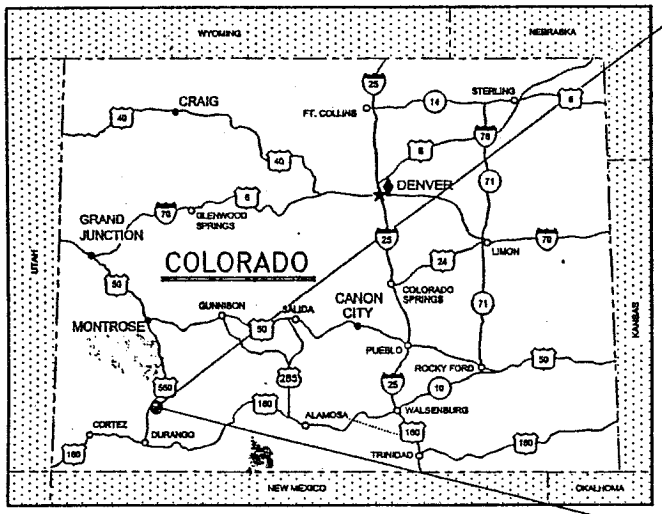
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

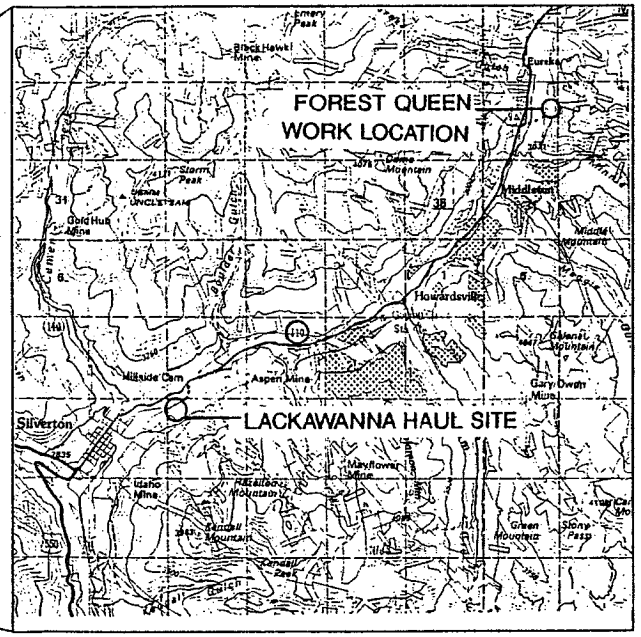
FOREST QUEEN AML 98

MONTROSE DISTRICT COLORADO



AREA REFERENCE MAP

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
28	INTERSTATE HIGHWAY	★	STATE CAPITOL
50	U.S. HIGHWAY	♦	BLM STATE OFFICE
71	STATE HIGHWAY	•	BLM DISTRICT OFFICE



LOCATION MAP

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U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ENGINEERING FIELD OFFICE - COLORADO

FOREST QUEEN AML 98
TITLE SHEET

DESIGNED Tony Patterson 6-98
REVIEWED
APPROVED

DRAWN PRP | SCALE NA
DATE 6/98 | SHEET 1 OF 5
DRAWING NO. N.A.

