin B-2) is assumed to be developed with commercial uses and will have the following developed hydrologic properties:

A = 3.85 acres

Tc < 10 minutes	%Imp = 85
I100 = 5.07 in/hr	Perv CN = 61 (good lawn)
C = 0.85	CCN = 90
Q100 = 16.59 cfs	RO = 1.5 inches
	V100 = 20,960 cf



## 6. DETENTION POND DESIGN:

The total peak discharge from Tract A-2 after development must be limited to:

$$\begin{array}{rcl} 0.91 & + & 1.93 & = & 2.84 \text{ cfs} \\ \text{(OS-1)} & & \text{(6.52 x 0.5cfs/acre)} & & \end{array}$$

The cumulative hydrologic properties of the basins tributary to the ponding area are as follows:

$$\begin{array}{l} A = 4.19 \text{ acres} \\ P100 = 2.4 \text{ inches} \end{array}$$

$$\begin{array}{ll} T_c < 10 \text{ minutes} & \text{CCN} = 89 \\ I100 = 5.07 \text{ in/hr} & \text{RO} = 1.4 \text{ inches} \\ \text{CC} = 0.82 & \text{V100} = 21,290 \text{ cf} \\ Q100 = 17.41 \text{ cfs} & \end{array}$$

Assuming a pond depth of about 5 feet and given the allowable discharge of 2.84 cfs, a single 7 inch outlet orifice will control the discharge adequately (inlet control). The pond hydrograph (per DPM chapter 22.2, part F) shows that a total of 17,610 cf of detention volume is required to satisfy the discharge requirement and that the pond will be drained in about 4 hours after the 100-year event. A pond with vertical sides, a commercial area guardrail, 3900 sq ft of bottom area, and 4.52 feet deep will be needed. The hydrograph is located in Appendix 'B'.

The 10 inch PVC outlet pipe ( $n=0.010$ ) at a slope of 1.5% has a capacity of 3.49 cfs (Mannings). OK

Check 12' wide inlet weir,  $17.41=2.65(12)H^{1.5}$  ;  $H = 0.67'$ .  
The opening sides will be one CMU block high (0.67'). OK

7. SUMMARY:

The development of Tracts A-1 & A-2 will result in a slight reduction of peak flows into Montgomery Blvd due to the construction of the detention ponding. The peak flows will be changed from 24.74 cfs (before) to 23.95 cfs (after) which represents a 3% reduction. The project will also redirect Hendrix Road public storm flows, which currently sheet flow across private property, to a new public surface channel north to Montgomery Blvd.

The on-site pond will have a maximum water surface elevation of 78.15 during the 100-year storm. A twenty foot section of the pond wall with top elevation of 78.33 (at the northwest corner of the pond) will serve as the pond's overflow spillway.

$$17.41 \text{ cfs} = 2.65(20 \text{ lf})H^{1.5} \quad ; \quad H = 0.67'$$

The opening sides will be one CMU block high (0.67'). OK

## APPENDIX A

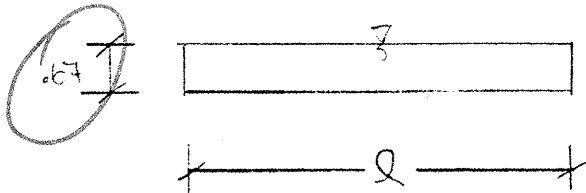
Project FIP

Subject End Run 5 adjacent to...

Project No. 91001 Date 2-21 By ...

- Memorandum
- Telephone record
- Note to the file
- Minutes of meeting
- To be typed
- \_\_\_\_\_

## CHANNEL INLET AT HENDRIX CUL-DE-SAC



SINCE CHANNEL @ ADVERSE DIRECTION TO FLOW, RECOMMEND THROAT TO BE EAST R. RESULTING IN L=25'. NEED GATES @ BOTH ENDS

$$Q_{ACT} = 11 \text{ CFS}$$

$$Q = 2.65 Q_{ACT}$$

$$L = \frac{11}{2.65 \times 0.67} = 7.63 \text{ FT}$$

\* JUST MAKE CHANNEL 10 FT

$$2.65(10)(0.67)^{1.48} = 14.42 \text{ CFS} > 11 \text{ CFS } \underline{OK}$$

$$Q = CLH^{3/2}$$

$$H = \left( \frac{Q}{CL} \right)^{2/3} = \left( \frac{11 \text{ CFS}}{2.65 \times 25} \right)^{2/3} = \underline{0.30'}$$



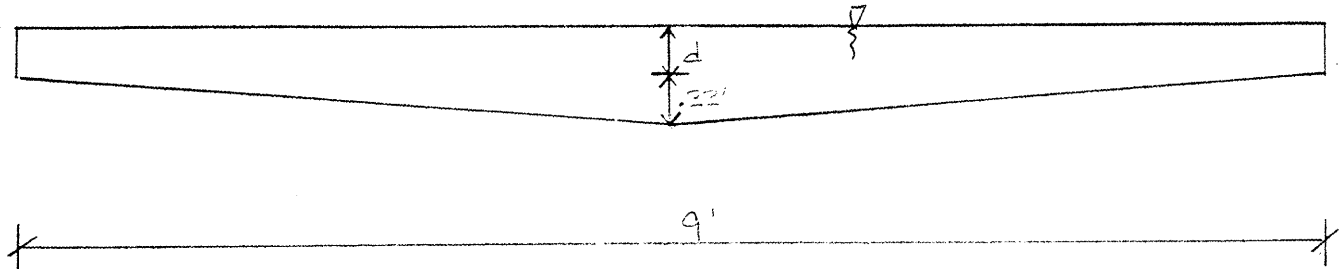
Project FHP

Subject FLOOD PROTECT THRU CHANNEL

Project No. 91021 Date 3-91 By LGH

- Memorandum
- Telephone record
- Note to the file
- Minutes of meeting
- To be typed
- \_\_\_\_\_