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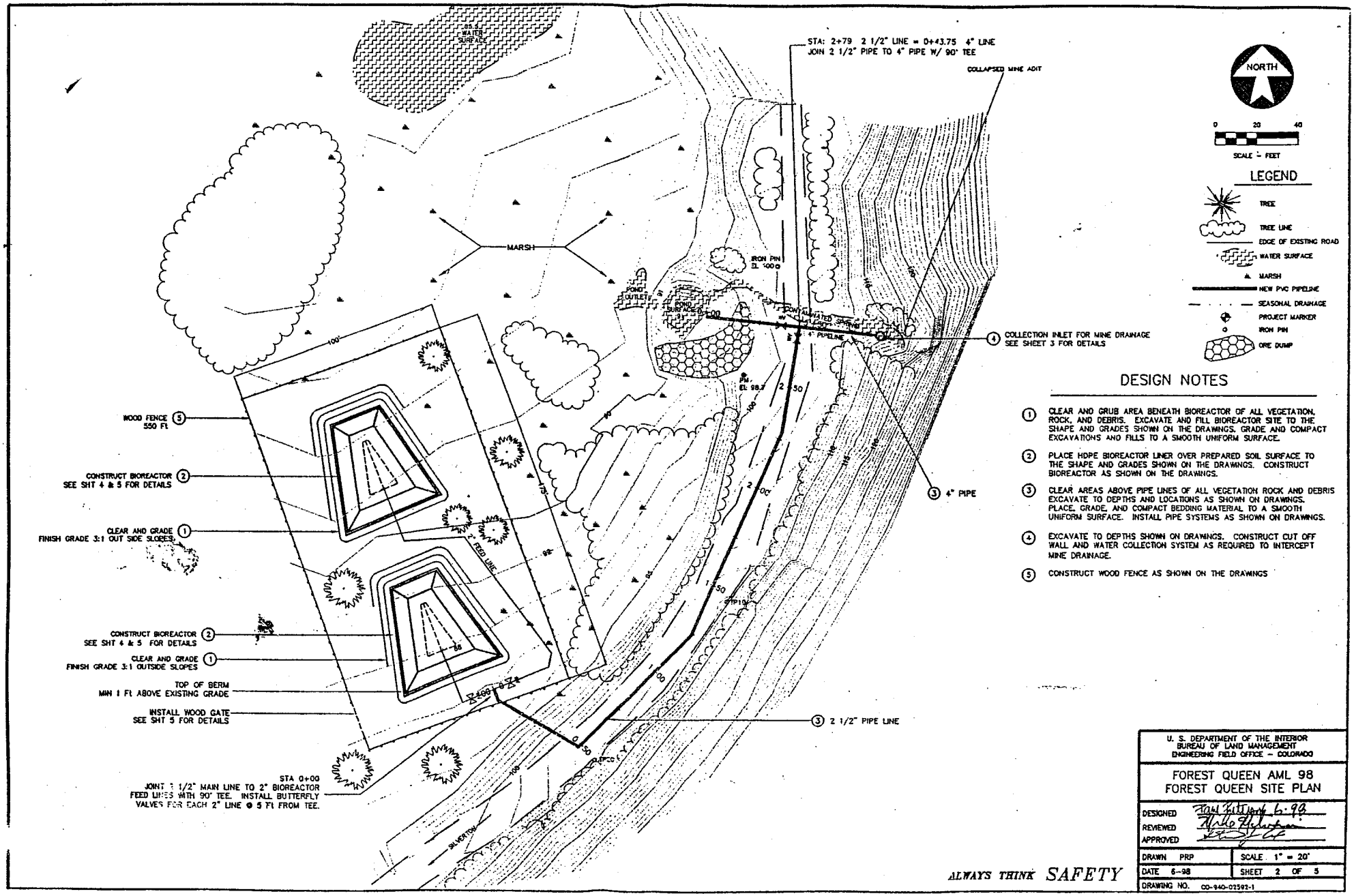

DESIGN NOTES

1. CLEAR AND GRUB AREA BENEATH BIOREACTOR OF ALL VEGETATION, ROCK, AND DEBRIS. EXCAVATE AND FILL BIOREACTOR SITE TO THE SHAPE AND GRADES SHOWN ON THE DRAWINGS. GRADE AND COMPACT EXCAVATIONS AND FILLS TO A SMOOTH UNIFORM SURFACE.
2. PLACE HDPE BIOREACTOR LINER OVER PREPARED SOIL SURFACE TO THE SHAPE AND GRADES SHOWN ON THE DRAWINGS. CONSTRUCT BIOREACTOR AS SHOWN ON THE DRAWINGS.
3. CLEAR AREAS ABOVE PIPE LINES OF ALL VEGETATION ROCK AND DEBRIS EXCAVATE TO DEPTHS AND LOCATIONS AS SHOWN ON DRAWINGS. PLACE, GRADE, AND COMPACT BEDDING MATERIAL TO A SMOOTH UNIFORM SURFACE. INSTALL PIPE SYSTEMS AS SHOWN ON DRAWINGS.
4. EXCAVATE TO DEPTHS SHOWN ON DRAWINGS. CONSTRUCT CUT OFF WALL AND WATER COLLECTION SYSTEM AS REQUIRED TO INTERCEPT MINE DRAINAGE.
5. CONSTRUCT WOOD FENCE AS SHOWN ON THE DRAWINGS

ALWAYS THINK SAFETY

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ENGINEERING FIELD OFFICE - COLORADO