## STANDARD COA DRAINAGE CHANNEL



$$Q_{ACT} = 11 \text{ cfs } 11 \text{ cfs}$$

$$Q \geq Q_{ACT}$$

$$n = .014 \quad .014$$

$$S_0 = .005 \quad .005$$

$$Q = \frac{1.49 A R^{2/3}}{n} S^{1/2}$$

$$A = 9d + 1.5$$

$$P = 2d + 9.02$$

$$R = A/P$$

$$Q = \frac{1.49 [9d + 1.5]}{.014} \left[ \frac{9d + 1.5}{2d + 9.02} \right]^{2/3} [.005]^{1/2}$$

$$Q = 7.52 (9d + 1.5) \left( \frac{9d + 1.5}{2d + 9.02} \right)^{2/3}$$

LET  $d = 4'' = .33'$  (HEIGHT OF SIDEWALLS)

$$Q = 20.3 \text{ cfs} > 11 \text{ cfs } \underline{OK}$$

\* FOR CONSTRUCTION EDGE, USE 8" SIDEWALLS



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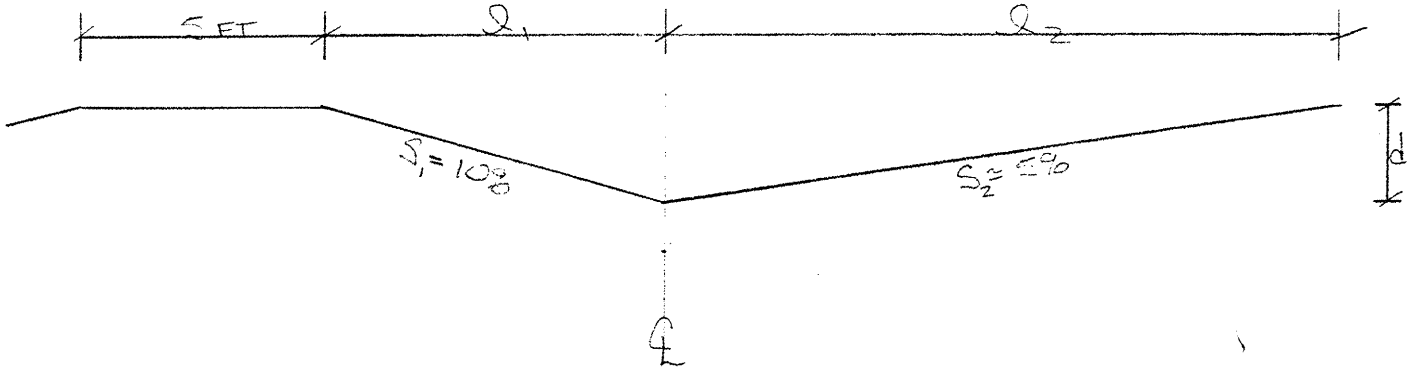
Project FHP

Subject FLOOD WALLS

Project No. 91001 Date 3-91 By LPH

- Memorandum
- Telephone record
- Note to the file
- Minutes of meeting
- To be typed
- \_\_\_\_\_

PROPOSED FLOOD WALLS - ADJACENT TO WELL SITE DRIVEWAY



$$n = .017$$

$$S_0 = .5\% = .005$$

$$Q = \frac{1.49 A R^{2/3} S_0^{1/2}}{n} \geq 11 \text{ CFS}$$

$$\text{LET } d = .45'$$

$$Q_1 = 4.5 \text{ FT}$$

$$Q_2 = 9 \text{ FT}$$

$$A = \frac{1}{2} (.45) (.45 + 9) = 3.04 \text{ FT}^2$$

$$R = \frac{A}{P} = \frac{3.04}{\sqrt{.45^2 + (.45)^2} + \sqrt{.45^2 + (9)^2}} = \frac{3.04}{13.53} = .024 \text{ FT}$$

$$Q = 1.49 (3.04) (.024)^{2/3} (.005)^{1/2} (.017) = 6.95 \text{ CFS} < 11 \text{ CFS } \underline{\text{NG}}$$

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June 1990

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Project FHP

Subject FLOOD CALCS

Project No. 91001 Date 3-91 By LAH

- Memorandum
- Telephone record
- Note to the file
- Minutes of meeting
- To be typed
- \_\_\_\_\_

$$\begin{aligned}TR4 \quad d &= .55 \text{ FT} \\ \rho_1 &= 5.5 \text{ FT} \\ \rho_2 &= 11 \text{ FT}\end{aligned}$$

$$A = 4.54 \text{ FT}^2$$

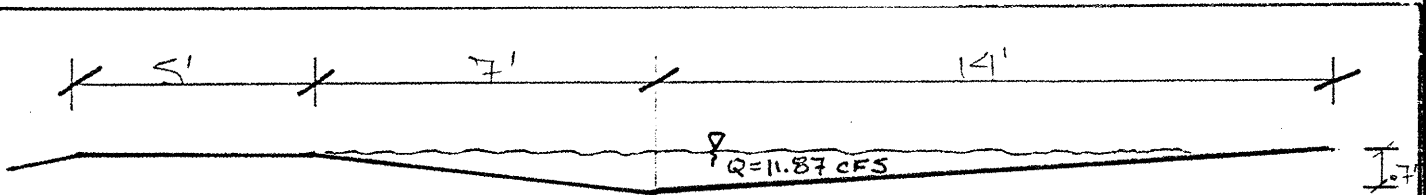
$$P = \{ (.55)^2 + (5.5)^2 \}^{1/2} + \{ (.55)^2 + (11)^2 \}^{1/2} = 16.54 \text{ FT}$$

$$R = A/P = .27 \text{ FT}$$

$$Q = 1.49 (4.54) (.27)^{2/3} (.003)^{1/2} (1.017) = 11.87 \text{ CFS} > 11.95 \text{ CFS DE}$$

ARC .15 FT FOR FREE BOARD.

$$\begin{aligned}d &= .55' + .15' = .70 \\ \rho_1 &= 7 \text{ FT} \\ \rho_2 &= 14 \text{ FT}\end{aligned}$$



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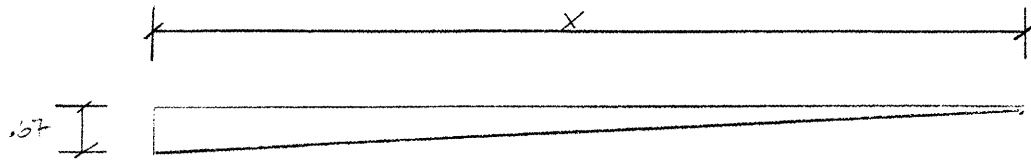
Project FUP

Subject FLOOD CALCS

Project No. 91001 Date 3-91 By LAH

- Memorandum
- Telephone record
- Note to the file
- Minutes of meeting
- To be typed
- \_\_\_\_\_

1.67 BY EXISTING WATER METER JUST SOUTH OF MONTGOMERY



$$Q_{ACT} = 11 \text{ CFS}$$

$$n = .017$$

$$S_o = .005$$

$$1.67 x = 18 \text{ FT}$$

$$A = \frac{1}{2} (1.67 + 18) = 6 \text{ FT}^2$$

$$P = 18.01 \text{ FT}$$

$$R = A/P = .333 \text{ FT}$$

$$R^{2/3} = .48$$

$$Q = \frac{1.49 A R^{2/3} S_o^{1/2}}{n} = \frac{1.49 (6) (.48) (.005)^{1/2}}{.017} (1.017)$$

$$Q = 17.87 \text{ CFS} > 11 \text{ CFS} \quad \underline{25}$$

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## APPENDIX B

DIMENSIONLESS UNIT HYDROGRAPH    TRACT A-2 POND  
(City of Albuquerque)

A = 4.19    P100 = 2.40    RO = 1.40  
Tc = 10    CN = 89

Point	t/Tp	t(min)	y	In Q(cfs)	In V (cf)	Out Q(cfs)	Out V(cf)	Total Net V	Pond Depth
1	0.0	0.00	0.000	0.00	0	0.00	0	0	0.00
2	0.1	1.00	0.030	0.80	48	0.00	0	48	0.01
3	0.2	2.00	0.100	2.66	160	0.00	0	208	0.05
4	0.3	3.00	0.190	5.06	304	0.01	0	511	0.13
5	0.4	4.00	0.310	8.26	495	0.05	3	1,003	0.26
6	0.5	5.00	0.470	12.52	751	0.28	0	1,754	0.45
7	0.6	6.00	0.660	17.58	1,055	0.57	34	2,774	0.71
8	0.7	7.00	0.820	21.84	1,310	0.87	52	4,032	1.03
9	0.8	8.00	0.930	24.77	1,486	1.14	68	5,450	1.40
10	0.9	9.00	0.990	26.37	1,582	1.38	83	6,950	1.78
11	1.0	10.00	1.000	26.63	1,598	1.59	95	8,452	2.17
12	1.1	11.00	0.990	26.37	1,582	1.78	107	9,927	2.55
13	1.2	12.00	0.930	24.77	1,486	1.95	117	11,297	2.90
14	1.3	13.00	0.860	22.90	1,374	2.09	125	12,546	3.22
15	1.4	14.00	0.780	20.77	1,246	2.21	133	13,659	3.50
16	1.5	15.00	0.680	18.11	1,087	2.32	139	14,607	3.75
17	1.6	16.00	0.560	14.91	895	2.40	144	15,358	3.94
18	1.7	17.00	0.460	12.25	735	2.47	148	15,945	4.09
19	1.8	18.00	0.390	10.39	623	2.52	151	16,417	4.21
20	1.9	19.00	0.330	8.79	527	2.55	153	16,791	4.31
21	2.0	20.00	0.280	7.46	447	2.59	155	17,083	4.38
22	2.2	22.00	0.207	5.51	662	2.61	313	17,432	4.47
23	2.4	24.00	0.147	3.91	470	2.64	317	17,585	4.51
24	2.6	26.00	0.107	2.85	342	2.65	318	17,609	4.52
25	2.8	28.00	0.077	2.05	246	2.65	318	17,537	4.50
26	3.0	30.00	0.055	1.46	176	2.65	318	17,395	4.46
27	3.2	32.00	0.040	1.07	128	2.63	316	17,207	4.41
28	3.4	34.00	0.029	0.77	93	2.62	314	16,985	4.36
29	3.6	36.00	0.021	0.56	67	2.60	312	16,740	4.29
30	3.8	38.00	0.015	0.40	48	2.58	310	16,478	4.23
31	4.0	40.00	0.011	0.29	35	2.56	307	16,206	4.16
32	4.5	45.00	0.005	0.13	40	2.54	761	15,485	3.97
33	5.0	50.00	0.000	0.00	0	2.48	743	14,742	3.78
-	-	60.00	-	-	0.00	2.41	1,447	13,294	3.41
-	-	80.00	-	-	0.00	2.28	2,738	10,556	2.71
-	-	100.00	-	-	0.00	2.01	2,415	8,141	2.09
-	-	120.00	-	-	0.00	1.74	2,089	6,052	1.55
-	-	140.00	-	-	0.00	1.47	1,758	4,294	1.10
-	-	160.00	-	-	0.00	1.18	1,421	2,873	0.74
-	-	180.00	-	-	0.00	0.90	1,075	1,798	0.46
-	-	200.00	-	-	0.00	0.59	708	1,090	0.28
-	-	220.00	-	-	0.00	0.22	265	825	0.21
-	-	240.00	-	-	0.00	0.18	216	609	0.16
				TOTAL VOLUME =	21,097				