FOREST QUEEN AML 98
FOREST QUEEN SITE PLAN

DESIGNED	Paul Fittrong 6-98
REVIEWED	[signature]
APPROVED	[signature]
DRAWN PRP	SCALE 1" = 20'
DATE 6-98	SHEET 2 OF 5
DRAWING NO. CO-940-02592-1	

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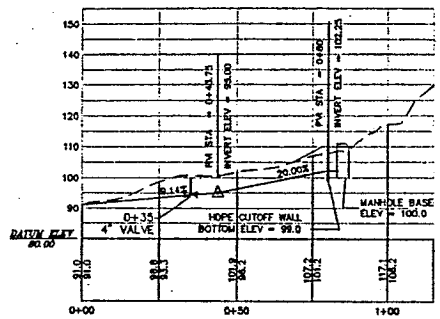
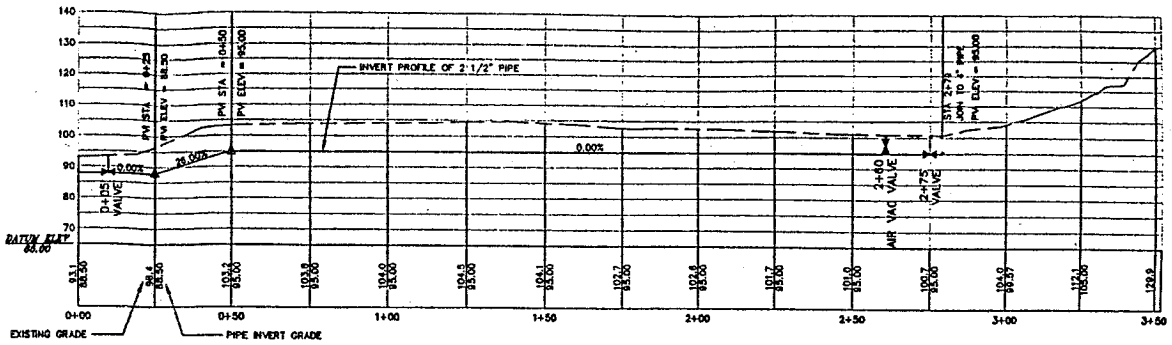
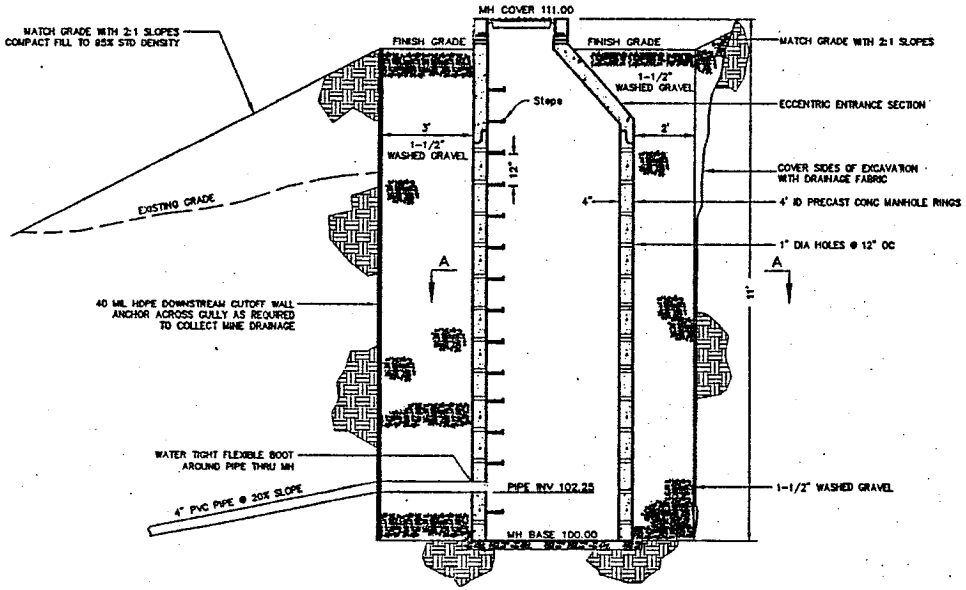