NOTES: 1) Hydrograph assumes outlet is one 7 inch diameter orifice  
(  $Q = 0.6 * A * (2gH)^{0.5}$  )  
2) Pond depths based on 3900 sf, vertical wall design



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 8, 1992

## PROJECT ACCEPTANCE LETTER

Mr. Carlos Spiess  
Sundance Mechanical & Utility Contractors  
5920 Midway Park Boulevard N.E.  
Albuquerque, NM 87109


RE: F.H.P. MEDICAL CLINIC, PROJECT NO. 3803.91

Dear Mr. Spiess:

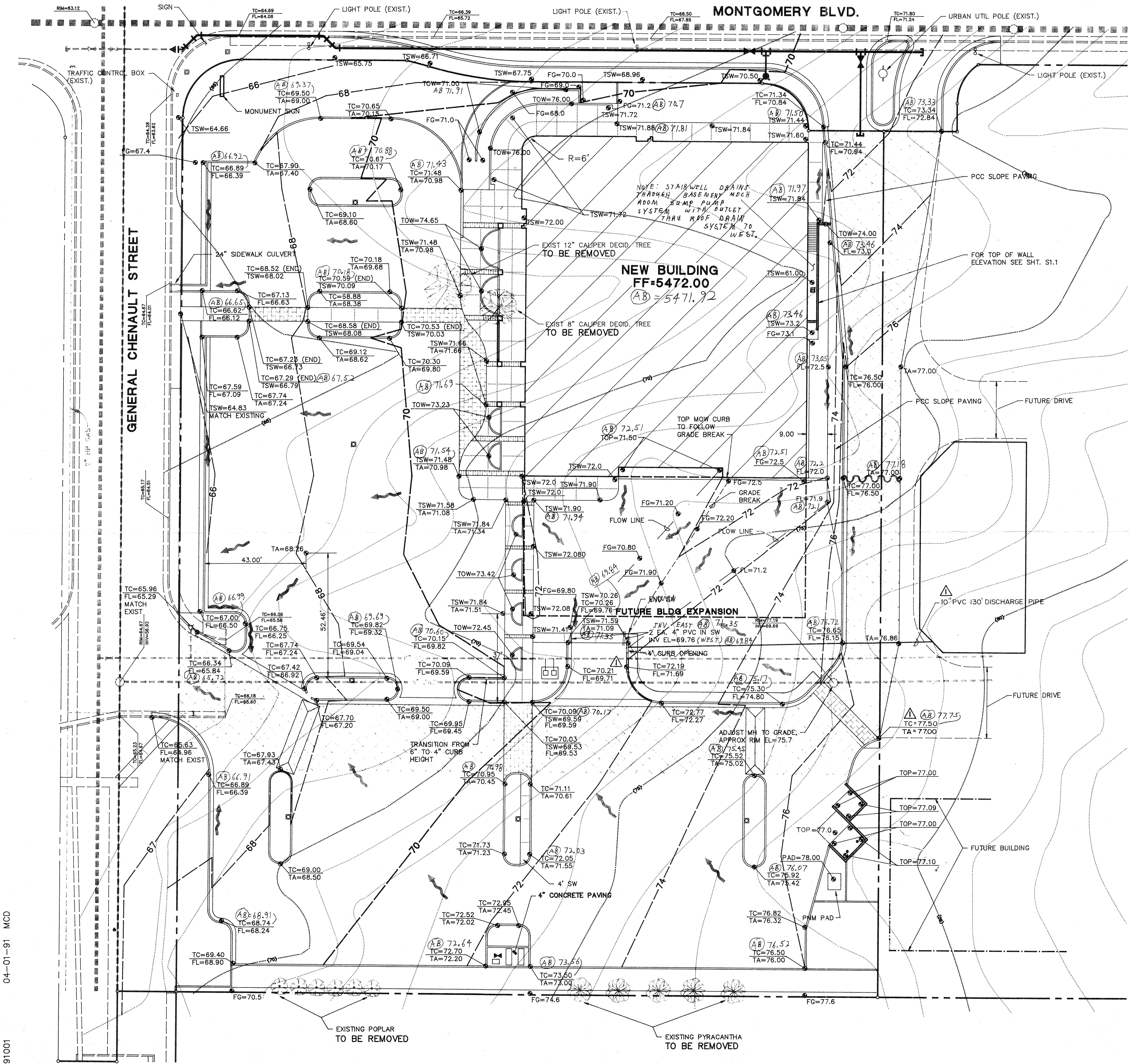
The above referenced project has been completed according to the plans and specifications. The project consisted of installation of an 8" fire line and a 4' bury fire hydrant on Montgomery. Constructed two (2) turnbays off Montgomery for access to the F.H.P. Building. Also constructed a drainage channel and paved alley east of F.H.P. Building.

The City of Albuquerque accepts the referenced project as a whole and the contractual correction period begins January 8, 1992. The correction period on this project is for one (1) year.

Sincerely,

  
Brian L. Speicher, P.E.  
Chief Construction Engineer  
Public Works Department

BLS:kv



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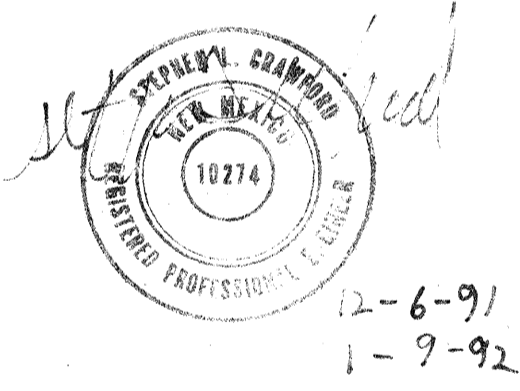
**BENCHMARK:** M-2A, ACS BRASS CAP AT THE INTERSECTION OF MONTGOMERY AND LA BARRANCA ELEVATION = 5460.382

**LEGAL DESCRIPTION:** TRACT A-1, MONTGOMERY CROSSING ADDITION, PHASE III

**NOTES:**

1. THE WORK SHOWN ON THIS SHEET IS NOT PART OF THE CITY WORK ORDER.
2. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT THE LINE LOCATING SERVICE AT 260-1990 FOR LOCATION AND BLUESTAKING OF EXISTING UTILITIES.
3. THE CONTRACTOR MUST SECURE A TOPSOIL DISTURBANCE PERMIT PRIOR TO STARTING CONSTRUCTION.
4. CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC ROW OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
5. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC ROW SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
6. SEE DETAIL 25.C5.2 FOR TYPICAL PARKING AREA PAVEMENT SECTION.

**ENGINEERS CERTIFICATION:**  
 I hereby certify that the finished construction is in substantial compliance with the approved drainage plan.  
 By: Stephen L. Crawford  
 PE #10274



**LEGEND**

As-BUILT

XXXXXX TYPICAL MAIN DRIVE PAVING, SEE DETAIL 24, C5.2 FOR SECTION

TC=82.28  
FL=81.62 EXIST ELEVATION

TC=82.28  
FL=81.62 NEW ELEVATION

— FLOW DIRECTION

— WATER BLOCK

TC TOP OF CURB

FL FLOW LINE

TA TOP OF ASPHALT

FG FINISH GRADE

TSW TOP OF SIDEWALK

MH MANHOLE

TOW TOP OF WALL

TOP TOP OF PAVING

REV.	DESCRIPTION	DATE

ENGINEER

ARCHITECT

**FHP MEDICAL OFFICES**

MONTGOMERY & GENERAL CHENAULT

ALBUQUERQUE, NEW MEXICO

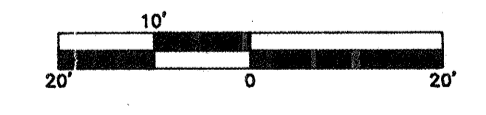
PROJECT NO. 91001 DATE 04-01-91  
 CITY: 3803.91

**GRADING & PAVING PLAN**

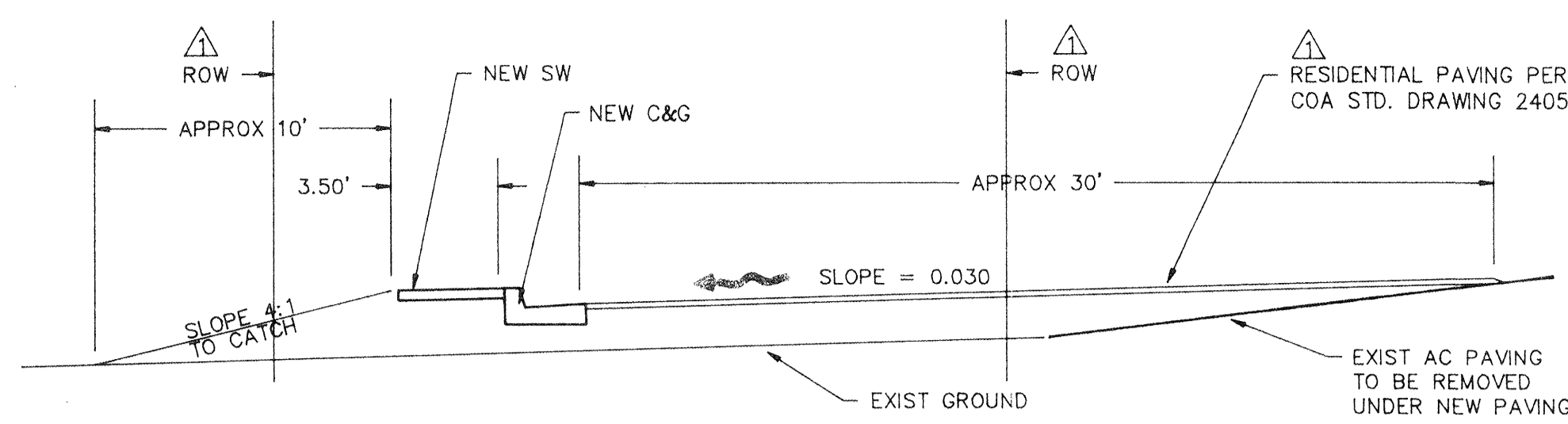
DRAWING NO.