PROFILE FOR 4" DIA PIPELINE

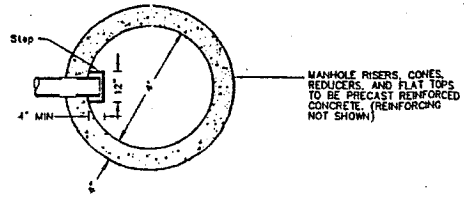


PROFILE FOR 2 1/2" DIA PIPELINE



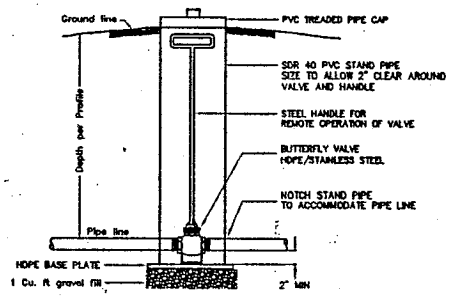
CUTOFF WALL AND MINE DRAINAGE COLLECTION WELL: ELEV

NOT TO SCALE



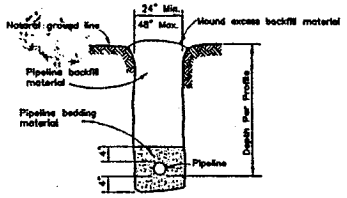
SECTION A-A

NOT TO SCALE



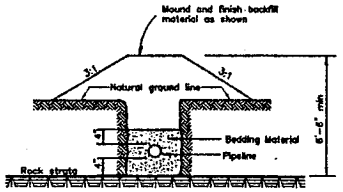
VALVE BOX: TYPICAL INSTALLATION

NOT TO SCALE



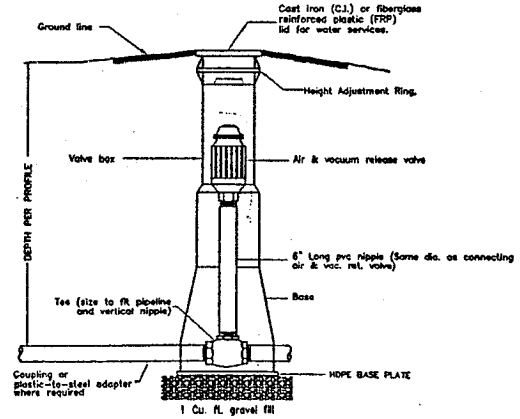
PIPE TRENCH: TYPICAL INSTALLATION

NOT TO SCALE



PIPE MOUNDED: SPECIAL INSTALLATION

NOT TO SCALE



AIR VAC VALVE: TYPICAL INSTALLATION

NOT TO SCALE

ALWAYS THINK SAFETY

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ENGINEERING FIELD OFFICE - COLORADO

FOREST QUEEN AML 98
FOREST QUEEN PIPELINE

DESIGNED	Paul Pritchett 6-98	
REVIEWED		
APPROVED		
DRAWN PRP	SCALE AS SHOWN	
DATE 2-98	SHEET 3 OF 5	
DRAWING NO. CO-9[illegible] 02592-2		

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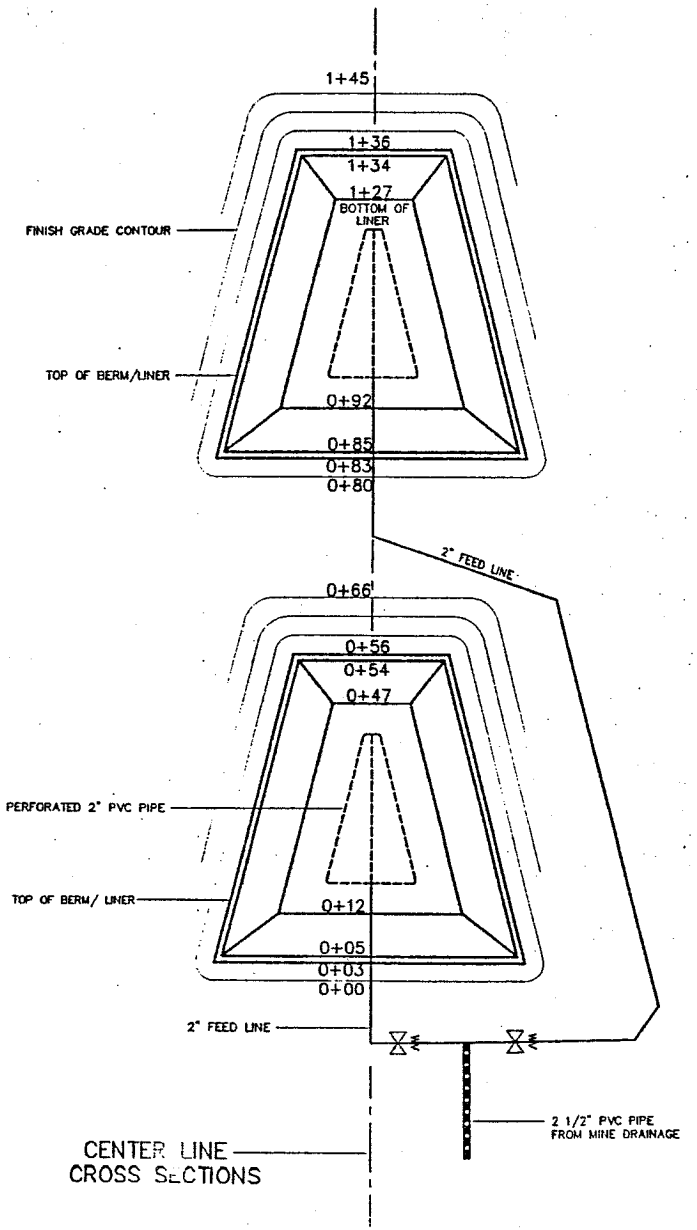