**C2.1**  
 SHEET OF

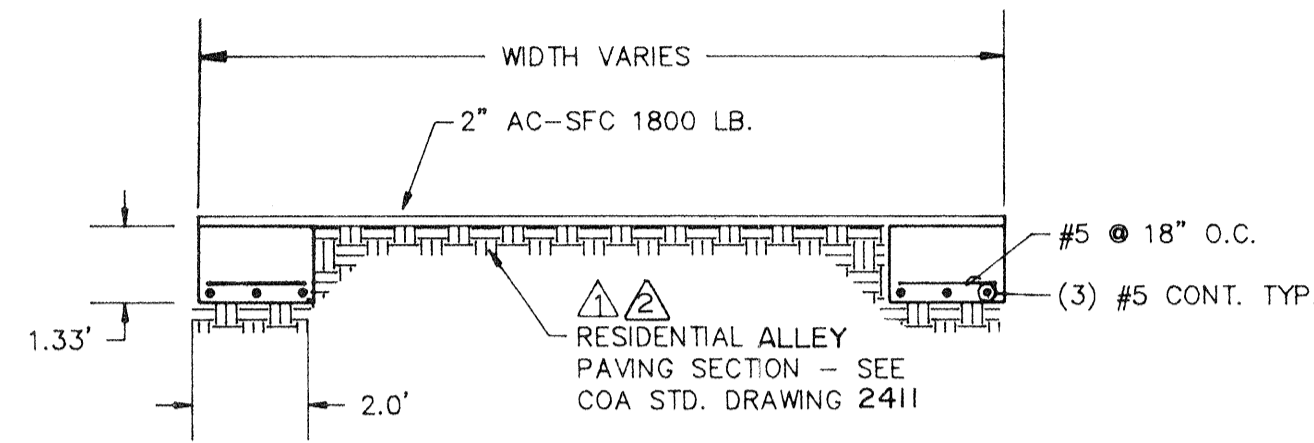
SCALE: 1" = 20'