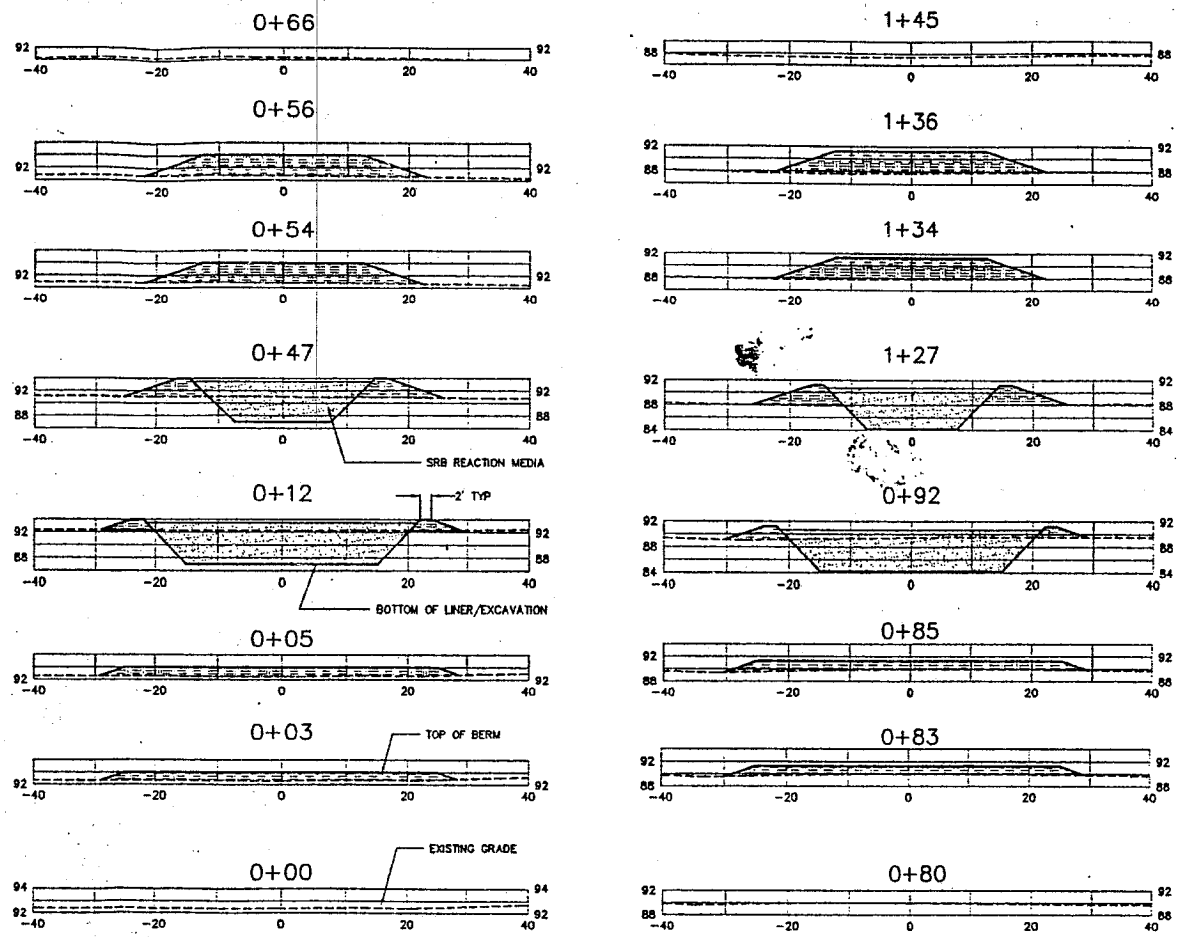

STATION	AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	CUT	FILL	CUT	FILL	CUT	FILL
0+00	0.39	0.00	0.02	4.61	0.02	4.61
0+03	0.00	72.22	0.00	8.34	0.02	10.96
0+05	0.00	76.73	24.28	14.13	24.31	25.09
0+12	187.33	18.05	171.60	48.81	195.91	73.90
0+47	77.43	47.44	10.04	23.53	205.95	97.43
0+54	0.00	110.40	0.00	9.53	205.95	106.96
0+56	0.00	113.44	0.08	24.31	206.03	131.27
0+66	0.45	0.70	0.29	0.42	206.32	131.69
0+80	0.67	0.70	0.04	4.95	206.36	136.64
0+83	0.00	76.81	0.00	6.71	206.36	143.34
0+85	0.00	80.67	23.91	15.26	230.27	158.61
0+92	184.43	21.70	165.30	56.43	395.56	215.04
1+27	70.60	54.01	9.15	[illegible]	404.72	241.19
1+34	0.00	121.42	0.00	[illegible]	404.72	251.65
1+36	0.00	124.14	0.00	23.79	404.72	275.4[illegible]
1+45	0.00	0.00	0.00	0.00	404.72	275.4[illegible]

CROSS SECTIONS

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ENGINEERING FIELD OFFICE – COLORADO

FOREST QUEEN AML 98
BIOREACTOR CROSS SECTIONS

DESIGNED Paul Patterson 6-99
REVIEWED [illegible]
APPROVED [illegible]

PRP | SCALE AS SHOWN
SHEET 4 OF 5
CO-940-02592-3

ALWAYS THINK SAFETY

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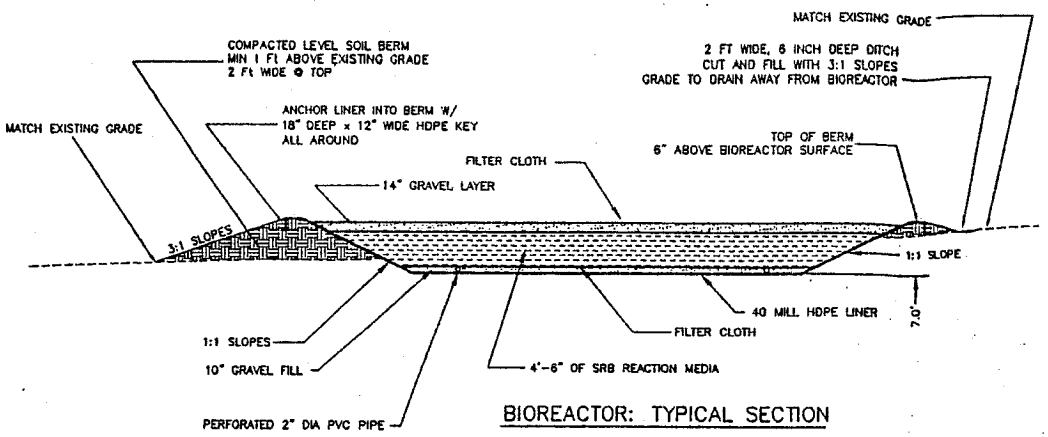
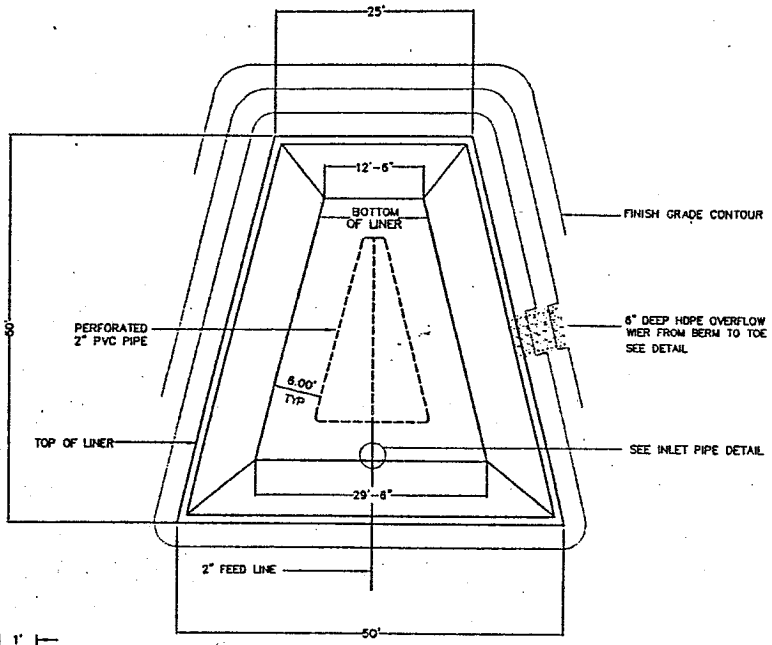
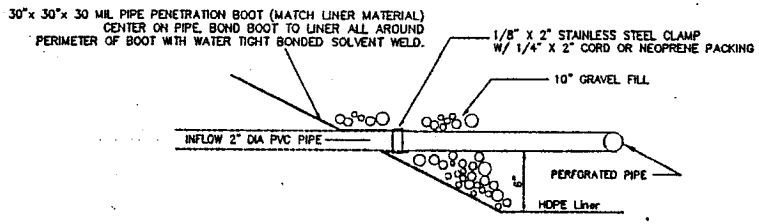