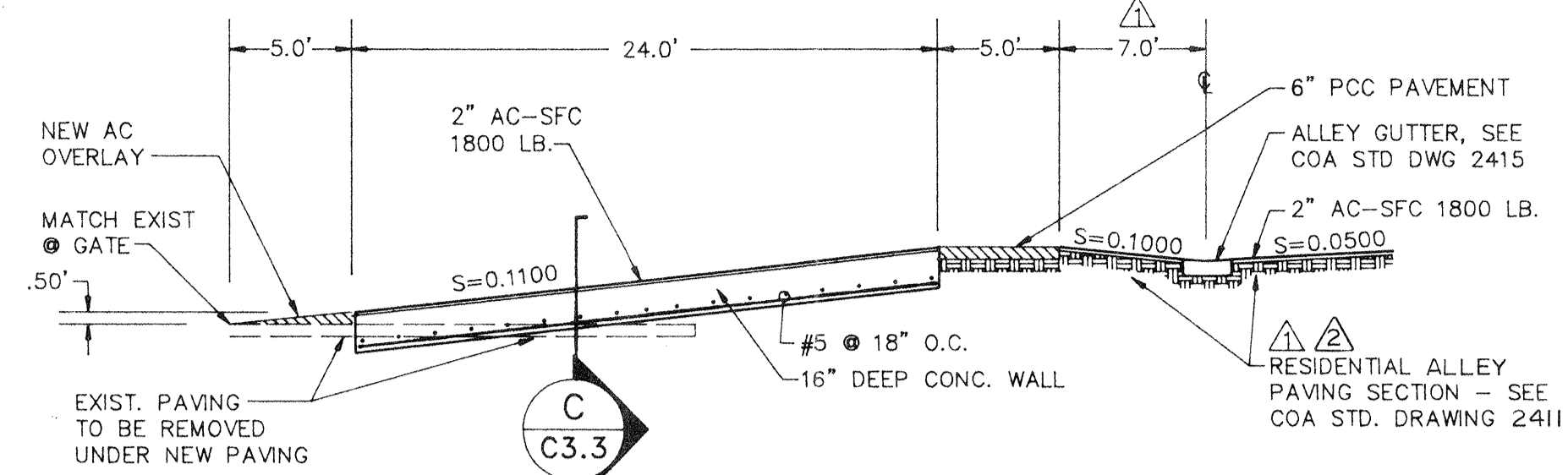
04-01-91 MCD  
91001



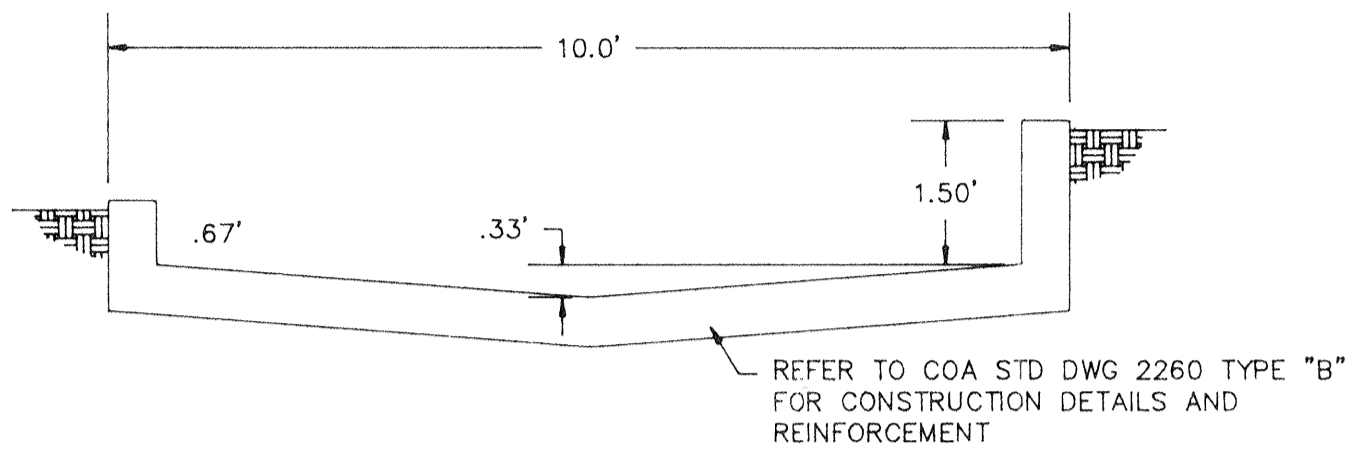
**A** PAVING DETAIL SECTION  
**C3.4** SCALE: 1" = 5'



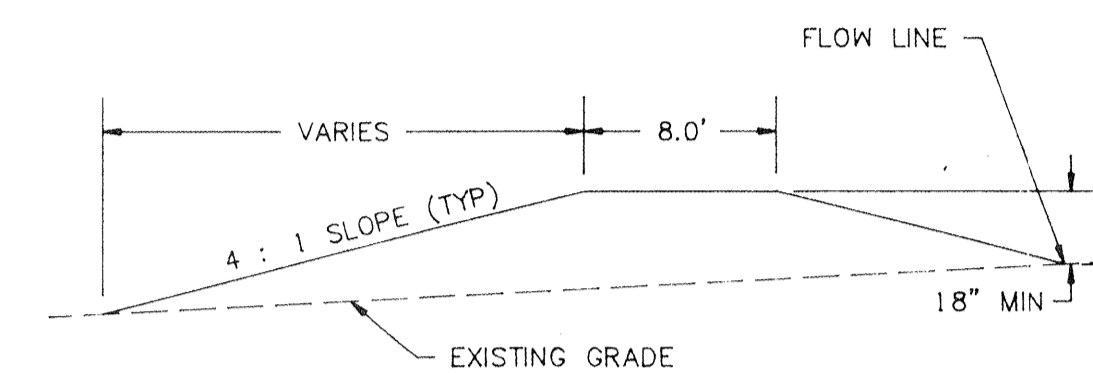
**C** WELLSITE DRIVEWAY SECTION  
**C3.3** N.T.S.