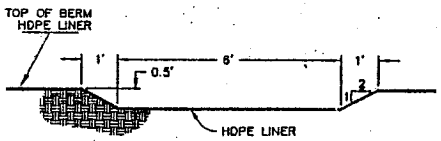
BIOREACTOR: TYPICAL SECTION





INLET PIPE PENETRATION: DETAIL

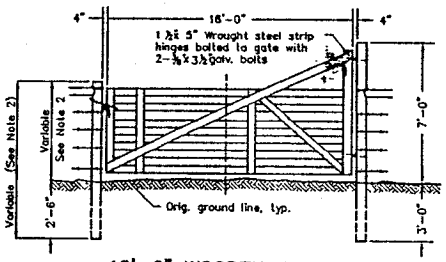
NOT TO SCALE



BIOREACTOR OVERFLOW WEIR

BIOREACTOR PLAN

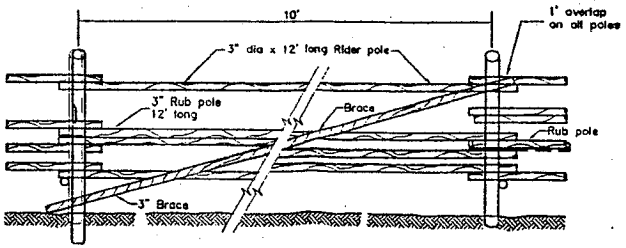
NOT TO SCALE



16'-0" WOODEN GATE

NOTES:

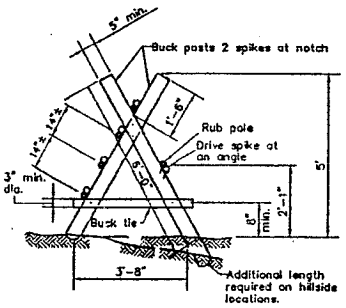
1. At junctures, members shall be fastened together with 1/4" machine bolts, including nuts and washers.
2. [illegible] dimension shall be the same as required for the adjacent fence.
3. [illegible] "x4" boards may be substituted for the poles.



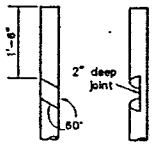
NOTES:

POLE AND 4 POLE FENCE

1. Spikes shall be used as fasteners. Two spikes shall be used to fasten buck posts together. One spike shall be used to fasten pole, braces & buck ties to buck posts.
2. Poles, brace[illegible] buck posts shall be of material as shown in the specifications.



POLE AND 4 POLE FENCE



NOTCH BOTH BUCK POSTS

BUCK POST JOINT DETAIL

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ENGINEERING FIELD OFFICE – COLORADO

FOREST QUEEN AML 98
FOREST QUEEN BIOREACTOR

DESIGNED	Paul Pattison 6-98		
REVIEWED			
APPROVED			
DRAWN	PRP	SCALE	SHOWN
	6-98	SHEET	OF 5
DRAWING NO.	CO940-02592-4		

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