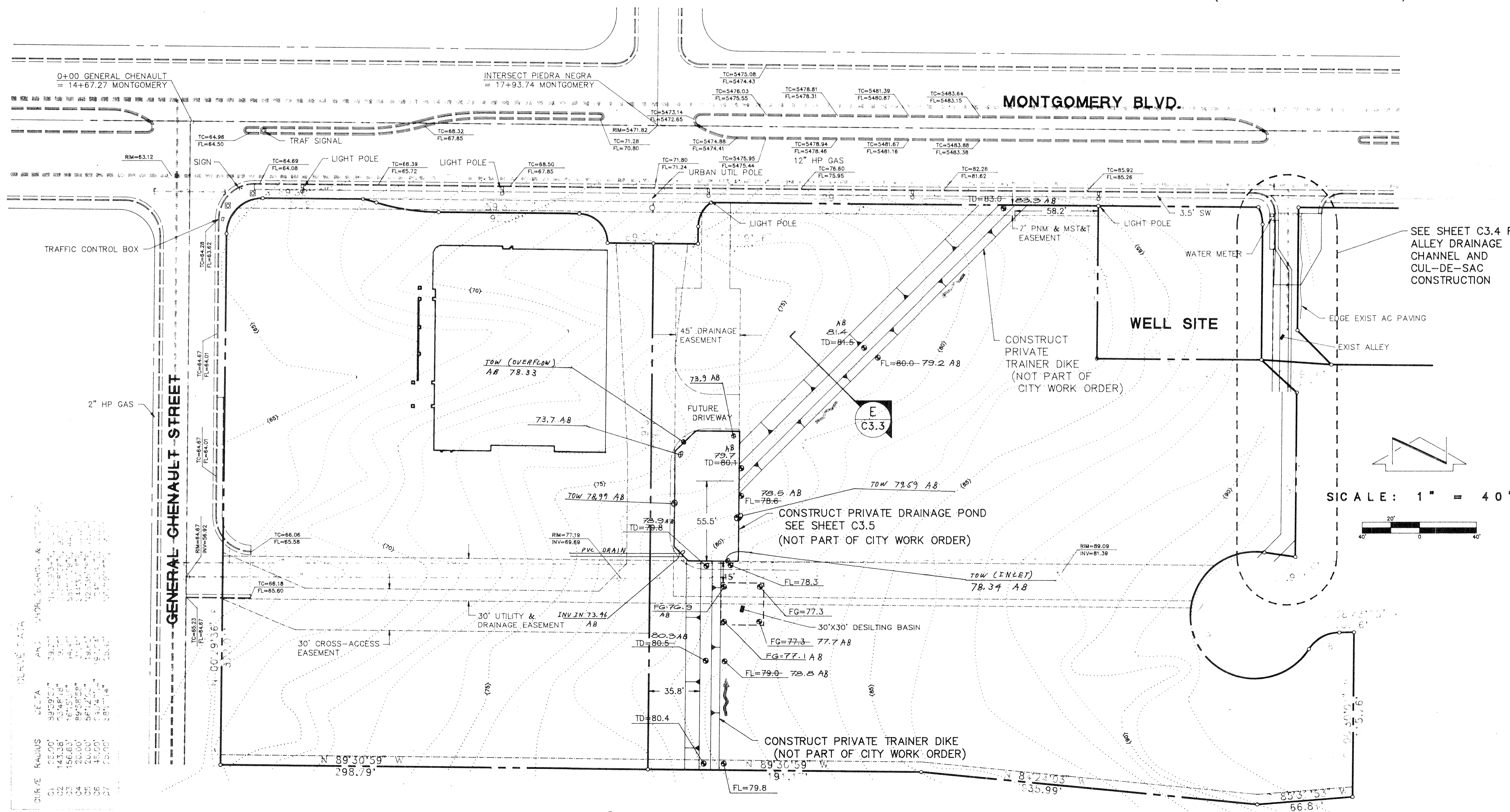
**B** WELLSITE DRIVEWAY RECONSTRUCTION  
**C3.4** N.T.S.



**D** DRAINAGE CHANNEL LINING  
**C3.4** N.T.S.



**E** TRAINER DIKE SECTION  
**C3.3** SCALE: 1" = 10'  
 (NOT PART OF CITY WORK ORDER)



**CURVE DATA**

STATION	PC	PT	PI	PT	PC	RADIUS	ANGLE	CHORD	CHORD BEARING
0+00	0+00	0+15.71	0+15.71	0+31.42	0+00	150.00'	90°	31.42'	N 0° 0' 0\"/>

1-9-92  
 12-3-91

AB = As-built

- LEGEND**
- TA=5491.35 EXIST ELEVATION
  - TC=5491.28 EXIST ELEVATION
  - FL=5490.60 EXIST ELEVATION
  - NEW ELEVATION
  - WATER BLOCK
  - FLOW DIRECTION
  - MB MONTGOMERY BLVD.
  - SW SIDEWALK
  - C&G CURB & GUTTER
  - TD TOP OF DIKE
  - TA TOP OF ASPHALT
  - TC TOP OF CURB
  - FL FLOW LINE
  - INV INVERT
  - TOW TOP WALL
- JAN 10 1992  
 (BPLW PROJECT NO. = 91001)

**BPLW**  
 Architects & Engineers, Inc.

2400 Louisiana Blvd. NE  
 A/C #5 Suite 400  
 Albuquerque, New Mexico 87110  
 (505) 881-2759

63 East Main Street  
 Suite 602  
 Mesa, Arizona 85201  
 (602) 827-2759

DESIGNING TO SHAPE THE FUTURE

CITY OF ALBUQUERQUE  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING GROUP

TITLE: **FHP MEDICAL OFFICES  
 MONTGOMERY & GENERAL CHENAULT  
 OFFSITE DRAINAGE IMPROVEMENTS**

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC Chairman	[Signature]	5-10-91	Water	[Signature]	5-10-91
Transportation	[Signature]	5-24-91	Waste Water	[Signature]	..
Hydrology	[Signature]	4-25-91			
Parks & Rec.	[Signature]				

DRAWING NO. **3803.91** MAP NO. G-20 SHEET **6** OF **8**  
**C3.3**

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	SUNDANCE MECHANICAL	BENCHMARK	M-2A, ACS BRASS CAP AT THE INTERSECTION OF MONTGOMERY AND LA BARRANCA	FIELD NOTES	NO.	DESIGN	THE MANN COMPANY NOV 90
INSPECTOR	BPLW ARCH & ENGRS	ELEVATION	5460.382	DATE	NO.	DATE	
DATE	11-91			BY	NO.	DATE	
FIELD CHECKED BY	ENGINEERS			DESIGN	NO.	DATE	
DATE	11-91				NO.	DATE	
CONTRACT NO.					NO.	DATE	
PROJECT NO.					NO.	DATE	
RECORDED BY					NO.	DATE	
DATE					NO.	DATE	